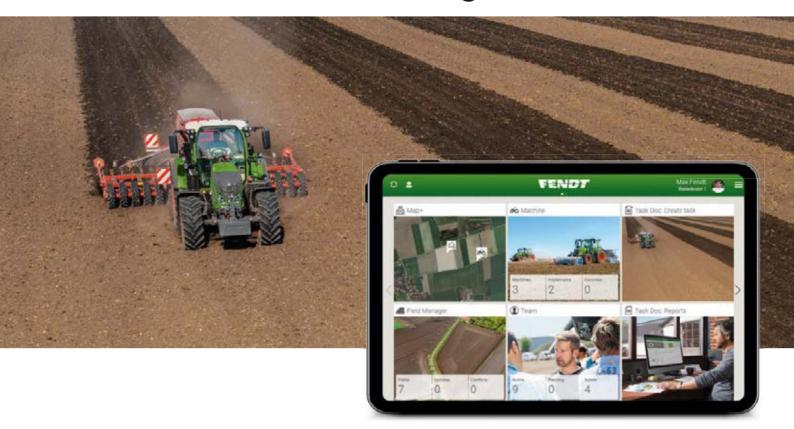


# Fendt Smart Farming





# Thinking about tomorrow, today.

Smart technologies on agricultural equipment are becoming more and more standard. And for good reason. Because with fewer and fewer farms feeding more and more people, today's farming must be as efficient as possible. Trust in proven and future-oriented smart farming solutions that drive your machine to peak performance – while always using limited resources responsibly.

#### Make it easy for yourself

The demands on farms are increasing at a tangible rate. As a professional modern farmer, you have to be a true all-rounder: plant construction specialist, technician, business economist, animal health expert, legal expert, etc. And there are challenges, such as climate change and rising operating costs, which do not make your job any easier. Given all this, it is our aim to make your daily work easier with smart products and solutions for your Fendt machines.





Save resources, time and hassle.

#### It's worth a try

Whether it's saving money with Fendt Section
Control, enjoying easier tracking with the Fendt
Contour Assistant or ending the chore of
paperwork with Fendt Task Doc – each of our
Fendt Smart Farming products offers you added
value in terms of comfort and saving on resources
and time. Ease-of-use is always our top priority.
See for yourself!

Fuse

future.

# Smart Farming. Synchronised.

Your guide to a successful future in agriculture Today's tractors are so much more than just steel and iron. Smart technology solutions determine the character of an agricultural tool and ensure that you can use your fleet with the greatest possible efficiency. Any talk about technologies used in AGCO agricultural products will feature the name Fuse. Fuse ensures that all smart farming solutions are integrated into the tractor, combine harvester, plant protection sprayer, etc. in the best possible way. Fuse adds value to your machine performance in terms of precision, efficiency and comfort. In doing so, Fuse ensures that the solutions installed are compatible not only with mixed fleets, but also with the entire business of the farm. This gives you complete freedom in your choice of machine, management and agronomy software as well as service provider, and you can stay flexible for the



To find out more, go to www.fusesmartfarming.com



#### FendtONE

# A revelation in ease-of-use.

#### The old favourites are still there

Our Variotronic products will still feature on both the current and the new driver's workstation. Only the product names have changed.

## Optimise not just your machine but your entire work process

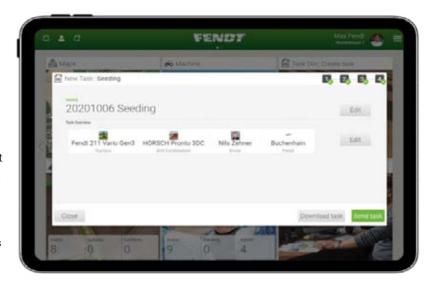
You can see from the key innovations in agricultural technology that this industry has made monumental progress over the last 50 years. When the first onboard computers were installed in tractors in the 1980s, controllers were programmed for the first time and systems could communicate with each other – an important step towards increasing efficiency. Since the mid-1990s, the stepless Vario gearbox has offered a whole new level of working comfort.

Over time, there became a need to advance not just the machine, but the efficiency of the whole team. Enter ISOBUS, the cross-manufacturer communication of tractors and attachments with standardised hardware and software.

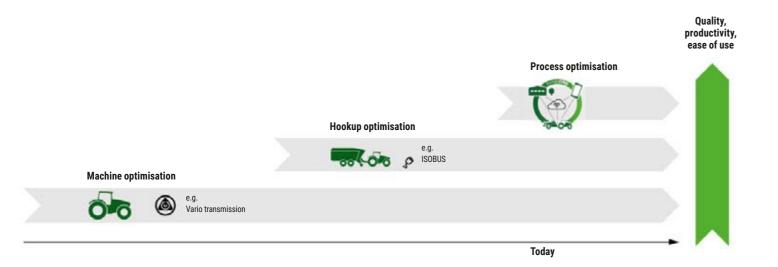
In the meantime, digitalisation in farming is becoming increasingly important. Modern farms are now networked – from the dairy cattle in the barn to all areas of everyday agricultural work. The focus on simply upgrading machines to increase productivity is no longer relevant. Against this backdrop, we at Fendt developed the first all-in-one concept that sees the workplace on the tractor (onboard) merge into one with the working environment at home or on the move (offboard). The main focus is no longer on the machine alone, but the entire work process is assimilated and made more efficient.

## The best of both work environments – united in an all-in-one system

FendtONE is a smart way to blend your two places of work to make one interconnecting world. FendtONE refers partly to the new driver workstation (onboard), which is available for the first time on the new Fendt 200 Vario, Fendt 300 Vario and Fendt 700 Vario. There are more display areas, it is easier to use and adapts to your needs in every way. Onboard is where you carry out your farming work. The counterpart to that is FendtONE offboard – a platform with features that complement the existing applications on the machine terminal. Offboard is where you plan and manage your orders and have a 24/7 overview of all your run-outs, machines and workforce, wherever you are. FendtONE is the link between the onboard and offboard workspace. Everything follows the same operating logic, without any need to refamiliarise yourself between the different media.







#### FendtONE offboard

# Your management and planning tool.

#### A unique connection between office and machine

The counterpart to the new driver's workstation on the tractor is FendtONE offboard\*. You can access this modular application at www.fendt.one either from your office or on an app on your mobile device.

With FendtONE offboard, you can manage field, order and machine data and organise your team. The operating logic is the same as on the tractor terminal. The same overview manager is there to help you adapt the homepage to your individual needs.

#### Machines

Under Machines you can create your machine fleet – either by using the chassis (VIN) number or manually entering the machine data yourself. You can also leave notes for the team.

#### Team

The module team offers you an overview of all employees and their roles in the company (owner, driver, trainee, etc.). For each function, you can assign different access rights to the individual team members (read/write, etc.) and also set an end date for that account (useful for interns and trainees).

