

Creating tomorrow has always been a corporate principle for Audi. Our maxim is to keep moving forward, to think ahead and to act consistently. To seize every challenge and to live "Vorsprung durch Technik" by using tailored solutions. This means progress and the responsibility to drive these actions forward sustainably. Always with the goal of delighting our customers.

We create tomorrow

is more than just
a statement for us.
It is a mindset.
And what drives us
forward on our
journey into the
automotive future.

create progress

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we create innovation

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You should take note of this symbol. Wherever you see it, it means that there are **movies,** $\textbf{picture galleries} \ \text{or additional information available.} \ \text{Simply download the recognition}$ app layar, hold your smartphone or tablet over the symbol and dive into the multimedia world with augmented reality.

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create tomorrow

global

... signifies our ambition to shape internationalization by adopting a global mindset, flexible structures and efficient processes.

premium

... signifies our ambition to redefine the benchmark in the premium segment with our products, technologies and pioneering design.

digital

... signifies our ambition to digitize our business models and promote seamless connectivity between cars and our customers, the infrastructure and other vehicles.

ultra

... signifies our ambition to give "Vorsprung durch Technik" a new dimension in the shape of sustainability and efficiency.

>>> Vorsprung. Konsequent.



Dear Readers, Dear Sharcholders,

There are certain moments in life that stay with you forever. I'm sure you know what I mean. For me, one such moment came at midday on October 19, 2014. A sunny day in the fall, and the final date in the DTM calendar at Hockenheim. Events kicked off with a real showstopper: a car named "Bobby" by its proud developers. Without anyone on board, the Audi RS7 piloted driving concept drove around the circuit with precision at speeds of up to 240 kilometers per hour. Not only did we make history in front of an international audience, we also demonstrated the real substance behind the Four Rings' claim of "Vorsprung durch Technik." Piloted driving is becoming the automotive sector's breakthrough technology.

In the future, premium products and services will be judged by the extent to which they make life easier for the customer. Time has become a precious commodity for modern society, and data is of pivotal importance in the digital age. The winning team in the Audi Urban Future Award 2014 set out to reclaim time and restore quality of life for the inhabitants of Mexico City. Drivers there spend on average one month a year sitting in traffic jams. This problem prompted the winners of the award to launch a large-scale data-gathering project in which commuters submit their current mobility data by app. The result is an operating system for the city of the future, capable of controlling traffic in real time so as to minimize congestion. This saves fuel and protects the environment. That is why we are working in partnership with major cities worldwide and encouraging them to develop intelligent interfaces with intelligent automobiles.

If you want to create tomorrow, there's no time to waste.

I trust that you will find this Annual Report an interesting read.

Kind regards,

Prof. Rupert Stadler

Chairman of the Board of Management of AUDI AG



Prof. Dr. Dr. h. c. mult. Martin Winterkorn Chairman of the Supervisory Board

Ladies and Gustama, Dear Share bolders

The past fiscal year brought expansion of the global economy despite continuing structural challenges in many countries, and it was also another year of growth for the global car market. This development was mainly driven by the car markets in China and the United States. There were also positive signs from Western Europe, where the market for automobiles stabilized further.

2014 also saw Audi grow in multiple respects. As part of its long-term 2020 growth strategy, the brand again brought an array of fascinating models onto the market which delighted the

public and its customers. One specific highlight was the third-generation version of the Audi TT design icon. Audi broadened its offering of alternative drive systems with two new additions to the A3 premium compact family, the A3 Sportback e-tron and g-tron. In the full-size category, the A6 and A7 were also extensively revised. The Audi Group continued to invest substantially in expanding its international production network - for example, by setting up new plants in Mexico and Brazil, where construction work continued according to schedule in the past fiscal year.

The key figures also give out a very clear message: In 2014, the Company succeeded in increasing deliveries of its core brand Audi by 10.5 percent to 1,741,129 cars. Furthermore, we achieved new sales records in over 50 markets. Despite considerable upfront expenditures for new models and technologies as well as for the expansion of the international production structures, the operating return on sales reached 9.6 percent and was therefore within the strategic target corridor of eight to ten percent.

All these achievements by the Audi Group are principally down to the great commitment of all the people who work for it. The Supervisory Board expresses its sincere thanks to all employees and business partners for their outstanding efforts over the past fiscal year.

The Board of Management gave regular, up-to-date, comprehensive accounts of its actions to the Supervisory Board. Decisions of fundamental importance were discussed in detail by the Board of Management and the Supervisory Board. The Supervisory Board considered the economic framework and the Company's business progress and policy as well as its risk management and risk situation at ordinary meetings of the Supervisory Board convened each quarter and on the basis of regular oral and written reports from the Board of Management, and consulted the Board of Management closely on these matters. The Chairman of the Supervisory Board also held consultations with the Chairman of the Board of Management in between the regular meetings, on such topics as the Company's strategy, business policy, business performance and risk management.

In addition, at its four ordinary meetings in 2014, the Supervisory Board considered at length the opportunities and risks for Audi in key markets such as the United States, China, Russia, India and Europe. The Supervisory Board also held consultations with the Board of Management on the Company's strategic direction over the next five to ten years. Other subject areas discussed

were the expansion of the Audi production network worldwide along with the recruitment of personnel that this necessitates, the qualification of the workforce and challenges arising in the area of procurement.

The members of the Supervisory Board had the opportunity to view, actively explore and gather detailed information on future models and technologies at a vehicle presentation.

In approving the plans for human resources, financial and investment measures, the Supervisory Board provided further confirmation of the Board of Management's strategic decisions and thus restated its support on the way to becoming the world's leading premium brand.

At its fourth ordinary meeting during the past fiscal year, the Supervisory Board together with the Board of Management routinely determined the content of the Declaration of Compliance in accordance with Section 161 of the German Stock Corporation Act (AktG).

All Supervisory Board members were present at more than half of the meetings. The average attendance rate in the past fiscal year was just under 99 percent. The members of the Presiding Committee held full consultations before each meeting. The Negotiating Committee did not need to be convened in 2014.

The Audit Committee met once per guarter in the past fiscal year. At its meetings, this committee considered the Annual and Consolidated Financial Statements for 2013 together with other topics such as risk management as well as compliance and auditing work. In addition, the Audit Committee scrutinized the 2014 Interim Financial Report prior to its publication and discussed its contents with the Board of Management and representatives of the auditing firm. The Audit Committee also advised on the independence of the auditor, the findings of additional audits commissioned, and the situation of the Company at the end of 2014.

"The entire Audi team delivered a strong performance again in 2014 and continues to be fully focused on achieving the goals of Strategy 2020."

Prof. Dr. Dr. h. c. mult. Martin Winterkorn

Upon the proposal of the Supervisory Board, the Annual General Meeting of AUDI AG appointed Pricewaterhouse-Coopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft as auditor of the accounts for the 2014 fiscal year. The Supervisory Board awarded the audit assignment to the auditing firm after its election. The auditor of the accounts confirmed the Annual Financial Statements of AUDI AG, the Consolidated Financial Statements as well as the Combined Management Report of the Audi Group and AUDI AG for the 2014 fiscal year, and in each case issued its unqualified certification.

The members of the Audit Committee and Supervisory Board received the documentation for the Annual and Consolidated Financial Statements, together with the corresponding audit reports by the auditor, in advance of their meeting on February 26, 2015. The auditing firm's representatives explained the key findings of their audit in detail at the meetings of the Audit Committee and Supervisory Board, and then answered queries from members of both bodies. According to information supplied by the auditing firm, there were no circumstances that might give cause for concern about the auditor's partiality.

Following examination of the audit documents received and in-depth discussions with the auditing firm's representatives, and based on its own conclusions, the Audit Committee recommended to the Supervisory Board at the meeting on February 26, 2015 that the Annual and Consolidated Financial Statements each be signed off. After appropriate discussions, the Supervisory Board accepted this recommen-

dation and signed off the Annual and Consolidated Financial Statements prepared by the Board of Management. The Annual Financial Statements are thus established.

There was the following change within the Company's Board of Management in the past fiscal year: Dr. Hubert Waltl was appointed Member of the Board of Management of AUDI AG with responsibility for the Production division with effect from April 1, 2014. His predecessor, Dr. Frank Dreves, resigned from office at his own request at the close of March 31, 2014. The Supervisory Board would particularly like to thank him for 32 successful years in a variety of roles at Audi and other Group companies, both in Germany and internationally.

The Board of Management has suitably taken account of the economic environment and future challenges when making its plans. It, along with the entire Audi team, will remain resolutely on its path of qualitative growth and will work hard at building on the strong competitive positions already achieved by the Audi, Lamborghini and Ducati brands. The Supervisory Board will continue to assist the Board of Management actively and constructively with implementing this growth strategy in the future.

Ingolstadt, February 26, 2015

Uh. Which kom

Prof. Dr. Dr. h. c. mult. Martin WinterkornChairman of the Supervisory Board

The Board of Management.

The Board of Management of AUDI AG and three models that impressively embody the Company's status as a technological pioneer and evidence its cutting-edge mobility solutions: the 1299 Panigale S, the Ducati brand's most exhilarating superbike; the Lamborghini Huracán LP 610-4 supercar, with an aluminum and carbon-fiber chassis that is around 10 percent lighter than its predecessor; and the Audi RS 7 piloted driving concept, currently the sportiest piloted driving car in the world. "Vorsprung durch Technik" that sets the pulse racing.



Prof. h. c. Thomas Sigi
>>> Human Resources

Axel Strotbek
>>> Finance and Organization

Prof. Dr.-Ing. Ulrich Hackenberg
>>> Technical Development













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... Progress motivates human beings. For us too, it is an incentive to develop new solutions to the complex challenges of today. We tackle issues holistically and are always searching for the best combination of our ideas ...











We are standing in Berlin's Humboldt-Box. Named after a man who embodied a quality that we need more than ever today: connected thinking and acting. So where are the von Humboldts of our age?

WEINBERG: There are definitely too few people like him. Alexander von Humboldt was a pioneer of the interdisciplinary approach. He researched everything from astronomy and zoology to bananas and volcanoes. He wanted to understand things without aspiring to be an expert in everything. STADLER: Many people find it difficult to think beyond the confines of their own discipline. Most of them have been trained to be specialists. But in the future it will be crucial to adopt broader horizons, to network. The tasks we face are becoming ever more complex. We are meanwhile expected to deliver results even more quickly. You'll only succeed by being a team player. WEINBERG: We've previously had a penchant for linear thinking, in terms of disciplines and divisions. Just the way those organizational charts told us we should. Over many decades, that was our safe haven. Everyone had their own area of activity, and we all got along well. But that's no longer enough to adequately address the issues of the future. **STADLER:** That's also why we are increasingly shifting to topic-based project teams here at Audi. You've got technical developers, design engineers, designers and sales experts all sitting around the same table, pooling their efforts to find the optimum solution.

Though at the moment it looks as if others are quicker off the mark. The major innovations are being created in Silicon Valley, not Germany. Will we all soon be driving a Tesla? Or a Google Car?

STADLER: Definitely not! A more likely outcome is that instead of us driving around in an Audi, an Audi will be driving us around (*laughs*). But seriously, piloted driving is a good example of how Silicon Valley is not the only source of innovation. Our Audi RS7 piloted driving concept went around the Hockenheimring at up to 240 kilometers per hour, without a driver. And just a few weeks ago, journalists accompanied us on an

almost 900-kilometer piloted drive from Silicon Valley to Las Vegas. Yesterday's science fiction has become today's technological reality. *WEINBERG:* For me, Google and Tesla are above all about displaying courage. Courage to venture into areas in which they are definitely not experts. I see the Google Car as nothing more than a prototype. No German automotive manufacturer would ever have dared to show such an ugly potato in public. *STADLER:* Well, you said that (*laughs*).

So Germans prefer doing nothing to making a mistake?

WEINBERG: That's exactly what we teach students and professionals to get out of their system in design thinking. The principle is: Don't be afraid to make mistakes, but make them early on. Incidentally, Silicon Valley shares that view. We're very quick to build prototypes and we then ask customers what they think of them. If they don't like them, we move onto the next model. That way, you won't see a model that nobody wants going into production. STADLER: Here in Germany, we like to steer clear of risk because that's how we are taught. That needs to change urgently. The fear of mistakes is in itself a mistake.

What are the biggest challenges of the next decade?

STADLER: At Audi we have identified the four focal areas of global, digital, ultra and premium. We are growing worldwide and delighting customers around the globe. In keeping with the motto "The car gets bigger than the car," we are working on connecting the car with the overall transport infrastructure and with other vehicles. We are also cutting CO₂ emissions. All that, along with a new design language and an even broader range of full-size automobiles, will define tomorrow's idea of premium.

What is this new premium?

STADLER: Essentially the same as it is now. Progressive design, a comfortable and modern interior, performance, sports appeal, sustainability. Plus two new dimensions. First, the car will become a new living space that serves as your personal sanctuary, but is also a hub of digital activity. The second is time. We are one of the few industries that can create time for their customers. Time that people can use and enjoy more.





Here at Audi, we call it the 25th hour in the day. *WEINBERG:* Time is a precious commodity. Digitization has created a paradoxical situation here. Things that used to take days now take seconds. But we also feel we have even less time because everything is getting more compressed. So time will become increasingly important, especially for premium customers. And it's not just a simple matter of saving time, it's about the quality of your time experience. People want to regain control of their time.

Where is this 25th hour going to come from? Everyone knows there are only 24 hours in a day.

STADLER: Let's take the example of piloted driving again. In Los Angeles, commuters trying to get between Redondo Beach and Hollywood spend about an hour and a half in traffic jams every morning and evening. If you are in a piloted car, you could use that time to dictate text messages, catch up with the family on the phone or skype. WEINBERG: I have a daily commute of one hour by car, including traffic jams. I tolerate it because the personal sanctuary that you mentioned earlier is hugely important to me. That's why I won't take the train instead. If I could use the time I spend in the car more effectively for working, that would really enhance my quality of life.

STADLER: And that's precisely why we are working on an array of technologies that create time. The traffic light info online service can help reduce urban congestion in the future. This system communicates with the traffic control center to



calculate your ideal speed for reaching every traffic signal on green. As well as saving time, piloted parking uses parking space in cities more effectively because parking garages could hold twice as many cars as they do now in the future.

With time and space at a premium in cities such as Berlin, many young people choose to live without a car. Shouldn't Audi be doing much more to promote car sharing?

STADLER: We differentiate between cultural contexts when analyzing trends. What's right for Berlin is by no means necessarily right for Seoul. We are building a bridge between our customers' premium expectations and the community spirit. Through the pilot project Audi unite, for example, four architects who are all friends could share an Audi RS 6 Avant.

China is already trying to ban cars from cities ...

STADLER: ... to the detriment of individual mobility. Bans are not a constructive solution. Through the Audi Urban Future Initiative, we have been working with mobility experts for many years to analyze the situation in major cities around the world. Obviously congestion and a shortage of parking spaces impinge on the freedom that the car originally embodied. We are teaming up with municipal authorities to give people back that freedom. We will already have achieved a great deal once cars can communicate with each other, with traffic signals and with parking garages.



DESIGN THINKING

Design thinking is a method of developing ideas and innovation. Established at Stanford University by David Kelley, Bernie Roth, Terry Winograd and Larry Leifer, it encourages inventive thinking. Interdisciplinary teams create new products, technologies and services in a six-stage process. A well-known example of an innovation that is the result of design thinking is the "Embrace Warmer." This sleeping bag with heat store serves as a substitute incubator in regions with no electricity supply and regulates the body temperature of the newborn baby. Students developed the "Embrace Warmer" in 2007 at the d.school in Stanford.

future? Online? WEINBERG: In any event they will expect products and

How will the urban premium customer buy their car in the

weinberg: In any event they will expect products and solutions that are tailored exactly to their requirements. The diversification of lifestyles is fueling individual expectations.

STADLER: There will be two stages to buying a car, the virtual and the real. The test drive won't go away. Nor will the faceto-face sales consultation. Rather, we will create a new way of interfacing with customers. The Audi City in Berlin, for example, is a far cry from a classic showroom. It is a place where our brand and products can be experienced virtually. So we transfer the technologies of the Audi City to our dealers, too. The Audi VR experience is our latest coup. This involves customers putting on virtual reality glasses at the dealer which enable them to sit virtually in the driver's seat of their individually configured Audi.

Design thinking places the needs of the customer at the center. The first three process stages involve understanding the problem, observing the users and defining typical customers. Ideas are collected through brainstorming, and prototypes built and tested. If customers are not satisfied with the product or service, the process or its individual stages are repeated. Operating in variable workspaces with mobile desks and whiteboards, the teams visualize ideas with the help of sticky notes. Having enough space to build prototypes is also important.

The message of design thinking is this: Especially in the connected age, an innovation involves more than simply an individual having a bright idea. It all comes down to teamwork, where ideas quickly undergo a reality check.

What direction will design take in the future?

STADLER: In a world that is changing rapidly and incessantly, our new design sets a counterpoint. It is timeless but also progressive. It gives visible expression to "Vorsprung durch Technik," lightweight construction and quattro in each of our models. The new Audi A8 will be the first example of this. We will make a unique statement in the full-size category with its design approach.



Future technologies are developing at an incredible pace. How important is it to also work with external partners?

STADLER: It is essential. Audi Electronics Venture and the Group's Electronics Research Laboratory, for example, identify trends in entertainment electronics and join forces with startups. There are also innovations on the periphery of our area of business activity. For instance, we work together with the Swiss startup Climeworks, which has developed a method of capturing CO₂ from the air. It is being used for the first time in a pilot plant in Dresden. Together with our project partners Climeworks and sunfire, we produce synthetic diesel fuel there from water, green power and CO₂. We call it e-diesel. WEINBERG: Collaboration with universities will gain in importance, too. There is more to this than technology transfer. Universities need to train young people in connected working. The School of Design Thinking brings together students and professionals from various disciplines. We find that connected thinking is something they first need to learn to do.

What motivates employees to practice connected working?

WEINBERG: New incentives and an entirely different approach to assessing performance are needed. Until now, schools, universities and businesses have mainly assessed individual performance within a specific discipline. So people have tended to treat their knowledge as a private commodity. We should instead be rewarding interdisciplinary team performance. And financial incentives alone are not sufficient ... STADLER: ... what matters is creative scope, and once again the new premium asset of time, for example in the form of flexible working hours. Generations Y and Z are less focused on hierarchies and organizations. They are no longer interested in securing the corner office with the good view. The brain power that every employee contributes, and not someone's position in the hierarchy, must determine who benefits most.



Does the boss still call the shots?

WEINBERG: Here we are standing at hexagonal tables, of the type we use at the School of Design Thinking. There is no head of the table. Everyone is effectively a boss and senses the freedom as well as the obligation to be a part of the solution.

STADLER: We have just adopted new leadership principles that give primacy to appreciation and trust. It revolves around setting an example and creating freedom of action. Inspiring leadership puts employees in control where teamwork and open communication are practiced. Between 2015 and 2019 we will be investing 24 billion euros in new products, technologies and services – more than ever before. There could hardly be a clearer sign of our commitment to innovating.

