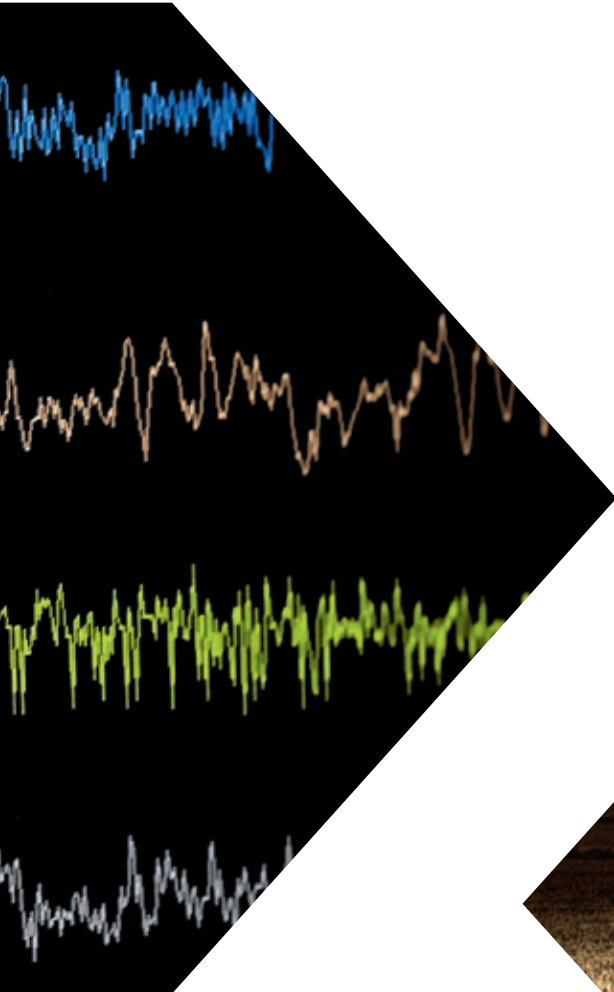


CLAAS



Interact

2019 Annual Report



CLAAS Group Overview

Financial indicators (IFRS)

in € million	2019	2018	Change in %
Financial performance			
Net sales	3,898.0	3,889.2	0.2
Research and development costs ¹	243.6	233.4	4.4
EBITDA	280.3	372.7	-24.8
EBIT	164.0	256.8	-36.1
Income before taxes	135.7	225.7	-39.9
Net income	96.3	152.0	-36.6
Free cash flow	-138.2	-83.9	64.7
Financial position			
Equity	1,417.3	1,395.5	1.6
Comprehensive capital expenditure ²	183.3	160.3	14.3
Total assets	3,531.9	3,449.7	2.4
Employees			
Number of employees as of the balance sheet date ³	11,448	11,132	2.8
Personnel expenses	730.3	693.0	5.4

¹ Before capitalized and amortized development costs.

² Including development costs recognized as an asset, excluding goodwill.

³ Including apprentices.

2019 Annual Report

“Increasingly, the focus is on a 360-degree view of all of the work performed at an agricultural enterprise, furthering our evolution into an integrated provider of solutions.”

Thomas Böck

**The 2019 Annual Report
is now also available online
at [www.claas-group.com/
investor/annual-report](http://www.claas-group.com/investor/annual-report)
along with an interactive
KPI calculator.**



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01

Executive Bodies

Foreword by the Executive Board



Thomas Böck
CEO of the CLAAS Group, responsible
for the Forage Harvesting Division and
Technology and Systems

Dear Business Partners,

The global agricultural equipment market stagnated this year. Sentiment has deteriorated over the past months, in some cases quite significantly. Despite this trend, CLAAS was still able to hold its own.

While the dry conditions in Germany and parts of Northern Europe had a sustained negative impact, recovery in the important French market continued. In Eastern Europe, Russia defended its position as the world's largest grain exporter. The markets on the American continent and in Asia were characterized by regionally opposing developments. In this difficult market environment, CLAAS was still able to generate sales of €3.9 billion.

We achieved a significant rise in sales in France and the Rest of Western Europe. Despite strong earnings in parts of Eastern Europe, such as Russia, total sales in Central and Eastern Europe declined. Sales in Germany fell as a result of weather conditions. Outside Europe, the situation was mixed, with sales down slightly year on year overall.

Despite the early signs of a decline in earnings, we stayed on course and continued to invest in further digitalization and the expansion of our market positions. At €244 million, spending on research and development once again exceeded the record level from the prior year, while capital expenditure rose further to €125 million.

Early this year, CLAAS opened the new validation center at headquarters in Harsewinkel, Germany, where we test the functions and durability of new components. Our aim is to achieve three specific results with this new

Foreword by the Executive Board

addition: shorter development times, high-level machine reliability, and sustained customer satisfaction as a result – the most important factor for us. In addition to the current modernization of our tractor production in France, CLAAS has also initiated a similar major investment in combine harvester production in Germany. There have also been further localization processes in production in Krasnodar, Russia, as well as the completion of the new high-bay warehouse in Hamm, Germany, making our international spare parts supply business even more efficient.

We continue to push forward the digital transformation of CLAAS, enhancing our connections with our employees, customers, suppliers, and sales partners. To enable this, we have been investing in new interfaces and standards. This year saw CLAAS working on a breakthrough that will set standards beyond our industry. The development of DataConnect in cooperation with partners from the agricultural equipment industry has allowed us to create a manufacturer-independent and open industry cloud-to-cloud solution for the very first time. In the future, customers will be able to view their entire fleet of machinery via one interface, regardless of whether the equipment was made by CLAAS, John Deere, or CNH Industrial. This allows us to create important added value both for portfolio machines and for our latest innovations.

Our new LEXION remains the world's leading combine harvester thanks to its perfect synthesis of mechanics and software. To date, dozens of pre-series machines have been sent out around the world for use by farmers. CLAAS has listened carefully and used their experiences to put the finishing touches on the machinery prior to regular production. The TERRA TRAC track system, which is seeing increasing use, protects the soil and provides comfort through its large footprint. Following innovations in combine and forage harvesters, CLAAS premiered the AXION TERRA TRAC, the only half-track tractor with full suspension, at Agritechnica. CEMOS has stood for electronic machine optimization for combine harvesters since 2011. This type of system is now also available for AXION and ARION tractors, working in dialogue with the operator to optimize the interaction between tractor unit and attachments. The new JAGUAR 990 increases the maximum engine power of the forage harvester to 925 hp. The JAGUAR enables the driver to operate intuitively and without prior training on the machine, meaning that even novices are able to operate the machine safely and fully exploit its potential after a very short time.

Despite simmering international trade conflicts and the risk of a further economic slowdown, we are starting fiscal year 2020 with an optimistic outlook thanks to a good mix of new and tried-and-tested products. In an overall uncertain market environment, we expect moderate sales growth and stable earnings. CLAAS is taking on the important questions of the future that are arising from a rapidly growing world population and the noticeable effects of climate change. We are convinced that mechanical and digital innovations in agricultural equipment are an important part of the answer.

As a family business, we foster a tightly-knit environment with our employees and work in close cooperation with our customers, suppliers, and financial partners. We are in a position to act quickly and in a targeted fashion while simultaneously and consistently working on the implementation of our long-term strategy. In 2019, we once again maintained a very productive exchange with the Supervisory Board and the Shareholders' Committee.

The ability to work together so well again provided an extraordinary motivational factor this year. Personally, and on behalf of the entire Group Executive Board, I would like to thank everyone involved from the bottom of my heart.

Yours sincerely,



Thomas Böck
CEO of the CLAAS Group

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 2019. 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 2020 and for the medium term.

Furthermore, the Supervisory Board discussed the impact of the regulatory, political, and social conditions on the future of agriculture, using Germany as an example, as well as the possible effects of the CAP reform (Common Agricultural Policy of the European Union). 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 until 12/2018), Tanja Goritschan (Deputy Chairwoman since 02/2019), Carmelo Zanghi, Rainer Straube, and Dr. Alexander Pfohl (since 11/2018).

The financial statements of CLAAS KGaA mbH and the consolidated financial statements of the CLAAS Group as of September 30, 2019, 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 21, 2019, and appointed by the Supervisory Board. The statements and reports received an unqualified audit opinion on November 25, 2019.

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 11, 2019, 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 2018/2019 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 2019.

The main challenge of the new fiscal year will be the implementation of the measures introduced for the targeted use of resources to secure the objectives as regards product innovation, product quality, and efficiency in sales and administration.

Harsewinkel, December 11, 2019



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



Hans Lampert
Finance and
Controlling

Dr. Jens Foerst
Tractor Division



Jan-Hendrik Mohr
Grain Harvest

Thomas Böck
CEO, responsible for the Forage
Harvesting Division and Technology
and Systems

Bernd Ludewig
Sales and Service

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

Supervisory Board

Cathrina Claas-Mühlhäuser, Chairwoman
 Jürgen Schmidt, Deputy Chairman*
 (until December 2018)
 Tanja Goritschan, Deputy Chairwoman*
 (from February 2019)
 Christian Ernst Boehringer
 Helmut Claas
 Dr. Patrick Claas
 Reinhold Claas
 Michael Köhler*
 Gerd Peskes
 Dr. Alexander Pfohl*
 Rainer Straube*
 Heinrich Strotjohann*
 Carmelo Zanghi*

* Employee representatives.

Group Executive Board**

Hermann Lohbeck
 (until September 2019)
 Thomas Böck
 Dr. Jens Foerst
 Hans Lampert
 Bernd Ludewig
 Jan-Hendrik Mohr

** Executive Board of Helmut Claas GmbH.

**Authorized Company
 Representatives**

Stefan Belda
 Dr. Emmanuel Siregar

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02

Group Management Report

Group Management Report

Our Strategy

The agricultural equipment sector continues to be strongly influenced by long-term trends: ongoing population growth is resulting in ever-increasing demand for food. Rising need for raw materials in both nutrition and energy generation is also resulting in a major increase in biomass production. At the same time, the availability of freshwater resources and agricultural land is falling. Droughts and natural disasters are becoming increasingly frequent, and cultivation methods are changing. This all means that supplying resources is becoming ever more challenging. Highly efficient agricultural products and services can help boost productivity to generate greater yields from less land.

The global economic system as we know it is undergoing transformation. This is also affecting agriculture. Globalization and digitalization have become key issues in the industry, alongside agricultural developments. The spread of protectionism and disruptive policy are posing challenges to CLAAS, which over time has built strong international networks and relies on global value chains. Digitalization continues to offer a major opportunity to master the requirements of the future by developing new solutions. All of these driving forces, whether new or old, will influence CLAAS as a company in the future. Even in a volatile environment, the goal remains to achieve profitable growth. CLAAS has focused its strategy on the following four strategic focal points so that it can take on a leading global role as a manufacturer of agricultural equipment moving forward.

Global growth in core business

CLAAS aims to expand its global market position across all relevant machinery segments. New, innovative tractor, combine harvester, forage harvester, and forage harvesting machinery are making a key contribution to this. Besides the core market in Europe, the growth strategy is also focused on North America, Eastern Europe, and Asia. CLAAS operates with the quality standard of a premium manufacturer and develops individual and regional offerings. Thanks to the expansion of

the global dealer network and the use of new digital opportunities, CLAAS will be able to respond in an even quicker and more targeted manner to customer requirements. Apart from new machinery and first-class service, used machines trading, equipment maintenance contracts, and financing business are all to represent our core business.

Driving forward technologies of the future and new areas of business

Trends such as digitalization, automation, alternative drivetrains, and agricultural services will have a long-term influence on the agricultural industry and therefore also on CLAAS business. Connected combine harvesters, tractors and digitalized services are already a key selling point for many products. Connectivity in CLAAS machines also offers the basis for customer-centric services, such as remote services or automatic documentation. CLAAS is the technology leader in the industry thanks to its CEMOS AUTOMATIC system for combine harvesters and tractors. It continues to work towards automating processes in machines and to research into alternative drivetrain solutions. In addition, CLAAS is also developing new, digital business models. To do so, CLAAS is entering into external partnerships with fledgling companies in order to develop valuable customer solutions and complement its own internal solutions where appropriate.

Increasing operating excellence

As an independent family business, CLAAS aims to compete with significantly larger players on the global stage. The Company therefore intends to set the benchmark in terms of profitability, and not just in product development and innovation. Significant investments are being made in topics that will determine the future. And in order to ensure that these investments are profitable, operating excellence is being increased across all divisions and functions. As an example, CLAAS will continue to modularize its products to reduce complexity in development and production and boost efficiency. The systematic leveraging of company-wide

synergies; the optimization of value creation within the global production network; the reduction of selling, general and administrative costs; and the digital transformation of the CLAAS organization are also contributing to improvements in operating excellence.

Strengthening the global team

The long-term success of the CLAAS Group is reliant on the levels of qualification and motivation of its employees. Increasing globalization and digitalization are exposing specialists and management teams to new challenges. CLAAS is focusing on establishing an international management team to take on these challenges. In addition, CLAAS is investing significantly in employee training to secure and develop the relevant expertise.

Industry Trends

Economic frameworks

According to International Monetary Fund (IMF) estimates, the global economy grew by 3.0% in the 2019 calendar year, constituting a decrease from the prior year (3.6%). There was also significant divergence in regional development. For the European Union, the IMF expects the growth rate to decline to 1.5% (prior year: 2.2%) on account of falling demand from outside of Europe. In Eastern Europe, the main focus is on Russia. Chronically weak domestic demand and high real interest rates continued to impact economic expansion, with the growth rate falling from 2.3% in the prior year to 1.1% in 2019. The U.S. economy continues to show strong exports; however, domestic demand has fallen slightly. It is expected to record full-year growth of 2.4% in 2019, down from 2.9% in the prior year (as of October 2019). In addition, Chinese economic growth has fallen to 6.1% (prior year: 6.6%).

In 2018, the global agricultural equipment industry (including municipal, forestry, and garden equipment) achieved a market volume of €107 billion, according to estimates from the German

Due to the growth of international subsidiaries and activities, CLAAS is in a phase of constant development and evolution. That is why CLAAS will continue its organizational development and systematically review and optimize structures and processes.

The international presence of CLAAS is growing, and so is the number and diversity of employees. A strong corporate culture is the key to ensure that the connective elements remain at the forefront across national and cultural borders. Diversity is an excellent opportunity to position CLAAS successfully on the international stage.

Mechanical Engineering Industry Association (VDMA), continuing the prior-year growth trend (prior year: €106 billion). By contrast, the VDMA does not expect any further rise in the industry's sales in real terms in 2019.

In crop year 2018/19, which, in contrast to the CLAAS fiscal year, ended on June 30, global grain production (including rice) remained stable year on year at 2,626 million tons, according to the U.S. Department of Agriculture (USDA; as of October 2019). Following the high recorded in the prior year, wheat production declined by 4.2% to 731 million tons. However, this trend was mitigated through the rise in corn production (+4.2% to 1,123 million tons). Global wheat consumption exceeded production volume for the first time in four years by a small margin. As a result, there was no further rise in global wheat stocks from the record level in the prior year. In the past year, this situation led to a price level that constantly remained materially above the five-year average.

Agricultural incomes in the European Union stabilized in 2018 slightly below the solid 2017 figure.

Milk prices declined initially at the start of the fiscal year before stabilizing above the five-year average.

Regional industry developments

Large swathes of Central and Northern Europe suffered significant harvest failures in 2018 due to extremely hot and dry weather. The resulting loss of income in agricultural industry strongly impacted demand for agricultural equipment in certain regions in 2019. On average, however, the market volume for professional agricultural equipment in Europe was stable, according to the VDMA's forecast. Market volume declined in particular in Germany, Poland, Scandinavia, and the Baltic states; France and the United Kingdom recorded increases.

In Eastern Europe, the agricultural equipment market dipped slightly from its high level, but again there were significant regional differences. Grain production in Ukraine rose in crop year 2018/19. However, due to market saturation after several years of positive development, we are currently observing a decline in sales of combine harvesters and tractors there. Political instability is also contributing to this trend. In Russia, the solid harvest in 2018/19 is bolstering the positive development of the agricultural equipment market. That being said, moderate price realization and high real interest rates are hampering investing activities.

Following the negative trend recorded in prior years, the North American agricultural equipment market is starting to pick up some momentum again after a stable harvest in 2018.

However, it remains some distance short of the average over the past few years. Flooding in the U.S. Midwest in April 2019 has impacted machinery business in this important agricultural region. However, according to the latest forecasts, agricultural incomes are rising marginally countrywide compared to the prior year.

Growth in the agricultural equipment market in Latin America has been positive since 2016, with further expansion on the cards this year. The increase in soy, corn, and grain production in crop year 2018/19 in Brazil and Argentina is supporting this trend. In spite of the positive harvest figures, demand in Argentina has fallen significantly as a result of the economy's strong reliance on capital imports, which makes it especially vulnerable in times of volatile financial markets. This frailty has been exacerbated significantly through major domestic political tensions in the run-up to the presidential elections in the fourth quarter of 2019.

The agricultural equipment market in Asia also features varied development from region to region. In China, development in the market is still slightly negative in 2019 after the major decline in the prior year. The spread of African swine fever is also putting pressure on the agricultural industry. That being said, there remains a need for professionalization in the industry. This continues to be supported by state subsidization; however, the uncertainty and timing of the distribution of these subsidies lead to restraint among potential investors. In India, the positive monsoon season resulted in stable grain and rice production in crop year 2018/19 and growth in the agricultural equipment market.

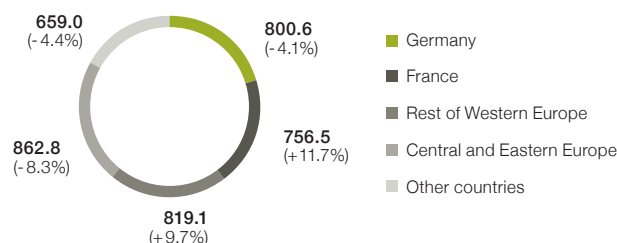
Financial Performance

Net sales by region ↗ 1

The CLAAS Group generated net sales of €3,898.0 million in the past fiscal year, up 0.2% on the prior year. The stable development is a reflection of the current sluggishness in the agricultural industry. Sales developments in 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 79.5% (prior year: 78.5%).

1 _ Net Sales by Region

in € million/in % compared to prior year



Industry Trends
Financial Performance

Net sales in Germany totaled €800.6 million (prior year: €834.6 million). This decline was primarily the result of the market-related decline in sales of new machinery, and particularly tractors and combine harvesters. Sales of used machinery rose year on year, while service, spare parts, and accessory components business was able to be maintained at the high prior-year level.

France once again recorded a significant rise in sales in the fiscal year. Sales climbed to €756.5 million in the fiscal year, largely as a result of the increase in sales of tractors (prior year: €677.1 million). Sales of combine harvesters and telehandlers also saw positive development.

Sales generated in the Rest of Western Europe increased to €819.1 million (prior year: €746.5 million). The United Kingdom, Italy, and Spain, as well as Austria, recorded the highest sales figures within the region. Demand for CLAAS products developed extremely positively compared to the prior year, particularly in the United Kingdom and Austria.

At €862.8 million, net sales in Central and Eastern Europe were down 8.3% from the prior-year record. Sales here remain at a high level despite the decline. Demand for professional agricultural equipment – and, in particular, for CLAAS products such as combine harvesters, tractors, and forage harvesters – remains high. The Russian Federation, Poland, and Romania contributed the highest sales volume within this region. The negative year-on-year sales trend was primarily due to the decline in sales in the Central Asia region.

At €659.0 million, net sales generated outside of Europe were down on the prior-year figure (prior year: €689.6 million). However, there were some differences from country to country. Once again, combine harvester sales increased in North America. By contrast, the problematic political and economic conditions in Argentina resulted in a significant decline in sales. In China, uncertainty over subsidization policies and the exhaust emissions regulations for agricultural machinery continued to significantly affect the willingness of customers to invest. Outside Europe, the U.S., Canada, and China contributed the highest sales volumes.

Income ↗ 2

Gross profit on sales declined by €86.2 million year on year, which resulted in a significant fall in the gross profit margin from 21.8% to 19.5%. In a stagnating and fiercely competitive market environment, increases in manufacturing costs were not able to be fully realized in market prices. The regional variation in market development also resulted in a negative product and country mix.

Selling, general, and administrative expenses rose by 7.1% year on year. The main driver of this cost trend were collective bargaining agreements, alongside major expenses for IT and digitalization projects.

Research and development expenses remained at the high level recorded in 2018. They included the development and renewal of harvesting machinery and tractors, investments in electronics architecture for machine control and connectivity,

2_Income Statement (Summary)

in € million	2019	2018	Change
Net sales	3,898.0	3,889.2	8.8
Cost of sales	-3,138.1	-3,043.1	-95.0
Gross profit on sales	759.9	846.1	-86.2
Selling, general and administrative expenses	-440.1	-411.0	-29.1
Research and development expenses	-222.4	-225.7	3.3
Other operating income, net	51.3	44.3	7.0
Operating income	148.7	253.7	-105.0
Income from investments, net	13.3	18.9	-5.6
Financial result	-26.3	-46.9	20.6
Income before taxes	135.7	225.7	-90.0
Net income	96.3	152.0	-55.7

and expenses for the digitalization of agricultural processes. Please refer to the section on “Research and Development” for more information.

Other operating income rose by €7.0 million due to various – and in part offsetting – income and expenses effects.

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

The improvement in the financial result is mainly due to the development of foreign exchange gains and losses. This was,

in particular, the result of the favorable development of key currency pairs over the course of the year. The flexible hedging strategy enabled a participation in these developments. Positive income effects were also generated from the measurement of securities at fair value.

There was a significant decline in income before taxes compared to the prior year. As a result, this figure fell short of expectations. The negative development is largely due to the deterioration in the profitability of a number of domestic and foreign subsidiaries. The return on sales amounted to 3.5% (prior year: 5.8%).

Cash Position

Liquid assets ↗ 3

As of the reporting date, the CLAAS Group’s liquidity amounted to €669.7 million (prior year: €803.4 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, 2019	Sept. 30, 2018	Change
Cash and cash equivalents	491.3	609.7	-118.4
Securities	178.4	193.7	-15.3
Liquid assets	669.7	803.4	-133.7
Financial liabilities*	650.5	605.5	45.0
Net liquidity	19.2	197.9	-178.7

* 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 rise 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 €715.8 million for general financing purposes, €637.0 million of which was unutilized.

Further information on the financial liabilities and financial management duties and targets are presented in the Notes 24 and 34 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 €232.8 million as of September 30, 2019 (prior year: €213.5 million).

Future payment obligations from operating leases amounted to €134.3 million (prior year: €134.6 million). Operating lease agreements are primarily used in relation to real estate, as well as vehicle fleet and IT equipment.