#### Fields

Manage your land under Fields. You have the option to import field data (field boundaries/waylines) via mobile phone or USB stick. Map your run-outs-based on Google Maps. You can also select or remove waylines (AB lines and curves) and obstacles.

#### Map+

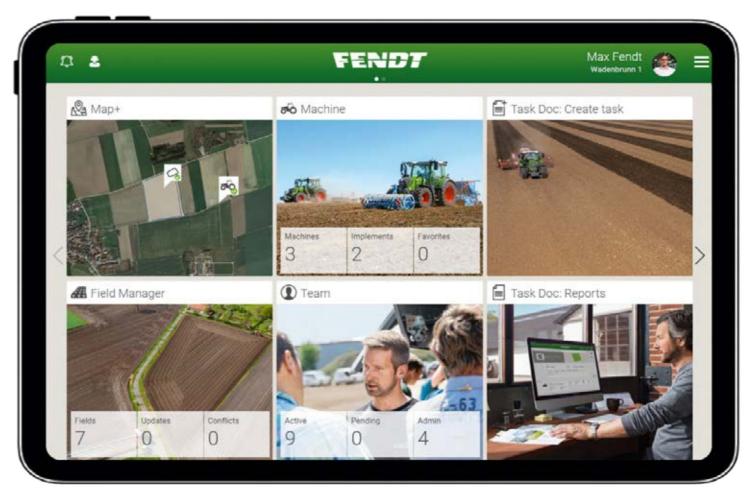
Under Map+, you have an overview of the machine position and parameters, fields and individual locations. As well as the current position, the machine overview also shows the fuel level, operating hours and speed. The locations can be set as you want in the Google Maps-based map and called up by individual team members. All the field data stored in Fields also appears under Map+.

\* Available initially in DE, UK, FR. With other countries to follow.



#### Job management has never been so easy: Fendt Task Doc (offboard)

Fendt Task Doc makes it easy for you to convert to automatic reporting. This job-specific documentation system includes planning and admin features. With the FendtONE offboard app, you can create orders in the office or on the go in just a few clicks and send them directly to the machine. Added to this, with the onboard function Fendt Task Doc, the operator can process and document jobs on the machine and return them wirelessly to the office as a job report. From there, you can expand on the job details to show which fields were worked, the output volumes, and more. A map view also gives you an overview of the selected parameters. Fendt Task Doc makes it easier to document your actions, saving you valuable time in the process.



1

Guidance system: VarioGuide / Fendt Guide

# For those who prefer precision – lane guidance from Fendt.

#### Trust the test winner

A comparative test led by 'top agrar' magazine tested the tracking systems of six tractor manufacturers for accuracy.

VarioGuide / Fendt Guide ranked first with both the satellite-based signal and Sapos-RTK, making it the most precise system from all the test participants. "The steering system stands out for its intuitiveness and incredible accuracy." (top agrar, 03/2020)

#### Because you can't rely on guesswork

VarioGuide / Fendt Guide is the central automatic steering system for Fendt Vario tractors, forage harvesters, sprayers and combine harvesters. Using high-precision satellite technology, the machine is reliably and precisely controlled up to +/- 2 cm. You stay on track every time, increase your work quality and get the most from your machine. Fendt's lane guidance is fully integrated into Fendt's cross-vehicle operating concept – an advantage for new and experienced drivers alike. Fendt's automatic steering system is controlled on the Varioterminal. With the new driver's workstation, VarioGuide / Fendt Guide can be shown and operated on the armrest terminal as well as on the roof terminal.

#### Your benefits with VarioGuide / Fendt Guide

- Makes the driver's life easier: They can fully concentrate on the equipment, and easily monitor the completed field
- Savings potential: greater area coverage by taking full advantage of the working width, while minimising unwanted overlaps and reducing use of resources
- Sustainable land management: minimise soil compaction by reducing overlaps and optimising turning processes

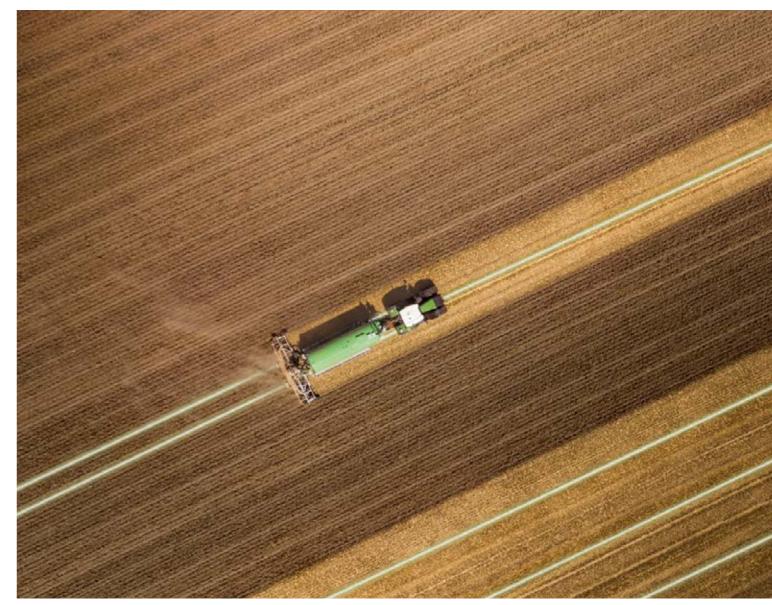
#### VarioGuide / Fendt Guide opens up new possibilities

After a long day working on the field, still no end in sight? With Fendt's lane guidance, you work with the highest precision at all times - even at night and in poor visibility. On the terminal you have everything in view: the already worked area is easily and clearly monitored. If tracking is already an established function on your farm, are you wondering how you can further improve your daily work? As well as other tracking products like VarioGuide / Fendt Contour Assistant or Fendt TI Headland, VarioGuide / Fendt Guide is the starting point for added smart farming solutions for job management and machine control. You would need lane guidance, for example, if you want to exchange location-specific job data between the machine and the field database for documentation purposes. What's more, Fendt's automatic steering system is a prerequisite for Fendt Section Control automatic sectioning or Fendt Variable Rate Control by subsection – both features that make your fieldwork even more efficient. Once you have worked with it once, Fendt's lane guidance will soon become an indispensable tool on your farm. See for yourself.

#### Keep an eye on everything important

With the new driver's workstation, you can show what you like on the screens. Show lane guidance in full-screen on the armrest terminal and still have room for more data on the roof terminal.





Guidance system: NovAtel, Trimble satellite receivers

# Tracking according to your needs.

#### You have the choice

You can configure your Fendt lane guidance system to suit your needs. Equip your system with either a NovAtel or Trimble satellite receiver. Depending on your work and individual requirements, you can choose from correction signals with different accuracy levels. The functionality of VarioGuide / Fendt Guide is the same regardless of who is using it.

