



# T-shirts:



# **T-shirt, children**A fun t-shirt for the

little ones in the family!
G0001 80cm

G0001	80cm
G0002	92cm
G0003	104 - 110cm
G0004	128 - 140cm
G0005	152 - 164cm



### T-shirt, women

High quality t-shirt with Avant logo for women.

G0013	XS
G0014	S
G0015	М
G0016	L
G0017	XL



# T-shirt, men

Black Avant t-shirt for men.

G0062	S
G0063	М
G0064	L
G0065	XL
G0066	2XL
G0067	3XL
G0068	4XL

## **Work clothes:**



# Work jacket

High quality black Avant work jacket. Manufactured by Dimex. 70% polyester, 30% cotton.

G0074	S
G0075	М
G0076	L
G0077	XL
G0078	2XL
G0079	3XL



#### **Work trousers**

High quality black stretch work trousers. Highly breathable and durable material. Manufactured by Dimex.

G0080	46	G0085	56
G0081	48	G0086	58
G0082	50	G0087	60
G0083	52	G0088	62
G0084	54	G0089	64



#### **Overalls**

Adult overalls with green details. Manufactured by Dimex.

G0106	S
G0107	M
G0108	L
G0109	XL
G0110	2XL
G0111	3XL

# Fan products:



#### **Avant bottle**

Avant bottle, volume 750 ml G0069



## Cap

Stylish cap. Black regular G0073 Grey snapback G0072 Ask more information & get pricing details from your local dealer!

# **Editorial**

### 30 years? Already?

or my part, I can only begin to wonder how time passes: has it really been 30 years since Avant was founded? Careful recalculation proves this to be the case. Time has flown probably because we have been busy this whole time and there has been much to do.

Our competitiveness has improved steadily due to the constant development of our products and production. This has also enabled the continuous rise in machine sales among existing customers and new markets.

The main reason for our success, in my opinion, is that our goal is clear: we want to be the best – and are willing to work for it. I have been known to say that if we get negative feedback or a complaint, we ought to feel it acutely, not just shrug it off. When we feel it, we are motivated to improve.

Looking back, I can honestly admit that there have been times of exasperation along our journey and through the different phases of product development. But there have also been great sources of joy and moments of success to balance off the negative.

One of our great achievements is the fact that we have survived these 30 years. We started our business with a capital of 2 500 euros on the brink of a great economic depression, resulting in the devaluation of our foreign currency loan. Well, these misfortunes did improve our export competitiveness. All through these 30 years we have never produced a financial statement showing a loss, and only once we have not been able to improve our revenue from the previous year.

The rise in production volume has been just as brisk. In our first year of activity we sold 80 machines, and during this accounting period, we are up to 5000 machines. We would sell even more, were it not for the shortage of components due to covid-19.

In spite of the pandemic, business has been good this year. We have ramped up our production volume by 25% during the first nine months, but this has not satisfied the great demand for our products. However, we are working hard to develop our production. There is a separate story about the subject in this magazine. Our product development team also presents our new products in this issue, and many new products will be launched during the next year.

We had plans to celebrate our 30-year journey in the summer, but the celebrations were delayed, again due to covid-19. The plans will be revived as the situation gets clearer.

Be that as it may, at this point I wish to thank everyone who has been a part of making Avant such a success story: our staff and customers all over the world and also our suppliers and sponsors. A big thank you also to everyone responsible for maintaining our properties, handling our deliveries and keeping things tidy for all of us. Your efforts are appreciated and needed in the future as well.

Risto Käkelä

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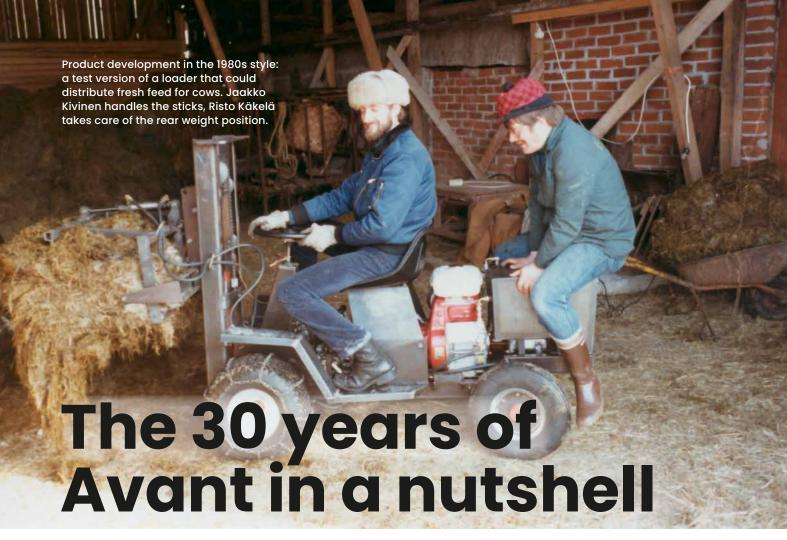
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Those Plant Ladies, p. 20.





# CEO of Avant Tecno Group Risto Käkelä looks back

It has been 30 years since Avant began operations. The time has gone by in a flash. The 30 years have seen a tremendous amount of work, success, and wonderful memories that will remain in the hearts of Avant employees and enthusiasts throughout life.

here have also been tough situations, failures, and disappointments, some of which, fortunately, have already been forgotten.

At its worst, in the early years of Avant, during the deep recession of the 90s, fear was also present. We feared that Avant would not make it through the recession at all. The first 3 - 4 years are always difficult for any new company. In our case, a deep recession and the devaluation of our foreign currency loans made the burden even heavier to bear. We saw no other way to survive than a decisive investment in export and the development of new products.

This was the case especially with loaders. The product with the best export opportunities, we believed. Our other two product lines, Tamrock mobile and tractor side restraints, were also important products in the early years of operation. But in their case, we were in the role of a subcontractor, and weren't able to influence sales very much.

It was clear to us early on, that, over time, Avant would become a company focusing solely on the design, production, and sale of loaders. And this is indeed how it has turned out, through various stages.

All this time, I have been the CEO of Avant Tecno Group. Even before this role I was working at Ylö-tehtaat, and put in motion the development of loaders and Tamrock drilling rigs.

Because of this I have been asked to write a brief "history of Avant" to this magazine.

Okay. It goes like this...





## Very first job and export to Russia

In March 1980, I began work on this plot. In a sense I have had the same job for 40 years, even though it was in a different company at first.

