

Digital solutions

### **CLAAS** connect





The challenges farmers and contractors face have grown steadily in recent decades. The world's fields are expected to produce ever greater harvests in even shorter time. And then there's the increasing burden of documentation to contend with and, of course, climate change. The number of people that a farmer has to feed is growing exponentially.

We have been working with you for over 100 years to develop machines and services that make your work easier and more efficient – so you can meet these growing challenges head on. Since 1913, our passion for agriculture has underpinned our tireless quest to make you the very best in your field.

Powerful machines designed to specialise in certain tasks have long been popular. But the opportunities provided by digitalisation mean that CLAAS machines now work with more precision and efficiency than ever before. By exchanging data with one another, they create an intelligent network whose impact far exceeds the sum of its individual parts. After all, if you want to work as a team, you have to communicate with each other.

Together the next step in farming. digital.claas.com











#### Economical and efficient.

Exploit the full potential of your machines and systems with CLAAS digital solutions. You can be more precise in the field, more productive at work and more meticulous at job processing – saving valuable time and boosting your productivity.

#### Peace of mind.

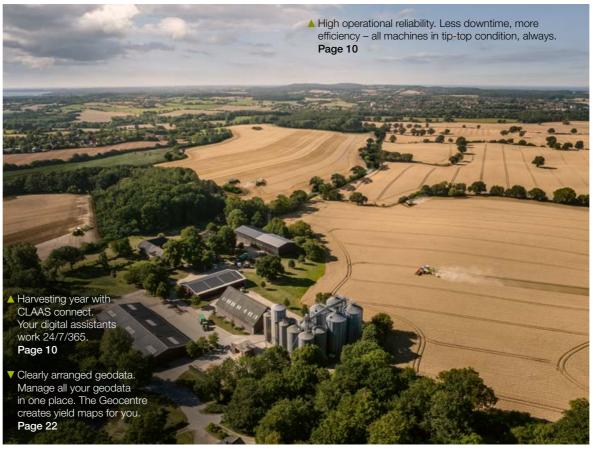
CLAAS connect is your very own digital specialist, working with you and supporting your team. Digital solutions make your operators even better, streamline your harvesting operations and reduce your costs.

#### Future-proof.

At CLAAS we are continuously refining and updating our digital solutions to ensure that you always work with the latest systems. And when new challenges arise or your requirements change, you can adapt the modules accordingly.











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# Digital farming makes you more profitable.

Ensuring food security, increasing product quality, keeping track of profitability. And if these are not challenges enough, there is the ever more extreme weather conditions, shorter harvesting windows and more complex operating processes to contend with. In short, you're juggling a lot of balls on your farm. Digital solutions from CLAAS help you keep them all in the air.

CLAAS connect combines digital machine management, service planning and licence management with documentation, application map generation and yield mapping on one secure, cloud-based platform. The free app offers you ample opportunities to optimise your farm, field and fleet management, exploit the full capacity of your machines and reduce your workload.

