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Wolfsburg: 17,500 Dealers Get to Know the Golf and the Plant

The major event runs until the end of March – Positive interim result – Also in focus: The ID.3³ and the new brand design

ajor event in Wolfsburg:
The large dealer conference known as the Brand
Experience has been underway since the end of January. Until

March 18th, almost 400 retailers and sellers a day will arrive in Wolfsburg to get to know the new Golf, the ID.3, and the new Volkswagen brand design in detail.

A total of 17,500 participants from more than 50 markets are expected. The program also includes tours of the Wolfsburg plant and test drives of the new Golf.

The interim conclusion from Jürgen Stackmann: "Our international guests are impressed by the concept and by the event location." → PAGE 16-17

Digitalization and Climate Change: Herbert Diess Weighs In

Talks in Brussels and Berlin: The CEO calls for more courage and speed

igitalization, the associated transformation of Volkswagen into a software-driven automotive company, as well as climate change and the consequences for Volkswagen: These were the big issues that Herbert Diess focused on in important talks in Berlin and Brussels, and after his visit to the World Economic Forum in Davos. Here 360° provides a summary.

What Diess had to say at the meeting of the Group's top-level management in Berlin:

Volkswagen needs to move considerably quicker in its transformation into a software-driven automotive company, said the CEO. The company is currently right in the middle of the two biggest transformation processes. These are climate change and the associated pressure to develop innovations in emission-free driving, and digitalization, which will fundamentally change the car as a product. So far, Volkswagen has performed well. "However, the real challenge is only just beginning," said the CEO, stressing that Volkswagen must

Herbert Diess with Oliver Bierhoff: The business manager of the German national soccer team spoke with the top-level management.





with top-level management in Berlin.

become a digital tech company. "The big question is: are we fast enough?" If the company continues at the current pace, he says time will be "very tight". The Group has extensive technical expertise, a top leadership team, and the resources to make



Energetic: Herbert Diess calls for faster transformation in the Volkswagen Group.

transformation happen, says Diess: "What we are missing more than anything is speed and the courage to make bold and radical changes when necessary. We need a shared understanding of the radical nature of change."

What Diess had to say at the Group's New Year reception in Brussels:

The CEO reiterated that electric mobility is the only way to meet the Paris climate goals by 2050. The keys for

Europe's future path are the expansion of its charging network and the development of clean electricity. To make this happen, the EU states need binding plans for the expansion of charging infrastructure. Only if there are enough charging points will customers be won over to electric cars. In addition, Diess emphasized that the makeup of electricity sources in Europe needs to change – from coal to hydroelectric and solar power.

What Diess wrote on his LinkedIn channel after the World Economic Forum in Davos:

Climate change is advancing faster than expected - with serious consequences. The automotive industry will not be able to prevent its progression alone, said the CEO. But Volkswagen will do its part. From today's perspective, electric vehicles are the most efficient solution. In the next five years, Volkswagen will invest €30 billion in electric mobility and expand its portfolio from six to more than 50 models by 2025. One milestone on the path to climate-neutral mobility is the ID.3. It will be the first Volkswagen whose production is completely CO2-neutral - including battery production.



Geneva Motor Show: The Golf and the ID. in Focus

At the Geneva Motor Show in early March, the sporty GTl¹ and the GTD¹ Golf models will celebrate their world premiere. The plug-in hybrid Golf GTE¹ will also be launched. In addition, the brand will exhibit the fully electric showcar, the ID. SPACE VIZZION².
→ PAGE 13

Good Ideas by Employees Save Millions

A healthy balance: The
Volkswagen brand has saved
around €30 million in the
past year thanks to good ideas
from employees at its German
sites. 25,720 suggestions for
improvements were submitted to
Ideas Management. → PAGE 15



Family Day: Apply Now!

Employees who are musicians, dancers or magicians in their spare time can now apply to perform on Family Day at the Wolfsburg plant. This will take place from 11 a.m. to 5 p.m. on Saturday, June 20.



G3 Series: New Manager

Markus Kleimann is the new manager for the G3 Series (mid-/full size) for the Passat and the Touareg. In an interview with 360°, he talks about his first impressions of the team and more. → PAGE 14



Who's allowed to sign? At Volkswagen that's specified clearly.

Signatures: "Uschi" Knows Who's Authorized

Directory in Volkswagen Net helps when there's doubt

Approvals, commissions, applications, **forms** – but who's authorized to sign them? The rules on internal authority to sign at Volkswagen are laid out in Company Directive 35 (Organisationsanweisung (OA) 35). Hiltrud D. Werner, Member of the Board for Integrity and Legal Affairs: "Anyone signing a document without having the necessary authority to do so is committing a violation of the rules, and action will be taken against them in accordance with our guidelines. This applies in particular for approvals in one's own interest."

There are more than 60 different types of authority to sign at Volkswagen. And on top of that there are a further 25 types of second signatures. "Uschi" - the electronic signature register in Volkswagen Net - is there to ensure that no one runs the risk of signing something without authority. Via a search mask, anyone can look up what they are allowed to sign, or request the necessary authorization. "Uschi" also helps you to find people in your own division who can, for example, approve a shipping instruction or a business trip

It is also worth having a look at the register of authorization types available



Hiltrud Werner, Head of Integrity and **Legal Affairs**

portal: The table there shows in which instances it is necessary to get a second signature from another, "neutral," manager – such as in requests

in the regulation

for company funds, so as to ensure that the requester and the approver are not the same person.

Take for example a scenario in which a manager wants to apply for a Bahncard 100 (unlimited rail travel in Germany). The manager has the authorization to approve expenses at this level. However, since she is to be the owner and user of the Bahncard, she needs a second signature from another manager with the appropriate authority to sign before the Bahncard can be approved.



You Can Find "Uschi" Here

The "Uschi" system can be reached via http://uschi.

Company Directive 35 (OA 35), including a register of all authorization types, can be viewed at http://regelungsportal.

Legal Notice

360°

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Coronavirus: Volkswagen Protects Its Employees in China

Numerous measures introduced on site - €15.5 million for combating the new virus

olkswagen is doing all it can to address the challenges that the coronavirus outbreak in China involves: Measures to protect the health and safety of employees are being introduced everywhere - from Group Security, Logistics, HR and Procurement to Air Service, Healthcare, Global Assignments and Volkswagen Group China.

Volkswagen Group China and its brands, together with the joint ventures FAW Volkswagen and SAIC Volkswagen, have contributed the equivalent of €15.5 million to combating the coronavirus. The money will be used to provide aid supplies such as protective gear, medical devices, drugs and materials for hospitals in Hubei and other provinces.

Volkswagen Group China and the joint ventures donate

"We would like to express our deepest thanks to the dedicated and courageous people who are providing emergency aid. They have our full support," said Stephan Wöllenstein, CEO of Volkswagen Group China. "For us in the Volkswagen Group,

China is like a second home. In times like these, we must stick together and take all necessary mea-

The support from Germany is strong too: A cross-divisional working group has been coordinating aid for China at the group headquarters in



Stephan Wöllenstein, **CEO Volkswagen Group China**

Wolfsburg ever since the coronavirus outbreak first came to light. The group includes representatives from Healthcare, Group Security, Air Service, Global Assignments, Communication and Volkswagen

Together against coronavirus:

Volkswagen has introduced numerous

measures to protect employees in China.

Group China.

All these measures are geared towards protecting the health and safety of employees on the ground. That was also emphasized by Jens Pfitzinger, **Executive Vice**

President of Volkswagen Group China: "We responded quickly to the spread of the virus and set up a taskforce team at VGC. On February 3, we introduced homeoffice working for the 3,500 employ-

Together we

combat the virus!

ees at VGC headquarters in Beijing because of the coronavirus, and we have also suspended domestic and international business trips until further notice. At the same time, we boosted internal communication and communication with the joint ventures

and brands in the region. Through the close collaboration with our partners, we are finding solutions for our employees across the whole region of China. Our team is doing everything it can to ensure a safe and healthy work environment for colleagues in China."

You can find up-to-date information on coronavirus on 360° Volkswagen Net and on the pages of Gesundheit International in the HR Portal.



Volkswagen Group

More than 30,000 Users Already

New version now available with even more useful functions

The 360° Volkswagen App is gaining in popularity: More than 30,000 employees already have the app on their phones. The new version of the app (1.2) is now available – with useful new functions. To give one example: When you need to renew your plant ID card, you can simply order it via the app on your

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Legally responsible for content

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The new function was realized by the team at the Card Service Center Wolfsburg and the app team: "Employees at the Wolfsburg, Braunschweig, Kassel, Salzgitter, Emden and Hanover sites can now get their new plant ID cards even more quickly," says Niko Meinke-Marquardt, Head

of Plant Security and Fire

Editorial team: Marc Rotermund.

Tobias Schwerdtfeger, Alexander Ott.

Oliver Keppler. Active cooperation:

Jesko Giessen, Dirk Schlinkert.

February 13, 2020

Editorial deadline for this issue:

Wolfgang Pick, Head of Service Factory: "Our colleagues can simply upload a photo for their plant ID card when they're at home, saving them a trip and a wait. The 360° Volkswagen app is playing a part in boosting em-

Protection.

ployer attractiveness."

The integration of the HR Advisory Center is another new feature: The app provides an easy way to get into contact with them. Johanna Frodl, Head of the HR Advisory Center: "With the 360° App, all employees can now easily reach us on their work or personal smartphones. This is one of the ways we are making HR simpler and more modern."

Incidentally, the handy telephone function in the app is already indispensable for many: Simply enter the name of the person you want to talk to in the search function, tap the number, and call them right away. There is no longer any need for what was often a long search in the Volkswagen Telephone Book.

Of course, work on improving the 360° Volkswagen App is ongoing: The App Team led by Product Owner Dennis Belling is currently developing new features such as "For Sale & Wanted." Belling: "I'm proud of our app because it's 'made in Wolfsburg by Volkswagen."



It's the 360° Volkswagen App

The new employee app has already been available in the app stores of Apple, Google Play and Volkswagen for seven months. It brings together a news and service world with lots of useful things relating to all aspects of day-to-day work. The latest news from the brands, locations and divisions is included, complete with push function. Access to the current canteen menus and to bus timetables has been a huge hit.









Lavout/Production

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"Sustainability Is an Award Criterion"

360° interview: Stefan Sommer, Group Board Member for Components and Procurement, discusses the challenges facing his department in times of transition

tefan Sommer (57) has been a Group Board Member for Components and Procurement for the last 18 months. The post-graduate mechanical engineer previously worked for suppliers including Continental and ZF. In this 360° interview, he talks about many things, including how Procurement is contributing to achieving our climate targets.

Volkswagen is going through an unprecedented transformation. How are you finding it?

I'm convinced that Volkswagen is on the right track. We are facing two significant challenges here: On the one hand, we must become a provider of sustainable mobility options that doesn't harm our environment. Our customers also expect us to provide new digital features and technologies in our products. I feel that the current transformation has been a part of the Volkswagen DNA for some time. More specifically, the key to the success of this transformation is the willingness - and by this I mean our internal attitude - to drive this change. I have noticed this on a personal level in many conversations with our employees. Of course, there are still challenges we have to overcome, yet without our dedicated workforce, we would not have made so much headway already in achieving our goal.

Volkswagen is aiming to be CO₂-neutral by 2050. What action is Procurement taking to help achieve this aim?

We are committed to the aims of the Paris Agreement, which means we want to be fully CO2-neutral by 2050. We will also be investing around 33 billion euros into electric mobility across the Group, of which 11 billion euros is earmarked exclusively for the Volkswagen ID. family. If we compare the emissions of e-cars to vehicles with combustion engines, we believe, on balance, that it is much better to use an e-car. Admittedly, the supply chain has a different take on this due to the highly energy-intensive battery production processes, which is why we have to do everything we can to improve the supply chain in terms of ecological, social, and even economic aspects.

It is important to remember here that avoiding CO₂ is better than compensating for it, as CO₂ will be an ever-increasing cost factor to bear in mind.

So what does that mean, specifically?

Since last July, Volkswagen has introduced sustainability as a mandatory award criterion for contracts with suppliers. This is expected to introduce renewable



Münster-born Stefan Sommer has been a Group Board Member since September 2018.

energy into the production of batteries. We will continue to introduce more requirements gradually over time, not least because our customers are always expecting us to deliver sustainability, safety, and a useful approach to returning batteries. These are all tasks we will have no problem handling as long as we continue to take the lead when it comes to the e-mobility technology.

The transformation at Volkswagen has not been met enthusiastically by everyone. Can you understand the concerns some suppliers have for the future?

The transformation involves many challenges, that we are encountering not only in our vehicle manufacturing plants but also at Volkswagen Group Components. The future is only a scary place when you can't see a clear path

to it. Many of our suppliers have joined us on our transformation

journey. In situations where suppliers cannot see a way forward despite their best efforts, we will support them as best we can by discussing common objectives. This is only affecting a limited number of suppliers; however, we are well aware of

our shared responsibility.

Volkswagen will require many batteries on the road to e-mobility. In fact, the entire industry is developing. What plan is Volkswagen pursuing?

Volkswagen has been dealing with this topic for several years now across all areas of the business. One outcome is the founding and expansion of our center of excellence for battery systems in Salzgitter. We are also developing a joint production venture with our Swedish partner, Northvolt. Producing our own battery cells is a milestone on the way to transitioning to e-mobility. Our job now is to continue working on technological advances as well as promoting the skills of our suppliers. We need consistent solutions across the Group to ensure as many brands as possible are working from the same page. That is why we are creating synergies across the Group along with the necessary scope to continue investing in the development of battery technologies.

Efficiency Afforded by Versatile Modular Dashboard

Staff at the technical development pre-series center have installed 800 items into different vehicles - positive feedback

This is the idea behind the modular dashboard, which works in accordance with the construction kit principle and ensures greater efficiency when developing test platforms. Since 2018, more than 800 of these variable dashboards have been installed in vastly different vehicles at the technical development pre-series center, which has led to considerable savings. The feedback from the departments testing them has also been positive.

The device construction and front section team is facing the challenge of having to tackle a growing wealth of projects and variants. "Until recently, we used the dashboards from standard vehicles for the test platforms, each of which had to be adapted individually to the different hood geometries in a very labor-intensive and expensive process," explains Jens Wochau. Together with his colleagues Uwe Kornblum, Olaf Bernhard, and Christian Westphal, he has been working on the idea of developing a construction kit for test platforms since as early as 2014. Sights were set on the dashboard because it had the potential to make huge efficiency savings. New technologies can be tested in public with the test platforms without leaking information about future innovations and design features.

"Our basic construction kit is made up of seven individually manufactured basic components," explains Uwe Kornblum. "These can be easily adapted to the respec-



Dashboard test platform based on the construction kit principle: (I-r) Olaf Bernhard, Christian Westphal, Uwe Kornblum, and Jens Wochau came up with the idea and brought it to life.

tive hood variants by means of an automated trimming process, which is why no new tools are required." The team presented the concept as an idea for improvement in 2017. Since 2018, the modular dashboard has been used successfully and has since been accepted as an idea for improvement. As it varies in length, height, and width, it is suitable for various modular transverse

toolkit (MQB) and modular electric-drive toolkit (MEB) vehicles. It has even been used in commercial vehicles such as the ID. BUZZ. One ad-

One advantage, in addition to the considerable cost reduction, is the simplified testing process. "The modular dashboard can

be easily removed and reinstalled," explains Jens Wochau. The construction kit system has been a huge hit with the designers. Members of Idea Management were impressed by the diversity and camaraderie of the technical development department during the development phase. Another advantage is that a lot of work that previously had to be subcontracted can now be carried out in house. The innovation from the technical development pre-se-

ries center has also created a buzz across the Group, with Audi and Skoda already enjoying the benefits of the modular dashboard. Even the developers at Seat have expressed an interest in the efficient construction kits.