#### Upgrade at any time

A major advantage of Fendt's lane guidance system is that you can retrofit, convert or upgrade the system to the PowerPlus / Power+ or ProfiPlus / Profi+ models at any time. Maybe you are a beginner and have used the free correction signal so far, but now you want to fine-tune your work? Or would you like to switch from an external system to VarioGuide / Fendt Guide? Your sales partner will be happy to advise you.

The high-performance all-rounder: NovAtel®	The efficient specialist: Trimble®				
Standard	Standard				
SBAS (EGNOS / WAAS)	SBAS (EGNOS / WAAS)				
TerraStar-L (free for the first year)	RangePoint® RTX (free for the first year)				
Optional	Optional				
TerraStar-L (from the second year)	RangePoint® RTX (from the second year)				
TerraStar-C Pro	CenterPoint® RTX				
	CenterPoint® RTX Fast				
RTK (Radio)	RTK (Radio)				
RTK (NTRIP mobile network)	RTK (NTRIP mobile network)				
Benefits	Benefits				
A cost-effective purchase	Trimble xFill™ technology: Bridging during RTK dropouts of up to 20 minutes				
High accuracy in SBAS mode with GLIDE algorithm	Optional use of xFill™ Premium: unlimited bridging of RTK drops				
Steadyline mechanism (backup solution in the event of RTK failures)					
Optional use of RTK ASSIST™: Bridging during RTK dropouts of up to 20 minutes					

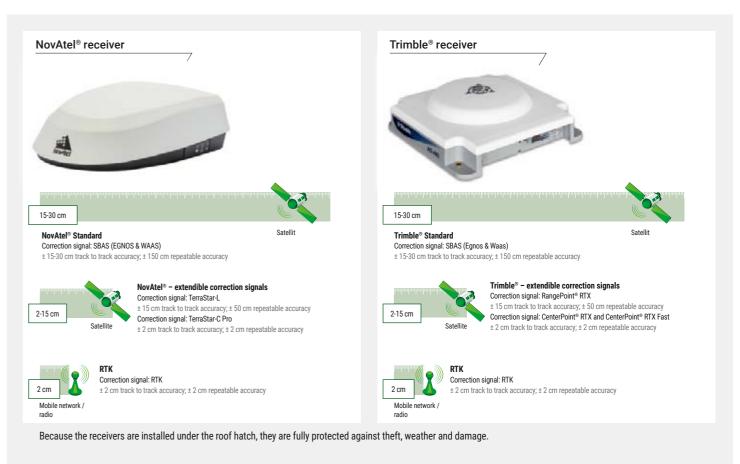
#### The need for correction signals

Once a receiver has a clear view of at least three satellites, the position can be determined. As one system consists of anything from 18 to over 30 satellites that orbit the Earth about twice a day, and one receiver supports multiple satellite systems, it's fine in open spaces. But several interrupting factors, like path faults, weather-related influences and absorption and reflection in the atmosphere, deviations from the actual position of up to +/- 12 m can occur – and that's not accurate enough for agricultural purposes. As such, we have to use correction signals, which can increase the pinpointing accuracy by up to +/- 2 cm.

#### There's accuracy and there's accuracy

Two main factors are decisive for farming:

- Track-to-track accuracy: Shows how precise the contacts are from one track to the next
- Repeatable accuracy: Specifies how accurately you can repeat an existing wayline or field boundary (e.g.) from the previous season



#### Free and easy to handle: SBAS

SBAS (Satellite Based Augmented System) is the group of free and freely accessible correction signal services, EGNOS (European Geostationary Navigation Overlay Service, Europe) and WAAS (Wide Area Augmentation System, USA). SBAS is suitable for soil cultivation as well as basic fertilisation or liming.

#### Manufacturer-specific,

#### extendible correction signals

The manufacturers of satellite receivers offer their own correction signals, which are more accurate than SBAS and are therefore also suitable for precision work. The standard version is free of charge in the first year. On request, you can use an even more precise variant of the correction signal and then work with an accuracy in the RTK range.

#### **Highest precision: RTK**

RTK (Real Time Kinematic) is the most accurate correction signal and meets the highest demands. RTK is recommended for all measures that require the utmost care, e.g. mechanical plant protection or sowing. The accuracy of RTK makes it possible to maintain field data cleanly and to use it again and again for follow-up work or in later years. Unlike SBAS and proprietary solutions, the correction data is not sent via satellites, but the radio or mobile network (in RTCM 2.x, RTCM 3.x or CMR formats).

Guidance system: VarioGuide / Fendt Contour Assistant

# To make lane-keeping even easier.

#### Your smart assistant

The VarioGuide / Fendt Guide Contour Assistant is a useful function package that will make your fieldwork even more efficient and easier. The Contour Assistant adds the wayline types Contour Segments and Single Track to your lane guidance system.

#### Saves time and costs - Contour Segments

The new wayline type "Contour Segments" minimises the complexity of the work and is a useful tool for overcoming several obstacles in practice. You know the situation; you create different waylines on the terminal (e.g. main work direction, headland). As you till the field, you always have to toggle between the different waylines on the terminal. This can be annoying when sowing crops, for example, where you start with the headland. The Contour Assistant can be used to record these different waylines as contour segments, i.e. waylines of the same type (for example, all track lines in the main tilling direction) are combined into one unit. On the field you are working, the tractor automatically detects the segment it is in, based on the direction of travel, angle, and distance, and indicates where all the other waylines are in the field. As you start moving, the wayline is automatically changed. You no longer have to toggle between segments in the terminal and you can fully concentrate on monitoring your equipment.

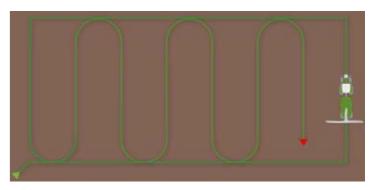
You can create a field boundary automatically from the contour segments. Conversely, the different contour segments can be calculated based on a field boundary. You also have the option of using existing waylines (e.g. from the previous year) and calculating the resulting contour segment from them.

#### For stress-free maintenance work: Single Track

Single Track mode allows you to record a track with a free contour. All tracks driven in the tramlines and at the headland during maintenance work and plant protection for example, can therefore be recorded as a single track. If repeated treatments are needed, the combine is automatically guided through the entire field. The Single Track wayline type is ideal for harvesting and maintaining special crops that have been planted without tracking.

#### Single Track wayline

- Steering system can also be used for crops which were not planted using this system
- Easy recording of any lane (e.g. tramline) which can be followed exactly the same next time



#### **Contour Segments wayline**

- Time saving and comfort: quick and easy wayline mapping, automatic creation of contour segments based on the field boundary, consistent use of the steering system even at the headland
- Data retention and processing: option to convert previously recorded (over many years) waylines into contour segments





#### Making sure obstacles are no longer obstacles: Adaptive Curve

Another helpful feature of the VarioGuide / Fendt Guide lane guidance system is the wayline type "Adaptive Curve". Imagine you manually bypass an obstacle on the field. The processed area recorded becomes the reference for the next track. In the map onscreen, only one wayline is calculated to the right and left of the last lane. This makes sure that, even after you've gone around the obstacle, you can process the full working width (e.g. during mowing).