Financial Performance
Cash Position

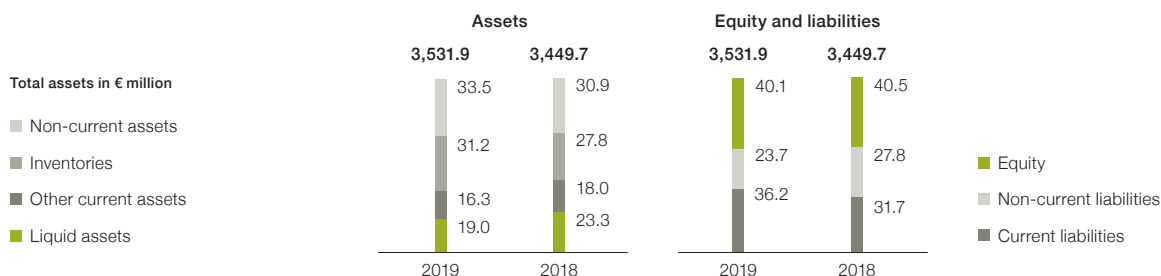
Asset and capital structure ↗ 4

Non-current assets were covered by long-term financing, consisting of equity and non-current liabilities, at a ratio of 190.6% as of the balance sheet date (prior year: 220.7%). Non-current assets plus 50.0% of inventories were funded by

long-term financing at a ratio of 130.0% (prior year: 152.2%). These figures testify to the CLAAS Group's sound capital structure.

4_Balance Sheet Structure

in %



Cash Flows ↗ 5

5_Statement of Cash Flows (Summary)

in € million	2019	2018	Change
Cash and cash equivalents at beginning of year	609.7	226.6	383.1
Cash flows from operating activities	45.9	85.0	- 39.1
Cash flows from investing activities	-164.1	345.0	- 509.1
Cash flows from financing activities	-10.1	-46.6	36.5
Effect of foreign exchange rate changes on cash and cash equivalents	9.9	-0.3	10.2
Change in cash and cash equivalents	-118.4	383.1	-501.5
Cash and cash equivalents at end of year	491.3	609.7	-118.4

The decrease in cash inflows from operating activities was mainly due to the fall in net income and the higher level of funds tied up in working capital resulting from the increase in inventories. Cash outflow from the decline in current provisions was another factor here.

The cash outflows from investing activities predominantly comprised outflow from capital expenditure. The significant net inflow in the prior year from the purchases and sales of securities in the context of liquidity management was considerably lower in the fiscal year at €20.0 million (prior year: €513.9 million).

The cash outflow from financing activities mainly resulted from the change in liabilities to banks and from dividend payments.

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

6_Free Cash Flow

in € million	2019	2018	Change
Cash flows from operating activities	45.9	85.0	-39.1
Net capital expenditure in intangible assets, property, plant and equipment, borrowings, and investments	-184.1	-168.9	-15.2
Free cash flow	-138.2	-83.9	-54.3

Capital expenditure ↗ 7

Comprehensive capital expenditure came to €183.3 million in the reporting year. 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 4.7% (prior year: 4.1%).

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

The new test center at headquarters in Harsewinkel, Germany, was completed this year. After around two years of construction, the new center can now simulate various harvest conditions and perform validations.

In addition, work began to modernize combine harvester production in Harsewinkel, Germany. The work includes combining two combine harvester assembly lines into a synchronous production system ("SynPro 2020") with the aim of boosting efficiency and flexibility in manufacturing. The first phase of the project is to modernize the materials handling technology and the surface treatment center.

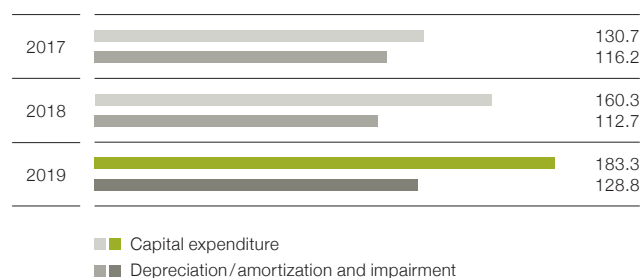
The new high-bay warehouse was completed at CLAAS Service and Parts GmbH logistics center in Hamm, Germany, in November 2019. The new warehouse has doubled the number of pallet bays to provide storage capacity for the further growth of the parts business. This is the first step in the reorganization and optimization of the logistics center and its processes.

CLAAS Saulgau GmbH, which is based in Bad Saulgau, Germany, has extended its site by purchasing a new section of land. This will expand the CLAAS premises by 20,000 m² to 140,000 m² and pave the way for an optimal factory layout.

The comprehensive project involving the optimization of tractor production in Le Mans, France, is currently in the final phase and is scheduled for completion in fiscal year 2020. Besides a new logistics concept, CLAAS is also introducing an AGV-based (autonomous guided vehicles) assembly concept. These vehicles carry the tractors during the assembly phase and move through the production area almost completely independently.

7_Capital Expenditure, Depreciation/Amortization, and Impairment

in € million



CLAAS is also continuing to invest in the production site in Krasnodar, Russia. Here the focus is on expanding capacities, particularly in the surface treatment center, and implementing further localization processes.

The redesign of the headquarters of CLAAS U.K. Ltd. in Saxham, United Kingdom, is also scheduled for completion next year. The work involves a new Technoparc, which serves as an exhibition center for customers.

Construction continues on a new sales center in Ymeray, France. The new site will pool sales activities in France and combine a spare parts warehouse and the CLAAS Academy France at one site.

In addition, CLAAS is investing in the expansion and digitalization of business processes at all levels of the sales organization. New systems and applications are set to make it even easier for CLAAS, 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 account for a major share of capital expenditure.

At the end of the fiscal year, CLAAS had financial obligations totaling €21.5 million relating to future capital expenditure.

Financial Position

8_Balance Sheet (Summary)


in € million	Sept. 30, 2019	Sept. 30, 2018	Change
Assets			
Intangible assets	267.4	235.4	32.0
Property, plant and equipment	541.8	501.5	40.3
Investments accounted for using the equity method	142.0	135.5	6.5
Inventories	1,103.5	959.7	143.8
Trade receivables	355.5	402.3	-46.8
Liquid assets	669.7	803.4	-133.7
Other assets	452.0	411.9	40.1
Total assets	3,531.9	3,449.7	82.2
Equity and liabilities			
Equity	1,417.3	1,395.5	21.8
Financial liabilities	650.5	605.5	45.0
Provisions	960.9	910.3	50.6
Trade payables	235.5	292.9	-57.4
Other liabilities	267.7	245.5	22.2
Total equity and liabilities	3,531.9	3,449.7	82.2

Total Group assets rose by €82.2 million year on year to €3,531.9 million compared to September 30, 2018. This change primarily related to the increase in working capital and investment in property, plant, and equipment. These effects were more than compensated for by the decline in liquidity.

Intangible assets increased significantly year on year to €267.4 million. This was caused primarily by the rise in development costs recognized as an asset by €24.9 million to €219.2 million.

The rise in investments accounted for using the equity method was mainly the result of the acquisition of 45% of the shares in Schmahl Landtechnik Upahl GmbH & Co., Upahl, Germany, as well as the earnings contributions of the CLAAS Financial Services companies. This company is a long-established sales partner in north-west Mecklenburg.

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 payables both declined compared to the prior year, resulting in a slight increase in working capital overall. The share of working capital to total assets rose to 33.1%. Working capital developed as follows: 

9_Working Capital

in € million

2017		839.5
2018		1,012.5
2019		1,170.0

Other assets increased by €40.1 million to €452.0 million and comprise deferred taxes, tax receivables, and assets from ABS transactions.

The change in the equity of the CLAAS Group involves a variety of factors, some of which with opposing effects. Net income of €96.3 million, which corresponded to return on equity of 6.8%, had a positive effect. However, equity was decreased by dividend payment and the effects of the increase in pension provisions recognized directly in equity. The equity-to-assets ratio, that is, the share of equity in total assets, amounted to 40.1% (prior year: 40.5%).

The rise in financial liabilities was mainly due to the increase in current liabilities to banks.

Research and Development

Investments in research and development rose by 4.4% to €243.6 million **↗ 10**. Activities were focused on new models and the further development of harvesting machinery and tractors. 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

CLAAS maintains its status as a global technology leader in harvest technology with the new generation LEXION 5000-8000 combine harvesters. The series has received a complete overhaul and been developed hand in hand with farmers, contractors, and drivers. The series each comprise seven hybrid and straw walker models, with the majority also available in the TERRA TRAC variant. Thanks to their brand-new, high-performance, ultra-efficient threshing unit, the hybrid machines deliver 10% more throughput. The largest hybrid machine, the LEXION 8900, and the straw walker machines can even achieve up to 25% more throughput. The brand-new grain tank can hold up to 18,000 liters and is setting new standards when it comes to capacity. The new LEXION is also equipped with state-of-the-art technology such as the new FIELD SENSOR that is installed on the roof of the cab. The FIELD SENSOR measures the harvested and unharvested sections of the field, detects tracks, and ensures that the whole width of the cutterbar is in use. DYNAMIC POWER ensures that the power delivery is optimized depending on the conditions in the field, to save fuel in the process. DYNAMIC COOLING, on the other hand, makes sure that the machine

The rise in provisions was due to a variety of partially opposing effects. Tax provisions and sales obligations declined for business-related reasons, whereas pension obligations were up considerably due to the continued fall in discounting rates.

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

10_Research and Development

		2019	2018
Research and development costs (total)	in € million	243.6	233.4
Research and development cost ratio	in %	6.2	6.0
Development costs recognized as an asset	in € million	53.3	43.7
R&D capitalization ratio	in %	21.9	18.7
Amortization/impairment of development costs recognized as an asset	in € million	32.1	36.0
Share of workforce involved in research and development at the CLAAS Group	in %	12.5	12.2
Active patents	Number	4,200	4,000

maintains a uniform temperature. With REMOTE SERVICE, drivers receive optimal and direct support from sales and service partners to keep machinery downtime to an absolute minimum. The direct access to the CLAAS machine allows partners to conduct maintenance and service work more quickly and more efficiently.

The range of cutterbars has also been expanded to fit the new generation of combine harvesters. The 770 and 930 models, with effective cutting widths of 7.70 and 9.30 meters respectively, are new additions to the CONVIO and the CONVIO FLEX draper cutterbar range. CONVIO cutterbars are particularly suited to threshing crops such as grain and rapeseed, whereas the CONVIO FLEX and its flexible knife bar can also provide top-quality performance with crops such as soy and peas. The new cutterbars are optimally integrated into the CEBIS terminal and, thanks to their intelligent design, reduce the workload for the driver and minimize harvest losses.

Financial Position
Research and Development

CLAAS has taken the success story of the crawler track technology and applied it to the forage harvester market with the JAGUAR 960 and 990 TERRA TRAC. This new concept protects soil and reduces the level of compaction. TERRA TRAC technology ensures that the JAGUAR does not sink into the ground, particularly in challenging wet conditions in the fall. The headland protection feature reduces the track contact area at the headland by a third, thereby protecting the grass cover. In addition, the new JAGUAR with CEMOS AUTO PERFORMANCE offers a brand-new foraging experience, eliminating abrupt load changes. The JAGUAR maintains a constant set speed and regulates engine power and driving speed according to the crop mass.

CLAAS has also unveiled a new generation of ORBIS corn headers based on the tried-and-tested combination of large and small discs to guarantee optimal crop flow and a high level of efficiency. The new knife geometry provides the perfect chop and, together with the discs, ensures that crops are not damaged during transport and crop loss is kept to a minimum.

For the best possible soil protection whatever the conditions, CLAAS now offers the CARGOS 8500 with tridem chassis and 30.5-inch tires. The new dual-purpose wagon has a total volume of 41.5 m³. The tires' large contact area minimizes compaction damage to soils that are moist or less able to withstand a load, preserving future yields and feed quality.

Awards

Three CLAAS innovations were awarded a silver medal at the AGRITECHNICA 2019 exhibition. The new APS SYNFLOW WALKER threshing unit and the CEMOS AUTO CHOPPING function on the new LEXION series were the innovations to receive the plaudits. Thanks to its larger threshing drum and additional separator drum, APS SYNFLOW WALKER can increase throughput and preserves grain and straw at the same time. CEMOS AUTO CHOPPING continuously calculates the moisture and quantity of straw and automatically adjusts the positions of the straw chopper to the current conditions.

CEMOS AUTO PERFORMANCE received a silver medal for its ability to regulate engine power and driving speed of the JAGUAR according to the crop mass, resulting in an even crop flow with high operational reliability and lower fuel consumption.

CLAAS was also the recipient of three Innovation Awards at the SIMA 2019 exhibition in Paris, France. As the first self-driving forage harvester with crawler track technology, the new JAGUAR TERRA TRAC won gold in the SIMA Innovation Award 2019. The product impressed the jury with its use of soil-protecting technology in grassland. The jury also awarded bronze medals in the SIMA Innovation Award to the CONVIO FLEX draper cutterbar and the TORION SINUS wheel loader. The TORION SINUS wheel loader models combine the benefits of an articulated joint with a steerable rear axle, providing outstanding maneuverability and unrivaled stability.

The CONVIO FLEX cutterbar was awarded the title "Outstanding Product" by the American Society of Agricultural and Biological Engineers (ASABE). ASABE is a research and education organization specializing in developing technology for agricultural food and biosystems and awards its "Outstanding Product" title to outstanding product innovations in these areas.

CLAAS also received the "Successful Practice Award" from the Fraunhofer Institute for Production Technology IPT, together with the Laboratory for Machine Tools and Production Engineering (WZL) of RWTH Aachen University and a renowned consortium of companies (including MAN Truck & Bus, Siemens, and Airbus). CLAAS has been working intensively and across the board on increasing the efficiency of its product development. Agile methods such as SCRUM and Efficient Task Management have already been applied to many departments and companies of the CLAAS Group and are set to be incorporated into other areas too.

The Alliance Industrie du Futur (AIF) recognized CLAAS Tractor's efforts to modernize its production systems with the French "Showcase Industry of the Future" award. The CLAAS Forth modernization project is geared towards enhancing production flexibility in order to take increasing complexity in this area into account. CLAAS is adapting its production facilities in Le Mans, France, in line with the needs of its employees and is placing great emphasis on incorporating their views and opinions into the project.

Purchasing

Fiscal year 2019 was characterized by a fall in capacity utilization in the manufacturing industry, resulting in the capacity bottlenecks observed over the past few years being largely resolved. Driven by this global economic development, the price of steel is in a downward trend following the high figures of 2017 and 2018.

The program “CLAAS Moves 2020” was launched in response to this market development, which involves defining measures at product group level to wind back the higher prices observed over the past few years. Here, traditional purchasing levers such as new tendering procedures including global sourcing and product cost optimization will be used on an increasing basis.

In terms of logistics, global air freight rates were under extreme pressure. An invitation to tender enabled CLAAS to significantly reduce these rates. By contrast, the terms for overland freight remained stable – not least because of the shortage of drivers. The weakening in economic growth is expected to lead to an improvement in this situation, which CLAAS will take

advantage of through corresponding tenders. Pressure continues to be exerted on sea freight through regulatory requirements, particularly as a result of increasingly stricter environmental constraints. As a result, prices in this area are expected to remain stable.

Substantial investment projects have been successfully negotiated and concluded for non-production materials. These projects mainly concern investments made within the scope of the SynPro 2020 project geared towards optimizing the production site in Harsewinkel, Germany, and the construction of a new office building for CLAAS France in Ymeray, France.

Extensive invitations to tender for services form another focal point of activities in this area. At the same time, further improvements were made to the digitalization and optimization of purchasing processing within the CLAAS Group. Following the systematic development of e-procurement catalog solutions, the new concept is to now be rolled out to relevant CLAAS Group sites around the world.

Employees

HR indicators ↗ 11

At €730.3 million, personnel expenses were up by around 5.4% year on year (prior year: €693.0 million). As of September 30, 2019, the CLAAS Group employed a total of 11,448 people (prior year: 11,132) worldwide, approximately 51.9% of which outside of Germany ↗ 12.

11 _HR indicators

		2019	2018
Employees as of the balance sheet date ¹	Number	11,448	11,132
Male employees	in %	86.5	86.7
Female employees	in %	13.5	13.3
Average age	in years	39.7	39.8
Length of service	in years	12.0	11.9
Fluctuation	in %	7.3	8.4
Personnel expenses	in € million	730.3	693.0
Vocational and further training costs	in € million	20.0	18.2

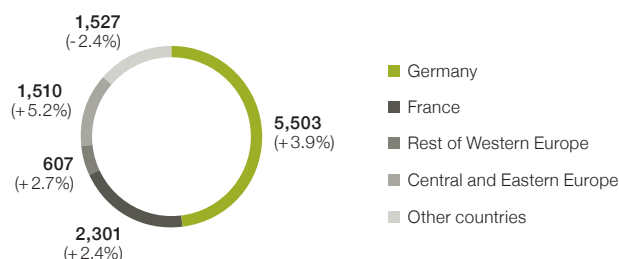
¹ Including apprentices.

Training

As of September 30, 2019, the CLAAS Group employed 735 apprentices (prior year: 714), 414 (prior year: 407) 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 other countries in which CLAAS operates, such as France, Hungary, the United Kingdom, and India.

12 _Employees by Region

Employees/in % compared to prior year



Purchasing
Employees

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, sales, and software and electronics.

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 ("HR Excellence Awards") and the best employer video. 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

CLAAS aims to promote the training and education of young women through offers such as a Female Day and a mentoring program for students of science, technology, engineering, and mathematics (STEM). These measures have already resulted in candidates applying to join our training and trainee programs.

In relation to Germany's law on the equal participation of women and men in executive positions, a new target was resolved in July 2017, which applies through June 30, 2022. The aim is to maintain or, if possible, increase the percentage of women in executive positions over this period. 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 Group Executive Board 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 risk-oriented 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 also 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

Risks and Opportunities

Auditing department also monitors their implementation. All audit results are reported as well. Internal audit activities, such as annual risk-oriented 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 prior fiscal 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

Risks resulting from supply bottlenecks have receded lately thanks to lower capacity utilization at suppliers. In addition, risks relating to the development of commodity prices – such as steel – have been reduced. By contrast, suppliers' liquidity-related risks have risen.

Production risk

In the CLAAS production area, all equipment is serviced regularly, and any potential sources of risk are eliminated by renewing the equipment early 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 risk and risk related to its ability to ensure supplies. 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 outright 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 and Opportunities
Outlook

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. Great importance is also placed on preventing money laundering. Binding Group-wide guidelines are supplemented by corresponding employee training and the provision of information and documentation.

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 2019, 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 2020 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 increase by 3.4% in 2020, rising again slightly after a weaker year in 2019 (as of October 2019). In the European Union, the economy will grow by 1.6% in 2020, on par with the prior-year level (1.5%). In the U.S., growth is expected to slow down further to 2.1% (2019: 2.4%). China is anticipated to see growth of 5.8% (2019: 6.1%). Trade conflicts are slowing economic growth in the U.S., China, and the European Union.

The U.S. Department of Agriculture (USDA) expects to see consistent global grain production (including rice) for the current crop year 2019/20. At 765 million tons, the USDA estimates that the wheat harvest will exceed the prior year's poor harvest (731 million tons), with inventories also increasing slightly. At 1,105 million tons, the new corn harvest is expected to come close to last year's result (1,123 million tons). With consumption continuing to exceed the volume produced, inventories will continue to decline, as they did in crop year 2018/19.

The milk market will continue to see stable growth. The Food and Agriculture Organization of the United Nations therefore expects global dairy volume to increase (+1.4%) in 2019. This growth is primarily attributable to Europe, the U.S., New Zealand, and Brazil. However, the continuing dry weather conditions may have a negative regional impact on production volumes in Europe and Australia.

All told, the development of farms' incomes will vary substantially from region to region in the European Union and the U.S. Following a weak 2018, farms in the U.S. in particular are likely to record a slight increase in income this year.

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

Regional industry developments

The agricultural equipment market in Europe will experience slightly favorable development in the coming year. Grain production will increase by 7% in crop year 2019/20, with income at dairy farms expected to remain stable due to average feed yields and milk prices.

The agricultural equipment market in Eastern Europe will see slightly favorable development, supported by the good grain harvests in Ukraine and Russia in crop year 2019/20. Further influential factors affecting the development of the Eastern European market will be local political conditions and a positive economic environment. Tenders for agricultural modernization efforts will also continue to impact the market.

The North American professional agricultural technology market will experience slightly negative development, according to the VDMA's forecast. On average, production volumes (grain, maize, soy) are declining slightly in the current crop year 2019/20. The ongoing trade conflict between the U.S. and China, and the associated import duties and trade restrictions, is creating additional uncertainty, with the result that trade flows are also being realigned in the agricultural sector. This will have varying effects on individual regional production centers throughout the U.S. and Latin America.

In total, market expectations for agricultural equipment in Latin America remain slightly favorable for the coming year. Corn, soy, and grain production is expected to remain at a constant level in crop year 2019/20, with Brazil as the world's largest producer of soy, according to the forecast by the ADM Report. The trade conflict between the U.S. and China has created potential growth opportunities in agriculture in Latin America, especially regarding soy exports. Additional positive momentum for South American agriculture could come from the recently negotiated free trade agreement between the Mercosur states (common market in South America) and the European Union, though it will not be possible for the positive effects to be realized to the same extent by the various countries. Unstable economic and political conditions in Argentina are severely hampering the development of an otherwise favorable agricultural position.

Asia's agricultural equipment markets will see stable development. Estimates have rice, corn, and grain production remaining at a constant level in crop year 2019/20. Important driving forces behind the development of the Asian market in individual countries are the subsidization policies and the low degree of mechanization of Asian agriculture. Globally speaking, Asian demand for agricultural equipment is at a low level, but will develop stronger momentum in the foreseeable future.

General risks arise in particular on account of global trade conflicts and political instabilities. Further risks arise from the volatility of procurement prices for energy, steel, and other commodities, and the development of currencies significant to CLAAS, such as the U.S. dollar, the British pound, and the Russian ruble. The continuous revision of agricultural policy in the core markets of the European Union, the U.S., Russia, and China, will also shape the overall conditions. In addition, climate change plays an increasingly important role. The global increase of weather extremes such as droughts and heavy rains are impacting farm yields and must be taken into account. Presently, African swine fever, which is especially widespread in Asia, poses an additional risk.

General statement on the development of business and outlook

The development of business in 2019 was characterized by challenges faced due to the economic conditions and in the development of the industry. In Central Europe in particular, the late effects of the extreme drought in 2018 had a significant impact in the form of a restrained willingness to invest. With stable business development overall, income fell short of our expectations.

Outlook

Overall, we expect the market environment to remain stable in fiscal year 2020. Market forecasts for Central and Northern Europe are slightly higher than the current lows. Given the current market assessment, we expect moderate sales growth for the CLAAS Group in fiscal year 2020.

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. Additional risks for the Group arise from a further weakening of the general economic situation in our core markets, the political uncertainties in the Middle East, the upcoming Brexit, and the climate debate.

We will nonetheless continue to systematically pursue our strategy and strengthen the position of our products in the growth markets in Eastern Europe, North America, and Asia. The capital expenditures in the current year will remain at the high levels seen in 2019. If market conditions change, the volume could 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 recouped by the corresponding revenues. We will keep up our efforts to enhance efficiency and sustainable cost reductions in the current year. We anticipate earnings before taxes to remain stable year on year in the current fiscal year 2020.