"It's a fantastic idea that has been made a reality! We cannot praise the collaboration between the different expert groups across the departments highly enough."

Christian Spill, Works Councilor

"This idea for improvement is once again proof that our staff have an enormous amount of potential to come up with amazing ideas. This should be promoted and utilized as quickly as possible to generate the best possible results. In this case, it can even be used across brands in the Group and across component kits in MEB and MQB."

Thorsten Janotta, Head of Ideas Management

New Responsibilities for Seitz and Antlitz

Imminent change on the horizon: Audi Finance Manager Alexander Seitz will become a Member of the Finance Board at Volkswagen on March 1. He will be taking over from Arno Antlitz, who is moving to Audi's Finance department.

Alexander Seitz (57) is an economist and has been working at Volkswagen since 2005. He began his career at Daimler-Benz in 1987 before moving to Mercedes-Benz do Bra-



sil in 1995. Five years later, Alexander held executive positions in Procurement at DaimlerChrysler in the US. He then headed up Group-wide Procurement for drive systems at Volkswagen. From 2008, he was part of the executive management of Volkswagen do Brasil, and in 2013 he was appointed Vice President of the Chinese joint venture, SAIC Volkswagen. His most recent move saw him join the Board of Management with responsibility for Finance at Audi in 2017.

Arno Antlitz (49)
is a postgraduate
industrial engineer and has been
responsible for
Finance, Controlling,
and Accounting as

a Member of the



Board at Volkswagen since 2010. Since 2018, he has also been responsible for Brand Management for North America. He began his career with the consulting firm McKinsey in 1999. After moving to Volkswagen in 2004, Arno was made responsible for global product controlling for the brand the following year.

GROUP 360 February 2020



Head of Volkswagen Autonomy: Alexander Hitzinger.

Companies for Autonomous Driving Founded

Volkswagen has founded Volkswagen Autonomy (VWAT) in Germany, with locations in Munich and Wolfsburg. A further VWAT company will be based in Silicon Valley in the US. A further site is expected to follow in China in 2021. As an expertise center for autonomous drivers from Level 4, VWAT shall be the central knowledge building department in the Group and produce a self-driving system that is ready to bring to the market. Alexander Hitzinger is the Head of VWAT. He is also Senior Vice President for Autonomous Driving at the Volkswagen Group and Brand Manager for Technical Development of Volkswagen utility vehicles, the leading brand in the Group for autonomous driving. According to Alexander, "We want to establish a global technology firm with Volkswagen Autonomy, in which we pool our skills from the automotive and technology industries to combine working flexibly and creatively in a high-performance culture with a focus on processing and scalability." We also want to exploit synergies across all Group brands to reduce the costs of self-driving vehicles, high-performance computers, and sensors.

Renk Shares to Go to Triton

The Executive Board and Supervisory **Board** have approved the sale of the 76 percent stake Volkswagen has in large gear manufacturer Renk, with the 5.3 million shares going to Triton. The purchase price for the Volkswagen subsidiary, whose head office is in Augsburg, is 97.80 euros per share sold. The planned sale will result in a book value gain of around 150 million euros and implies a cash injection of around 530 million euros. As part of the terms of sale, a location and employment guarantee was agreed between Renk and Triton until the end of December 2026 for the three German operating sites in Augsburg, Rheine, and Hanover.

According to Frank Witter, CFO and IT Board Member of Volkswagen AG, "Triton's IPO was a crucial first step toward focusing on our core activities. The sale of our shares in Renk is all part of our Together2025+ strategy, which we are well on our way with. In addition to wanting to become more streamlined, the decisive factor behind the transaction was that we had found a positive solution for the future and growth of Renk AG."

According to Chairman of the Works Council Bernd Osterloh, "Selling our shares in Rent to Triton was a logical solution. Employee representatives were closely involved in the process, and job security was the number-one priority. In fact, the location and employment guarantee for the German sites until 2026 is an essential and forward-thinking aspect of the transaction."

41 Lead Managers: Finding Solutions Together

Experts across the Group assemble development teams for component construction kits

he time is now: The Technical Development division has established staffing conditions to ensure that developments based on the "One for All" principle can start in the Best Performance Engineering Program. 41 lead managers have been appointed and brought together for the first Lead Engineers Convention in the Räderhalle manufacturing hall in the Technical Development division in Wolfsburg. As part of the Group strategy Together

2025+, Best Performance Engineering aims to combine and better utilize the development resources across the Group.

The new lead managers will be responsible for the technology strategy and modular development of component construction kits. Oliver Brenneis from Volkswagen will take on the air conditioning



Best Performance Engineering: The new lead managers with Frank Welsch, Member of the Board of Management for Development at Volkswagen and Hans-Joachim Rothenpieler. Board Member for Technical Development at Audi (center).

component construction kits, Stephan Meyer from Audi e-traction, and Donatus Neudeck from Porsche the brake system.

The lead manager will put together a development team for their component construction kit, which will comprise employees from across the entire Group. This team will then work as a "general developer"

for all brands, to avoid duplicating work and restricting the amount of variations. The participants had intense discussions during the event in the Räderhalle about standardizing methods, processes, and tools. In the months to come, a road map is expected to be produced for the component construction kits with clear test specifications and simple

rules of acceptance. In addition, all the brands will be collating their requirements for the future into a common requirements management process, and are responsible for incorporating and applying it to the vehicles.

According to Frank
Welsch, Head of Development at Volkswagen, "We have made great progress with the 41 lead managers and the implementation of the 'One for all' principle has begun." Welsch believes that camaraderie, consistency, mutual trust,

and openness are the keys to successfully transforming the development network in the Group. Head of Development at Audi, Hans-Joachim Rothenpieler, addressed the lead officers with the following statement, "We must find solutions together: One team may develop them, but we all stand to benefit. Let's make it happen, as we say at Audi!"

Group Technology Circle: Hub for 3D Printing Projects

Ingo Hartmann from Group Innovation brings together the Group's 3D printing community

Today's cars already feature a number of 3D-printed parts, from the cell phone holder and socket housing in the T6 to traffic paddles in police vehicles. Even show cars contain parts straight off the 3D printer. Volkswagen has been making use of 3D printing technology for 25 years now, and its range of



Parts from the 3D printer: Ingo Hartmann and his team are pulling everything together.

applications continues to grow. Together with his team from the Group Innovation division – formerly known as Group Research – in Wolfsburg, Ingo Hartmann is the man who pulls everything together. He makes sure that the all-important knowledge relating to 3D printing is shared across the company.

The hub for this information is a well-maintained page on the Group Wiki and the Group technology circle.

Around 700 employees from across the Group are involved in the 3D printing community. Of these, up to 100 experts get together in Wolfsburg three times a year to

stay up to date with the latest manufacturers, applications, and process and product innovations. Ingo built this network up from scratch: "Our aim is to make it easy for any employee interested in 3D printing to get involved in this side of our work." Sharing information is one aspect of the role, while research is the other: "We also want to look at how we can really make the most of 3D printing in our development and series production processes."

Successful applications for Bugatti

Bugatti is making excellent use of 3D printing technology in its front differential console and clutch housing in its series production. Other global projects are already underway at companies including Scania, Bentley, and Volkswagen Group of America.

3D printing technology is primarily used for plastic parts in the proto-

type construction phase of pre-series development. This is where C-columns, bumpers, tailgate trims, brackets, and much more besides all come to life. The reason for this is that new prototype parts can be printed much quicker and more cost-effectively using a 3D printer, particularly as there is no need to buy any tools or molds in advance.

That said, it is not yet economically viable to produce metal components for series production, as it takes quite some time to print these in 3D – 12 days, in fact, for a VR6 cylinder crankcase.

3D-printed components also help to cut down on weight. Mechanical engineer Ingo Hartmann (47) shows us a wheel mount that is 25 percent lighter than usual as a result of being 3D printed. This is already a pioneering step in itself, but Hartmann and his 3D-printing network believe there is still plenty more to achieve. "Part of the art involves finding the right applications," he explains.



Sascha Reys (45), Head of E-Mobility After Sales in Kassel

Volkswagen is launching the largest electro-offensive in the automotive industry with the ID.3. What does this e-offensive mean for Group After Sales? 360° caught up with Sascha Reys (45) – Head of the new E-mobility After Sales division since last April – to find out more. He came to Kassel from Wolfsburg in 2018 and was initially responsible for the Metal and Powertrain divisions in Procurement After Sales. Originally from Gifhorn, Sascha has been working at Volkswagen since 2004.

What does the E-Mobility After
Sales division have to adapt to?
The Volkswagen Group plans to intro-

duce up to 75 brand-new, fully electric

vehicles to the market on top of its usual combustion engines by 2029. For us, this means that the volume of combustion engines may well decline going forward, but every component found in the e-vehicles will still be added to the After Sales remit. This increases the number of variations available along with the amount of storage space required as a result.

Your division has been up and running for around ten months. What are its most important objectives?

First and foremost, we are looking at reducing the volume of variants and – more specifically – entrenching After Sales in the product development process. After all, this is the only way to ensure our number-one priority of being to supply our customers with what they need. We also have to make sure that the latest generations of batteries are compatible with today's generations.

You are looking into the storage conditions for high-volt batteries in Kassel. What are you looking out for in particular?

We are working closely with the Center of Excellence in Salzgitter and the depot in Kassel so that the data collected can be evaluated by our colleagues in the Development division. The system allows us to simulate any storage situation, which allows us to do things like determine the perfect storage environment for the batteries.

Live Talk: Speaking with Kilian and Osterloh

The Chief Human Resources Officer and Works Council Chair discussed the Mood Barometer findings

hat is the mood? How is the Mood Barometer being refined? Group Chief Human Resources Officer Gunnar Kilian and Group Works Council Chair Bernd Osterloh discussed these and other questions about the 2019 Mood Barometer during a talk broadcast live on 360° Volkswagen Net. The questions came directly from the workforce. The talk was hosted by Jesko Giessen (Internal Communications).

Stressing the importance of the survey, Kilian said, "The Mood Barometer enables us to learn about and be in a position to respond



"The Mood Barometer enables us to learn

about and be in a position to respond to the needs of our workforce."

Gunnar Kilian, Chief Human Resources Officer to the needs of our workforce." Osterloh also rates the Mood Barometer positively overall, saying, "The benefits of the survey are increasing because now more than ever the findings are being discussed among teams. So it's important that colleagues then work with supervisors to tackle existing problems."

In terms of the transformation the automotive industry is undergoing and the challenges this brings for the workforce, Kilian and Osterloh seemed pleased with the findings of the survey. The workforce has recognized the Group's improvements

in terms of integrity. Says Kilian, "Compliance with rules has to be an integral element of our culture. Larry Thompson, the Compliance Monitor, is helping us along the way. He highlighted weak points."

There was a great deal of agreement on the question of who bears responsibility for implementing the



Livestream on 360° Volkswagen Net: Gunnar Kilian and Bernd Osterloh speak with Jesko Giessen.

measures developed on the basis of the Mood Barometer. Kilian says, "We are calling on both managers and the workforce to work together toward making improvements for their teams." Osterloh says, "If colleagues are looking for change, managers need to step up and help."

Speaking about the future of the

Mood Barometer, Kilian says, "We are constantly working to improve our survey. In future, we need to take advantage of even more digital tools to publish the findings even quicker. We also have additional surveys in the pipeline: rapid mood tests we can use to quickly respond to current events."

More than 500,000 employees from the entire Volkswagen Group took part in the 2019 Mood Barometer. This equates to a participation rate of 81 percent among those eligible to take part –

Barometer

two percent more than in 2018. Compared to last year, the mood index increased by 1.1 to 80.0.



360° February 2020

Interview with **Thorsten Nicklass**

One year on from the founding of Volkswagen's green energy subsidiary: 360°'s interview with the CEO

lli is short for "Electric Life." The Volkswagen subsidiary, founded a year ago in Berlin, offers green energy and smart charging solutions. The company is spearheaded by Thorsten Nicklass (54). He studied electrical engineering and economics, followed by a career that saw him found four start-ups. Nicklass served as CEO of Digital Energy Solutions, a joint venture between BMW and Viessmann, before moving to Volkswagen. In an interview with 360°, the Elli CEO takes a look back at the past year and offers an outlook of what's to come in 2020.

Customers can already use Elli's We Charge card to access more than 100,000 charging points in Europe. Elli CEO Thorsten Nicklass aims to further increase the number of charging points.

will be available Group-wide in 2020, and the IT for managing the charging infrastructure is well underway.

What challenges did you face?

Elli truly is a start-up. Just like any

start-up, we had to rapidly build a framework and put together powerful teams in Berlin, Munich and Wolfsburg. We were able to entice experienced employees from the electricity industry, charging experts and IT pros to come join our team. Many of our team of now 55 employees decided to join Elli because they were impressed by Volkswagen's determination to make the move to e-mobility.

They wanted to be a part of that.

Elli is pioneering e-mobility. What does that mean in practice?

It all starts with green electricity and smart charging using a wall box at home, in parking garages and rest stops. The aim is for ID. customers to be able to charge their vehicles as easily as they would charge a smartphone. People who spend a lot of time on the road can use our We Charge card to charge their vehicle at more than 100,000 charging points in Europe. Coverage is already extensive and we are continuing to expand.

If I owned an ID.3, what services would Elli be able to offer me?

At car dealerships, dealers are given

package, from planning to installation of the ID. charger, the wall box, which some people have begun calling the "Volks-wallbox." The charging card allows customers to charge their cars on the go. An app will also show customers where they can find nearby

charging stations. Reliability is crucial

to these services. It is so important

that no customer be disappointed.

Discussions are underway with

access to our all-around carefree

But how does a customer without a parking space of their own charge their car?

policymakers and the housing industry. If it is possible to outfit an underground garage with ID. chargers in future, we will do so. We are working on the assumption that most people will only charge their vehicles at home once a week. Physical proximity is just as important here as it is for charging at work. Many Volkswagen employees are already able to conveniently charge their vehicles in their plant's parking lot while they are at work. This kind of infrastructure will see a sharp increase in the coming years.

Where do you see Elli in 12 months'

We will be there whenever ID.3 customers want to charge their cars everywhere. By the time the ID.3 reaches dealerships, we will most likely be one of the largest wall box suppliers in Europe - with a huge installation network working in the background

Permian Global, a project developer

working in the field of protect-

ing and restoring tropical forests.

The project is based in the Central

Kalimantan province on the island

of Borneo and will secure 149,800

hectares of forest on carbon-rich

The project also protects a habitat

peat soils.

and reliable IT infrastructure for intelligent charging.

Continuing with the ice skating metaphor, that's when the freestyle comes into play: by 2025, we will have developed the Elli ecosystem into an active player in the energy industry by networking cars, homes and the electricity industry. An electric car will then serve as a mobile storage device that feeds energy back into the grid for the benefit of our customers.