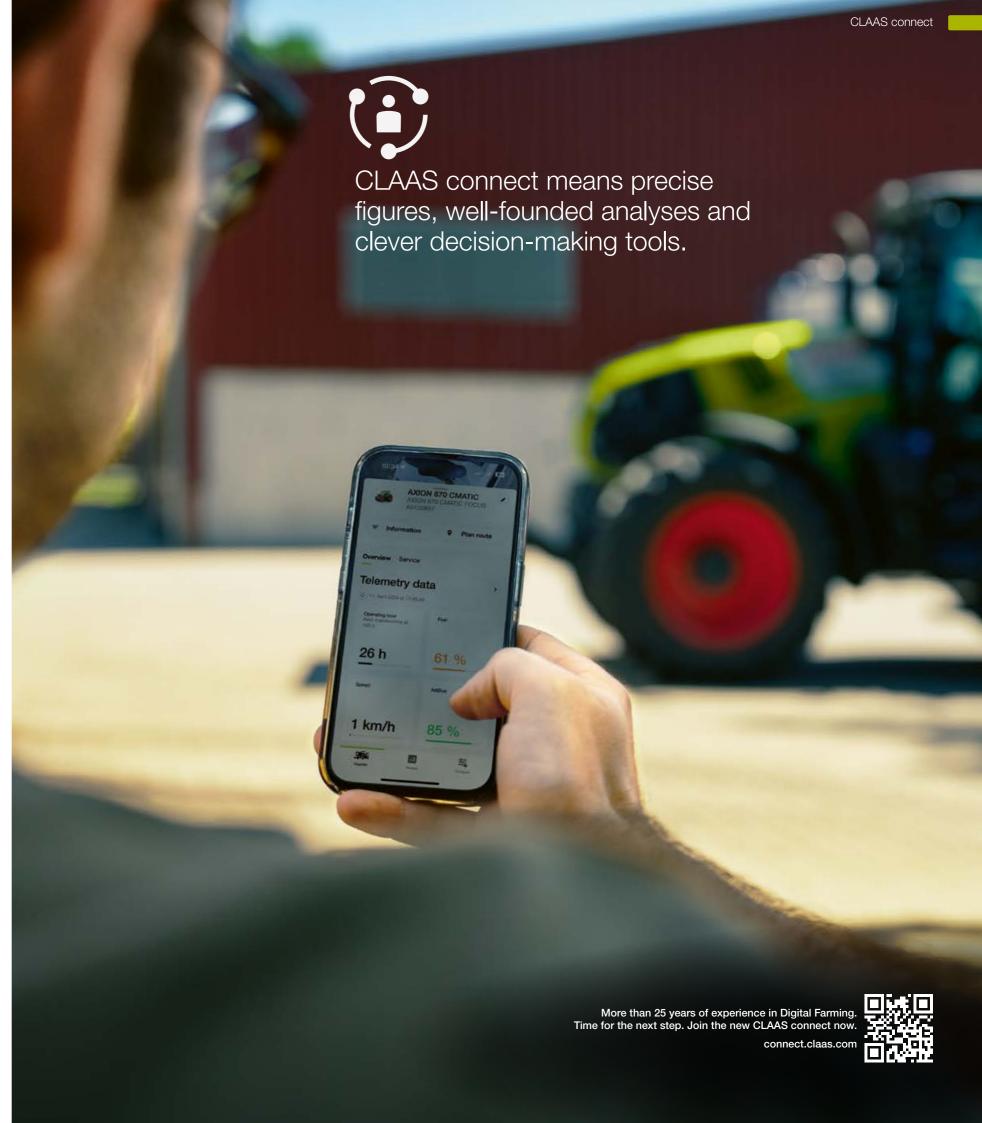
Once installed, the system guides you through the entire farming year, and helps boost profitability. Discover on the following pages just how much you gain and in which areas.

In the cab, in the office, in your pocket. CLAAS connect is everywhere. The system connects your machines to your farm, automates documentation and sets you up perfectly for precision farming.









## Your digital assistant works 24/7/365.

From drilling to harvesting, new challenges await you almost every day. Practical digital solutions are available for every phase of the faming year which can help you get the best from your fields.

24/7/365. Today's performance figures are the basis for tomorrow's planning. Yields increase, processes run more smoothly.

#### Planning and analysis.

Plan your tasks and corresponding tracks in detail in the office and send them straight to the machine. The machine completes the task and sends the data back to you. So you can document each step in the field and gather valuable information for future work.

#### Soil preparation.

With CEMOS for Tractors you can reduce your fuel consumption by up to 16.8 % during tillage operations. Precise steering systems protect the soil. CLAAS connect gives you an overview of every machine in your fleet. Times and activities are accurately recorded at field level.

#### Drilling.

Potential maps enable you to pinpoint your soil's performance and plan variable-rate, yield-optimised drilling. Progress on the field and consumption of consumables are precisely documented.

#### Crop protection and fertiliser application.

Application maps help you target fertiliser and pesticide applications where they are needed and so save on resources. Applications are precisely recorded and automatically documented.

#### Harvest.

Monitor crop ripeness in every field and organise the harvest sequence accordingly. Make full use of your machines' potential for a better, cleaner harvest. Gain valuable insights from the harvest figures to help you plan the coming year.

#### Service and maintenance.

With CLAAS connect, you've got the Parts Shop in your workshop. And everything else you need to ensure the operational availability of your machines. With Parts Doc you can order parts and have your dealer deliver them straight to you.

Your digital farming modules: Automatic steering system GPS PILOT CEMIS 1200 CLAAS connect Digital machine and farm management with Farm connect, Field connect and Fleet connect





Service. Get an overview of all service and

maintenance data and a direct line to your

CLAAS service partner.