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03

**Consolidated Financial
Statements**

Consolidated Income Statement

of the CLAAS Group for the fiscal year from October 1, 2018 to September 30, 2019

in € '000	Note	2019	2018
Net sales	(7)	3,897,961	3,889,178
Cost of sales		-3,138,119	-3,043,124
Gross profit on sales		759,842	846,054
Selling expenses		-255,557	-244,192
General and administrative expenses		-184,528	-166,818
Research and development expenses	(8)	-222,367	-225,682
Other operating income	(10)	127,322	98,116
Other operating expenses	(10)	-76,029	-53,745
Operating income		148,683	253,733
Income from investments accounted for using the equity method, net	(11)	13,214	17,417
Income from other investments, net	(11)	79	1,448
Financial result	(12)	-26,250	-46,914
thereof: interest and similar expenses		(-28,279)	(-31,084)
Income before taxes		135,726	225,684
Income taxes	(13)	-39,454	-73,712
Net income		96,272	151,972
thereof: attributable to shareholders of CLAAS KGaA mbH		95,913	151,665
thereof: attributable to minority interests		359	307

Consolidated Statement of Comprehensive Income

of the CLAAS Group for the fiscal year from October 1, 2018 to September 30, 2019

in € '000	Note	2019	2018
Net income		96,272	151,972
Items to be reclassified subsequently to profit or loss			
Net unrealized gains/losses from currency translation		10,815	-9,259
Net unrealized gains/losses from securities		-	-2,334
Net unrealized gains/losses from derivative financial instruments	(33)	5,686	-4,906
Items never to be reclassified to profit or loss			
Remeasurements of defined benefit pension plans	(28)	-47,477	832
Other comprehensive income, after taxes		-30,976	-15,667
Comprehensive income		65,296	136,305
thereof: attributable to shareholders of CLAAS KGaA mbH		64,937	135,998
thereof: attributable to minority interests		359	307

Consolidated Income Statement
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Consolidated Balance Sheet

of the CLAAS Group as of September 30, 2019

in € '000	Note	Sept. 30, 2019	Sept. 30, 2018
Assets			
Intangible assets	(14)	267,405	235,438
Property, plant and equipment	(15)	541,801	501,504
Investments accounted for using the equity method	(16)	142,039	135,508
Other investments		4,095	2,934
Deferred tax assets	(13)	152,839	140,287
Other financial assets	(19)	37,487	9,946
Other non-financial assets	(20)	37,378	41,215
Non-current assets		1,183,044	1,066,832
Inventories	(17)	1,103,494	959,721
Trade receivables	(18)	355,526	402,333
Other financial assets	(19)	133,532	128,810
Other non-financial assets	(20)	86,677	88,598
Securities	(21)	178,387	193,706
Cash and cash equivalents	(22)	491,267	609,727
Current assets		2,348,883	2,382,895
Total assets		3,531,927	3,449,727
Equity and liabilities			
Subscribed capital		78,000	78,000
Capital reserves		38,347	38,347
Other reserves		1,296,532	1,274,799
Equity before minority interests		1,412,879	1,391,146
Minority interests		4,447	4,336
Equity	(23)	1,417,326	1,395,482
Financial liabilities	(24)	368,333	551,204
Silent partnership	(25)	51,642	48,270
Deferred tax liabilities	(13)	2,446	2,891
Other financial liabilities	(26)	4,235	8,292
Pension provisions	(28)	361,663	300,738
Other provisions	(29)	49,341	47,014
Non-current liabilities		837,660	958,409
Financial liabilities	(24)	282,186	54,317
Trade payables		235,480	292,857
Other financial liabilities	(26)	38,929	27,905
Other non-financial liabilities	(27)	170,416	158,252
Income tax provisions	(29)	27,385	38,467
Other provisions	(29)	522,545	524,038
Current liabilities		1,276,941	1,095,836
Total equity and liabilities		3,531,927	3,449,727

Consolidated Statement of Cash Flows

of the CLAAS Group for the fiscal year from October 1, 2018 to September 30, 2019

in € '000	Note	2019	2018
Net income		96,272	151,972
Amortization/impairment of intangible assets and depreciation/impairment of property, plant and equipment	(14),(15)	128,787	112,692
Income from investments accounted for using the equity method, net, if non-cash		- 12,170	- 17,417
Change in non-current provisions		736	8,397
Change in deferred taxes		6,495	- 1,456
Other non-cash expenses (+)/income (-)		- 10,093	9,436
Cash earnings		210,027	263,624
Change in current provisions		- 19,113	2,446
Income from the disposal of non-current assets and securities		- 1,819	- 1,697
Change in working capital		- 136,176	- 196,482
thereof: inventories		(- 127,714)	(- 240,089)
thereof: trade receivables		(29,935)	(- 15,644)
thereof: trade payables		(- 39,457)	(42,911)
Other change in assets/equity and liabilities, if not investing or financing activities		- 6,986	17,165
Cash flows from operating activities	(35)	45,933	85,056
Payments for investments in			
Intangible assets and property, plant and equipment (net of development costs recognized as an asset)	(14),(15)	- 125,406	- 113,337
Shares of fully consolidated companies and investments		- 10,734	- 477
Borrowings		- 20,796	- 57,289
Receipts from disposals/divestments			
Intangible assets and property, plant and equipment		7,907	3,388
Shares of fully consolidated companies and investments		1,774	1,628
Borrowings		20,977	44,140
Additions to development costs recognized as an asset	(14)	- 57,878	- 46,983
Change in securities		19,997	513,898
Cash flows from investing activities		- 164,159	344,968
Proceeds from the increase in loans and the issuance of bonds		454,859	236,433
Repayment of bonds and loans		- 428,350	- 251,790
Proceeds from silent partnership		3,371	3,061
Change in liabilities to shareholders		235	325
Payment to minority shareholders		- 243	- 1,522
Dividend payments	(23)	- 40,020	- 33,072
Cash flows from financing activities		- 10,148	- 46,565
Effect of foreign exchange rate changes on cash and cash equivalents		9,914	- 287
Net change in cash and cash equivalents		- 118,460	383,172
Cash and cash equivalents at beginning of year	(22)	609,727	226,555
Cash and cash equivalents at end of year	(22)	491,267	609,727

Consolidated Statement of Changes in Equity

of the CLAAS Group as of September 30, 2019

in € '000	Other reserves							Equity before minority interests	Minority interests	Equity
	Subscribed capital	Capital reserves	Retained earnings		Accumulated other comprehensive income					
			Accumulated profit	Remeasurements of defined benefit pensions plans	Foreign currency translation	Securities	Derivative financial instruments			
Balance as of Oct. 1, 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
Adjustments from the initial application of IFRS 9	-	-	-3,563	-	-	397	-	-3,166	-	-3,166
Balance as of Oct. 1, 2018	78,000	38,347	1,425,394	-55,414	-81,882	-	-16,465	1,387,980	4,336	1,392,316
Net income	-	-	95,913	-	-	-	-	95,913	359	96,272
Other comprehensive income	-	-	-	-47,477	10,815	-	5,686	-30,976	-	-30,976
Comprehensive income	-	-	95,913	-47,477	10,815	-	5,686	64,937	359	65,296
Dividend payments	-	-	-40,020	-	-	-	-	-40,020	-243	-40,263
Consolidation adjustments	-	-	-18	-	-	-	-	-18	-5	-23
Balance as of Sept. 30, 2019	78,000	38,347	1,481,269	-102,891	-71,067	0	-10,779	1,412,879	4,447	1,417,326

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 Notes 2 and 6 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, 2018 to September 30, 2019.

The consolidated financial statements were prepared on November 25, 2019 by the Executive Board of CLAAS KGaA mbH. Approval of the consolidated financial statements by the Supervisory Board is planned for December 11, 2019 at the scheduled Supervisory Board meeting.

2. New Financial Reporting Standards

IFRS 15 - Revenue from Contracts with Customers

IFRS 15 "Revenue from Contracts with Customers" includes comprehensive new regulations on revenue recognition. The previous opportunity and risk approach has been replaced by a five-stage model that is to be applied to all contracts with customers.

The first-time application was fully retrospective, which meant that the opening balance sheet values of the comparable period were adjusted. The initial application of IFRS 15 is not significant for CLAAS.

IFRS 9 - Financial Instruments

IFRS 9 replaces the regulations of IAS 39 for the classification, recognition and impairment of financial instruments. In addition, the standard contains new rules for hedge accounting.

In compliance with the IFRS 9 transition disclosures, the option of continuing to disclose comparative information pursuant to IAS 39 was applied. The effects of the transition from the first-time application are included in the retained earnings.

Furthermore, the accounting and measurement of derivative financial instruments designated as hedging instruments continue to follow the rules of IAS 39.

There were no material effects for CLAAS from the first-time application of IFRS 9.

IFRS 16 - Leases

CLAAS must apply IFRS 16 for the first time in fiscal year 2020. The standard will be applied in modified form retrospectively without adjusting the comparable period and is currently expected to result in an increase in the total assets by approximately 3.5% to 4%. This is not expected to result in any material effects to equity.

In principle, IFRS 16 creates an asset and a corresponding lease liability for the lessee for each lease contract. For CLAAS, leasing agreements for properties, vehicles and sublease agreements for CLAAS machines are material in the

application of IFRS 16. CLAAS will make use of the option not to recognize in the balance sheet leases that are classified as low-value or short-term.

Other Information

The consolidated balance sheet for the fiscal year and the prior year were adjusted mainly as a result of the requirements of the new standards. Trade receivables from and liabilities to investments and bills payable previously reported under other financial assets and liabilities are now included in trade receivables and payables. Advanced payments received and made on account were reclassified from inventories to other non-financial assets and liabilities. Further other non-financial assets include tax assets.

3. 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 IFRS 9.

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

	Sept. 30, 2019	Sept. 30, 2018
Consolidated subsidiaries	64	66
thereof: domestic companies	(20)	(21)
thereof: foreign companies	(44)	(45)
Investments accounted for using the equity method	13	12
thereof: domestic companies	(6)	(4)
thereof: foreign companies	(7)	(8)

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 2019.

4. 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.

5. 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 / €	
		2019	2018	Sept. 30, 2019	Sept. 30, 2018
British pound	GBP	0.88	0.88	0.89	0.89
Chinese renminbi	CNY	7.73	7.79	7.77	8.00
Indian rupee	INR	79.01	79.46	76.98	84.24
Polish zloty	PLN	4.30	4.24	4.37	4.28
Russian ruble	RUB	73.79	72.10	70.75	76.02
Hungarian forint	HUF	323.91	316.99	334.84	323.44
U.S. dollar	USD	1.12	1.19	1.09	1.16

6. 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 3.0% p.a. (prior year: 2.9% 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. 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 6.0% p.a. to 13.7% p.a. (prior year: 6.9% p.a. to 9.7% 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 pro-rated 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.

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.

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 three measurement categories provided for in IFRS 9: financial assets or financial liabilities at fair value through profit or loss, at fair value through other comprehensive income, and at amortized cost.

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

In accordance with IFRS 9, the classification of financial assets depends on the business model used to manage them and the contractual cash flow characteristics of the financial instruments. The classification of financial liabilities is dependent on the purpose for which the financial instruments were contracted.

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 carrying amounts of financial assets not recognized at fair value through profit or loss are tested as of each balance sheet date for impairment. In accordance with IFRS 9, a risk provision is calculated based on the expected credit loss model. Accordingly, the amount of the allowance recognized as a risk provision for expected credit losses depends on the extent to which the credit risk has increased since initial recognition. The estimate is made on the basis of ratings and risk indicators that are continuously updated. In case of an impairment, the resulting impairment loss is recognized through profit or loss.

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

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.

CLAAS applied the simplified expected credit loss model approach pursuant to IFRS 9 for expected credit losses arising from trade receivables. Risk provisions for expected credit losses are recorded over the remaining term, irrespective of the credit quality. In addition to taking existing collateral into account, past information and forecasts of future economic conditions are included in the calculation of the expected loss.

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 bond 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 are classified as "measured at fair value through profit or loss."

Recognition and subsequent measurement are carried out at fair value or market price.

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

The accounting and measurement of derivative financial instruments with hedging relationships continues to follow the rules of IAS 39 in compliance with the transition requirements of IFRS 9.

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 outright 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 part of 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 as part of a hedging relationship (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 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.

Liabilities

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

Contract Liabilities

For CLAAS, contract liabilities represent payments received on account, which are reported under other non-financial liabilities. These are obligations to transfer goods or services to the customer for which customer payments have already been received prior to contractual performance.

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. 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. In subsequent periods they will not be recognized as profit or loss.

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.

Recognition of Net Sales

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. Net sales are recognized when the services have been rendered or the goods or products have been delivered, i.e., when the customer has obtained control of the goods or services.

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 in 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 Judgements

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.

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	2019	2018
Germany	800,580	834,628
France	756,511	677,130
Rest of Western Europe	819,106	746,434
Central and Eastern Europe	862,799	941,370
Other countries	658,965	689,616
Net sales	3,897,961	3,889,178

The following table shows the expected net sales for the next five fiscal years resulting from performance obligations already contracted as of the balance sheet date:

in € '000	Sept. 30, 2019	Sept. 30, 2018
Due within 1 year	13,573	13,033
Due within 1 to 2 years	14,876	11,389
Due within 2 to 3 years	8,320	6,190
Due within 3 to 4 years	3,782	2,480
Due within 4 to 5 years	1,471	813
Total of future expected net sales from existing performance obligations	42,022	33,905

8. Research and Development Expenses

in € '000	2019	2018
Research and development costs (total)	- 243,608	- 233,369
Development costs recognized as an asset	53,291	43,669
Amortization/impairment of capitalized development costs recognized as an asset	- 32,050	- 35,982
Research and development expenses recognized in the income statement	- 222,367	- 225,682
R&D capitalization ratio (in %)	21.9	18.7

9. Personnel Expenses and Employees

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

in € '000	2019	2018
Direct and indirect remuneration	- 595,043	- 562,996
Social security contributions and employee benefit expenses	- 124,570	- 119,880
Pension expenses	- 10,657	- 10,144
Personnel expenses	- 730,270	- 693,020

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

	2019	2018
Direct employees	4,372	4,238
Indirect employees	6,348	6,204
Apprentices	662	610
Average number of employees	11,382	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	2019	2018
Reversal of provisions	50,197	57,619
Write-ups of property, plant and equipment	23,590	-
Measurement of receivables	8,514	5,079
Grants and subsidies	4,735	4,620
Disposal of intangible assets and property, plant and equipment	1,963	2,721
Insurance compensation	1,812	2,161
Pass-through costs	980	1,278
Rental and leases	667	584
Miscellaneous income	34,864	24,054
Other operating income	127,322	98,116

Other Operating Expenses

in € '000	2019	2018
Impairment of intangible assets and property, plant and equipment	-22,967	-
Measurement of receivables	-9,806	-11,103
Personnel expenses	-7,514	-6,716
Fees, charges, and insurance premiums	-3,325	-2,157
Disposal of intangible assets and property, plant and equipment	-1,199	-1,972
Miscellaneous expenses	-31,218	-31,797
Other operating expenses	-76,029	-53,745

11. Income from Investments, Net

in € '000	2019	2018
Income from investments accounted for using the equity method, net	13,214	17,417
thereof: impairment losses on investments accounted for using the equity method	(-6,360)	(-2,212)
Income from other investments, net	79	1,448
Income from investments, net	13,293	18,865

12. Financial Result

in € '000	2019	2018
Interest expense	-28,530	-29,909
thereof: profits transferred under a partial profit transfer agreement (CMG)	(-3,137)	(-4,131)
Non-current provisions	-4,758	-4,816
Capitalization of borrowing costs	5,009	3,641
Interest and similar expenses	-28,279	-31,084
Interest income	7,908	9,829
Income from other securities and loans, net	5,021	-19
Interest expense and income from securities, net	-15,350	-21,274
Other financial result	-10,900	-25,640
Financial result	-26,250	-46,914

Payments based on the performance of the CLAAS Group with respect to the silent partnership of CMG CLAAS-Mitarbeiterbeteiligungs-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:

IFRS 9

in € '000	2019
Financial assets measured at amortized cost	7,908
Financial liabilities measured at amortized cost	-28,530
Interest expenses and income	-20,622

IAS 39

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

The other financial result can be broken down as follows:

in € '000	2019	2018
Foreign exchange gains and losses, net	-5,592	-19,448
Miscellaneous financial income and expenses, net	-5,308	-6,192
Other financial result	-10,900	-25,640

13. Income Taxes

in € '000	2019	2018
Current income taxes	-32,959	-75,669
Deferred income taxes	-6,495	1,957
Income taxes	-39,454	-73,712

The underlying income tax rates for foreign companies were between 9.0% and 33.9% (prior year: 9.0% and 35.0%).

Income taxes in the reporting period were €0.1 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:

	2019		2018	
	in € '000	in %	in € '000	in %
Income before taxes	135,726		225,684	
Theoretical tax expense	-39,361	29.0	-65,448	29.0
Differences in foreign tax rates	6,783	-5.0	4,610	-2.0
Tax effects from prior years	-1,160	0.9	1,182	-0.5
Non-taxable income and non-deductible expenses	-6,103	4.5	-5,088	2.3
Accounting for investments accounted for using the equity method	3,832	-2.8	5,051	-2.3
Effects from changes in tax rates	-	-	-13,553	6.0
Impact of tax losses	-2,973	2.2	-2,519	1.1
Other consolidation effects	-5	0.0	945	-0.4
Miscellaneous	-467	0.3	1,108	-0.5
Effective tax expense	-39,454	29.1	-73,712	32.7

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

in € '000	Sept. 30, 2019		Sept. 30, 2018	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Intangible assets	4,311	60,158	4,195	53,398
Property, plant and equipment	5,788	16,330	10,516	16,243
Inventories	51,665	809	47,261	3,399
Receivables and miscellaneous assets	18,985	9,796	13,913	7,795
Provisions	124,811	2,787	105,016	2,352
Liabilities	5,923	449	12,225	287
Loss carryforwards	77,764	-	81,926	-
Gross amount	289,247	90,329	275,052	83,474
Valuation allowances on tax loss carryforwards and similar items	-48,525	-	-54,182	-
Netting out	-87,883	-87,883	-80,583	-80,583
Carrying amount	152,839	2,446	140,287	2,891

The tax loss carryforwards, the majority of which are realizable without restriction, amounted to €315.5 million (prior year: €339.2 million). This includes an amount of €185.5 million (prior year: €213.4 million) on which a valuation allowance on deferred tax assets of €48.5 million (prior year: €54.2 million) has been recognized.

The utilization of tax loss carryforwards, on which deferred tax assets had not yet been recognized, resulted in a positive effect of €2.0 million (prior year: €0.0 million).

The following amounts are included in equity due to deferred taxes being offset:

in € '000	Sept. 30, 2019	Sept. 30, 2018
Securities	-	-819
Derivative financial instruments	4,411	6,665
Currency effects	-945	-2,765
Deferred taxes offset in accumulated other comprehensive income	3,466	3,081
Remeasurements of defined benefit pensions plans	42,252	23,777
Deferred taxes in other reserves	45,718	26,858

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, 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
Currency translation	229	143	-	-998	-626
Additions	5,230	-	12,212	57,878	75,320
Disposals	-1,867	-	-	-59,437	-61,304
Reclassifications	3,451	-	-2,487	-	964
Balance as of Sept. 30, 2019	78,193	70,636	13,672	286,742	449,243
Accumulated amortization and impairment losses					
Balance as of Oct. 1, 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
Currency translation	36	-	-	-37	-1
Additions (amortization)	7,985	-	-	32,050	40,035
Additions (impairment)	3,648	-	-	-	3,648
Disposals	-1,858	-	-	-59,437	-61,295
Balance as of Sept. 30, 2019	58,492	55,758	-	67,588	181,838
Carrying amounts					
Balance as of Sept. 30, 2018	22,469	14,735	3,947	194,287	235,438
Balance as of Sept. 30, 2019	19,701	14,878	13,672	219,154	267,405

Development costs in the amount of €57.9 million (prior year: €47.0 million) were capitalized. This includes capitalized borrowing costs of €4.6 million (prior year: €3.3 million). The necessary impairment tests on the capitalized development costs did not lead to any impairment losses (prior year:

€1.1 million). The prior year's 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, 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
Currency translation	5,219	5,011	7,044	472	-33	17,713
Additions	17,347	22,819	14,375	53,423	-	107,964
Disposals	-1,561	-16,981	-10,389	-34	-1,350	-30,315
Reclassifications	9,572	18,257	5,906	-34,699	-	-964
Balance as of Sept. 30, 2019	482,932	545,684	268,311	70,486	931	1,368,344
Accumulated depreciation and impairment losses						
Balance as of Oct. 1, 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
Currency translation	3,079	4,178	3,825	-5	-33	11,044
Additions (depreciation)	10,264	36,013	19,490	-	-	65,767
Additions (impairment)	12,391	1,807	4,173	966	-	19,337
Disposals	-230	-12,925	-8,675	-	-1,350	-23,180
Write-ups	-9,358	-9,465	-44	-	-	-18,867
Balance as of Sept. 30, 2019	214,187	414,206	196,258	961	931	826,543
Carrying amounts						
Balance as of Sept. 30, 2018	254,314	121,980	73,886	51,324	0	501,504
Balance as of Sept. 30, 2019	268,745	131,478	72,053	69,525	0	541,801

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

Due to the changed market assessments, an impairment loss of €23.0 million had to be recognized on property, plant and equipment and intangible assets at the site in Gaomi, China. This impairment loss was presented in other operating expenses.

Noticeable improvement in income required write-ups in the amount of €23.6 million on property, plant and equipment at the Russian site in Krasnodar. These write-ups were presented in other operating income.

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:

in € '000	Associates		Joint ventures	
	2019	2018	2019	2018
At equity result	3,855	1,132	9,359	16,285
Carrying amount of investments accounted for using the equity method	33,134	29,181	108,905	106,327

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, 2019	Sept. 30, 2018
Raw materials, consumables, and supplies	249,505	151,343
Work in progress	68,294	80,022
Finished goods and merchandise	785,695	728,356
Inventories	1,103,494	959,721

An increase in write-downs of inventories amounting to €8.4 million (prior year: increase of €0.4 million) 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, 2019	Sept. 30, 2018
Gross carrying amount	393,724	444,881
Impairment	- 38,198	- 42,548
Net carrying amount	355,526	402,333

The impairment of trade receivables developed as follows:

in € '000	2019	2018
Impairment at Oct. 1	42,548	39,167
Utilization	- 5,155	- 778
Reversal of/addition to impairment loss, net	- 690	4,280
Currency translation	1,495	- 121
Impairment at Sept. 30	38,198	42,548

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

in € '000	Sept. 30, 2019	Sept. 30, 2018
Neither past due nor impaired	280,540	330,439
Not impaired but past due as per the following time frames:		
up to 30 days	47,713	35,935
31 to 60 days	9,548	8,858
61 to 90 days	9,510	7,014
more than 90 days	3,020	15,130
Trade receivables adjusted individually for impairment	5,195	4,957
Trade receivables	355,526	402,333

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 €232.8 million (prior year: €213.5 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 €68.3 million as of the balance sheet date (prior year: €67.2 million).

As part of these sales, the CLAAS Group recognized assets of €13.0 million (prior year: €11.6 million) as of the reporting date for the partially retained provisions for risk of default. The financial liabilities associated with the sales amounted to €28.1 million (prior year: €17.5 million).