Meet Elli

Elli primarily offers carbon-neutral

Volkswagen Naturstrom® electricity, which has been certified by the TÜV Nord organization. The electricity it provides is sourced from renewable energy. Custom ers can book services using its website, elli.eco. Elli is working to build charging solutions by the time the ID.3 celebrates its market launch. These include home wall boxes, charging stations, IT-based energy management systems and customer cards for charging on the go. More info:

www.volkswagen.de/naturstrom



Wolfsburg Power Plant Renovation: Heat Recovery Boiler Delivered Conversion from coal to natural gas: a crane lifted components weighing up to 160 metric tons off the ship

delivered to the Wolfsburg North/ South cogeneration plant opposite the Autostadt. Specifically, six components will be assembled to form two heat recovery boilers. They were transported by ship via the Mittelland Canal. They were lifted onto land using a floating crane. Background: both power plants at the Wolfsburg location are currently undergoing modernization and are being converted from coal-fired to natural gas plants. The plants are scheduled to begin operating in 2021 and 2022. They will then have a capacity of 136 megawatts (North/South) and 288 megawatts (West).

CO₂ emissions will be reduced by 1.5 million metric tons per year

The scale of the project is impressive: the six modules measure up to 17 meters in length and 5.30 meters across, weighing up to 160 metric tons. "These are the largest components that will be installed during this modernization process," says Christian Jonas, Head of Construction Site Equipment and Heavy Transport at VW Kraftwerk GmbH. A floating crane was used to lift the components from the ship and load them on to a multiwheeler truck, which can have up to 15 axles. The modules are then assembled at the power plant. In future, the two boilers will use heat recovered from the gas turbines to generate steam for the downstream

Matthias Barkowski, Head of Power Plants in Wolfsburg and Kassel as well as Head of Power Plant Planning, says,

Herbert Diess on the Energy Revolution:

the west, a large

ng the deadline for no more coal for cars are only as clean as the electricity

> plants are outfitted with the latest and heat generation will permanently be reduced by around 1.5

Board Spokesperson, left) and Matthias Barkowski (Head o

"Modernizing our power plants and converting them from coal to natural gas allows us to make a significant contribution to reducing Volkswagen's and the city of Wolfsburg's CO2 output. Once all of Wolfsburg's power

high-efficiency gas and steam turbines, CO₂ emissions for electricity million metric tons per year."

How is Elli doing one year on?

2020 is the second year of com-

a term from the figure skating

world. We want to take advan-

tage of the ID.3"s market launch

to offer Elli's services to custom-

What did you focus on during the

We laid the foundations and

renewable

energy

sources.

Wall boxes

managed to check a number of

things off our to do list. We're in a

position to deliver electricity from

ers, from green power to wall

boxes to charging cards.

pulsory figures for us, to borrow

- goTOzero: this is the name of the Group's environmental mission statement, which provides a strategic focus to environmental programs at the Group and brand level.
- As part of the Group's Together 2025+ strategy, the environmental mission statement consists of the following: climate change, resources, air quality and environmental compliance.
- goTOzero epitomizes a CO₂-free economy with as little environmental and financial impact as possible. Volkswagen has set itself the goal of achieving this throughout the Group by 2050.



How Volkswagen Is Protecting 150,000 Hectares of Tropical Forest from Clearance

The Group is committed to the largest forest project to reduce global CO2 emissions on the Indonesian island of Borneo

he Volkswagen Group is setting in motion its support of climate protection projects, initially focusing on active forest protection and reforestation, especially in the tropics. These projects are all certified under the highest international standards, including the Verified Carbon Standard (VCS); Climate, Community and Biodiversity Standard (CCB); and the Gold Standard.

The Group's first project, the Katingan Mentaya Forest Protection Project on the Indonesian island of Borneo, involves the company offsetting its (currently unavoidable) CO₂ emissions from the supply



Head of Sustainability:

transitioning to renewable energy," says Ralf Pfitzner, Head of Sustainability at the Volkswagen Group. "Where this is not yet possible, we want to invest in forest conservation projects that provide long-term support to local communities, protect bio-

diversity and at the same time contribute to overcoming the

chain, the produc-

tion and delivery of

the new Volkswagen

ID.3 electric vehicle

and other emissions

"The Volkswagen

primarily focused on

avoiding and reduc-

ing CO2 emissions,

for example through

energy efficiency and

from other areas.

Group's decarbon-

ization strategy is



climate crisis - all in line with the United Nations' goals for sustainable development." Specifically, the IPCC's Global Warming of 1.5°C report by leading climate researchers has shown that natural carbon sinks are indispensable for meeting climate targets.

In the Katingan Mentaya project, Volkswagen is working with

with high conservation value and a vibrant mix of different species. The habitat is home to five to ten percent of the remaining Borneo orangutans as well as proboscis monkeys and Bornean

white-bearded gibbons. The project works closely with 34 surrounding village communities to improve their living conditions and contribute to sustainable local development - including direct employment on forest fire response teams, micro-

financing loans and educational and health support.

Plans are underway for additional projects in cooperation with project development partners to protect and restore tropical forests in South America and Southeast Asia. There are also plans to establish or expand climate protection projects at the Group's locations in future.

More Green Energy

The Volkswagen brand is setting new goals for its plants



View of the Emden plant with wind turbines visible in the distance

The Volkswagen brand is pushing ahead on its way to its goal of carbon-neutral production by 2050. The company has set itself ambitious goals to expand the external supply of electricity from renewable energy sources to its plants this year. Andreas Tostmann, Head of Production and Logistics, says,

"This year we want to significantly increase the supply of green energy to our plants from 70 to 90 percent." Conversion of the external power supply of the 16 Volkswagen brand plants worldwide (excluding China) to electricity from renewable sources has already reached 70 percent.

Carbon Fund: Balance Sheet

Group provides 25 million euros

The Volkswagen Group has had its very own Carbon Fund for a year now. The fund, endowed with 25 million euros per year, is available to all 12 Group brands. This allows the Group to finance its own climate protection projects that reduce CO₂, optimize energy efficiency or make other savings at its locations worldwide. It also aims to streamline innovation and bolster new and existing business models. Another key factor for a project to receive support from the fund: the project needs to be scalable and translatable to multiple Group locations.

A few examples:

• LED lighting project: 33 measures were implemented at nine Group Production locations to switch to energy-saving LED lighting. CO₂ reduction: 116,000 metric tons per year.

placed with separating circuit systems at the Kassel plant - currently more than 150. The new separating circuits cool machinery and shafts, and reduce energy consumption compared to the old cooling units. CO₂ reduc-

• Cooling supply project: cooling units were re-

Infrastructure project: one aspect: installing new energy-efficient pumps. At the same time, improvements were made to building roofs and a new rack cooling system was installed. CO2 reduction: 2,000 metric tons per

• Paint shop & drying project: Volkswagen has installed a load-dependent volume flow control system at the Hanover plant. The technology is tried and tested and can be expanded to other



system saves electricity and natural gas and reduces

locations in the

coming years. The load-dependent system saves around 1,200 metric tons of CO₂ per tion: 1,350 metric tons per year. year. In addition, other plans were implemented under this project that will end up saving a total of 1,800 metric tons of CO₂ by the end of the year. CO₂ reduction: 3,000

> The Carbon Fund project will be repeated every year. More than 100 new projects have so far been approved for 2020.

metric tons per year.

¹ ID.3: This vehicle is not yet sold in Europe.

360 February 2020



New Brand: Jetta on the Fast Track

VOLKSWAGEN

Brand CEO Harald Müller on succeeding in China - and how the young brand will continue to capitalize on that success

super start for Jetta: no new vehicle brand has ever succeeded in China before. 360° spoke with Harald Müller. Here's what the brand CEO had to say about the fascination with Jetta, the brand's electrification plans and what customers in China now

Why Jetta is fascinating customers

Jetta by Volkswagen is giving many Chinese customers the opportunity to buy cars with Volkswagen technology, made with Volkswagen's quality standards, at a price that was previously not possible. So, on the one hand, Jetta is synonymous with proven reliability. On the other hand, the Jetta already has a long history in China. It is playing a not inconsiderable role in the history of mobilization in the country. The brand's launch has brought us success in attracting buyers to the world of Volkswagen who would otherwise have bought a domestic

brand car. That is a significant part of our success - and our mission.

What customers now expect from the brand

Initial analyses show that our high-quality image and sophisticated vehicle technology have persuaded a particularly large number of customers to buy a Jetta. The ranks of new Jetta drivers have given us the feedback we need to be able to act more courageously and unconventionally when designing the interior in future. And we want to attract more young buyers to purchase our products in future. For example, we're focusing on our VS7 SUV and its connectivity solution, which was specially designed for China in China.

What's next for Jetta

The brand currently offers two vehicles, a sedan and an SUV. But that won't be the case for long. We are currently in the early design and development phase for an additional



Brand CEO Harald Müller sees major potential for growth for the new Jetta brand.

model built using our SUV platform. This vehicle is particularly designed around the needs of young families. The transition away from the onechild policy in China presents major potential for another SUV model.

Here's what I can reveal about the new SUV at this point: the initial design studies are very promising. E-mobility will also be important for Jetta in future, especially in terms of the long-term success of

the brand. In addition to working on a new model, we are currently focusing on expanding our network of dealerships in China and the successful launch of our top model, the VS7.

Living and Working in Changchun

Working for Volkswagen in China: Jürgen Unser and André Stoffels talk about their experiences

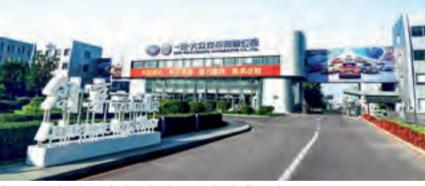
ürgen Unser and André Stoffels J open up about what it's like working for the Volkswagen Group in China. One has worked at FAW-Volkswagen in Changchun for many years, while the other came to FAW-Volkswagen in China from Ducati in Italy.

Mr. Stoffels, what moved you to take the job in Changchun?

Stoffels: I've been interested in China for a long time now, both as a key market as well as a leading market for new technology. My hope is to develop personally as a manager in this exciting environment and make my own contribution to expanding our Group's position as a market leader.

Mr. Unser, what did you know about China and Changchun before you took the job there?

Unser: As Head of Group Production Strategy and Planning, I had been involved in planning discussions with the Chinese market. I succeeded in introducing our Group production system to Changchun in cooperation with FAW-Volkswagen. When I arrived in Changchun in 2012, China was already a country undergoing rapid change. My first impression of Changchun was a city



Gateway to the plant: a look at the plant premises in Changchun.

with chaotic traffic and accommodations that took some getting used to, but extremely amiable people.

What did you do to bone up on your knowledge of China and Changchun before you made the move?

Stoffels: I did a lot of research in books and online. I also used a couple of internal media channels provided through Volkswagen and Audi. I recommend the website created by FSE and their partners https://www. go-to-changchun.de/ (German only). It offers a realistic look at Changchun and provides useful tips about the city. In addition, I'd like to mention the intercultural training that gave me and my wife many details about our Chinese partners and practical tips for living in Changchun.



A look at Changchun: Home to millions, the city also offers a lot of green space.

What surprised you the most after arriving in Changchun?

Unser: Changchun is a green city with lots of parks and two big lakes. The biggest surprise is the rapid change this megacity is undergoing. The first year I was here, there was just one single café, no elevated highways, no subway system and not many activities available. Now there's a modern road network and subway system, loads of cafés and shopping malls and a population density that easily surpasses Munich's. And there's a whole other world in Changchun as well - that of historical China, with the imperial market and artisanal

So it's possible to have a good life in Changchun as an expat?

Unser: The local government, Audi, Volkswagen and FAW-Volkswagen have done a lot to make life for FSEs and their families in Changchun more attractive. There are concert evenings, a modern German and international school system, an outdoor swimming pool and an excellent playground for our children. The people of Changchun are extremely warm and welcoming, and interested in interacting with us foreigners. The food is amazing, it's international and highly varied - it couldn't be better.

Are there any similarities between Wolfsburg and Changchun?

Stoffels: Both cities are industrial locations that are home to a large automotive company that secures the livelihoods of the city's inhabitants. You can tell that the locals in both places are proud of their city. And they share a passion for soccer. Unfortunately, Changchun Yatai has been relegated to the second league.

Describe your feelings about your work and your life in Changchun in three words.

Unser: Cool: a completely different and highly diverse culture for you and your family. You have all the advantages of living in a small village while living in a city of eight million at the same time. Authentic: you will get to experience part of real China. Challenging: you are part of the success of FAW-Volkswagen.

What will you take with you from your experience in Changchun, both positive and negative?

Stoffels: There's nothing negative, although sometimes I do miss my favorite pizzeria in Bologna. It's an interesting experience for me and my family. My daughter goes to a bilingual school that offers classes taught in German and English, and she's very happy there. Compared to Germany, the operating speed in China is extremely fast and intense. You get the chance to significantly impact the progress of different projects. Every day you see projects brought to life. It's a fantastic feeling. And you're definitely going to gain a new outlook on your home company.

What do you recommend for colleagues coming to work in Changchun? **Unser:** Be courageous and persistent, understand that there's a different social and economic system at play, and broaden your own personal horizons.

Until 2019, Jürgen Unser served as Technical Vice President at FAW-Volkswagen Automotive for seven years, where he was re-

sponsible for technical development, product management, and production and logistics. Prior to that, he was in charge of Audi production abroad, responsible for Group production planning and strategy and production and enterprise systems at Audi for three-and-a-half years.



André Stoffels has served as First Vice President Finance at FAW-Volkswagen Automotive since April

2019. Prior to taking up the

post, he served as CFO at both Ducati and Volkswagen Group Spain, and was in charge of the Strategy and Corporate Planning department at Audi AG.

Actively involve yourself and your family in the expat community, and take the opportunity to make international friends for life. Make sure your partner is involved in the decision. It's worth it to put your heart and soul into the success of the joint



Automated production: Modern technology is used at the plant.

GROUP

VOLKSWAGEN

GROUP COMPONENTS

360. February 2020





Group Components in China

23 plants, 18,000 employees, and key components for e-mobility

olkswagen Group Components in China: some 18,000 colleagues currently work in 23 plants – including battery system production. Since May of last year, the plants have been under the leadership of Frank Engel, Managing Vice President of Volkswagen Group China, Components, Logistics & Quality Assurance.

Chinese colleagues are producing components from all five business segments:

- EA211 and EA888 engines
- DQ/DL and MQ transmissions and
- APP e-drive

 Battery system
- Battery systems for the MQB PHEV/BEV HVB
- Seats
- Chassis systems

Last year, approximately four million Chinese vehicles were outfitted.

SVW FAW-VW VGC C-P

<u>Dr. Wenhui Li</u> <u>Rainer Schoske</u> Jiangping Zhu

>>>

Process effi-

@

Digitaliza

Competitiveness and safeguarding the future are firmly rooted in the Roadmap 2025 efficiency program, which will be launched in the first quarter of 2020 as part of the TOGETHER for China 2025+: Best Performance strategic initiative, focusing on eight key topics (see figure below).

One special feature of the program is actively involving companies in the organization of the program, which emphasizes responsibility and cross-company cooperation.

Establishing Components as an independent corporate unit on January 1, 2019 and the electric mobility transformation has led to a new strategic direction in China. This is because the Chinese market in particular is adapting especially quickly to e-mobility. In addition, China's economy features a large number of joint ventures, making it a popular form of business. That



An overview of the Chinese plants

is why colleagues are working on Components' cross-company focus in China to work together to meet the challenge of electric mobility. The key here is profitability and efficiency, job security, and the different strengths of each location.