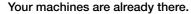




# Manage your farm data digitally.

Digital farming should help you become more profitable without bewildering you. So we have developed digital tools designed to make it easy. You can record and manage data effortlessly and set up your farm business quickly. New machines appear on the system after the digital handover declaration and are connected straightaway. If you have any questions, our digital specialists are on hand to help. They provide clear answers to help you and your team get ahead fast. That's what we mean by 'peace of mind'.

Digital farming creates transparency, enabling you to cut costs and boost yields – in the field, on the machine and on the farm.



All you need to register is your CLAAS ID. Your machines automatically appear in the app and begin transmitting data immediately. If you don't yet have a CLAAS ID, our specialists will help you create one during the digital machine handover.

#### Create your farm quickly and easily.

Register in CLAAS connect to access shops and activations. Then enter the master data for your farm with just a few clicks and upload all your field boundaries. With an active Machine connect licence, you can connect straight to your CLAAS service partner. Take advantage of this convenient, time-saving link to servicing and in the event of a problem, you won't have to waste time explaining things.

#### Manage everything with one CLAAS ID.

You can conveniently manage different organisations with one CLAAS ID. This ensures that all key information is readily available in one place. Integrated roles and rights management enables you to control how your employees access the data.

#### Easy to get started with DIGITAL CARE.

DIGITAL CARE – our services package for digital solutions – makes it easy for you to take the next step in digital farming. Right from when your machine is delivered, you get help with digital solutions, whether on your machines or in your office. Practical training courses ensure that you are able to work quickly, successfully and sustainably with CLAAS connect.



#### DIGITAL CARE

Helps you save valuable time by making optimal use of CLAAS digital solutions.



#### **DIGITAL CARE II**

Helps you reduce costs by optimising the performance and efficiency of your machines.

+ DIGITAL CARE I



#### DIGITAL CARE III

Helps you make the best decisions based on your harvest and field data.

+ DIGITAL CARE I & II

#### DIGITAL CARE Start Up

Helps you get quickly started with your new machine and CLAAS connect.



#### Bring out the best.

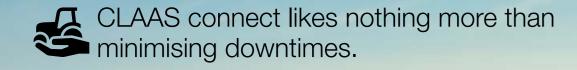
DIGITAL CARE allows you to fully exploit the potential of digital CLAAS solutions. Our digital specialists are there to help you choose, adapt and set up the most suitable solutions for your farm.

On request, they will come to your farm, train your team and answer all your digital questions.



# Your machines are always ready for action.

Maintenance and repairs often have to be done fast. So it's good to know that you don't have to waste time searching for parts. With CLAAS connect, you've got the Parts Shop in your pocket. And everything else you need to ensure the operational availability of your machines.











"Our machines send their maintenance requirements straight to the service partner. They automatically receive error messages as well. So that's two more things we don't have to think about."

José Godineau, contractor, Maine-et-Loire

#### Quick maintenance.

CLAAS connect supplies all the information you need to carry out maintenance yourself. Find your machine's operating manual in an instant. Source the right lubricant and order the amount you need.

In Parts Doc you can find all vehicle-specific parts day or night and quickly identify the correct part numbers. The Parts Shop¹ gives you access to the complete range of CLAAS ORIGINAL parts, consumables and accessories. Order what you need online and get your dealer to deliver it.

What's more, CLAAS FARM PARTS¹ offers one of the most comprehensive ranges of multi-brand parts and accessories.

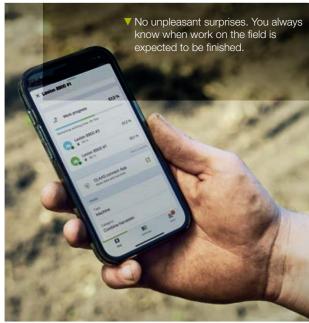
#### Efficient remote support.

With an active Machine connect licence, the machine transfers all service-related data to your service partner via the mobile phone network. This simplifies remote diagnostics and remote assistance, enabling problems to be found and dealt with faster. The licence also enables proactive maintenance planning. So you can integrate CLAAS services into your day-to-day operations and calculate costs precisely.

All together, this greatly improves the operational reliability of your machine. All you have to do to activate these services is give a one-time consent.