Guidance system: Variotronic<sup>™</sup> / Fendt TI, Fendt TI Headland

# Own the headland.

# Relief at the push of a button: Variotronic<sup>TI</sup> / Fendt TI For a clean headland, you need to make several hand movements in the right place at the right time – not that easy while concentrating on the actual work. Wouldn't it be great if you could save repeat processes and activate them when you want? Now you can, saving time and allowing you to work stress-free and error-free. With Variotronic<sup>TI</sup> / Fendt TI, the driver can conveniently create the best operating sequence manually at a standstill or record and save it while driving. The defined sequence of work steps is activated at the push of a button. Leaving you to give the actual field work your full and undivided attention.

#### Get even more from your lane guidance system. Fendt TI Headland

Fendt TI Headland is the complete package for professional results at the headland. Work sequences are stored and activated in combination with the VarioGuide / Fendt Guide tracking system, which makes it much easier to manage the headland and makes your work as easy as possible. Fendt TI Headland consists of the two products Variotronic<sup>TI</sup> automatic / Fendt TI Auto and Variotronic<sup>TI</sup> Turn Assistant.

## In the right place at the right time: Variotronic<sup>TI</sup> automatic / Fendt TI Auto

With Variotronic<sup>TI</sup> automatic / Fendt TI Auto not only can you enjoy the advantages of automatic sequencing, but also use your position data as guidance. In combination with VarioGuide / Fendt Guide, individual sequences (such as lowering the rear hydraulics) are automatically activated by the position determined by the lane guidance system on a headland – you don't have to lift a finger. This is how you can use your steering system effectively even at the headland: Always keep the same distance to the field boundary.

#### Fendt TI Headland

#### Variotronic<sup>™</sup> automatic / Fendt TI Auto

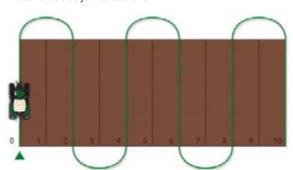
= Save and automatically trigger a sequence of work steps at the headland

#### Variotronic<sup>™</sup> Turn Assistant

= Automatic turning at the headland (initially available for the current driver's workstation)

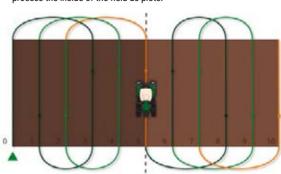
#### **U-Turn mode**

U-Turn mode is perfect for classic tillage work. You decide which track should be your contact lane.



#### Part Field mode

Uncertain weather conditions? You can use Part Field mode to process the inside of the field as plots.





#### Automated turning: Variotronic<sup>™</sup> Turn Assistant

The Variotronic<sup>TI</sup> Turn Assistant automatically adds the automatic turning sequence to the Variotronic<sup>TI</sup> automatic / Fendt TI Auto headland management system included Fendt TI Headland. You select which contact lane you want to start next and can process the inside of the field either in U-Turn mode or Part Field mode. Turn Assistant makes your work as easy as possible, with precision and efficiency. You save also save resources and time spent on turning, while protecting the soil with the perfect turning actions. The automatic turning function is initially available with the current driver's workstation.

Agronomy: VarioDoc, VarioDoc Pro / Fendt Task Doc

# Save time in the office.

#### Skip all that paperwork

In your already busy everyday life, there's no avoiding that paperwork – annoying, but necessary. The good news is that your Fendt machine will help you document your field work in the best possible way. With the orderled documentation system VarioDoc or VarioDoc Pro / Fendt Task Doc, your tractor collects all necessary data as you work. You can then transfer the data as a standardised file into a field map – either via a USB stick, Bluetooth or wirelessly over the mobile network. The documentation system is fully integrated into the Fendt operating concept, which makes navigation even easier for beginners as well as those more experienced.

#### Basic documentation perfected. VarioDoc

With its onboard calculator, your Fendt machine can collect various data on the job. You can make use of this data with VarioDoc and conveniently document it in a farm management system as part of an order. You can make all the documentation settings onscreen:

- job name, field name, and current crop
- Address of the farm/customer
- Pesticide used and quantity to be applied
- Current operator
- Implement used
- Current weather conditions

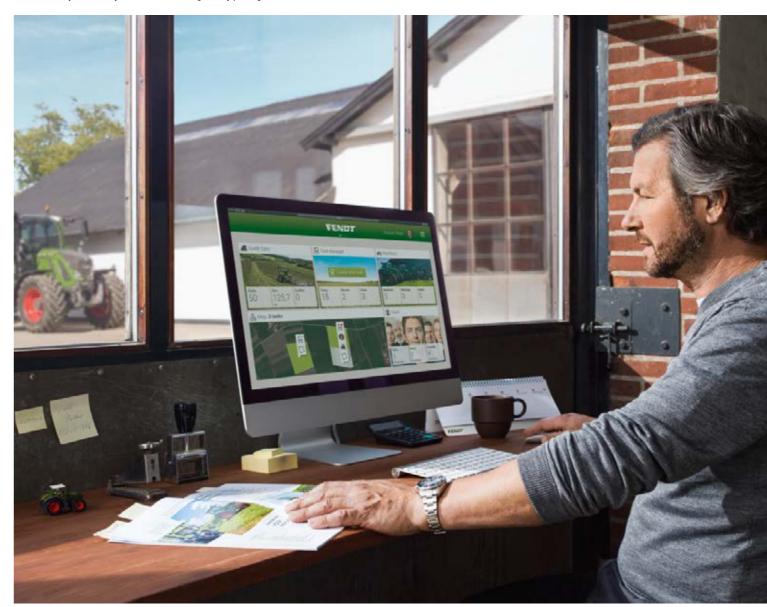
Alternatively, you can create an order in one of the many compatible field databases and transfer it to your terminal via USB stick or Bluetooth. The processed job is imported into the field database as a standardised ISO XML file in the same way. Each Fendt machine with a Varioterminal 10.4" is equipped with VarioDoc as standard.

## Advanced documentation: VarioDoc Pro / Fendt Task Doc

VarioDoc Pro / Fendt Task Doc adds machine parameters and position data to the info provided by the onboard calculator. This data is then accessed by the VarioGuide / Fendt Guide tracking system. This location-specific information is provided and recorded every five metres. VarioDoc Pro / Fendt Task Doc is the basis for the subsection-specific Fendt Variable Rate Control application. Data can be transferred with VarioDoc Pro / Fendt Task Doc via the mobile network or USB, which makes you even more flexible and helps you meet ever-stricter documentation requirements. The extended documentation system is also ideal for contractors and machine communities sharing their data management. As well as files in ISO-XML format, VarioDoc Pro / Fendt Task Doc can also process databases in the Shape format without any problems. Shape databases are transferred exclusively via USB.