The name of the company was Ylö-tehtaat (Ylö Factories). Its products were agricultural machinery and especially hay and fresh silage machinery. I was a farm boy from Kurikka, the Ostrobothnia region in western Finland. We had a large cow herd on our farm, and because of that we cultivated a lot of hay and fresh fodder. I had just finished my military service and graduated with a master's degree in engineering when I got a job at Ylö-tehtaat, which was, in a way, my dream job. After all, I already knew both Ylö products and the needs of the customers when I started.

The fact that Ylö-tehtaat started up with Russian trade in the early 1980s brought its own spice to the work. It quickly brought the company to the forefront of Finnish agricultural machinery factories. At the same time, us - the employees got to learn international trade, mainly to Russia, but also to the West.

This period lasted a little over six years and was ended by the collapse of Russian trade. More than half of the turnover disappeared, and the income statement immediately turned bright red.

# From hay machines to feed distributors and other innovations

Only shortly before the collapse of the Russian trade, we had tried to come up with products that were not as seasonal as hay machines. The first attempt was a small, forklift type of a machine. The idea was that it could distribute fresh feed to cows.

We quickly did a test version to try out the basic idea. The first test of the machine was done in Kurikka, on my home farm. Luckily, my brother *Raimo* took a photo of the test so that we can proudly present the first test run of the first Avant loader, where I take care of the rear weight position and *Jaakko Kivinen* handles the sticks.

As the picture shows, the machine was not able to lift loads large enough. The third prototype, on the other hand, was already quite close to the machine that would later go into series production.

We modified the basic structure and ended up with a four-wheel drive and a skid steer solution. The driver sat in the back of the machine and steered the machine using two joysticks. It therefore spun in place when needed and was able to handle a load of about 200 kilograms. This machine was sold in the late 80's under the name Ylöcat.

We tried to sell Ylöcat to absolutely everyone. Our small single-column newspaper ads listed several potential user groups. The result: hardly anyone wanted to buy the machine. About 20 machines remained in the corner of the production hall for at least a year.



In its early days Avant was advertised solely as a machine for feeding livestock. The machine was strong and agile, could move in confined spaces and most importantly, made the heavy work much easier.

1993 — 1995 — 1998









Then I got it in my head to take one of them to my brother to Kurikka so he could give us feedback. He had a renovated, labyrinthine barn with narrow feeding tables. There were thousands of similar barns in Finland at that time. When I went to visit him the next weekend, he immediately said that the Cat is a really good machine for feed distribution. He won't give it back.

And that's where it started. We began marketing the machine exclusively for feeding cattle. And began making sales. Several dozens of loaders were sold per year.

Excited about our success, I began to look for other innovations in the sphere of small machines. Tamrock, a big manufacturer of rock drilling machines in Tampere, caught my attention. I wondered if we could try to manufacture a small affordable drill platform based on the Cat, which, however, would be able to do multiple jobs compared to a hand drill.

This project went well, and Commando became Tamrock's best-selling drill. Its production still continues after 35 years, although Avant gave it up in 2008.

#### Bankruptcy and a fresh start

Even these new products could not save Ylö-tehtaat. It went bankrupt in March 1991. Junkkari Oy from Ostrobothnia bought the line of agricultural machinery from the bankruptcy estate and continued manufacturing in Ylihärmä, Finland.

This opened up an opportunity for me to start my own business. This is exactly what I wanted, so I took action. The

products would be the loaders, the Tamrock drill platform and tractor side stops. The customers accepted my idea and on that basis the bank approved my plan as well. My wife, *Nora*, was also needed to make the plan a reality: the bank demanded that we mortgage our home as collateral for the loans, and she promised to write her name on the paper.

So, the masterplan was ready, and Avant Tecno Oy began operations on June 1, 1991.

The company equity was 2,500 euro, we had 20 employees and a budget of about 1 Meur. We received a loan from the bank for about 1.5 Meur. The premises were leased from the bankruptcy estate.

It started quite nicely. Tamrock sold the Commandos as expected, and we sold around 80 Avant loaders during the first year. We thought the figure was pretty good. The tractor side stops brought in their own share of business. However, we noticed that the recession was deepening quite a bit. The tractor equipment business segment was the first one affected. From our products only the Commando held its ground.

We quickly saw that things were not heading to a good direction. We started looking into export and noticed that in less than a year there would be a Bauma construction machinery trade fair in Germany. Together with *Keijo Rekola*, we had started designing the next generation of loaders and decided that the new machine would make it to Bauma.

#### **Avant charms Europe**

In 1992, with the help of the Finnish Foreign Trade Association, we got a small, ninesquare-meter exhibition stand at Bauma, on the very edge of the area, right next to the fence. There, then, in the cool April air, we waited for customers. The

> The 1992 Bauma trade fair in Germany was the starting point for Avant's success in Europe.





new green ProfiCat on display. The following week would set the future of the company.

And so it began. The interest in our machine was fierce. We received contact requests from 47 countries during that week. Among them were excellent importer candidates. Such as Sorring Maskinhandel from Denmark. When introducing the machine to them, I had no idea I was about to make a major deal. To date, they have sold more than 5,000 Avants in Denmark.

On the same trip, we decided to set up our own sales company in Germany. So, we have had our own sales company in Germany for almost 30 years. The decision was good, although the beginning, in particular, was difficult. However, Germany is a kind of machine trade center in the world, and through its exhibitions contacts can be made all over the world.

The 1992 Bauma trade fair was crucial to Avant's future. Should we even exist without it, we would not be anywhere close to our current size.

Despite us being quite a small company, we quickly gained a large number of importers, mainly in Europe. We have strived to listen to them with a sensitive ear and have constantly developed our machines according to customer needs.

The next big step in the development of the Avant was the 1995 Bauma, where we introduced articulated Avant. At



first, I was afraid it would mess up our clear strategy based on skid steered machines. I was right. It did. Articulated loaders instantly became favorites. Where I was wrong was it being a bad thing for us. Vice versa.

The sales volumes of the machines started to rise, and the user base of the machines expanded to new areas. Today, all Avants are articulated.

This was also the beginning of our very active development of attachments. We currently have over 200 different attachments, giving weight to our slogan:

## One Machine – Hundreds of Jobs.

We will soon publish a history in which our path is introduced in more detail. Therefore, from this point on, I will only talk about the main things that influenced the development of Avant.



After the chassissteered Avant hit the market new users and applications appeared everywhere. This quickly resulted in rising sales.