What does progressiveness mean in our new world?

WEINBERG: The key to success involves tearing down mental barriers and maximizing your knowledge through collaboration, as well as delivering a concept that is emotionally and rationally satisfying and also demonstrates premium quality.

STADLER: We use the word "Vorsprung" to encapsulate everything we strive for. Innovation is the principle that pervades every area of our business – from Technical Development, through Production, to Sales. We aim always to be one step ahead, to anticipate today what tomorrow's customers will want. That is how we are creating tomorrow.

ULRICH WEINBERG

Born 1958; Head of the HPI School of Design Thinking in Potsdam, the sister institute of the d.school in Stanford. This is where he collaborates with students and professionals to come up with innovations in response to specific problems encountered by companies. Ulrich Weinberg has been Professor of Computer Animation at the University of Film and Television Potsdam/Babelsberg since 1994; he has taught as a visiting professor at the Communication University of China, Beijing, since 2004. In 2007, he joined forces with SAP founder Hasso Plattner to set up the European d.school and has since been exporting design thinking to China and Malaysia. Weinberg was a member of the jury for the Audi Urban Future Award 2014. He lives with his wife and son in Berlin.





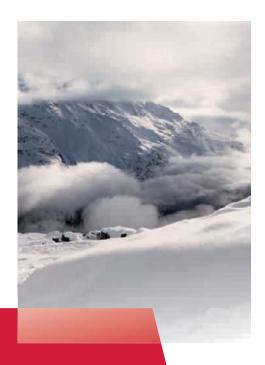
The snow kings.

Their natural element is the wild snowy terrain off the marked ski slopes. They are exhilarated by the ultimate freedom they get from really cutting loose on one of nature's most beautiful playgrounds. Freeskiers are adventurers and acrobats who master the impossible with polished technique – and have a lot of fun doing it. Welcome to après-ski with Nadine Wallner and Bene Mayr!

TEXT: Werner Jessner







At an elevation of 2,486 meters: the quattro bar in St. Moritz. Outdoors, in view of the room-high glass facade, the glittering white of the mountains gradually fades into the evening. Inside, the fireplace crackles, creating a stylish ambiance of ski lodge hospitality. Right in the middle are two of the coolest stars of the freeskiing scene: Bene Mayr, who loves an adrenaline kick, and Nadine Wallner, whose temperament and abilities are no less developed.







fantasy and my ideas, and above all about expressing myself."





THE FREERIDE WORLD TOUR

The FREERIDE WORLD TOUR is the most coveted challenge for freeriders from around the world. Spectacular all of a freerider's abilities to the test. What counts are mental skill and techvidual strengths. Audi has been an official partner of this extraordinary challenge since the 2013/2014 season and is thereby expanding its winter group. For many years, Audi has been one of the most important partners For instance, Audi is the name sponsor of the Audi FIS Ski World Cup. In addition, Audi is a partner to 17 Alpine national teams and a presenting sponsor of the Alpine World Ski Championships. Starting in the 2014/2015 season, Audi is also partnering with men's ski jumping, including the Four Hills Tournament, as well as with cross country skiing.







When snow and ice create the perfect conditions, it's time to either take a seat in an Audi quattro or in the quattro bar in St. Moritz, at an elevation of 2,486 meters. A wrap-around glass facade brings the wide, majestic Alpine panorama inside the bar, which is built of natural wood and stone, and complemented with an open-hearth fireplace and award-winning restaurant. It is an extraordinary interpretation of the ski lodge concept. The style and ambiance of the bar earned it the renowned Red Dot Design Award in 2014 in the category Interior Design.





Nadine studies Sports Management, while Bene is part-owner of a bar in Munich. They spend much of their time online, accessing social media, checking on movie productions, expeditions, projects and exotic tours. Their itinerary includes Alaska, South America, and New Zealand when it's summer in the northern hemisphere: being a professional freeskier is a year-round job. They also cover 40,000 to 50,000 kilometers on the road annually, under all conditions. Snow on the Silvretta High Alpine Road, ice on the Stelvio Pass and full-speed driving on the German highway to get to an event in Hamburg. Bene drives an Audi S5: "A real rocket," he grins. Nadine wants to trade her beloved Q5 for an A6 Avant due to its abundant cargo space. "Girls!" Bene teases. "They always pack so much luggage!"

Indeed, both athletes are involved in an extremely equipment-intensive sport. The freeski product line from a single ski brand will feature various ski models with different setups for specific types of use, snow conditions and slope. Backcountry skis, for instance, are wider and very flexible over the front third of the ski, so they will be more buoyant in powder snow that is often hip-deep. In contests where all of the athletes must ride the same

track or mountainside, on the other hand, they choose harder skis that are more pre-stressed. They run quieter with greater stability and precision – a tremendous advantage in tracked terrain. "Rather like a quattro," explains Nadine. How would a layperson recognize Nadine in an Internet video? "By my clean technique," she says.

Bene Mayr loves speed, wide turns and high jumps. Drifting turns with snow fountains that spray the snow meters high, the freedom to make choices while maintaining complete control. 2015 will likely be the last season in which he will participate in competitions in parks: "I love the creative element. I am attracted to the backcountry." Naturally, this will all be well documented. Then we will see more of Bene in large movie productions.

During our conversation, the sun has set behind the 3,057-meter-tall Piz Nair. The quattro bar is immersed in a warm and cozy light. But it is still much too early to go home, and at this point the freeskiers have worked up an appetite in the high Alps. Good thing the award-winning restaurant has already warmed up too.

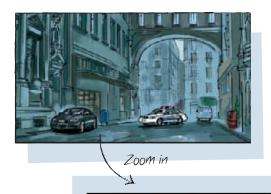
It's never been easier to become the next owner of a used Audi, according to a new, tongue-in-cheek TV advertising campaign. This is an important topic. After all, premium quality is a priority for Audi used cars. So let's take a closer look at a TV commercial from the campaign and continue the story. From the perspective of the star of the show: the used Audi.

All according to plan.

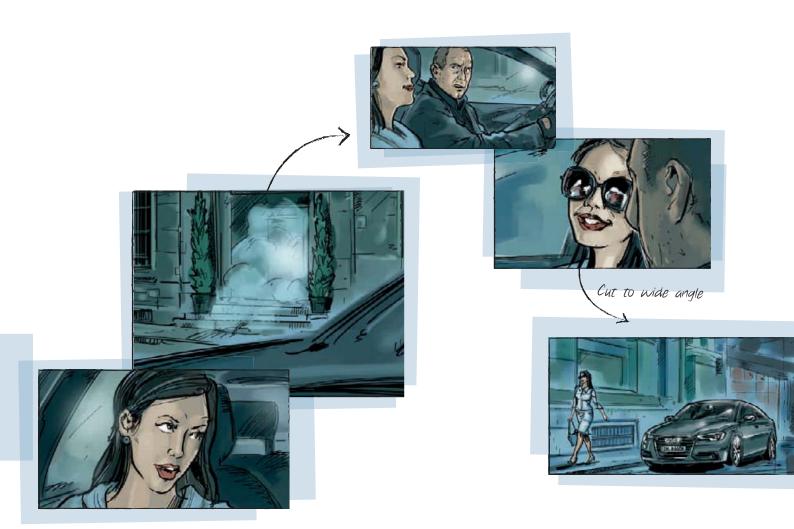
IEXT: Boris Ziefle



Cut to close-up







Tuesday morning, it's 23 degrees and there is the lightest of breezes. The roads are still damp from the late summer rain that tends to make its way into town when the locals are actually expecting sun. As a car, it's the sort of occasion I tend to be driven. My last owner could always rely on me, but barely a year and a half on, decided to trade me in for a younger model, a Q7, after I became a bit too small for his growing family. Fair enough! Now I'm at the Audi Approved :plus dealer. Only yesterday, a potential buyer came in who seemed to like me. So I'm now on a test drive – four strange men, they all seem a little nervous. I'm parked in a side street where there's not a lot going on.

A solitary police car cruises down the street. Am I parked illegally? No. The car drives past. Suddenly there's some movement inside: Three of my occupants pull masks over their faces and fling open my doors. The word 'playtime' rings out, and the face of the driver left behind is a picture of extreme stress. Out of the corner of my exterior mirrors I can see how the three masked men disappear into the entrance to a bank. I may be young, but I'm not naive. Something's going on here. I take a closer look at my driver. Three days of stubble.

High forehead. Ice-cold stare ... While I'm still thinking, the quy seems startled as if his worst fears have come true.

He stares aghast at the front passenger seat where a woman is now sitting, to the amazement of us both. Where did she come from? That's not clear. But her words are unmistakable: "Drive off slowly when you leave. Always indicate. Don't jump any red lights." As a dull thud cuts through the tension and my exterior mirror sees smoke in the entrance to the bank, she carries on completely unfazed: "And don't even consider driving over any police nail traps." Silence. The driver asks what I am wondering as well: "Who are you?" His face has very little in common with my smooth exterior at this precise moment, though. Too many wrinkles. Too few clear lines. And too much surprise when the unfamiliar woman responds: "I'm the next owner of this Audi." She puts her sunglasses back on and gets out as cool as ice. I'm a used Audi. And everything that happens now is out of my control.

At this point the TV commercial ends and what happens next is left to the viewer's imagination. How will the story continue? ...



Watch all of the commercials in the campaign again here.

Cut to wide angle



Car to car



... Perhaps like this?

While I'm still thinking about the female stranger, the three masked men storm out of the bank's front door, which is now billowing smoke. Their gym bags are bulging. The driver has a broad grin on his face for a moment. My doors fly open again, my accelerator is slammed to the floor. My sensors tell me let's get out of here! Yet there's a surprise in store right from the first set of traffic lights. My brakes do their job. We glide smoothly up to the stop line. My surprise is however trumped several times over by the expressions on the faces of my passengers, who have now taken off their masks. Police sirens wail. Getting louder. Getting nearer all the time. A police car screeches purposefully through the red light and past us. A solitary leaf floats over the asphalt, carried by the rush of air left by the police car, before my accelerator is pressed gently again. The driver was the first to get over his surprise and notices that the lights have since changed to green. Something went totally wrong here. Or right, depending on your point of view. Apparently I'm not the only one that remembered the woman's words that just this minute saved the men.

Fifteen minutes later we turn into a side street on the outskirts of town. The houses are now more modern, the streets drier and the faces of my occupants are a slightly healthier color. The mood is relaxed when I come to rest a few moments later in a car park with a lot of other cars that look the same as

I do. Four large rings adorn the building's facade in which my silhouette is reflected. Relieved, I turn off my daytime running lights, finally back home in the Audi Approved *:plus* Center. My doors are thrown open, the four men get out and disappear in various directions, clutching their gym bags. **Test drive over,** I'd say. And what an extraordinary test drive it was. With a bank robbery thrown in for good measure. No car chase, though. And then this wonderful woman with sunglasses.

The Audi Approved: plus Center in Munich offers the largest selection of nearly new used cars worldwide as well as comprehensive service and genuine accessories. More than 1,000 used vehicles are presented in the two-story Audi Terminal, which covers an area of 45,000 square meters. With around 100 R8 and RS models on permanent display, prospective buyers can choose from a unique selection spanning the entire product range.



Discover more in German at: www.audi-gwplus-zentrum-muenchen.de



Meanwhile a few days have passed, and today I'm presenting myself from my best side. I'm excited. Have I just spotted a familiar face? Is it really the woman who appeared on the front passenger seat during that incredible test drive? She signs the purchase agreement and walks towards me, sits behind the wheel and is about to adjust the seat. Her hand touches something. A newspaper. How did that get there? No idea. And yet the front page that I can now see in the rearview mirror has a clear headline: "Bank robbers arrested!" it reads in big letters. I take a closer look at the woman and recognize her without a shadow of a doubt. It's her all right. And she's just bought me. It's another lucky day, for both of us.

An everyday test drive becomes a crime story with a happy ending. A used Audi as the protagonist. It could have happened just like that. But ... no, not really. In reality, the newspaper under the seat would never have been there, of course, because Audi has developed its 110-point check for used cars to ensure every detail is painstakingly examined before the vehicle is handed over to the new owner. And the newspaper would have been discovered by point 45, the seat fore/aft adjustment, if not before. After all, everything runs according to plan with Audi used cars.





cides how the problem can be rectified.

Man and machine work hand in hand.

Katharina Kunz swipes the screen in front of her. The Smart Interface disappears, and with it the virtual world. Change of perspective: back to the present. This production method is still just a vision of the future. But it is no longer all that far off; many innovations are already in use at Audi today and mark the way to Industry 4.0 (see page 40).

Ingolstadt, Audi plant, Hall T32. This is where Dr.-Ing. Hubert Waltl, AUDI AG Board Member for Production, and Prof. Dr.-Ing. Reimund Neugebauer, President of the Fraunhofer-Gesellschaft, meet up. The two share a passion for innovation. They are driven by progress. In May 2014, they jointly inaugurated the E³ research factory in Chemnitz: a model factory for intelligent production for researching the technologies of tomorrow.

VIRTUAL REALITY

Before the first prototypes are built, the series production process for the car is checked for feasibility using virtual means in the Audi CAVE. "Based on the design data, we can model the individual components in three dimensions. We then simulate assembly and as a team analyze whether installation can be easily accomplished both with respect to the component and also the employee," explains Katharina Kunz. Looking through her 3D glasses, she sees the components on two large projection surfaces. Wearing a bracelet that measures the flow of electricity through her muscles, she can touch and move the parts using gestures.

Engineer Katharina Kunz is standing in front of a white door. Behind it: the world of production. The Audi engineer makes a wiping motion with her hand. The door slides open with a hiss. An Audi A7 body glides by on a self-guided platform that is making a beeline to an employee. Next to him: a small robot. It assists with the installation of the gearshift knob. This is customized to the anatomy of the customer's hand and was just now produced using a 3D printer.

Assembly line? Not here. Whereas the pulse of production is normally determined by the line and cycle times, under the workshop principle all models are built in a single hall. Tools and materials use sensors and chips to supply a constant stream of data. They are largely self-organizing. If the data indicate an anomaly, an alert is displayed on the Smart Interface. The employee then de-



When physical and virtual reality merge: Assembly steps are simulated in advance in 3D on the virtual reality wall and then optimized step by step. This technology is also used in toolmaking.

INTELLIGENT TOOL

Precise edges, accurate gaps. The distinctive design of an Audi demands guite a bit from both materials and tools. Tools that think for themselves have been making the production process easier at Audi since 2010. Take the pressing of body parts, for example. Sensors in the tool measure the position of the sheet and the forces acting upon it. Mechatronic actuators make any necessary corrections. A demanding material such as aluminum can thus be precisely formed. The reject rate is also reduced – in the case of the trunk lid for the Audi A8 by as much as 25 percent compared with its predecessor. This saves material and supports sustainable production. "That is the ultra principle in production," says Waltl. "After all, efficiency and sustainability apply to more than just our cars." Audi ultra is a philosophy that drives Audi. The ultra philosophy is also lived in production - via innovative technologies such as the intelligent tool.

During a tour of Audi Production, Waltl wants to show where future technologies developed by his team are already being put to use. A look behind the scenes. A look at that bit of the future that is already present-day reality.

The starting point for the production experts' excursion is Katharina Kunz's workplace, the 3D lab. Waltl chose this first stop for a reason. Production begins here in the virtual reality of the lab. It is pitch black. The only light is that shining from four projectors onto screens on the wall and floor. With the help of 3D glasses and gesture control, Katharina Kunz is testing the steps for the assembly of new models on these surfaces prior to the start of production. "The physical and virtual worlds merge here," says Waltl. "Many science fiction fantasies pale in comparison with this." Intrigued, Neugebauer adds: "Potential applications for this type of augmented reality range from research to design, but it could also find use in sales, maintenance and even employee training."

In the future, the entire production process at Audi will be simulated virtually. Tools, plants and operating materials – all send data to the cloud in real time. Each physical element is thus modeled in the virtual world. This also enables objects to communicate amongst themselves and with people. "Networking – that is the core idea behind Industry 4.0," adds Fraunhofer President Neugebauer.

After mechanical production, assembly line production and digital automation, data is the foundation for the fourth industrial revolution. Data is becoming the oil of the future. Machines already produce myriad data today, usually in the digital jargon of a computer language. Soon still more machines and even materials will supply data. People will no longer have to search through tables in the event of an error. In the future, intelligent algorithms will be able to read the data, identify previously unknown errors and reveal undiscovered potential for optimization.



Perfection in toolmaking: A tool equipped with sensors is used to ensure optimal forming and efficient use of material. Quality assurance with augmented reality: With the "Window to the World" system, employees can today perform an extremely precise variance analysis between the design data and a component, in the engine compartment for example.

REALITY

The design data and the actual vehicle are compared for quality control purposes.

Optical overlay enables deviations to be detected extremely quickly, modeled in real time, analyzed and corrected, if

necessary. It is also possible to optically link photo-realistic component data, such as for a bumper, with the vehicle. For the user, this merges the virtual with the real world.



Waltl and Neugebauer are now on their way to the intelligent tool in the press shop. They move from the biting cold of this February morning into Hall N58. Hanging next to the entrance is the engine hood of an Audi A3 – the first production part produced on the new press line in 2003. Precision is the press shop's aspiration. The body parts produced here lay the foundation for Audi's high quality standards. The employees have signed off on this concept. Their signatures on the engine hood in the entrance area remind them of that every day.

As many as 64,000 parts are produced in Hall N58 each day. Like giant blue stamps, the pressing machines press the various molds into the steel or aluminum with a precision measured in hundredths of a millimeter. A single hair between the tool and the material or just a bit too little oil can cause the part to be rejected later during quality control. So the tool on this press line thinks for itself. Sensors measure how the

sheet is pulled over the tool. Actuators then determine automatically how tautly the sheet must be tensioned. Each sheet can thus be pressed optimally based on its individual characteristics. "That is a new definition of precision," says Waltl proudly.

He learned precision from the ground up. Waltl began his career over 40 years ago with an apprenticeship as a toolmaker at Auto Union Ingolstadt. As an apprentice back then, his tools of the trade were still a slide rule and a drafting table. He became interested early on in the digitization of his field of work. "I was one of the first programmers at Audi Production. I fed punch cards into computers the size of this entire room," he recalls. Waltl is among the pioneers of the third industrial revolution.



HIGH-TECH EQUIPMENT FOR WORKING ERGONOMICALLY

THE CHAIRLESS CHAIR

Employees stand on the line for around eight hours per shift. With the Chairless Chair, they can also rest their feet every now and then outside of their breaks and work while seated. The carbon support weighs just around two kilograms and is worn on the body. It is easy to strap on and uses a simple hydraulic mechanism to enable sitting without a chair. A prototype was successfully tested in Neckarsulm in February 2014.