#### Free three-year licence

Once a Fendt machine is equipped with VarioDoc Pro / Fendt Task Doc, agronomic data can be exchanged wirelessly between compatible field databases and the Fendt machine. This requires a licence that is free for the first three years when you order the basic Agronomy package.



Agronomy: agrirouter

# Exchange crossmanufacturer data.

#### Solving a core problem

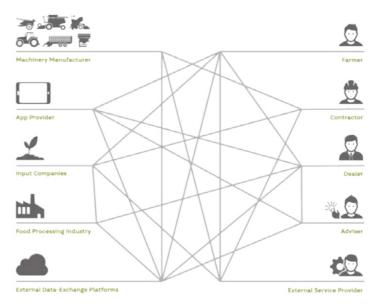
As digitalisation progresses, agricultural machinery is becoming smarter. Tractor and attachment communicate with each other - in the same language thanks to ISOBUS. In recent years, the range of agricultural software, i.e. apps, digital farm databases and advanced farm management solutions, has become more and more extensive and the interfaces to share agronomic data on a farm are increasing. This growing complexity can quickly lead to difficulties. Each interface requires more effort to set up and maintain, and compatibility issues often create additional hurdles. It was against this background that various agricultural technology manufacturers including here at Fendt - joined forces to develop a cross-manufacturer, independent data exchange platform with the agrirouter. The agrirouter enables mobile data exchange between machines and agricultural software from any manufacturer\*, minimising the number of interfaces your team has to use.

#### How you benefit from the agrirouter

- Accessible data transfer between machines and agricultural software used on your farm, even for mixed machinery\*
- Uncomplicated data exchange with customers and service providers: connecting two agrirouter accounts means data can be shared very quickly and securely.
- Transparency and data monitoring: Only you define the routes on which you want to transfer your data.
- Data security: Your data will not be stored.
- \* Provided that the agricultural machinery or software manufacturer is registered with the agrirouter. To find out more, go to www.my-agrirouter.com

#### Without agrirouter

The more communication interfaces, the more complex the data exchange: increased risk of compatibility issues, more effort required to set up and maintain the interface.

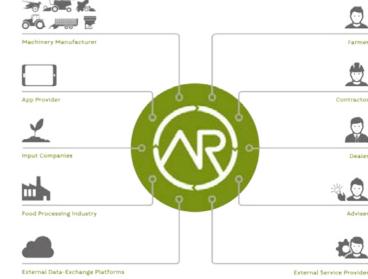


#### Use FendtONE offboard in conjunction with the agrirouter

The interface between FendtONE offboard and the agrirouter expands your options. In the future, you'll also be able to map mixed fleets\* in FendtONE and use them in your order management. You can also connect other agricultural software solutions\* to the FendtONE offboard application. Use FendtONE initially as an easy introduction to job-specific documentation, and later transfer data from FendtONE to advanced farm management systems for further processing.

#### With agrirouter

The agrirouter functions as a central data exchange platform based on which a wide range of players can share information seamlessly. The number of interfaces is minimised.



#### You define the route, the agrirouter is the "carrier" $\,$

In your free agrirouter account, you define your start and end points (e.g. farm management system and tractor terminal) and determine the data exchange routes individually. You retain full control, data is only transferred, not stored.

Agronomy: NEXT Machine Management, NEXT Wayline Converter

# Process data regardless of manufacturer.

## For an intelligent use of your fleet: NEXT Machine Management:

The agrirouter ensures seamless data transfer between the machine and farm management systems from different manufacturers. The question now is which system you want to use to evaluate cross-manufacturer machine data in the best possible way, so that your business also benefits from it. Against this background, various companies in the agricultural sector, including Fendt, have joined forces and, with their combined expertise, developed the NEXT Machine Management platform. In the NEXT Machine Management mobile app, you use the data sent via the agrirouter for an efficient planning, production and documentation process with machines from different brands.

#### How NEXT Machine Management will benefit you

- Wirelessly send job data to your machines
- Efficient use of machines with the best use of your mixed fleet
- Save time by automatically documenting your actions
- Future-led with the highest data security

## Use field data across manufacturers: NEXT Wayline Converter (powered by Fuse)

Does your farm work with tractors from different brands and do you want to use lane guidance on every machine? Then you are probably aware that the data formats are often not compatible, which means you can't use your field data with every steering system. The NEXT Wayline Converter gives you the option to convert the field boundaries and AB lines to the data format suitable for VarioGuide / Fendt Guide. Just send the stored data in the office to the NEXT Wayline Converter web application. This will convert and visualise your data, and your recorded AB lines and field boundaries are always at hand. You just need a USB stick to upload the data.

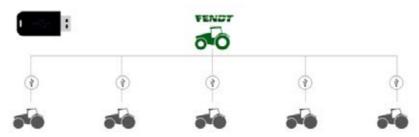
#### Your advantages with the NEXT Wayline Converter:

- Free
- Compatibility across different manufacturers
- Data retention: Use of existing field data (long-term)
- Save time: Field boundaries and AB lines do not have to be recorded first
- Option to convert field boundaries from farm management systems
- Quick and easy data exchange with customers and service providers
- Easy, intuitive controls

#### We recommend NEXT Machine Management as an add-on to FendtONE

Are you a beginner in the field of agricultural software and would like to use a simple, easy-to-understand system to start with? Look no further than FendtONE offboard – an intuitive solution that allows you to manage your machinery and team and document actions in a job-led approach. Based on this, NEXT Machine Management provides you with a compatible system with even more possibilities. You can create databases for Fendt Variable Rate Control, sending them wirelessly to your machine.





#### **NEXT Wayline Converter**

The NEXT Wayline Converter (powered by Fuse) can help transfer field boundaries and AB lines easily and conveniently into different manufacturers' formats.

To find out more, go to www.fusesmartfarming.com/products/next-wayline-converter-tool

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Telemetry: Fendt Connect, Fendt Smart Connect

# Optimise your machine use.



# The heart of the telemetry system

The AGCO Connectivity Module, or ACM Box, is integrated in the roof liner and takes charge of sending telemetry data. Its antennae look like shark fins on the roof. The ACM Box reads relevant machine parameters and transmits them either via the mobile network to the Fendt Connect app / web application or via WLAN to the Fendt Smart Connect app.

#### Call up machine data from any location: Fendt Connect Fendt Connect is the central telemetry solution for Fendt machines. With Fendt Connect, machine data is

Fendt machines. With Fendt Connect, machine data is collected and evaluated, so farmers and contractors can monitor, analyse and optimise the condition and use of their machines. Mobile data transmission means that realtime machine data can be retrieved anywhere – from the office PC, tablet or smartphone.