19. Other Financial Assets

in € '000	Current	Non-current	Sept. 30, 2019	Current	Non-current	Sept. 30, 2018
Borrowings	-	3,996	3,996	-	3,472	3,472
Receivables from investments	21,085	5,015	26,100	21,608	4,300	25,908
Derivative financial instruments	2,606	26,225	28,831	4,205	-	4,205
Creditors with a debit balance	4,497	-	4,497	3,714	-	3,714
Loan receivables	1,322	-	1,322	1,254	-	1,254
Miscellaneous	104,022	2,251	106,273	98,029	2,174	100,203
Other financial assets	133,532	37,487	171,019	128,810	9,946	138,756

20. Other Non-financial Assets

in € '000	Current	Non-current	Sept. 30, 2019	Current	Non-current	Sept. 30, 2018
Tax assets	18,154	3,739	21,893	8,883	2,465	11,348
Deferred Income	15,251	-	15,251	12,860	-	12,860
Other taxes	42,401	-	42,401	57,554	-	57,554
Surplus related to funded benefit obligations	-	12,314	12,314	-	16,576	16,576
Payments made on account	10,514	-	10,514	8,335	-	8,335
Miscellaneous	357	21,325	21,682	966	22,174	23,140
Other non-financial assets	86,677	37,378	124,055	88,598	41,215	129,813

21. Securities

A total of €98.3 million (prior year: €93.9 million) of current securities €178.4 million (prior year: €193.7 million) was attributable to funds. Of the current securities held at the beginning of the fiscal year, securities with historical costs of €30.0 million were disposed of during the fiscal year (prior year: €616.8 million).

Securities totaling €10.6 million (prior year: €10.5 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 €28.8 million, of which €28.1 million (prior year: €17.5 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.

changes in retained earnings and accumulated other comprehensive income. The dividend distributed to shareholders in fiscal year 2019 amounted to €40.0 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.

The consolidated statement of changes in equity presents the development of equity as well as detailed information as to

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, 2019	Current	Non-current	Sept. 30, 2018
Bond (US Private Placement)	-	275,229	275,229	-	258,131	258,131
Liabilities to banks	77,706	1,113	78,819	50,072	1,082	51,154
Schuldscheindarlehen (German Private Placement)	200,000	50,000	250,000	-	250,000	250,000
Shareholder loans	4,480	41,991	46,471	4,245	41,991	46,236
Financial liabilities	282,186	368,333	650,519	54,317	551,204	605,521

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

	Nominal volume	Carrying amount Sept. 30, 2019	Coupon in %	Due
Bond (US Private Placement) 2012	USD 300,000,000	€275,229,000	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 1.0% p.a. and 5.4% p.a. Of these liabilities, €1.0 million are secured (prior year: €1.1 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 €715.8 million as of the balance sheet date for general financing purposes, €637.0 million of which was not utilized.

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 €5.5 million of the silent partnership can be terminated without cause as of September 30, 2020; additional termination-without-cause rights for a further €23.7 million apply between fiscal years 2021 and 2024.

26. Other Financial Liabilities

in € '000	Current	Non-current	Sept. 30, 2019	Current	Non-current	Sept. 30, 2018
Derivative financial instruments	11,456	-	11,456	3,434	2,627	6,061
Accrued interest	2,628	-	2,628	2,608	-	2,608
Miscellaneous	24,845	4,235	29,080	21,863	5,665	27,528
Other financial liabilities	38,929	4,235	43,164	27,905	8,292	36,197

27. Other Non-financial Liabilities

in € '000	Current	Non-current	Sept. 30, 2019	Current	Non-current	Sept. 30, 2018
Contract liabilities	64,026	-	64,026	65,050	-	65,050
Deferred Income	55,930	-	55,930	50,389	-	50,389
Other taxes	42,628	-	42,628	35,015	-	35,015
Social security	7,791	-	7,791	7,725	-	7,725
Miscellaneous	41	-	41	73	-	73
Other non-financial liabilities	170,416	-	170,416	158,252	-	158,252

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, 2019	Defined benefit obligations (DBO)	Fair value of the plan assets	Net obligation
Germany	322,027	473	321,554
France	36,634	-	36,634
United Kingdom	71,846	84,160	- 12,314
Other countries	3,475	-	3,475
Carrying amount	433,982	84,633	349,349
thereof: pension provisions			361,663
thereof: other non-financial assets			12,314

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

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

in € '000	2019	2018
Present value of the defined benefit obligations as of October 1	361,498	361,092
Current service cost	8,616	8,539
Interest cost	6,646	6,614
Actuarial gains and losses	71,442	- 757
Past service cost, curtailments and settlements	-4,266	- 1,500
Currency translation	331	- 747
Pension payments	- 10,549	- 12,055
Miscellaneous	264	312
Present value of the defined benefit obligations as of September 30	433,982	361,498

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

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

in € '000	2019	2018
Fair value of the plan assets as of October 1	77,336	76,620
Interest income	2,151	2,003
Actuarial gains and losses	5,479	498
Employer contributions	643	745
Employee contributions	264	311
Currency translation	425	- 889
Pension payments from plan assets	- 1,665	- 1,952
Fair value of the plan assets as of September 30	84,633	77,336

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

in € '000	2019	2018
Current service cost	-8,616	-8,539
Past service cost	4,266	1,500
Interest cost	-6,646	-6,614
Interest income	2,151	2,003
Defined benefit plan components recognized in the income statement	-8,845	-11,650
Income from plan assets excluding amounts already included in interest	5,479	498
Actuarial gains and losses	-71,442	757
Defined benefit plan components recognized directly in equity	-65,963	1,255

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

Total income from plan assets amounted to €7.7 million in the fiscal year 2019 (prior year: €2.5 million).

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

in %	Sept. 30, 2019		Sept. 30, 2018	
	Germany	Other	Germany	Other
Discount rate	0.60	1.33	1.70	2.37
Rate of salary increase	2.50	2.49	3.00	2.56
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, 2019		Sept. 30, 2018	
	in € '000	in %	in € '000	in %
Equity instruments	28,694	33.9	27,465	35.5
Bonds	54,493	64.4	48,431	62.6
Cash and cash equivalents	973	1.1	979	1.3
Miscellaneous	473	0.6	461	0.6
Plan assets	84,633	100.0	77,336	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 rise in the discount rate by 25 basis points, as the material actuarial assumption, would reduce the present value of the defined benefit obligations by €21.2 million. A reduction in the discount rate of 25 basis points would correspond to a rise in the present value of the defined benefit obligations by €20.9 million. Actual developments will likely differ.

A rise or fall of 50 basis points in the rate of pension would have a comparable impact on the present value of the defined benefit obligations as a change in the discount rate of 25 basis points, 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 19.6 years as of September 30, 2019 (prior year: 18.3 years).

In fiscal year 2020, pension payments in the amount of €9.6 million are anticipated. The employer contributions to plan assets are expected to amount to €0.6 million.

Defined Contribution Plans

Defined contribution plans are also in place in Germany, North America, and China 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	2019	2018
Defined contribution plans	3,250	3,098
National plans	27,050	26,058
Total cost of defined contribution plans	30,300	29,156

29. Income Tax Provisions and Other Provisions

in € '000	Income tax provisions	Other provisions			Total other provisions	Total
		Personnel obligations	Sales obligations	Miscellaneous obligations		
Balance as of Oct. 1, 2018	38,467	154,436	379,104	37,512	571,052	609,519
Utilization	-26,447	-122,420	-230,271	-8,475	-361,166	-387,613
Reversals	-601	-1,591	-40,960	-1,934	-44,485	-45,086
Additions	15,298	120,357	255,236	24,345	399,938	415,236
Interest/change in interest rate	-	194	76	-7	263	263
Currency translation	668	565	4,596	1,123	6,284	6,952
Balance as of Sept. 30, 2019	27,385	151,541	367,781	52,564	571,886	599,271
thereof: non-current	-	23,682	18,814	6,845	49,341	49,341
thereof: current	27,385	127,859	348,967	45,719	522,545	549,930

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 €60.4 million (prior year: €58.0 million) in the fiscal year.

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

in € '000	Sept. 30, 2019	Sept. 30, 2018
Due within 1 year	46,487	42,802
Due within 1 to 5 years	65,260	64,728
Due after 5 years	22,595	27,040
Minimum lease payments under operating lease agreements	134,342	134,570

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 €28.8 million. The lease payments under these agreements received on the balance sheet day amounted to €22.6 million in total.

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

in € '000	Sept. 30, 2019	Sept. 30, 2018
Obligations to purchase items of property, plant and equipment	21,500	17,095
Bills of exchange, guarantees, etc.	23,442	14,067

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

The new IFRS 9 standard has been applied since October 1, 2018. In compliance with the option to use the simplified first-time application, the comparative figures for the prior-year period are presented in accordance with IAS 39.

The following table shows the reconciliation of the measurement categories and the carrying amounts of the financial assets and the financial liabilities pursuant to IAS 39 as at September 30, 2018 to the measurement categories and carrying amounts pursuant to IFRS 9 as at October 1, 2018:

in € '000	Categories		Carrying amounts	
	IAS 39	IFRS 9	IAS 39	IFRS 9
Other investments	AfS	FVPL	2,934	2,934
Trade receivables	LaR	AC	402,333	402,333
Other financial assets	LaR	AC	134,551	134,551
	FVPL	FVPL	4,205	4,205
Securities	AfS	FVPL	143,882	193,706
	FVPL		49,824	
Cash and cash equivalents	LaR	AC	609,727	609,727
Financial assets			1,347,456	1,347,456
Financial liabilities	FLAC	AC	-605,521	-605,521
Silent partnership	FLAC	AC	-48,270	-48,270
Trade payables	FLAC	AC	-292,857	-292,857
Other financial liabilities	FLAC	AC	-30,136	-30,136
	FVPL	FVPL	-6,061	-6,061
Financial liabilities			-982,845	-982,845

AC: Amortized cost

AfS: Available for Sale

FLAC: Financial liabilities at amortized cost

FVPL: Fair value through profit or loss

LaR: Loans and receivables

In accordance with IAS 39, some securities were classified as available-for-sale. Starting from October 1, 2018 all securities were measured at fair value through profit or loss. Due to the amended classification, the valuation effects of €0.4 million previously reported for these instruments under accumulated other comprehensive income were reclassified as retained earnings as of October 1, 2018.

A further €3.2 million from investments in associated companies and financial instruments held by these companies was offset against retained earnings as of October 1, 2018.

Carrying Amounts of Financial Assets and Liabilities by Categories

IFRS 9

in € '000	Sept. 30, 2019
Financial assets measured at fair value through profit or loss	210,607
Financial assets measured at fair value through other comprehensive income	706
Financial assets measured at amortized cost	988,981
Financial liabilities measured at fair value through profit or loss	11,456
Financial liabilities measured at amortized cost	969,349

IAS 39

in € '000	Sept. 30, 2018
Financial assets at fair value through profit or loss	54,029
thereof: fair value option	(49,824)
Loans and receivables	1,146,611
Available-for-sale financial assets	146,816
Financial liabilities at fair value through profit or loss	6,061
Financial liabilities measured at amortized cost	976,784

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

- Level 1 Measurement based on quoted prices in active markets for identical financial instruments

The values differ for financial liabilities: The carrying amounts of financial liabilities totaled €650.5 million (prior year: €605.5 million), while the fair value was €657.6 million (prior year: €597.6 million). The entire amount was attributable to Level 2 of the fair value hierarchy.

- 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

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:

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.

in € '000	Sept. 30, 2019			Sept. 30, 2018		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Securities	178,387	-	-	93,876	99,830	-
Derivative financial instruments	-	28,831	-	-	4,205	-
Financial assets at fair value	178,387	28,831	-	93,876	104,035	-
Derivative financial instruments	-	11,456	-	-	6,061	-
Financial liabilities at fair value	-	11,456	-	-	6,061	-

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:

IFRS 9

in € '000	2019
Financial assets and financial liabilities measured at fair value through profit or loss	-2,438
Financial assets measured at amortized cost	13,723
Financial liabilities measured at amortized cost	-11,550
Net gains or losses on financial instruments	-265

IAS 39

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

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

For financial assets measured at amortized cost, the net gains or losses include foreign exchange gains and losses, impairments, 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 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 through profit or loss. Where hedge accounting is applied, derivative financial instruments are used to hedge

future cash flows (cash flow hedging). There were no other hedging relationships in the fiscal year. The following table provides an overview of the derivative financial instruments used and their fair values:

in € '000	Sept. 30, 2019		Sept. 30, 2018	
	Assets	Liabilities	Assets	Liabilities
Forward exchange transactions	27,180	8,356	2,566	5,255
thereof: cash flow hedges	(27,155)	(4,679)	(1,649)	(4,185)
Foreign currency options	1,624	2,986	1,639	573
thereof: cash flow hedges	(912)	(-)	(780)	(-)
Miscellaneous	27	114	-	233
thereof: cash flow hedges	(-)	(-)	(-)	(-)
Derivative financial instruments	28,831	11,456	4,205	6,061
thereof: non-current	26,225	-	-	2,627
thereof: current	2,606	11,456	4,205	3,434

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.

The changes in the value of cash flow hedges reclassified from equity to foreign exchange gains and losses, net, in the fiscal year amounted to €0.4 million (prior year: €3.0 million).

The ineffective portion from cash flow hedges, which was recognized as profit or loss in foreign exchange gains and losses, net, amounted to €-0.7million (prior year: €-1.2 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 and supply security risks. Moreover, credit risk arises from trade receivables, as well as from receivables relating to finance transactions such as cash and cash equivalents or the purchase of securities. Liquidity risks 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 2019 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. The competent executive bodies of the CLAAS Group approve the 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 rating agency credit ratings and the market prices for credit default insurance. Moreover, the risk of default is limited by a strategy of broad diversification.

Risks can also arise from issued financial guarantees. As of September 30, 2019, the maximum risk in the event of utilization amounted to €3.4 million (prior year: €1.2 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, 2019	2020	2021	2022	2023	2024	From 2025	Total
Financial liabilities	299,101	14,450	188,761	106,371	53,394	45,536	707,613
Silent partnership	5,535	2,880	5,299	5,769	9,670	22,489	51,642
Trade payables	235,480	-	-	-	-	-	235,480
Derivative financial instruments	11,472	-	-	-	-	-	11,472
Miscellaneous	24,845	4,235	-	-	-	-	29,080
Payments due	576,433	21,565	194,060	112,140	63,064	68,025	1,035,287

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	292,857	-	-	-	-	-	292,857
Derivative financial instruments	3,441	37	-	1,674	991	-	6,143
Miscellaneous	21,863	5,665	-	-	-	-	27,528
Payments due	391,885	221,844	14,163	181,776	104,307	137,425	1,051,400

Currency Risks

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 zloty, 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 market 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 forward transactions.

in € '000	Sept. 30, 2019		Sept. 30, 2018	
	Equity	Profit or loss	Equity	Profit or loss
Actual fair value	23,393	-5,937	-1,478	128
Fair value in the event of an exchange rate increase of 10%	23,511	22,704	-50	24,055
U.S. dollar	6,766	18,069	-19,028	20,698
British pound	9,874	3,716	10,244	3,166
Polish zloty	5,507	1,189	5,412	962
Hungarian forint	-1,070	-2,786	-704	-2,303
Miscellaneous	2,434	2,516	4,026	1,532
Fair value in the event of an exchange rate decrease of 10%	28,000	-45,398	4,331	-32,777
U.S. dollar	40,941	-32,122	15,976	-24,095
British pound	-7,191	-7,244	-6,318	-5,016
Polish zloty	-2,710	-2,071	-4,290	-2,618
Hungarian forint	1,072	889	1,112	1,093
Miscellaneous	-4,112	-4,850	-2,149	-2,141

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. Based on efficiency and materiality considerations these risks are generally not 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 funding 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 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 fair 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 €1.5 million (prior year: €1.4 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	2019	2018
Interest paid	28,776	28,850
Interest received	7,011	8,249
Dividends received	12,599	8,010
Income taxes paid	59,942	67,707

Liabilities from financial liabilities developed as follows:

in € '000	2019	2018
Financial liabilities as of Oct. 1	605,521	617,269
Cash inflows/outflows	26,744	- 15,032
Currency translation	1,156	- 954
Measurement of bonds in foreign currencies	17,098	4,238
Financial liabilities as of Sept. 30	650,519	605,521

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:

in € '000	Associates		Joint ventures	
	2019	2018	2019	2018
Income	25,695	29,045	163,562	183,665
Expenses	3,616	4,778	276,823	276,022
Receivables	6,301	3,616	29,195	58,429
Liabilities	109	244	21,063	33,453

The receivables and liabilities mainly relate to trade receivables and trade payables.

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

The members of the Claas family granted loans totaling €46.5 million in the reporting year (prior year: €46.2 million); of this amount, €4.5 million (prior year: €4.2 million) is due within one year.

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 €1.4 million in fiscal year 2019 (prior year: €1.3 million).

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

in € '000	2019	2018
Current remuneration	4,910	5,562
Provisions for retirement benefits	54	53
Total Group Executive Board remuneration	4,964	5,615

Retirement benefits were paid to former members of the Executive Board of CLAAS KGaA mbH/the Group Executive Board in the amount of €0.8 million (prior year: €0.7 million). Obligations for current pensions and vested rights of former members of the Executive Board of CLAAS KGaA mbH/the Group Executive Board totaled €16.4 million as of the balance sheet date (prior year: €14.6 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	2019	2018
Audit services	693	615
Other assurance services	32	53
Tax consulting services	341	410
Auditor's fees	1,066	1,078

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.

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 KGaA mbH & Co KG, Harsewinkel
- CLAAS Anlagemanagement GmbH, Harsewinkel
- CLAAS E-Systems 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, 2019 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	16
3 CLAAS Anlagemanagement GmbH, Harsewinkel	100.0	1
4 CLAAS Bordesholm GmbH, Bordesholm	82.4	16
5 CLAAS Braunschweig GmbH, Schwülper	100.0	16
6 CLAAS Central Asia Investment GmbH, Harsewinkel	100.0	1
7 CLAAS E-Systems GmbH, Dissen am Teutoburger Wald	100.0	1
8 CLAAS Global Sales GmbH, Harsewinkel	100.0	1
9 CLAAS Industrietechnik GmbH, Paderborn	100.0	1
10 CLAAS Material Handling GmbH, Harsewinkel	100.0	1
11 CLAAS Osteuropa Investitions GmbH, Harsewinkel	100.0	1
12 CLAAS Saulgau GmbH, Bad Saulgau	100.0	1
13 CLAAS Selbstfahrende Erntemaschinen GmbH, Harsewinkel	100.0	1
14 CLAAS Service and Parts GmbH, Harsewinkel	100.0	1
15 CLAAS Thüringen GmbH, Schwabhausen	90.0	16
16 CLAAS Vertriebsgesellschaft mbH, Harsewinkel	100.0	1
17 CLAAS Weser Ems GmbH, Molbergen	100.0	16
18 365FarmNet GmbH, Berlin	100.0	19
19 365FarmNet Group KGaA mbH & Co KG, Harsewinkel	100.0	1 / 20
20 365FarmNet Verwaltungs GmbH, Gütersloh	100.0	1
Foreign companies		
21 Canada West Harvest Centre Inc., Kelowna/Canada	90.9	29
22 CHW Fonds, Luxembourg/Luxembourg		
23 CLAAS Agricoltura S.R.L., Milan/Italy	100.0	41
24 CLAAS Agricultural Machinery (Shandong) Co. Ltd., Gaomi/China	100.0	36
25 CLAAS Agricultural Machinery Private Limited, New Delhi/India	100.0	8 / 14
26 CLAAS Agricultural Machinery Trading (Beijing) Co. Ltd., Beijing/China	100.0	30
27 CLAAS América Latina Representação Ltda., Porto Alegre/Brazil	100.0	1 / 8
28 CLAAS Argentina S.A., Sunchales/Argentina	100.0	1
29 CLAAS Canada Holdings Inc., Kelowna/Canada	100.0	1
30 CLAAS East Asia Holding Ltd., Hong Kong/China	100.0	1
31 CLAAS Eastern Ltd., Saxham/United Kingdom	100.0	55
32 CLAAS Financial Services Inc., Wilmington/Delaware/USA	100.0	45
33 CLAAS France Holding S.A.S., Fresnes/Paris/France	100.0	1
34 CLAAS France S.A.S., Fresnes/Paris/France	100.0	33
35 CLAAS Global Sales Americas Inc., Wilmington/Delaware/USA	100.0	8
36 CLAAS Greater China Holding Ltd., Hong Kong/China	100.0	1
37 CLAAS Holdings Ltd., Saxham/United Kingdom	100.0	1
38 CLAAS Hungária Kft., Törökszentmiklós/Hungary	100.0	1
39 CLAAS Ibérica S.A., Madrid/Spain	100.0	1
40 CLAAS India Private Ltd., Faridabad/India	100.0	1
41 CLAAS Italia S.p.A., Vercelli/Italy	100.0	1
42 CLAAS Manns Ltd., Saxham/United Kingdom	100.0	55
43 CLAAS Middle East – FZE, Dubai/United Arab Emirates	100.0	8
44 CLAAS North America Holdings Inc., Omaha/Nebraska/USA	100.0	1
45 CLAAS of America Inc., Omaha/Nebraska/USA	100.0	44
46 CLAAS Omaha Inc., Omaha/Nebraska/USA	100.0	44
47 CLAAS Polska sp. z o.o., Poznań/Poland	100.0	1

Notes to the Consolidated Financial Statements

Company and registered office	Shareholding in %	Held through no.		
Foreign companies				
48 CLAAS Regional Center Central Europe GmbH, Spillern/Austria	100.0	1		
49 CLAAS Regional Center South East Asia Ltd., Bangkok/Thailand	100.0	1		
50 CLAAS Regional Center South East Europe S.R.L., Afumați/Romania	100.0	1		
51 CLAAS Réseau Agricole S.A.S., Fresnes/Paris/France	100.0	54		
52 CLAAS Retail Properties Ltd., Saxham/United Kingdom	100.0	55		
53 CLAAS Southern Ltd., Saxham/United Kingdom	100.0	55		
54 CLAAS Tractor S.A.S., Vélizy/France	100.0	33		
55 CLAAS U.K. Ltd., Saxham/United Kingdom	100.0	37		
56 CLAAS Western Ltd., Saxham/United Kingdom	100.0	55		
57 Mercator Purchasing S.A., Luxembourg/Luxembourg				
58 Nebraska Harvest Center Inc., Wilmington/Delaware/USA	100.0	44		
59 OOO CLAAS Vostok, Moscow/Russia	100.0	1		
60 OOO CLAAS, Krasnodar/Russia	99.0	11		
61 S@T-INFO S.A.S., Chalon-sur-Saône/France	100.0	33		
62 TOV CLAAS Ukraina, Kiev/Ukraine	100.0	1		
63 Usines CLAAS France S.A.S., Metz-Woippy/France	100.0	33		
64 365 FarmNet France S.A.S., Fresnes/Paris/France	100.0	33		
II. Associates accounted for using the equity method				
65 CLAAS Financial Services LLC., San Francisco/California/USA	49.0	45/32		
66 Mecklenburger Landtechnik GmbH, Prützen/Germany	25.1	16		
67 Schmahl Landtechnik Upahl GmbH & Co., Upahl/Germany	45.0	16		
68 Schmahl Landtechnik Upahl Verwaltungs GmbH, Upahl/Germany	45.0	16		
69 SM3 CLAAS S.A.S., Fleury/France	42.0	51		
70 Société Nouvelle Dachy S.A.S., Amiens/France	20.0	51		
71 Worch Landtechnik GmbH, Schora/Germany	39.0	16		
III. Joint ventures and joint operations accounted for using the equity method				
72 CLAAS Financial Services Ltd., Basingstoke/United Kingdom	49.0	55		
73 CLAAS Financial Services S.A.S., Puteaux/Paris/France	49.0	1		
74 Fricke Landtechnik GmbH, Demmin/Germany	25.1	16		
75 G.I.M.A. S.A.S., Beauvais/France	50.0	54		
76 TechnikCenter Grimma GmbH, Mutzschen/Germany	30.0	16		
77 Uz CLAAS Agro MChJ, Tashkent/Uzbekistan	49.0	6		
IV. Other significant shareholdings				
78 AGRAVIS Technik Hessen-Pfalz GmbH, Fritzlar/Germany	EUR	700,000	10.0	16
79 BayWa AG Centre Ltd., Crossfield/Alberta/Canada	CAD	555,557	10.0	29
80 CLAAS Main-Donau GmbH & Co. KG, Gollhofen/Germany	EUR	1,200,000	10.0	16
81 CLAAS Nordostbayern GmbH & Co. KG, Altenstadt an der Waldnaab/Germany	EUR	750,000	10.0	16
82 CLAAS Südostbayern GmbH, Töging am Inn/Germany	EUR	700,000	10.0	16
83 CLAAS Württemberg GmbH, Langenau/Germany	EUR	800,000	10.0	16
84 CS Parts Logistics GmbH, Bremen/Germany	EUR	1,550,000	50.0	14
85 DESICO S.A., Florentino Ameghino/Buenos Aires/Argentina	ARS	13,333	10.0	28
86 Deutsches Forschungszentrum für Künstliche Intelligenz GmbH, Kaiserslautern/Germany	EUR	1,248,000	4.2	1
87 Landtechnik Steigra GmbH, Steigra/Germany	EUR	615,000	15.1	16
88 LTZ Chemnitz GmbH, Hartmannsdorf/Germany	EUR	750,000	10.0	16
89 MD-Betriebs-GmbH, Munich/Germany	EUR	25,000	10.0	16
90 NOB-Betriebs-GmbH, Altenstadt an der Waldnaab/Germany	EUR	25,000	10.0	16
91 Pellenc Languedoc Roussillon S.A.S., Lézignan-Corbières/France	EUR	1,000,000	35.0	51
92 Tingley Implements Inc., Lloydminster/Canada	CAD	1,092,000	10.0	45

Management Statement on the Preparation of the Consolidated Financial Statements

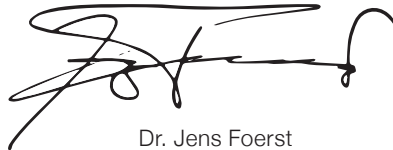
These consolidated financial statements for the fiscal year ended September 30, 2019 and the Group management report were prepared by the Executive Board of CLAAS KGaA mbH on November 25, 2019. The accuracy and completeness of the information contained in the financial statements and the Group management 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 25, 2019
Executive Board of the CLAAS Group.