The eight topics covered by Roadmap 2025 will be tackled

under the leadership of a sponsor plant and plant managers (underlined) and VGC C-P (Volkswagen Group China (VGC), Components, Logistics & QA). Project Management Office VGC C-P is Johannes Tepe.

"Cutting full cost and expanding

PMO VGC C-P

"Cutting full costs, stabilizing profits and expanding on our innovation power and sustainability – these are all things we are working hard on as part of Roadmap 2025."

Frank Engel, Managing Vice President of Volkswagen Group China, Components, Logistics & QA

VWED VGC C-P Lin Lu VGC C-P Lin Lu VGC C-P Lin Lu VW PT Uwe Brueckner Vin L

ROADMAP

2025

1 CDEED+ Award

VW TS VGC C-P
Bode Mehrlaender Caihong Hu

1. SPEED+ Award
The latest round of the SPEED+
Awards will be the first time
all of the China region plants
participate. VWATJ (Volkswagen
Automatic Transmission Tianjin)
and VWATD (Volkswagen
Automatic Transmission Dalian)
have previously competed for the
award with their teams the past
two years.

VWATJ managed to take third place in 2018 in the tools category, with VWATD also winning third place in the assembly efficiency category. Now all of the other companies (VWPT, VWED, VWTS, VWPF and SITECH Dongchang) are entering the fray to compete for the energy efficiency award, bringing the total number of plants competing for gold, silver, and bronze to 29.

Chinese colleagues will hold a

VGC C-P (Volkswagen Group China (VGC), Components, Logistics & QA) workshop following each plant tour to take advantage of expertise across companies. This allows all participating companies from the China region to exchange suggestions for optimization. The SPEED+ Award is an excellent opportunity for each location to network and grow together.

2. HRC

Open, flexible human-robot collaborations (HRCs) have been set up, programmed, and commissioned as a pilot project by the HRC teams at the engine plant at SAIC Volkswagen China. This allows HRCs to replace manual connections and parts access and loading. Using HRCs the rate of first passes for the connection has increased. More HRCs are being planned.

3. Product SOPs

Materia

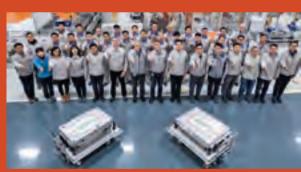
Methodol-

Expertise 8

Important milestone: last June, APP290 and DQ400e celebrated their SOP in Tianjin. With the production of these two components plus the APP310 MEB drive starting in 2020, VWATJ is supplying key electric components for the Group.

And colleagues at the Qingdao plant announced a key product launch last year: the SOP of the purely electric MQB BEV battery

Components colleagues also celebrated the SOP for the Volkswagen Magotan and Audi A6 plug-in hybrids with Head of Components at FAW-Volkswagen Rainer Schoske in December. Both battery systems (37 Ah) are produced on a combined assembly line in Changchun. This year, the year of the plant's launch, will see another 70,000 battery systems produced.



PHEV MQB/MLB SOP at FAW-Volkswagen in Changchun in December 2019: Painer Schooke and the team

These two products will expand FAW-VW's NEV product portfolio (NEV = new energy vehicles), thereby making yet another important contribution to achieving NEV compliance targets in China, Rainer Schoske is pleased to say. "I'd also like to extend my special thanks to our Components colleagues in Braunschweig and Wolfsburg, as well as to the Volkswagen

Group China, Components, Logistics & QA NEV project

4. New production facility
Last year, Hall
5 was built at
VWATD in just 18
months. The hall
is designed to

expand capacity for up to 1,000 units per day and provides 772 new workstations over a total area of 91,000 m². What makes it unique is that the hall is fully digitalized and paperless. Special energy management systems have been installed for the use of LED lighting, steam condensers and photovoltaic generators to make the plant sustainable.

More News from Group Components

All-Rounder: The 1-Speed Gearbox In the fully electric ID.3¹, a single gear

is all that is needed to master every driving

2020 Pronounced the "Year of the Shopfloor Supervisor" in Components

The role of a shopfloor supervisor, qualifications, and communication cascades: Group Components has pronounced this year the "Year of the Shopfloor Supervisor" and placed our shopfloor supervisors in focus. 30 shopfloor supervisors from Kassel to Polkowice will work to develop a participation concept over the coming months.



Group Components Gets Its Own Innovation Day

The first Tech Day will be held in mid-April, showcasing the cross-divisional innovation power and the Components product portfolio across all locations. The symposiums at

each location will continue in a revised format.



¹ ID.3: This vehicle is not yet sold in Europe.

scenario.

A Look at the Brands



Skoda Celebrates 125th Anniversary

Numerous activities and events around the world

This year, Škoda is marking 125 years since its founding in 1895. It is also 115 years since the company first started car manufacturing operations. The Czech manufacturer is therefore one of the world's longest-established automotive companies. Škoda is celebrating with numerous activities, promotions and events around the world. For example, important models in the company's history will take part in driving events in China, India and other international markets. The highlight of the celebration year is a special concert featuring the world-renowned Czech Philharmonic Orchestra. Furthermore, Škoda is using the anniversary to launch an extensive marketing and communication campaign on all its channels and on social networks. Škoda CEO Bernhard Maier: "Škoda is one of the world's oldest car manufacturers still in operation. The courage and ingenuity of the two founders, Václav Laurin and Václav Klement, are the foundation of this unique story of success." The car manufacturer has been part of the Volkswagen Group since 1991.



World Premiere: The New Seat Leon¹

Introducing the fourth generation of the Spanish car manufacturer's bestseller

In late January,

Seat introduced the fourth generation of the Leon before an audience of around 500 guests and media representatives in the Martorell plant. The new compact car boasts



the new Leon began in January 2020. Market launch is scheduled for April 2020. Carsten Isensee, Executive Vice President for Finance at Seat S.A.: "The Seat Leon is our most successful model. We have invested a total of more than €1.1 billion into the development and manufacture of the new generation of the Seat Leon."



Bentley Is a "Top Employer"

Status maintained for the ninth year running

Distinction for Bentley: The car manufacturer was named a "Top Employer" once again this year. The status is awarded globally by the Top Employers Institute. This

year, the distinction was awarded for the advancement of future talents, among other reasons. This is the ninth year running that Bentley receives the award.





When 50 Batteries Become One

Pilot project: A sustainable approach

How can used batteries from electric vehicles be re-used? In Hamburg-Bergedorf, that is exactly what MAN Truck & Bus, public transportation operator Verkehrsbetriebe Hamburg-Holstein (VHH) and the Volkswagen Group are now researching. The pilot project in action: In the VHH bus depot there is a white container with 50 used e-vehicle batteries in

it. They all come from the Volkswagen Passat GTE². Disposing of these batteries directly would not be good for the environment. That's why the

project partners are keen to discover, under real-life conditions at VHH, how old batteries act as stationary energy storage devices. Inside the container, they

are connected together to make one large battery, and are tested in different scenarios. In peak shaving, for example: The container of used batteries is put into action when a lot of power is needed to charge a number of electric buses at the same time. Alexander Adler, MAN Truck & Bus: "Using the peak-shaving method, the battery can reduce peak load by up to 600 kW,

leading to a corresponding reduction in electricity costs." One of the goals of the trial is to develop a flexible battery storage concept that al-

lows batteries to be exchanged. That could be very helpful in the future: VHH's 560 buses are to be converted to electricity over the coming years.



 ∞

FC Bayern Continues as Partner

New opportunities for collaboration

Audi and FC Bayern Munich have

extended their partnership to 2029. Audi is the soccer club's exclusive automotive partner. There will be a focus on a strategic collaboration in the areas of innovative marketing and electrification. Clear signal: All contracted players at the club will be given a fully electric Audi e-tron in 2020. The car manufacturer has been a partner to FC Bayern Munich AG since 2002, and a shareholder since 2011. The Audi Cup, which was held in the Allianz Arena for the sixth time in 2019, is a top-class European

pre-season preparation tournament. The new partnership also opens the way for individual projects with the other brands of the Volkswagen Group. Audi has also extended its partnership with the FC Bayern basketball team until 2023. Hildegard Wortmann, Member of the Board of Management for Sales and Marketing at Audi AG: "As the exclusive automobile partner for FC Bayern Munich, we have the opportunity to present new concepts of mobility, electric mobility and connectivity, and to make them tangible."





The New Caddy⁴: Premiere in February

Wider, sportier and visually more striking



In the new generation Caddy, no screw was left untouched.
One thing is certain: It will continue to set the standard in its class. The prototypes for the new Caddy are becoming more substantive: The

Cargo version of the Caddy underlines the new self-confidence in this otherwise highly functional, practical class. The design shows a roofline that slopes slightly downwards towards the back, the short wheelbase has become longer, and the wheels themselves can be bigger if desired. The passenger car version is also sportier: With a short wheelbase, not only does the vehicle look more striking, it is also actually wider and

longer. Very different, but still with excellent loading capacity and amazing variability. Both versions will be presented to the global public for the first time at the end of February. Further details to follow.







The 991 generation was launched in 2011.

Porsche 911: End of the 991 Era

Last 991 produced

The last Porsche 911 of the 991 generation has rolled off the line – with 233,540 units produced, this has been the most successful 911 series. Michael Steiner, Chief Research and Development Officer at Porsche AG: "The 991 generation set new standards in terms of performance, drivability and efficiency. It fills me with pride, as well as a touch of sadness, to have to send it off into retirement."

k
1 Seat Leon: This vehicle is not yet on sale

² Passat GTE: (NEDC) fuel consumption I/100 km: combined 1.6–1.5; power consumption in kW/h/100 km: combined 14.8–14.2; CO2 emissions combined in g/km: 36–34; efficiency class: A+ ³ Audi e-tron Sportback: power consumption combined in kWh/100 km: 23.9–20.6 (NEDC); CO2 emissions combined in g/km: 0

^{*} Caddy 5: Prototype
5 911 Speedster: fuel consumption combined 13.8 I/100 km; CO2 emissions 317 g/km

VOLKSWAGEN PASSENGER CARS



What the Brand Will Show Off in Geneva

Geneva Motor Show starts at the beginning of March—Golf GTI¹ and Golf GTD will celebrate their world premiere

Birthday in Geneva: the Geneva Motor Show will be held for the 90th time this year. In addition to the Group brands Audi, Seat, Skoda, Bentley, Bugatti, and Porsche, the Volkswagen brand will also present some new products. The event will begin on March 2 and 3 with the press days.

The Volkswagen brand is celebrating two world premieres in Switzerland with its sporty derivatives of the new Golf: it is presenting both the GTI¹ and the GTD¹ to the public.

Also making an appearance in Geneva is the new Golf GTE¹. The plugin hybrid has a battery with a 50 percent higher energy content at 13 kWh. This facilitates a longer electric range

and makes the Golf a zero-emissions vehicle, at least temporarily.

During the Motor Show, visitors can also experience the show car ID. SPACE VIZZION up close and personal. Like all models in the ID. family, it is powered purely electrically and is based on the modular electric-drive toolkit (MEB).

After the press days and the

trade visitor day on March 4, the long-established fair, officially called the Geneva International Motor Show, will open its doors from March 5 to 15. It will be open Monday to Friday from 10 am to 8 pm and from 9 a.m. to 7 p.m. at the weekends. For more information, visit the event website: https://www.gims.swiss/.



On the streets of the capital: a WeShare e-Golf making its way through Berlin.

WeShare: Outlook and First Interim Results

Customers describe their experiences with Volkswagen carsharing

WeShare, Volkswagen's carsharing service, will expand into seven more cities this year. After Prague and Hamburg, the next to join in the spring will be Paris, Madrid, Budapest, Munich, and Milan. WeShare will offer a fully electric fleet of e-vehicles in all cities. In Prague and Budapest, Škoda will be the cooperation partner. In the other cities, both e-Golf³s and e-up!⁴s are used and, from the end of the year, the ID.3⁵.

"2020 will be a year of strong growth for us," says Philipp Reth, CEO of WeShare. "We are convinced that fully electric free-floating car sharing will remain an essential and scalable bridging element in the field of sustainable and shared mobility during the transition to automated transport systems for some time to come."

In Berlin, where WeShare was launched in June of last year, we now have 50,000 registered customers. Around three quarters of them are active users, which means that they have used the service at least once. "This rate is very high by industry standards and shows that WeShare is highly relevant to people's urban mobility," says Reth.

Meanwhile, one of the main challenges for WeShare in Berlin is still charging the vehicles. To compensate for the insufficient supply of public charging infrastructure, Volkswagen AG and WeShare have therefore entered into an additional partnership: the Schwarz Group is currently building a total of 140 public charging points at 60 Lidl and 10 Kaufland locations in the capital. As a cooperation partner, WeShare can use the charging stations exclusively for its fleet outside opening hours. In addition to the Schwarz Group, WeShare is also interested in establishing further partnerships in order to expand its usable charging infrastructure.

360° spoke to customers about their experiences of WeShare:

"My name is **Jens Wick**, I live in Berlin, and I work for Volkswagen Group Retail in the capital. I've been using WeShare since the service came into existence. I use it almost every day to take my daughter to daycare and to go from there on to work. Thanks to WeShare, I save myself the stress of having a small child on overcrowded trains during rush hour. By the way, almost all vehicles have a child seat on board. What's more, carsharing is cheaper than the parking fees in the city center. It's quite simply convenient and enables me to be very flexible – I wouldn't want to have to do without WeShare."



"I'm **Rüdiger Reisert**, a Volkswagen employee at Internal Communication in Wolfsburg. I live with my family in Berlin. Most days I get around fine by bus, train, or bicycle, which is why I don't own my own car. But even in a major city, there are times of the day when it's quicker to get around by car. That's when WeShare is a great alternative. Even with a lot of luggage, I can take advantage of the comfort of Volkswagen's own carsharing. But sometimes the reason why I use an e-Golf from WeShare is simply the driving pleasure."

"My name is **Andreas Reeg**, I'm an architect, and I live with my wife and children in Berlin. We've been using WeShare for four months—mostly for work in order to get to appointments. After work, I usually use the carsharing service in the evenings if a car will be faster than a bicycle or public transport. WeShare is much cheaper for me than having my own car. The interaction between the vehicle and the app works great. I would like to see more than just one payment account per user in the future, so that I can invoice personal and business trips separately."





Together for TD: Frank Welsch (left) and Matthias Rabe.

TD: Welsch and Rabe Divide Up Their Tasks

Matthias Rabe, Head of TD Operations at the Volkswagen brand, assumed extended responsibilities in the brand's Technical Development department in February. As Chief Technology Officer (CTO), he is responsible for the transformation of TD and the management of the departments under the leadership of Frank Welsch, Head of Development.

Focus on design, concepts, and strategy

As Head of Development for the brand, Welsch now focuses on design, concepts, and the strategic orientation of TD. "The new division of tasks with Matthias Rabe enables me to concentrate more on the future issues facing TD and on the expansion of the cross-brand development network," says Welsch. As CTO of Volkswagen AG, he also heads the Group Research and Development Division. In this function, he will, among other tasks, be in charge of the Best Performance Engineering program.