ADDITIVE MANUFACTURING

Intelligent machines and data analyses are also changing the automobile. They reduce complexity and enable greater individualization – even one-of-kind vehicles. In the future, individualized parts can come from a 3D printer for metal materials. Audi engineers have been experimenting with this since 2014. In this system, the laser fuses a metallic powder layer-by-layer to produce a finished part. The technology is based on the laser melting process that makes it possible

to produce bionic structures and material properties that were all but impossible to achieve with conventional production methods. These reduce a car's material requirements and weight. But 3D printing with polymer has been in use at Audi for some time already. At the R8 factory in Neckarsulm, employees can have attachment aids, for example, printed overnight at the Start-up and Analysis Center. This achieves cost and time savings of over 75 percent.







ROBOT

Robots previously were only found in cages. Thanks to its safety sensors, KR 5 SI can work directly with people. The human sets the pace. The robot only pulls a radiator overflow tank from the crate and hands it over to its human colleague when needed. It uses a camera to determine how to pick up the unsorted parts via suction. This mode of working is known as the operating room principle. The human performs the value-added work that requires both the

sense of touch and experience. KR 5 SI assists. A colleague of the same model but equipped with a bonding attachment has been in use since 2013. It precisely applies the beads of adhesive to a part of the wheel well. The employee removes the wheel well from the fixture after bonding and installs it. If a human gets too close to the robot while it is moving, it reduces its working speed. It comes to an immediate stop if touched.

Following the transition to mechanical production at the end of the 18th century and assembly line production in the 20th century, automation rang in a new era of production in the 1970s.

Today, automation alone is no longer able to meet the rising demands on modern production. Within the last ten years, the number of Audi models has more than doubled to over 50 at present. The number of individualization options is immense: For the Audi A3, there are 10³⁸ variants, or more possibilities than stars in our universe. At the same time, the Audi Group's quality claim will have to be fulfilled in the future at 17 production sites from Ingolstadt to San José Chiapa in Mexico. All of that increases the complexity. This is where the technologies constituting Industry 4.0 come into play.

Networked production systems can manage complexity; intelligent machines can support the people.

Waltl and Neugebauer continue on their tour. They walk through the body shop; robots purr in their cages. They swing around, grab the heavy body parts and make precise welds and bonds. This could all look different in just a few years. Waltl and Neugebauer move on to assembly. It is unusually quiet, at least for those who imagine car production to be a loud and hectic process. The assembly line has a cycle time of 88 seconds. As if by magic, it transports the painted bodies from work step to work step.

Line section 3 is located nearly at the end of the gigantic hall. It is here that

it becomes clear how the cooperation between humans and robots will look in the future. This is where KR 5 SI works. Its job: to identify the positions of the unsorted parts, use suction to pick up a part, hand over the part. What makes it so special: The one-meter-tall robot stands right next to its human colleague, Stefan Schlamp, with no protective cage. Waltl greets Schlamp with a handshake. The three men talk. "Since he's been here," says Schlamp (31), with a nod toward KR 5 SI, "I no longer have to bend over to pull the radiator overflow tanks from the deep crate. That saves my back."

Neugebauer is impressed. "Even if machines are becoming more intelligent, the focus is always on the person," emphasizes Waltl.

Waltl and Neugebauer have come to the end of their tour. Time for the first coffee of the morning. The production workers in their gray and red work clothes stream into the mini-mart. The shop smells of fresh-baked rolls.

Neugebauer stares thoughtfully into his steaming coffee. "I have one more question," he begins. "How do you manage to develop so many innovations in practice?" Waltl smiles. "Courage, that's our secret," he says. "We rely on people with courage. They think outside the box, in particular they are forward-thinkers. They are taking Audi Production step-by-step toward Industry 4.0."

INDUSTRY 4.0

Steam and water powered the first mechanical production plants. In the late 18th century, they marked the first industrial revolution – known from today's perspective as Industry 1.0. The use of electrical energy and the division of labor in the slaughterhouses of Cincinnati rang in the second revolution. Henry Ford perfected this way of working with assembly line manufacturing. In the 1970s, electronics and IT led to further automation and Industry 3.0. Components that provide a constant flow of data and networked machines – that is Industry 4.0.

WE ASKED

DR.-ING. HUBERT WALTL, PRODUCTION BOARD MEMBER AT AUDI AG, AND PROF. DR.-ING. REIMUND NEUGEBAUER, PRESIDENT OF THE FRAUNHOFER-GESELLSCHAFT



The Fraunhofer-Gesellschaft and Audi have been collaborating for eight years. How are you together advancing Industry 4.0?

NEUGEBAUER: We are building bridges between science and industry,

for example with our E³ research factory. It models production under realistic conditions. We are using it to research technologies for the future.

WALTL: But our work in the area of Industry 4.0 is not limited to just technologies. We are also conducting joint research into the integration and role of people in the production of the future. This includes, for example, increasing the flexibility of work and the cooperation between man and machine.

Augmented reality, intelligent tools – all of that is already reality at Audi. Are we really on the threshold of a fourth industrial revolution? Or are we already in the middle of Industry 4.0? WALTL: Audi did not wait around until the term Industry 4.0 was born in 2011. Even in Production, we are already working on tomorrow. That is where we get our advantage. We therefore speak of an evolution.

NEUGEBAUER: Every revolution is preceded by an evolution. But the effects of networking, the gigantic amounts of data and their analysis are still to come. We currently find ourselves in an evolutionary process that will make the fourth industrial revolution possible in the future. It's not behind us; it's still to come.

What challenges have to be met on the road to Industry 4.0?

WALTL: I see two things here. One is training and advancement. We need to consider today how we prepare our employees for tomorrow. Expertise in the areas of mechatronics, electronics and IT is becoming increasingly important. Second, we have to consider the interfaces when investing in technologies. A machine has to be able to hook into the shared network later. This is the only way we can take advantage of the opportunities presented by data collection and analysis.

NEUGEBAUER: For this we need standards, not just within the company, but worldwide. Further expansion of broadband is also needed. Today we have average response times in the network of 25 milliseconds on average. 0.1 milliseconds are required for real-time data transfer. Another challenge is the security of these tremendous amounts of data. We have a vision of Industry 4.0 today, but we still have a lot of homework to do until it can be implemented.

Dr. Waltl, how is Audi creating tomorrow?





... People who want to change the world need visionary power. It is what drives us and what we at Audi call "Vorsprung durch Technik." In short: What drives us is the future ...

we create innovation



Beautiful. Fast. Sporty. Homage to an icon in three generations: the Audi TT

TEXT: Philipp Meier

The TT has symbolized a revolution for nearly 20 years – and the name was meant to be every bit as revolutionary. TT stands for Tourist Trophy, as a homage to the NSU TT and to the legendary motorcycle race on the Isle of Man. When the show car was presented to the international public for the first time in 1995, no one could have guessed that the TT would become an icon. The main features of the design are unique and a recurring theme in all three generations.

TT_01

Back to the roots – the Audi TT and the Isle of Man are joined by one very primal idea: motorized freedom. Memories are evoked of the Tourist Trophy, one of the most grueling motorcycle races in the world. All three generations are being tested on the track today by someone who is usually busy designing futuristic cars in Hollywood films. Please buckle your seat belts. Daniel Simon is about to take off with





The show car came out in 1995. It was developed by Ulrich Hackenberg, at that time the project manager and now Member of the Board of Management for Technical Development, together with designer Thomas Freeman and engineer Ralf-Gerhard Willner. "Incredible, this car, a big bang in automotive history. Revolutionary. Sexy. The next sensation was that the show car went into production virtually unchanged in 1998. The first-generation Audi TT got its aesthetics from the strict geometry. The lines seemed almost archetypical in their coherence."

Daniel Simon turns sportily into the first curve. "It's incredibly fun to drive." He then returns to the excitement sparked by the first Audi TT, and not just among auto enthusiasts. "It was simply unique. Completely unlike anything that came before it."

Daniel Simon uses the straight, accelerates strongly down the hill and swings smoothly through the next curve accompanied by the sonorous sound of the engine.

"I consider the first Audi TT revolutionary.
On the conceptual foundation of the A3,
it combines unmistakable design with
"Vorsprung durch Technik," making it a
sports car with an easy sex appeal."

"No fog. You have to take advantage of that because the weather's very changeable in the British Isles." On the Isle of Man in particular, where the spirit of the Tourist Trophy hangs in the air. Accompanied by a harsh wind that fosters the feeling of freedom while driving. And Daniel Simon wants to feel it to the fullest. The top is down, and he shifts into the next gear.

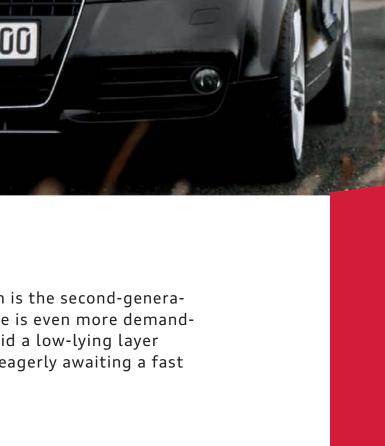


"It's incredible how the TT takes off. A great driving experience. Everything about the Audi TT is puristic. Including the cockpit. It is impressive that Audi did not try to somehow join all the elements as was usual back then. The architecture of the instrument panel is clean; everything is where it belongs. It's beautiful how the air vents integrate into the control elements." The wind is getting stronger, and Daniel Simon is approaching the end of the first stage. When he gets out, there is a blanket of clouds just a few meters above the road.

"The first-generation TT looked ultra sporty even when standing still, a statement about the innovative power in the Audi design language. Bumpers that suddenly cannot be seen. Then the quick-release fuel cap – a clear analogy to racing. And with the lighting concept, we also see aesthetics that set new standards. The headlights define the determined look of the TT with a strong sense of depth."



Here you can learn all about futuristic vehicle design from automotive designer Daniel Simon.



Change of vehicle. Next up for Daniel Simon is the second-generation Audi TT Roadster from 2006. The route is even more demanding. The weather constantly changing. Amid a low-lying layer of clouds, the spirited Audi TT Roadster is eagerly awaiting a fast drive. Daniel Simon gets in.

"The unmistakable basic architecture was retained with this Audi TT. The line above the door is eye-catching. It swings up toward the rear wheel. This is powerfully evocative of the first Audi TT. In the rear, though, the bumper is visible. That makes the car appear even wider, lighter and very sporty. Let's test it."

TT_02

Daniel Simon feels the power of the motor as the Audi TT Roadster gathers speed. "The design is essentially a flowing wave that allows the geometric bodies to flow together even more strongly. This makes the car appear longer and more stretched than its predecessor, and it is more tightly integrated into the Audi design language."

Daniel Simon shifts up quickly. The roads that make up the race track are becoming more winding. More extreme. Which is exactly how he likes it. "Cornering is great fun. It is very obvious that the second-generation Audi TT is extremely stable, yet has a light-footed stance on the road."

Daniel Simon straightens his sunglasses and glances in the rearview mirror in awe at the curves behind him, before concentrating on the road in front of him again. After a short straight the next challenge is waiting, and his delight is apparent. "You can tell that the engine has become much more powerful. The Audi Space Frame technology and the sophisticated chassis play a major role in the cornering stability. The optional hydroelectric damper system Audi magnetic ride improves driving stability. And the extending spoiler supports this even more. But that is theory again; you have to experience it in practice." Daniel Simon enjoys the fast stage. With its sporty disposition, the second-generation Audi TT is the perfect partner for this section of the course.



Last stage heading to the start-finish straight. Steep hills, wildly winding roads and occasional oncoming traffic guarantee a pounding pulse. The new Audi TTS – a rush of happy hormones.

The clouds continue to hang low over the road. Brief, heavy downpours alternate with sunshine. But none of that fazes Daniel Simon in the least. He is sitting in the new Audi TTS and presses the start button.

A quiet rumble sounds. But it isn't a thunderstorm gathering in the distance, it's the engine of the new sport coupe in which he is sitting. Daniel Simon suddenly has an easy big-kid grin on his face, for he can guess what awaits him: pure driving pleasure.

The rumbling becomes a sonorous roar as Daniel Simon floors the accelerator. Tremendous thrust catapults the Audi TTS forward. Daniel Simon is pressed back into the sport seat. "The technology has now reached the groundbreaking level of the design! From a design icon to an uncompromising driving machine. Wow!"

And the Audi TTS does indeed fully express its Trophy genes. Curve after curve, straight after straight, it reveals its sporty qualities. "I am sitting embedded in a supremely functional cabin. The air vents, the virtual cockpit in the middle. Everything is turned towards the driver. The digital tachometer and digital speedometer, between them the route. Absolutely futuristic!"

Daniel Simon sets the S tronic to "S" as in "Sport" and uses the shift paddles on the steering wheel. The tachometer automatically jumps to the foreground in the display. All relevant characteristics of the chassis, steering, transmission, quattro drivetrain and throttle response change at the same time.

The car handles very precisely. The roads become narrower, the curves shorter and more difficult to negotiate. The Audi TTS is now completely in its element. The quattro drivetrain ensures that the wide tires really bite into asphalt. "The TTS is really very agile on the front axle; reacts immediately when turning in." The speed blurs the green shades of the landscape. The sport coupe is now on the home stretch. A final spurt.

Later, after he gets out, Daniel Simon looks back to sum up his experience: "The current model is a spectacular and contemporary reinterpretation of the first TT. The edges of the aluminum body are precise and sharp. Every sinew of the car is visible. The front end shows the power of the sports car with headlights – optionally with Matrix LED technology – angled toward the Singleframe. Emphatically horizontal lines underscore the sporty width. The TTS appears determined, has a more athletic architecture."

"The TTS is evolutionary on the outside, revolutionary on the inside – with a rigorous orientation toward the driver and naturally with the spectacular virtual cockpit. The third generation – an uncompromising, futuristic road athlete."







Three questions for
Audi development chief
Prof. Dr.-Ing. Ulrich Hackenberg

You have been with the Audi TT from the very beginning. What does the car mean for Audi today?

"Audi and the TT are a unit – just like Audi and racing. I would even call it the seed of our success at Le Mans. And in 2010, it became the first car to master the legendary hill climb at Pikes Peak in Colorado without a driver. The TT is getting its own race series, the Audi TT Cup, in 2015."

Sporty. Dynamic. Efficient. How can these three things be reconciled?

"The third-generation TT stands for sporty and efficient driving. The Audi TT Coupé 2.0 TDI ultra with an output of 135 kW (184 hp) has a combined emission figure of just 114 to 110 grams ${\rm CO_2}$ per kilometer. That makes it the efficiency champion of its model series."

Where does the story of the TT go from here?

"We showed how a further member of the TT family might look with show cars such as the TT offroad concept and the TT Sportback concept. We still have a lot of potential here, which is why we want to develop one of the studies shown for production. The exact model will be revealed when the time is right."

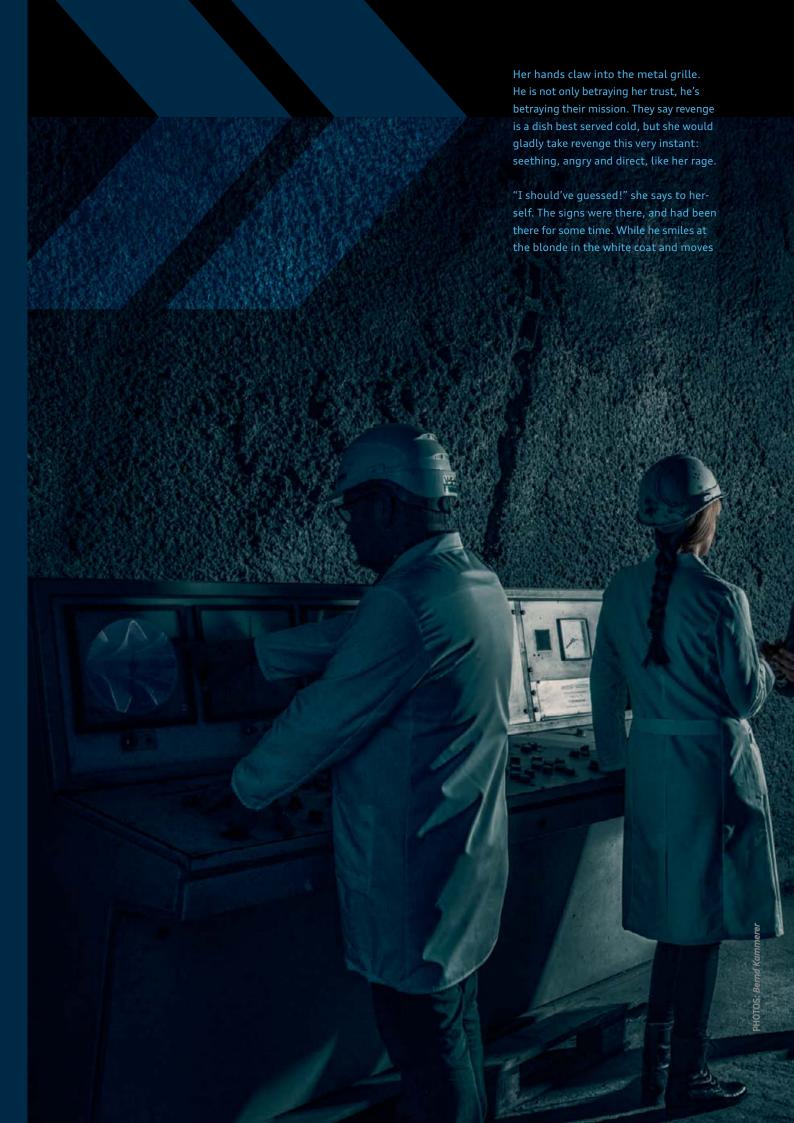
TEXT: Ottavio Cappellani

A spectacular thriller penned by the famous Italian crime writer Ottavio Cappellani. Starring two agents, the Audi R8 LMX with laser light, and a burning passion. Played out in a dark, mysterious tunnel.



Fuel consumption and emissions figures can be found at the end of the Annual Report





closer to her than necessary, it is her They got to know each other during trainown stupidity rather than the sense of ing. Both of them were new. As far as betrayed love that hurts more. they know, their secret service - the firm is the only one in the world that allows "How stupid I've been," she repeats to agents to become romantically involved. herself over and over, while the images of Their relationship is more than just simher own naivety play out in front of her ple love – it is a spiritual kinship. And for eyes. Years of training and concerted that reason the betrayal shakes her to practice, all for nothing. Why is he now the core. What kind of technology is this, getting into this sports car that seemed which she feels so magically attracted to be enveloped in a mysterious light? to? And why doesn't she have access to it?

Thanks to the narrow illumination of the sides of the road, the light beam focuses solely on the actual lane.

From a speed of 60 kilometers per hour, the laser spot is also activated if the LED high beam is switched on using the high-beam assist.



She fights against her own rage and squints her eyes to recognize what is displayed on the screens. She is familiar with these fractals, these vector lines that shine through the pixels. She painfully recalls how they had studied Goethe's theory of color together as their love blossomed. A knowledge of light was part of her training. Her teacher always repeated: "If you understand the mechanics of light, you'll be able to devote your life to the truth." He was wrong. Her partner has devoted himself to something entirely different.

And she can't understand how that has happened. She pulls herself together; she needs to stay calm, to get out of here and report back to her boss. She takes one last look at the blonde, at her partner, while the rules of her universe shatter. She feels the sharp splinters inside her. She wants to scream. Instead, she moves silently, the same way she arrived.