<sup>&</sup>lt;sup>1</sup> Offer may vary according to country







#### CEMOS makes good operators even better. CEMOS is your on-board CLAAS advisor, there to tance system for combine harvesters, forage harvesters and tractors suggests setting values and helps the operator continually adjust the machine to the field

conditions. The CEMOS Advisor app for smartphones helps you set up your combine harvester even more efficiently.

### Use your machine efficiently.

You can track the performance of your machines and the status of your fieldwork at any time, even when you're not behind the wheel. View the machine overview in the app or on your desktop. The working time analysis function allows you to identify downtimes and find smart solutions to boost your productivity.

The same applies to days when you are using a mixed fleet. CLAAS connect enables you to exchange data between machines from different manufacturers.

You can import and interpolate yield data from different manufacturers or connect your John Deere, Case, New Holland or Steyr machines directly to the system.

#### Transparent performance.

Your harvesting machines, tractors and implements are digitally connected to one another. So you know exactly where each machine is and how much time it spends in the field, on the road, or idle. Relevant data are precisely recorded such as area worked, yield, working time, operating hours, diesel and AdBlue® consumption.

It's quick and easy to optimise your machines' performance, identify cost drivers and shorten processes. The bottom line: streamline workflows and evaluate them trans-

#### Seamless logistics.

Complex logistics are often responsible for high process costs. CLAAS connect can help here too by keeping all the cogs turning efficiently. The system calculates the estimated time a machine still has on the field, simplifying driver coordination and overall logistics.

#### Third-party data exchange.

CLAAS connect makes your mixed fleet even more transparent. You can easily connect machines from other manufacturers and benefit from secure, cross-manufacturer data exchange without transmission errors or loss of information, every minute of the day.

> ▼ Effective fleet management. Receive fleet process data, exchange data



Farm connect | Digital farm management Record, document and manage field data Fleet connect | Automatic documentation

Generate booking proposals automatically

# Get your fieldwork documented automatically.

It has never been easier to log your achievements. All activities are documented, from tilling and drilling to crop protection and fertiliser application right up to harvesting. CLAAS connect combines machine and harvest data in one entry at field level, independently of the operator. A booking proposal is generated from this entry. The data is available for your documentation and subsequent analysis – enabling you to analyse your fields and review yield data at any point.

No sooner said than done: your yield maps are interpolated and displayed automatically. Work diary entries from different sources are clearly combined.

#### Comprehensive documentation.

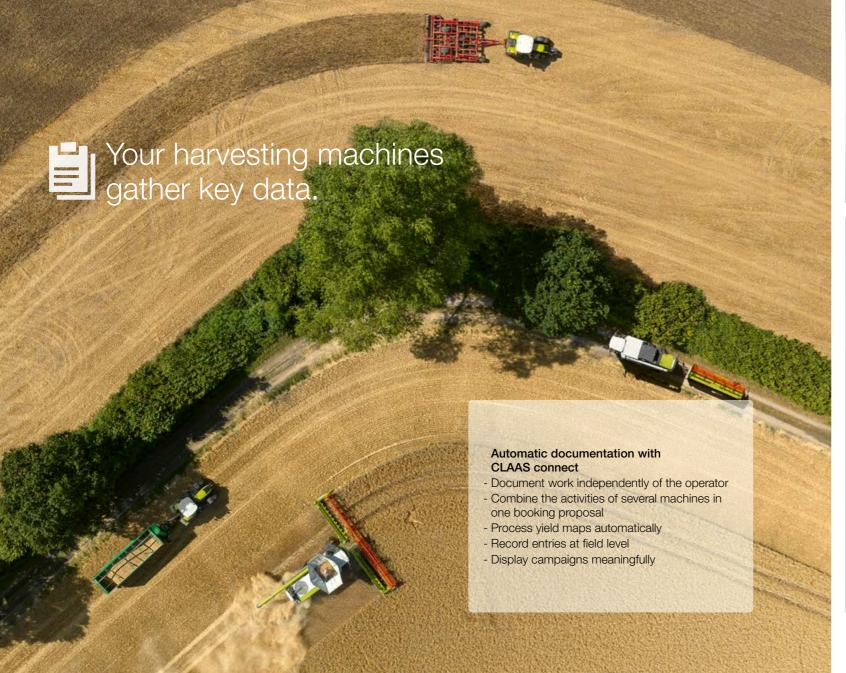
Data gathered during harvesting is vital for planning future cropping measures. Once the field boundaries have been saved in CLAAS connect, the harvesting machines can precisely document harvest data – automatically, in the field and without loss of information. Even when several machines are working in the field at the same time.