The tasks of the brand's CTO include technical management of the TD departments and vehicle projects. The CTO is also responsible for controlling the entire product creation process for TD scopes, controlling external development sites, and controlling the budget. "Our goal is to develop inspiring products and technologies and to make TD future-proof by consistently transforming it into a function-oriented development," says Rabe. "I'm looking forward to tackling this challenge together with the TD team."

up!, Polo, and Golf Awarded



In the big reader 'Best Cars 2020'

poll by the trade magazine auto motor und sport, the up!, Polo, and Golf have received awards in Stuttgart. The awards were accepted by Frank Welsch, Head of Development, Hendrik Muth, Head of Product Marketing for the brand, and Karlheinz Hell, Series Manager Compact. "Best Cars' is a very special award; the choice is made directly by a large readership with an affinity for automobiles. That is why we are particularly pleased to have been able to persuade such car connoisseurs of the benefits of our products—in three categories!" says Welsch.

The three models up!, Polo, and Golf are serial winners of the prestigious reader poll. For the Golf, it's the 26th victory in the "Compact Class" category in the 44 years that the poll has been run. A total of 102,974 participants chose their favorites from among 387 models in eleven vehicle categories.

¹ This vehicle is not yet on sale. | ² Concept | ³ e-Golf: power consumption, kWh/100 km (NEDC): combined 13.8–12.9; CO2 emissions combined, g/km: 0; efficiency class: A+ 6 e-up! (61 kW/83 bhp) 1-speed automatic: power consumption combined: 12.9–12.7 kWh/100 km (NEDC) and CO2 emissions combined: 0 g/km; efficiency class: A+ | ⁵ ID.3: The vehicle is not yet on sale in Europe. | 6 up! GTI: fuel consumption in L/100km: urban: 6.0 / extra-urban: 4.1 / combined: 4.8; CO2 emissions combined in g/km: 110; efficiency class: C | 7 Polo GTI: fuel consumption in L/100 km: urban: 7.0 / extra-urban: 5.3–5.2 / combined: 6.0–5.8; CO2 emissions combined in g/km: 141–138; efficiency class: C





Motorsport in the snow: eR1 and Beetle R.

Volkswagen in the Ice Race

For the second time since its rebirth in 2019, the Ice Race took place in Zell am See on the first weekend in February. The Volkswagen brand featured among the starting lineup with some of its sportier models.

Tanner Foust, three-time GRC and reigning Americas Rallycross Champion, enjoyed a reunion with his winning car the Beetle R – in the Salzburg region. The vehicle is now on its farewell tour after racking up five championship titles.

Another Volkswagen celebrating on the Austrian ice was the eR1 from Volkswagen R, which enjoyed its very first run out. The vehicle was initially the test vehicle for the five-time champion and electric race car, the ID. R. As of now, it will serve as an ambassador for future electric performance vehicles.

The Ice Race lineup also featured the T-Roc R⁶. Racer Jasmin Preisig showed the watching public exactly what this series vehicle could do on the race track. Anyone interested in trying it out for themselves could even book in for a test drive.

G3 Series: New Manager

360° interview: Markus Kleimann sings the praises of the fantastic Mid-/Full-size team

ince the start of February, Markus Kleimann has been the new Head of the Mid-/ Full-size series of the Volkswagen brand. This move sees him take the reins from Stefan Gies, who retired at the end of last year. 360° caught up with Markus to hear all about the aims and challenges of his new

What are your first impressions of your new team for the G3 series? I couldn't have asked for a better bunch of people! I know I only took up the role officially on February

1, but I had already spoken to the team at length during my initial visits to Wolfsburg. I have to say that my predecessor Stefan Gies has left me in the hands of an absolutely fantastic team. Their motivation can't be faulted and I am really looking forward to getting on board with them.

What would you like to achieve in your new role?

I am a huge fan of cars and have always been a firm believer that we make cars for our customers. This is why it is absolutely essen-

tial for us to really take on board the feedback we receive from not only our customers, but also the media, without ever losing sight of the profitability of our projects. I'll give you an example: Let's take the Passat - it's been on the market since 1973 and we've sold over 30 million of them. Now this is incredibly motivational for the team to be able to take this success story and keep it going for the next generation ahead. Passat customers are professionals. They set the bar and we have to live up to their expectations.

You are responsible for the mid-/ full-size series, which also includes the Touareg². How are you handling the challenge of growing requirements surrounding environmental sustainability?

It has to be our aim to make sure we really stand out with our innovations in this area in particular. After all, we are still regaining the trust of our customers. The key words here are hybridization and overfulfillment of our legal requirements. In addition to the well-established Passat GTE³, there will also be an exciting new hybrid option for the Arteon⁴ and Touareg. Another excellent example of an effective new development is

the new TDI Evo complete with twin-dosing concept. The new Passat with its 110 kW TDI engine⁵ made us pioneers within the Group and allowed us to offer an extremely clean diesel model. We actually received some excellent feedback on this in the *Plusminus* TV show on the ARD network. It just goes to show that diesel still has potential, and rightly so since there's no denying its CO₂ benefits.



Introducing the New Series Director

Markus Kleimann has been a member of the Volkswagen family since 2000. His first role was in vehicle safety in the Technical Development division, before he went on to take up senior positions in Germany, China, and Italy. Most recently, Kleimann has headed up the development of Volkswagen do Brasil. He has been the Series and Strategy Director for the South America region since 2018. Kleimann was born in 1969 and is a married man. His hobbies include kite surfing, tennis, and music.



New Series Director Markus Kleimann with the Touareg ONE Million¹.

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Employees' Good Ideas: Volkswagen Saves 30 Million Euros

One year of modernized idea management at the German sites: employees have submitted 25,720 suggested improvements

he results are positive after one year of modernized idea management: 25,720 suggestions for improvement were submitted by employees at the Volkswagen brand's German sites between February and December 2019. 6,640 ideas—or about a quarter of those submitted—were implemented. That represents savings of around 30 million euros. "These are savings on spending-in other words,



Thorsten Janotta, **Ideas Management**

money that would actually have left the company if the ideas had not been submitted. That's a new aspect of evaluation," Thorsten Janotta explains. The Head of Ideas Management stresses:

"The numbers are impressive. Thank you very much to those who had the ideas, to the assessors, and to the implementers! We hope to receive more good ideas for Volkswagen this year."

A look back: since February last year, Ideas Management has been working with a new IT system for

One of many good ideas: **Employees proposed** allowing service workshops changing coolants to choose whether they would continue to use a standard mechanical pump for venting or a new electric pump. This saves time and money.

recording and processing suggestions for improvement. It previously trained several thousand employees at the German sites. At the largest site in Wolfsburg alone, more than 2,219 supervisors, assessors, and implementers were informed about the innovations.



The switchover to the new SAP-based IT system was a particular challenge. After 18 years, the familiar IdeenOnline system no longer met the security and future requirements, says Janotta. "The employees in Ideas Management have transferred almost one million ideas from the old IT system to O the new one, taking into account the data protection requirements. We would like to thank our colleagues at the various sites, as the switchover was by no means automatic."



Mario Kurznack, Member of the Works

Works council member Mario Kurznack is particularly pleased that, since the introduction of the new company agreement on ideas management and the new IT system, one idea



provider has been awarded the new maximum bonus of 75,000 euros almost every month. Kurznack: "The top suggestions from staff members that lead to the company saving a lot of money are rewarded handsomely. This should also be an incentive for all employees to submit many more good suggestions for improvement to Ideas Management in 2020."

MissionX Saves a Figure in the High Triple-Digit Millions

Cross-department project off to a successful start—employees recognized for their work

issionX is intended to save the Volkswagen brand ten billion euros by 2023. Procurement, Quality Assurance, Development, Sales, Design, Components, and Value Engineering are working together to achieve this goal. The project was launched at the end of 2018. "The first year of MissionX was very successful. Our target for 2019 was a high triple-digit million-euro amount," says Rainer Stutz, Head of Group Procurement, Product Start-ups. Jörg Teichmann, Head of Value Engineering: "We achieved that target 100 percent."

Consistent reduction in costs and variants

The aim of MissionX is to determine the component strategy for Volkswagen models for many years to come. Within their product teams, participants take a closer look at parts such as side mirrors. In doing so, they analyze whether certain individual variants that are not in particularly high demand among customers could be done away with to save costs.

The success of MissionX is the



tal teams. The employees have now been honored for this reason. Ralf Brandstätter, who as COO manages the brand's operative business, presented the MissionX Award to the tandem for the best overall performance for the first time. The

achievement of the cross-departmenjury evaluated the volume saved by



At a glance: MissionX has already launched a lot of ideas.



on the component strategy. The winners were Jana Striezel, Head of Group Procurement Exterior, and Ludger Lührmann, Technical Development, who are charge of the Body Shop tandem.

Four other teams, with a total of 40 participants, received certificates in various categories. Dirk Große-Loheide, Procurement Board Member for the Volkswagen brand, and Matthias Rabe, Chief Technology Officer, honored the employees for their special contributions.

"The trophy is an enormous token of appreciation. The transformation of the automotive industry today places a heavy investment burden on Volkswagen. Through consistent cost and variant reduction, MissionX provides the framework and makes a significant contribution to the company's earnings," says Jana Striezel. And Ludger Lührmann stresses: "To achieve our goals, we need to put all





Winners: Jana Striezel, Head of Group Procurement Exterior, and Ludger Lührmann, Technical Development (both enter), Jörg Teichmann, Head of Val Engineering (left) and Brand COO Ralf Brandstätter presented the award.

previous decisions to the test once again. A particular thanks goes to our employees, who this year both reached and exceeded our targets."

Jörg Teichmann: "The overall savings target for this year is another 20 percent higher than in 2019. The continuance and the success of the program is of elementary strategic importance to the Volkswagen brand."



This Is MissionX

MissionX was launched at the end of 2018. The goal of the Volkswagen brand is to determine the component strategy for its models for many years to come—and to save ten billion euros by 2023. Procurement, Quality Assurance, Development, Sales, Design, Components, and Value Engineering are all working together to achieve this goal.



Based on the T-Cross with a long wheelbase: the Taigun¹ concept car.

For India: **Taigun Concept Car Presented**

At the Auto Expo in New Delhi, India, Volkswagen celebrated the world premiere of the Taigun concept car. The compact SUV is based on the long-wheelbase version of the T-Cross as sold in South America and China. "With the Taigun, we are presenting the next major step for Volkswagen in India," says Jürgen Stackmann, Brand Board



Jürgen Stackmann, **Sales Director**

Member for Sales, Marketing, and After Sales. The small SUV is being developed especially for this market and, according to Stackmann, takes Indian customers' needs into account. "We are confident that

this product offers a perfect combination of sportiness and sophistication, and is therefore the right choice for our valued Indian customers."

India remains an important market for Volkswagen, says the Board Member for Sales. "As a Group, we are investing over a billion euros in the Indian market. That, once again, underscores our dedication to the country. Around the world, SUVs are increasing in popularity among our customers. That is why we are introducing Volkswagen's SUV offensive to India this year."

¹ Concept car **15**

Up close and personal with the Golf and ID.3: Until March 18, dealers from more than 50 countries will visit the Brand Experience event at the Autostadt.

Wolfsburg: 17,500 Dealers and Sellers at the Autostadt

New Golf and ID.31 in focus – training of participants from 50 markets will continue until March 18

ince the end of January, the large dealer conference known as the Brand Experience has been underway at the Autostadt. Until March 18, almost 400 dealers and sellers a day will arrive in Wolfsburg to get to know the new Golf, the ID.3 and the new brand design. Some 17,500 participants from more than 50 markets are expected.

"The dealers who come to Wolfsburg will get to know two of our DNA vehicles up close the new Golf and the ID.3. For many markets, there is nothing more important in the coming year than these two models," says Head of Experience Marketing Sandra Waidelich, who is responsible for planning the

Dominik Bittner,

Grizzlys Wolfsburg

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major event. The new brand design, which in many countries has not yet been launched, will also be presented. "Ultimately, this is not just about the new logo and fresh image, but about a

whole new attitude," says Waidelich.

Participants get to know the Golf and ID.3 in various workshops

One of the event's objectives: "It must be clear that when we say Volkswagen is a likable and accessible brand, we really mean it." That's why a new concept has been developed. Dealers will attend various workshops and, in small groups, will have more opportunity than before to get up close and personal with the topics and discuss them together.

upport: Wolfsburg celebrities joined the campaign.

Posters in Wolfsburg city center advertised the campaign.

Various studios have been set up at the Autostadt for this purpose - for example, at Hafen 1, in the Group forum and in the Volkswagen brand pavilion. There, topics such as

infotainment and

Experience Marketing

the powertrain in the Golf are discussed in detail. Also on the agenda are the ID.3 and ID. family, charging infrastructure, WE services and much more.

So why is the event being held in Wolfsburg? "Both the brand and the

> On the agenda: Participants get to know the ID.3 (left) and the Golf



Golf were created here," says Waidelich. And where better to convincingly convey the brand's repositioning than its birthplace? In addition, many sellers have never been to Wolfsburg: "We hear that

A highlight for the dealers is the opportunity to test drive the new Golf, which takes them to Volkswagen's central exhibition warehouse in Isenbüttel. There,

the showroom is presented with the new brand design. The new dealership is designed to be as modular and cost-efficient as possible, and many of its features can be implemented in existing dealerships. "We hope to send dealers home with a positive feeling, secure in the knowledge that they won't be hit by enormous costs," explains Waidelich.

120 people are involved in planning the event. Marketing and Academy Sales & Services are responsible for overseeing its organization. However, the team also includes employees from Series, Security, Product Marketing, Design, Production, IT, the Service Factory, Visitor Services, WE Services, the Customer Service Workshop, Electronics, Product Technology and the Dealer Organization. "We all need to work together like a well-oiled machine," says Waidelich. "My compliments to the entire team."



was the new Golf. It is very well made and drives beautifully. I'm very impressed with it."

Christian Magnano -Autohaus Spindler, Kreuzwerthein



"Our international

guests are im-

pressed by the

concept and by the

event location here

at the Autostadt

in Wolfsburg. One

particular highlight

for the participants

is test driving the

new Golf, which

has been very popular. The factory

tour, meetings with our employees

and a closer look at the ID. family

were also met with enthusiasm.

"The Brand Experience gave me a better feel for e-mobility. I've taken important new information on board. The ID.3 was particularly cool."

Claudia Janka -Autohaus Fischer-Schädler **Bad Vilbel**



"I like the infotainment system in the new Golf. It was really exciting to see it first hand."

> Sascha Häuser -Auto Bach, Bad Homburg



"I found the presentation of the ID.3 particularly a lot from this day."



Brand Experience: participants glean insights into vehicle production

any sellers only know the Golf and other models as a finished product. During the dealer conference at the Autostadt, they had the chance to go behind the scenes of vehicle production during a tour of the Wolfsburg plant.

The tours were 40 minutes long. The goal? For dealers to experience the deep connection between the Golf and Wolfsburg and to utilize their experiences in their daily sales activities in keeping with the keyword "The Magic of Production."

In the plants, participants can see how the vehicles are produced step by step from thousands of individuals parts - for example in the press shop, where a fender is formed out of a single piece of sheet metal. From an exhibit, they learn how the new Innovision Cockpit is made from granulate and individual parts.

In Hall 54, teamwork and the Golf family take center stage. On the agenda are clocked work processes,

self-organized teamwork and ergonomic production. In cockpit assembly, for example, which is fully automated participants are told that Volkswagen's production technologies are the benchmark

in the industry – just like the innovative, automated commissioning process, i.e. supplying the vehicles with the right software "over

the air."

At the end of the tour, dealers get to know the commissioning process of the vehicle, where the Golf is started for the

first time and "comes to life."

