

WORLDWIDE LEADERSHIP IN THE CONSTRUCTION OF THE FUTURE

HE HOMAG

edge

THE HOMAG GROUP MAGAZINE
2019 ISSUE

Furniture of the future



Furniture of the future Anyone who is professionally involved with products around living and working has to constantly keep up with trends. How will we be living and working in the future? Ideally, those in this field will be involved in shaping the trends themselves. At HOMAG, we want to detect at an early stage which living and working environments will see increased demand in the future. This is the only way to provide our customers with optimal support and to offer them solutions that will provide them with what they need to face the challenges of the future.



You can find innovative solutions from HOMAG for future-proof furniture production at:

www.homag.com/en/your-solution/furniture-production/

edge

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2019 ISSUE



How we want
to live in the future

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It
works!

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Digitally at
your service

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PROFILE

Everything from a single source

The HOMAG Group is the world's leading provider of integrated solutions for production in the wood-working industry and woodworking shops. As a global player, we operate international production plants as well as sales and service companies. The HOMAG Group offers its customers solutions for digitized production, based on digital data continuity from point of sale through the entire production process, combined with a comprehensive software suite.



High-performing

World-class

Innovative

Successful

6,593

EMPLOYEES AROUND
THE WORLD

>30%

GLOBAL MARKET
SHARE

1,000

ACTIVE INDIVIDUAL
PROPERTY RIGHTS

1.30

€ BILLION SALES
REVENUE IN 2018

Dear readers,

Today, speed and flexibility are some of the most important success factors in business. Companies have to adjust quickly to the globally changing needs of their customers and drive new technologies forward decisively.

Our claim as a leading partner in the wood-processing industry is that we can detect at an early stage which living and working environments will see increased demand in the future. This allows us to offer manufacturers of furniture and components what they need: completely integrated, innovative solutions, machines, and plants that can meet the requirements businesses face today and will encounter in the future, with a high level of efficiency and quality.

Therefore, for a long time now, we have been investing in smart digital solutions for our customers. Networked technology allows companies to keep an overview over production processes and to organize these processes optimally. Clever automation streamlines the processes and reduces the costs.

Smart tools also make work easier for small companies and workshops. Thanks to our customized cell concepts, trade businesses can automate their production where it makes sense, thus allowing them to counteract the shortage of skilled workers.

Over their entire period of use, machines and plants from the HOMAG Group are maintained and modernized by our customer service organization, and where necessary repaired. We are making progress here too. Examples



“Our claim as a leading partner in the wood-processing industry is that we can detect at an early stage which living and working environments will see increased demand in the future.”

include the diagnosis of errors via video or remote-controlled analysis of machine data. Applications like these are available for all customers on tapio, the leading digital ecosystem.

On the following pages you will learn more about how we are shaping the future of the wood-processing industry and, as pioneers, how we are driving forward ground-breaking solutions.

I hope you enjoy reading the magazine!

A handwritten signature in black ink, consisting of a large, sweeping arch followed by a horizontal line and a few small marks.

Pekka Paasivaara
CEO HOMAG Group

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It works!

A driverless transport system allows maximum flexibility in production



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Furniture of the future

Four experts and their assessments of the most important furniture trends



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The wanderer between the worlds

In Portugal, production at J&J Teixeira takes place on a fully automated and networked production line from the HOMAG Group

How we want to live in the future

The five living trends of the future In the coming years, the “apartment” living space will change significantly. The changing living concepts are influencing the lives of everyone. However, they also require a rethink in politics and in the economy. For companies, these concepts offer opportunities, as almost all industries are affected by the change in living situations: furniture manufacturers and technology companies, but also banks, garbage disposal, and educational institutions. Here we briefly present the five most important living trends up to 2025.

Text: **Claire Busche**

01 / Green living

The urban living space should become more attractive, safer, and healthier for everyone. Amongst other things, nature will increasingly play a part in this process. People want to live in the country or in harmony with the natural world. At the same time, consumers are paying increasing attention to the health aspects of materials and surfaces.



Green facades improve the air quality, produce oxygen, and filter dust, pollutants, and noise. They also provide protection against heat and cold.

One of the tallest vertical gardens
can be found in Sydney, Australia:
One Central Park.





Picnics, barbecues, enjoying the sun: anyone who doesn't have a garden or a balcony heads for public green spaces.

02 / Third place living

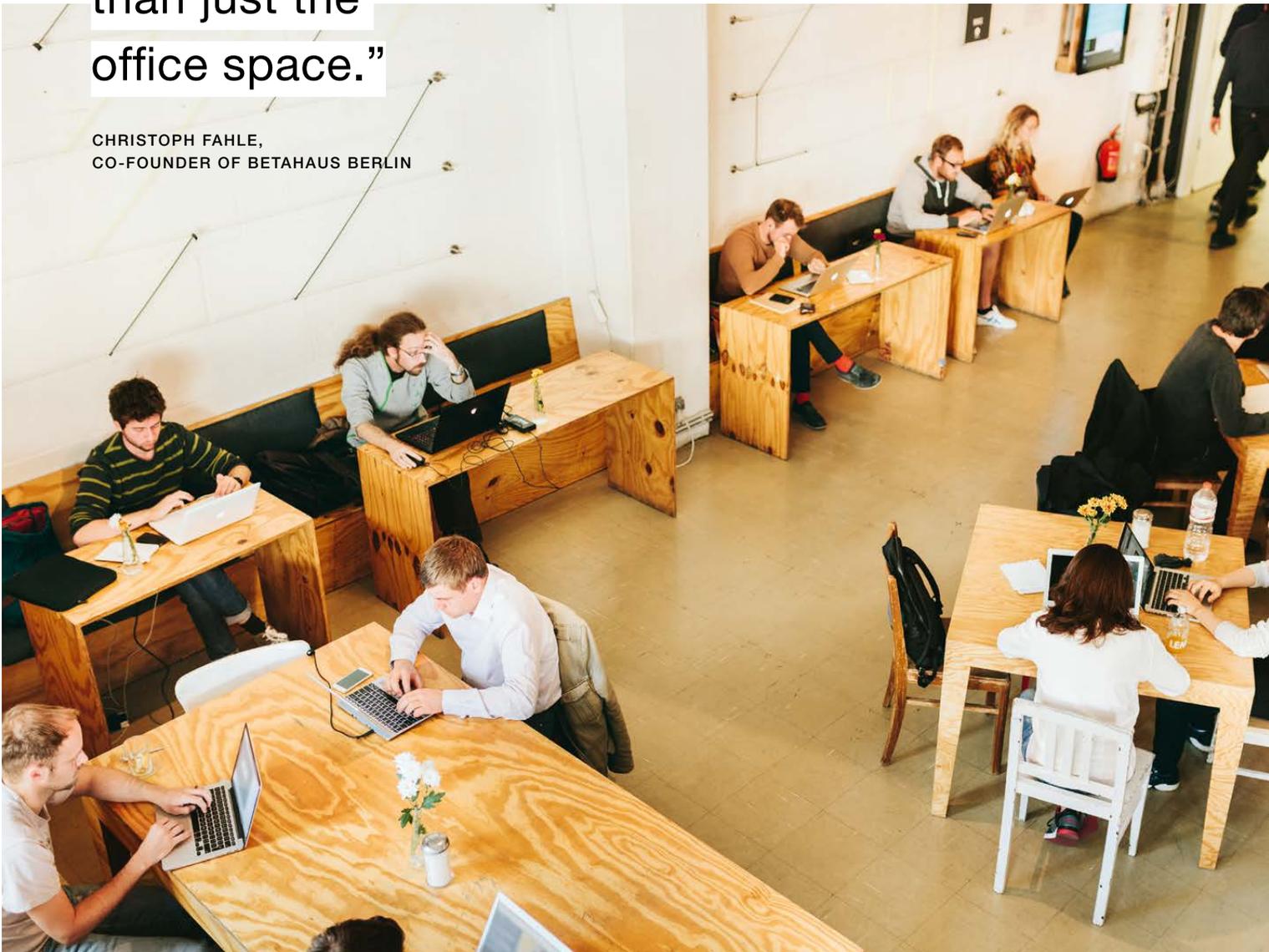
The new small-room apartments will become a customized place of retreat and the small living space will be extended by what are referred to as “third places”. This term denotes public spaces outside the home and the workplace, such as kitchens to hire for cooking in large groups, or cafés and bars that resemble living rooms. The entire city will become a residential landscape.

03 / Collaborative living

“The betahaus is a community that shares more than just the office space.”