She had kept on thinking about the events of recent weeks. She had suddenly decided to follow him a few hours ago. She knows that the firm considers a lack of trust to be the worst thing: "Trust your partner like you trust your-

Especially since she had discovered that the gym bag he took to training every evening after dinner had a false bottom that concealed a designer suit similar to the one he wore to work.

She'd stored this information in a farflung corner of her brain and convinced herself that they always had to be ready for work. The firm can call at any moment.

Yet a drop of this information, as flowing and poisonous as mercury, had gone from her brain into the pit of her stomach, and from there into her bloodstream. Why the false bottom? The days passed and the suspicion grew, together with the beguiling scent of the fragrance that emanated from the suit. A ladies' fragrance, but not the brand she uses herself.

That afternoon she'd taken the gym bag out of the closet, opened the false bottom and allowed the suit's soft material to slip through her hands. In a coat pocket she'd found a slip of paper with a note. "LMX, new light, laser."





At dinner she tried to behave normally, despite cutting herself while opening the bottle of wine. "Everything okay?," he asked. She simply smiled and nodded. He too has studied tone of voice and she was certain her voice would betray her if she spoke at that moment. She wore camouflage gear under her pantsuit. When he left the apartment, she pulled on her boots. Then she ran to the garage and came out again on a motorbike. During training she had learned how to ride fast without any lights.

She followed him on his way out of town, the high-rise buildings made of glass and concrete gave way to thick forest. Then her partner's car disappeared suddenly, just as she had expected. She turned off the engine to avoid any sound, and listened into the night. She could hear a mechanical buzzing in the air which a less well-trained ear wouldn't notice at all: a ventilation system. She hid the motorbike between the trees, found the concealed ventilation duct and dropped down into the depths of the mountain, landing almost silently on her supple knees in a tunnel lit up by dim neon lighting. Afterward she followed the voices. She found a metallic structure, which supported the tunnel that was home to the laboratory. She climbed on top of it and ...

... saw him.

She crosses the tunnel searching for a way out through which she can escape this nightmare. This time it's not about work. This time she's scared of losing her mind.

Behind her she hears a noise, but it's too late to look for somewhere to hide. She turns around and is enveloped in a light she has never seen before. Absolutely amazed, she looks around, the tunnel looks as if it's bathed in daylight. But what is it?

Suddenly the darkness returns. She hears a dull noise, like a car door closing. And then she smells it, far away, horrible ... the perfume!

With the instinct of a wild animal she lunges at him, aiming for his face. Then she hears him. He shouts: "Darling!" Hearing this word, she loses control. She kicks him frantically in the darkness, grabbing him around the collar of that damn suit. Her partner is unconscious. She puts him on the car's front passenger seat, ties his hands together with the seat belt, gets behind the steering wheel as if an injustice had finally been put right, and races in the dim light from the neon lamps down the tunnel. He regains consciousness. And still has the gall to speak! What did he say? "What did you say?," she asks. "The light – turn the light on ...," he mutters. "Of course, so the friends of your blonde will see us." "My blonde?"







For each headlight a laser module made up of four laser diodes creates a blueish cone of light. A phosphorus converter transforms this cone into white light. This boosts the illumination range and sharpens contrast thanks to a wavelength of 450 nanometers and a color temperature of 5,500 kelvin.

The Audi R8 LMX, a mid-engine supercar built in a limited small production series of just 99 units, improves vision and safety with its laser high beam. To this end, engineers at Audi have been working together closely with their colleagues from Audi Sport. In fact, tests are carried out under the extreme conditions of motor racing before Audi top technologies make their way into series production. This was also the case with the new laser high beam in the Audi R18 e-tron quattro at Le Mans.

The high beam is automatically activated in the dark from a speed of 60 kilometers per hour and illuminates the road up to 500 meters – twice as far as conventional LED high beams. Contrast is sharper, the pleasant light is easy on the driver's eyes and oncoming traffic is also not blinded. Intelligent camera sensors detect oncoming vehicles early on and then actively exclude these areas from the light cone.

TECHNICAL DATA - AUDI R8 LMX	
Engine type	V10 mid-engine with direct gasoline injection
Displacement in cc (valves per cylinder)	5,204 (4)
Max. power output* in kW (hp) at rpm	419 (570)/8,000
Max. torque in Nm at rpm	540/6,500
Drive type	quattro permanent all-wheel drive
Transmission	7-speed S tronic
Unladen weight** in kg	1,670
Acceleration 0 – 100 km/h in s	3.4
Top speed in km/h	320

- In accordance with the specified measuring procedure in Directive 80/1269/EEC (version November 2014)
- ** Unladen vehicle weight incl. driver (68 kg), luggage (7 kg) and fuel tank (75 l) 90 percent full, calculated in accordance with Directive 92/21/EEC (version November 2014)

She nods and thinks what punch will hurt him most without his losing consciousness. He should feel the excruciating pain, she thinks.

"But ... but she isn't mine ... she's ... our ..." She steps on the brake, turns to him and shouts right at him: "Ours? What are you talking about?" He squints his eyes as if flinching from the next punch, and drops his head between his shoulders. Then he whispers: "She's our colleague, she works for the firm." "For the firm?" He nods without hesitation.

"Turn the car lights on. We've been trying for a long time to find this new light." She looks at him. She knows he's not lying. Nervously she turns the car lights on, and says: "Yeah, who are you kidding? Let's just have a look at this 'wonderful' light!"

Then she's astonished. In the tunnel, the light appears. Contours and contrasts emerge with an incredible clarity. It's the

laser light, just as it said on the piece of paper she found in his pocket. It takes a few seconds for her to get over the surprise.

"Why didn't you tell me about it?" "I wanted ... I wanted to surprise you. I was on my way home to pick you up. I didn't want to tell you about the light until we'd found it." Suddenly she raises her hand. He shuts his eyes and expects a reaction. She unties his hands. Then she drums her fingers on the steering wheel. "Does your jaw hurt?" "No ...," he says. He smiles and the pain makes him see stars. "Good," she says and pulls away with the tires screeching.

She feels like enjoying her surprise. The headlights come on and blot out her dark memories.

The street appears in new colors. Smiling, they drive together into this new light and leave the darkness behind them.



A fine, linear marking light helps the driver position the vehicle when cornering at speed.









Its name: Bobby. Its mission: to take it to the physical limits as the world's sportiest piloted driving car. The challenge: to complete a lap on the race track at the level of racing legend Frank Biela – with neither a driver behind the wheel nor a technician on board. This top-notch duel will show whether the Audi RS7 piloted driving concept is ready for its trial by fire at Hockenheim.

Just 120 more hours. Then the Audi RS7 piloted driving concept has to show what it can do. In front of a world public. At speeds of up to 240 kilometers per hour, the technology platform will attempt to follow the racing line around the Hockenheimring. Without a driver.

The Audi development engineers have thoroughly tested the technology platform to its limits, optimizing the systems over thousands of kilometers. The technicians even gave the car a name. They call it Bobby, after the American racing legend Robert William "Bobby" Unser. He also loved spectacular driving feats, having won such races as the Pikes Peak International Hill Climb and the Indianapolis 500. Now Bobby also wants to make history: as the world's sportiest piloted driving car. One last test should show whether Bobby is ready for its first perfect racing lap in front of a world public. The technology platform will be racing against a professional who should be able to tell: Frank Biela, five-time winner of the 24 Hours of Le Mans and a German, British and French touring car champion.

"During my active racing career, I never dreamed that we would so soon reach the point where I wouldn't be steering the Audi around the course but the Audi would be doing it itself," says Biela.

The former racing driver was all the more fascinated after a piloted driving test run – at top speed – around the track at the Motorsport Arena in Oschersleben. "Honestly? I am completely blown away. I normally sit on the left and have everything under control. Today I started out in the passenger seat. The system assumed complete control of the car. Accelerated. Braked. There was no way for me to do anything. And that at 240 kilometers per hour," says Biela. And he admits: "It is totally crazy to just sit there and feel how the car accelerates. The wall is coming closer and closer, but there isn't anything you can do. 'Stay cool,' I was thinking the whole time. 'The technicians know what they are doing.' And the car is going to hit the brakes any second now ... there! But really at the very last moment. Totally insane. And it takes quite a bit to rattle me. I had just recovered from the first shock when the car once again accelerated at full speed." Audi engineer and project



Biela at the limit: hunting for every second in the Audi RS 7 Sportback.



manager Peter Bergmiller is convinced that Bobby can match the performance of pros like Biela in more than just acceleration. "In terms of speed, precision and vehicle control, we have the Audi RS 7 piloted driving concept on a level with the best racing drivers." The proof is to be delivered in Oschersleben: Racing legend Frank Biela will compete against racing innovator Bobby.

Still impressed by Bobby's performance, Biela gets into a comparable Audi RS7 Sportback, but this time on the left side, behind the steering wheel. Now it's up to him to perform at his best. He slams down the pedal and accelerates to the absolute limit. At the very last moment, he brakes, takes the optimal line through the corner, and accelerates full speed down the straights. The car gets a little loose in the third corner, though, and deviates from the racing line by about a meter. Despite his quick reaction, valuable time is lost before he can countersteer. The professional racer now needs to make several corrections before the 412 kW (560 hp) Sportback is back on the racing line.

"Bobby, on the other hand, detects every motion of the car within milliseconds and can immediately determine the precise magnitude of the reaction required," explains Bergmiller. "The systems generally regain control of the car within 0.5 meters of lateral displacement and bring it back onto the racing line without further corrections." The technology platform also has the advantage when it comes to moving from the accelerator to the brake pedal before a corner: Biela's average reaction time is right around 300 milliseconds; Bobby only needs 15 milliseconds, or 1/20 of the time.



Another advantage for the piloted driving vehicle: Thanks to a precise GPS system and 3D cameras that film the car's path as it is driving and use a computer program to compare this film against graphical information about the track, the technology platform drives with precision. "The car uses this information to determine the optimal turn-in point and the exact steering angle," explains Bergmiller. This also enables it to choose exactly the right gear to accelerate perfectly out of the corner.

Although Biela is also familiar with the track, he needs more steering corrections. But in the end, the time needed for these corrections didn't really matter. His experience enabled Biela to complete the lap faster than his opponent. "That was really close. I had to take a lot of risks to make up the time I had lost." The professional racer uses the full width of the track, coming within a few centimeters of the concrete wall. Bobby doesn't take such risks. Racing legend Biela crosses the finish line in 1:54 minutes; the driverless Audi RS7 Sportback needs 1:58 for the same lap.

Biela's summary of today's duel: "The Audi RS7 piloted driving concept car is a true talent. It is really remarkable that the systems are able to rein the car in at the physical limits and control it. These are the best possible prerequisites for Hockenheim."

The technology behind it: GPS signals provide for accurate orientation. Parallel to this, camera images are compared in real time against graphical information stored in the car. Comprehensive networking and the precise control of all driving-relevant actuators on board ensure reliable control of the vehicle even at the limit. This enables the Audi RS 7 piloted driving concept to process tremendous amounts of data and sensor signals in real time. Accelerator, brake, steering and transmission are controlled very precisely. A 412 kW (560 hp) car driven at the limit by the electronics alone.

October 19, 2014. Hockenheimring: Bobby is in pole position. The green flag drops. The technology platform accelerates full speed on the track's six straights and brakes precisely before each of the 17 corners. With precise turn-in and ideal acceleration but no driver behind the wheel, it impresses across the board. Forces measure over 1.3 g during braking, and lateral acceleration in the corners reaches as much as 1.1 g. The lap of the Grand Prix course is completed in just over two minutes. Driverless. At the limit. As what is currently the world's sportiest piloted driving car.

RS 7 piloted driving concept







g-tron, e-tron and h-tron – these three terms represent the

Audi drive systems of the future, in just the same way

as TDI and TFSI. All address big issues: How can the conflict

between sportiness and efficiency be overcome? How can

new technologies deliver more driving pleasure? Board

Member for Technical Development Prof. Dr.-Ing. Ulrich

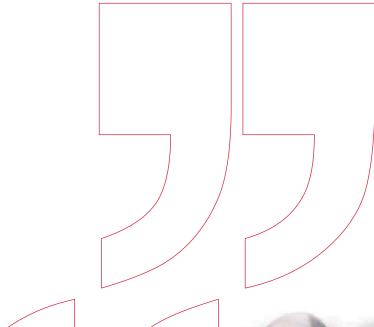
Hackenberg meets some of his engineers to discuss

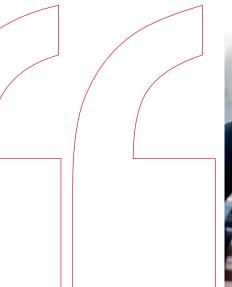
the drive strategy.

Efficiency and emotion.

TEXT: Johannes Köbler









"We are already among the leaders when it comes to efficiency."

Prof. Dr.-Ing. Ulrich Hackenberg

The Pre-Series Center in Ingolstadt.
Three cars are parked in the analysis bays on the ground floor – the new Audi Q7 e-tron quattro, the Audi RS 5 TDI concept show car and the Audi R18 e-tron quattro race car. Each embodies, in its own way, the future of Audi drive technologies.

The target average fleet consumption of 95 grams of CO₂ per kilometer is a key milestone on the way to the overarching goal of steadily improving efficiency. This will apply across the EU from 2020 onwards. "We are already among the leaders when it comes to efficiency," declares Prof. Dr.-Ing. Ulrich Hackenberg. "But we still have some way to go to reach our targets by 2020. Conventional methods – such as lightweight construc-

tion, optimized engines and transmissions as well as further aerodynamic improvements – should get us two-thirds of the way there. Our efficient ultra models can contribute hugely, too. They are a big market success and we will be rapidly broadening the range." Audi expects its e-tron models to contribute another 30 percent. In addition, the use of alternative fuels, for example, offers potential for reducing CO₂ emissions.

Dr.-Ing. Stefan Knirsch, Head of Powertrain Development, explains: "We will keep optimizing our TDI and TFSI engines in terms of fuel injection, forced induction, friction, thermal management and the combustion process. We believe these areas offer potential for cutting fuel consumption and therefore CO₂ emissions by 15 percent in the next five years. And we also aim to make further progress with the efficiency of transmissions and quattro drive."

One of Audi's tools for reducing CO₂ emissions is g-tron technology – the natural-gas drive system for which the Company produces synthetic methane at its facility in northern Germany. The only raw materials required are carbon dioxide and water; green power supplies the process energy. When running on Audi e-gas, the A3 Sportback g-tron is largely CO₂-neutral. The five-door premium compact car is the first Audi g-tron model. Others will follow.

Audi has defined a wide range of solutions for electrifying the driveline.

Mild hybrid concepts serve as the basis. These recover substantial amounts of energy during deceleration and thus help to save fuel. To achieve this, Audi has developed a new partial electrical system running at 48 volts. Since it provides substantially more power than the current 12-volt system, it unlocks potential for new technologies such as the electrically driven compressor. This small electric motor, which can accelerate to high speeds within hundredths of a second, compensates for the slight delay in response that is intrinsic to exhaust-driven turbochargers in the TDI engine. The Audi RS 5 TDI concept technology demonstrator, which is equipped with this technology, actually responds more spontaneously and dynamically when accelerating than the current series-

production RS 5 Coupé with V8 4.2 FSI engine, with the added advantage of superior fuel efficiency.

The next advances in the portfolio are hybrid and plug-in hybrid models with a variety of technology packages. These include vehicles such as the Q5 hybrid quattro, featuring compact lithium-ion batteries that are charged by energy recuperation while in motion. Plug-in hybrid models such as the A3 Sportback e-tron can be charged from a power socket; their large batteries have a range of up to 50 kilometers in electric mode.

The second plug-in hybrid model is the Q7 e-tron quattro. Markus Enzinger, Head of Drive Electrification Development, summarizes its vital statistics: "We combine a latest-generation 3.0 TDI with a powerful electric motor. The diesel engine and the electric motor deliver a system output of 275 kW (373 hp) and 700 Nm of system torque. That means the Q7 e-tron quattro accelerates from 0 to 100 km/h in 6.0 seconds and uses just 1.7 liters of diesel per 100 kilometers according to the European standard cycle. The electric range is up to 56 kilometers."

Such remarkable statistics are made possible by new high-tech systems such as intelligent control to keep both power units interacting in the most energy-efficient way. The predictive efficiency assistant evaluates the data it receives from the MMI Navigation plus system for the chosen route. On an incline, for instance,





the system identifies the right moment to switch from the electric motor to the TDI where this will save energy.

At the very heart of the electrification strategy are all-electric cars such as the Audi R8 e-tron. Based on the current state of development, its two electric motors driving the rear wheels produce a combined 340 kW (452 hp). "The battery has been our main area of progress, thanks to the new cells now available," explains Ricky Hudi, Head of Electrics/ Electronics Development. "We have succeeded in doubling the energy capacity to 91.6 kWh, which has increased the range from 215 to 490 kilometers," adds Jens Koetz, Head of Networking/Energy Systems. The rapid advances in battery technology create new opportunities for Audi. The brand's second electric car. a spacious long-distance vehicle, is also already in development.

At the end of 2014, Audi unveiled a fuel cell vehicle, the A7 Sportback h-tron quattro – an electric car that generates its power on-board from hydrogen. "There are virtually no hydrogen filling stations anywhere in the world yet, but we are developing this technology to production readiness," comments Immanuel Kutschera, Head of V Diesel Engine/Fuel Cell Pre-Development. "That means we will be ready to act as soon as the market develops and a fuel distribution infrastructure takes shape." The technology demonstrator is a genuine quattro a first for fuel cell cars. Its two electric motors drive the front and rear wheels with a combined output of 170 kW. The car accelerates from 0 to 100 km/h in just 7.9 seconds, and one tankful of fuel is enough to drive up to 500 kilometers.

"Our plug-in hybrid models such as the A3 Sportback e-tron and the new Q7 e-tron quattro are the right technologies for today's needs," adds Hackenberg. "They combine the merits of the combustion engine with those of electric drive. We will now be bringing one such model onto the market every year."

Looking further ahead, however, the development chief expects the all-electric car to gain in importance. The prerequisites are a public charging infrastructure and all-electric drive systems with a range on a par with today's combustion engines.

Hackenberg brings the meeting in the production hall to a close by summarizing Audi's drive strategy: "We resolve contradictions. At Audi, we attain a superlative combination of supreme power, sporty performance and fuel economy. CO₂ reduction is a requirement we are very happy to fulfill. We also seek to go the extra mile – we inspire customers with new technologies to create emotion and driving pleasure. That's the Audi way and that puts us in a very strong position."