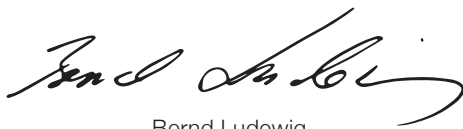
Thomas Böck



Dr. Jens Foerst



Hans Lampert



Bernd Ludewig



Jan-Hendrik Mohr

Independent Auditor's Report

To CLAAS Kommanditgesellschaft auf Aktien mbH

Opinions

We have audited the consolidated financial statements of CLAAS Kommanditgesellschaft auf Aktien mbH, Harsewinkel, and its subsidiaries (the Group), which comprise the consolidated income statement, the consolidated statement of other comprehensive income, the consolidated balance sheet as at 30 September 2019, consolidated statement of changes in equity and consolidated statement of cash flows for the fiscal year from 1 October 2018 to 30 September 2019, and notes to the financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of CLAAS Kommanditgesellschaft auf Aktien mbH for the fiscal year from 1 October 2018 to 30 September 2019. In accordance with the German legal requirements we have not audited the group statement on corporate governance in section 'Employees' subsection 'Women in leadership positions' of the group management report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB and and, in compliance with these requirements, give a true and fair view of the assets, liabilities and financial position of the Group as at 30 September 2019 and of its financial performance for the fiscal year from 1 October 2018 to 30 September 2019, and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the group management report does not cover the

group statement on corporate governance in section 'Employees' subsection 'Women in leadership positions' of the group management report.

Pursuant to Sec. 322 (3) Sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with Sec. 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements and of the group management report" section of our auditor's report. We are independent of the Group entities in accordance with the requirements of German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the group management report.

Other information

The executive directors are responsible for the other information. The other information comprises the group statement on corporate governance in accordance with Sec. 289f (4) HGB (information on proportion of women) in section 'Employees' subsection 'Women in leadership positions' of the group management report.

Our opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the group management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of the executive directors and the supervisory board for the consolidated financial statements and the group management report

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec 315e (1) HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position and financial performance of the Group. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting, unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they

have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's responsibilities for the audit of the consolidated financial statements and of the group management report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Sec. 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and

perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.
- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.
- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our opinions.
- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with law, and the view of the Group's position it provides.
- Perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Hanover, November 25, 2019

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft



(Dr. Janze)
German Public
Auditor

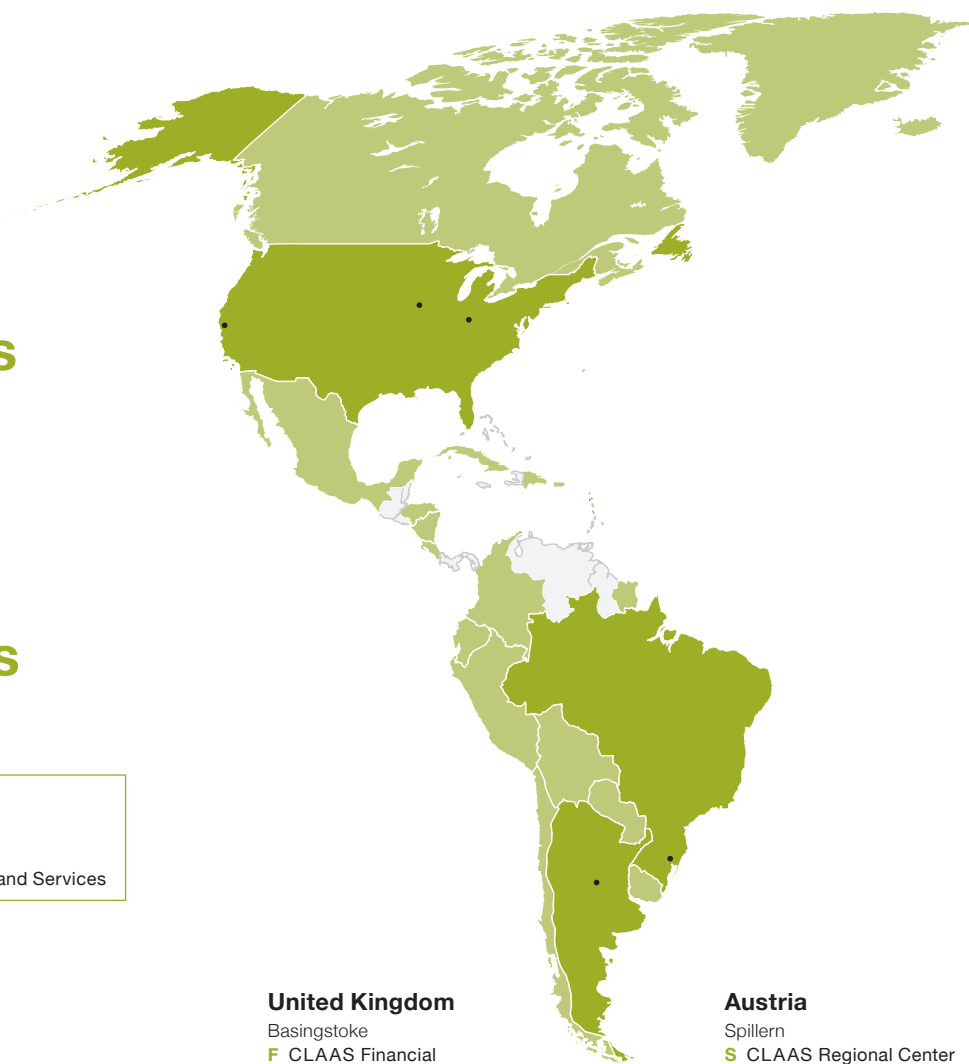


(Heinrichson)
German Public
Auditor

Locations

19
Countries

35
Locations



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

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.

Argentina

- Sunchales
S CLAAS Argentina S.A.

Brazil

- Porto Alegre
S CLAAS América Latina
Representação Ltda.

United Kingdom

- Basingstoke
F CLAAS Financial
Services Ltd.
- Saxham
S CLAAS U.K. Ltd.

Spain

- Madrid
S CLAAS Ibérica S.A.

Italy

- Milan
S CLAAS Agricultura S.R.L.
- Vercelli
S CLAAS Italia S.p.A.

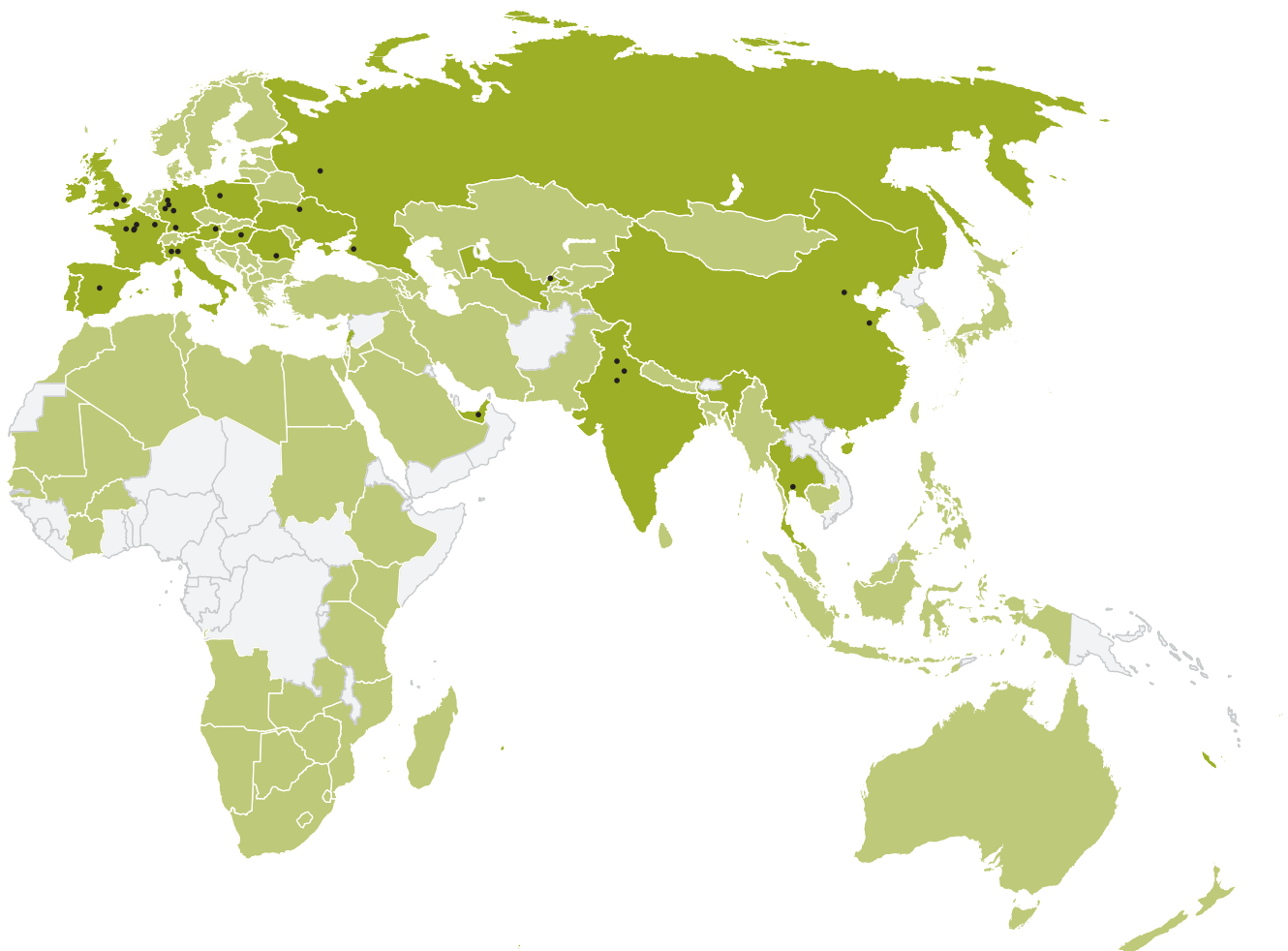
Austria

- Spillern
S CLAAS Regional Center
Central Europe GmbH

France

- Fresnes
S CLAAS Réseau Agricole S.A.S.
- 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.
- Vélizy
P CLAAS Tractor S.A.S.

Locations

**Germany**

Bad Saulgau

P CLAAS Saulgau GmbH

Dissen a.T.W.

P CLAAS E-Systems GmbH

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**Hungary**

Törökszentmiklós

P CLAAS Hungária Kft.**Romania**

Afumați

S CLAAS Regional Center South East Europe S.R.L.**Uzbekistan**

Taschkent

P Uz CLAAS Agro MChJ**Ukraine**

Kiev

S TOV CLAAS Ukraina**Poland**

Poznań

S CLAAS Polska sp. z o.o.**India**

Chandigarh

P CLAAS India Private Ltd.

Faridabad

P CLAAS India Private Ltd.

New Delhi

S CLAAS Agricultural Machinery Private Limited**Russia**

Krasnodar

P OOO CLAAS

Moscow

S OOO CLAAS Vostok**United Arab Emirates**

Dubai

S CLAAS Middle East – FZE**Thailand**

Bangkok

S CLAAS Regional Center South East Asia Ltd.**China**

Beijing

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

Gaomi

P CLAAS Agricultural Machinery (Shandong) Co. Ltd.

Definitions

Comprehensive 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

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

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

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

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

Working capital = Inventories +/- trade receivables/payables
– payments received on account + payments made on account

Definitions

Ten-year Overview

Ten-year Overview*

in € million	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Financial performance										
Net sales	3,898.0	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
Research and development costs ¹	243.6	233.4	217.6	221.4	203.0	212.3	197.0	181.2	144.3	122.6
EBITDA	280.3	372.7	335.7	251.9	310.5	327.9	420.5	426.1	377.5	200.3
EBIT	164.0	256.8	215.2	129.0	196.8	194.4	334.7	347.6	292.3	116.1
Income before taxes	135.7	225.7	184.5	93.5	157.7	155.1	295.3	315.6	255.3	77.2
Net income	96.3	152.0	115.4	37.6	105.7	113.1	212.3	232.7	181.8	51.5
Return on sales (in %)	3.5	5.8	4.9	2.6	4.1	4.1	7.7	9.2	7.7	3.1
Return on equity (in %)	6.8	10.9	8.9	3.2	8.6	9.6	17.3	21.3	20.9	6.3
Foreign sales (in %)	79.5	78.5	79.1	78.6	77.2	77.2	78.1	77.3	73.5	73.1
Cash flow/investments/amortization, depreciation, impairment										
Cash flow from operating activities	45.9	85.0	345.0	246.0	156.5	50.4	247.6	115.1	244.5	300.5
Free cash flow	-138.2	-83.9	209.6	118.5	38.8	-136.9	82.1	-84.2	156.5	215.8
Comprehensive capital expenditure ²	183.3	160.3	130.7	122.2	128.3	173.2	172.4	163.1	93.7	87.2
Depreciation/amortization/impairment ³	128.8	112.7	116.2	102.8	111.3	133.3	83.3	78.4	85.1	84.2
Asset/capital structure										
Non-current assets	1,183.0	1,066.8	995.6	1,002.0	993.0	942.5	820.4	707.3	586.4	561.6
thereof: development costs recognized as an asset	219.2	194.3	183.2	174.9	160.9	141.8	116.1	96.9	89.7	92.3
thereof: property, plant and equipment	541.8	501.5	476.2	480.5	480.7	486.2	460.0	404.3	337.6	330.5
Current assets	2,348.9	2,382.9	2,237.1	2,135.2	2,350.2	2,170.6	2,105.5	1,913.1	1,803.4	1,716.8
thereof: inventories	1,103.5	959.7	683.9	733.0	873.1	934.9	729.7	682.1	559.6	418.1
thereof: liquid assets	669.7	803.4	937.7	842.4	851.3	699.2	863.7	767.2	818.8	907.7
Equity	1,417.3	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
Equity-to-assets ratio (in %)	40.1	40.5	40.0	37.0	36.8	38.0	41.9	41.8	36.4	35.7
Non-current liabilities	837.7	958.4	938.8	1,060.2	981.1	656.1	700.0	593.5	497.3	720.6
Current liabilities	1,276.9	1,095.8	1,000.2	916.3	1,131.1	1,273.8	999.2	932.1	1,022.4	743.6
Total assets	3,531.9	3,449.7	3,232.8	3,137.2	3,343.2	3,113.1	2,925.9	2,620.4	2,389.8	2,278.4
Net liquidity	19.2	197.9	320.3	124.0	46.7	82.7	387.4	333.6	442.9	395.2
Working capital	1,170.0	1,012.5	839.5	892.3	1,007.2	998.1	843.6	822.7	650.9	512.6
Equity and non-current liabilities to non-current assets (in %)	190.6	220.7	224.2	221.6	222.8	195.2	234.9	238.7	233.2	273.3
Employees										
Number of employees as of the balance sheet date ⁴	11,448	11,132	10,961	11,300	11,535	11,407	9,697	9,077	9,060	8,968
Personnel expenses	730.3	693.0	673.5	653.3	650.6	627.0	594.0	548.1	540.4	489.0

* Fiscal year 2017 and earlier, excluding reclassifications.

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.

Imprint

Publisher

CLAAS KGaA mbH
Mühlenwinkel 1
33428 Harsewinkel
Germany
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We would be happy to send you additional copies of this report and further material about CLAAS free of charge upon request.

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

Concept and Design

3st kommunikation, Mainz, Germany

Translation

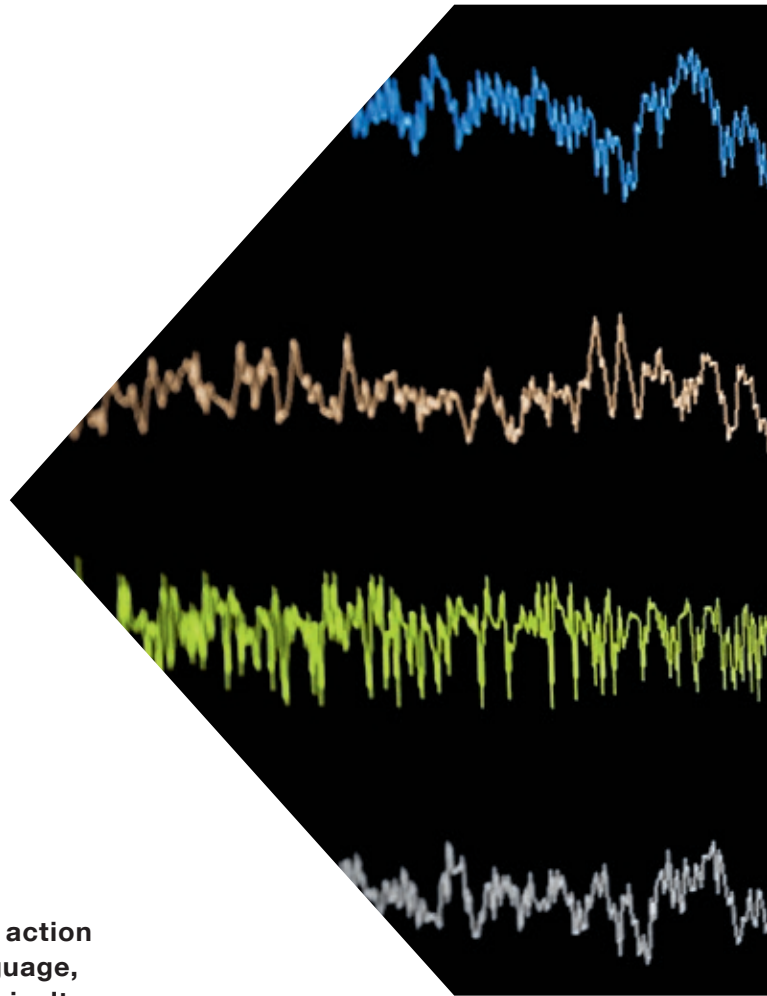
Lennon.de Language Services, Münster, Germany

Photography/Photo Credits (page numbers in parentheses)

Artvertise (6),
Andres Fechner (8-11)

Printer

gutenberg beuys feindruckerei GmbH,
Langenhagen, Germany



“Interact” as a title steps forward to combine mutual action with a rallying cry. Through its use of the English language, CLAAS emphasizes its international perspective on agriculture. The intricate graph from the test lab and the latest LEXION generation illustrate just how far the interaction between software and hardware now reaches.



cutting edge

Magazine accompanying the Annual Report 2019

The Other Oil

Or: Why Russia plays an important role in feeding the world.

The Testers

How experienced farmers helped put the finishing touches on the new LEXION series.

A Space for Ideas

At the Greenhouse, humans and robots are working together on the technology of the future.





19

countries

35

locations

11,448

employees

3.898

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 2019

Interaction. Few other words could do a better job of describing what CLAAS is all about: connecting the power of people, nature, the climate, and technology. With all of the players in agriculture growing more and more connected, the relationship between stakeholders is becoming increasingly intricate. So perhaps it is time to ask the question: Where can CLAAS – in its role as a technology leader – leverage its strengths? In the latest issue of cutting edge, we take a look at where interaction is bringing dedicated individuals, high-tech machinery from CLAAS and the world's fields together.



**HOW DO YOU TEST
WORLD CLASS HARVESTING
MACHINERY?**

With the people who use it
daily – around the world.



**IS RUSSIA THE WORLD'S
NEW BREADBASKET?**

How wheat and efficient agriculture are fueling a boom in Russia.



**HOW IS CLAAS LOOKING
FOR NEW IDEAS?**

By giving them space – and by combining the strengths of people and machines in a new and unique way.



**HOW DOES CLAAS TEST WHETHER
A CUTTERBAR CAN WITHSTAND
EXTREME FORCES – EVEN OUTSIDE
HARVEST SEASON?**

By simulating thousands of theoretical situations every night in the lab.



IS GREEN THE NEW YELLOW?

It is – at least in North America, where CLAAS is launching a product-focused campaign.



**HEAVY MACHINES – LOOSE
SOIL: A PIPE DREAM?**

CLAAS TERRA TRAC
reduces the impact on soil
by up to 66 percent.

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



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Growing Sustainably

CEO Thomas Böck on the challenges facing CLAAS and the agricultural equipment industry.