2009



**2010** 



2013



# **Own properties**

When Avant turned 10, we bought the manufacturing property for ourselves. It has always been important to us to be able to develop our own operations when it comes to business premises as well. Since then, the situation has been as desired. At the moment, we have premises in Ylöjärvi of about 70,000 m² on a plot of just over 20 hectares. Some of the premises have been leased to an outsider. In most cases, we have been able to make even large expansions without the permitting process slowing us down. We have been really lucky in this regard.

Our German sales company has also had its own premises for a long time, and the process of acquiring the premises is going on in England.



#### **Avant 600 series**

We have always succeeded in developing Avants in a way that has allowed us to maintain our competitive edge. Of course, there have been bigger and smaller changes and improvements. When we introduced the new 600 Series in 2006, it was a big change.

The machine had a new 36 hp strong engine, very strong external hydraulics, a new eccentric telescopic boom, two drive speed areas, multi connector system for hydraulic attachments, strong piston type Poclain drive motors on every wheel and, typically for Avant, a rigid articulation

joint for maximum stability even in the most difficult terrain. Plus, the machine looked really good.

The list of options was long. A new cab was also built into the machine, which raised the comfort of driving to a new level.

The machine was first introduced to a German sales team. One of them drove the machine for a long time, tried different implements and finally jumped off the machine and said,

#### "Jetz haben Sie ein Radlader!!"

and was exactly right. The new machine was really competitive on the market.

So, we built the whole collection according to this concept. In terms of production, the key word is modularity. This means using a lot of the same parts in different models. The serial lengths of the pieces increase, making more use of laser stations and welding robots, among other things. It also makes production management significantly easier. At first, we did not even realize how important this would be in making production more efficient.

We have been in a situation for a long time that as sales have increased, the serial lengths of manufacturing have increased accordingly. As a result, the payback period for automatic machines is even faster, so we should keep buying more of them. We already have 14 welding robot stations and 3 lasers connected to the automatic warehouse. Recently we have purchased an automatic bending machine.

Production Director *Saku Vastamäki* describes the production news and plans in more detail in this same magazine.

# More power, electric loaders and making a home in USA

We have constantly invested in product development, which has allowed us to grow faster than others. We have also been able to follow the spirit of the time well. We presented the full electric Avant five years ago at the Agritechnica exhibition in Germany.



We were the first at the entire show to have a loader with a lithium battery. Today, we have to offer 500 and 600 series machines full electric. And the trend continues.

The latest major innovation has been the 800 series machine. A machine that lifts a load of 2,000 kilograms to 3.5 meters and travels at 30 km/h. A new fine cabine was also designed for it. For Avant, sales in the new size range have started really well. It can be concluded that customers trust Avant and its ability to take care of their machines.

One of the most important things in terms of sales has been reviving US sales in 2015. We started sales in the US for the first time between 1998 and 2005. We operated under the brand Gehl, which is why the color of the machines was yellow. We did not do very well then and in 2005 the cooperation ended.

In 2012, we started in America again on the initiative of *Jani Käkelä*. We started sales there with our own brand and set up our own sales company in Chicago. Since the previous try, our product range was clearly better and our resources in total had developed to another level. The store got off to a surprisingly good start. Led by *Jukka Kytömäki*, the USA has become our largest export country and the future looks bright.

Our sales are also doing well in other markets. We are not coping with current capacity, so a million-dollar expansion is currently underway. We will have more than  $10,000~\text{m}^2$  of additional space at our disposal and the capacity could be doubled if necessary. This should serve us for a while.



#### Finally, lets see what we have achieved in 30 years

First off, sales have risen from the first 80 Avants in a year to 5,000 per year. Turnover accumulates instead of 1,5 M  $\in$  to 190 M  $\in$  per year. The premises are more than 20 times larger than in the beginning, and our own.

Now there are three sales companies and Leguan Lifts Oy is now owned by Avant. At first, we had the equity of  $\in$  2,500. Now the equity ratio is 74% and the balance is over 100 M  $\in$ .

The bank loan was initially  $\in$  1.5 million, and now more than half of it has been paid off.

This is the starting point for the next 30-year journey, led by a new management.

From the figures above, one could conclude that it is easy to continue from here. However, I think there will be challenges from now on as well.

With perseverance and common sense, these challenges can be overcome also in the future. •



# Our growth rate keeps accelerating

Two years ago, we launched a EUR 10 million investment plan aimed at increasing the weekly production of our 400—800 series by approximately 50%. Now the factory has a completely new assembly line, the amount of automation has been significantly increased, internal logistics have undergone a makeover, and work has become increasingly ergonomic. All the factory processes are interconnected with control systems. The growth target set a couple of years ago will be reached by the end of 2021.

hen we launched the investment plan two years ago, the goal was to increase the weekly production rate of 100 loaders to 150 loaders. To meet this target, we built a new main assembly line in the factory and significantly increased the amount of automation at the beginning of production.

"We are very satisfied with the purchase of machinery and equipment. In terms of productivity, capacity and operational development, we have gotten the most out of them. Our growth target has also been met, which means that we will reach the weekly pace of 150 loaders by the end of 2021," says *Saku Vastamäki*, Production Director at Avant.

"From the point of view of machinery and



equipment investments, we already have the capacity to do so," adds *Juha Linnusmäki*, Production Development Manager.

# Functional internal logistics and control systems

At the beginning of the investment program, internal logistics – i.e. the reception, storage and handling of all goods arriving at the factory – were reorganized so that the new assembly line could function efficiently. Investments were also made in control systems. The warehouse management system (WMS) controls the operation of the entire 3,500-square-metre warehouse. It is linked with the factory's second control system, the manufacturing execution system (MES). As its name suggests, the MES system guides manufacturing and production on the lines.

"Through the control systems, we interconnect the factory's processes so that we get the most out of them," Juha Linnusmäki explains.

They also improve quality production capacity. For example, employees can report possible quality deviations at their workstations to the MES system, if they notice them. As the foreman is informed immediately, he can start solving the situation right away, which may save hours of work. When information on quality deviations is available in electronic form, it can also be better analyzed.

#### New main assembly line

At the beginning of 2020, a new main assembly line was introduced, and it has now been in operation for about 1.5 years. Half of the factory's weekly production volume comes from the new line. The one-hectare hall produces loaders for the larger 600–800 series, and the old line makes 400- and 500-series machines.

About 2.2 million euros has been invested in the new line, and the greatest share of the cake has sunk into the automated guided vehicles on which the assembly work is

"We have increased production a hundredfold during Avant's history. We still need to grow, which means more production development measures, projects and investments," says Saku Vastamäki, Production Director at Avant.



carried out. The AGV's pass through the line in stages at a standard production rate.