During the dealer conference: Participants from 50 countries experience the





Wolfsburgers are proud of the

Golf, says Klaus Mohrs, shown here at the world premiere last

October.



💌 360° interview: Mayor Klaus Mohrs about the Pucker Up campaign and the city's relationship with Volkswagen

he city of Wolfsburg has celebrated the new Golf with a big campaign - and honored its close relationship with Volkswagen. During an "eight-day week" (representing the eighth-generation Golf) from February 10 to 16, a selfie campaign took place on social media: Wolfsburg residents, Volkswagen employees and anyone who fancied joining in were invited to show their support for the new Golf by posting a selfie of themselves puckering up to make their lips form the shape of the number eight and tagging it with the hashtag "#8TageWoche" ("8-day week"). The results can be seen on the city's Instagram and Facebook

In the following interview with 360°, Mayor Klaus Mohrs talks about the campaign and the new Golf.

car. I always feel that when I talk

to people on the street. It is their Golf – and I mean that quite literally. Around 45,000 Golfs are registered in Wolfsburg. At the same time, the production of this model is our livelihood. It has secured many jobs and the overall existence of the city since the 70s. We want to honor that and say thank you.

For many Wolfsburgers, the Golf is a car that evokes all kinds of emotions. That's why we decided on the idea of puckering up - it's a token of affection that anyone can show with a quick selfie. We also wanted to create something contemporary that will appeal to young people. This campaign played out on social media. Digital connection, emotionality - these key concepts fit the new Golf perfectly.

the outside, it's still clearly recognizable as a Golf. On the inside, it's been fully connected and modernized with the digital cockpit. Personally, I'm looking forward to the GTI - it's always been my dream car. Volkswagen trainees have been to the town hall with their Wörthersee GTI several times. That's always been a highlight in my calendar.

Both sides know that they can't live without the other. Volkswagen has always depended on Wolfsburg developing into a modern and interesting city where people enjoy living. For us, it's always been clear that the city would not be what it is now without Volkswagen. People would not have jobs.

keywords: fiberglass, 5G network, autonomous driving and charging of electric cars within the city. Hardly a week goes by when I am not at the plant or visited by We also want to bring Volkswagen Volkswagen colleagues at the town and the city closer together, in a spatial sense. Volkswagen needs hall to discuss topics of mutual interest. In the near future, there a greater presence in the city cenwill be increasing focus on expandter. At some point, the city may ing infrastructure. To name a few

Mittelland Canal. Nordkopf in the city center and Heinrich-Nordhoff-Strasse are the development like we had after the opening of the Autostadt would be ideal. At

also migrate

closer to the

banks of the

key contact points. Another that time, Volkswagen and the city became much more closely enmeshed.

Wolfsburg optician

Alexandra Popp,

VfL Wolfsburg

WOLFSBURG VOLKSWAGEN WIR FEIERN DEN GOLF 8. FEIER MIT. POSTE DEIN 8ER-KUSSMUND-SELFIE. #8TAGEWOCHE | MEHR AUF STAGEWOCHE DE EINE KOOPERATION MIT DER VOLKSWAGEN AG Puckering up for the new Golf: fans were invited to post a selfie before February 16.

Wolfsburgers are proud of this

I really like it. The new Golf has everything you could wish for. From

¹ID.3: This vehicle is not yet on sale.

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The Winner Is Announced: Bratislava Is Transformer of the Year 2019

The race for the top spot was very close this year; in the end, one factor made the difference

fter a close race, the Slovakian plant in Bratislava won the internal Transformer of the Year competition for production and logistics. The results from the BOM (Best of Measures) league, the index for cooperation between plants, were decisive. This is exactly what the competition is meant to achieve: to get better together.

The finalists circulated a whopping 125 ideas throughout the production network.



What winners look like: The team from the Bratislava plant has won the Transformer of the Year competition.

"Each location may be fighting for themselves, but in the end, all of us in Production and Logistics are winners," summarized Chief Production Officer Andreas Tostmann. "The competition also made it clear what amazing results we can achieve together when the entire team acts in concert."

The now-finished race was much more exciting than in previous years, because for the first time, it took place in two stages. After the "Race4Transformation" qualification round with monthly evaluations of measurable KPI

figures, by the end of 2019 the Top 3 were clear: Palmela, Kaluga, and Bratislava. In the final round, all plants were once again subjected to close examination. They were all head to head when it came to the degree of goals achieved, and Palmela was slightly ahead in the Business Cockpit - so it was the lead in the BOM League that tipped the scales for Bratislava.

"With this internal competition, we've made the magic of production tangible for everyone and managed to give a new complexion on the term efficiency."

Robert Cisek, Head of Strategy



In the end, everybody wins: The finalists' plant managers - Stefan Depka (Kaluga, from left), Oliver Grünberg (Bratislava), and Miguel Sanches (Palmela) - with Chief Production Officer Andreas Tostmann (right) and Robert Cisek, Head of Production Strategy.

New Golf: Tour Through the Plants

Employees get to know new member of the compact family up close

While Volkswagen dealers are currently getting to know the new Golf in Wolfsburg (see pages 16-17), the new kid on the block already went on a tour through the European plants to be presented live to the Production team. Here are a few pictures:



Production Solves Problem in Mailroom

With 3D printer: How trainee Daniel Schmidt got the sorting machine back up and running

he mailroom's sorting machine has had a snag for some time now: The device from Switzerland is set for Swiss letter formats. Because the German formats are somewhat larger, it hasn't been possible to pre-sort the letters correctly before they're distributed by hand into roughly 2,000 mailboxes. The cause was quickly found: The rollers under the conveyor belt weren't wide enough - and were therefore unable to secure the position of the letters during transport on the belt, meaning they couldn't be scanned properly. Through an article in 360°, the mailroom

heard about Additive Manufacturing, which uses 3D printing to solve just such problems.

From then on, everything went like clockwork. Daniel Schmidt took care of things: He made conveyor rollers that were specially designed for the machine. To do this, he removed the existing rollers, transferred the dimensions to CAD, and changed them until they fit. After test prints with various plastics, he optimized the weight, strength, and surface until everything worked perfectly. Schmidt isn't making a big deal of it: "They had a problem, we helped them with it, sorted." The project was a good opportunity for the 22-year-

old, who's in his third year of training as a technical product designer, to prove himself. Thomas Stein, Project Manager in Additive Production: "We want to prepare our trainees for the professional day-to-day, and often give them free rein to do so." Schmidt took the opportunity, and Stein is proud of him: "He managed the project completely on his own." The quick repair demonstrates three things: How important it is to have the right people in the right place, how easy it can sometimes be to arrive at a quick and cost-effective solution, and how much it helps when departments work together.



Daniel Schmidt produced new rollers for the sorting machine



Special Teams: The International **Production Team**

To strengthen the cooper-

ation between the plants and headquarters, production relies on multinational teams - and not just in vehicle production. Three colleagues from South Africa, Brazil, and Mexico are currently working in the Strategy division in Wolfsburg.

Nobody's closed off here

"Shortly after I arrived here, I told my family that Germans are closed off and slow to make friends," says Ingrid Kotvan. "But that's not true. Now my neighbor is my best friend." The Brazilian employee has been working at headquarters since summer 2019 – as one of three colleagues who moved from their home countries to Wolfsburg for two to three years in the Production Strategy department.



International production (from left): Ingrid Kotvan, Nadia Espinosa, and

Her area of responsibility involves the cooperation between the German headquarters and plants in ten countries, which are to be aligned according to globally uniform methods. Different points of view, personal networks, and language skills are helpful. Nadia Espinosa from Mexico: "It really makes contact easier when I can speak with the plants in their own language." The international lineup in the Strategy team isn't just helpful in daily cooperation with the locations: The more different the perspectives and the more varied the experiences, the broader the understanding and acceptance for individual measures.

A peck on the cheek as a greeting

"I was shy at first," Kotvan says when asked about her most important insight. "I'm more myself now – and people accept me the way I am. In Brazil, we give each other a kiss as a greeting. A lot of people in my team here have already gotten used to that."

Anthonette Miller from South Africa, who's responsible for the flow of information with and to those responsible for the individual strategy fields, is also happy about the change: "I got to know the who's-who in the Group, and now I have a much better understanding of the interplay between the Group, brand, and plants."

In the snow: The Wolfsburg ice hockey players in front of their team bus. Their winter driving training began a short time later.

With the Grizzlys: Employee on Tour

Sweepstake promotion: Cedric Klauenberg from the Wolfsburg plant accompanied the ice hockey pros to games and driving training

or Cedric Klauenberg, 2020 started on a high: The Volkswagen employee accompanied the top-flight ice hockey team Grizzlys Wolfsburg to an away game in Munich, and on their subsequent winter driving training in Faistenau, Austria. He won the trip, organized by Volkswagen Sports Communication, in a sweepstakes on Volkswagen Net.

"I've gained lots of exciting insights that I won't soon forget," enthused Klauenberg after the two eventful days. Sitting next to

Executive Board Member Hiltrud Werner, who is also on the Grizzlys' Supervisory Board, Klauenberg watched the unexpected away win in the German Ice Hockey League (DEL) at the league leaders in Munich.

The following day, the 27-yearold travelled to Austria with the Grizzlys. During the driving training session organized by the Volkswagen Driving Experience, Klauenberg and the ice hockey pros took to the wheel in Volkswagen models. On a slalom course cov-

> ered with snow and ice, the guests from Wolfsburg got the vehicles drifting.

"It was interesting to see how this kind of car behaves in

Drifting in the

snow: The Driving Experience made it possible.

extreme situations, and how I as a driver have to react," says Klauenberg, who felt like a part of the Grizzlys team on the trip. He was even allowed to be present at coach Pat Corina's final talk before the game in Munich. And on the trip to Austria, the Volkswagen employee from Controlling Central Functions for Components took a seat on the upper floor of the bus, usually reserved for players. There, he got insights into everyday life for a professional hockey player from captain Gerrit Fauser and the others. Klauenberg: "You don't usually see the boys that close."



Integrity and Legal Affairs. Top: The employee receives a jersey from players Fabio Pohl (left) and Christoph



Grizzlys Wolfsburg Facing Crucial Games

The crunch period in the battle to make the play-offs begins for the Grizzlys in the next few days. The last three home games in the championship round will be against Krefeld on February 21, Berlin on March 1, and Nuremberg on March 6. The championship round will end for the Wolfsburgers in Ingolstadt on March 8.

How the Ad Spots for the Special United Models Were Made

Volkswagen had scenes shot in Dortmund with national players like Timo Werner, Leon Goretzka, and Julian Brandt

ilming in Dortmund: Volkswagen shot the ad spots for the United special models, which are currently running on TV, in the Westfalenhalle.

2020 is going to be dominated by the European Championship: With the United special models, Volkswagen is getting in the mood for the major event, which is being held for the first time in twelve countries from June 12 to July 12. The special models are being advertised by the German national soccer team. The ad, which has been running on German television since mid-January, reads, "The details make the game." It shows the national players preparing for a match in the locker



room, entering the stadium through the players' tunnel, and celebrating after a decisive goal.

The United special edition is available for the up!, e-up!1, Polo, T-Cross, Golf Variant, Golf Sportsvan, T-Roc, Tiguan Allspace, Touran, and Sharan. For customers, there's a price advantage of up to €3,400 - depending on the model.

Goal for Germany: Timo Werner and Co. celebrating for the cameras.



Filming in Dortmund: Making the national players presentable before the cameras start rolling.



You can find a video of the shoot with the national soccer team here: https://youtu.be/ f2BovZ6hIAI



Europa League: VfL Faces Malmö FF Twice

Europe, VfL Wolfsburg is here! In the Europa League's round-of-32 first leg against Malmö FF on Thursday (February 20), the Bundesliga soccer club is determined to lay the foundation for reaching the round of sixteen. It all kicks off at 9 p.m. in the Volkswagen Arena. The return match will take place a week later in Sweden, starting at 6:55 p.m. on Thursday, February 27.

Around 4,000 fans will accompany the historic Swedish club on the seven-hour road journey to Wolfsburg. VfL manager Jörg Schmadtke expects an atmospheric, but also difficult game at the beginning of the knockout round. He's warned against underestimating the Swedish record champions multiple times. Schmadtke sees them as typical Scandinavian opponents – strong and never giving up.

But the Wolfsburgers are the favorites. If only because, in Sweden, the season only starts in April. Malmö finished second in the league in November last season, one point behind Djurgårdens Stockholm. Nevertheless, coach Uwe Rösler (now in Düsseldorf) and the club parted ways due to differing views on their future direction. His successor is Jon Dahl Tomasson. Incidentally, Volkswagen is the Swedish team's jersey sponsor.

Tickets for the Europa League match against Malmö will be available at the ticket office from 7:30 p.m.



Looking forward to the Europa League: VfL midfield engine Maximilian Arnold (left).

Trainees Visited Young **VfL Footballers**

Ten Volkswagen trainees paid a visit to the VfL Soccer Academy and got to know the world of young, talented players. "We hope the trainees got an impression of the daily routine of a young soccer player," said Francisco Coppi, Administrative Manager of the VfL Academy. He emphasized, "The exchange with Volkswagen is incredibly important for us, for our players to learn what daily life is like for young people outside of soccer. We want our young talents to get an impression of what the professional world is like."



Tour of the Academy: Francisco Coppi (right) with the Volkswagen trainees and Christoph Görtz, Head of Training.



Piet A. Wit, former forced laborer from the Netherlands, has died.

Forced Labor at Volkswagen: One of the **Last Survivors Has Died**

One of the last surviving witnesses to the forced labor at Volkswagen has died: Piet A. Wit recently passed away at the age of 97.

From March 1943 until the liberation by American troops in April 1945, the Dutchman, born in 1921, was one of about 20,000 forced laborers from all over Europe at the Volkswagen plant near Fallersleben. He was studying mathematics and natural history when the pressure from the German occupiers increased in the Netherlands. Wit decided to work in the Nazi armaments industry to avert any harm to his family.

A lifelong love with highs and lows

He became an "auxiliary worker" in electrical maintenance at the Volkswagen plant in Fallersleben in May 1943. By chance, he met the young Russian Olga Popowa in an air-raid shelter. The two fell in love. It was a love that bound them together for life with highs and lows. During the Cold War, the bond was severed. Wit later married and had two sons with Inga, a Swedish woman.

He recorded his experiences in "Stadt des KdF-Wagens" (City of the Strength Through Joy Car). The diary was incorporated into the book Olga und Piet. Eine Liebe in zwei Diktaturen (Olga and Piet: One Love in Two Dictatorships), which he published with Volkswagen in 2006. Wit wanted it that way because he knew that there can be no reconciliation without remembrance and contact. That's why he was often a guest in Wolfsburg as a witness, to tell students and trainees about the forced labor.

You can find the book Olga und Piet. Eine Liebe in zwei Diktaturen online at Volkswagenag.com as a PDF.

REARVIEW MIRROR - A Look at the History Books of Volkswagen

Turning Points: Volkswagen in 1970

50 years ago, the company initiated the technological revolution

Kurt Lotz, CEO from May 1968

to September 1971.

ermany's boom years of the Economic Miracle are slowly cooling off in 1970 - but Volkswagen contin-

ues to grow. Additional shifts are a part of everyday life in the factories.

balance sheet, the Group's turnover has risen to 15.8 billion Deutschmarks. The company has sold 2.2 million cars worldwide - six percent more than the previous year. In West Germany, the

In the annual

sales volume has even grown by 8.3 percent to 725,055 cars. The models from the Ingolstadt subsidiary Audi keen demand. Beetles and vans are

well in the US: With 569,696 units delivered there, they account for one quarter of Group sales.