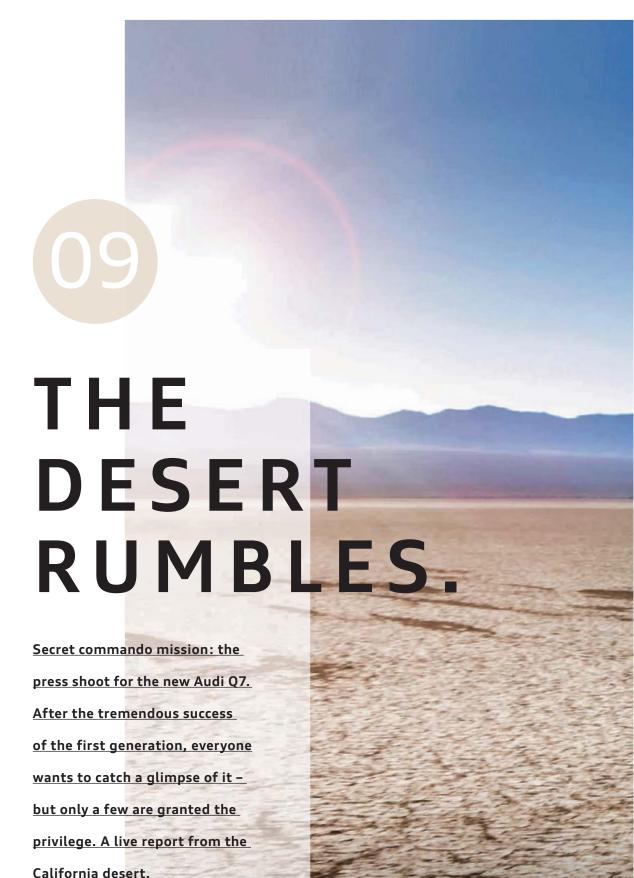


The **Le Mans Audi R18 e-tron quattro racing car** also features hybrid drive – in a very special form. A V6 TDI delivers almost 400 kW (approximately 540 hp) of power to the rear wheels. An electric motor, driven by a flywheel system, propels the front wheels with more than 170 kW for a few seconds at a time. In winning the 24 Hours of Le Mans in 2014, the hybrid racing model used 22 percent less fuel than its predecessor with conventional drive.



"There is extremely close and fruitful collaboration between motorsport and series production at Audi. Often, we are able to open doors in the company for our production development colleagues."

Ulrich Baretzky, Head of Audi Sport Engine Development



TEXT: Berthold Dörrich





Sportiness, efficiency, premium comfort: the new Audi SUV at the photo shoot in California.

I saw my first Q7 in September 2005. I still remember like it was yesterday. The Q7 wasn't a secret anymore – Audi had just presented it to international journalists, and the first photos appeared in the press – but hardly anyone had seen one live. My family had just expanded by two, and the generous interior and the third row of seats were just what we needed. Mine was one of the first to be delivered to a customer. Black – a real stunner, and not just in terms of looks.

I had to wait a long time before Audi ventured into the SUV segment – and immediately landed a bullseye with the first generation. That was more than nine years ago, and once again Audi is demanding that I be patient. But today is the day: I'm allowed to take a first look at the car that many would like to see, which is precisely why it is still top secret. That's also why the first photographs for the press are being taken at a secret location in a California desert. The paparazzi and prototype hunters haven't got a chance.

When I arrive at the location, the team of photographers has already been there a few days, meticulously preparing the shoot: perspectives, settings, driving routes and best locations for stunning stationary shots. At first glance a camp in the middle of nowhere. On the horizon, mountain ranges obscure the view of the seemingly endless desert plain, which is covered in a reddish dust. We get an early start, since the big shoot is scheduled for today. It's the time of day when the sun sends its first rays over the mountains on the horizon and bathes the entire landscape in this mild light that

photographers love so much and that makes the paintwork come alive.

I can't wait to see what color the designers have chosen for the presentation of their car. And I'm also excited to see whether the new Q7 follows the Audi trend of losing weight from one generation to the next. I expect the more tautly contoured design to be noticeable on the big body in a particularly positive way. It will likely be more masculine and distinctive, for even the Singleframe grille has undergone a true metamorphosis since my first Q7 and now has a much stronger presence. I can get a vague sense of some of this, despite the protective shroud covering the new Q7 in front of me.

The
paparazzi
and
prototype
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chance.



The new SUV in motion: Watch the video of the Audi Q7 here. Impressive. A stunner! A true Q7. The approaching sunrise sparks the crew to life. And now, finally, the car is unveiled. My first impression? Just like back then: impressive. A stunner! A true Q7. But more athletic, taut and masculine than the previous model. No, it hasn't gotten bigger; it has actually lost a few centimeters of length and width, which is good for the proportions, and – yes – conveys a certain lightness. The technicians on site confirm that this impression is not just visual. Weight is efficiency's greatest enemy, which is why a particularly large amount of development effort went into reducing the vehicle's weight.

The new Q7 is up to 325 kilograms lighter than its predecessor; 20 years of experience with lightweight construction have paid off. The chassis alone shed more than 100 kilograms and the engineers found another 71 kilograms in the body structure. A clear statement in the premium SUV segment. The matter of efficiency is also going to be interesting. We can't test that here during the photo shoot, but there likely will be a new benchmark. At the very latest when the Audi Q7 e-tron quattro is introduced as a plug-in hybrid with a diesel engine shortly after the market launch. It will be the first premium SUV with this engine configuration, underscoring once again the Audi philosophy of "Vorsprung durch Technik."



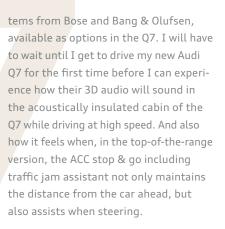


The team is starting to get a bit nervous, and I have to take a few steps back from the macaw blue SUV, which is now starting to shimmer in the first light of day. I can understand the designers: This blue seems to be a rather daring choice at first. But when the early morning light starts to play with the surfaces and edges, this color is the perfect canvas for the composition of shapes, light and shadow that the photographer will capture on a chip in the minutes ahead. I just have to remain patient a while longer before I can also inspect the new Q7 from the inside. My first Q7 certainly didn't suffer any lack





of space. Yet the technicians tell me that | tems from Bose and Bang & Olufsen, the new model – despite being shorter in length - will offer passengers even greater interior comfort than its predecessor. They join me a bit off to the side to avoid interfering with the photo team. After all, the perfect moment for a photograph will only come by once this morning, and we don't want to miss it! We use this time to talk about a few things that are not immediately apparent to the eye. Driver assistance systems, infotainment and connectivity, for example. In the Q7, these are joined by a retractable display on the dashboard and the new MMI control interface with optional touchpad. It will therefore be exceptionally easy to use the optionally available Audi connect services. The same applies to the premium sound sys-





A test drive is an absolute no-go today. After all, the Q7 is still so top secret that it is covered up again as soon as the picture of the day is in the can. But I saw it and I am certain: We may have been in the desert, but it wasn't a mirage!



Powerful and efficient: the updated engines

The Audi SUV will launch on the German market with two updated V6 engines that are as powerful as they are efficient. The 3.0 TDI with 200 kW (272 hp) and the 3.0 TFSI with 245 kW (333 hp) accelerate the car from 0 to 100 km/h in 6.3 and 6.1 seconds, respectively. The diesel consumes on average just 5.7 liters of fuel per 100 kilometers, corresponding to 149 grams of CO₂ per kilometer. The Audi engineers have reduced the new Q7's fuel consumption by as much as 28 percent versus the previous model. The Q7 e-tron quattro, which will follow later in the year, actually emits less than 50 grams of CO, per kilometer in the European standard cycle. The world's first plug-in hybrid with a six-cylinder diesel and quattro drive uses a 3.0 TDI engine and a powerful electric motor to produce a system output of 275 kW (373 hp). In purely electric mode, it has a range of up to 56 kilometers.

Prof. Hackenberg, how is Audi creating tomorrow?





... We live responsibility and create tomorrow with this in mind. Sustainability serves as the standard for our corporate activities and is firmly anchored in our core values ...

Data. Change. Opportunities.

Advancing digitization is increasingly shaping our society: Global networks, flexible communication and high-speed information already permeate everyday life. Data is the oil of the 21st century.

Axel Strotbek, Member of the Board of Management of AUDI AG for Finance and Organization, meets scholar and author Prof. Viktor Mayer-Schönberger at the Audi Data Center to discuss the opportunities, risks and future direction of digital mobility.





Digitization is the megatrend of the 21st century.

Mr. Mayer-Schönberger, how do you as an expert on Big Data see the impact of digitization on major corporations such as Audi?

MAYER-SCHÖNBERGER: The main effect of this rapid growth in data volumes is that we have a comprehensive basis for our decisions. In an increasingly complex and volatile world, large organizations such as Audi constantly need to make decisions that have a long-term impact. The more they build relevant information into their decision-making processes, the greater the quality of the decisions that a company makes. That is a key to success.

STROTBEK: Digitization is the megatrend of the 21st century – Big Data is the buzzword on everyone's lips. For us, as a car manufacturer, it mainly means we can analyze the information we already have

even faster and put it to even better use. Information and data are relevant for every stage of the value chain. But the knowledge that we generate from it is more important still. For adapting our products to customer requirements, for example. In other words, for us data connectivity is not an end in itself – it is above all a means to an end: to attract and delight customers. And the intelligent use of data of course also improves our efficiency and therefore our competitiveness.

People often refer to data and information as the oil of the 21st century. Mr. Mayer-Schönberger, what do you think?

MAYER-SCHÖNBERGER: Yes, I think that's quite accurate. But obviously any owner of oil reserves can only profit from them if they tap the oil source. It's the same with data.

STROTBEK: And not all oil reserves are the same – they aren't always worth exploiting. The trick is to filter the relevant information out of the deluge of data, analyze it precisely, understand it and draw the right conclusions from it. We always start by asking ourselves: What will deliver genuine added value? We want to use data to improve not just the customer experience, for example, but also product quality and traffic safety in particular.

Audi delivered more than 1.7 million vehicles in 2014 and already offers over 50 different models in countless configurations. So customers have access to a high degree of individuality and diversity. Would this even have been conceivable in such a way prior to digitization?

MAYER-SCHÖNBERGER: If we look at the major economic cycles, the industrial revolution precipitated mass production and therefore de-individualization. With the new digital instruments, we can now provide a high degree of individuality while still practicing mass production. The companies that do so successfully are the pioneers of this development.

STROTBEK: At our company, we have reached a level of complexity that can only be handled with digitization. In theory, given the range of versions we are already building, we make no two cars that are exactly the same over a period of one year. Meanwhile, we aim to offer our customers a unique brand experience of which simplicity is a hallmark. Take our Audi Configurator, for example. It covers the entire range of versions, but it is quick and easy to use. And customers at the Audi City in Berlin, London and Beijing can already configure their Audi virtually in full size on what we call powerwalls. Our next step will be to introduce such technological solutions at the retail premises of our many partners worldwide.

Big Data has evolved into a huge business area. But society doesn't always view this development as purely positive. Many people feel they have been turned into transparent citizens. Are they wrong to have such misgivings?

MAYER-SCHÖNBERGER: People have a degree of mistrust that in some cases has been aggravated by scandals. The important point is that business models based on Big Data will only work if customers have a level of trust that means they are prepared to give up their data. People will only do that if there are clear rules in place.





AXEL STROTBEK

Member of the Board of Management of AUDI AG for Finance and Organization

Axel Strotbek studied Industrial Engineering at the Universities of Karlsruhe and Linköping (Sweden) before earning his MBA at the University of Illinois in Chicago. He joined the Volkswagen Group as Board of Management Assistant for Controlling and Accounting in 1991. After other positions within the Group, he served as Executive Vice President of Volkswagen Group China from 2004 to 2007. He has been Member of the Board of Management for Finance and Organization at AUDI AG since 2007.

STROTBEK: That's actually quite simple. We have been working on making the automobile safe for over 100 years. Our customers rightly trust us to protect them physically. We think it goes without saying that we protect our customers' data as well.

What does that mean in specific?

STROTBEK: At Audi, there are two important aspects to data protection. On the one hand, we protect our data against unauthorized access from outside. We do that by implementing stateof-the-art IT security structures at all corporate levels. On the other hand, we handle our customers' data responsibly. We attach considerable importance to self-determination and transparency. Self-determination means that customers decide for themselves what data we receive from them. Transparency means we make it clear to them how we use their data. And another important point is that our customers are putting their trust in us. In return, we will offer them added value.

What kind of added value do you mean?

STROTBEK: Here is a simple example: Product diversity is making it more and more difficult for us to offer every version of our models at every single dealer, for instance for test drives. We need to find a solution to that - and one solution is the intelligent use of data. It is already the norm for online retailers to give me personalized product recommendations when I indicate I am interested in a particular type of goods. By applying the same logic, our sales division can anticipate customer preferences to the point where we have the right vehicle available for a test drive at the right moment. At precisely the dealership that the customer prefers. That is exactly the sort of issue we are working on.

MAYER-SCHÖNBERGER: We expect the digital tools of the future to solve problems and make everyday life easier, even more than they do already. And they certainly have that potential. The latest developments – such as the use of swarm intelligence, which is only made possible in the first place by Big Data – could help to improve traffic safety, for example.

PROF. VIKTOR MAYER-SCHÖNBERGER

Expert on Big Data, scholar and author

Viktor Mayer-Schönberger has been Professor of Internet Governance and Regulation at Oxford University since 2010. The graduate lawyer from Austria set up a software company at the age of 20. After earning his master's degree at the London School of Economics and Political Science, he moved on to Salzburg and Vienna before receiving a professorship at the Harvard Kennedy School of Government in 1999. In 2009, he called for the right to be digitally forgotten in his book "Delete." "Big Data: A Revolution That Will Transform How We Live, Work and Think" was published in 2013.

STROTBEK: That is where technologies such as piloted driving play a key role. Studies show that around 90 percent of accidents are down to human error. We can improve safety in road traffic through piloted driving. And make driving more convenient. Our customers will soon be able to use their valuable time more effectively when stuck in a traffic jam. But to take piloted driving to the next level we also need to have the right legal framework in place. To preserve Germany's status as a center of innovation, regulatory changes need to be promoted more actively if we are to avoid losing our technical edge in the global battle of ideas.



<u>Digital revolution:</u>

The world's volume of data is currently doubling every two years. Keeping the ever-swelling flood of data under control is proving to be a major challenge. New technologies, methods and concepts are becoming increasingly important ways of handling it. The term Big Data describes the analysis of large data volumes from different sources of information in order to use the findings obtained from them in making decisions. Evaluating data in real time therefore becomes a success factor.





A campus-like feel: The Piazza at the Audi site in Ingolstadt is an inviting setting for networking outside in the fresh air.

Until just a few years ago, car buyers really had only one essential decision to make – gasoline or diesel? The range of choices has now been extended to include electric cars, hybrids, plug-in hybrids and models that run on natural gas. Natural and synthetic fuels alike power our engines now, and each fuel will have its place in the future. The Company is intent on finding pioneers and unconventional thinkers who

can consistently give fresh meaning to "Vorsprung durch Technik." In the Audi workplace there is strong emphasis on employees' needs. Globalization, changing priorities and demographic developments are having a decisive influence on the expectations these professionals have of their employer. In which phase of life is the employee? What career opportunities and experiences does he or she want? Most people's careers used to progress in a linear fashion, and moving to new work locations or switching professions were relatively rare changes. Today, starting a new job often means a geographic move – and not only to another city, but sometimes even to another country.



Industrial mechanic Peter-Michael Hahn inspects the filling valve on a gluing robot to ensure correct dosage.

The Audi Research & Development Center in Beijing began generating "Vorsprung durch Technik" in 2013.





In the future, around 1,500 employee training courses will be conducted each year in the Training Center at Audi México.

Roland Plener is among those who took that step. He has been with Audi since September 1987, most recently as a group leader in assembly. Plener will be one of the first to go to Mexico to set up production. "I want to do pioneering work here," he says. "To play a part in shaping a plant from the ground up is a tremendous opportunity. And I want to experience the country and its people."

Before Plener flies to Mexico, the Company will prepare him intensively for the change. He is taking Spanish language courses at Audi Akademie and completing an intercultural training program. All of that is included in the individual support provided by the International Human Resources Management team at Audi. In 2016 – with the new plants in São José dos Pinhais, Brazil, and San José Chiapa, Mexico – Audi will have production sites in 13 countries.

Audi has developed into a global corporation in recent years.

Today, approximately 80,000 people work for the Audi Group. Innovation plays an important role in all areas. In 2014, for example, the "Audi Inventors Award" was presented for the first time to 459 employees whose technical innovations were patented in 2013.

Clean lines: interior designers in a seating box of the Audi TTS Coupé.









In October 2014, Audi began qualifying the Mexican employees and apprentices on site at the San José Chiapa Training Center. Audi is providing the instruction and training in close cooperation with the Technical University in Puebla.

gital age is

The International Trainee Program is a very popular way to start in the Company.



Fuel consumption and emission figures at the end of the Annual Report

A global-scale company requires short distances at work and efficient processes.

And having the latest tools makes it easier to share knowledge and save time. They offer close proximity where kilometers would otherwise create distance. Multi-user programs allow several employees to work on the same file simultaneously. Machine maintenance is made simpler by augmented reality and remote diagnostic instruments. High-tech devices are reliable, indispensable "helpers" used every day in all areas.



Florian Preis shows the 14-spindle tool to his daughter Lena.



Cutting-edge body production in Győr: This is where the new TT Coupé is produced.

The future of work will bring with it more extensive interaction between people and machines, and also just among machines – a merging of the real and virtual worlds.

These high-tech solutions are also extensively applied in occupational health management. Florian Preis is someone who recognized their potential where he works. To improve the ergonomics there, he and a colleague developed a 14-spindle tool. "It screws 14 bolts at once into the body floor," Preis says. "That reduces the strain on the employees at this section of the line. Instead of working with their arms above their heads, now they only need to make sure the spindle tool is properly positioned." Preis submitted his creative concept to the Audi Ideas Program.

Ergonomics, promoting good health, as well as a good balance of work and private life are vital elements of an attractive workplace. These are needs that all employees have in common. Depending on their individual life situations, though, they have varying expectations of their employer. Parents, for example, place great importance on knowing that while they're working, their children are well cared for.

In the paint shops, man rules over machine: Despite the latest painting robots, the human eye is the final judge of premium quality.



The Audi Ideas Program invites employees to submit improvement suggestions and ideas. A total of over 800,000 suggestions have been contributed in the last 20 years. A prize system gives the employees incentive to participate and rewards their creativity and commitment.



There are around 80,000 Audi Group employees worldwide. They work in teams with a mix of nationalities, carry out projects at multiple locations simultaneously, and communicate in several languages spanning the world's time zones. This diversity is enriching but also poses challenges of both a professional and cultural nature for the Company and its employees. It is therefore crucial to create conditions that will ensure everyone in the Company can realize their potential. This freedom is a necessity for powering innovation, whether in work areas at Technical Development, in production halls, or the offices of the corporate strategists.



Audi has arranged partnerships with several daycare centers in its efforts to support families. Nicola Priemer and her children also make use of this service.

Boris Meiners, Head of Brand Development, is the father of two daughters. He relies on the miedelHaus in Ingolstadt. "The whole family was in France for two years, until April 2013. When we returned to Germany it was hard to find a place in daycare for Calotta, our younger daughter," Meiners recalls. It didn't take long for him to find out about the miedelHaus. The center offers flexible, short-term daycare, which can be booked online the evening before. "When we first got back it wasn't time for the new kindergarten year to start yet, and the center filled the gap, giving us time to find a place for our daughter," he says. "Since then we sometimes bring our girls to the miedel-Haus during vacation."