"The biggest change here is that the old five-phase assembly line had 5 workstations. The new 19-phase line has 19 workstations. Because the total workload is divided into smaller parts, loaders flow better on the line from start to finish. Our customers can perceive this as a larger capacity for manufacturing volumes," Juha Linnusmäki says.

When work is broken down into several parts, it can also be done better and learned faster. In addition, the work is standardised, i.e., each employee performs the work in the same way.

"This leads to an improvement in the final quality of the product, which is undeniably apparent by internal and external indicators. The change is significant," says Saku Vastamäki.

# Ergonomics makes work easier

Many reforms have greatly improved the ergonomics of work. The AGV trolleys travel along the line at the touch of a button, and each assembler can adjust the trolley to a height that suits them.

"We have also acquired a number of impulse wrenchers that clearly reduce, if not completely dampen, vibrations to the hands. From the point of view of occupational health, this is important in the long run," Juha Linnusmäki says.

The list of reforms continues. Tires, drive motors and seats are now lifted with the help of lighteners, and heavy loads can be moved with just two fingers. The work of the installers has also been facilitated so that the components to be installed are brought to the flow-through shelves in small batches placed at a suitable installation height.

"The components no longer need to be taken from a cardboard box or the floor. Small things, but when we are making big volumes, it matters," says Saku Vastamäki.

And when the work is done ergonomically, productivity and quality also improve.

#### Growth continues to be strong

In Avant's first year of operation, 80 machines were completed, but by the end of this year, 150 loaders will be made per week.

"We have increased production a hundredfold during Avant's history, and we have doubled production from ten years ago. At the same time, the products have become more and more complex," says Saku Vastamäki.

It has already been a long and creditable journey, but in development, things will never be completed.

"We still need to grow. Customer demand is strong, and we have developed production at a growth rate of about 15–20 per cent, depending on the year. The future seems to continue in the same way, and over the next five years, our goal is to double our manufacturing capacity from the current level," Vastamäki says.



"The manufacturing industry is experiencing a megatrend with widening ranges, increasing product variation, and declining batch sizes.

This trend is met by our new 19-phase assembly line. With it, we can make customized products and react quickly to changes in customer demand," says Juha Linnusmäki, Production Development Manager.

# A house full of ideas

# - team leaders as the right hand in production development

wo years ago, Avant started investing in a new, more inclusive way of working. All employees are encouraged to develop production, and most of the development ideas for continuous improvement of work come from the grass-roots level. In two years, almost 200 development ideas have already been implemented. They have dealt with the working environment, safety, product management or production development. Team leaders take every idea to discussion.

At Avant, productivity and growth have also been sought by reorganizing work. A couple of years ago, team leaders began to take more and more responsibility for organizing and developing work. Now they act as the right hand of production development and management: through team leaders, all knowledge and development ideas flow in all directions in the house – top-down, bottom-up, and inside each team leader's department.

*Kalle Lintula*, team leader in finishing, says that the development of teamwork has been visible in many ways in his department, which performs the last test drives and checks of all loaders, installs ordered accessories, and glues stickers to the sides of machines.

"Team spirit and flexibility have improved. There are two different shifts in finishing, and the line between them has cleared. My goal is that in our team, everyone knows how to do all the work phases. I have guided the organization of teaching according to work situations. When everyone knows everything, limited work becomes versatile, and we are able to operate flexibly even during absences."

Clear processes have also improved quality control, occupational safety, and people's work motivation.

"When every idea is saved electronically in one box and taken to processing, people get praise for good ideas. Individual motivation grows when people know that they can move on in their jobs. There are people here who want to show their skills."

#### Quick response to changes

*Eerik Toivo*, team leader at the dispatch department, has also had very positive experiences on Avant's participatory approach.

"In dispatch, we carry out the collection, packaging, loading, receiving and shelving of goods. This is a sensitive area with rapid changes in transport and deliveries. As a team leader I manage the whole, which brings relief to the foremen's work. I deliver development ideas directly upwards, handle shift changes and discuss transports directly with logistics."

Team leaders also cooperate with each other.

"I often discuss the arrangements and operating methods in our hall with Kalle Lintula. We solve problems together."



"It's my responsibility to ensure that information flows in all directions. The flexibility of the work has improved thanks to team development, and we have a great team spirit," says Kalle Lintula, team leader for finishing.



"I participate in all my department's work tasks, and as a team leader, I maintain a holistic picture of our department's operations, coordinating and planning. I am a messenger, voice horn and feedback channel," says Eerik Toivo, team leader at dispatch.

# **NEW ATTACHMENTS**

Compatibility







# Fence mower

Fence mower is the perfect attachment for cutting grass under fences, roadside crash barriers, around trees etc. It can also be used to remove weed from road banks, around cornerstones and near buildings.

The fence mower manoeuvres around fence posts easily: when the cutting head comes in contact with the post the extension spring that is mounted between the mower frame and cutting head retracts the cutting head back after touching the post, allowing a smooth operation around the post. The tension and fastening point of the extension spring can be adjusted. In addition, there is a vertical floating system with 4 positions for aligning the cutting

Cutting head is equipped with two blades. Its edge is covered with a rubber bumper for damping the impacts. The mower is equipped with a manually turnable arm allowing the cutting head to be turned in several different positions. Cutting head can be mounted pointing either to the right or to the left side. An adjustable support wheel is standard equipment as well.

- Perfect attachment for cutting grass under fences, roadside crash barriers, around trees etc.
- Cutting head with 2 blades
- Vertical floating of cutting head
- Cutting head can be mounted pointing to the right or to the left
- Adjustable support wheel as standard



# Spring tine cultivator

The towable spring tine cultivator with 1500 mm working width is a useful attachment for the maintenance of outdoor horse arenas, for cultivating fields etc. There are 15 spring loaded S tines with replaceable teeth in two rows which cultivate the soil up to 100 mm depth. Working depth can be adjusted by adjusting the height of the rear field roller.

Compared with the horse arena harrow, the spring tine cultivator goes deeper in the ground whereas the horse arena harrow with straight tines and dozer blade is intended for harrowing and levelling the surface. That's why the spring tine cultivator is suited for arenas with gravel or sand sub-base – where there is no geotextile fabric, rubber or other materials which the tines could dig up. The cultivator is also a great tool for a hobby farmer for cultivating smaller fields and similar surfaces.

Spring tine cultivator works with all articulated Avant loader models. The loader must be equipped with the 50 mm trailer ball hitch. If the optional hydraulic support wheels are mounted on the cultivator, the optional double acting rear auxiliary hydraulics outlet is required on the loader.