So all the information you need for yield mapping is at your fingertips. From harvest to harvest, year to year. And the more data collected, the more useful your geodata becomes.

#### Clear campaign reporting.

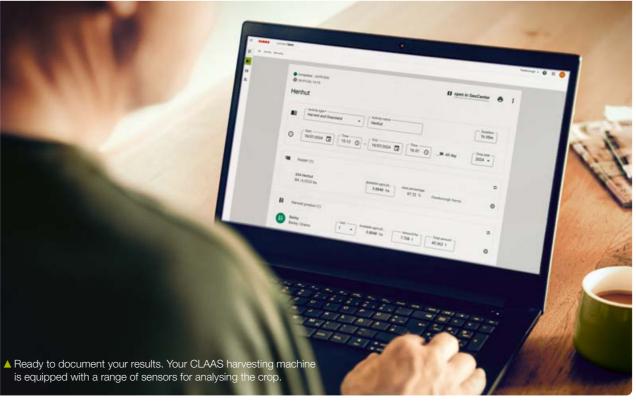
There are many advantages of connecting all machines and implements in one digital system. Your campaign is clearly and meaningfully consolidated in one place. You get a complete overview of all machine movements and can access an uninterrupted recording of all activities performed.

Armed with robust data, you can perform meaningful analyses to help optimise your crop production processes.





All measures, associated fields and times are seamlessly documented and sent from the machine to your office. The only thing left for the operator to do is start the engine.







steeringsystems.claas.com

#### GPS PILOT CEMIS 1200 gets more done.

The CEMIS 1200 system steers the machine with absolute precision. It automatically creates reference tracks using saved field boundaries or by doing a single circuit of the field. Your tractor is aware of its position at all times and switches to the best reference track. Tramlines are displayed in colour and backed up by an acoustic and visual notification.



 ${\color{red} \blacktriangle}$  Plan optimal tracks once in CLAAS connect and send them to CEMIS 1200.

## Transfer your job data online with ease.

CEMIS 1200 and CLAAS connect turn your machine into a second office. Send your tasks online to the field, process them and send the data back.

Use the data to produce application maps based on satellite images and other maps in an instant. With track planning, you can define the ideal reference track and transfer it to all machines used on the field throughout the year – ensuring seamless teamwork and reducing your workload.

With CEMIS 1200 you can create jobs with just one click and monitor progress in the field.

#### Plan ahead in the office.

You can plan tasks with reference tracks and application maps in CLAAS connect. The tasks are sent online to the CEMIS system. Simple, reliable online transfer to the machines makes for seamless workflows and avoids data losses.

#### Process on the machine.

The CEMIS 1200 terminal enables you to receive or create your tasks online and use the steering system and preplanned reference tracks for precise fieldwork. All machine, application and yield data are automatically documented.

#### Send data back.

On completion, the task is transferred online from the machine to the office. All work is recorded, work diary entries are compiled and data is prepared for accounting in CLAAS connect – providing you with all the jobs, work and harvest data needed for documentation and analysis.

As a contractor, you can make the data available to your customers. When it comes to documentation and analysis, CLAAS connect offers a holistic solution designed to optimise workflows. This helps you to save resources, analyse fields easily and map yields with precision.

Your licence: Field connect | Precision farming Create application maps, plan tracks

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# Manage your geodata in a structured way, all in one place.

Your day-to-day work generates a vast amount of map data. You use satellite images for monitoring and comparing fields or to help create potential maps. You record your harvest results in yield maps and the nutrient levels of your soils in soil sample maps. Application maps help you with planning. All these maps are stored in one central place for easy access – the Geocentre. The system even handles different data formats from third-party service providers, organisations and machines with ease

The Geocentre takes care of your yield maps, leaving you to focus fully on your work and the harvest.

#### Automatically generated yield maps.

High-quality yield maps are automatically generated from raw data collected from every machine deployed in the field. Shape files from different manufacturers are combined into one yield map without any need for manual input. Field data can be processed and compared with ease, and all maps can be superimposed and interpreted effortlessly.