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The Other Oil

Or: Why Russia plays an important role in feeding the world.

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If You Want to Go Far, Go Together**

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Keep It Loose

For over 20 years, TERRA TRAC has been helping protect soil around the world.

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How experienced farmers helped put the finishing touches on the new LEXION series.

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All Eyes on Trust

In the future, the blockchain could ensure greater transparency in agriculture.

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A Space for Ideas

At the Greenhouse, humans and robots are working together on the technology of the future.

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World-class products call for sophisticated testing – day and night.

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Future Tracks

What challenges does the future hold in store – and what are the opportunities as a result?

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Growing



THOMAS BÖCK TOOK
OVER AS CEO AT THE
START OF THE CURRENT
CLAAS FISCAL YEAR.



Agriculture is growing more and more productive. Without the significant efforts of farmers, breeders, researchers, and engineers, the world would only be able to feed 1.5 billion people today. With climate change making itself felt while the world's population grows rapidly, where are CLAAS and the agricultural equipment sector headed?

An interview with Thomas Böck

Sustainably

YOUR APPOINTMENT MARKS A CHANGE IN THE CLAAS MANAGEMENT STRUCTURE. WHY?

CLAAS is very good at defining strategic topics and promoting their advancement with forceful energy and endurance. In a time of rapid change, we are now working to ensure faster decision-making processes and increase our operating flexibility. Internationally, we have grown tremendously in recent decades. We have added new layers to the organization and have hired many new employees in markets such as Russia and China. That makes it all the more important for the future to redefine the uniting elements of “One CLAAS” and to embody them together.

UNTIL NOW, YOU HAVE BEEN RESPONSIBLE FOR TECHNOLOGY AND SYSTEMS AS A MEMBER OF THE GROUP EXECUTIVE BOARD. WILL YOUR MAIN FOCUS AS CEO BE ON PROMOTING THE DIGITALIZATION OF CLAAS?

You might think that, but you would be wrong. Digitalization is not something we came up with ad hoc at CLAAS. Instead, it has been an important topic for decades now. We started taking our first steps toward a connected farm management system back in the 1990s. Our digital transformation is making good progress. We want to connect even more strongly with our customers, employees, and other players in our industry in the future.

At the same time, our heart continues to beat for mechanical engineering. The art of building sophisticated machinery has for generations been inseparably linked with the name CLAAS. The launch of the new LEXION combine harvesters shows the tremendous potential of mechanical engineering in combination with electronics when it comes to generating substantial productivity gains. Equipped with a completely new threshing unit, its harvesting performance is up to 25 percent higher than the previous series. The new LEXION is setting the agenda and demonstrating what counts today: optimum processes through a perfect synthesis of software and mechanics.

WHY IS A COMPLETELY NEW LEXION SO IMPORTANT FOR CLAAS?

The LEXION represents both our past and our future. In the 1930s, CLAAS was a first mover and

built the first combine harvester for the harvesting challenges that European farmers face. Four decades later, the Dominator series truly lived up to its name by remaining the best-selling combine harvester model in Europe for many years. Our flagship combine harvester was renamed LEXION in 1995 and has been subject to constant improvement since then. Today, the new LEXION is a high-efficiency, digitally connected factory on wheels. It is also a popular machine around the world for various different crops and harvesting conditions. In the pharmaceuticals industry, they would call that kind of thing a “blockbuster product.” However, our efforts to further expand the portfolio of tractors and forage harvesting machinery, combined with our success in serving other segments of the combine harvester market, have limited the sales relevance of a star like this to a reasonable extent. Moreover, it is no longer going to be enough in the future just to improve individual products. That is why we are equipping machinery with increasingly intelligent technologies, enabling them to perform work processes automatically and provide the operator with optimum support. Increasingly, the focus is on a 360-degree view of all of the work performed at an agricultural enterprise, furthering our evolution into an integrated provider of solutions while allowing us to significantly reduce fuel consumption and CO₂ emissions.

THE CLIMATE DEBATE HAS GROWN TREMENDOUSLY IN INTENSITY. WHERE DOES THE AGRICULTURAL EQUIPMENT SECTOR STAND – AND WHERE DOES CLAAS STAND?

We see ourselves as a pioneer here. The agricultural equipment sector has undertaken significant efforts over the past decade to increase the efficiency of agricultural machinery and to reduce emissions.

In the past, more than half of the total R&D budget has often been earmarked for that kind of thing, especially since different exhaust emission limits apply in different sales regions around the world. The results speak for themselves: Particulate and nitrogen oxide emissions have been reduced by more than 90 percent over the past ten years. We still see tremendous potential when it comes to diesel consumption and the CO₂ emissions per metric ton of wheat or feed produced.



“Increasingly, the focus is on a 360-degree view of all of the work performed at an agricultural enterprise, furthering our evolution into an integrated provider of solutions.”

Thomas Böck
CEO

A CLAAS combine harvester already needs less than 1.5 liters of diesel to harvest an entire metric ton of wheat today. To leverage further potential for efficiency, we will think well beyond the actual engine. Rather than just improving the various mechanical components, we will ultimately optimize the entire agricultural process chain.

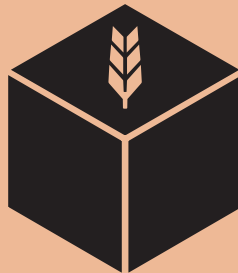
HOW ARE THE LONG-TERM GROWTH PROSPECTS FOR CLAAS DEVELOPING?

It is important to keep an eye on the long-term trends and our international market opportunities, especially as we are now once again talking about how global agricultural equipment markets are cooling off. The rapid population growth shows that we are still focused on the right goal: CLAAS is developing ever more efficient and intelligent agricultural machinery to keep as many people as possible nourished and fed in the future despite the dwindling amount of land available for cultivation.

The Other Oil

Russia is seeing a remarkable development: Despite economic stagnation, the agricultural market is booming. In 2016, the country advanced to become the world's largest exporter of wheat. Manufacturers of agricultural machinery around the world are benefiting from this boom.

Text: Dirk Böttcher

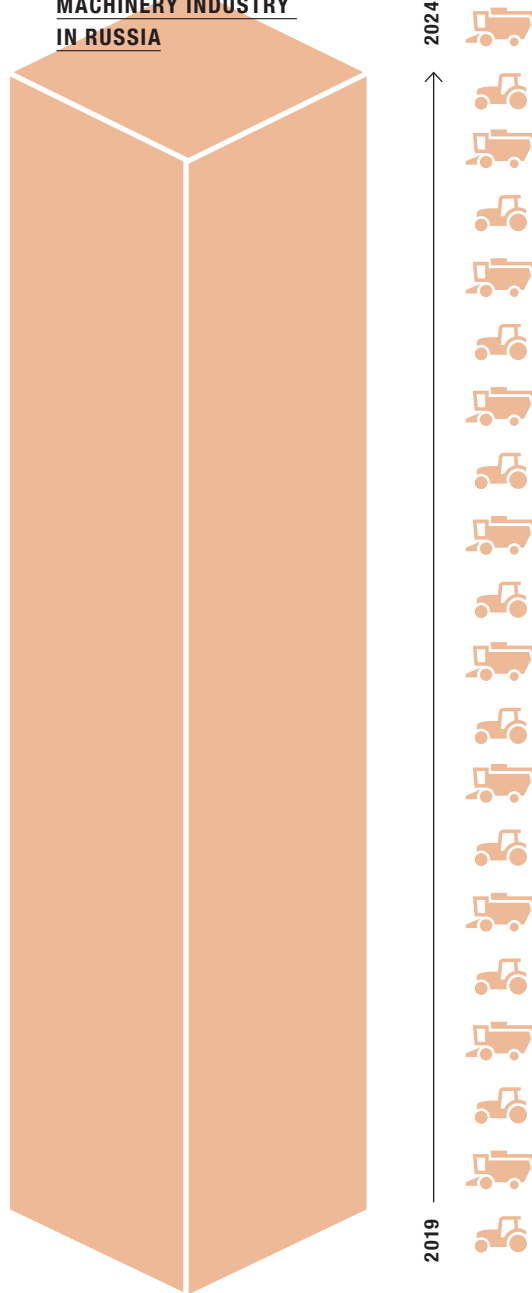


1

RUSSIA IS CURRENTLY THE WORLD'S
LEADING EXPORTER OF WHEAT, WITH
AN EXPORT RECORD OF 42 MILLION
METRIC TONS IN 2017/2018.

+100%

ESTIMATED GROWTH
FOR THE AGRICULTURAL
MACHINERY INDUSTRY
IN RUSSIA



For a long time, rural Russia was synonymous with depression and decay. In many places, fields stood barren after the end of the Soviet Union. So the British business magazine *The Economist* could hardly contain its surprise in late 2018 when it reported from the agricultural region of Zernograd, where times appeared to be better than ever. Everywhere the visiting journalists looked, they saw fields of wheat growing high and harvesting machinery at work – interspersed with farm owners’ snow-white luxury SUVs. Recently, Russian agriculture has been setting one record after the next.

Those whose minds instantly go to commodities such as oil and gas when they think of this giant in the east may be overlooking an even more compelling story. In 2016, Russia became the world’s largest wheat producer for the first time. That very same year, the agricultural sector outperformed the country’s defense industry for the first time in history. The success of agriculture is more than just merely symbolic. In 2018, for example, Russia’s minister of agriculture at the time, Aleksandr Nikolayevich Tkachov, proclaimed: “Grain is our other oil.”

Third most important export

Although wheat yields may have fallen a bit since then, last year’s record harvest of 85 million metric tons and an unprecedented export volume of 42 million metric tons are truly impressive figures. The forecast for 2019 predicts a harvest of 71 million metric tons, and the anticipated export volume of roughly 35 million metric tons is still awe-inspiring. As a result, Russia remains the world’s fourth-largest wheat producer behind the EU, China, and India. After oil and gas, food has now become Russia’s third most important export. By 2021, one of every three metric tons of exported wheat is set to come from Russia or Kazakhstan.

The reasons for this success are multifaceted and, in some cases, different from what a casual observer might expect. Russia actively influenced some of the factors, whereas others – such as the ultimately favorable climatic conditions – were a stroke of luck.

Climate change

The negative consequences of global warming in Russia, such as the devastating forest fires and flooding in the eastern part of the country, dominated headlines in 2019. But the rising temperatures are also increasing the territory available for agriculture in the north, freeing up vast swathes of potential arable land. Moreover, the growing season is becoming longer. So far, the amount of arable land in Russia has been estimated at more than half a million square kilometers – almost one and a half times the size of Germany.

The challenge, of course, is figuring out what to do with all this land. For years now, Russia has been making efforts to increase not only the amount of land being cultivated, but also the amount of produce being harvested. As a result, the country’s focus has been on productivity.

Rising output

Productivity in Russian agriculture has increased by more than 20 percent over the past five years, primarily because the amount of foreign technology available within the country’s borders has constantly risen. CLAAS, for example, manufactures equipment in Russia, bringing expertise and modern machinery to the nation’s fields. The government has also been subsidizing the domestic agricultural machinery industry, allowing Russian manufacturers to catch up. The country is now literally reaping the benefits. President Vladimir Putin recently spoke of a “breakthrough” in agriculture.

Room to Grow

RUSSIA IS HOME TO WIDE TRACTS OF ARABLE LAND AND PLENTY OF UNUSED RESOURCES.

57

MILLION HECTARES

OF ARABLE LAND ARE USED TO GROW GRAIN IN RUSSIA

80

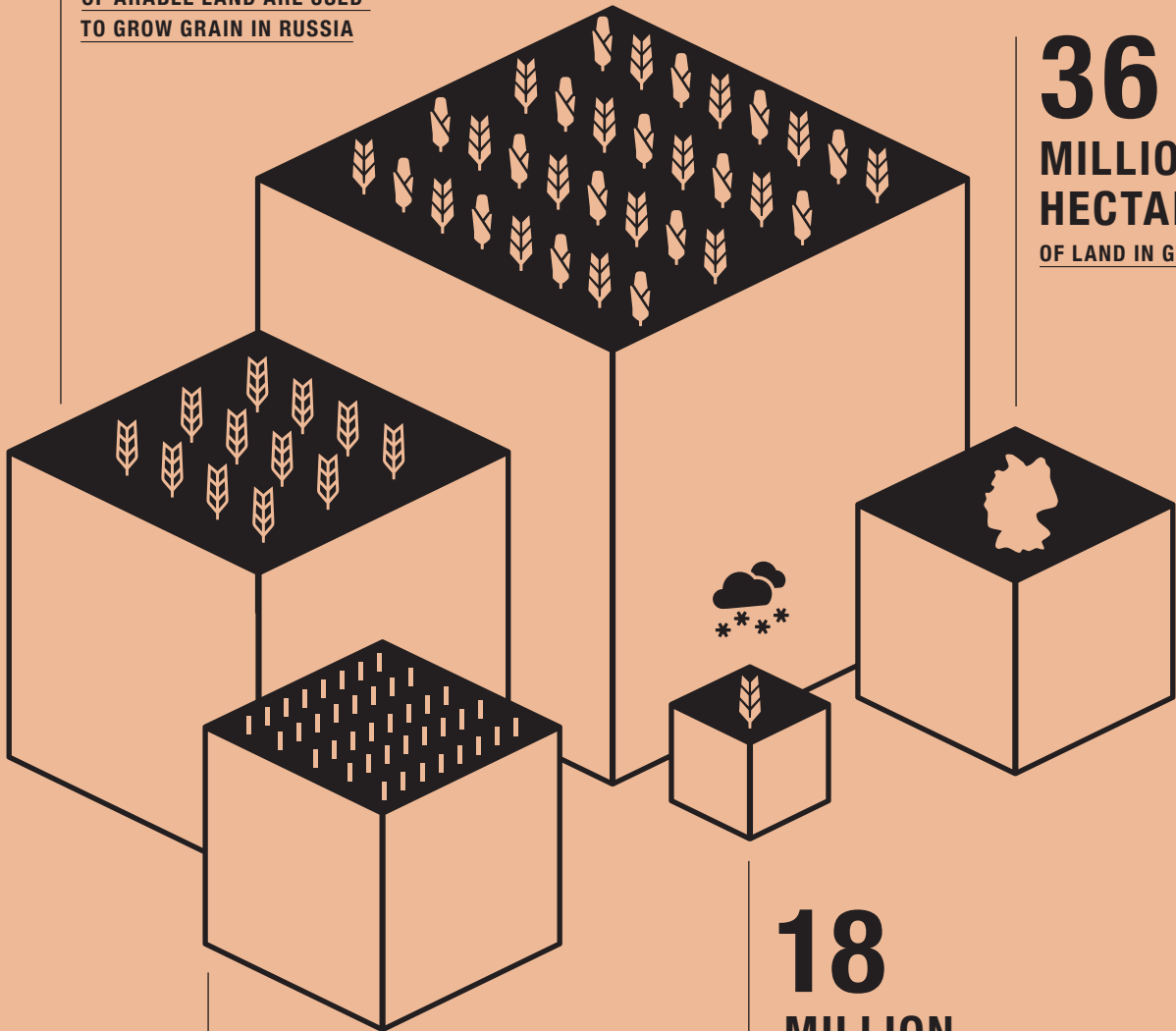
MILLION HECTARES

OF ARABLE LAND ARE UNDER CULTIVATION IN RUSSIA

36

MILLION HECTARES

OF LAND IN GERMANY



40

MILLION HECTARES

OF ARABLE FALLOW LAND IN RUSSIA

18

MILLION HECTARES

OF ARABLE LAND FOR WINTER WHEAT IN RUSSIA

9.8 million t

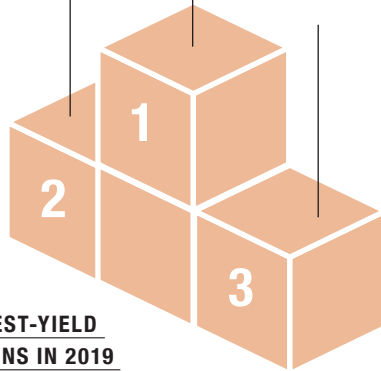
**BUNKER WEIGHT IN
THE ROSTOV REGION**

9.7 million t

**BUNKER WEIGHT
IN KRASNODAR KRAI**

7.2 million t

**BUNKER WEIGHT
IN STAVROPOL KRAI**



**RUSSIA'S HIGHEST-YIELD
FARMING REGIONS IN 2019**

Strong growth in the agricultural machinery market

Manufacturers of agricultural machinery are also benefiting from the growth in Russian agriculture. The experts at Russia's Ministry of Agriculture, for example, estimate that the country will need more than 12,000 new combine harvesters each year as part of the efforts to modernize agriculture. The ministry forecasts a national market volume of around 2.7 billion euros over the next five years, doubling the sector for domestic agricultural machinery. For 2019, the Ministry of Industry and Trade expects an increase of 15 percent. Sales of CLAAS combine harvesters and tractors in Russia rose by 50 percent in 2018. The TUCANO combine harvester, which is produced at the company's Krasnodar location, was also included in the government's support and subsidy program for agricultural machinery in 2017. Under the program, the Ministry of Agriculture grants manufacturers price discounts of between 15 and 30 percent depending on the region. It also provides financing incentives through low interest rates. Government support for leasing offers with a volume of up to 1.6 billion euros a year is currently being discussed for 2020.

In its analysis, The Economist quotes Andrei Sizov, head of SovEcon, a leading agricultural consultancy in Moscow that has been active since 1991. He says that farming has undergone a transformation from "a fantastically ineffective collective model to effective capitalism." Unlike other industries – which are dominated by large, state-controlled enterprises – the sector has largely remained in private hands, helping to fuel growth. The government-run kolkhozes were privatized after the end of the Soviet Union, which was still dependent on wheat imports. The new owners looked abroad for expertise and technology, investing in new land, machinery, and equipment. Supported by a national subsidy program, modern companies emerged in an atmosphere of competitive stimulation. Today, those businesses help to ensure a substantial portion of the world's grain production.

Many claim that the import sanctions for agricultural products from abroad, in reaction to the sanctions against Russia, have additionally helped fuel domestic demand and production. At first glance, the numbers appear to support their assumptions.

The sanctions

In August 2014, the United States and the European Union imposed sanctions on Russia following the annexation of Crimea. The country responded with import sanctions on foreign agricultural products, causing imports to fall from 43 billion dollars in 2013 to just 27 billion in 2015. At the same time, domestic agriculture grew by up to 5 percent a year while the nation's gross domestic product stagnated. In 2018, the growth in the agricultural sector took a breather, with the statistics pointing to a slight decline for the first time in years.

Andrei Sizov from SovEcon sees a correlation between the sanctions and the boom in agriculture, but does not believe that they were the main cause. After all, the growth rates were already very high before 2014, when the sanctions were imposed. In 2013, for example, they stood at 6 percent. According to his analysis, the strong growth in agriculture between 2014 and 2016 was mainly the result of substantial investments in technology and equipment in prior years – and the devaluation of the ruble against the dollar.

The ruble crisis

Between 2014 and 2016, the Russian currency lost more than half its value, with the dollar-to-ruble exchange rate rising from 35 to more than 80 rubles. Accordingly, food grew more expensive to import – but cheaper to export. That allowed Russia to gain ground in markets with low purchasing power, such as Africa and the Middle East. Today, Russia exports its produce to countries as far away as Mexico and Indonesia.

Russia could continue finding it easy to cater to the rising demand in international markets, which is being fueled primarily by population growth. For example, there is plenty of potential for further productivity increases through digital transformation, which has only just started making headway in agriculture. According to a study by Dr. Florian Schierhorn from the Leibniz Institute of Agricultural Development in Transition Economies (IAMO), potential can also be found in Russia’s tremendous land reserves. A comparison of satellite data from 1990 and 2010 shows that more than 40 million hectares of former farmland have been taken out of cultivation since the end of the Soviet Union. “That land is primarily located in the north of the country,” Schierhorn explains. National and international investors have been showing keen interest in these territories, and even Russia’s political leadership has come to realize the potential. Today, the cultivation of fallow land is often subsidized. Yet Florian Schierhorn believes that Russia is still capable of exploiting potential for further growth on the land already under cultivation: “In terms of yields, Russia is still well behind the average in other countries in some cases.” Outdated machinery often remains in use, especially in northern areas of the country. “Higher productivity through modern technology and better fertilization could increase yields substantially more effectively than cultivating fallow land and would also make more sense from an environmental perspective,” Schierhorn says.

As a result, agriculture – Russia’s other oil – still appears poised to continue its success in the future.



120

MILLION METRIC TONS OF GRAIN ARE EXPECTED FOR 2019 AS A WHOLE



6,000

COMBINE HARVESTERS ARE CURRENTLY NEEDED BY THE RUSSIAN MARKET EVERY YEAR



15%

GROWTH FOR THE RUSSIAN AGRICULTURAL MACHINERY INDUSTRY IN 2019



U.S.



In the world of agricultural equipment, green has stood for machinery made by CLAAS since 1996. Only in the U.S. have the company's combine harvesters been yellow and black – until now. That and more changed in 2019.

Text: Jörg Huthmann

You Should Paint It Green

The yellow combines were the product of a decades-old partnership with the sales team at Caterpillar (CAT). Back in 2017, a group of CAT dealers paid a visit to Agritechnica, the world's largest agricultural machinery exhibition. As they stood on the upper level of the CLAAS showcase looking down on an ocean of bright green machines, they were asked what CLAAS could do to advance the sales of its products in the United States. The answer came quickly and was as simple as could be: "You Should Paint It Green."

More than a new look

The color of the machines rolling off the assembly line in Omaha, Nebraska, is not the only thing the company has changed. CLAAS has consistently worked on improving its own marketing, sales, and distribution activities in North America. Today, it offers nearly the entire product range there – tailored to the needs of farmers in the United States and Canada. Among those products are the AXION 800 and 900 series tractors. Having long since taken the plunge in Europe, the company is now transforming itself from a harvesting specialist to a full-range provider on the other side of the Atlantic as well.

In part, this evolution was inspired by a new way of thinking among younger U.S. farmers, who no longer feel bound by long-standing ties to domestic brands. When buying equipment, they instead ask themselves factual, objective questions, such as: Which machine is going to give me the performance I need? What does it cost, and what kinds of financing options does the manufacturer

offer? Where is the nearest dealer, and where is the nearest workshop? The answers to these questions are pushing educated, up-and-coming farmers and contractors to look beyond their national borders in their search for alternatives. The ability of a manufacturer such as CLAAS to extol the virtues of its German engineering while also assembling its machinery in the United States acts as a selling point for a growing number of potential buyers. Eric Raby, President and General Manager Sales at CLAAS of America, sums it up: "Our target group sees agriculture as a business model, not as a way of life."

When it came to rolling out the first green LEXION combine harvesters in North America, timing was of the essence. Because the goal was to prevent people's curiosity from peaking too soon, 45 pilot series machines had to be hidden as best as possible before their official launch at the Farm Progress Show in Illinois in August 2019. To do so, a convoy of combine harvesters formed a circle around the new machines at the CLAAS site in Omaha. The yellow giants created a corral around the green machines, protecting them from inquisitive eyes.

Looking to the future

The consistent focus on growth and progress embodied by CLAAS in the United States and Canada is also reflected in the construction of a new CLAAS Academy in Omaha, which was officially kicked off on July 10. And to help make American agriculture even "greener" in the future, the Academy's draft curriculum calls for both service and sales training courses to be offered.