However, there

- at the end of the year, for example, collective wage agreements will be concluded in Germany that provide

NSU, Volkswagen do Brasil, and Volkswagen de Mexico are all seeing

performing especially

50 Years Ago

are also dark clouds on the horizon: Sales are stuttering abroad because of the expensive Deutschmark. The growth in deliveries and sales is accompanied by higher purchasing and personnel costs



Variety on offer: Volkswagen had a dozen models in its range in 1970, with the new VW 1302 and K70 from Salzgitter in front.

for a twelve percent increase in pay. Profits fall from DM 330 million to 190 million. The Executive Board, with Kurt Lotz at the top, takes countermeasures with an efficiency program and a streamlining of the organization.

The Beetle remains the top seller

Volkswagen's bestseller is still the Beetle, with 1,202,146 models sold. The VW 1302 has done well (see extra article below). The newly developed Beetle model will be

available at dealerships in the second half of the year, with more powerful engines and almost twice as much luggage space.

The K70 from the Salzgitter plant, introduced in November, is also popular (see extra article below). With front-wheel drive, water cooling, and an in-line engine, it's a technological trailblazer for the post-Beetle era. The next stage in the transition to new engine and vehicle concepts is the 1973 Passat. The Scirocco and Golf follow one year later in 1974, and the Polo in 1975 - the new generation of models is picking up speed!

The K70: Trailblazer for New Model Series

he K70 was the technological trailblazer for the generation of models that came after the Beetle. The key innovation: The K70, built in Salzgitter, was the first Volkswagen with front wheel drive, an in-line engine, and water cooling. Under the hood at the front was a 1.6-liter, four-cylinder engine producing 75 or 90 bhp.

With the four-door sedan, the brand ventured into the upper midrange. The K70 was designed by Claus Luthe, who was Head of Design at the Volkswagen subsidiary NSU. The experiment ended in 1975, when the Executive Board decided to discontinue the K70 after selling more than 210,000 units due to low demand.

With the midsize sedan from Salzgitter, the transition from models with rear engine and air cooling to new engine and vehicle concepts took shape. Then the next stage was the Passat in 1973, which was also produced in Salzgitter.



New segment: The K70 was a step into the upper mid-range.



Trunk open, crates in: The Beetle doubled its luggage capacity.

Beetle: Great Product Upgrade Boosts Sales

he Beetle with extra trunk space and more powerful engines came onto the market in 1970. The developers in Wolfsburg had made changes to the front end in particular: They extended the chassis by 75 millimeters. They were also able to lower the trunk floor, almost doubling the load volume. The luggage compartment could now hold 260 liters (previously 140 liters) – plenty of room for the crates when stocking up on drinks.

Advertising for the car also focused on the new trunk. The loading area of the bright red Beetle looks enormous. The advertising message was short and punchy: "Because you know what you've got" - a catchy slogan that's still familiar today. It emphasizes the outstanding qualities that the Beetle had from the beginning: reliability and durability.

At the rear was a four-cylinder flat engine that produced 34, 40, or 50 bhp. The fastest Beetle model, the VW 1302 LS, could reach a maximum speed of 135 km/h and consumed 11.5 liters per 100 kilometers.

Demand picked up in the second half of the year as products were upgraded. Half of all cars shipped by the Volkswagen Group in 1970 were Beetles.



Ad for the Beetle: a classic piece of Volkswagen advertising.



K70: assembly line in Salzgitter.

Salzgitter Plant: Starting With the K70 and Engines

fter two years of construction, the sixth plant in Germany went into operation in Salzgitter in 1970 - with the production of the K70 (see also article left). In addition to the midsize sedan, employees also manufactured engines there. 5,108 employees were working at the location by the end of the year. Around 2,000 of those built engines in Hall 1.

In the long term, the plan was to build a production site for engines in Salzgitter. Engine production was to be relocated from Hanover in order to free up larger production capacities for the Transporter. Then, from January 1971, Salzgitter also produced the engines for the Audi 100.

The daily output in engine construction rose to almost 3,800 units in 1975. Assembly also increased: The VW 411 rolled off the production line in 1971, with the Passat following two years later.

The Salzgitter plant had shipped more than 400,000 cars when the K70 sales crisis and the global recession forced the end of vehicle construction at the location in September 1975.

VOLKSWAGEN GROUP COMPONENTS

Dear Colleagues,



of many dialog events and activities. What are the challenges on the shopfloor? What does it take for information cas-

cades to work? From Braunschweig to Polkowice, the shopfloor supervisors provide the perspective of teams in their immediate area of responsibility as part of our transformation process. In addition, they are developing a new participation concept for dialog between management and direct employees. Read the article below to learn more.



A further highlight in 2020: Group Components will get its own innovation show with the newly introduced "Tech

Day." It will take place for the first time in Salzgitter on April 17, 2020, and will provide a platform for innovative strength in all our business areas. The site symposiums of the plants will take place in the weeks following the "Tech Day" and will sharpen the focus on site-related topics. More on page 22.



An important driver for e-mobility is our Chinese component plants. From Dalian to Chengdu, 18,000 employees work with

e-components, chassis parts, seats, engines and gearboxes in a high-pressure environment. Here we have created an overview of the 23 plants, products and important SOPs. You can find it in the Group section on page 10.



Last but not least, I would like to thank Ariane Kilian, who has been on sabbatical since the beginning of February. She

has not only dedicated a lot of time and energy to building up communication, but has helped transform Components in recent years. Many thanks - on behalf of the entire management board!

I hope you enjoy this issue!

Yours sincerely, Thomas Schmall

Volkswagen Group Components

All-Rounder: The Single-Speed Gearbox

In the fully electric ID.31 from Volkswagen, a single gear is all that is needed to master every driving scenario

Power electronics

n comparison with a conventional combustion engine, the electric drive in the ID.3 comes with several changes: for example, the entire drive unit including the gearbox, all the main components of which are manufactured by Volkswagen Group Components, is extremely compact. This is made possible by the relatively simple electric motor construction, as well as the "single-speed gearbox." With only a handful of gears, it transfers the force of the electric drive to the wheels of the vehicle - with only a single speed for all driving scenarios. To understand why a single gear transmission is enough, it is first necessary to understand the typical features of a combustion engine compared to an electric drive.

Drive shaft with

gearwheel for

the first stage

How power meets the road

In essence, the rotational speed of the drive determines the speed of the vehicle. However, the power that is transferred to the wheels, the torque, may change with increasing speed. On the speed curve for a combustion engine, the torque first rises and then falls again. A multi-speed gearbox ensures that the desired speed or power is maintained across the speed curve in the respective gear, and causes the vehicle to move forwards or backwards. This keeps the vehicle at the desired operating point. In an automatic gearbox, gear changes take place automatically.

Axle drive with large gearwheel for the second Drive shaft with two gearwheels stage for the first and second stage In an electric drive, the maximum torque is already present at low speeds and then drops with speed. Sporty acceleration values at low speeds are characteristic of such a drive. The top speed of the vehifor all driving scenarios.

cle is reached at the maximum rotational speed of the drive. For driving in reverse, the rotational direction of the e-drive is simply reversed. This is made possible by the power electronics of the e-drive, which are responsible for the power characteristics of the e-drive, along with other components. A multi-speed gearbox is not

necessary. As a result, the single-

speed gearbox is considerably smaller in size and weight compared to a conventional gearbox. For the ID.3, which is optimized for its range, a single speed is adequate

One speed is enough for the drive of the modern age

The gearbox of the ID.3 is a single-speed gearbox with two stages. Due to the relatively small e-drive in the ID.3, high rotational speeds are required to meet a certain power level, while torque decreases. Without the right transmission ratio, the compact electric drive

> would not have sufficient power for starting or climbing hills. This is why a transmission ratio of 10:1 is used in the single-speed gearbox. This reduces the rotational speed of the drive, while increasing the torque in equal measure. To reduce the size of the gearbox, the transmis

sion is executed in two stages with one large gearwheel and two smaller ones.

Lower noise levels through precision

The electric drive has yet another special feature. Because it is considerably quieter than a combustion engine, the acoustics that contribute to the noise levels play an important role. Even small faults are clearly audible. As a result, maximum precision is required in the gearbox - and the installed components must be even more precise, in order to remain quiet. For this reason, the e-drive is not only tested for its performance values at the end of the production line at the Components site in Kassel, but also for its acoustic values. All e-drives, including the single-speed transmission for the modular electric-drive toolkit (MEB) for Europe and North America, are produced in Kassel. Significant parts of the drives are produced and supplied by Salzgitter, Poznań and Hanover.



Close-up view: the single-speed gearbox and gearbox housing on the production line.

"High precision is required for the construction of the e-drive."

Thorsten Jablonski, Business Area Manager Gearbox and **Electric Drive, Volkswagen Group Components**

VOLKSWAGEN GROUP COMPONENTS

2020 Pronounced the "Year of the Shopfloor Supervisor" in Components

Between production process and team leadership: 30 shopfloor supervisors get to grips with their role on the shopfloor

he role of a shopfloor supervisor, qualifications and communication cascades: Group Components has pronounced this year the "Year of the Shopfloor Supervisor" and placed our many shopfloor supervisors in focus. Their work is an important factor in the success of Components, for they have in-depth specialist knowledge and are the mouthpieces for the teams on the shop floor. That's why Thomas Schmall created the "Year of the Shopfloor Supervisor": 30 shopfloor supervisors and trainees from Kassel, Braunschweig, Salzgitter, Wolfsburg, Hanover, Chemnitz, SITECH Wolfsburg, SITECH Poland, Poznań and Polkowice will participate in workshops all about their job role. The goal: to more clearly define the role of our

shopfloor supervisors and strengthen mutual dialog. In addition, a participation concept will be created that will allow shopfloor supervisors to mediate more effectively between employees and management. The first shopfloor supervisor workshop will start in the coming week on February 25th and 26th. We look

forward to the "Year of the Shopfloor Supervisor" in Components!

Information about participants, workshops and projects are available on the Group Connect page for the Year of the Shopfloor Supervisor under the keyword "Year of the Shopfloor Supervisor.'



First introductions: In preparation for the "Year of the Shopfloor Supervisor" 2020, there was a meeting between shopfloor supervisors, management and plant managers at the end of December.



"Through the 'Year of the Shopfloor Supervisor', my colleagues and I hope to improve work processes so that we have more time for our teams again." Mutlu Aydogan, Shopfloor Supervisor in Battery System Production at the Braunschweig plant



"The 'Year of the Shopfloor Supervisor' will create a direct line to the management of Group Components. I'm very much looking forward to an efficient dialog and hope that this support will enable us to address problems openly and implement the devised measures."

Pia Arth, Shopfloor Supervisor in the Operational Measuring Room at the Salzgitter plant

¹ ID.3: This vehicle is not yet sold in Europe.



Components to Get Its Own Innovation Day

The first Tech Day will be held in mid-April

Exciting premiere: Volkswagen Group Components gets its own innovation show. On April 17, Components will have its own Tech Day in Salzgitter, similar to IVET. This means that cross-divisional innovation power and the Components product portfolio will be showcased in a single location. There will be different themed areas where developers from Group Components will be able to demonstrate their innovations and their technological highlights while also showing off their division's strong potential for innovation. The technical transformation of Components to e-mobility

and into a system provider is the focus of the event, which will be held in mid-April. In addition to technical experts, managers and employee representatives from the entire Group, all Group Management Board members will attend the Components Tech Day.

Please note that, in future, Tech Day will serve as the kick-off event for the site symposiums in the individual plants - these will take place in the weeks following Tech Day and will focus more on location-specific topics such as product SOPs and personnel statistics. Members of the Group Board and the top echelons of the works council will also be on hand.

What You Need to Know About the Mobile Charging Robot

Here it comes: whether it's an underground or above-ground parking garage or an outdoor parking lot - the charging infrastructure comes to the car, and not the other way around. The self-driving robot has mobile energy storage units that carry 25 kWh. Its cameras, laser scanners, and ultrasound sensors mean

that it can move

mously.

completely autono-

Among its many benefits are the fact that, compared to full electrification of parking lots and parking garages, the robot involves much less installation work and saves costs. Drivers can choose any parking space they like because the robot and its energy storage units come straight to the car and

charge it automatically. The mobile charging robot is currently in the study phase at Group Components. No date has yet been announced for its market launch.

Yes it can: the electronic assistant uses its robotic arm to connect a mobile energy storage unit to an electric car automatically. The unit remains attached to the vehicle and charges it up to 50 kW using DC fast charging. After charging, the robot comes and collects the energy storage unit again. Communication between the charging robot and the vehicle is via Car-to-X or using an app.

Flexible Charging Stations: **Rollout and Outside Collaboration**



Common cause: Thomas Schmall and Karsten Wildberger in front of the charging station.

Since the end of January, 12 flexible fast charging stations from Group Components have been placed around Wolfsburg. As part of a gift to the city to celebrate its birthday, all Wolfsburgers can charge their cars for free for 80 weeks. The next milestone will be a charging station collaboration with energy provider E.ON. Thomas Schmall, together with E.ON

CTO Karsten Wildberger, made the announcement last week at the E-world trade fair in Essen. The business model was developed jointly by E.ON and Volkswagen Group Components. The product is an innovation by the automotive company, the integration of which into an operator system was co-designed on the basis of E.ON's market expertise in the field of charging infrastructure.

"Zweitwerk" - Works of Art Made of Production Scraps

Sustainable concept successfully submitted to Innovation Fund 2 by two colleagues

fancy living room lamp made out of Aold brake lines? Robin Rössler from the Components plant in Braunschweig and Lilly Körfer from the Volkswagen plant in Wolfsburg show us with their project, called Zweitwerk, that production waste can be recycled in a stylish and sustainable way. They design furnishings such as wardrobes, side tables, and lamps from screws, seat covers, and other car parts. They successfully applied for funding from Innovation Fund

2 with this business idea: at the end of January, the two were able to persuade the General Works Council New Business Areas Environment and Energy committee and Group Board Member Stefan Sommer and will be financially supported by Innovation Fund 2 for the next six months. Robin Rössler says, "Our concept fits Volkswagen's New Brand Design perfectly - the focus is more and more on humans and their living space. Our products also convey

the issues of sustainability and creativity." Robin Rössler and Lilly Körfer will be developing further products until the end of the year - some of these will be manufactured in local social welfare institutions. Sales of the Zweitwerk artworks are scheduled to start at the beginning of 2021 - when the two artists will offer their products in the Autostadt, the Wolfsburg Art Museum, DRIVE in Berlin, and via their online shop.



Looking at the material: Robin Rössler and Lilly Körfer with a brake disc at the Braunschweig plant.

From the plant to your wall: A rear-axle brake disc gets a second chance as a clock.



Wolfgang Fueter, **Head of Human Resources** Volkswagen Group Components

The Head of HR at Components on the restructuring of the Human Resources department to become One HR

"We can handle processes more efficiently and leverage synergies"

department reorganized? There are various reasons for the reorganization of Human Resources to One HR: first of all, we wanted to standardize our processes to a greater extent so that we can make better use of digitalization. We also wanted to streamline our handling of employee queries. We have achieved this by launching the HR Advisory Center, which employees can

Why was the Human Resources

reach through various channels – by email, telephone, or in person at the Service Point. The different ways of contacting us make information more accessible and we are able to speed up our processing of cases. Our business partners, a recently introduced concept, also play a significant role as these colleagues work closely with the departments. This allows us to ensure that departments receive even better support and advice on strategic issues with all HR instruments, especially during the transformation.