Boris Meiners loves spending time with his daughters Matilda and Calotta.

The partnership with the miedelHaus is only one of many that Audi has arranged with child care centers. The Company also helps facilitate contacts to long-term nursing care facilities. It's another way Audi helps its employees with their personal needs, giving them important breathing space. Greater flexibility and an optimal balance between work and private life will be decisive factors in tomorrow's workplace. In the midst of a sweeping cultural shift, Audi is reorienting its work environment. That's because the Company knows innovation doesn't emerge from a 9-to-5 routine. And people can only create "Vorsprung durch Technik" if their batteries are fully charged.



The miedel Haus in Ingolstadt offers flexible short-term care for children of employees.

Prof. Sigi, how is Audi creating tomorrow?





A creature loved by all, it serves a vital function in the terrestrial ecosystem – the honey bee, Apis mellifera. Indispensable for food production, the honey bee is the third most important domesticated animal for humans.





It's a warning some attribute to Albert Einstein: If the bee disappears off the surface of the globe, then man would only have four years of life left. Without bees, after all, there would be practically no pollination of flowering plants, and the ecological and economic impacts of that would be dramatic. The Audi Environmental Foundation has been committed to preserving these flying insects for years. Now the foundation is funding a project with an entirely new approach to researching bee behavior: "Vorsprung durch Technik" in the beehive.

An audience with the queen. The Würzburg-based HOBOS project enables fascinating live views from inside an active bee colony.

The future of our planet depends on the intelligent, sustainable treatment of the biosphere by humanity. Playing an active part in species protection starts with knowledge. That's why the Audi Environmental Foundation has been funding various bee projects since 2011, especially to make nature and our environment interesting and exciting for kids and teenagers.

One of these commitments is the HOBOS (HOneyBee Online Studies) project. This unparalleled online educational platform of the Julius Maximilian University of Würzburg was launched in 2006 by Prof. Dr. Jürgen Tautz, a leading expert on bees. The centerpiece of the project is an active bee colony. An array of cameras and sensors are used to record the bustling action in and around the beehive in Würzburg, which can be watched on video without disturbing the colony in the slightest. Data on the bee colony, the state of vegetation and the weather is recorded in real time. When do the honey bees swarm? Do bees sleep at night? And what do honey bees do in the winter?



"HOBOS is the only project in the world that makes it possible to go so deeply into the world of the honey bee."

life processes and the interrelationships

with nature visible and easy to under-

stand.

>>> Prof. Dr. Jürgen Tautz

This live video transmission from the residence of the queen bee and her entire colony is nothing like the usual, dry biology class. Thanks to the project, pupils are obviously fascinated when working on natural science questions. That's because HOBOS gets their attention with something they are already familiar with: Their passion for technology – for smartphones, computers and tablets – is their gateway to the honey bee phenomenon. And the young people learn the fun way about bees' lives as social organisms and their key balancing role in nature.

This is the HOBOS way to convey something essential: It's fun to be involved in natural sciences. This is attracting more and more young learners to the "MINT" subjects (Mathematics, Informatics, Natural Science, Technology) as well as sparking interest at an early age in the possibility of careers in these fields.

Prof. Dr. Tautz and his team are continually expanding the bilingual educational site, but the HOBOS research platform still has loads of untapped potential. Since the fall of 2014, the Julius Maximilian University has been working with the Audi Environmental Foundation on a revolutionary advance in the concept's development - HOBOS 4.0, a progression from research-based learning to scientific observation of bee behavior using the latest technology. The redesigned bee colony, with a bee nest designed for full exposure and a 360-degree rotating robotic arm, enables a completely new, large-area view of the honeycombs and into the comb alleys without disturbing the bees' behavior, which is being observed this way for the first time. New optical 3D technologies allow previously unparalleled insights into how the comb

is built. And thermographic images captured with the latest technologies make it possible to address questions in unprecedented ways. A newly developed system allows researchers to distinguish between individual bees and monitor their behavior, as well as to draw conclusions from how individual bees are affected by adverse environmental conditions. Thanks to sensors such as highly sensitive accelerometers, honeycomb vibrations can be recorded as communication signals.

The primary objective of the HOBOS 4.0 project is to successfully manage the flood of data involved. The Department of Biology at the University of Würzburg has developed a Big Data concept especially for this, entering an entirely new scientific dimension.





The partnership for more in-depth research – and thus more extensive protection of the honey bee – goes beyond purely financial support. Together with AUDI AG, the Audi Environmental Foundation is providing the site for the HOBOS 4.0 research station: on the Audi Münchsmünster plant premises near Ingolstadt. The plant primarily produces components used to perfect the systematic use of lightweight construction, and observations of the honey bees has given Audi insights relating to bionics. So it is only natural that Apis mellifera should get something in return.

Like all Audi Environmental Foundation projects, this one is also oriented towards promoting a system that will be sustainable for humans and the environment. It befits the foundation's mission therefore to not only initiate projects, but also to support them and play an active role in their ongoing development over the long term.

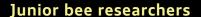


Researching the world of bees

In cooperation with the Audi Environmental Foundation and Klett MINT, Prof. Dr. Jürgen Tautz has published a book presenting the latest findings of bee research. A wealth of new data and insights have emerged from the HOBOS project. The overarching theme is the life cycle of a bee colony, from its formation to swarming to equipping the new home

the life cycle of a bee colony, from its formation to swarming to equipping the new home to the breeding of offspring. Readers will be amazed and impressed by the book, which features photographs by Helga R. Heilmann and presents an engrossing picture of the honey bee and bees as a superorganism.

For a free copy of the German book, just email your order to: bestellung@audi-stiftung-fuer-umwelt.de



In a joint effort with the Bayerische Landesanstalt für Weinbau und Gartenbau (Bavarian State Institute for Viticulture and Horticulture), 26 schools have been equipped with a set for a school bees project group. Here the children learn all about beekeeping and the biology of the honey bee. Special emphasis is placed on explaining ecological interactions and encouraging social skills, a sense of responsibility and thinking with the aim of problem-solving.



Dedicated beekeepers

In partnership with two beekeeper clubs, a home for the flying insects was created on an ecological compensation area near the plant. Hobby beekeepers Michael Wansner and Andreas Kopp, both Audi employees, take care of the eight colonies with more than 400,000 honey bees that now live in Max Emanuel Park, Ingolstadt.



See for yourself the industrious way of life in a beehive, and which rules govern how the bees' communal life functions. To see the live stream, visit www.hobos.de/en 13

"Individual players win games, a team wins championships," as the saying goes in sports. This notion also holds true in the philosophy of Audi. It helps ensure that Audi employees will consistently turn "Vorsprung durch Technik" into reality in the coming years at 17 locations in 13 countries. After all, in an industry where the playing field is the entire world and time is a crucial competitive advantage, nothing is more important than perfect team play between all areas.

The fascination

TEXT: Boris Ziefle

of procurement. Using the Audi RS 5 TDI concept as an example, a car that combines a biturbo engine with an electrically driven compressor, we demonstrate how team play delivers innovation. This includes team play between the various Audi departments as well as early, close cooperation with suppliers.

It all started with the goal

of improving substantially the spontaneity of boost pressure buildup and of increasing the engine's power output. At the same time, the aim was also to reduce fuel consumption and CO_2 emissions. The V6 3.0 TDI engine obtains its power from the boost pressure that the biturbo builds up. This depends on the energy in the exhaust gas.

The Audi developers came up with the idea of using an additional electrically driven compressor to speed up the boost pressure buildup in the customary biturbo. The result: direct response and high torque even at low engine speeds.

This innovative concept from the engineers posed a real challenge for Audi

Procurement personnel: How can

I source a technology that does not exist
yet and is still at the development
stage? We take a look behind the scenes
of procurement and show how the
electric biturbo made its way into preproduction. Over the next few years,
the idea is then to fit several model
series with this technology in series
production.



MARKET

O1 // Advanced development started in Neckarsulm four years ago. In this process, time is a decisive competitive advantage. Direct paths were needed, coupled with exacting quality requirements. All the strengths and expertise had to be bundled. Procurement and Technical Development exchanged ideas several times a week to come up with solutions quickly. Quality Assurance, Logistics and Controlling were also actively involved from the outset. Genuine team play that allows everyone to work together fast.



O4 // Mechanical know-how relating to the conventional compressor and expertise in electric drives – you seldom find these two areas of expertise under a single roof. The Audi Procurement team checked one parameter after another, whittling down the potential suppliers all the time. At the end of the screening process only a handful of potential suppliers remained.

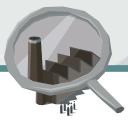


02 // **The challenge:** to facilitate exclusive innovations for Audi and integrate these worldwide into our models. **The tool:** strategic supplier integration. Early integration into the product creation process gives rise to transparent and trusting partnerships between Audi and its suppliers. With this global cooperation, Audi is laying important foundations for tomorrow's business.

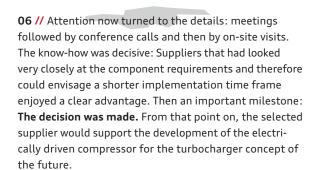


03 // Which supplier is suitable for developing the electrically driven compressor together with Audi through to series production and will ultimately be able to manufacture it cost-effectively? Within the Audi Group, the search for the needle in the haystack began for the Regional Offices distributed around the world. After all, the more complex a component is, the more requirements the future supplier will also need to meet.





05 // Procurement visited each of the individual potential suppliers to clarify key issues: Can the supplier implement the project? Are their production facilities state of the art? Is the production plant large enough to supply the volumes needed for series production in the future? Does the supplier have scope to expand further? But above all: Do they have the same quality standards as the premium brand Audi?



07 // The supplier had been specified, the budget too. Experts from Procurement, Quality Assurance, Logistics and Production now defined precise processes. The Production Readiness Team accompanies the supplier from the moment the contract is awarded through to series production. The philosophy entails being the on-site coach for the supplier. It is here that the final questions were clarified: How can Audi help ensure smooth production?





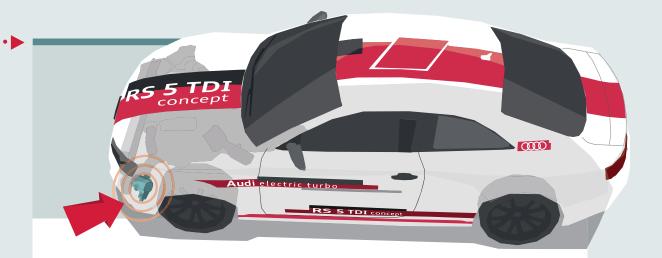
08 // The next challenge: startup of production for the pre-series, an important step in enabling the start of series production in the next few years. While development on the part of the supplier took place predominantly in France and the United Kingdom, Poland was the production location. International networking worked. In the intercultural mix of people, countries and languages, everyone pulled in the same direction. That's European-style team play. Respekt. Respect. Szacunek.

09 // Goal achieved: The finished component is a real revolution and is expected to go into series production in 2016. As the inventor of the TDI engine for cars, Audi is also adding a new dimension in terms of sportiness and efficiency with the electrically driven compressor. This will also be a viable solution for gasoline engines in the future. Made possible by innovators. Or to be

more precise: by a team

of innovators.





The electric V6 biturbo in the Audi RS 5 TDI concept produces 283 kW (385 hp). The electric compressor quickly provides high torque when starting off. If the driver stays on the accelerator, it takes roughly four seconds to reach 100 kilometers per hour. Boost pressure is available immediately after each gearshift thanks to the intelligent interplay between the two turbochargers and the electrically driven compressor.

The most impressive feature is the rapid, virtually seamless development of power at low engine speeds. The strengths of the electric biturbo come into their own precisely where they are most effective in everyday driving. The turbocharger eliminates the need for frequent downshifting, keeping engine speeds low. Sporty drivers will really appreciate the passing power and immediate delivery of power when exiting a curve. The electric biturbo is powered by a separate 48-volt power supply together with its own, compact lithium-ion battery in the trunk. A DC/DC converter provides the connection to the 12-volt electrical system.

Team training.

To prepare the Procurement team for the challenges of global procurement, Audi is adopting a radically new approach as part of its commitment to training, consisting of a tailor-made advanced course. The Technische Hochschule Ingolstadt (THI) developed the part-time MBA course in Procurement Management in close cooperation with Audi Procurement. The first Master of Business Administration candidates started the course on July 11, 2014, including nine employees from the Volkswagen Group. The respective Group brands assume the course fees for their employees and grant them time off for the classroom-based components. In addition to providing detailed knowledge of procurement management, a stay abroad also offers intercultural experiences.

Dr. Martens, how is Audi creating tomorrow?



... It's not merely about satisfying customers, but inspiring them, surprising them and offering them more than they might expect – wherever they come into contact with the Audi brand ...







"The game was the same, but the rules were new."

Audi is in one of its toughest races. Porsche is returning after 16 years, Toyota has improved and Audi itself had to overcome several hurdles during the preparation phase. One thing is settled after qualifying: The three R18 e-tron quattro* cars entered at Le Mans will be starting from positions five, six and seven. And they will be racing according to the new FIA rules that put the focus on vehicle efficiency, which aside from the aerodynamics, has the greatest effect on fuel consumption. For the manufacturers, this meant a free choice of engines - with conditions. The object is to drive as fast and as far as possible on a limited amount of fuel. The 2014 race marked the first time that the manufacturers competed against one another with a variety of hybrid drive solutions.

1 FUEL EFFICIENCY

"The drivers had to conserve fuel. We were 22 percent more efficient than in 2013." Chris Reinke

Saturday, 2:45 p.m. Last meeting for Audi. Head of Motorsport Dr. Wolfgang Ullrich prepares the team for a hard contest. Drivers, technicians, engineers – everyone is extremely tense, expectations weigh heavily. They have 12 legendary victories behind them. Before them is the uncertainty of what will happen in the next 24 hours, because everything is different this year, yet fans and the media nevertheless expect Audi to extend its winning streak.

2 **EXPECTATIONS**

"The entire industry turned its eyes to Le Mans. You could feel the interest everywhere." Allan McNish

Chris Reinke appeals to team spirit and the will to win, and is banking on the race strategy. The drivers are motivated. André Lotterer acknowledges the tight bond among the race drivers. "We three drivers came to Audi Sport at the same time, became close and are now best friends. It is an honor to drive with Marcel and Benoît." Lucas di Grassi is also looking forward to the race with his colleagues Tom Kristensen and Marc Gené. "Now I'm going into the race with two very experienced teammates."

3 SUCCESS FACTORS

e are concentrating on something that counts now more than ever: good teamwork and efficient pit stops." Chris Reinke

Saturday, 3 p.m. The starting light switches to green. Promptly, the field of supercars roars en masse over the Circuit de la

Sarthe. It loses its homogeneity after the warmup lap. The formation breaks apart. This is known in racing as a "flying start."

At 3:05 p.m., the engines ratchet up and the speed turns extremely fast. The drivers attack, 24 hours long. This scenario gets the adrenaline flowing both on and off the track. 54 race cars are competing in six different vehicle classes for the highest number of laps. The three Audi R18 e-tron quattro cars with the numbers 1, 2 and 3 are competing with Porsche and Toyota in the LMP1-H prototype class - the premier class in endurance racing.

André Lotterer sits behind the wheel of #2, fights his way to 2nd place and takes up the pursuit of the #7 Toyota. The #1 Audi is also in good position. No one expected it would even be driving today after Wednesday's practice session delivered a huge shock: Driver Loïc Duval lost control of his Audi R18 e-tron quattro while driving at over 270 kilometers per hour and crashed into the barrier lining the track.

4 PROBLEM

"Loïc Duval fortunately had only minor injuries, but the car was completely destroyed." Chris Reinke

Reliable as Swiss clockwork, the engineers and technicians worked through the night to completely rebuild the #1 Audi R18 e-tron quattro. A laborious and nerve-wracking exercise under almost unimaginable pressure. But they succeeded - a virtual miracle! Marc Gené replaced Duval behind the wheel.

5 TIME PRESSURE

"For the mechanics, the race began before the race." Chris Reinke

At 3:28 p.m., the #7 Toyota is in the lead. André Lotterer in the #2 Audi is in second. Le Mans demands everything from the drivers and teams. To take the checkered flag, you have to have the best strategy mix. Proper pit stop timing is one element of this.

6 PIT STOP STRATEGY

"Our #1 Audi pitted early during the first hour to prevent all three Audi cars from pitting at the same time." Tom Kristensen

At 4:35 p.m., a heavy rain shower causes chaos on the track and triggers the first safety car phase. The Audi team reacts immediately and quickly changes tires.

Audi Sport Team Joest – Le Mans 2014 #1 Audi R18 e-tron quattro: Marc Gené (ES) for Loïc Duval (F), Lucas di Grassi (BR), Tom Kristensen (DK); starting position seven. #2 Audi R18 e-tron quattro: Marcel Fässler (CH), André Lotterer (D), Benoît Tréluyer (F); starting position six. #3 Audi R18 e-tron quattro: Filipe Albuquerque (PT), Marco Bonanomi (IT), Oliver Jarvis (GB); starting position five.





"The aerodynamics of the R18 were developed specifically for this race."

Tom Kristenser

7 INFORMATION ADVANTAGE

"We could tell from the weather radar on which sections of the track it was raining. This information was radioed to the drivers." Chris Reinke

The rain is causing everyone problems. The first accident happens around 4:40 p.m. A Ferrari in the GT class rear-ends Marco Bonanomi in the #3 Audi at full speed. He skids and slams into the guardrail.

8 UNFORTUNATE ACCIDENT

"Although Marco Bonanomi was driving carefully in a dangerous spot, another car took him out. This was a really bitter loss." Chris Reinke

Neither of the drivers are injured, but the #3 Audi and the Ferrari are out of the race. The #8 Toyota, which also had an accident, manages to get back to the pits. Statistically, this means the odds of victory for Audi have dropped by a third.

9 LOST OPTION

"Suddenly we were down an Audi and therefore also a key strategic option." Chris Reinke

It comes down in buckets around 5:30 p.m. All of the classes continue to race tirelessly around the track. Leading the pack are the prototypes in the LMP1-H class. They leave the slower and smaller cars behind, and compete in their own very personal contest on a different plane. It is all about lap times, record laps and the best drive system – a matter of technological honor.

The #8 Toyota has long since returned to the track; the #20 Porsche is leading. The LMP1-H cars are using a number of different drive systems. Porsche swears by its new 919 hybrid with a turbocharged, four-cylinder gasoline engine and electric motor; Toyota by the TSO40 hybrid with a gasoline-powered V8 and electric motor with innovative capacitor technology. And Audi is banking on the all-new R18 e-tron quattro with an extremely fuel-efficient and progressive combination of diesel and hybrid drive system comprising a V6 TDI and a motorgenerator unit (MGU) on the front axle. This recovers energy during braking and converts it into electrical energy for the drive system.