Options include manually or hydraulically operated support wheels (same as for horse arena harrow), side wheel and side scraper blade for working close to the wall in indoor arenas.

Working width	1 500 mm
Working depth	0-100 mm
Weight	185 kg
Product no.	A442314



# **NEW ATTACHMENTS**

# Compatibility









# Tree boom



Tree boom is a simple and practical attachment for handling bigger tree trunks, pipes etc. objects which need to be lifted and placed with accuracy. It is otherwise the same attachment as the Avant big bag lifter, but the manually adjustable telescoping boom doesn't have a hook - instead the boom is straight and equipped with a pin for attaching lifting slings. This allows, for instance, lifting and planting bigger trees

> without the risk of damaging them. The frame design with side supports prevents the objects from swinging sideways.

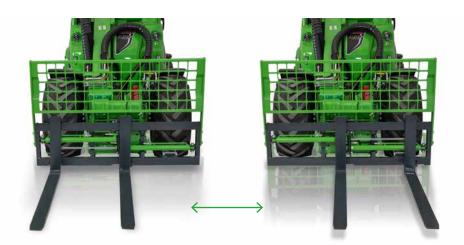
Tree boom is useful in nurseries for planting trees, for arborist jobs like removing bigger trunks from yards and gardens, and also for utility jobs like setting pipes in trenches etc.

- Easy way of handling tree trunks, planting bigger trees, laying pipes etc. objects
- Manually adjustable telescoping boom, can be adjusted in four different heights between 1 135-1 685 mm
- Side supports prevent sideways swinging of the objects

Pin height	1 135-1 685 mm
Width	1 100 mm
Max. load	900 kg
Weight	60 kg
Product no.	A444137



# Pallet fork HD with side shift



The 2000 kg capacity HD pallet fork with hydraulic side shift and fork width adjustment will be available in May. It is equipped with 1200 mm long forks, and the load support frame is standard like on the 1200 kg model.

Fork length	1 200 mm
Max. load	2 000 kg
Frame width	1 550 mm
Weight	225 kg
Product no.	A442071



# Thumb grab for mini digger 150



Hydraulic thumb grab is now available as an option also for the mini digger 150. The thumb grab can be mounted on mini diggers 150 made in January 2021 or later, and the thumb grab can also be retrofitted to older mini diggers by drilling holes for thumb grab cylinder brackets to the digger arm.

Thumb grab is useful when handling stones and similar objects which cannot be grabbed with the bucket of the mini digger. Thumb grab and mini digger bucket cannot be operated simultaneously – there is an electric solenoid valve for selecting either the thumb grab or bucket operation.

Product no. A444174



# XL levelling bucket



Two new XL levelling bucket models are now available, intended especially for 700 and 800 series. They are higher and longer and have larger volume than the current buckets.

Width	Volume	Weight	Product no.
1 600 mm	590 I	230 kg	A445616
1 800 mm	665 I	250 kg	A443761

# Keep your tires in order,

# and things run smoothly

Tires are the foundation of every loader. Tires, their condition and air pressures affect safety, so their condition should be monitored regularly.



# Tips for maintaining tires

- Check the condition visually at least once a day.
- Check tire pressures at least once a month.
- Avoid unnecessary use of the X-lock, or crosslock. Use it only when additional grip is required.
- If you have acquired a new Avant loader or the tires have been changed, make a retightening after 5 working hours.
- The recommended pressure can be found in the manual.

epending on the nature of the work, either grass or tractor tires are selected for each Avant. Grass tires are firm on slippery surfaces, while tractor tires provide traction on both rough and soft surfaces and are easier to clean.

The condition of the loader's tires should be monitored daily, especially if the work is done in demanding conditions and there is rubble backing or demolition waste on the site. As the tires are checked, also the rims should be inspected, as air can escape due to dents in the rims. The more worn-off the tire, the more careful the monitoring.

"Visual inspection makes sure that the tire is intact and the pressure sufficient. If the tire is worn out, if the plies are visible, or if other clear damage to the tire are noticed, the tire must be replaced," says *Olli Hankamäki*, team leader of design department.

"It's a matter of security. If the tire is suddenly emptied, there is a risk that the machine will tip over, especially when it's loaded," adds *Sebastian Nahkala*, Product Safety Manager.

#### Tire pressure is part of the load capacity

The Avant maintenance program recommends tire pressures to be checked at least once a month. Of course, you must always check the situation immediately if the tire does not look full or the machine swings when rocked.

The recommended pressures in the manual are sufficient even when you are working with maximum loads. Higher pressures will not provide any benefits, and the maximum pressure must not be exceeded. But if the tire pressure is too low, it reduces load capacity and slows down the speed of driving. If the pressure is low in relation to the load, the tire gets hot, ply damage may appear in its side, and it may even come off the rim. Low pressures also wear down the tire.

"The same thing will happen if you forget to turn off the X-lock. It is advisable to turn the lock on when better traction is needed. Otherwise, the function will only consume your tires," Olli says.

In tire matters, Avant users can come a long way with the user manual, and if necessary, sales can help you choose suitable tires. •

This symbol contains information for the factory – not the Avant user. It indicates the mounting pressure when the tire is mounted on the rim and is different from the recommended pressure. The recommended pressure can be found in the Avant manual.



# The electrical Avant e6 is ticking all the boxes at a top University in Belgium



KU Leuven is a world-famous university in Belgium, near Brussels. Its history dates back more than 600 years and on many years it has ranked among the top 50 of world universities. Now it is also home to one of the world's top loaders as an electrical Avant e6 is taking good care of the university's beach volleyball courts.

building's roof was closed, and several months before the building was finished. This resulted in some spectacular pictures of a flying e6.

The Avant is equipped with the general bucket for sand shovelling. To avoid the tires getting stuck in the sand, extra wide grass tires were chosen. The large contact surface helps the loader to move easily around the area. A horse arena harrow takes care of the perfect levelling of the courts. The mesh roller was replaced with a plain roller.

ne of the most important features of a modern university is the well-being of the students. There are many ways to boost well-being and offering quality fitness and sports activities is certainly one of them.

To make students happier, and healthier, KU Leuven recently invested in new state-of-the-art sports facilities. A completely new building is home to fitness and sports medicine facilities and an indoor beach volleyball court. And not just any court: the Belgian national beach volley team trains on these courts.

# Well-being for students and the environment alike

The new building has been designed to meet the strictest environmental standards, with energy-neutral use of electricity and heating, use of solar-panels, passive heating and ecological materials.

The university needed a machine for levelling the sand on the indoor beach volley courts, and to add sand to the areas when necessary. The strict environmental standards were the main reason the university chose the electrical Avant e6.