How did the first few weeks

We have been working really hard to prepare for the switch to One HR and I can say that the first few weeks at the Components plants have been positive. Our HR business partners are currently in the process of introducing themselves in their respective departments and explaining the new HR model to each department. The initial feedback we've received through conversations has also been positive. The launch of the ticketing system and the service

hotline have also gone smoothly. As with any major change, not everything works out right away, but our colleagues are doing their best and are continuing to familiarize themselves with the new tasks and processes. I'd like to take this opportunity to praise the entire HR team for their dedication during this time of change and how well they've handled everything. I would also like to thank all our Components colleagues for joining us on this journey.

How does the new structure support us in Components with the challenges we face?

The new structure helps us to focus even more closely on the needs of our employees and departments. With our new roles, we will be able to become even more specifically involved in the strategic issues facing the departments, which will enable us to press on with the upcoming challenges in Components, such as employee transformation. The new structure will make it easier for us to recruit specialists - including outside ones -

in areas like software and battery cells. That's because this task now lies centrally with the Recruiting & Talent Marketing team. One important advantage of the new structure is that processes can be handled more efficiently since we can leverage synergies. Challenging times lie ahead. I have no doubt that One HR will make a positive contribution. I'm very much looking forward to working with the Components HR team and my other colleagues to shape this journey together.



You can find more locationspecific info about One HR in this issue's location pages.



The Battery Cell Division at a Glance

Its activities range from increasing battery capacity to optimizing sustainable production processes

olkswagen Group Components is responsible for batteries from end to end for the entire Group, dealing with everything from cell development to battery recycling. To meet this purpose, battery cell development

and production has been combined to create the new Battery Cell division, led by Frank Blome, since January 1, 2020. Here we introduce which activities and subject areas are covered by the new business division, or CZ for short.



CZ: BATTERY CELL DIVISION

Frank Blome is head of Components' newest business division. Previously, the focus of the Center of Excellence (CoE) for Battery Cells was on supplier management and developing expertise in battery cells. In 2020, the colleagues will focus on the oduction of battery cells.

CZ-C: COOPERATIONS

Frank Blome will initially take over the management of the department along ide his main role. The goal: managing joint ventures and investments, such as Northvolt Zwei and QuantumScape, identifying new demand and further developing the value creation strategy for batteries.

CZ-M: DEVELOPMENT OF SUPPLIER CELLS

In addition, Frank Blome will continue to oversee the development of supplier cells, and is responsible for the product definition, serial development of supplier cells and product management.

CZ-Z: BUSINESS AREA MANAGEMENT

Roland Hübler will be responsible for strategy, resource management, committee work, and administrative duties. The goal: the complete integration of the CoE in Group Components, as well as defining the accompanying strategy and processes, and managing committee activities.

CZ-E: IN-HOUSE CELL DEVELOPMENT

Matthias Ullrich and his team will help build expertise in the development of in-house battery cells. The department is also responsible for the product development process, from the design and construction of battery cells, to testing and analytics, as

CZ-P: PLANNING & PROCESS DEVELOPMENT

Thomas Hoffmann will remain Head of Planning & Process Development. In addition to the development of expertise in production process, which was started in 2018, the department is also responsible for the planning and process development of battery cell factories worldwide. The goal is to build "best in class" gigawatt factories, from conception to implementation, in collaboration with partners.

CZ-Q: BATTERY CELL QUALITY

Axel Zimmermann will coordinate quality management for supplier battery cells in the Group, as well as for battery cell modules for VW Passenger Cars. The goal is the approval of high-quality suppliers, the development and qualification of suppliers to automotive standards, and the suppliers to automotive standards, and the field observation and damage analysis of cell modules and batteries. Joint Venture Activities will also provide support, with the aim of building up a quality management organization. ment organization

One Year into Components' ONE **MISSION 2025 Strategic Program**

Objectives, fields of action, and initiatives will continue to guide Group Components in 2020

he first year as an independent business unit under the umbrella of the Volkswagen Group is behind us. That means our strategy program ONE MISSION 2025 is celebrating its

first birthday too. ONE MISSION 2025



Strategy colleagues (left to right) during a meeting with Ludwig Fazel (right): Anastasios Kalaitzis, Klaas-Simon Jenke, and Nicole Bartodziej.

focuses on four different goals: customer and product, team and leadership, responsibility and integrity, and excellence and process. Behind these goals are three fields of action respectively and 34 concrete projects. The

objective: to remain competitive and ensure the company's future viability. Together with project managers and GCI patrons (Group Components Initiatives), colleagues from Components Strategy continued to refine and expand the initiatives in

2019, and introduced a reporting system. Ludwig Fazel, Head of Strategy at Group Components remarked: "I would like to thank everyone involved for their enthusiastic support: we have created and developed a powerful program that will not only help us focus on the contained topics, but also help us be perceived as an independent brand within the Group!"

In 2020, ONE MISSION 2025 will remain the basis for Components' future viability and competitiveness. To this end, the direction of the program and the GCIs will be reviewed and further streamlined during the strategy meeting in March. In addition, agile new work approaches will be tested with the relocation of several colleagues to Hall 6 (see page 16) – with the support of coaches from the Agile Center of Excellence.

M@web Site Tour Completed

The potential of Components and strengthening of collaboration between sites: both these topics were the focus of the M@web (Measures@web) site tour last year. To this end, Helene Erlich and Julia Sophie Bese from Components Strategy visited Braunschweig, Kassel, Salzgitter, Hannover, and the Wolfsburg Chassis plant, as well as Motor Polska, Volkswagen Poznań, and Volkswagen Sachsen, at the end of the year. On site, the two site managers, M@web officers and colleagues from Controlling and the production system presented the central elements and new features of Reporting for 2020. The next site tour is already in planning.





SPEED+ Award: Best Teams to Be Awarded in March

Award 2020 proceeds to the next round with two new categories

The points have been counted and the rankings are settled the biggest question is: who will win gold at the SPEED+ award 2019? Did the teams from Audi, Seat, and Skoda, who took part in the awards for the first time, succeed? Or will the formidable Polish plants prevail again? During plant tours, international participants from China and South/Central America demonstrated a keen competitive spirit too. And how did the German plants fare? All that's left to do is cross their fingers and wait for March 24, when Thomas Schmall will announce the winners at this year's SPEED+ award ceremony at the Wolfsburg phaeno.

The next round of the SPEED+ awards is already underway: the first plant tours began at the end of January in Hanover, Kassel, SITECH Wolfsburg, Puebla and Silao. In 2020, six more plants in China will join the competition. The number of participating plants will then be 29. There will also be two exciting new categories: environment and diversity.

The Process Excellency and Tool Costs categories

PROCESS EXCELLENCY What is being measured?

The relative improvement of three key process figures in lead time, performance, and quality, as well as the relative improvement in the method scan.

Who won the last two years?

• Hanover casting (2017) and Motor Polska (2018)

FACTORS FOR SUCCESS

• Thorough shopfloor systematics, process-orientated team building, targeted use of problemsolving technology and crossdepartmental collaboration

More information

More information is available on the location pages.

TOOL COSTS

The relative saving in tool costs is evaluated compared to the actual costs of the plant during the award year, as well as its networking activities. In previous years, colleagues from Salzgitter (2017) and Silao (2018) won out over the competition.

Names & News



Ariane Kilian, previously Head of Communication and Conformity at Volkswagen Group Components, left Components for a sabbatical on February 1, 2020.



Altan Temiz, previously Site Manager for FAW Volkswagen at the Chengdu branch, took over projects

in the CoE for Technology (CCB-T) at the Braunschweig plant on January 1, 2020.



Holger Zeidler, previously Head of Product Center 4, took over the management of Product Center 3 (CMS-O3) at the Salzgitter plant on February 1, 2020.



Volker Selbach, previously Head of Business Area Management in the Engine & Gearbox division, took over the management of

Engine Assembly Planning (CMS-P1) in Salzgitter on February 1, 2020.



Torsten Drabent, previously Head of New Projects at MAN Truck & Bus Munich, took over the management of New Power Units for the

Group/brand (CB-P) in Wolfsburg on January 1, 2020.



Martin Strassburg, previously Head of Quality Assurance at the Kassel site, took over the management of Quality Assurance for the

Group Components, Seats and Chassis (CQ-G) in Wolfsburg on January 1,



ly Head of Product Center 3 Cubic Components in Salzgitter, took over Business Area Management in the Engine and Foundry division in Salzgitter on February 1, 2020.

Ralph Kimmich, previously

Thorsten Meeske, previous-



Head of Axle Assembly at MAN Truck & Bus, took over the management of Individual Parts in Mechanical Production (CCW-M) on January 1, 2020.



Lars Kunz, previously Head of Individual Parts in Mechanical Production (CCW-M), took over the management of Technology (CCW-T) on January 1, 2020.



Frank Niessen, previously Head of QA Product Technology Engines at Audi Hungaria Zrt., took over the management of QA Purchased Parts/Test Laboratories (CMS-Q1) on December 1, 2019.



Dates

Feb 20-21, 2020 Polkowice: QSL Regional Conference

Feb 25-26, 2020 Wolfsburg: Workshop on the "Year of the Shopfloor Supervisor"

Mar 19, 2020 Wolfsburg: Works Council Meeting

Mar 24, 2020 Wolfsburg: SPEED+ Award Ceremony



A Look at the Volkswagen **Passenger Cars Brand**

Dealer Conference and a Lot of Good Ideas

Wolfsburg: dealer conference in the Autostadt. In this interview, Sandra Waidelich, Head of Experience Marketing, explains the major event.



Volkswagen saves 30 million euros thanks to its employees' good ideas. One year of modernized idea management at the German locations has been a success: employees have submitted 25,720 suggested improvements.



Components "To Go"

Group Components is turning 1! To

mark this occasion, we have compiled the most important information for you in one practical leaflet – including information on ONE MISSION 2025, the Road to 6% performance program and our future products, which are already undergoing installation in the ID.3.



The environmental KPI for Components: C-UEP

After the fourth quarter of 2019, one thing is clear: Components has not only achieved its annual environmental goal - it's exceeded it by 30 percent. At year end, the C-UEP is at 130 percent. That's an impressive and sustainable figure! FYI: The C-UEP Components – Umweltentlastung Produktion, which translates to "environmental impact reduction in production") indicates quarterly how much of our annual environmental target (energy reduction, CO2 emissions, water, waste, and VOC) has already been achieved through efficiency projects and measures in Components.

On a Personal Note

Dear Ariane,

You worked with us to set up communication for Group Components - with a media portfolio, events, and change projects. We worked lard, had a LOT of fun, and learned so much

Thank you for that and all the best for the future!





Projects from the "Old" Transform Minds Continue to Pick Up Speed

Some ideas from a pitch with Thomas Schmall were included in ONE MISSION

he second round of the Transform Minds program started a few months ago with 34 new colleagues from the world of Components. But what ideas and projects to transform Components have the 12 Transform Minds participants from the first round developed? Background: the Transform Minds program, which launched in the fall of 2018, offered interested colleagues the opportunity to contribute their own ideas to the Components strategy. Many exciting events were held for the 12 Transform Minds participants in the months that followed - including the big ideas pitch with Thomas Schmall in March 2019. What happened with their ideas? We'd like to update you with the current status of two pitch projects here:

"Setting up direct sales of genuine parts": an initiative with added value for the Road to 6% The "Setting up direct sales of original parts" project with Transform Minds alumni Sebastian Sauer (Head of Fuel Cell Development in Salzgitter), Klaas-Simon Jenke (Strategy



Our colleagues in Transform Minds Round II, led by project manager and Transform Minds alumnus Sebastian Sauer (right), work out options for direct sales of original parts.

Group Components, formerly UA in Braunschweig), and Karsten Küper (UA in Braunschweig) was included as an initiative in the Components strategy shortly after the Executive Board pitch. Now, two Transform Minds participants from the current group, Thorsten Gläsner (TechLab KC Technik in Braunschweig) and Christian

Wollenhaupt (Bid Management in Kassel), have now joined the project team. "Setting up direct sales offers us the opportunity to generate revenue for Components," Sebastian Sauer explains. "The next six months will show how Compo-

nents can make a success of it."

The Sustainable Seat project: teamwork gets a financial incentive

Transform Minds participants Katrin Tessmer-Rost (SITECH Wolfsburg), Tomasz Niewadzi (SITECH Września), and Daniel Chodorowski (SITECH Polkowice) set out to develop a sustainable seat made of recycled materials and a low-CO₂ manufacturing process. Their board pitch was convincing and they have developed their Sustainable Seat project into an Innovation Fund I application. Following their successful presentation to the Innovation Committee, they are now receiving financial support from the fund. "Our success so far is right down to teamwork," Daniel Chodorowski stresses. "The

> learning journey is what inspired us, and we went on to push the issue internationally. We are very pleased that the project will now continue and will be led by Katrin."

Environmentally friendly: the sustainable seat developed by Transform Minds.

Do You Speak English?

Opportunities to learn in English at Components

reamwork across borders: many of our colleagues work daily with international locations and work through the medium of English. In order to expand or refresh their language skills, managers and employees receive targeted support as needed: the "English language support on the job" qualification scheme will launch as a pilot project at the German Components locations and will run until mid-2020. The participating departments have already been informed and will soon begin the qualification process. GroupLearn also offers a wide range of learning options from the Volkswagen Group Academy - you'll also find contacts who can advise you on qualification formats.

FYI: you can use your performance review to talk to your supervisor about possible language qualifica-



SITECH Sp. z o.o. and Motor Polska Are Real "Pearls of the Economy"

The "Pearls of the Polish Economy" were announced in December at the Royal Castle in Warsaw. The business magazine Polish Market awarded the prize to companies that were able to prove their mettle in various categories. A survey was sent out to 2,621 companies in Poland - of which only 91 met the criteria. In the "Big Pearl" category, which includes companies with a turnover of more than one billion złotys (234 million euros), SITECH Sp. z o.o. won first place and Motor Polska third place. Congratulations to our Polish colleagues!



Managing directors Adam Holewa (r.) of SITECH Sp. z o.o. and Dirk Strümpfler of Volkswagen Motor Polska accepted the

Hall 6 - The New Components HQ

Some 200 colleagues moved into a new agile workspace at the East Gate at the end of January

The time has finally come: after many months of planning and construction work, around 200 of our colleagues from the central divisions and business units of Group Components have moved into Hall 6. The aim is to bring the business areas and central departments, which are currently widely dispersed around the Wolfsburg campus, closer together. In future, Hall 6 will be home to: Thomas Schmall and his office team (C), the central business area organizations (CM, CG, CC, and CX), the communication (CK) and strategy (CU) departments, the management of the development components (CE) and our colleagues from CE-X (high-voltage systems 2nd life and recycling), the management of production planning/ control (CO, our colleagues from



program planning and supply chain (CO-2)), and the chassis development team (CCW-E). The flexible and open office building promotes teamwork between business units and is open to colleagues from all Components



meeting rooms and telephone cubicles.

locations. In addition to the office space for the departments involved, explicitly agile workspaces are planned for vis-

itors. The hall also offers many meet-

ing rooms and telephone cubicles. The piazza – the open hall space downstairs - will be used to hold regular town hall type meetings in order to engage in shared dialog.