10 STRESS TEST

"The great unknown was the actual relative strengths." Chris Reinke

The race has found its rhythm. More than 263,000 fans are celebrating their race event. By around 7 p.m., Audi is

entrenched among the leaders. The #20 Porsche is still in the lead, followed by the #7 Toyota. The #2 Audi is in third place. Besides engine technology and teamwork, the improved aerodynamics also play an important role when it comes to racking up laps.

11 DRAG

"Le Mans is so unique, we designed a special body for it." Chris Reinke

Audi remains firmly in third place with the #2 car. A good sign after a week in which the smooth pace was marred by the reconstruction of the #1 Audi.

12 LOST TIME

"You lose a lot of time to safety car phases." Allan McNish

The safety car comes back out onto the track after the #47 Nissan LMP2 brushes the guardrail. Racing resumes after six minutes, but a lap advantage was lost here and there.

13 NIGHT ADVANTAGE

"The tires worked great at those temperatures. The new laser light improved visibility." Chris Reinke

The drivers welcome the night at racing speed. While the new laser lights on the Audi R18 e-tron quattro cut through the darkness with surgical precision, the race fans' camp fires beside the track provide a comforting contrast. It has turned cool outside. It is now Sunday, shortly after midnight, and the two Audi R18 e-tron quattro cars – now in second and third place – race nonchalantly past the other classes.

14 CALCULATING

"Marc Gené drove very fast and steadily from the outset. Involving him in our preparations paid off." Chris Reinke

At about 3 a.m. it starts getting difficult to stay awake. The body wants sleep, but the circumstances don't allow for that. Everyone has to be vigilant. Technicians, engineers and drivers who are not currently in a car try to sleep. It isn't restful, though.

15 VIGILANCE

"The night is always something special. The drivers have to remain flawless and consistently fast even in the dark." Chris Reinke

The race flows over the asphalt, resembling a sea of fast-moving lights that flows from the forest and breaks through the darkness before disappearing again into the dark, blackishgreen on the other side. The #2 and #1 Audi cars continue to hold down places two and three as they pursue the Toyota leading the race.

16 FOCUSED

"One of the team's strengths is that it is focused. The adrenaline level is high, but is used positively." Allan McNish

Shortly before 3 a.m., a problem with the #1 Audi R18 e-tron quattro puts the team of technicians into high alert.

Tom Kristensen immediately steers the race car into the pit.

17 TECHNOLOGICAL ADVANTAGE

"Thanks to the telemetry data, we knew before he got here what needed to be repaired." Chris Reinke

The diagnostic systems indicate that an injection nozzle is defective even while the car is still on its way into the pits. The engineers and technicians immediately get to work and complete the complex operation on the heart of the Audi R18 e-tron quattro in under seven minutes. A tremendous achievement at record speed.

18 STRATEGIC ADVANTAGE

"Audi with Benoît Tréluyer in the #2 car took over the lead of the race for the first time after 5 a.m." Allan McNish

At 5 a.m., the #7 Toyota, until then the fastest car, retires with an electrical problem. At first there is no sign of the car anywhere.

19 LEAD CHANGE

"When Marcel Fässler had to pit, we took over the lead in the sister car." Tom Kristensen

The drivers cranked up their ambition a notch. Everything has been going well for hours now. Then, at around 7 a.m., the #2 Audi R18 e-tron quattro suddenly develops some problems and has to pit. Time for #1 to live up to its name.

20 **PURSUIT**

"We expanded our lead with the #1 to two laps and just had to bring this lead home." Tom Kristensen

At around 8 a.m., #1 has a comfortable lead. Over the #20 Porsche. Directly behind them is André Lotterer in the #2 Audi. At 10:20 a.m. he shows his spirit and records the fastest lap so far at 3:22.881 minutes.

21 MURPHY'S LAW

"At Le Mans you can never feel too secure about your position." Allan McNish

Pure drama! At 11:15 a.m., the #1 Audi develops turbo trouble; Tom Kristensen immediately turns into the pits. The red-hot turbocharger has to be replaced. Everyone fears the worst, since engine-related repairs are complicated and time-consuming. In the meantime, Porsche regains the lead.

22 TEAMWORK

"The 'best team in the world' only needed 17 minutes to perform the replacement."

Tom Kristensen

The race is wearing everyone down. Just a few hours until the end, and the tension is also mounting among the spectators and journalists. The Audi drivers are giving it their all, working their way to the front bit by bit and with the strategic support of the race team. #1 is in third place while #2 is battling for first.

23 **SUPERVISION**

"We knew how strong the opposition is. It was easy enough for us to check the lap times. We were able to get closer again." Chris Reinke

Then at 1:30 p.m., the race comes to a sudden end for the #20 Porsche: engine damage. The #2 Audi R18 e-tron quattro takes over the lead, closely followed by the #1 Audi. The first spectators begin to celebrate – Audi can no longer be stopped. A spectacular, hard-fought and highly deserved victory for the entire Audi team, which this year was sorely tested.

24 **FINAL SPURT**

"We came out of nowhere, were almost out of the race, and now we are incredibly proud." Tom Kristensen

It's 3 p.m. The team and the fans celebrate. Audi has once again demonstrated "Vorsprung durch Technik."

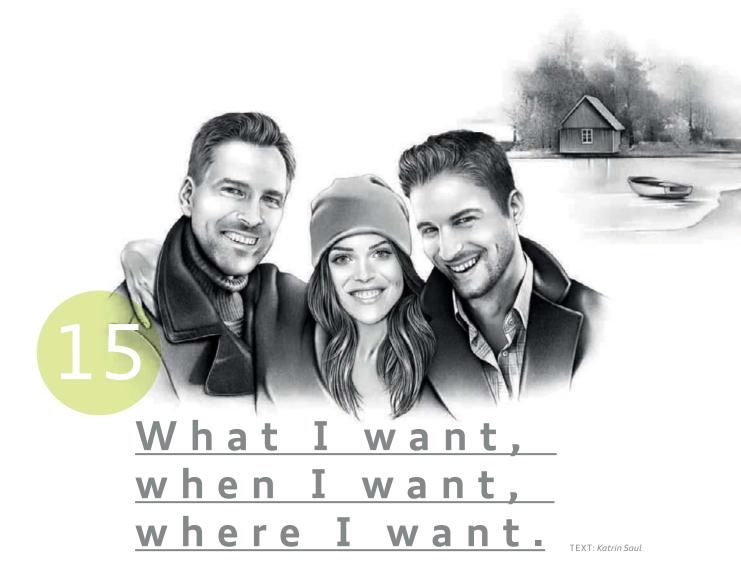


"I am proud of this team!" Head of Audi Motorsport Dr. Wolfgang Ullrich

+1

"As the Head of Audi Motorsport, I have experienced a lot of fantastic races. Le Mans 2014 was very special. Only once before did we ever have such a strong group of opponents: in 1999, our first year. We had an unpleasant surprise during practice, but we were well prepared – technically and as a team. Everyone suffered setbacks during the race. Even with the most advanced technology and the most thorough of planning, you simply cannot dictate the course of a race. We told our drivers at the very beginning what our strengths are, and once again that paid off. And as always at Le Mans, a bit of luck was needed in addition to ability. This race continues to be an adventure, which we have won for the 13th time in 16 starts. I am proud of this team!"





At your fingertips: Order just the car you need for any situation - concierge service included. Treat yourself to a hassle-free second car you can share with close friends, drive a convertible or SUV if you like, depending on the season or wherever you happen to be. The new Audi mobility services combine individual mobility with considerable independence and totally personal style. The following short stories are based on the actual experiences of a selected target group of test people who were given the opportunity to experience two of the new Audi mobility services in advance. An engaging look into a new form of sophisticated driving.

AUDI UNITE

One Audi – up to five users. Personalized micro-sharing with friends, colleagues or neighbors, and with an interactive app for organizing everything that has to do with the car.

Features: Personal assistance from Audi agents and all-inclusive service, from app Availability: Stockholm

www.audiunite.com

AUDI ON DEMAND

An Audi at the touch of a button – always the perfect car for every occasion. Use the app to book an exclusive Audi at short notice and have it delivered right to your door. Driving pleasure, whenever you want.

Features: Keyless entry and locking with your smartphone. The car of your choice is Availability: San Francisco www.audiondemand.com

An Audi for exclusive residences access to a selection of full-sized models from Audi, right outside your door. Spontaneously book the car of your choice with your smartphone and off you go.

Availability: Miami



Chilled to the max

ANNA, FREDRIK AND CARL, STOCKHOLM

The traffic is slowly winding its way through the pale gray streets of Stockholm's rain-streaked old town. But with cool jazz coming from the speakers and the driver's seat warming Anna's back, the Audi A7 Sportback makes even rush-hour driving a pleasure. The 33-year-old graphic designer is heading home. She glances at the clock: 6:30 p.m., enough time to bring the car back to the Home Zone.

Anna is an Audi unite customer. She shares the A7 with her boyfriend Fredrik, an event manager, and Carl, a friend of the couple and art gallery owner. No two days are alike in their professions. Between their travel, meetings and working at home, they don't really need a car every day. Anna and Fredrik book the car for appointments with customers, and Carl uses it to transport artworks. On weekends they like to relax with their friends at summer houses in the countryside. The three of them often drive out there together – perfect, because with Audi unite, going on trips together means shared costs.

Anna finally makes it through the traffic lights and turns into a quiet side street. She doesn't want to be late because Carl has reserved the A7 for 7:30 p.m., to drive to a gallery opening. The Audi unite concept fits this trio's everyday lifestyle so well that they signed a two-year contract. When Anna needs the car, she reserves it using the Audi unite app and looks on the map to find where it's parked. A transmitter on her key registers that she's the driver. And at the end of the month, an easy-to-read bill provides a detailed record of her individual user costs. Sharing a car with friends has never been a problem for the

three of them. If two of them want the Audi at the same time, a quick chat always helps. As Anna explains, it's "like with the boats or summer houses. We Swedes really like sharing and do it a lot. Plus, in Stockholm you also have the option of simply calling a taxi or taking the metro." But most of all, the stylish designer values the flexibility and all-inclusive service.

"Audi unite is an intelligent way of driving a cool car," she says. "The service is a mazing. We don't have to worry about registration or insurance. Our Audi unite agent takes it to the car wash. In October the A7 was picked up, fitted with winter tires, and returned. Now that's premium!"

Another great aspect is the unite app, which is "fortunately better organized than I am," Anna says. A reminder is sent to your smartphone if you are still driving the car when another driver's reservation is about to take effect. Last week Anna was in a hurry and just jumped in and drove off – and was promptly sent a message saying Carl's reservation would begin two hours later. It left her enough time to call him and arrange to bring the Audi right to his office. This evening, though, there's no need for coordination like that. Anna parks the A7 at 7 p.m. on the dot. There's a light on in her apartment - Fredrik is home. And when he checked the app, he was able to see exactly where Anna was. Anna says that's her favorite function: "Usually the car's location is visible to other users only if it's parked in the Home Zone. But we went into the privacy settings and chose to make it visible to each other. If my boyfriend is coming to pick me up from work and is running late, for example, I know where he's held up and can put the waiting time to good use for something else."

Dream car with concierge seeks d<u>river</u>

focuses on flexibility, enjoyment and style. Frank selects the

models that are right for his trips – maybe a comfortable S5

a drive to Pebble Beach to play golf.

Cabriolet for a sunset in Santa Cruz, or a cool S7 Sportback for

Using the smartphone app to order an Audi is so easy. "In a city

known for innovation like San Francisco, on-demand services

are popular," explains Frank. The new service from Audi means

that I always get exactly the model I order. I love the flexibility, that I can be the one who chooses when and where to pick up and return the car. The best part is the human touch

that the excellent concierges provide. The time I save with Audi

is luxury. It's also really so easy that I can use my smartphone to

on demand is worth a lot to me, because time, as we all know,

FRANK, SAN FRANCISCO

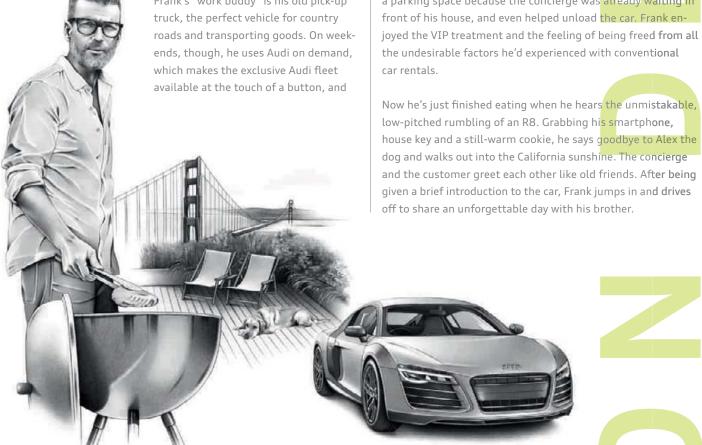
It was a Friday morning to remember: Frank had been on the run since dawn, sampled the quality of the goods at organic farms around San Francisco, his hometown, then delivered a selection of the best products to his customers, the city's best restaurants. Now the 47-yearold food consultant is back at home to conjure up a quick snack using the fresh ingredients from his morning shop: grilled turkey breast on a bed of salad with wild rice. The tempting aroma of the almond cookies in the oven promises a tasty dessert.

He sits on the rooftop terrace to enjoy the spectacular view of the city while eating birthday surprise for his younger brother: He has booked his brother's dream car for the occasion - an Audi R8. "We are driv-Bolinas," he says. He tosses a treat to Alex, his Golden Retriever. "It's going to be a fantastic gift."

his meal. Frank has planned a very special ing north over the Golden Gate Bridge to

lock and unlock my Audi, and even to start the engine!" Frank had his first great experience with Audi on demand the very first time he used the service. He had booked a Q5 for a ski weekend with his wife. The car – equipped with ski racks and a special box for transporting his dog safely - was delivered to his door. And upon returning, Frank didn't have to search for Frank's "work buddy" is his old pick-up a parking space because the concierge was already waiting in front of his house, and even helped unload the car. Frank en-

> Now he's just finished eating when he hears the unmistakable, low-pitched rumbling of an R8. Grabbing his smartphone, house key and a still-warm cookie, he says goodbye to Alex the dog and walks out into the California sunshine. The concierge and the customer greet each other like old friends. After being given a brief introduction to the car, Frank jumps in and drives off to share an unforgettable day with his brother.



Mr. de Meo, how is Audi creating tomorrow?



16

What do you get when gigantic waves, the Ducati Monster 821 and the Lamborghini Huracán LP 610-4 meet?

Pure dynamism and emotion!

TEXT: Bernd Huesmann

PHOTOS: Sebastian Ster











"When I know the line I want to ride, being able to follow it is a sublime feeling."*

*Professional surfer Sebastian Steudtner on the kick of the big waves.

Whenever surfers reverently talk about monster waves, they are referring to the ultimate challenge for their own abilities, coupled with the exhilarating sensation of sliding down the huge crest of the wave.

"The tension before surfing is like before a first date."*

Away from the sea, on the road, an equivalent is the Ducati Monster 821. It's perfectly normal for your heart to start racing before the first encounter. Helmet on, visor down, the rider is ready for one of the most alluring challenges that Italian motorcycle engineering has to offer.

On the coastal road to Lisbon. First take some time to get a feel for the route. Then start pushing the limits to see how quickly you can negotiate the bends as they rise and fall, gain experience as you accelerate out of each bend, and savor the experience to the full.

The surfers' paradise of Nazaré, located on a giant trench that gives rise to enormous waves, quickly fades into the distance in the rearview mirror. Equipped with the lively Testastretta 11° engine with 821 cc, the Ducati develops an impressive 82 kW (112 hp) of power on the asphalt. The two-cylinder engine is not only compelling with its smooth power delivery and its powerful torque in all gears, but also thanks to its tell-tale throaty roar, which is reminiscent of the crashing sound of the waves breaking, the powerful music of the sea.

"On a wave I feel small and powerful at the same time. A paradoxical yet unique feeling."*

But back to the road. Just like the board is the interface between the surfer and wave, so the Ducati connects the rider with the asphalt. This is thanks above all to your being able to adjust this motorcycle precisely to the conditions and your own requirements. The Ducati comes with three different ride modes: Sport, Touring and Urban. Leaving you sufficient scope to set your own rules. Sport mode is the setting of choice for the rider. Here the full power is transferred to the rear wheel, resulting in instantaneous acceleration. And unlike with surfing, you have braking fully under control at the right point in time.

"You don't conquer the sea, you simply try to master it."*

And into the next bend. Lean and glide out. The power delivery, the acceleration and the torque are fantastic. You lean forward and know that the kick will hit you instantly. It must be the kind of sensation you get gliding down a monster wave and having it under control despite its massive force.

"Riding a monster wave makes you forget everything around you."*

A feeling that's addictive. That's what it's like riding the Ducati Monster 821, pure and simple. It's definitely also all about wavelength. And that's spot on – as you'll appreciate once you've experienced the Monster.













"Then, in one second you're hurtling along."*

*Professional surfer Sebastian Steudtner on the kick of the big waves

It's no coincidence that the Lamborghini Huracán LP 610-4 is entirely in its element on the Portuguese roads that skirt the shores of the Atlantic. Accompanied by the irrepressible noise of the waves in the background, the engine springs into life. And as you shift from the Strada driving mode to Sport or Corsa, the engine sound even drowns out the loud crashing of the waves. And it's off towards Nazaré.

"What's exhilarating is this power, this force that awaits you."*

In the Huracán, the wave of happiness starts from the very first second. As the engine thunderously roars to life, you simply need to blip the accelerator to release the colossal power of the 449 kW (610 hp) output behind the driver. The storm is unleashed. You might be forgiven for thinking that the Huracán is somehow related to the hurricane. But you'd be mistaken. Actually – in time-honored Lamborghini tradition – the car takes its name from a legendary fighting bull from the 19th century that was notorious for its aggression and remained undefeated. Just like a hurricane in fact.

Like the professional surfer glides on the colossal wave, so the supercar shoots down the coastal road. No wonder, with acceleration from 0 to 100 km/h in 3.2 seconds. The anticipation of the next bend is but a fleeting moment. Yet it is a sensation that returns straight away. The cutting-edge chassis with its hybrid design of aluminum and carbon fiber does the rest. It is around 10 percent lighter than its predecessor.

"The perfect drive through a hairpin bend feels like the perfect ride on the board."*

The V10 engine responds directly. In Sport and Corsa driving modes the engine revs up emotively each time you shift down. Like on the board, the weight and power distribution of course play a decisive role. And just as the board becomes one with the wave, so the Huracán becomes one with the road.

"A wave exerts a force of 500,000 tons that is moving all the time. A sensational feeling."*

Lisbon far behind us, the next sharp bend up ahead. Steeply downhill and thunderously up, like through the troughs and peaks of the waves. The adrenaline kick is indescribable, and so is the grip of the tires. In characteristic supercar fashion, you are suddenly thrown back into the seat when shifting up in Corsa mode, clearly demonstrating that you have taken driving pleasure to the next level in a flash.