Eric Raby,
President and General
Manager Sales at
CLAAS of America

The Testers

No CLAAS product is subject to more scrutiny than the new LEXION combine harvester. Because the machines are a benchmark for the industry, CLAAS goes the extra mile to equip each new generation with the DNA to maintain the company's edge. Dozens of pre-series combines are sent out around the world for use by farmers. CLAAS listens carefully to what they have to say. Their experiences are essential to putting the finishing touches on the machinery prior to regular production.

Text: Jörg Huthmann



W

estern Australia. The Frankland River region, with its gently rolling hills, is located

some four hours south of Perth by car. Kellie Shields and Donald Pentz's farm can be found in the middle of this idyllic setting. The two are in charge of just over 6,000 hectares, where they grow rapeseed, various species of wheat, malting barley, and oats. Because of the sensitive soil on most of their land, the majority of their work has to be done without using a plough. Kellie comes from a family of farmers. Donald, her partner, joined the business in 2007, having previously worked in the wool industry.

Although the region is known more for sheep and cattle farming, grain growing is on the rise. The region has plenty of water. With large parts of the continent struggling with dryness and droughts, these hydric conditions are a rarity in Australia. However, as Kellie puts it:

"THE DRIER YEARS ARE OFTEN OUR BEST ONES."

The farm has used CLAAS harvesting machinery for some 18 years now, ever since Caterpillar dealers started importing LEXION combine harvesters, beginning with the 480 series. For its most recent harvest, the farm was one of the first to receive two pilot series machines from the latest LEXION generation. After all, the growing and harvesting cycle there is six months ahead of the agricultural year in the northern hemisphere.



AUSTRALIA



KELLIE SHIELDS AND DONALD PENTZ

When asked about the differences in performance compared to previous models, Kellie and Donald mention the high discharge speed, minimal losses, low fuel consumption, tremendous grain tank capacity, and the new operating terminal. As they put it, the new machines offer a 15 to 30 percent increase in performance for wheat and barley over previous models. For rapeseed, that figure stands at 10 to 20 percent. The CEMOS AUTOMATIC machine optimization system, which nearly reached its swath-depositing limits during the rapeseed harvest, was one of the reasons for the increase. For local CLAAS engineers, those limits were more of a challenge than a negative observation.

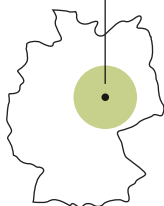
Kellie and Donald also have words of praise for local CLAAS employees, who have been more than happy to help look after the farm's LEXION fleet, offering their outstanding expertise at all times and even at short notice. After all, first CLAAS service also makes a difference in Australia.



HERBERT LISSO



GERMANY



What are other farmers saying? Herbert Lisso is happy to tell us. Neu-Seeland Agrar GmbH is located not in New Zealand, as the name might lead a casual observer to believe, but near the town of Aschersleben in the German state of Saxony-Anhalt. The company looks after 1,400 hectares of farmland, divided into 20 plots measuring 70 hectares. The region receives an average of 450 millimeters of precipitation a year, and the soil is good. Using crop rotation, the agricultural enterprise grows wheat, corn, rapeseed, and triticale.

As a result of extreme heat and dryness, the 2019 harvest was below average, but generally okay – giving a brand-new CLAAS combine harvester from the new, pre-production LEXION generation an opportunity to show what it was capable of.

Herbert Lisso, 72, earned his stripes as a farmer at the company and served as its general manager until he retired. When it comes to new technology, he still takes a seat behind the wheel of the new combine harvester and offers his two cents

on whether or not to buy it. And the new pre-series LEXION 8700 won him over.

“THE LARGER DRUM AND THE GENERALLY OPTIMIZED CROP FLOW – THAT WAS A GOOD MOVE. IT’S IMPRESSIVELY QUIET WHILE OPERATING, AND THE STRAW QUALITY IS EXCELLENT.”

The new cutterbar has also been met with his stamp of approval: “The cutterbar is now more sensitive and responsive.” However, the 2019 harvest did not give the new machinery a real opportunity to test its limits. “The engine load never got any higher than 60 percent,” Lisso adds.

Still, power alone is not an argument from Herbert Lisso’s point of view. He is an advocate of precision farming, especially in connection with large-scale agriculture. “Digitalization is making it easier and easier to manage size,” he believes. He would like to see more options from CLAAS, such as comparative, multiyear yield-mapping analysis. And as everyone knows, CLAAS listens to its customers.



The journey continues in Oregon, on the West Coast of the United States. High on a plateau, Ryan Boyle runs a 1,200-hectare farm. Because precipitation is rare up here, irrigation is a must. Ryan's main specialty is seed. His crops include grass seed, dill, and flower seed, as well as alfalfa and hay. Enthusiastically, he reports that 80 percent of the carrot seed in the United States comes from his region.

The Boyles are a third-generation farming family. Because they work their fields themselves, they have a fleet of machinery to help them get the job done. For twelve years now, the family-run business has relied on machinery from CLAAS. The farm currently uses five LEXION combine harvesters, one of which is a pre-series 8600 that joined the fleet on July 8, 2019. Ryan remembers the exact date. Above all, a harvester has to be gentle on the sensitive crops – a subject he is quick to bring up. “Most combine harvesters are designed for soybeans and grain,” Ryan says. “They don’t work too well with more sensitive crops.”

RYAN BOYLE



OREGON

That is not the only category in which the new LEXION beats the competition. Despite repeated requests to share even the things that have gone wrong, Ryan has only good things to say. He raves about the machinery's quiet operation, its incredible harvesting performance, and the significant improvement in crop quality, especially when it comes to highly sensitive seed such as bluegrass.

He says the many technical changes and their positive effect on the harvester's overall performance have been a huge success, singling out the entire threshing system, the large grain tank, and the fuel-efficient engine. He also leaves no doubt as to just how happy he is with the expertise and responsiveness of the CLAAS service team. Ultimately, he sums up his experience by saying:

“CLAAS IS A WONDERFUL COMPANY.”

Some 2,000 miles (roughly 3,200 kilometers) and two time zones east of Ryan Boyle’s farm lies the town of Harvard, Illinois. In this community outside Chicago, Cody Book and his family work 2,400 hectares of fertile, chernozem farmland. The Books grow a variety of crops, such as corn and beans. They also look after 1,400 animals. Rain is plentiful, and some fields even need a drainage system to prevent flooding and waterlogging.

Asked about problems with the pilot series harvester, Cody Books speaks of “minor hiccups,” but is quick to add: “It ran like it should.” Additionally, the people from CLAAS were quick to remedy any minor defects. Today, the new LEXION is capable of performing the work of two competing machines.

The 34-year-old Cody makes no secret of how impressed he is by the threshing performance and convenience of his new combine harvester.

“YOU CAN SET A LOT MORE THINGS DIRECTLY FROM THE CAB,”

he says, also pointing out how unbelievably quiet the new machine is while operating. He is happy that the harvester does not produce as much dust during threshing, something he noticed while cleaning it after a long day’s work. Because his farmhand was done so quickly, Cody was concerned that he might not have done the job properly. But he had: The machine was clean.

Cody Book also likes the new onboard computer in the CLAAS LEXION, mainly because it is easier to operate than its predecessors. With a grin, he draws a parallel to the way different generations of people feel about using a computer. What his father found challenging is no problem for him. When it comes to his children, he knows they will be just fine – and so will the Book farm.



CODY BOOK



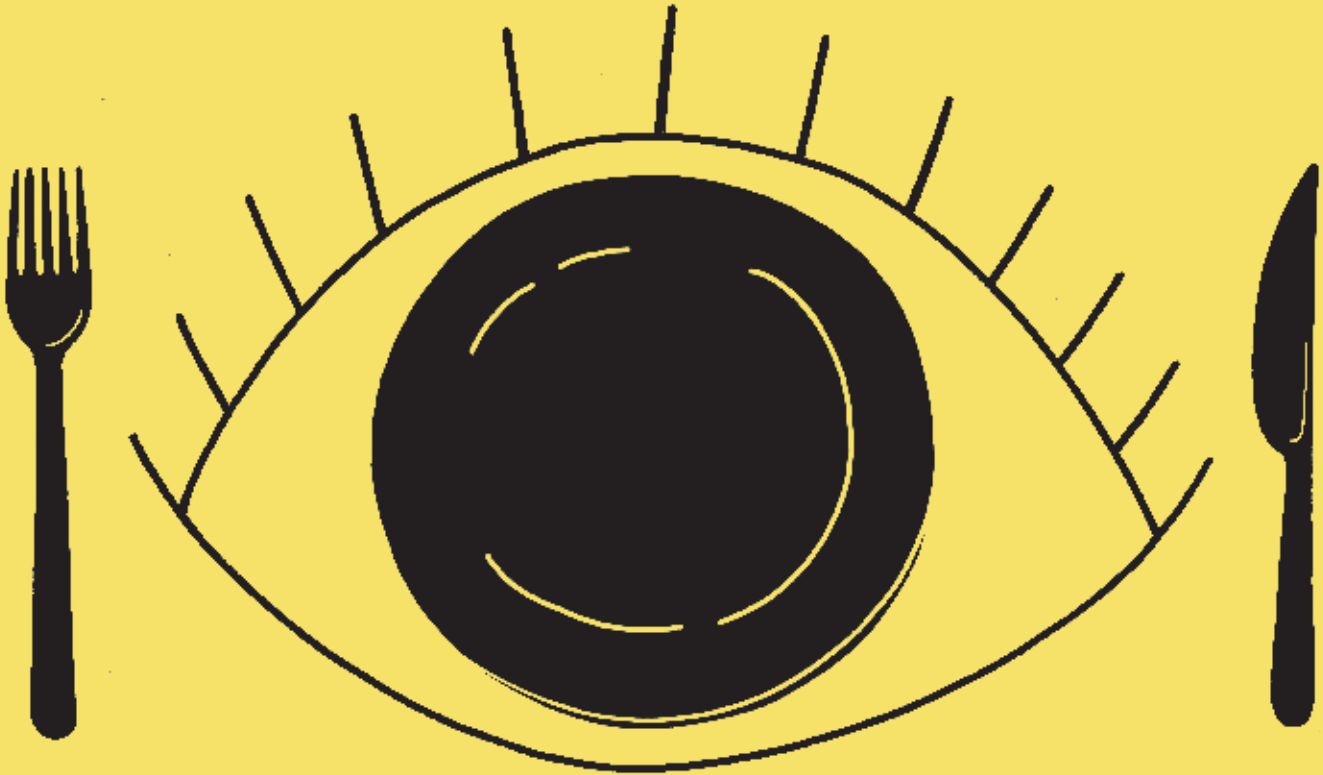
ILLINOIS



How does pre-series testing work?

During development, the product manager works with other members of the team to decide how many next-generation models to produce as a preliminary series. This machinery is then sent out to customers around the world, most of whom have experience in testing pre-series equipment. In return, CLAAS is given the opportunity to observe the new owners at work. The insights gained by the machine’s sensors and the owners’ personal experience are incorporated into the production of the regular series. During subsequent maintenance, the customers’ pilot series machines are also brought up to the production-level standard and given a new warranty following their first use in the field. The result? A classic win-win situation.

All Eyes on Trust



The blockchain can help to manage all of the steps in the food supply process. From sowing and harvesting to logistics and sale, data can make it clear who did what – something today's increasingly aware consumers want to know. The resulting transparency gives all stakeholders the certainty that everyone is playing by the rules.

Text: André Boße

Today's farmers have to document their work painstakingly and comply with a wide range of rules and regulations, especially if they aim to guarantee certain standards in return for certification. With consumers wanting to know how their food was produced and what it contains, farm managers are interested in ways to make sure that their efforts and track records are visible to all.

But how can they guarantee the desired transparency without enabling fraud or revealing essential trade secrets? Blockchain technology can help. The term "blockchain" has been around in the digital world for some time now. Thanks to advancements, the technology is now capable of managing a complex food supply chain in such a way that the quality of the individual components can be guaranteed. Major corporations such as Nestlé and Walmart are already using the application. The blockchain works like a network to which all of the parties involved in the production of food have access, from farmers and processors, to logistics providers, wholesalers, and retailers. All of the steps in the process are recorded in the blockchain, offering end-to-end documentation of the food that ends up on consumers' plates.

Still, this transparency is only one of the technology's advantages. "It manages collaboration and communication among all stakeholders, which helps avoid bottlenecks and increase efficiency," says Christian Schultze-Wolters, Director of Blockchain Solutions at IBM. One way to picture the blockchain is as a series of shop windows in which the individual links in the food supply chain display the relevant information. The participants in the chain notify each other if data is missing or if they see that what another member

is displaying does not meet the agreed-upon standards. "The data in the blockchain cannot be deleted," Schultze-Wolters explains. The shop window with the incorrect or insufficient information remains in place. A new and corrected one is set up right above it. "That creates a great deal of trust among the players, since all of the stakeholders are aware of the transparency."

And what about data security? "What makes the blockchain strong is its decentralized structure," Schultze-Wolters says. The technology does not work with large databases, and farmers do not have to upload their data to a server. Instead, they remain with the individual farmer. The other stakeholders each receive an individual key to access them. "That way, their partners can view the very data that the farmer wants to share with them," Christian Schultze-Wolters says. Farmers with organic certification, for example, can allow everyone to see that they have earned this valuable distinction. By contrast, only their sales partners can gain access to data from harvesting machinery and other equipment. The CLAAS Group has the digital expertise to organize data for this process using tools such as the 365FarmNet farm management software in the future.

The IBM food-chain expert believes that transparency within the food supply process will grow more important because it provides all of the links in the chain with a sense of security and trust. "And also because more and more consumers want to know where their food comes from and how it got to store shelves." Ultimately, policy makers are also calling for more information, so that they know exactly who is responsible for violations, for instance. "That results in a sort of pressure to use the blockchain," Christian Schultze-Wolters says. "And I don't think companies are going to forever be able to avoid giving in to it."

73%
OF CONSUMERS WANT
FRESH FOOD

55%
WANT FOOD FROM THEIR REGION

58%
ARE WILLING TO PAY MORE
FOR BETTER QUALITY



Christian Schultze-Wolters,
Director of Blockchain Solutions
at IBM

If You Want to Go Fast, Go Alone. If You Want to Go Far, Go Together.

Text: Jörg Huthman



Is cooperation the key to unleashing people power? According to the International Cooperative Alliance, almost a billion people worldwide have come together to form cooperatives, many of them in agriculture. Data from the consulting firm PricewaterhouseCoopers reveals that 62 of the world's 100 largest cooperatives with more than 1 billion euros in sales are located in Europe. Yet they also play a major role on other continents. With more than 6,500 individual enterprises and more than 9 million members, Brazil's cooperatives, for example, are an essential part of the coun-

try's economy and generate more than one-third of the nation's gross domestic product. Organizations such as the International Raiffeisen Union and the International Cooperative Alliance are hard at work in many regions to make sure that even more people around the world have the opportunity to join forces for their success and prosperity.

But cooperatives are just one form of partnership and collaboration that allows farmers to achieve their goals faster. For years now, the sharing economy has been booming, thanks in part to app-based business models. A respected consultancy firm estimates that the value of

the global sharing or rental economy will rise to 335 billion dollars by 2025.

The thought behind the sharing economy is to replace the ownership of a product with its benefit. Mobility apps, for example, promote on-demand car sharing rather than car ownership. The same concept also works in agriculture. Smartphone apps are becoming important tools for farmers and contractors. Our three examples show how bright ideas, fair value creation, and digital technology are helping breathe new life into a cooperative approach to business.



FOR MANY, COFFEE IS THE ELIXIR OF LIFE. FOR THE RAMBAGIRA KAWA WOMEN'S COOPERATIVE IN RWANDA, IT IS A LIVELIHOOD.

ANGE- LIQUE'S FINEST

THE PROJECT: Angelique's Finest

THE PEOPLE: The Rambagira Kawa women's cooperative based in Kigali, Rwanda, with the support of Fairtrade Deutschland

THE IDEA: For farmers, marketing models that allow them to benefit from value creation to the greatest possible extent are particularly appealing. Direct farm-to-consumer marketing has been proven to work for some crops. But coffee is not one of them. Some 80 percent of the world's coffee is produced by 25 million small family farms with less than 10 hectares of land. The families that operate these farms have to live off less than 2 dollars a day. Organizations such as Fairtrade are working to change that. Even when global market prices fluctuate, they always pay a minimum price for coffee beans that allows farmers to make a living and help coffee growers organize themselves into cooperatives and change the value chain to their advantage. In Rwanda, this idea is already working. The Rambagira Kawa women's cooperative and a Berlin-based start-up have joined forces to market a coffee they call "Angelique's Finest." The coffee for the domestic market is roasted, packaged, and marketed entirely within the country's borders. Meanwhile, the partner company in the German capital is in charge of marketing, selling, and distributing Angelique's Finest coffee in Europe. As a result, the cooperative has achieved its most important goal: shifting the value chain to the benefit of the producers.

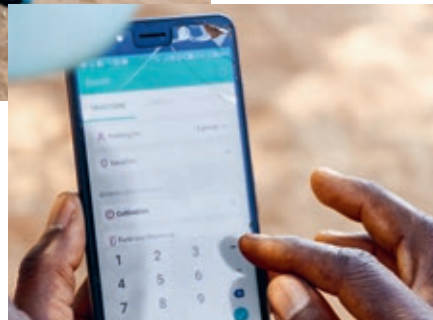
AGRI SHARE

THE PROJECT: AgriShare

THE PEOPLE: Welthungerhilfe, supported by CLAAS

THE IDEA: AgriShare is the name of an app developed by Welthungerhilfe that allows farmers in Africa to access agricultural technology and equipment. The app works like Uber for tractors, and helps even small farmers gain an overview of the locations, availability, and rental prices of equipment offered by private and commercial providers. As a result, it brings transparency to a previously complex market. Farmers can also

use the app to book equipment and make payments. What is more, AgriShare is scalable, meaning it can be used regardless of a farm's size. CLAAS is providing financial support for a pilot project that is currently underway in Zimbabwe. The response and usage figures have been very positive, especially among small farmers, motivating many to successfully navigate the financial challenge of acquiring a smartphone to use AgriShare and other services. Malawi and Uganda are the next two countries on AgriShare's list. In both markets, the scalability of the software will play an important role.



ONE APP IS HELPING GROWERS GAIN AN OVERVIEW OF THEIR OPTIONS WHILE ENSURING MARKET TRANSPARENCY. MORE AND MORE AFRICAN FARMERS ARE USING THEIR SMARTPHONES TO RENT AGRICULTURAL MACHINERY AS NEEDED.



CROWD-FINANCED MICRO-LOANS AT FAIR CONDITIONS ARE ENABLING SMALL FARMERS TO INVEST IN AGRICULTURAL EQUIPMENT AND IMPROVE THEIR LIVING CONDITIONS FOR GOOD.

CROWDE

THE PROJECT: Crowde

THE PEOPLE: Yohanes Sugih-tononugroho and Muhammad Risyad Ganis

THE IDEA: Most of the 422 million farms in the Asia-Pacific region are run by small farmers with less than 2 hectares of land each. In Indonesia alone, 46 percent of the population works in agriculture. That number stands at nearly 50 percent in India. With parcellation, dependency on monsoonal weather patterns, a low degree of mechanization, and logistical problems making export-oriented expan-

sion exceedingly difficult, most of those operations are geared toward subsistence farming. At the same time, many of the countries in this region have also made a name for themselves in the IT sector – and a growing number of startups is showing the world what they can do for the region.

Founded in Indonesia in 2016, Crowde is an investment platform that enables farmers in the Asia-Pacific region to source their working capital from crowd investors who can start investing with as little as 1 dollar. In exchange, they re-

ceive a share of the farms' profits. Using the capital raised by the platform, Crowde helps farmers build and expand their businesses by providing funds that they can invest in urgently needed mechanization measures, to name just one example. The funding prevents farmers from having to turn to banks, which are usually not interested in financing small agricultural operations, or to predatory lenders. Thanks to Crowde, growers are successfully transforming their operations from subsistence farms to efficient agricultural ecosystems.

Keep It Loose



With droughts growing longer, extreme precipitation events becoming more frequent, and harvesting seasons getting shorter, farmers face extensive challenges when it comes to soil cultivation.



AXION

TO ENGINEER THE FIRST HALF-TRACK TRACTOR WITH FULL SUSPENSION, TERRA TRAC was adapted to the demands the tractor faces. The large footprint prevents the tractor from sinking into the ground and helps avoid soil compaction – a true innovation.



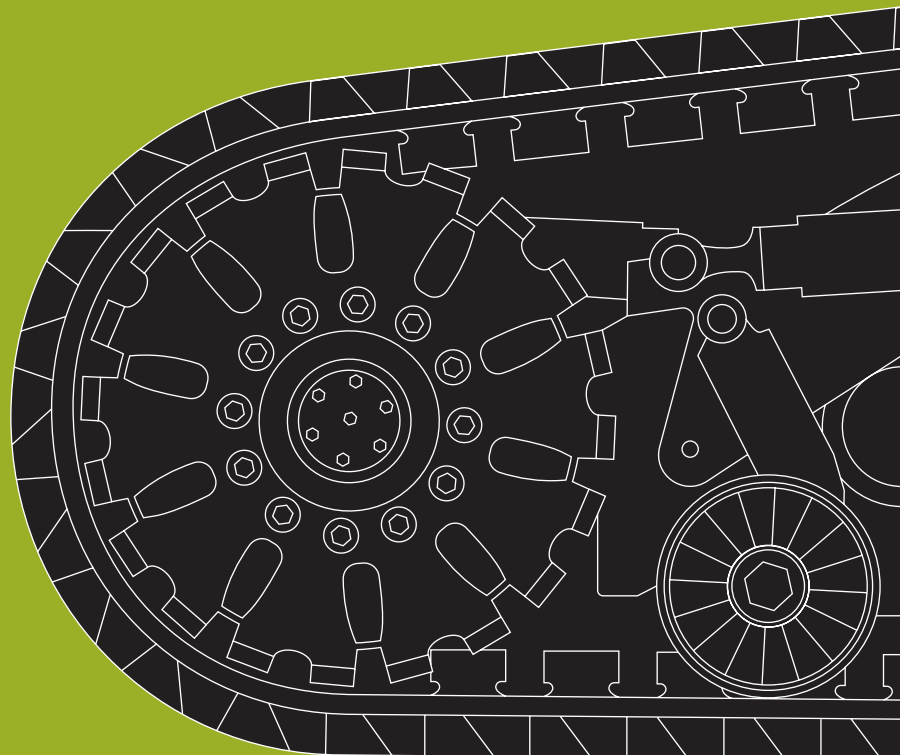
JAGUAR

THE FORAGE HARVESTER WITH TERRA TRAC GOES EASY ON SOIL AND GRASS COVER, especially on turns and in curves, thanks to the newly engineered headland protection function.



LEXION

USED FOR HARVESTS AROUND THE WORLD FOR 20 YEARS, the combine harvester with sophisticated TERRA TRAC drive technology is a trusted helper that is being enhanced all the time.