#### How you benefit from Fendt Connect

- Increase operational efficiency with optimised logistics decisions
- Reduce input by monitoring consumption as you work
- Maximise uptime through smart service scheduling
- Minimise downtime: Use diagnostics support for decision-making
- Flexibility: Call up realtime machine data from wherever you are

To find out more, go to get.agcoconnect.com

#### Everything in sight - Fendt Smart Connect

Fendt Smart Connect shows machine parameters on your iPad. With your machine equipped with the telemetry basic package, you can show specific machine data in the free Fendt Smart Connect app. Data is sent via WiFi. With Fendt Smart Connect, the driver gets an extra, customisable display for machine parameters like fuel consumption and driving speed. The system does not permanently store any data.

#### How you benefit from Fendt Smart Connect

- Free extra displays in the cab
- Intuitive operation with familiar hardware and controls
- Full data control no permanent data storage

#### Images of machine performance

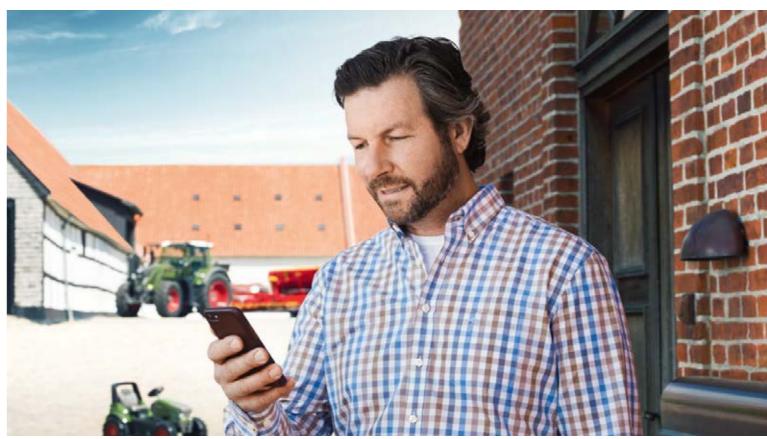
For each connected machine, certain machine parameters can be visualised using statistics and a map. You can also compare multiple machines, like how the different drivers are performing.



#### Quick help when you need it

With Fendt Connect, your sales partner can also view and respond to your machine's error messages. After just one phone call, your hookup could be fully operational again.





## Fendt Connect includes these indicators:

- Machine position and route
- Fuel consumption and AdBlue level
- Speed and working time
- Machine capacity
- Error messages
- Upcoming service intervals





# Fendt Smart Connect gives you an overview of:

- Engine speed
- Liigiii
- Fuel and AdBlue consumption
- Engine load
- Tractive power
- oto

Machine control: Variotronic implement control / Fendt ISOBUS

# So everyone is on the same page.

MEMBER OF



#### ISOBUS – core task of the AEF

The AEF (Agricultural Industry Electronics Foundation) is an association of various agricultural equipment manufacturers and associations that has been working to optimise and advance cross-manufacturer standards in hardware and software since 2008. Fendt is one of the core members of the AEF. ISOBUS is the main focus of this initiative.

#### No more standalone solutions

Electronics makes agricultural equipment safer, more precise and more efficient. In the past, however, each manufacturer relied on its own (proprietary) electronics solutions, which required specific adjustments for each combination of tractor and device. This resulted in several different terminals with messy cable jams in the cab. ISOBUS cleans up these standalone solutions and establishes a standardised plug and play interface between the tractor and the attachment: Simply connect the ISOBUS plug to the ISOBUS socket, and the control screen of the attachment appears in the terminal. Maximum ease of use.

#### ISOBUS - background

The term ISOBUS comes from

- ISO (International Organization for Standardization)
   independent organisation for the development and enforcement of international standards
- BUS (Binary Unit System) = system for sending data between participants on a shared path ISOBUS is therefore a standardised data transmission system between the tractor and the attachment. The standardisation of the system is based on the ISO 11783 norm. All signals, including the speed and PTO speed, are available in standardised form. The communication between the machine and the database is also standardised and simplified by ISO XML.

#### ISOBUS for every job

An ISOBUS system consists of various components, including the tractor, terminal and equipment. It always depends on what terminal and attachment are capable of doing. This in turn depends on which ISOBUS functionalities (see right) are available and activated in the individual components of the ISOBUS system. Only functionalities that are included in all the components involved can be shared. For example, if you want to use the Fendt Section Control automatic partial-width function, TC-SC must be activated on both the terminal and your Section Control-enabled attachment.

#### Know what's in it: AEF ISOBUS database

The AEF ISOBUS database is a valuable reference regarding the ISOBUS functions supported by machines and their compatibility with products from other manufacturers. This gives you access to the relevant information before purchasing so you can choose an ISOBUS combination that is tailored to your needs.

To find out more, go to www.aef-online.org

#### Universal Terminal (UT)

With this ISOBUS standard you can operate an attachment at any terminal or to use a terminal to operate different implements.



#### Auxiliary control (AUX-N or AUX-0)

Use additional controls (e.g. joystick) that makes it easier to operate complex devices. The Fendt multifunction joystick is fully ISOBUS-capable.

#### **Basic Tractor ECU (TECU)**

The Tractor ECU (Electronic Control Unit) is the onboard calculator of the tractor.

This standard provides data (e.g. speed, PTO speed) and shares it with other participants of the ISOBUS system.







#### Task Controller basic (TC-BAS)

Documents certain total values that make sense in terms of work. These are provided by the attachment. The data exchange between Task Controller and the field database takes place using the ISO-XML data format.



#### Task Controller geo-based (TC-GEO)

Compared to TC-BAS, you can also collect location-related data or plan location-based jobs, for example by means of databases. TC-GEO is a prerequisite for Fendt Variable Rate Control.



#### Task Controller Section Control (TC-SC)

Automatically switch subsections e.g. when working with planters, pesticide sprayers or fertiliser spreaders, depending on the GPS position and degree of overlap.



#### Tractor Implement Management (TIM)

With the help of the TIM standard, an attachment can automatically control certain functions of the tractor, like the driving speed or the tractor's control valves.

Machine control: Fendt Section Control

# Precision that pays.

#### Precision, right on the mark

The timely switching on and off of the planter, fertiliser spreader or sprayer requires quite a bit of practice at the headland. The longer the hookup, the harder it becomes to get your timing right. Odd-shaped fields or wedges also get in the way of neat field work. In practice, you'd rather go over the same stretch twice, when sowing, fertilising or spraying, than miss out sections. The bigger the working width of the implement, the bigger the wasted overlap. Fendt Section Control is the answer. Section Control provides automated section control for ISOBUS implements. This function is made possible by the Task Controller Section Control (TC-SC). This documents where the field has already been processed and passes the necessary activation commands to the machine's onboard computer, which actions the partial widths accordingly. The prerequisite for this is the VarioGuide / Fendt Guide lane guidance system, which provides the necessary position data.

Fendt Section Control supports up to 36 partial widths. The ISOBUS standard promises intuitive handling. The control screen automatically appears in the terminal when you connect the ISOBUS plug to the socket. All you need to do is flip a switch to start.