#### ▼ Yield maps



#### ▼ Application maps



#### Meaningful satellite maps.

Satellite images highlight differences in vegetation within fields and provide the basis for drilling and crop protection and fertiliser applications. They can also help you compare crop ripeness across different fields to work out the harvesting sequence. Satellite data from several years provides valuable information about the potential of your fields.

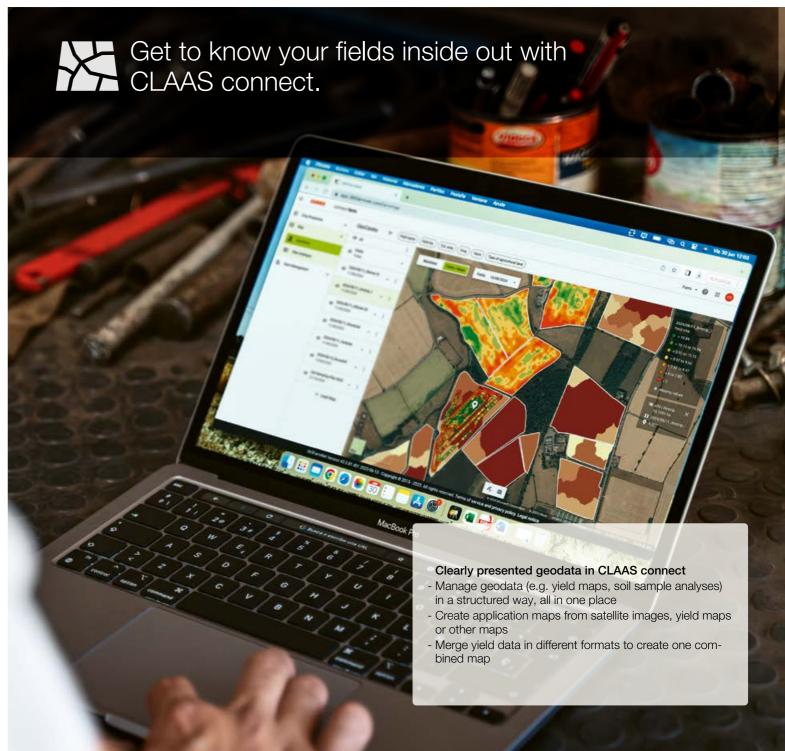
#### Precise application maps.

All the maps you work with are displayed in the Geocentre. Here, you can create application maps in just a few steps which help you to apply seed, fertiliser and pesticides at different rates according to need and tailor your cropping to your soil characteristics. Manual adjustments can be made at any time.

Your machines also provide valuable information about future applications by mapping the resources applied. These as-applied map are also displayed in the Geocentre.



Satellites monitor biomass on the field. Combine harvesters record how much they have harvested and where. Soil samples provide information about the current supply of essential nutrients. So you know exactly which levers to pull to make improvements.

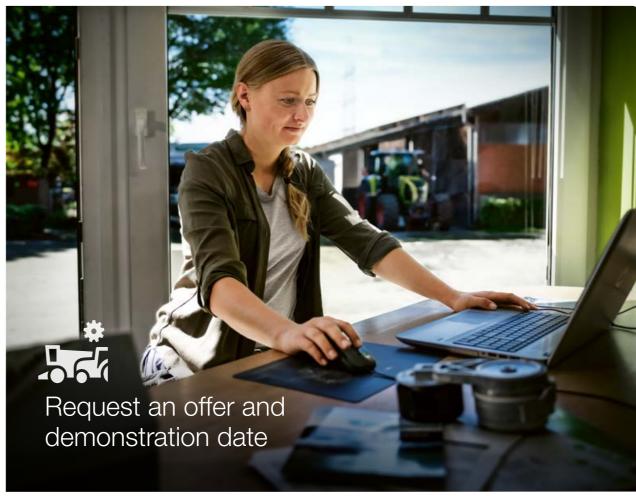


### Configure your machines to suit your business.

CLAAS connect is your direct line to your CLAAS dealership. So you can deal with all maintenance and service matters, access the complete parts catalogue and order parts straight from the app.

But that's not all. You can also configure a new machine to suit your needs in CLAAS connect. Then get a customised quote and demonstration date straight from your dealer. Together with your chosen CLAAS connect package, your new tailor-made machine is perfectly equipped for digital farming.