The e6 was also the only machine in the public-tender to meet all requirements set by indoor use and the environmental standards. The weight of the wheel loader was also important as the machine needs to be used on a first floor as well.

#### A flying start

The use of the loader on the first floor created a product delivery challenge. The only way the machine could enter the building was through a hole in the roof. As a solution the machine was delivered on the last day before the In April 2021, Avant staff visited the sports center to prepare the machine for service and instruct KU

Leuven staff on how to use the machine.





The new beach volley, fitness, and sports-medical facilities of KU Leuven. Picture: 360 architecten



# **Those Plant Ladies** Take the Green **Industry by Storm**

Local women create a community that celebrates landscape



Twin sisters Fawn (Bowman) Wilson and Heather (Bowman) Payne have put their skills together to create a rare, groundbreaking business based in Taylorsville, North Carolina: women in the green industry.

e grew up on a farm and then both earned degrees in horticulture and turfgrass, so this is natural for us," Payne says of starting Those Plant Ladies.

"What we found is that a lot of women don't have confidence with their landscape or garden. This industry has usually been male-dominant and seen as something a man is supposed to do. When women get started, they realize how much fun they can have and how much pride there is in doing the work; and they want to learn more! That's where we come in," explains Payne.

Payne founded Those Plant Ladies with her twin, Fawn Wilson, in 2019 with the goal of empowering women to maintain beautiful landscapes and gardens on their own.

They thought they would be begging people to join the community they had dreamed about for years. Instead, they have successfully completed many landscape transformations and have several planned for the spring. Women of all ages are flocking to volunteer and learn alongside Those Plant Ladies.

"We're passionate about education in the green space. If you volunteer with us, we want you to go home with new skills you can use in your yard," Wilson explains.

Because Payne and Wilson both have degrees in horticulture and turfgrass, they love to bring education to this space.

"It's our job to empower the next generation to work with their hands," Payne says.

#### Those Plant Ladies Meet the Green Machine

In October of 2020, the ladies needed a reliable and versatile piece of equipment in an upcoming project taking place on a steep slope in the foothills of North Carolina. The job involved moving boulders that were on the site already to a hillside for erosion control, in addition to moving topsoil and two dump truck loads of mulch over the entire

The landscape crew of Those Plant Ladies is diverse: it includes everyone from pre-teen girls to retired women. Some are plant experts with a green thumb and others are beginners. Together they take a team approach to tackling projects and learning from each other - and dancing to the music they play through a bluetooth speaker while they work.





property. The job must be done in just two days and it would be a big undertaking to say the least, so help was much needed.

Payne and Wilson were happy to reach out to local machine rental in Denver, NC, where they found a perfect piece of equipment for the job: the Avant 630 articulated loader. With the various features and attachments, it turned out to be a great assistance for the challenging project.

As soon as the work started, the ladies quickly discovered that the turf tires worked great on the grass.

"The homeowner was very particular about their grass and wanted to make sure there was no damage. The turf tires were definitely able to protect the grass without leaving any type of ruts in the ground," Fawn says.

The team of Those Plant Ladies was equally impressed with the telescopic boom, which was easy to maneuver around trees and other obstacles in the wooded area.

"Once we were finished with the grappler, we disconnected the hydraulic hoses by simply pulling the lever. This was much easier than lining up a quick-connect hydraulic hose that can sometimes require two people," Fawn and Heather explain.

"We then connected the large bucket attachment to move our topsoil and mulch. The bucket itself was amazing! It allowed us to scoop up and haul roughly five wheel barrows full of material in one scoop, which saved us so much time and energy!"

The turning point on the Avant 630 also proved to be a huge benefit to the ladies on the jobsite.

"We loved that it can turn on its own center, meaning the tires do not skid across the ground which would cause damage to turf, but it allows you to turn smoothly," Payne and Wilson say.

Had they not used the Avant on this particular jobsite, the women would have used a traditional skid steer to complete the job.

"As far as moving the loads of soil and mulch, the Avant definitely has the upper hand, especially in terms of efficiency," Payne says.

Needless to say, Those Plant Ladies were blown away by the capabilities of the Avant and can't wait to use it on future jobsites.

For more information on Those Plant Ladies, visit https://thoseplantladies.com/



The turning point on the Avant 630 also proved to be a huge benefit to the ladies on the jobsite.





# A growing number of tree care companies choose **Leguan Lifts**

Even though many markets struggle with the impact of the pandemic, Avant Tecno's subsidiary Leguan Lifts is experiencing strong growth around the world. What are the main drivers behind it?



"In tree care services, Leguan 190 is worth its weight in gold", says Thomas Hans Zillhardt from Treeval Baumkontrolle & Pflege in Germany.

eguans are known for their outstanding terrainability and performance in all climates. They are built to withstand tough conditions from the heat of Australia to the freezing cold winters of the Nordics. The new generation of spider lifts have an increased focus on user-friendly and modern features which have raised the bar in international

Leguan Lifts has been investing in strengthening its sales and distribution channels with a heavy focus in distributor training and improved sales and marketing support.

Everything changed in the spring of 2020, when international traveling was stopped and all exhibitions were cancelled.

"After the pandemic started, we quickly redesigned our virtual distributor training programs and came up with new digital marketing tools and platforms to boost the sales of our international distributors," says Jori Mylläri, Vice-President of Sales and Marketing.

These actions helped Leguan Lifts to survive in the new and challenging business environment.

# Tree care professionals love Leguan 190

One of the main factors behind the company's fast growth is the success of Leguan 190, a spider lift that provides unrivalled outreach and efficiency for access platform operators. Leguan 190 is especially popular among the tree care services industry, which has become the fastest growing market segment for the company.

"I've been blown away by how much Leguan 190 can do. I can only recommend all others doing tree care to try the machine out, as it really is worth its weight in gold," says German Leguan customer Thomas Hans Zillhardt from Treeval Baumkontrolle & Pflege.

When Leguan 190 was introduced in the North American market, it went through a new arborist update influenced by tree care customers. This update has an increased protection over the lower controls and all hydraulic components of the booms to protect the machine against falling tree branches. Now, the Leguan 190 is also equipped with a smart service display that provides useful information of the machine status to the operator and enables easy troubleshooting and improved after sales support.

Leguan 190 has received an amazing response from tree care companies around USA, which has become one of the most important markets for the company. The North American growth is expected to stay strong, as the new Leguan distributor, Avant Tecno USA, has set ambitious plans for increasing market share by setting up new Leguan dealerships throughout the continent fast.