#### How you benefit from Fendt Section Control

- Savings of up to 15% in resources by avoiding unwanted overlaps
- Reduces the threat of disease, pests and weeds by avoiding overly dense crops and missed sections
- Less effort for the driver, so they can fully concentrate on monitoring the implement
- Improves the quality of work with clean contact at the headland
- Headland mode: Option to work the inner field first, then the headland

## Not just for the field – take the strain off mowing, with Fendt Section Control

With bulky run-outs or bridge sections, setting and lifting each front and rear mowing unit at the right time is a test of any driver's concentration, no matter how experienced you are. With the Fendt Section Control function, the machinery does this all for you. with each front and rear mowing unit acting as the 'partial widths'. When you get to an already worked piece of land or the virtual headland track, the system automatically retracts the cutting unit. This means you can fully concentrate on the mowing process without destroying any mowing swath by overlapping, which also makes follow-up work easier.

#### Without Fendt Section Control

Double sowing, spraying or fertilising means using up resources unnecessarily. Stocks that are too dense also lead to unwanted differences in emergence and weeds.



#### With Fendt Section Control

Clean contacts, even on awkwardly sectioned fields.





Machine control: Fendt Variable Rate Control

# Work on a subsection-specific basis, maximising crop yields.

#### Make full use of your land's potential.

Each run-out is inherently different, no field is uniform in itself. Different relief and soil types mean that the plants cannot be supplied evenly with water or nutrients, which in turn leads to varying plant emergence within a single run-out. Maximising your yield therefore requires you to align your measures to the specific soil conditions. Fendt Variable Rate Control is the right function for this. Variable Rate Control controls the output volume of resources (seeds, pesticides, fertilisers) for each subsection of field. To benefit from this smart solution, you need VarioDoc Pro / Fendt Task Doc, Fendt Section Control and an ISOBUS TC-GEO standard licence.

#### The benefits of Fendt Variable Rate Control

- Increase your efficiency: Maximise yield while saving resources
- Save time: Use the job report as a reporting basis to meet legal requirements (e.g. Fertiliser Regulations)
- Flexibility: Compatible with ISO XML and Shape files

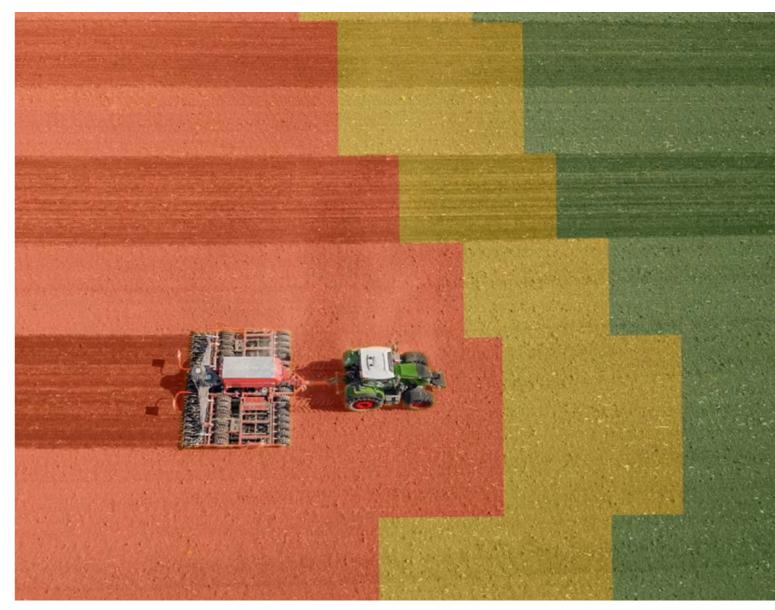
#### How it works

Fendt Variable Rate Control works from a field map that gives the best output volumes for the different field zones and shows them in different colours. You create this map on a farm management system before you start the work (e.g. NEXT Machine Management). You can draw on your own knowledge of the field or use data from soil samples, satellite data, etc. Then use the mobile network or USB to send the field map as a job order to the machine in standard ISO-XML format. Alternatively, you can upload the database to the terminal in Shape format via USB. The TC-GEO Task Controller automatically controls the expected output volumes depending on the position. After you have finished working the field, you can send a job report back to your farm management system with the actual quantities of seeds, fertilisers or pesticides applied, so that you can document your actions cleanly and compare them over time. Fendt Variable Rate Control can handle up to five different products at the same



#### compromises

It's natural to have differences in plant emergence in the same run-out. There is potential to increase your earnings and that needs to be exploited. With Fendt Variable Rate Control, you can get even more out of your land.



Machine control: Variotronic / Fendt Implement Management (TIM)

# When the machine controls the tractor.

#### TIM - the new ISOBUS standard

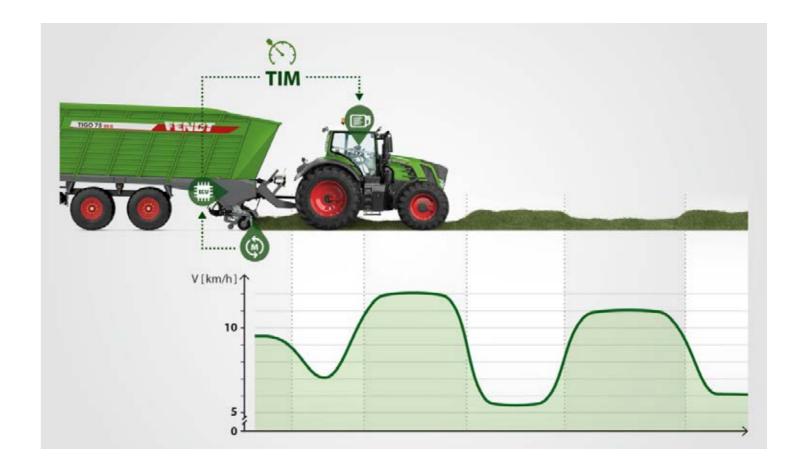
With the Tractor Implement System (TIM), an attachment can automatically control certain tractor functions, like its driving speed and control valves. You can use this as long as both tractor and attachment are equipped with the ISOBUS function TIM. Because the attachment optimises the load itself, it takes the strain off the driver and the hookup works more productively. TIM is a new ISOBUS function in its final stages of integration into all our products. Fendt provides TIM as an option on the Fendt 500 Vario ProfiPlus (current driver's workstation). On the attachment side, TIM is initially used for loading wagons (Fendt Tigo XR) and plant protection sprayers (Fendt Rogator 300). After passing the AEF ISOBUS Conformance Test, all other certified attachments can be used with TIM.