**CLAAS** connect Package 1

Documentation

· CLAAS connect Optional: farm licences for CLAAS connect



**CLAAS** connect Package 2

Documentation + Steering system

· CLAAS connect Optional: farm licences for CLAAS connect GPS PILOT CEMIS 1200



**CLAAS** connect Package 3

Documentation + Steering system

+ Precision Farming

· CLAAS connect Optional: farm licences for CLAAS connect GPS PILOT CEMIS 1200 · ISOBUS activations







#### Three CLAAS connect packages to make your job easier.

The CLAAS Connect packages get you on track to manage all your farm's digital tasks. Your CLAAS sales partner's digital specialist will set you up with all the functions you need for your business.

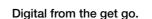
Each package gives you a quick overview of your machine and service data in CLAAS connect. The higher level packages help you simplify data exchange between the machine and your office and plan and implement your year-round field work more efficiently.





José Godineau and his brother are digital pioneers, or early adopters as they say nowadays. The two farmers manage an arable farm in the department of Maine-et-Loire. They also do contract work for neighbouring farmers and have set up a trading company through which they sell their products.





The two brothers have always been fascinated by new technologies. "It started in 1995," José recalls. "Back then, we had the first yield measurement equipment. Then in 2007 we moved the whole fleet to automatic steering with RTK accuracy for drilling, tillage, applying fertiliser and spraying. We have been using TELEMATICS since it was introduced for combine harvesters."

Digital solutions enable the farming brothers to continually optimise their processes. Measure what you do, analyse the results and then adjust the processes accordingly – that's what it boils down to. And they are not afraid to review their farming practices when the figures speak for themselves.

#### CLAAS connect is even more precise.

José was very excited about the new CLAAS connect. It promised more comprehensive precision farming management than was possible with TELEMATICS, where, as he says, all you do is manage the yield maps and machine information. And it has lived up to his expectations. "With the data gathered from different sources provided by CLAAS connect, we can manage the entire production chain and cultivation methods," he explains.





"The new CLAAS connect enables us to farm with far greater precision than before."

"With CLAAS connect you delve deeper into the agronomic side of things." He finds the Field Management, the yield maps and the satellite maps in the Geocentre particularly useful

#### Intuitive, multi-manufacturer and service-oriented.

"When we first used CLAAS connect, we could see right from the start that it was very intuitive," says José. "And that's important if we want to carry on using the software in future." He is also impressed by the compatibility. CLAAS connect transferred fields and yield maps recorded or created using other systems without a hitch. The brothers saved a great deal of time by not having to duplicate entries.

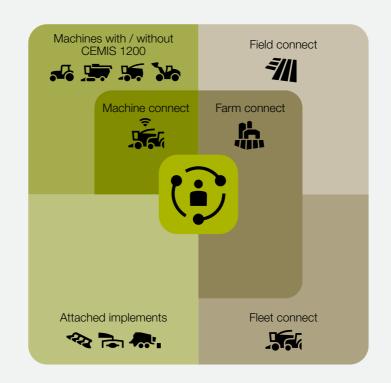
José has clear ideas when it comes to service. "When we are offered solutions like this, it is good to have a dealer who can provide training and support," he says. "And they must be on hand when a problem arises. When harvesting is in full swing, we need an answer straight away." A job that his service partner's specialists in Maine-et-Loire are happy to do as part of CLAAS DIGITAL CARE.

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### Licences.

Our farm licences are designed to provide an integrated view of your farm in CLAAS connect. Farm connect helps minimise your administrative work load and document processes. Fleet connect enables you to document your activities in the field automatically. Field connect allows you to create application maps and plan reference tracks in CLAAS connect.

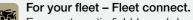
You can activate all three farm licences in CLAAS connect on a 30-day trial and test them thoroughly before purchasing. The Machine connect licence comes pre-installed with most machines and can be used free of charge for five years. It transfers data from the machine to CLAAS connect, to your farm management software and to your service partner via the mobile phone network.



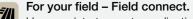
For your farm – Farm connect.

Manage master data and docume

Manage master data and document work. Keep track of everything with ease.



Easy, automatic field-based documentation.



Use geodata to create application maps and reference tracks.



#### For your machine - Machine connect<sup>1</sup>.

Exchange data between machines and systems.

Analyse output and performance. Compare machines.