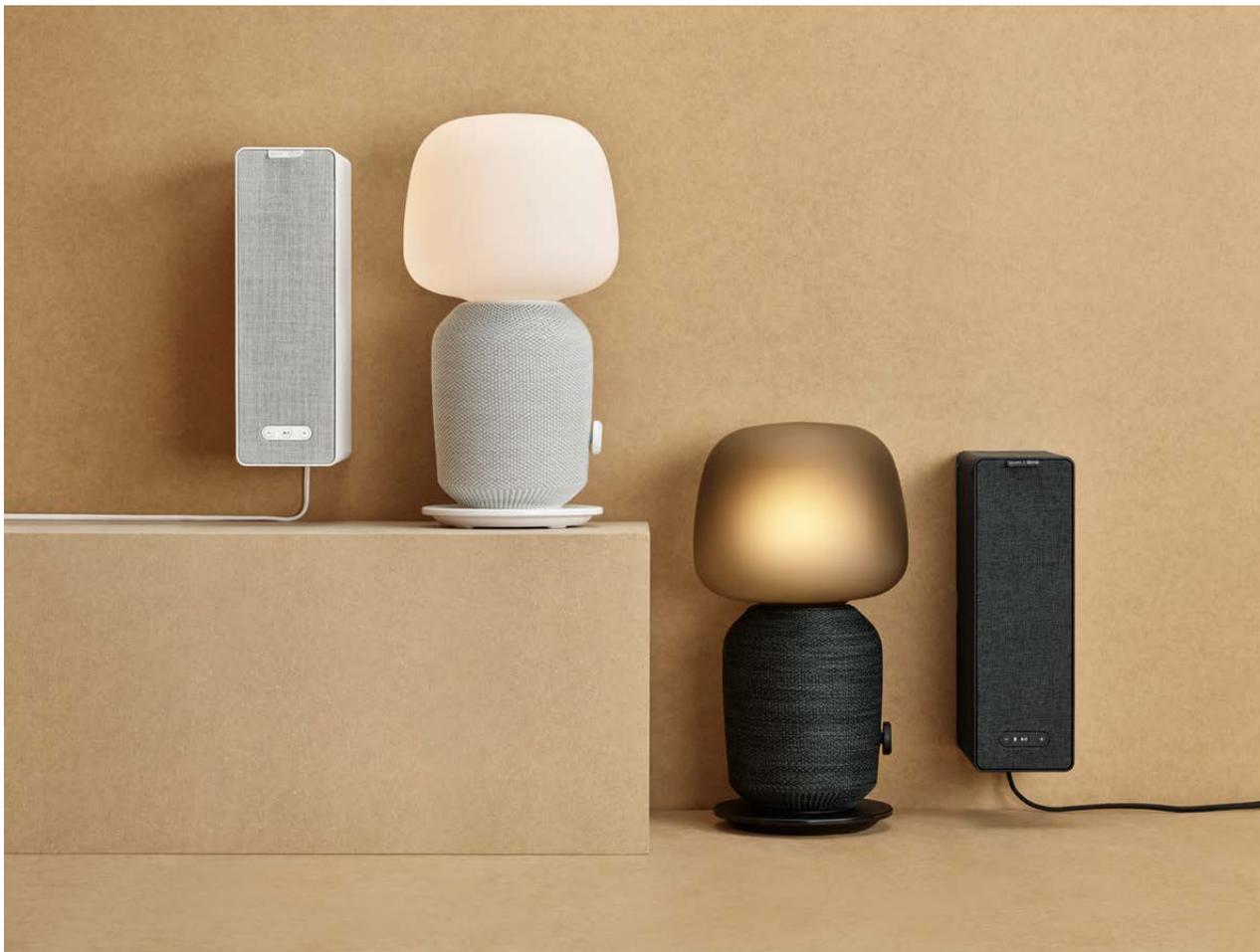
CHRISTOPH FAHLE,
CO-FOUNDER OF BETAHAUS BERLIN

The apartment blocks of the future will become a living space that combines different lifestyles. The private living space will be reduced to what is most important to each individual and the residential functions that are most important on a daily basis – everything else will be “outsourced”: to the shared kitchen, the garden cooperative, or the co-working space, for example.



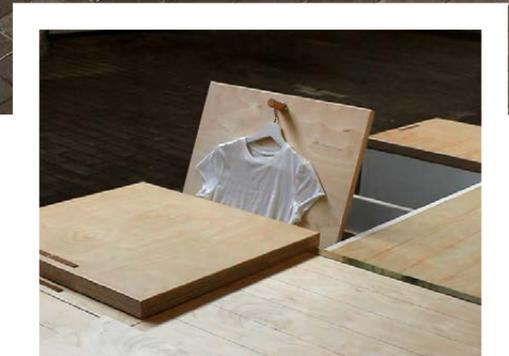
04 / Smart being

Technology changes daily life. It is sophisticated solutions in particular that prevail – such as an intelligent heating control system. However, the technologies have to provide a real added value and must be intuitive to operate. What is interesting about this is that the more analog modern technology appears to be, the more readily it is accepted in the living space.



Integrates harmoniously into the living space: the smart table lamp with integrated loudspeaker is the result of collaboration between Ikea and Sonos.

Source: www.zukunftsinstitut.de
Photos: Alamy, istockphoto, shutterstock, betahaus berlin, obs/IKEA Deutschland GmbH & Co. KG/Inter IKEA Systems B.V. 2019, Juul de Bruijn



05 / Conceptual living

Rooms are increasingly becoming hybrids – they are no longer reduced to individual living functions and instead, are used for multiple purposes and divided up into functional areas that can be changed time and again. Using wall elements, soft furnishings, and innovative furniture – referred to as “flexware” – residents can repeatedly adapt these zones to their new needs.

Design study: The “MoreFloor” timber floor from Juul de Bruijn can be converted into a bed, a shoe rack, a clothes stand, and a storage box.

FUR NITURE

OF THE FUTURE

Anyone who is professionally involved with products around living and working has to constantly keep up with trends – and even better, shape trends themselves. What developments are influencing the furniture industry most strongly and what will people be looking for in the future?

Text: Kai Roeske

Photos: HOMAG Group, Koelnmesse, Sachsenkitchen, Steelcase

How sustainable are you?
The focus is increasingly
on the materials that
products are made of.



THE BIG PICTURE

As well as being a result of personal decisions, how people live and work is an expression of social and economic developments. So what are the biggest trends that we should be aware of?

Living is becoming more urban In a lot of markets, the influx of people into big cities continues – this is where the workplaces of the future will be. There are two significant consequences of this: the living space for each person continues to decrease; and, people are settling into this space for only a limited time. More and more people, therefore, are interested in “micro living” – that is, complete living solutions over a space of 20–30 square meters. To avoid this space feeling claustrophobic, the space is not divided up further as far as possible. This means, for example, that the kitchen no longer leads a niche existence and instead, is an integral part of the living situation. Elko Beeg sees an opportunity in this trend as “virtually the whole living space is opened up to manufacturers of kitchen furniture.”

Make way! It may be an unintentional counter movement to urban living, but outside the big cities, the available living space is being celebrated more strongly than ever. Where detached houses are renovated or redeveloped, walls are disappearing so that rooms are becoming larger and more generous. And those who are creating space in this way are also intentionally indulging in an interior design that underlines this new luxury of space. The boundaries between living areas are thus broken down, allowing the kitchen and dining area for example to flow smoothly into one another.

Back to nature Another advantage of living outside big cities is that you are closer to nature and may even have the luxury of your own garden. This own little piece of nature is becoming increasingly important, as also demonstrated by garden owners increasingly investing in high-quality outdoor furniture.

The new consumer Customers' self-image is changing. For young people, property is no longer as important as it used to be. They know that you don't necessarily have to own something to benefit from it. Renting, leasing, and sharing are therefore becoming more popular as an alternative to buying. What is particularly important for customers is that products and services should be customizable, sustainable, and healthy – and available quickly, as far as possible directly from the provider. Technical networking both enables and supports this development.

MATTHIAS POLLMANN

VICE PRESIDENT TRADE FAIR MANAGEMENT,
KOELNMESSE



Every year, Koelnmesse organizes and supports around 80 trade fairs, exhibitions, guest events, and special events in Cologne and in the most important markets around the world – including IMM Cologne.

MICHAEL — HELD

DIRECTOR DESIGN, STEELCASE



Steelcase supports leading global organizations in the office segment as well as in the education and health sectors. In addition to architecture, furniture, and technology products, the company's portfolio also includes services in these areas.

Help in old age The demographic change in many markets is moving the focus to the needs of older people. With regard to living, their views are significantly different to those of younger people. And of course, senior citizens also need more help with everyday life. This help can be provided by relatives or care staff – but technology can also help.

The new style of working In many markets, the world of work is shaped by service careers. And in this area, standardized tasks are increasingly being taken over by computers. At the same time, the importance of teamwork and human creativity is growing. No wonder, says Michael Held: “The problems that companies have to deal with today can only be resolved in groups.” This type of work requires flexibility, mobility, and networking. And it only works when rigid structures in business – and in people's heads – are overcome. It helps if working environments are individually adapted to the personal needs of employees.

TECHNOLOGY AND MATERIALS

The trends identified have multiple effects on the properties of furniture.