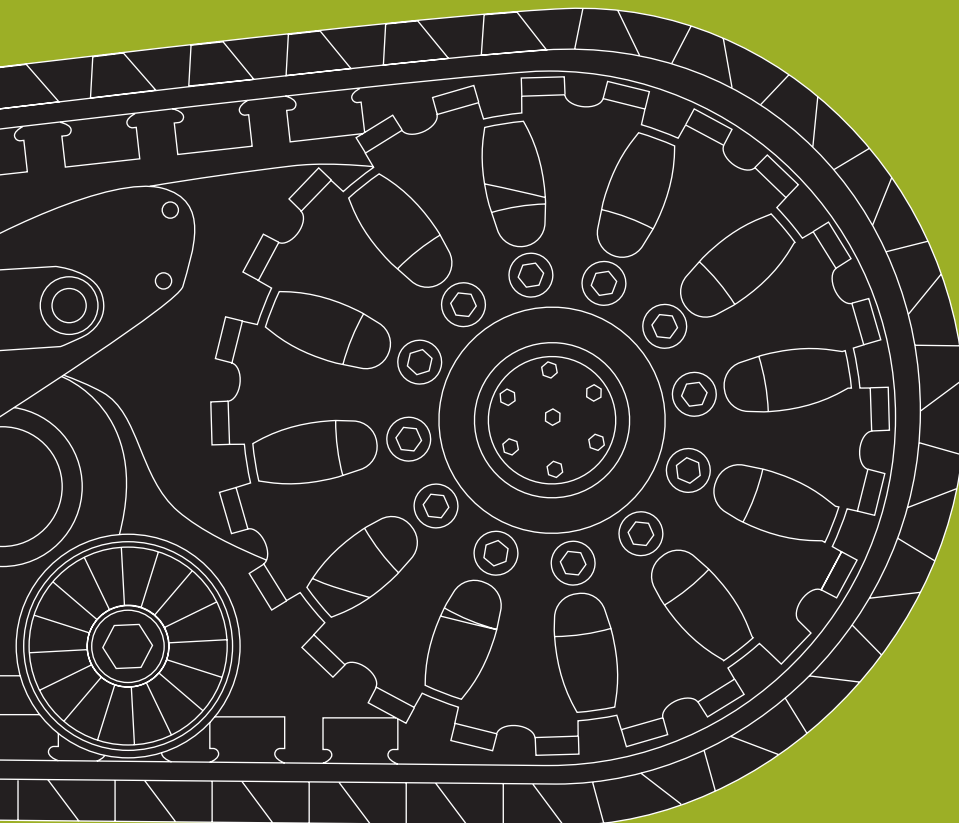


SUSTAINABLE LAND USE PROTECTS THE SOIL AND THE CLIMATE.

With heat waves and droughts more frequent, climate change poses a threat to global food production. In a 2019 special report, the Intergovernmental Panel on Climate Change (IPCC) writes that agriculture has the potential to make a substantial contribution to climate protection through a gentler approach to soil cultivation, among other measures.

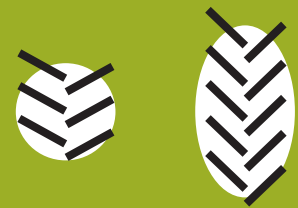
TERRA TRAC

TERRA TRAC combines minimum soil pressure and maximum performance to create the gentlest drive technology ever. In combine harvesters, forage harvesters, and tractors alike, the track system goes easy on soil thanks to its large footprint. Why has CLAAS been dedicated to advancing its TERRA TRAC technology for 20 years now? Because it cares about preserving the most valuable resource for all farmers and ensuring the basis for supporting life: healthy soil.



10-20%

The global increase in soil compaction can lead to lower yields. In Germany, 10 to 20 percent of the arable land is already compacted today. That means the soil has been so extremely compromised that it is no longer able to properly absorb rain water, causing it to become waterlogged. The result is reduced root growth, oxygen content, and soil fertility. Minimizing soil pressure in agriculture is becoming increasingly important.



-66%

MORE SOIL CONSERVATION, LESS PRESSURE:

In the LEXION combine harvester, the TERRA TRAC system keeps soil pressure at a gentle 0.8 bar – or 66 percent less than with oversized tires, according to a 2006 study by Cranfield University.



SOIL NEEDS TO BREATHE.

To stay loose and withstand extreme weather while supporting sustainable yields, soil needs to be cultivated using gentle methods.

ASTONISHINGLY EFFICIENT – EVEN OFF THE FIELD:

TERRA TRAC is capable of road speeds of up to 40 kph while providing a comfortable ride.

A Space for Ideas

Where do good ideas grow and flourish? How is CLAAS looking for the next innovation? A look through the glass facade of the Greenhouse digital lab in Harsewinkel.

Just do it

In merely eight weeks in summer 2017, ten CLAAS employees – from apprentices to the CEO – created the Greenhouse. Working after hours on their own initiative, they converted a former car dealership into one of the most modern co-working spaces in Germany, turning an idea into a space for ideas. Their motto? “Just do it.” The fruits of their labor include wheeled fixtures and furniture, partitions featuring fully writable surfaces, a fabrication laboratory (fab lab), and an open workshop with a full range of useful equipment. Every day, the Greenhouse plays host to a wide range of different visitors, such as CLAAS employees, suppliers, and entire classes of students. The company’s center for creativity has already proved to be a success. One of the ideas born here is a program for the short-term rental of tractors. The concept has since been rolled out at twelve locations in Germany. Right now, the team at the Greenhouse is working on 30 projects at the same time – from pre-development and factory planning to product marketing.



700 m²

THE GREENHOUSE'S 700 SQUARE METERS ARE HOME TO EVERYTHING CREATIVE MINDS NEED.



4 cobots

ARE IN USE AT CLAAS

Home of invention

Fritz Eckert is one of the few whose regular workplace is at the Greenhouse. He is in charge of overseeing projects on 3D printing, cobots, and the DELMIA CNC core solution from Dassault Systems. The engineer with a background in mechatronics has an inventive and creative mind with a vast wealth of general knowledge. “You need that kind of foundation if you want to identify and seize potential at various points throughout the company – often with little budget. Knowledge of data processing and mechatronics is of tremendous help here,” he says. The search for innovations usually starts in the same place. “One of the hardest things is understanding the departments’ exact problem. We can’t start thinking

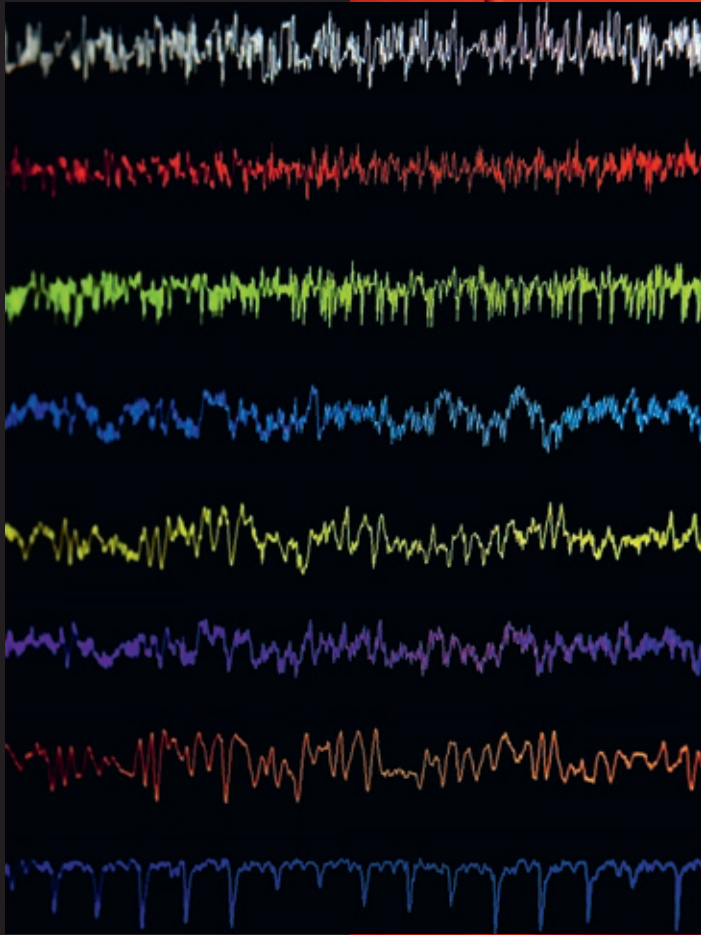
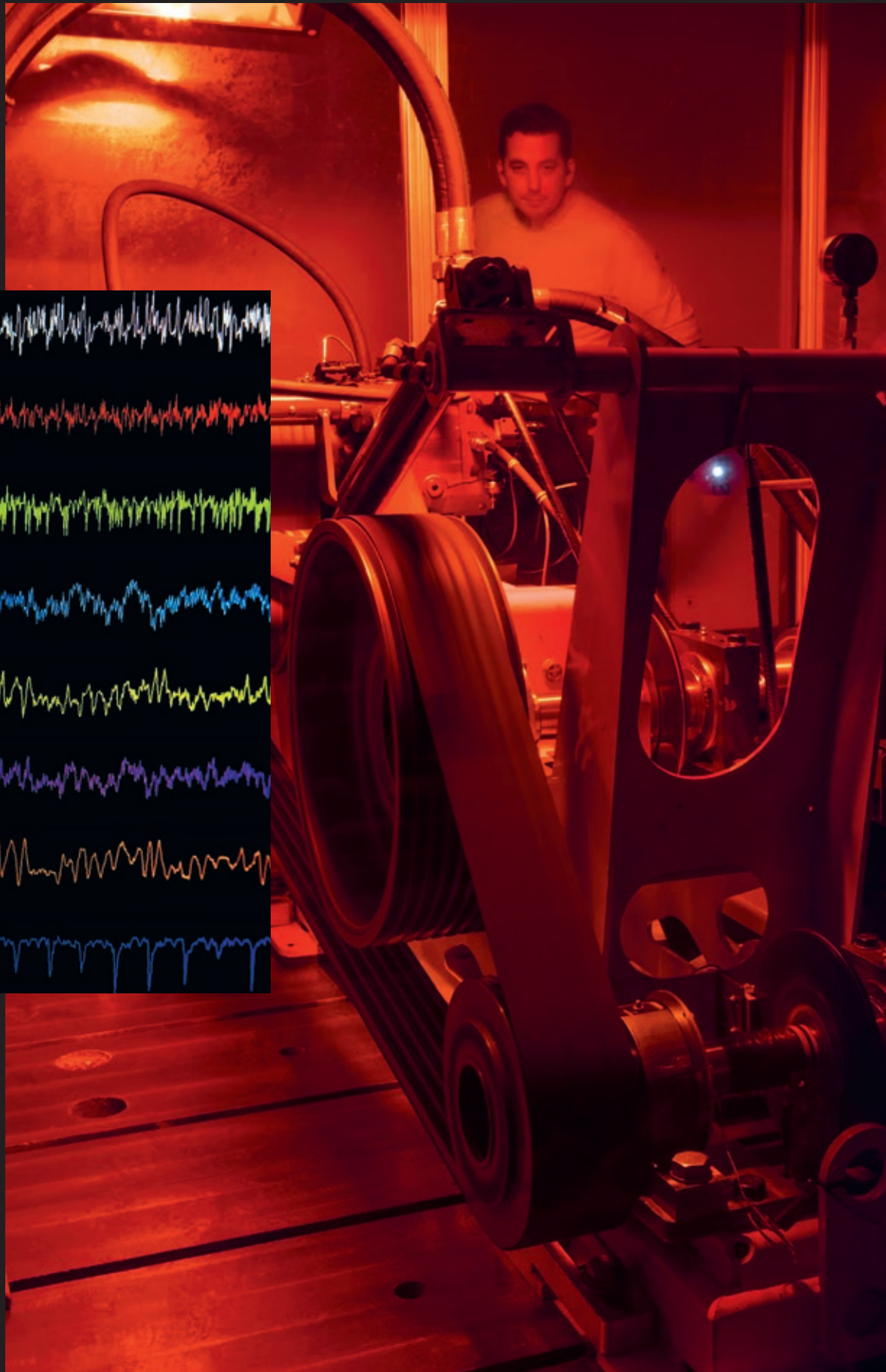
Robofeeling

One of the most exciting projects in the Greenhouse involves collaborative robots, or cobots. Thanks to sensors in their joints, the cobots have an enhanced sense of their environment. Because they are able to shut down or retreat when they make contact with an object or encounter resistance, they are capable of working directly with humans. By contrast, the robots used on assembly lines and in other settings have to be surrounded by barriers or partitions due to their high speed and lack of sensors. The list of potential applications for cobots at CLAAS is long. According to Fritz Eckert, Head of the Greenhouse fab lab, the intended purpose of the cobots is always the same, regardless of whether they are to be used in pre-development or in ship-

ping: “Their job is to make our employees’ day-to-day work easier wherever they have to move heavy loads or carry out repetitive tasks, to name an example.” Since September 2019, two cobots have been in use in the regular production of combine harvesters to support straw walker bearing subassembly and grain tank sensor assembly. At the Greenhouse, Fritz Eckert collaborates with a mechatronics engineer, an apprentice, and six student employees to perform research and development on a total of four cobot assistants. “All of us benefit from the fab lab in particular. It gives us a place to run experiments as we please, without disrupting production. We can use 3D printing to quickly make equipment such as various grippers, which we need for the cobot,” he says.

about how to resolve the issue and what equipment to use until we have truly gotten to the bottom of it,” he explains. The team then thinks up various different scenarios before digitally simulating and testing them in a CAD system. If the results of the simulation appear promising, the team creates a prototype. Successful prototypes later make their way into regular production. The cobots have attracted the attention of employees in manufacturing and in other parts of the company. “We’re constantly receiving applications,” Eckert says. And because a class of students regularly visits the Greenhouse to learn how to use CAD systems and program cobots, Eckert has few worries when it comes to finding talented staff in the future.





Children of the Night

Even when it gets dark in the peaceful little town of Harsewinkel, the action continues at the CLAAS testing center. That is when a very special shift takes over – one that would be inconceivable without state-of-the-art component testing.

Text : Robert Habi

W

ith its large roll-up doors, high walls, and stark facade, the massive building appears unremarkable from the outside. One door later, that all changes: Tires rotate. Steel

parts weighing tons vibrate. Infrared light shines through the glass wall of a test cell, behind which a pump drive is hard at work under tremendously hot conditions – a typical setup for testing the heat resistance of components. Yet there is not a CLAAS employee in sight, neither here nor at the other twelve cells. The machines work autonomously in accordance with a predefined test profile. Oliver Westphal is the head of the testing center. As he explains: “The test bay monitors itself. If anything breaks down, it cuts off the energy supply to the cell in question. Otherwise, it’s capable of running day and night, seven days a week.”

Year-round experimental farm

That kind of thing is essential for modern-day testing. Testing everything under real-life conditions in the field – as was commonplace just ten years ago – leaves engineers with a harvest season of just six to eight weeks in Europe and would place restrictions on the harvesting process. Because such limitations pose a significant challenge to developing sophisticated machinery for global markets, CLAAS is shifting as many tests as possible to a laboratory setting. Here in Harsewinkel, those tests cover all components and modules, such as operators’ cabs, cutterbars, electronic control units, and drives. “We have a separate department to look at things such as crop flow,” Westphal explains.

Thanks to the marketing and development teams, who have been willing to share their knowledge, the test engineers are able to simulate soil conditions around the world right in the workshop. “We compare our machinery’s user profiles with the customer data in our markets,” Oliver Westphal says. In Australia, for example, crops are spread out over gigantic fields. The machinery defined by marketing should move at speeds of between 11 and 15 kilometers per hour during harvesting. In northeastern Germany, where crops are dense and grow 80 cen-

timeters tall, that speed is usually just 4 kilometers per hour. Around the world, sensors measure the forces being exerted on machine parts or the operator’s cab – such as acceleration, vibration, or traction – as well as individual operator- and harvest-related information. The test bay simulates the conditions using hydraulic and electronic actuators. The more data available, the more precise the tests.

Dancing steel

The traction stress bay – a 600-metric-ton concrete pedestal on which a large steel beam shakes a 12-meter VARIO cutterbar in the air – provides an impressive real-life example: “The machine runs for 200 hours, then we take everything apart next door in the assembly shop to see what has worn out, whether gaskets are still intact, or if the steel construction has torn.” Then the team decides whether the experts at the workshop should continue looking into the problem in further tests.

Hardware in the loop

The heavy-duty hardware also includes electronics and software, the two fastest-growing testing focal points. That comes as no surprise, considering that there are 40 different microcontrollers in a LEXION, for example. Their function is tested on inconspicuous electrical cabinets that simulate the electronics of an entire machine and play an essential role in testing today. “If we play through all of the control commands, we end up with over 50,000 different combinations,” Westphal says. As a result, the computer may spend up to ten days at work. Oliver Westphal illustrates the amount of time saved by citing an example from the age before digitalization: “Back then, we were able to cover about 1,000 combinations in six weeks working as a two-man team.”

How does CLAAS keep this orchestra of test machinery in perfect harmony? “With bright minds,” Westphal explains. Twenty-eight electronics experts help make sure that the hardware and software work hand in hand while keeping the test cells operating around the clock. All told, the workshop employs a staff of 40 to analyze data, keep machines oiled, install equipment, and enter new standard algorithms into the computer. They are the children of the day – and their job is to make sure the machines can go all night.



Oliver Westphal,
Head of Product Evaluation
at CLAAS in Harsewinkel

“THE BETTER WE KNOW THE
LIMITS OF OUR COMPONENTS,
THE FEWER SURPRISES OUR
CUSTOMERS EXPERIENCE IN
THE FIELD.”



7,000 m²

is the amount of space available for a variety of testing equipment at the CLAAS testing center. At 13 test cells of different sizes and functions, 40 test experts professionally put combine harvester, forage harvester, and tractor components through their paces. The engineers examine systems, subassemblies, and modules alike. CLAAS uses half of the facility for assembly, laboratories, and the actual testing. Over 200 workstations for test engineers and developers are located next door. Every year, the team handles some 600 test requests for components or modules at the test center.

F u t

u r e

T r a

C k s



Let us take a look at what lies ahead. What does science hold in store? Which trends are affecting people and the world?

70%
WATER-SAVING CROPS

More than 70 percent of the world’s water goes to agriculture. Yet water is growing ever scarcer, and droughts are becoming increasingly common. In the future, we will need tolerant crops that produce good yields even in dry conditions. During a recent corn project in the United States, researchers achieved outcomes that offer hope. Through precise genome editing, they succeeded in increasing the production of the ARGOS8 protein, enabling the corn to continue growing normally despite a lack of water. Its market launch is planned for sometime in the next five to ten years.

7–15%
 higher yields
RADICAL CHANGE, CLIMATE-SMART ACTION

Depleted soils, bodies of water that are drying up, and extreme weather events are triggering an ever-growing number of food crises. This message is nothing new – but the wake-up call is growing louder. In August 2019, the Intergovernmental Panel on Climate Change (IPCC) explicitly called for a radical reform of land-use practices. Through climate-smart agriculture, the Food and Agriculture Organization of the United Nations (FAO) plans to help people respond to climate change by adapting food production to local conditions, to name just one example. According to the FAO, crop futures, the selection of varieties, and irrigation have the potential to increase yields by an average of 7 to 15 percent.

40%
THE POST-MEAT ERA IS COMING

With their vegan burger that tastes just like meat – but contains no animal-based products whatsoever – California-based Beyond Meat has triggered a genuine craze, especially among meat lovers. “By 2040, only 40 percent of the meat products consumed will come from animals,” according to Carsten Gerhardt, an agricultural expert at the management consulting firm A.T. Kearney. Astonishingly, some two-thirds of the world’s arable land is used for animal husbandry. Saying no to meat and instead using that land to grow crops would probably solve the world’s food woes.

29 million
DRONES: THE FARMHANDS OF THE FUTURE

According to estimates, some 29 million drones will be delivered to customers in 2021. One of their main areas of use is in agriculture. Today, almost one in every ten farmers already uses drones, mainly on farms with more than 100 hectares. Drones provide precise data on soil analysis, crops, and the health of wild animals. What is more, there appear to be few limits to the future applications – from crop and spraying technology to high-efficiency irrigation.

1 million in 10 days
FARMING SIMULATOR IN ESPORTS

When Farming Simulator was first released by the Swiss software maker Giants in 2008, no one could have predicted whether it would be a success. But in 2019, the latest version of the game sold more than 1 million copies in its first ten days on the market. Farming Simulator 19 has even been included for play in an esports league, with sponsors, prize money, and events throughout Europe. Best of all, players this season can also harvest their virtual crops using CLAAS combine harvesters and tractors to rack up points and farm their way to victory.

2050
SOILLESS: THE NEW WAY TO FARM

By 2050, the world will be home to some 10 billion people. Almost 70 percent of them will live in cities. But how will they get enough to eat? Urban farming is one good idea, and it is already starting to bear fruit. Using lightweight special soil, the Brooklyn Grange Rooftop Farm in New York grows organic vegetables. Meanwhile, Aerofarm in Newark is making do entirely without soil by employing aeroponics to get a solution of nutrients directly to crops’ roots. Thanks to recycling, the operation also consumes 95 percent less water than conventional crop farming – for a concept that sounds environmentally friendly, fresh, and regional.

Products and Services



- BALERS
- COMBINE HARVESTERS
- ELECTRONICS EXPERTISE
- FORAGE HARVESTERS
- FORAGE HARVESTING
- SERVICE AND PARTS
- TELEHANDLERS
- TRACTORS
- WHEEL LOADERS

CLAAS Group Overview

Financial indicators (IFRS)

in € million	2019	2018	Change in %
Financial performance			
Net sales	3,898.0	3,889.2	0.2
Research and development costs ¹	243.6	233.4	4.4
EBITDA	280.3	372.7	-24.8
EBIT	164.0	256.8	-36.1
Income before taxes	135.7	225.7	-39.9
Net income	96.3	152.0	-36.6
Free cash flow	-138.2	-83.9	64.7
Financial position			
Equity	1,417.3	1,395.5	1.6
Comprehensive capital expenditure ²	183.3	160.3	14.3
Total assets	3,531.9	3,449.7	2.4
Employees			
Number of employees as of the balance sheet date ³	11,448	11,132	2.8
Personnel expenses	730.3	693.0	5.4

¹ Before capitalized and amortized development costs.

² Including development costs recognized as an asset, excluding goodwill.

³ Including apprentices.

Imprint

Publisher

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Mühlenwinkel 1
33428 Harsewinkel
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The magazine and the Annual Report are also available online at www.claas-group.com/investor/annual-report

Concept and Design

3st kommunikation,
Mainz, Germany

Translation

Lennon.de Language Services,
Münster, Germany

Photography/Photo Credits (page numbers in parentheses)

CLAAS (U1, U4, 2, 3, 5-7, 20-27, 44, 38-41), Marius Maasewerd (U1, 4, 36, 37) Hartmut Nägele (10-13), Joni Majer (28), Xenia Fink (21, 29), Kai Löffelbein (30), Denyse K. Uwera/Fairtrade (31), Welthungerhilfe (32), Maksym Ivashchenko on Unsplash (33), KIMO on Unsplash (33), Matthias Haslauer (36), Shutterstock (42)

Printer

gutenberg beuys feindruckerei GmbH,
Langenhagen, Germany

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.