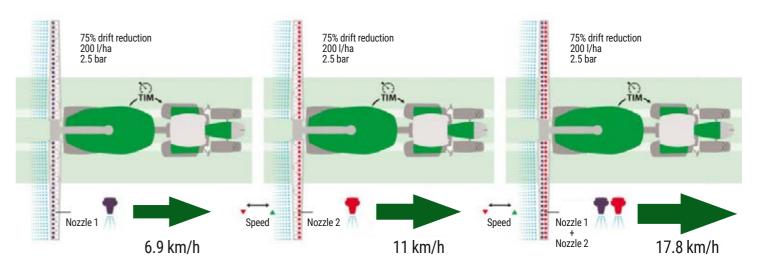
#### TIM has your Fendt Vario under control: Fendt Tigo XR is TIM-ready

With Variotronic / Fendt Implement Management (TIM), the flow on the Fendt Tigo XR can now be fully automated. The combi wagon regulates the driving speed of the tractor to suit the pick-up volumes. Depending on the swath strength, a sensor sends ongoing feedback on the torque at the pick-up. With TIM, the Fendt Tigo XR and Fendt Vario team selfadjusts for constant productive results. This smart assist is also a great help for the driver, who can fully concentrate on the loading process.

#### Always the right dosage – Fendt Rogator 300 is TIM-ready

The towed Fendt Rogator 300 field sprayer can communicate with and automatically control a TIMenabled tractor using the TIM function. In combination with Fendt OptiNozzle, the sprayer and tractor work together particularly efficiently. The plant protection sprayer calculates the optimal speed and accordingly adjusts the nozzle parameters, the preferred drift reduction and output. Depending on the nozzle or nozzle combination used, the field sprayer regulates the speed of the machines to the calculated target speed. This ensures that the output flow is always applied with the right drift reduction. Active TIM control lets the driver adjust the speed – as selected from the specified speed levels. The teamed machines automatically keep to the selected speed. At the same time, the sprayer adapts the nozzle or nozzle combination to the new speed.





Fendt Smart Farming

# In professional farming, you're only as good as the tools you use.

## Tailored to your farm - Digital Smart Farming products

Agriculture is as diverse as it is complex. Whether you run a medium-sized family business or are contractors working several hundred hectares a year, you must be able to rely on your equipment at all times. At the end of the day, that is the only way to achieve the best results. Choosing a Fendt machine is the ideal starting point. Now you need to equip your machine to suit your individual needs.

In the field of smart farming, Fendt offers you a wide range of products and solutions to help you use your machine even more purposefully and at the same time work even more comfortably. The product selection relates to the modules Guidance System, Agronomy, Telemetry and Machine Control. The basic package of each always includes the core functions. Additional functions can be added as an option at any time. Whether beginners or professionals - Fendt has the right range of smart farming solutions for everyone. Think of the product range as your personal toolbox, which you can dip into according to your own needs and requirements.

#### New names for the tried and tested

The new Fendt 200 Vario, Fendt 300 Vario and Fendt 700 Vario models are equipped with the new driver's workstation for the first time. As well as additional display areas, the new FendtONE operating concept is a special highlight of the redesigned driver cockpit. The names of our Smart Farming products have also been adapted along the way. They may have new names, but the function remains the same!





## Current driver's workstation

#### Guidance system

outuance system
VarioGuide
VarioGuide Standard NovAtel
VarioGuide RTK NovAtel
VarioGuide Standard Trimble
VarioGuide RTK Trimble
VarioGuide Contour Assistant
Variotronic <sup>™</sup>
Fendt TI Headland
Variotronic <sup>™</sup> automatic
Variotronic <sup>™</sup> Turn Assistant

#### Agronomy

•	•					
VarioDo	c Pro					
Fendt Ta	sk Doc (	offboard)				

#### Telemetry

Fendt Connect
Fendt Smart Connect

#### Machine control

Variotronic implement control	
SectionControl	
VariableRateControl	
Variotronic Implement Management (TIM)	

### New driver's workstation

#### **Guidance system**

Fendt Guide
Fendt Standard NovAtel
Fendt RTK NovAtel
Fendt Standard Trimble
Fendt RTK Trimble
Fendt Contour Assistant
Fendt TI
Fendt TI Headland
Fendt TI Auto
Coming Soon

Agronomy
Fendt Task Doc
Fendt Task Doc (offboard)

referred y
Fendt Connect
Coming soon

Fendt ISOBUS
Fendt Section Control
Fendt Variable Rate Control
Fendt Implement Management (TIM)

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#### Fendt Smart Farming

# What is there and where can I find it?





	Guidance system basic package	VarioGuide / Fendt Standard NovAtel	VarioGuide / Fendt RTK NovAtel	VarioGuide / Fendt Standard Trimble
Fendt 200 Vario Profi (MY 2021)	9 8	> Z	> Z	> ⊨
Fendt 200 Vario Profi+ (MY 2021)				
Fendt 200 Vario VFP Profi (MY 2021)	•	П	П	П
Fendt 200 Vario VFP Profi+ (MY 2021)				
Fendt 300 Vario Profi (MY 2020)	•	П	П	П
Fendt 300 Vario Profi+ (MY 2020)				
Fendt 700 Vario Power+ (MY 2020)				
Fendt 700 Vario Profi (MY 2020)	-	Ш		Ш
Fendt 700 Vario Profi+ (MY 2020)				
1 Clid 700 Valio 1 10111 (W1 2020)	-	Ш	П	Ш
Fendt 500 Vario Power+				
Fendt 500 Vario Profi				
Fendt 500 Vario Profi+				
Fendt 800 Vario Power				
Fendt 800 Vario Power+				
Fendt 800 Vario Profi				
Fendt 800 Vario Profi+				
Fendt 900 Vario Power (MY 2020)				
Fendt 900 Vario Power+ (MY 2020)				
Fendt 900 Vario Profi (MY 2020)				
Fendt 900 Vario Profi+ (MY 2020)				
Fendt 1000 Vario Power+				
Fendt 1000 Vario Profi				
Fendt 1000 Vario Profi+				
Fendt 900 Vario MT				

Fendt 900 Vario MT			
Fendt 1100 Vario MT	•		
Fendt L series (MY 2021)			
Fendt C series (MY 2021)			
Fendt IDEAL (MY 2021)			
60			
Fendt Katana			

Fendt Rogator 600

VarioGuide / Fendt RTK Trimble	VarioGuide / Fendt Contour Assistant	Variotronic" / Fendt TI	Fendt TI Headland	VarioDoc	Agronomy basic package	Telemetry basic package	Fendt Smart Connect	Machine control basic package	Fendt Section Control	Fendt Variable Rate Control	Variotronic / Fendt Implement Management (TIM)
		■¹ -	- 2					□ <sup>3</sup>			
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As of July 2020. Due to regular software updates, certain configurations may change. Your Fendt sales partner will be happy to inform you. This overview purposely includes only those (self-propelled) series from the Fendt Full Line for which there is at least one Fendt Smart Farming solution.

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<sup>&</sup>lt;sup>1</sup> Only in conjunction with a 12" terminal in the armrest (Setting2) <sup>2</sup> Initially featuring Fendt TI Auto <sup>3</sup> Comprising ISOBUS 200 machine control



# It's Fendt. Because we understand Agriculture.







www.fendt.com

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