It's the source that's important When selecting materials, the focus is shifting to sustainability. Wood therefore remains a popular material in furniture manufacture, especially if the customer can be sure that it comes from sustainable sources. This is where furniture manufacturers could position themselves more strongly, thinks Matthias Pollmann. Young buyer groups in particular are interested in the source of furniture. “With the label ‘Made in Germany’, furniture companies can set themselves apart from the competition and provide reasons for buying their furniture.”

Healthy furniture The materials used should not be just produced sustainably, they should also be healthy. Anyone who can prove that their products are free of questionable substances can score points with consumers. Furniture can also be good for your health if it offers space for plants – people appreciate nature coming into indoor spaces. That can also offer practical benefits, for example when areas of moss on walls improve the climate in the room. At the same time, furniture is moving outside: the range and quality of offers for outdoor furniture are increasing.

“With the label ‘Made in Germany’, furniture companies can set themselves apart from the competition and provide reasons for buying their furniture.”

MATTHIAS POLLMANN, KOELNMESSE

Storytelling with wood Wood can fulfill the trend for individualization in its own unique way. Every piece of wood is unique and can tell its own story – via the proof of origin or via storytelling in the literal sense. This is true, for example, in the processing of old oak that, for hundreds of years, has served as a plank in a lagoon city or as part of the roof structure in a farmhouse. Elko Beeg sees potential here: “There is a demand for these unique pieces and products that have a story, particularly from well-to-do buyers.”

Robust and recyclable The trend for leasing and renting furniture has already arrived in the area of office furniture. It’s just logical, says Michael Held, as it offers companies not only financial flexibility, but in particular the opportunity to “regularly optimize their rooms and adapt them to changes”. Leasing and rental models are also becoming more important in the private sphere. Not least since a – let’s say, interregional, successful – furniture company recently announced they would be offering just such alternatives to buying furniture. However, for furniture to move location multiple times, it has to be produced accordingly – ideally it must be robust, reusable, and recyclable.

Furniture is technology Both for living in a small space and for working in changing constellations, furniture should be as flexible as its users. For Matthias Pollmann, therefore, multifunctionality is a big issue – as is the discreet integration of “smart home” devices in furniture. Via built-in sensors, they can provide information about use or about the room temperature. Or – if that’s what people want – monitor a room via built-in cameras. Sensors can also enable new business models, for example with a view to furniture rental: a smart office chair can note how often it is used – payment is then based on the specific length of time the chair has been sat on.



The kitchen diner – high-quality and planned on an individual basis.

ANTON NIGGEMANN

KEY ACCOUNT SENIOR SALES
MANAGER, HOMAG GROUP

Anton Niggemann has been with the HOMAG Group for around ten years and, as Senior Sales Manager, develops production concepts and solutions for customers from the furniture industry. Prior to his time at HOMAG, he was engaged in a management function in furniture production.



Furniture of the future

Furniture as aids Smart home can also mean that via built-in motors, furniture becomes mobile. This type of electrical work aid is already offered in the kitchen. For older people in particular, it can be a great help if the wall cupboard leans down to the user when required – or if the oven moves to working height as soon as you want to put the cake in. Things are happening in other living situations as well: today, mattresses can already monitor your pulse during sleep, and floors can register if a person falls on them. Matthias Pollmann believes such solutions are particularly exciting. “We’re not talking about gimmicks here, we’re talking about applications that can really save lives.”

My furniture “Off-the-shelf” furniture still has its uses. But alongside this furniture, there will be an increasing number of applications for individualized furniture in series production. In Elko Beeg’s opinion, the industry is well set up for this: “When you order an automobile today and tell the manufacturer, ‘I’d like it 10 centimeters shorter’, the manufacturer will probably say no. In contrast, in the furniture industry, we are doing everything we can to create as much freedom as possible, even in series production.” This applies not only to the dimensions of furniture, but also to really “unique” surface designs and finishes that adapt to the current mood in the room. “I think that in a couple of years, we will have furniture that can change color”, says Anton Niggemann.

ELKO —
BEEG

MANAGING DIRECTOR, SACHSENKÜCHEN

SACHSENKÜCHEN
Hans-Joachim Ebert GmbH is located near Dresden. The company has been building high-quality and innovative kitchen furniture for more than 100 years.



The working environment is becoming more

flexible According to Michael Held, the good old office world is obsolete. “Priorities are changing, and the requirements that employees have of their working environment are radically different today than in the past.” This is because everyday working life is becoming more flexible and more situation-based than before. This means that phases of concentration, of information exchange, of quiet, and of inspiration alternate. These phases take place in different spaces. “The transitions are becoming more fluid, there is an interplay between collaboration, focus, and even daydreaming,” says Michael Held.

TRENDS IN PRODUCTION

To meet these new customer desires, the furniture industry is investing in new opportunities in manufacturing and logistics.

Production based on customer request Furniture should match the wishes of its buyers – but also the prices they want. Previously, these were two competing objectives. Elko Beeg sees significant progress in this area: “Of course, carpenters have always been



Lively discussion: teamwork is becoming increasingly important in today's world of work. Modern working environments also have to take this into account.

able to produce furniture on an individual basis. But now, thanks to highly flexible and automated systems, that can be done more economically. The robot saws in cutting are particularly groundbreaking for us.”

Furniture manufacturers can thus offer increasingly individual dimensions and processing options. In online trade, the end customer has a direct line to the manufacturer and configures the furniture they want directly via the Internet. Anton Niggemann sees opportunities in this development in particular for smaller trade businesses: “With the right room planner software, the configuration data from the customer goes straight to production. The rest then takes place almost entirely on its own: the machine control unit, connection options, material provision, sawing, drilling.” Just a few days after the order has been received, the furniture parts can be sent to the customer for construction.

New opportunities are also presenting themselves in the design of individual surfaces. Progress in digital printing and in the haptic and optical structuring of surface materials enable matt surfaces on which fingerprints have no chance of surviving, and which, if desired, can feel like true grain.

Save weight, gain opportunities In large-scale production, the focus was always on saving. Packaged, flat-pack furniture offers new potential: anyone who expands chipboard with styrofoam, straw, or hemp, or manufactures lighter furniture elements thanks to variable fill weights, benefits in many ways: with a given maximum weight per package, more elements can now be put together; the truck can transport more packages than before; and the end customer has to carry less weight.

Who needs tools? Another good aspect for manufacturers and buyers of packaged flat-pack furniture: you don't always need tools to build the furniture at home. The trend is towards assembly without tools – thanks to increasingly precise part production, plug connectors, tongue and groove solutions, and dowel systems are enjoying a renaissance.

Automation benefits wages Wage costs are a decisive success factor in the furniture industry: anyone who can produce cheaply has a competitive advantage. However, as new production methods enable automation even in small businesses, manufacturing in high-wage countries is becoming more attractive again.

There are exciting times ahead in the field of furniture. New customer wishes, new material trends, new production options – all of these developments open up market potential. Anyone who uses this potential decisively will already be able to offer the furniture of the future tomorrow.



It works!

With deinSchrank.de, the German e-commerce pioneer for mass-produced furniture, every lay person can easily become a carpenter. The secret of the company's success is maximum flexibility – in the products themselves, but also in the highly automated manufacturing processes. An important element of this sophisticated system is the TRANSBOT driverless transport system from HOMAG.

Text: **Alexander Wilberg**
Photos: **HOMAG Group**

The enormous freedom: TRANSBOT works without any navigational aids such as rails or magnetic strips.



Why is there no standard for pitched roofs? And what's this offset in the wall for? As far as interior fittings are concerned, there are challenges that neither large furniture companies nor relevant online portals have a really satisfactory solution for. In such cases, people who were not ready to comprise approached their local master joiner; today, the home computer offers an alternative.

Carpentry 4.0 is a phrase that could be used to sum up the business model of deinSchrank.de succinctly. The former startup has been a success story for nine years now. In Rheinbach, south of Cologne in Germany, the company has been producing the furniture designed independently by its customers to the precise millimeter in the 3D configurator for three years. From the very beginning, it was clear that batch size 1 and rigid production logistics would never be compatible. Instead, the team invested in an extremely adaptable, highly automated cell concept. Andreas Heinzmann, Professor at Technischen Hochschule Rosenheim (Rosenheim Technical University of Applied Sciences) and member of the advisory board of deinSchrank.de, clarifies the company's philosophy: "We are a highly flexible production company with a very strong focus on the current market. This also means that, today, we don't know which products we will be producing tomorrow, the day after tomorrow, or in two years' time. Thanks to the flexibility in our production concept, we can easily adapt our production logic to the latest requirements so that we are in a position to satisfy customer-specific requests both today and in the future."