CLAAS connect	Basic	Farm	Fleet	Field
Handover and registration				
Handover documentation and automatic machine activation				T
Registration and management of an organisation				
Roles and rights concept in the CLAAS ID				
Notifications, new features and tips (web and app)				
Service and parts				
Operating manuals				
Parts Doc, Parts Shop, Farm Parts Shop, Collection Shop				
Service, maintenance and error messages and machine software status				
Management of maintenance agreements and licences, licence shop				
Retrofit Advisor				
Other service tools (Lubricant Advisor, Bale Calculator)				
Apps				
CEMOS Advisor for Combine Harvesters (app)				
Chop quality tool (app)				
Reports and analyses				
Operating time analyses and machine comparisons				
Daily and campaign reports				
Raw data export				
Process data and work progress				
Machine status, machine position and tracks				
Estimated time to finish				
Display of tank fill levels, operating hours				
Display of machine settings (engine droop, chop length adjustment, concave gap, etc.)				
Display of current process data (current consumption, current yield, current dry matter content, etc.)				
Display of special machine events (steering system malfunction, downtime, etc.)				
Display of third-party machine information (DataConnect)				

CLAAS connect	Basic	Farm	Fleet	Field
Master data	-			
Master data management for fields, reference tracks, consumables and machines				
Reference track planning (AB, contour)				
POI management (app)				
Navigation to the field (app)				
Interface between raw machine data and partner systems (point data API)				
Task Management				
ISO-XML Task Management				
Online data transfer of ISO-XML tasks to GPS PILOT CEMIS 1200				
Online data transfer of ISO-XML tasks to partner systems				
Documentation				
Manual documentation of activities				
Automatically generated booking proposals				
Geodata				
Import, manage and display geodata such as yield maps, soil sample analyses, as-applied maps, etc. (ISO XML and Shape file format)				
Automatic cleanup and interpolation of yield data				
Use current and historic satellite data to display vegetation maps and to generate potential and application maps				
Create application maps on the basis of field data, e.g. yield maps, soil sample analyses, etc.				
Configurator				
Create, save and edit machine configuration				
Request offers and demonstrations				

Available in CLAAS connect

Additional licences required:

Farm connect

Fleet connect

Field connect

With an active Machine connect licence (5-year pre-installed licence free of charge), the machine transfers machine and process data to CLAAS connect

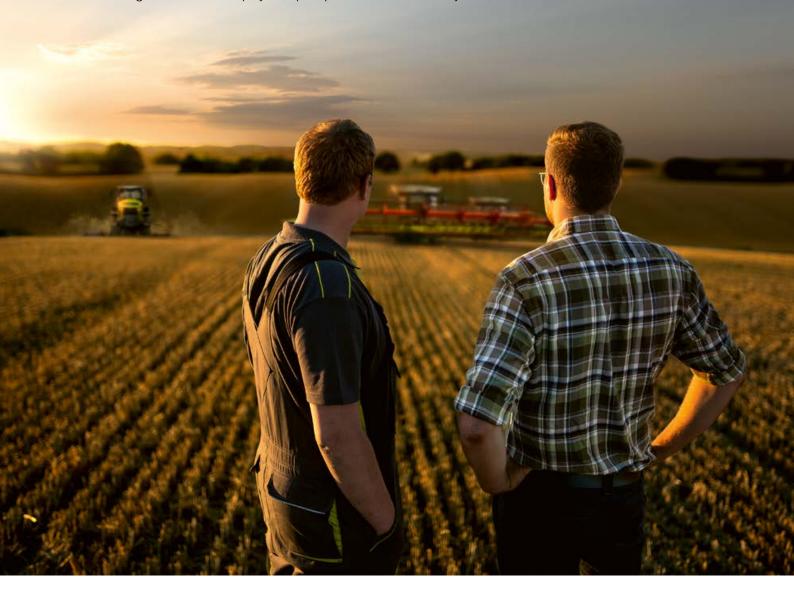
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All technical specifications relating to engines are based on the European emission regulation standards: Stage. Any reference to the Tier standards in this document is intended solely for information purposes and ease of understanding. It does not imply approval for regions in which emissions are regulated by Tier.

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### We want to make you the best in your field.

In everything we do, the focus is on you, our customers. We understand your daily challenges. Together with you, we develop agricultural technology ensuring you can farm sustainably and successfully today and in the future. Our digital solutions simplify complex processes and make your work so much more convenient.



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