"Similar to the Avant product line, Leguan Lifts were carefully designed paying meticulous attention to durability, safety and user friendliness, which make them a great fit for any arborist job," says Jukka Kytömäki, President of Avant Tecno USA Inc.

Leguan Lifts continues investing in product development to introduce new models in the coming years and to increase options for the tree care industry around the world.



# Leguan 190

19 m

max. working height

9,8 m

max. outreach

230 kg

max. work cage load





Leguan Lifts are user-friendly and safe machines. Growth is expected to stay strong in the USA.

Stay tuned for more news at leguanlifts.com!



**Retired Finnish couple** Torsti and Terttu Nisula experienced upheavals in farming, fatstock keeping and forestry during their long careers, but two mainstays remained: marriage and Avants. They purchased their first Ylökatti for their farm in Kuorevesi, Finland, to facilitate heavy work in 1992, and this spring they acquired their 10th Avant.



hen married couple Torsti and Terttu Nisula recall the length of their working days a few decades ago, the mere thought of it gets the listener to sweat.

"During the spring and summer, we were busy with farming, in the autumn and winter it was forestry. A typical day started early in the morning when we head up to the cowhouse, during the day to the field or forest, and in the evening



The couple has already given up the cattle, but the yard, forests and fields still keep Torsti and Terttu Nisula busy during their retirement. The latest Avant 420 is used in yard care, moving wood chips and pellets, and mowing the lawn. The machine also assists in other types of work.

back to the cowhouse again. We did a lot of 16-hour-days," Torsti recalls.

The head count of the cattle peaked at 140, and the family cultivated 75 hectares of hay, oats, and barley for animal feed. Everything was done on their own all year round, and the oldest two of the four children in the family helped with the work.

"In the spring, more than 45 cows calved at any given time, and it often happened during the night, so there was plenty of staying awake for us. In that constant routine, you sort of go into a bubble. Then, sometime in the summer, when the weather was great for feed preparation and the work stretched out into the evening, we went swimming from the hay field. We finally had some time to look around a bit and we noticed that oh, that flower is blooming now," Terttu says and laughs.

But even though the job wasn't easy, it was rewarding. Besides, life was made easier by good loaders and attachments.

"During our years of work, the area under cultivation and the number of animals multiplied. What's more, the EU brought in the red tape. As the number of people at the farm did not increase, the machines had to lighten the work. Without them, we couldn't have done it," Torsti says.

#### Avant significantly reduced the workload

The couple bought their first Avant in 1992.

"Together with our neighbor, we had enough money in the backpack to get loaders for both of us, so we called CEO Risto Käkelä. When the loaders were brought in, a farmer we knew said: 'oh, the boys have gotten toys for their sandboxes'. As it happened, he soon had the same 'toy' on his sandbox too," Torsti recalls with a laugh.

Back then, their first loader was still called Ylökatti, and the attachment they used was a silage fork. Terttu took the feed to the barn animals with the loader. The machine saved her strength and steps considerably, and it could fit into tight spaces. She could see around her well from the seat, so it was easy to watch out for the animals while working.

"Before that, the handling of feed had been heavy fork work, so the change was revolutionary for us," Torsti says.

After that, more attachments and loaders were acquired. In the end, three Avants were constantly standing in the barn ready for use. One had a round bale spinner, the other had a round bale splitter, and the third one had a bucket for manure handling. As the attachments didn't need to be changed, time was greatly saved. Since then, the changing and fastening of attachments has become quicker and easier with the help of a standard attachment multi connector.

## "Hats off to Avant Tecno"

The Nisulas have already owned ten Avants. The skid-steer models 313 and 320S were the first ones, and eight skidsteer Avants have been acquired altogether. Torsti praises them for being able to turn around in cramped spaces. In 1996, the Nisulas bought their first articulated Avant Multitec. The newest loader is also articulated, which makes it delicate for surfaces like the lawn or the plank floor of the barn loft. Whenever the machinery has been renewed, it has been easy to sell the old models.

"From the very beginning, Avant Tecno has made successful machines with good technology. The attachments are great, too. The design of the reliable machine is simple, and it's easy to maintain an Avant yourself. That's why I have kind of fallen for them," Torsti says.

Over the years, Torsti has also given the company feedback and ideas for product development.

"They always listen with a sensitive ear, and they understand what farmers do and what we need. As a company, Avant has developed hugely over the years. Sometimes they have made big decisions, and they have always succeeded. Hats off to them for that," Torsti says.

All Avant loaders are equipped with a ROPS and FOPS approved safety frame. Avant Tecno does not recommend removing the frame under any circumstances.

# "We can do all the work at our farm with our strong but agile machine"



"The biggest challenge in agriculture is cutting costs. The larger the machines, the higher the capacity, but big machines consume huge amounts of fuel. One part of my strategy is to reduce fuel costs, and that's where Avant comes in the picture," says farmer Fredrik Andersson.

Hösterum's farm in Söderköping, Sweden, has about 125 head of cattle, approximately 190 hectares of grable land, and some forest greas.

Fredrik Andersson, the first farmer in his family, has run the Hösterum farm in Söderköping, Sweden, since 2007. Fredrik's trusted loader is the Avant 860i. He appreciates its agility, versatility, comfort, and minimal fuel consumption.

wedish Fredrik Andersson's life as a farmer began, in a way, by accident.

"Originally, it was my father who got the idea of farming. However, he had to give up his idea because he soon realized he would not have been able to actively run the farm," Fredrik says.

The son decided to fulfill his father's dream. When Fredrik and his family moved to Hösterum and started farming, he also made all the machinery purchases for the farm. Over the years, Fredrik has acquired two Avants. As attachments, he has used a bucket, a sand spreader, a dozer blade, and a carousel broom, for example. His latest loader purchase is the Avant 860i.

"We used to have an Avant 528, and after that I wanted a machine that would be more powerful but still compact and agile. The new loader was a great choice. The machine takes care of everything on the farm, and it consumes much less diesel than a large loader would. We used to have a Volvo L70, but I ended up selling it, and so far, we've done just fine with our Avant," Fredrik says.



# Fast handling of bales and agile working in tight spaces

On an ordinary day, the Avant 860i is used for very versatile work on Hösterum's farm: for example, driving out manure, feeding animals, moving stuff around, spreading gravel, sweeping, and doing forestry work. According to Fredrik, the machine works very well in piling and moving bales and heavy fertilizer sacks.

"After we became Avant owners, working in the barn got so much easier. You can drive the Avant straight in, and you can easily move around with it in tight spaces. Above all, this has saved fuel, because we no longer have to use two different machines to do the barn work, meaning a tractor and a loader. Using the Avant is clearly fuel efficient."