SOMETHING'S STILL MISSING FOR PRODUCTION

In practice, however, a not insignificant flaw soon became clear: the material transports between the automated cells were performed manually. Industry 1.0 at the center of the high-tech machine pool. It was not uncommon for employees on the machines or downstream processing cells to be waiting for material due to the operator being busy with logistics tasks. A solution had to be found for connecting cells that work independently of one another to create a fully automated, variably adjustable production concept.

It is precisely this solution for deinSchrank.de that HOMAG provides, with the catchy name TRANSBOT. The self-driving transport robots connect individual processing machines, automated cells, or even manual workstations together logistically. They navigate freely through the space without any need for mechanical aids such as rails or magnetic strips. This is precisely what makes them so flexible when handling logistics tasks. If changes are made in the production process, the TRANSBOT travel paths in fleet management can be effortlessly adapted to the new conditions. The combination of TRANSBOT and fleet management is comparable to the interaction found in self-driving cars that

A
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AUTOMATED GUIDED VEHICLE

An automated guided vehicle (AGV) is a floor-level means of transport with its own drive unit which is controlled automatically and guided without any contact. AGVs are used to transport materials, specifically to pull or carry goods to be transported with active or passive load-lifting equipment.



Flexible intra-
logistics for
deinSchrank.de

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**FLEXIBLE INTERLINKING
OF PROCESSING CELLS**

Driverless transport systems interlink flexible, fully automated productive processing centers to form an overall concept, the "autonomous cell". The "autonomous cell" can demonstrate its full flexibility in both trade and industry, from series production to batch size 1 production.

chart your journey with the aid of a navigation system and sensors. Prof. Heinzmann: "In production, we use highly flexible, automated cells, some of which are equipped with robotics. We want to think bigger when it comes to cells. We want to think bigger when it comes to units. And the transport robot from HOMAG is the perfect match for our philosophy of flexible production. This is the main reason why we put our faith in HOMAG and opted for this system. To stay flexible, but also to forge ahead with automation in a scalable system."

APPROACHING MACHINE 4 ...

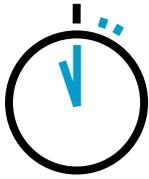
Since July 2018, the TRANSBOTs have been in use at deinSchrack.de, linking the production stages of CNC processing and edging – both in closed, automated processing cells. The position of the machines or processing cells in relation to one another plays only a secondary role from the perspective of the TRANSBOTs. Once the processing of a material in a production step is finished, the material is stacked on coffee table-like structures known as trays. At deinSchrack.de, these stacking routines are completed by various robots that are integrated in the cells. Once a stack is complete, a TRANSBOT moves underneath the tray, lifts it, and transports the stack out of the machine. Its path takes it either directly to the machine on which the panels are to be processed in the next stage, or to a "buffer station" between the processing steps. The buffer station has 20 positions on which empty trays can be set aside and full trays can be stored ready for use until the material is needed. The added value of this sustainable logistics solution is clearly noticeable, as Prof. Heinzmann confirms: "The machines can now provide real added value, as we are able to separate our logistics from our direct machine operation thanks to the driverless transport system."

Of course, there was some work involved in implementing the system: travel orders had to be generated, order data had to be managed, and data had to be provided. However, this work was easy with the right HOMAG software. The ControllerMES manufacturing execution system organizes the production processes optimally and perfects the interaction of machines and manual workstations – from intelligent configuration and optimization of the production data, to the production planning and ultimately the completeness check after final assembly.

Prof. Andreas Heinzmann: "Our collaboration with HOMAG has been a huge success – from the outset to the acquisition phase, right through to the service we are currently receiving. When I consider the entire production journey, including the way in which the TRANSBOTs communicate with the robot cells, how the exchange takes place, and how the buffer management works – and by that, I mean not only that we maintain our flexibility but are also able to generate a high level of automation – these expectations have absolutely been fulfilled. We are extremely satisfied, and would choose intralogistics from HOMAG again."

So speaks a man who knows that it works.





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SHORT RESPONSE TIMES

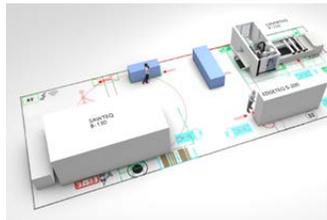
Easy retrospective changes to the product range and processing order are possible, with an availability of almost 100 percent.

Step by step into the digital world

Preparing and networking production in an existing business ready for digitalization? That initially sounds like a mammoth task. For small- and medium-sized businesses, this is often one of the reasons why they don't risk taking the step towards digital production. However, our three networking concepts show that you don't have to follow the "all or nothing" principle – there is an approach for every requirement: the user can decide on individual machines, smart hardware, smart software, and digital assistants that communicate with one another and integrate these into their workshop. Each concept includes different focuses and modules, allowing every business to put together the components and digital products that are right for them.

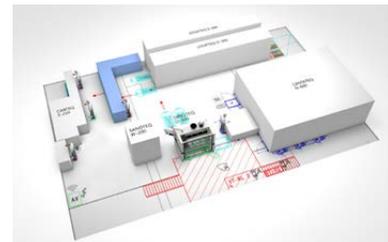
JUST START

At some point, almost every business faces the question of how best to get started. Our "Digital entry" workshop concept has the answer. This concept gives the user more transparency in production, recognizes potential for optimization, and improves existing production processes.



STEP-BY-STEP ADJUSTMENT

In the "Networked digital workshop" concept, each machine is operated by one employee. With this concept, the work preparation, machinery, and bench room areas are separate from one another. Some of the job data is available to machine users in digital form.



FULLY NETWORKED



For medium-sized wood-processing businesses, we have developed processing cells that can be extended on a modular basis. Each individual cell is already an ideal solution for efficient panel processing. The individual cells are networked via a TRANSBOT, which is our name for the driverless transport robots.

The ControllerMES production control system takes over higher level control. All of these elements come together to form a fully autonomous and automated, variably adjustable production concept for batch size 1 production – from cutting through to fully packed furniture.



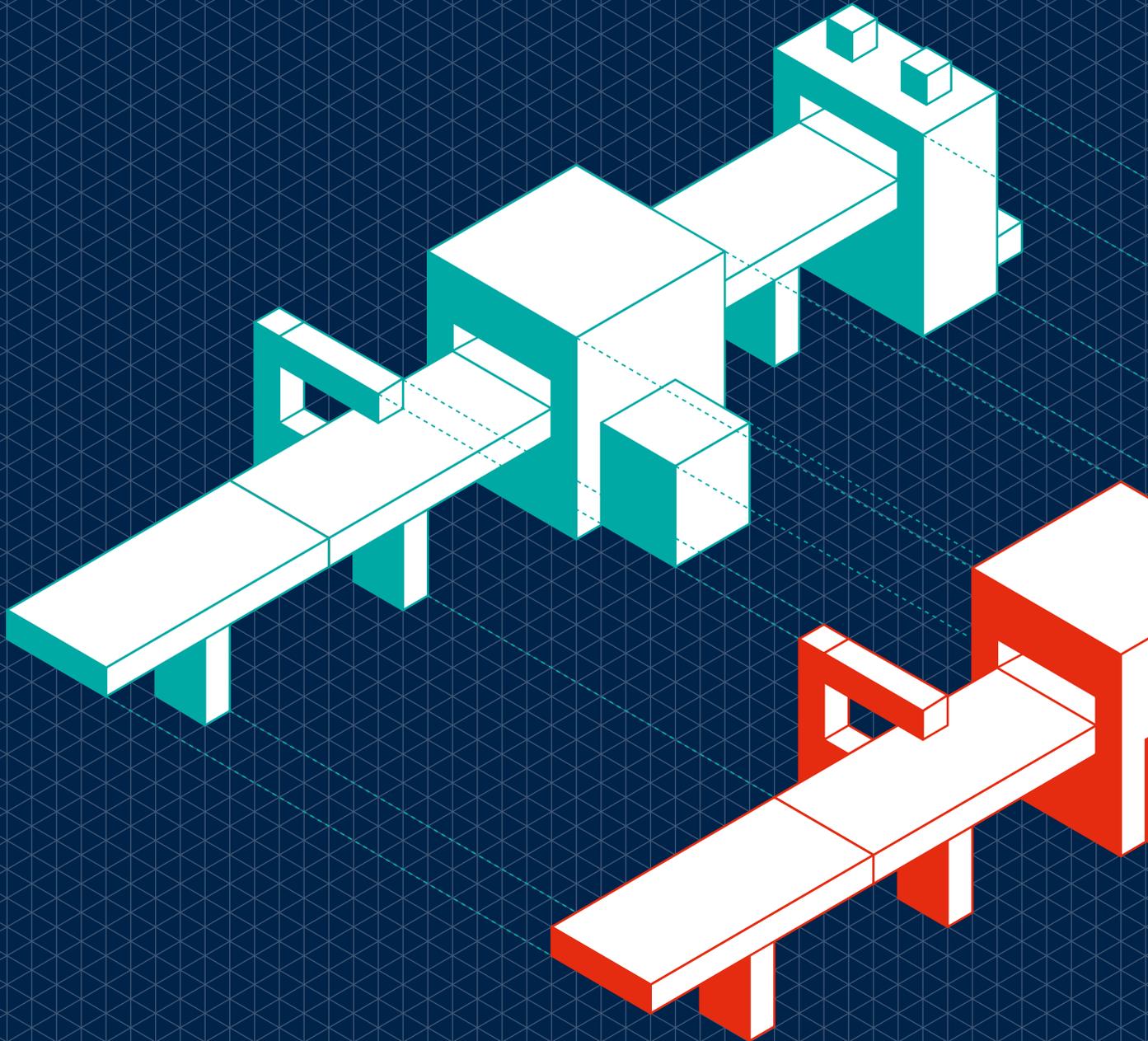
At the "buffer station", components wait to be transported on fully automatically.



You can find more information online at:

<https://www.homag.com/en/news-events/news/article/step-by-step-an-overall-concept-built-from-single-parts/>

**ONLY THEIR
DEVELOPERS**



CAN TELL

THEM APART

HOMAG machines and their “digital twins”

It’s an exciting moment during the installation of a new HOMAG plant: after the individual components have been set up and connected, the first workpiece moves across the conveyor belt. According to plan, the workpiece is transported in the correct direction, rotated, and processed by the edge banding machine. But the workpiece comes to a sudden stop at the offset station. Why? Something’s not right at the interface between this component and the upstream plant element. Because the entire production line has already been installed, this error can’t be corrected simply by pressing a button. Or rather, it can.

Text: Kai Roeske



This is because this test run is taking place on the computer, and not in reality. If the interface problem had been discovered only during assembly on site, the commissioning of the entire plant would have been

delayed for an indefinite period – with all the resulting consequences for the customer’s ongoing business. In contrast, with virtual commissioning in real time, the experts can test the entire system and put it through its paces long before the actual assembly: do the individual components communicate with each other as intended? How quickly can the plant be run? Are all the machine functions available? The real-time simulation of material flows in particular facilitates important findings for subsequent operation – it also minimizes operative risks in advance and even reduces the assembly time at the customer’s premises.

LEARNING IN THE SIMULATOR

However, the “digital twin” not only ensures problem-free installation as far as possible at the customer’s site; because plant operation can be simulated in almost real conditions, there are further benefits. For example, we can hold training courses on the plant control system with real workpiece data before the physical system is put into operation. For our customers, this means that the employees responsible can practice all usage situations in the simulator. When operation then starts with the actual plant, the employees are already familiar with all the functions. And if problems do then occur during operation, we can perform troubleshooting in the digital twin immediately and develop virtual solutions – thus minimizing downtimes for our customers.

OUR CONTRIBUTION TO INDUSTRY 4.0

It's no wonder then that "digital twins" are being used in many sectors of industry. In the wood-processing area, we are the first company that can offer the corresponding solutions. This is due not only to our culture of innovation, but also to our corporate structure: ultimately, some of our components are produced at different locations and are only connected at the customer's premises. This means that we have a vested interest in checking the interaction of the machines before installation as far as possible.

AND TOMORROW?

We have many plans for the "digital twins". On the one hand, we also want to integrate other component suppliers in our virtual test systems – ultimately, production lines don't have to comprise only HOMAG machines. And on the other hand, we want to make the simulation even more realistic by integrating the physical conditions at our customers' premises in the computer tests. After all, temperature, moisture, dust, and weather influences also have an effect on the real machines. And the more accurately we reflect reality, the better we can forecast the appearance of wear, material fatigue, or for example power consumption in the future. Our objective, therefore, is to create almost identical conditions for both twins, whereby the real contact to the wonderful material that wood is remains reserved for the original.



“The digital twin enables you to simulate the functional interaction of all components even before the system is constructed, thus optimizing the entire system before it is assembled.”

CLEMENS HÄFFELIN

THINK TANK

FOR DIGITAL SOLUTIONS

OUR DIGITAL FACTORY

Digital twins are an example of how mechanical engineering and digitalization can go hand in hand. For our customers, it's important that they receive entire solutions rather than buy "just" machines. Therefore, when making investment decisions, they also think about what added value digital offers for using their machine pool brings.

We have responded to this market trend: our in-house think tank for digital solutions is called "Digital Factory". In this newly founded business field, we are bundling our skills, which were previously spread over different areas. The Digital Factory develops innovations for all machines, production concepts, and technologies from HOMAG. For our customers, this means that they receive practice-oriented digital solutions that are also perfectly aligned with the hardware on site from industry experts.



The Digital Twin – That's the way it works



Making a difference



A service specialist, someone from Controlling, an Administrator for Digital Solutions, and a marketing expert – four personalities with things in common: they are all Cultural Ambassadors and are particularly interested in dealing with change.

Interview: **Irina Paschke**

Photos: **HOMAG Group**



The decisive one



Aubree Suor

- / Administrator for Digital Solutions at Stiles Machinery in Michigan/USA
- / Has been working for Stiles Machinery for 2 years
- / Passionate about innovation; finds it important to keep moving forward and keep an open mind

The active creator



Isabel Astorgano

- / Controller in the Controlling division at Schopfloch
- / Has been working for HOMAG for 22 years
- / Always ready to listen; always looks for the positive in changes

Coming together, finding and implementing solutions. In very simple terms, this is the philosophy behind the success-oriented attitude that, since 2017, everyone in the HOMAG Group knows as a Winning Mindset. By definition, a Winning Mindset includes positive dialog, personal accountability, and solution attitude. This trio is what facilitates the big transformation process in the HOMAG Group. As part of becoming a leading global technology group, HOMAG wants to become more agile across the locations: the aim is to establish a culture of cooperation in which each individual accepts responsibility. The ultimate objective is to be able to offer global customers optimal solutions – for products, in service, and in collaboration.

To enable what looks good in theory to actually work internationally with people, the Cultural Ambassadors were created to form an innovative network within the corporate group. The network currently consists of around 70 people. In addition to their daily work, these individuals have committed themselves completely to the cultural change at HOMAG – and the numbers are increasing. To find out more about what drives these people, we have spoken to four of them individually.

“There’s a solution for everything, but we have to free ourselves from thinking that we should do things the way we’ve always done them.”

AUBREE SUOR

WHAT IS IT ABOUT THE ROLE OF THE CULTURAL AMBASSADOR THAT INSPIRES YOU?

Aubree Suor: My impression is that people all over the world don’t really like change. People like to stick with what they know because it’s what is comfortable. The first reaction to change, therefore, is often

“I don’t need ten meetings to make a decision. For me, the ideal situation is when we get a result with the second meeting.”

ISABEL ASTORGANO

skepticism. When the Winning Mindset was presented, there were a lot of people who were skeptical, including myself. Change starts within ourselves. We have to regularly look in the mirror and ask whether there is perhaps a better solution. That applies to all big questions in life, so why not in daily work too?

Isabel Astorgano: Since I have been working for HOMAG, I have repeatedly accompanied big changes and redesigned tasks, recently as a Change Agent in the restructuring. That is continuing and makes my work so interesting. I therefore feel very connected with HOMAG, I have been there for a long time after all.

Adele Hunt: A Cultural Ambassador is someone who’s passionate. Someone who wants to achieve a better future for everyone. Everyone should feel good at work. We are all different and have different opinions and views but we should all feel valued. It’s exciting to be able to develop our strengths together in a spirit that will make HOMAG a stronger, more customer-driven organization.

Alfred Brendel: I’ve been at the company for so long – this summer it will be 40 years – some might think I’m an entrenched HOMAG native. But that’s not me. I still remember the family company that HOMAG was with 300 employees in Schopfloch – now there are more than 1,600 at this site alone. The company has continued to develop further in terms of technology and is state of the art. Being able to distinguish ourselves from the competition positively is now down to the people at HOMAG and us all doing our job.

TO FULFILL THIS ROLE OPTIMALLY, WHAT CHARACTERISTICS DO PEOPLE HAVE TO HAVE?

Aubree Suor: Optimism and the right attitude. With the right attitude and passion, you can tackle anything.

Isabel Astorgano: It's very important to identify with the company and to enjoy working here. And you must be able to listen. Every opinion counts. I know a lot of colleagues at HOMAG personally and I have good contacts. That helps enormously in meetings because it allows me to understand the participants better.

Adele Hunt: Commitment is the most important factor, along with a positive attitude. It's all about a joint effort for the future of HOMAG, which every individual should commit to.

Alfred Brendel: A positive attitude to life and work are important, and communication is vital. That means being able to listen as well as being able to talk and explain things well. Listening in particular is very important.

WHAT BENEFITS DO YOU EXPECT FOR YOUR WORK AREA FROM WORKING WITH THE WINNING MINDSET?