Fredrik still needs some new attachments, at least a stump grinder and a cutting bar. One reason for his many Avant purchases is the fact that Fredrik also practices farming on an island, and transportation is expensive.

"The great advantage of the 860i is that despite its power, it is a "small" machine that is easy to lift on top of the trailer and move around. This is important to us, as our activities cover large areas. Instead of having a big barge, we drive our own little raft. Together with its attachments, the Avant 860i is versatile enough for our needs, but at the same time it is also big enough to be used as a powerful machine."

# Luxury in the cabin, savings in fuels

Fredrik praises Avant's cabin comfort as fantastic.

"You can use bluetooth and talk on the phone while you're working, and your friend really hears what you're saying. The air conditioning is heavenly when you have to work in really hot weather. But for me, the most important thing is Avant's performance, which just keeps surprising me. We really like our machine, and we haven't found any downsides to it yet."

When Fredrik uses Avant's 650-litre bucket, he can load a grain truck in 45 minutes. The farm used to have a large loader, and with a two-cubic-meter bucket attached to it, he could the same work in only 25 minutes, but the downside was that the machine consumed as much fuel during the work as the Avant consumes in one day.



Fredrik Andersson believes in the future of farmers in Sweden. "I think we'll be stronger players. We have high standards in animal husbandry, and the future is quite bright. I am not saying that the work will be easy – the standards will become even more demanding – but our opportunities for economically viable work are better than they have been in ages, as Swedes are increasingly favoring local production."

"All the other hours in the day are quite cheap with Avant."

Fredrik believes that the biggest challenge in agriculture is cutting costs.

"The bigger the machines, the higher the performance. But big machines tend to consume huge amounts of fuel. One part of my strategy is to reduce fuel costs, and that's where Avant comes in. And the lightness of our Avant has other pros, too. Farming is always at the mercy of weather, and in some years it's tinder dry. On such summers, there wouldn't be a problem in driving in the fields even with a tank. But often the ground is quite soft, so it's smart to own a small and light machine."

The 860i has exceeded Fredrik's expectations. After six months' use, it has about 200 working hours under its belt.

"In the past, I was a little skeptical, but my prejudice has been proven wrong over and over again, which is truly great. The Avant has been a very good addition on our farm."



# Avant and Ajo Motorsport – a race to the top!

Ajo Motorsport is a Finnish company specializing in sports marketing in world championship road racing. The company's teams have been racing since 2001 in 125cc, Moto3 and Moto2 classes and in the FIM Enel MotoE World Cup series for electric motorcycles.

uring the past 20 years Ajo Motorsport has won seven world championships. Six of them drivers' championships and one a Moto2 class championship. Avant Tecno and Ajo Motorsport have cooperated through all of the championship seasons.

Right at the beginning of the co-operation Ajo Motorsport won its first road racing World Championship when the team's French driver **Mike Dimeglio** secured the 125-cubic class World Championship in Australia at the Philip island racetrack in 2008. The Championship was celebrated together with Avant Tecno at a gala event.

#### Ten years of rapid growth

During the past years of co-operation both companies have raced to the very top in their own respective fields – all the while keeping a close eye on future possibilities.

Avant Tecno has been a significant partner to Ajo Motorsport. In recent years, the collaboration has focused on the Red Bull KTM Ajo Moto2 and Moto3 teams.

A few years ago, the collaboration was extended to

the new MotoE World Cup electric motorbike series. This expansion in the partnership was natural considering Avant's own series of electric loaders.

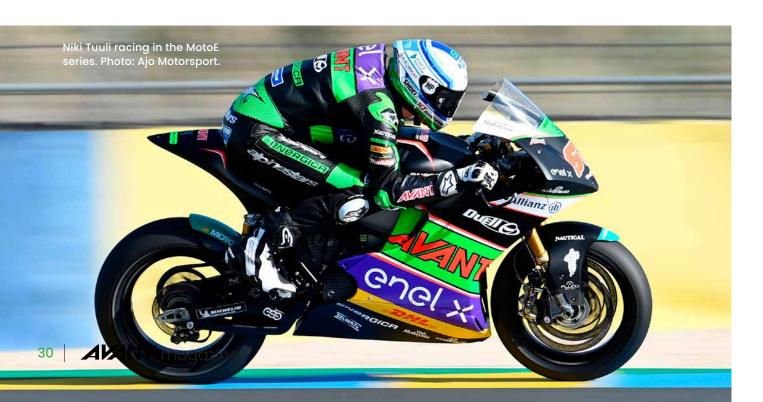
"Throughout our collaboration we have been developing constantly. We now offer other services to complement the global marketing presence. In addition to VIP services and event services we have introduced a collaboration with the new electronic motorcycles to Avant Tecno as we see clear synergy and added value in this partnership," explains CEO and team principal **Aki Ajo**.

# The return to normalcy creates possibilities for overtakes

Although the global pandemic has put world economy and the consumer market to the test during the past year, the future holds much promise. Consumer demand will rise and create possibilities for sports: the economic value and the entertainment value it holds. Ajo Motorsport is determined to investigate and find new, even surprising, dimensions to its marketing partnerships.

The shared journey from Finland to all corners of the world has been rewarding.

"Collaborating with Avant has been important to us. I hope we in turn have brought added value to the company's global marketing, on many sectors. It is very special to have shared this great journey with Avant Tecno. Naturally I am also pleased that we have been able to offer Avant thrilling sport experiences – after all, Avant has been a part of all the World Championships we have achieved."









One machine. Unlimited possibilities.



# The right choice.

# Versatile

Professionals love the versatility of the Avant as it gives them the ability to perform multiple tasks year-round with one machine. Furthermore, Avant machines leave minimal ground disturbance to the most delicate surfaces..

# User-friendly

Articulated Avant loaders are very easy and safe to operate thanks to basic controls and a unique hydraulic connection system. The ROPS safety frame with FOPS canopy, side entry to the operator station, and low center of gravity make it a safe solution on every job site.

# Articulated chassis

The articulated chassis allows the loader to make tight turns without causing damage to sensitive surfaces. The rigid articulation joint makes the loader incredibly stable, even on demanding terrain.

# High quality

The Avant is manufactured in Finland to the highest standard using only high-quality materials. Avant uses Kubota diesel engines backed by a 24-month warranty.

# Back-up

Representation of reliable partners all over the world creates security for the use of the machine. Locally stored spare parts and a local service network guarantee a minimal down-time.