Aubree Suor: There are multiple benefits in applying a Winning Mindset within my team which include the morale between my associates and working together to better streamline processes. Last year we traveled together to Germany to meet with our partners at HOMAG. In a group of about

“Winning Mindset is not a program that’s set up once and has a finishing point. It’s a way of thinking that everyone has to take to heart, allowing it to become part of everyday life.”

ADELE HUNT

“We have to exhibit the behavior that we want to see from others – every day.”

ALFRED BRENDEL

eight people, we discussed how to make our processes more efficient. After a couple days of working together we came to an agreement. Ultimately, this benefits the customers. Customers always benefit when we're faster and optimize our internal processes. This satisfaction is generally noticeable internally and externally.

Isabel Astorgano: In my work area we are generally always searching for solutions for optimized processes. I need data material from all possible countries at a specific point in time in a specific format. From a communication perspective that can be a challenge, because we're on a tight schedule, or because, for example, the data material available in the individual companies is significantly different to some extent.

Adele Hunt: In monthly conference calls across the different countries, we discuss how we can use the idea of the Winning Mindset in our daily work. We regularly ask what we can do better or differently. Our work can be measured directly from the feedback from customers. If things don't work, the initial approach is to introduce optimization in our own area. However, the solution can often be found in collaboration across areas. It's therefore helpful to think together about where there is potential for improvement.

Alfred Brendel: What I can do on a small scale every day affects the people in my own department – being open for issues that are important for my people. But it also affects other work areas, such as production, where I drop by every day. That provides an opportunity to address topics and respond immediately before unspoken issues become problems. I generally try to use communication to establish or maintain contacts across multiple locations. If we all work together better, it's always the customer at the end of the chain that benefits.

The pragmatist



Adele Hunt

- / Marketing coordinator at HOMAG UK
- / Has been working for HOMAG for 8 years
- / Thinks long term; believes that solutions should be created as a team effort so that they are constructive and valued by everyone

The networker



Alfred Brendel

- / Software Support team manager in the Service organization at Schopfloch
- / Has been working for HOMAG for almost 40 years
- / Uses his experience specifically to help colleagues communicate and to address their concerns – every day if he can



The wanderer between the worlds

The Portuguese company J&J Teixeira not only produces furniture, but also furnishes entire buildings at the customer's request – from window frames to television tables. The company combines pure craftsmanship with industrial series production. A new fully automated production line from the HOMAG Group connects the two worlds and equips J&J Teixeira for the digital future.

Text: Heimo Fischer
Photos: André Vieira





A family affair: company founder João with his wife, daughter, and two sons. The children now have key positions in the company, which is located south of Porto.

Besides his full-time job as CEO, João Teixeira can often be found in his favorite place in the company: on the factory floor, which in total is as large as five football pitches. While there, the wiry man shakes hands with every employee and exchanges a few words with him or her. Not only is the 61-year-old a polite man, he is also always on the lookout for new ideas to modernize production. “We can only be successful in the future if we are constantly improving,” says the Senior Manager, who founded the company 42 years ago. Since then, the family business (his children assist in key positions) situated on a gentle hill half an hour’s drive from Porto, has steadily grown.

Two and a half years ago, the Portuguese company took an important step towards the future. Teixeira launched a fully automated production line from the HOMAG Group, which saws, trims, drills and bands edges onto up to 4,000 single parts a day. The stations, which are spread out over 5,000 square meters, are networked with each other.

“We can only be successful in the future if we are constantly improving.”

JOÃO TEIXEIRA

Each workpiece can be identified using a barcode. A production management system programmed by the HOMAG Group controls the flow of the parts.

INDISPENSABLE TECHNOLOGY

In light of the number of orders received, Teixeira can now no longer do without the plant. “Even if it only stops moving for a few moments, it soon gives us quite a headache,” says João’s son, Joaquim. The 36-year-old is able to monitor each work step from his computer and respond immediately if any errors occur or maintenance is needed. All machines are prepared for tapio – the digital ecosystem of the HOMAG Group. In the future, tapio will enable users to download applications on smartphones and tablets that simplify maintenance, repair and production efficiency.

Teixeira builds parts for shelves, cabinets, kitchens or doors on the production line. Sometimes, these parts are sold separately. At other times, they are parts for a large project. After all, Teixeira furnishes entire buildings for his customers. His people build windows and doors for hotels, panel walls in office buildings or construct seating for concert halls and conference rooms. Always made-to-measure and according to the customer’s requirements. Around 150 out of a total of 350 employees work in the field.

Diversity in wood: the offices of the company also act as a showroom.



Technical discussions: João Teixeira's favorite place is the factory halls.



The trained carpenter came up with his business idea when he founded the company at the age of 19. The customers enjoyed seeing him quickly sketch out his plans for furnishing their rooms. Architects soon recognized his talent. When he was 25 years old, he was given the opportunity to furnish large parts of the new Sheraton Hotel in Porto – from the cloakroom to the washbasins. It was his first major order and the start of a success story.

Teixeira's own offices are now also showrooms that display the company's aesthetic aspirations. The management area is separated from the factory floor by glass walls, giving employees a view of the production process. The atmosphere of each office is characterized by cold and warm color shades used in ever-changing ways. Smooth, polished, ribbed and matte surfaces alternate. The floors are covered with parquet in stick or fish bone patterns or with wide floorboards. Each room has different furniture – mostly made of wood.

GROWTH IN AFRICA

Today, João's first son, an architect, takes care of the designs. The diversity and creativity of the company are well known, not only in Portugal, but also overseas. More than 25 percent of the company's turnover is generated in France and the UK. Some time ago, the company took a major leap and expanded into Angola and Mozambique.



Infinite extension: the gigantic sorting buffer is also a transport lift in the lower level of the production line.



Sanded products: manual work is still important in many areas at Teixeira.

The common language certainly helped the business to establish in these countries. Now, companies as well as important authorities in other African countries rely on Teixeira. Thanks to his services, they no longer have to worry about importing materials or looking for suitable tradesmen in the country.

Many of Teixeira's customers have unusual tastes. During a tour of the factory floor, Junior Manager Joaquim shows off a series of dark wooden doors with golden snorkels embedded into their surface. "These are for a customer in Ghana." Another set of doors standing just a few meters away is also destined for Africa. They are edged with exceptional casket-style adornments.

The craftsmen at Teixeira have been making requests such as these a reality at their factory for many years. During the production process, the operators load the processed parts onto rail-guided trolleys and push them to the next station – just like the conveyor belt of a fully automated line would. There is just one difference: a manual process occasionally takes place at the stations that is often so unusual that it has to be carried out by hand, even today.

Can these processes, established over decades, be combined with a fully automated production line? This was the question on Teixeira's mind when he visited a networked production line from the HOMAG Group for the first time during a technology tour in Austria in 2016. Despite some uncertainty, he was rapidly convinced: a plant like this needed to be part of his company soon. He asked the HOMAG Group for a quotation.

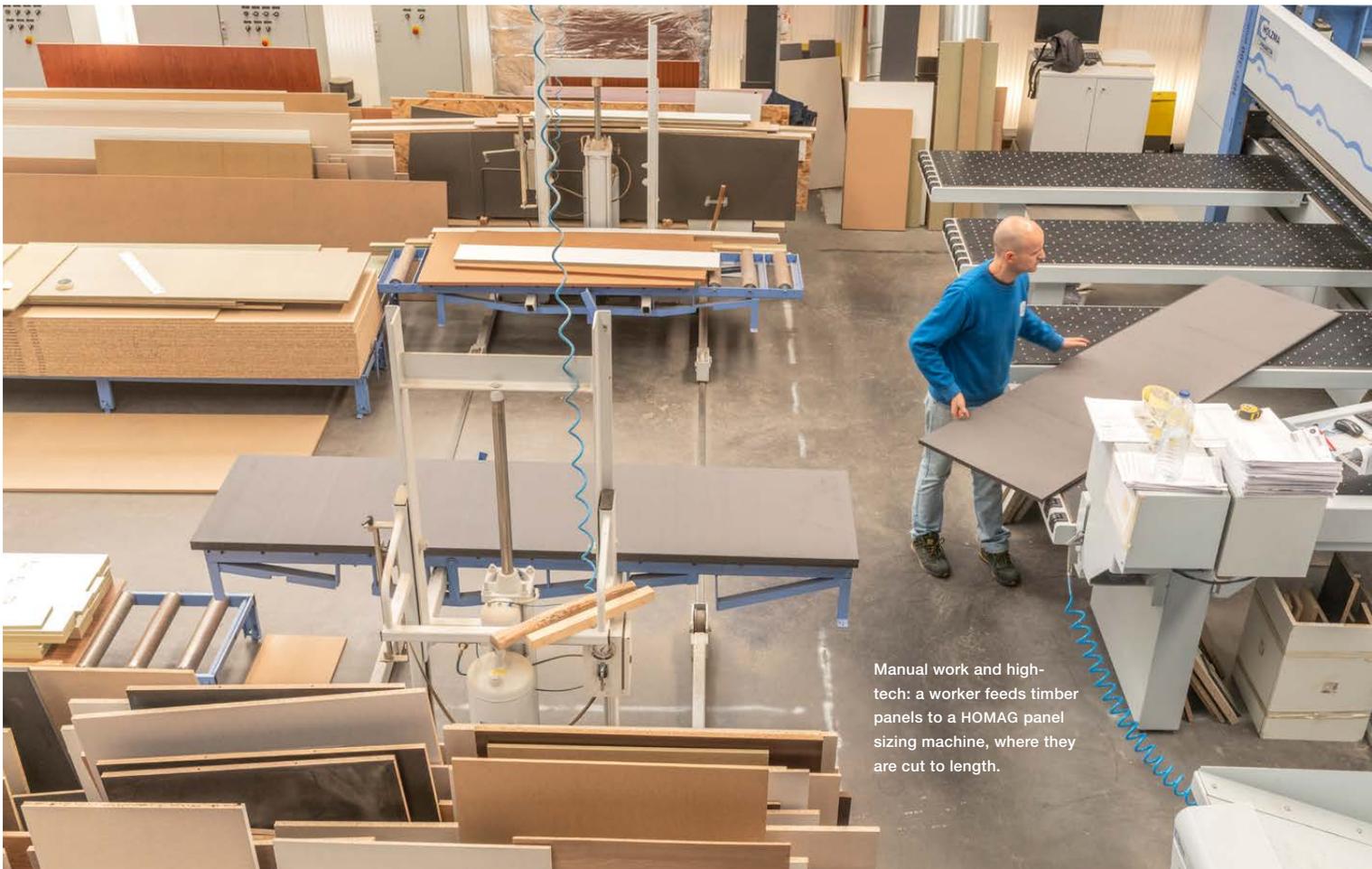
“We are always looking for new ways to expand the line and to increase our productivity.”

JOÃO TEIXEIRA

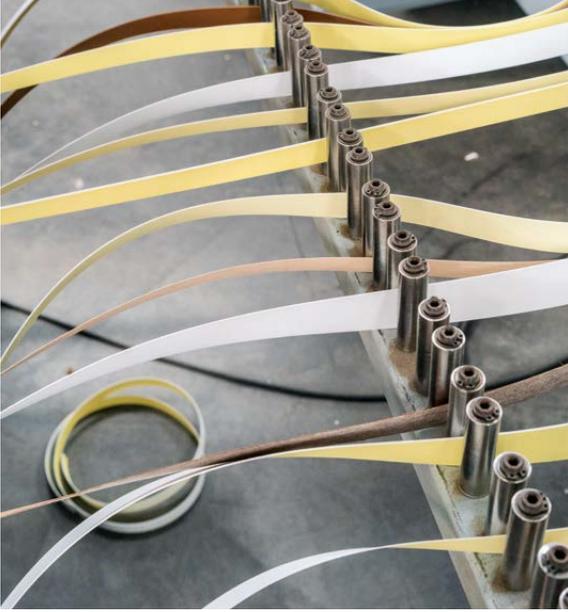
The planning process proved to be challenging. This was due to the fact that the predominantly manual production process in Teixeira's old factory building was divided over three stories. Simply placing a fully automated line at ground level in a neighboring new building was out of the question. Firstly, because there was not enough room for this on the hilly site. Secondly, because the interface between manual processing and automatic production had to adjoin the top story in the existing building.

NEW CONSTRUCTION IS THE BEST SOLUTION

The project team of the HOMAG Group thought long and hard about how to overcome this hurdle – and found an answer. “The best solution was to build a multi-story extension and to split the networked production line up over several levels,” says Achim Rauschenberger from HOMAG Sales. Naturally, Teixeira had also requested quotations from competitors. In the end, the HOMAG Group was awarded the contract. “They proved to be the most flexible and were able to implement our particular requirements in the best way,” says Teixeira.



Manual work and high-tech: a worker feeds timber panels to a HOMAG panel sizing machine, where they are cut to length.



Choice of colors: different edging strips are glued onto the cut surfaces of the sawed timber panels.

designated stations, employees remove cut parts and transport them to the neighboring building complex on transverse sliding carriages. There, they are decorated, painted or furnished with individual grooves. The parts are then fed back to the production flow on a neighboring station.

The next station involves sizing and edge processing. Here, a wide variety of workpieces are sized before being banded cleanly and precisely with colorful edging strips. After this, the parts flow into a sorting buffer, which rearranges their order, an important step for the later stages of assembly and dispatch. “The buffer also serves as a transport lift,” explains Teixeira. It extends over two stories and can hold more than 4,000 parts. The central control system always knows where each one of them is. One story down, the parts are drilled and then placed back onto the conveyor belt by robots, where they move onto the assembly line and then to packaging.

Today, trucks deliver the raw chipboards to the first floor. A lift transports the tons of heavy material to the third floor to a digital HOMAG warehouse, where a robot-controlled overhead crane with vacuum grippers sorts them by thickness and color for cutting. A conveyor belt transports the trimmed and sawed parts to a decoupling buffer, where they then wait in its shelf-like compartments. This is also the location of the interface between the old and new production process. At specially

Currently, assembly still has to be completed by hand. However, Teixeira has concrete plans to automate this task in the near future. The backlog of orders is growing and he needs his employees elsewhere. “We are always looking for new ways to expand the line and to increase our productivity,” says Teixeira, shortly before saying goodbye and continuing his tour of the factory – on the lookout for new ideas.



New world: a worker checks the fully automatic production on a monitor.





DIGITALLY AT YOUR SERVICE

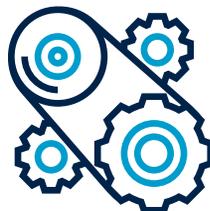
Trade businesses and industrial companies have to have their plants maintained and modernized regularly. To provide them with full support for this, the HOMAG Group is upgrading its service offering with digital technology.

Text: **Heimo Fischer**
Photos: **HOMAG Group**

Regardless of whether its for sanding, trimming, or drilling – as soon as a new machine arrives on the factory floor, it should work without any problems. Any unforeseen interruption has a negative impact on the customer's pocket and nerves. In the HOMAG Group, more than 1,350 service employees make sure that the customer's technology always works optimally over the entire period of use.

As the wood-processing industry is developing at a fast pace, successful businesses have to modernize their machines and plants regularly and train their employees in the new technology. This is important after a software update, for example. Factories and workshops also want spare parts within hours as far as possible. The service organization of the HOMAG Group supports customers in all of these issues.

When production is not running smoothly, customers want to be able to reach the service technician responsible without having to wait for a long time. Therefore,



I can see what you can't see: via remote maintenance by video, HOMAG experts support their customers around the world with troubleshooting.



the remote maintenance of machines has played a special role in the HOMAG Group for a long time. The first telephone support function was set up back in the 1980s. The processes were improved later thanks to the Internet. Today, error analysis via video with the ServiceBoard app is part of everyday life. More than 90 percent of all service cases are currently resolved by teleservice employees. The consequence is that service technicians no longer have to travel as much as they used to. The machines start production again more quickly, saving our customers higher costs.

THE TREASURE IN THE SEA OF DATA

Today, service technicians can capture machine data electronically. This data is evaluated systematically, allowing errors to be detected more quickly or even avoided.

In the future, intelligent software will be able, for example, to predict optimal maintenance deadlines for single machines on an individual basis.

The HOMAG Group is taking the first step into this new era with intelliServiceNet – the teleservice solution of the future through which all service-relevant data will run. From May 2019, intelliServiceNet will be the new teleservice standard in the group. This solution already provides many benefits today. Service employees have fast access to the physical data that is available for the machine. This data gives the employees indications of the solution, which can significantly reduce a production standstill. In turn, thanks to intelliServiceNet, via a web portal operators can see all previous teleservice cases and possibly find errors themselves.

In many cases, customers with the necessary technical competence can implement solutions themselves. For these customers, the HOMAG Group has developed the intelliAdvice app. It can be installed on any

tablet or smartphone and analyzes machine data. The combination of the experience of HOMAG technicians and the machine data produces three suggested solutions for the user, sorted by probability. The user tries out the recommendations and reports back as to whether they have been successful. This allows the system to learn, which in turn helps other users.

ALL-ROUND WORRY-FREE PACKAGE

If the error persists, another application, the ServiceBoard app, opens automatically on the mobile device. This app takes over the data that has already been entered and determines the teleservice employee in the service organization who is responsible. Unlike in the past, the customer always knows the processing status of their service incident. In the ServiceBoard app, the customer can track their request and via an icon, identify the status of the request. The customer receives up-to-date information about the status on a smartphone or tablet via a push notification. Another new feature of the ServiceBoard app is that in future, the customer can test the solution proposed by the teleservice employee on the machine affected and, where necessary, send any further questions back to the HOMAG employee via the service request that has already been opened.

Due to natural barriers, such as language or technical know-how, it is often difficult for users to explain the type of error that has occurred. Therefore, the ServiceBoard app has a video function. The operator can use this function to show the section of the machine that is affected. In many cases, the teleservice employee can see straight away what type of malfunction has occurred. Once the error has been found, if a spare part is required, it can be ordered via the ServiceBoard app as the app is connected directly to the eParts digital spare parts catalog. From there, customers can request a quote for the component required – without having to fill out a piece of paper or write a long email.

The digital service system documents all requests, noting the cause of the malfunction and what the solution was. This means that over time, the electronic documentation becomes a valuable source for analyzing malfunctions quickly. The ServiceBoard app

intelliAdvice app

Step 1:

Enter the error code from the machine display



Step 2:

Scan the machine number using a QR code



Step 3:

Data transmission and data analysis



Step 4:

The user receives suggested solutions ordered by probability



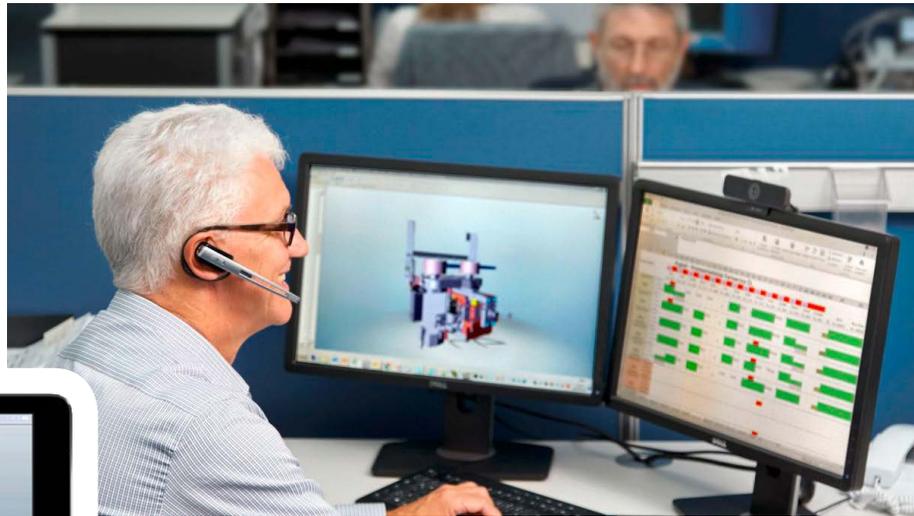
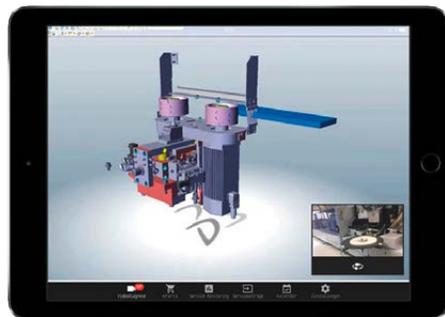
Step 5:

The user tries out the recommendations and reports back as to whether they have been successful



This allows the system to learn continuously, which benefits other users

Looking inside: smart service apps allow important data for the machine function to be accessed in seconds.



can be used with any HOMAG machine, regardless of the year of manufacture.

INDUSTRY SOLUTIONS IN THE ECOSYSTEM

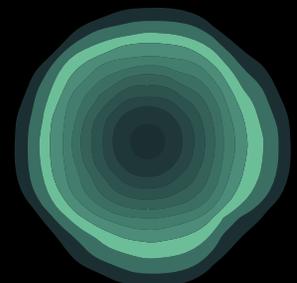
intelliAdvice and ServiceBoard are some of the first apps that HOMAG customers can buy via the tapio Shop – tapio is the digital ecosystem of the wood industry and HOMAG Group is a Premium Partner of tapio.

All new machines from the HOMAG Group can be connected with tapio. Using the latest methods, real-time data and long-term data from the machine is encrypted and transferred to the platform anonymously. In the future, intelligent software will use this data increasingly to identify how production technology can work better and more economically. Ultimately, this is the objective of a customer service function that accompanies the company over the entire life of its machines and plants.

More info at a glance – with tapio

“tapio” is the global digital platform for the wood industry value chain. The digital ecosystem provides important applications for the wood industry. The applications work with data from production systems – in real time, neutrally, and across multiple manufacturers. With tapio applications, for example, companies can check the status of their machines remotely, develop optimized cutting patterns with minimal waste, organize service and maintenance assignments, etc. Every new solution that improves the production process in the wood industry is a welcome addition for the tapio ecosystem, which already has 30 companies as partners.

www.tapio.one



Did you know ... ?

Furniture is not just an object in our environment. Sometimes, a piece of furniture has interesting or unusual stories behind it. Don't believe it? Read more for yourself.

Text: **Claire Busche**

Illustration: **Moniek Wiese**



RESORTING TO THE BAG OF TRICKS

The first office chair stood in the house of Charles Darwin: in around 1850, he fitted cast-iron wheels beneath an armchair to get from his desk to his collection of concoctions more quickly.

TOURIST ATTRACTION FOR THE LOUNGE

The multifunctional Eames Plastic Chair was presented in 1950 by the designer couple Charles and Ray Eames. The seat shell can be combined with different bases depending on the intended use. The "Eiffel Tower" base – an intricate frame made from steel wire – is a particular highlight.



MUCH VISITED

Over a life of around eight years, a sofa accommodates on average 782 guests.



EXTRAVAGANCE À LA CARTE

The marble table used to seat the guests at the wedding of Kanye West and Kim Kardashian was 70 meters long. As a special highlight, instead of place cards, Italian stonemasons engraved the names of the guests into the table.



LONG NAP

We spend an average of one third of our lives asleep in bed.



HOMAG Cares – fast help for people in need

There are endless people in the world who need help. And sometimes their need can be relieved easily, you just have to have the right idea. For example, at trade fairs, the HOMAG Group produces objects to demonstrate their new machines. These objects include cuckoo clocks, table football tables, and fruit bowls. For more than ten years, the group has been selling these objects and donating the revenue. In recent years, this has allowed the HOMAG Group to support aid projects worldwide under the initiative “HOMAG Cares”.



MORE THAN EUR 20,000 TO TANZANIA

Education provides a future – especially in poor countries like Tanzania. The HOMAG Group initially donated EUR 4,000 to expand an elementary school in the town of Kidatu. The money came from the sale of demonstration parts at the leading trade fair for the industry, LIGNA 2017. In the subsequent year, an even larger donation went to Tanzania. The HOMAG Group decided not to send Christmas gifts to business partners and

instead, donated EUR 20,000. The majority of the money went into the school project again. A further EUR 4,000 was spent on having 20 beds made by local carpenters. These beds can now be found in the houses and huts of people who previously had to sleep on the floor.



SUPPORT FOR SICK PEOPLE

Multiple sclerosis is an insidious illness – and counseling is therefore important. The AMSEL association (an organization that helps people suffering from multiple sclerosis)

is highly committed to supporting victims and received EUR 2,500 in sponsorship from HOMAG Cares. The revenue came from the sale of high-quality shelving that newly developed HOMAG machines had produced at an industry trade fair in Italy.

HELP IN THE HIMALAYAS

A mountain school that had been destroyed in Nepal needed help with rebuilding. In 2015, an earthquake had destroyed the building, as discovered by a HOMAG employee who was on vacation there. The employee then started a private appeal for sponsorship – and received EUR 3,000 from HOMAG Cares. The new school now has space for 80 children.



Since 2008, HOMAG Cares has been supporting charitable institutions around the world. More information can be found at:

www.homag.com/en/company/engagement/homag-cares/

HOMAG in figures

Order intake in m EUR

1,337

2017: 1,366
2016: 1,165
2015: 1,058

Sales revenue in m EUR

1,298

2017: 1,219
2016: 1,082
2015: 1,039

Investments in m EUR

41

2017: 26
2016: 24
2015: 30

Employees

6,593

2017: 6,371
2016: 6,126
2015: 5,906

Shareholder structure as of March 31, 2019 in percent



- 63.9 Dürr Technologies GmbH
- 14.0 Schuler/Klessmann shareholder group
- 22.1 Free float

In 2014, Dürr became the majority shareholder in HOMAG Group AG. An extraordinary general meeting of HOMAG Group AG on March 5, 2015 agreed to the conclusion of a domination and profit and loss transfer agreement between Dürr Technologies GmbH and HOMAG Group AG. Accordingly, since 2016 shareholders have been receiving compensation from Dürr Technologies GmbH to the amount of EUR 1.01 per HOMAG share. Following a reorganization of the segments at Deutsche Börse AG, shares of HOMAG Group AG have, since March 1, 2017, been listed in the "Basic Board of the Open Market" segment of the Frankfurt Stock Exchange.

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