The only problem with the Huracán LP 610-4 is that you just don't want to get out. Fortunately though, you can simply get back in at any time, faster than waiting for that next perfect wave.



Three passions, one wave: Watch the video to experience just how exciting the extraordinary encounter between the surfer, the Ducati Monster 821 and the Lamborghini Huracán LP 610-4 feels.



Blog 'n' roll. TEXT: Yvonne Zagermann, Angelika Schwaff, Heike Kaufhold

Three women. Three destinations. Three Audi S1 Sportback models. What happens when you send well-known travel bloggers on a trip in an S1? We let them surprise us – and in the end, received three roadbooks from major European cities with some exciting insider tips. They also showed that having fun with the S1 is what you make of it.

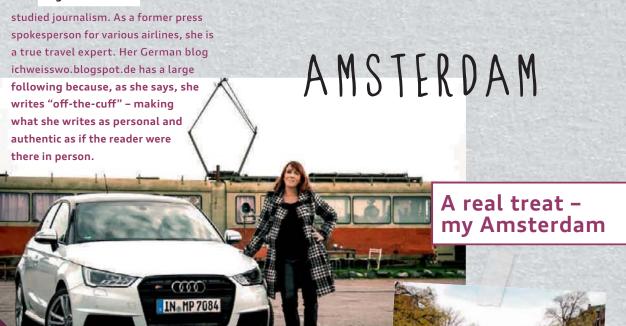
Prague, Amsterdam, Milan. Three major European cities that everyone knows - at least from hearsay - are beautiful and exciting. And the Audi S1 Sportback, the perfect car for city trips. Compact. Agile. Eye-catching. Connected. Our assignment for the three bloggers was to show their city exactly as they experienced it. And in doing so, to not only visit the famous sites but also to take an individual look at their metropolis in order to paint a very personalized portrait. Which bar would they recommend? Which streets did they take? And which features of the S1 can help along the way? An exercise in individuality. And fittingly, the women are also traveling in three different S1 models.

In the Golden City with the S1 Sportback



PHOTOS: Yvonne Zagermann, Angelika Schwaff, Heike Kaufhold

Angelika Schwaff



writes the German blog koeln-format.de.

Heike Kaufhold

She's an experienced traveler who also happens to have a passion for cars. Plus, she has been an Audi fan since she traveled the Alps in the very first Ur-quattro during the 2013 Audi Land of quattro Alpine Tour.

Never out of fashion



Audi. Oops! The suitcase is in the shot. I'll just quickly slip it behind the car. A quick check of the time. I'd better get going if I want to get to Prague at some point. OK, I'm off! My GPS tells me there are no traffic jams in sight and the sun is also peeking out now and again. And before I know it, I'm in Prague.

Quickly checked into MOODs Boutique Hotel, get the suitcase out of the car ... uh. WHERE IS MY SUITCASE? I run around the car three times. Nope, no suitcase. For real. My Vegas yellow Audi S1 Sportback and I are in Prague, and my suitcase - is still in Berlin! In the courtyard. Where I left it about five hours ago. Yes that's right, with this car you can quite simply forget what's going on around you.

But not to worry. A short call to a friend, who quickly checks the area, and the suitcase is indeed still there. Time to go shopping!

The good thing about Prague is that there are lots of shopping centers where you can buy famous brands, as well as cool little boutiques and vintage shops.

Completely re-outfitted, it is then time for a Food Tour with Eating Prague, since if you only do ONE thing in Prague, you have to explore the food scene. But don't forget: NEVER go on the Food Tour with a full stomach! After all that eating I have to move around a little, so I stroll through the city in the evening hours. My highlight is the sunset with a view of Prague Castle and the Charles Bridge.

The next morning I take my chic S1 on a the travel information that's integrated so I explore a little of Prague's downtown area, drive through narrow alleyways and to the famous Old Town Square. Eventually it is time for me to make my way back home again. As lovely as Prague is, I am looking forward to the highway. When you have such a sporty car, you want to make the most of it. But beware! There's a 130 kilometer per hour speed limit on highways in the Czech Republic. Only when you are back in Germany can you really step on the gas. Once I arrive back in Berlin, I am a bit sad to have to return the S1. But at the same time, a little bit happy to be reunited with my suitcase.

With the Food Lover's Guide you

cafes, including the Café Louvre

can find the city's finest

Made it! I've chosen a stylish hotel to complement the Audi S1 Sportback: The citizenM is located on the edge of the downtown area and you can always find a parking space in front of the hotel without a long search.

The hotel's free WiFi is as fast as my car. After my drive the first thing I want is something healthy to eat, so I head for SLA, where they offer vegetarian and vegan dishes. Later in the evening I satisfy my appetite for meat with a juicy rib-eye steak at Libero, only to collapse exhausted into my oversized bed after a drink at the hotel bar.

In my opinion you shouldn't have breakfast at your hotel – that's way too boring. So the next morning I drive to Greenwoods to dine on probably the best Eggs Benedict in Amsterdam! After all, you need the right amount of glucose in your blood to really explore Amsterdam.

A local suggests I drive to NDSM – the old shipyard is where local artists work, and you can also view their artworks. At some point my stomach begins to grumble again. In the middle of downtown I discover the tiny Piqniq, where I can simply put together the meal I want in small portion sizes.

With the body nourished, it is time for food for the soul: I look through the current photo exhibits at the Foam Museum. Right around the corner I discover Van Ravenstein, a stylish shop full of Benelux designer clothing. I'm in luck: Saturday is outlet day!

And anyone who believes that the Dutch eat nothing but frikandel sausages needs to visit the Foodhallen, where street food from all over the world is served in an ultra-hip ambiance.

The NeighbourFood Market held each month in Amsterdam is also a mecca for gourmets. Small producers prepare fine delicacies in an old factory. Amsterdam? A real treat!

Trademarks



Amsterdam





Delicacies

All kinds of vegetables and fresh fish can be found at the Via Fauche market

Peaceful

Stylish and comfortable: the hotel Townhouse 31

Audi connect offers perfect navigation with the help of Google Earth $^{\text{TM}}$ and Google Street View $^{\text{TM}}$

Lur God Save The Food: a favorite restaurant for locals

The journey is the reward – especially when you have the chance to travel in a new, but freshly run-in, Misano red Audi S1 Sportback. So I was thrilled about each one of the more than 1,800 kilometers that I would drive during my four-day trip to the Italian metropolis of Milan and back.

I set off in the morning a little late, so I stay on the highway for almost the entire 850 kilometers, since both the Gotthard Pass and the San Bernardino Pass are already closed for the winter. Experience the S1 only on the highway? That wouldn't do justice to quattro! So I decide to look in advance for an interesting alternative for the drive back. Just before the border with Switzerland, I am sort of forced to "adorn" the S1 with a toll sticker, which is attracted almost magnetically to the windshield. And a tiny bit crooked as a result. Argh! A quick stop at beautiful Lake Lucerne to take in the Alpine panorama as the daylight slowly dwindles away.

Then it's time to head back to the car quickly and off I go again. I don't get through completely without traffic jams. In the evening rush-hour traffic, I take my place in the massive line of cars that creeps through downtown Milan. At 8:30 p.m. I drive up to the hotel, Townhouse 31, unload and park the little sportster safely in the underground garage.

Milan is surely picturesque under a blue sky, but I get to experience its gray yet no less lovely side. Two days of nonstop rain, and a strike by Milan's municipal public transport workers to boot. My decision: perfect conditions for me to free the S1 from the underground parking garage and, with its help, or rather that of the optional Audi connect system, an additional SIM card and a pre-booked Travelpass, to treat myself to a tour of downtown.

The fascinating thing for me about Milan is not only the many shops, bars and restaurants, the crowds teeming until late into the night and the old canals in Navigli, but also the narrow, winding alleyways and old houses that give the city an imposing face.

On the way back I am able to take the S1 to a place where it feels at home, thanks to quattro. A good two hours out of Milan, I drive past Lago Maggiore via the Simplon Pass at an altitude of up to 2,000 meters.



"Who needs a traditional guidebook anymore?"

Yvonne Zagermann

My trip to Prague in the Vegas yellow S1 was the kind of road trip you can only dream of. The perfect route, a great city and a cool car. The thing I especially liked, aside from the car's sporty features, was the optional Audi connect system. With an additional SIM card you can turn the car into a WiFi hotspot and, with a mobile device, have the Internet in your car. I also thought it was great that I could log on to myAudi in advance and store addresses there, which I then inserted into the navigation system's route plan with a simple click. For me, as a traveler without a plan, the travel information was also helpful. It provides general country information, such as how fast you're allowed to drive or if you need a toll sticker, but also introduces the interesting sights there are to see in the city you are visiting. These can be transferred directly to the navigation system as your destination. So who needs a traditional guidebook anymore? I also found it great that it was so easy to connect my cell phone with the car via Bluetooth. It meant I had access to my online playlist and I could also quickly call Mom at home to tell her where I was.



"So that's what the 'S' in Audi S1 stands for - for me, it stands for off like a shot."

Angelika Schwaff

For years I have ridden a motorcycle. You get used to the quick jolt that you feel when you open up the throttle. I have never before been in a car that had the same effect. That is, until I got into the Audi S1 Sportback and waited at my first red traffic light in Berlin. My playlist blaring from the MMI, the sun shining down. My sunglasses perched on my nose, real cool. I put it in first gear. The light changes to green - and I hit the gas. Wow! I am pushed back into my seat and have the feeling that my hair is blowing straight back. But it isn't really. So that's what the 'S' in Audi S1 stands for - for me, it stands for off like a shot. And although I have almost 700 kilometers to go, I'm suddenly looking forward tremendously to the long drive. As soon as I get to the open road, I pull onto the left lane and step on the pedal. My car hums, nice and smoothly, down the road - like I said: off like a shot. I sing at the top of my voice in the car and fly past the others.



"Essential for every road trip: online playlists! And I could access them easily."

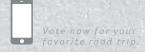
Heike Kaufhold

The Audi S1 Sportback, with its 170 kW (231 hp) output, is a true high-performance package that offers real driving pleasure both on the highway and on winding mountain passes. Not least because of the incredible grip on the road thanks to quattro drive. Add to that the sound that turned heads on the streets of Milan, where the Misano red S1 was a real eye-catcher. Using Audi connect as a travel guide was a new experience for me. It helped me to find some interesting spots while intentionally driving around without a particular destination in mind. As someone who loves automatic transmissions, the one and only thing I had to get used to on the first few kilometers was the manual six-gear transmission, which forced me to take my hand off the steering wheel while speeding around bends and country roads. Essential for every road trip: online playlists! And I was able to access them easily.

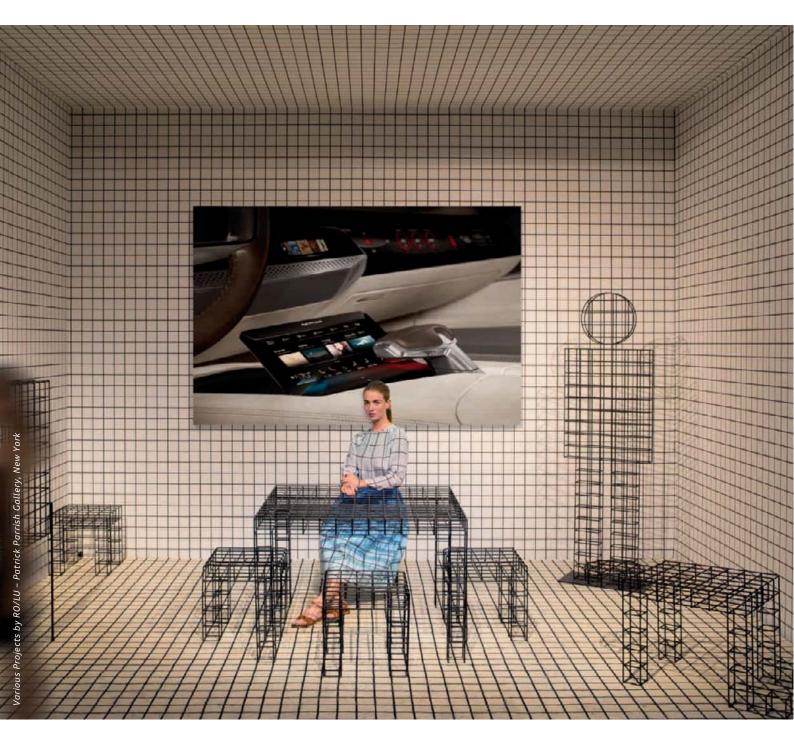


Car Connectivity Award

Audi finished first in five of ten categories in the Car Connectivity Award 2014. The responses to the question of which manufacturer has the most innovative connectivity technology were especially pleasing. Audi was selected in this category by 71.4 percent of the respondents. Around 42,000 readers voted in the survey by German magazines "auto motor und sport" and "CHIP." At the heart of the good results was the Audi connect system", which seamlessly connects the car with its environment – with the driver, Internet, infrastructure and other cars.



*Audi connect is available in various versions, depending on model series, and with country-specific differences.







Twice a year the international design scene converges at Design Miami. At the center of things is the Audi prologue, which represents the future design of the Four Rings.

We asked chief designer Marc Lichte to tell us what makes the concept car so unique – and why he feels so at home here among the gallery owners, designers, curators and collectors.





Marc Lichte
The new Audi chief designer considers
himself a preservationist and an
innovator. His prologue concept car
is defining the future of Audi design.

Marc Lichte has also been finding inspiration in art since his student days. And in design from other fields. Fashion, jewelry and furniture. When he accepted his new assignment at Audi, though, the first thing he did was retreat with his team for a few days and nights into the Audi museum mobile and its storage areas in search of inspiration. Not because he favored retro design - on the contrary! That's the last thing a design brand like Audi needs, of that Lichte is sure. "If you want to create tomorrow, you have to know the past, you must understand it," he mentions in passing, almost glossing over what a formidable challenge the past is for every new designer at Audi. Marc Lichte believes Audi is the design brand par excellence: "Most of the other premium automakers are endowed with a long-standing design tradition, but Audi began defining its own original design sensibility only 25 years ago," he says. And that meant much more than just experimenting with form and recognizing that good design excites the customer. "Audi always took a radically different approach: quattro, aerodynamics, lightweight construction," says Lichte. "Naturally all that directly influenced the brand's design. Form often directly followed function. That's what has always given our cars their own unmistakable aesthetic."





An aesthetic that has to be preserved, throughout all efforts in pursuit of the new and the search for the next big coup. "Our last significant design shift was in 2004," says Lichte. "Walter de Silva joined the upper and lower air inlets at the front to form a single element: the Singleframe grille. A simple idea, really, but a giant step for Audi, one that earned the respect of all designers." With good reason – it gave Audi a face of its own for the first time, and a successful one at that. "That's where there is a big risk of just continuing to evolve what is successful," he says. "When it's going well it is especially hard to question your judgment. Even more so at a time when things that are shaping our perceptions, like the smartphone, have a half-life of maybe no more than one year." Whenever things are clicking, that's when moving to new ground really takes lots

of courage. But that is exactly when you need a designer who is years ahead of his time, in everything he does. One like Marc Lichte, who has stepped forward to express the essence of tradition with a surprising, contemporary design language. One who is both a preservationist and innovator.

Where do you begin with such a challenge? Does it call for taking lots of time, trying ideas, rejecting them, discussing? Put a show car on wheels and wait to see how the public reacts? Marc Lichte doesn't allow himself that time. And he doesn't have it to spare: The next-generation A6, A7 and A8 models are waiting for his signature touch. He takes a different approach, designing three new cars with his team and then showing in his Audi prologue concept car the essence of everything he has already realized for the coming models. That demands concentration. a sharp focus and a clear vision of what makes an Audi stand out. What makes it

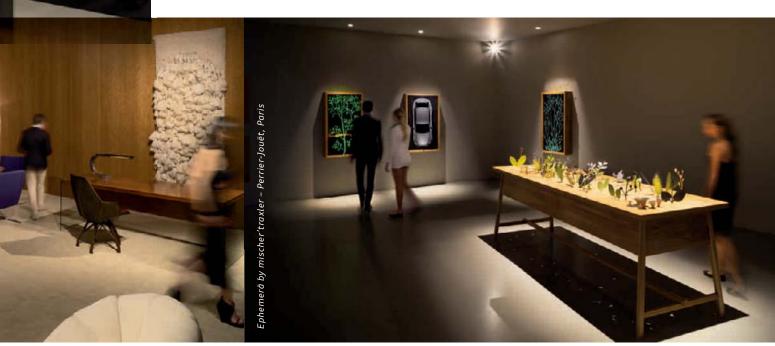
unique. "Obviously all eyes are on the Singleframe grille," Lichte says. "It's going to be wider and more dynamic. And in the future it will be used to make each series clearly distinguishable from the others." The face of the family, sure – but the character that makes the individual family members unique will be clearly visible up front.



The side view is of even greater importance to Lichte, because that's where the Audi design can most clearly accentuate "Vorsprung durch Technik." He reaches for a sketch - his favorite image drawn to illustrate how he wants his new design to contrast with the classic look of a rear-wheel drive prestige sedan. "The classic prestige dimensions, with a long hood, lots of metal between the front wheel and door seam, a backswept passenger compartment and emphasis on the rear: They all shoot for this," Lichte says. "So that it's visibly a rearwheel drive. Everything seems pushed to the rear, like a tree blown backward by a strong wind." The chief designer's vision for Audi is just the opposite.

every Audi. From the A1 to the A8 – but each in its own form," Lichte says, referring to one of his favorite cars: the Audi 90 quattro IMSA GTO. He considers it the visualization of the quattro idea: "So inspiring!" An effect you also can't miss when viewing the car from above – admittedly, an unusual perspective. "The striking emphasis on the wheels, between them the door area, narrower. That's where the car truly becomes sculpture," he says. This is where they

Art and design in dialogue



Not different just for the sake of being different. No, it's to allow the new, superior technical solution behind that vision to be reflected in the design too. "We have our own sense of proportion. We're centered. We emphasize all four wheels. That's what quattro means to me. The first-generation TT showed the way. In the future we will see that in

meet again, a harmonious duo – the worlds of art and design. Just like every year in Miami in the first week of December. This is a showcase for design objects that lend character to interiors. Where experiments become reality. And visions become products. Technology melds with functionality, without visually shoving its way into the foreground.



The future/has begun

"Natural materials, spaciousness, simplicity, calm – that's my new definition of premium," says Lichte. He feels it's important to discuss the interior of his concept car. He definitely doesn't want the new car to be reduced to just its exterior elements. Audi has been a pioneer in interior design for many years, "but the competitors haven't been snoozing on the job, of course," he says. "So it isn't enough to just add another strip of aluminum trim here and there, some wood or a chrome frame." That's all the more true because it's getting harder all the time to differentiate between vehicle segments, also by their interiors. "All the comfort features that used to be found only in big sedans are offered today all the way down to the entrylevel models," Lichte says. "So it was important for us to stress two factors: the experience of an interior that is spacious - and calming." He believes the two qualities are inseparable. Visual and artistic calm arises from this spacious feeling that Lichte desires, that comfortably wraps around the driver and passengers. There is nothing to obstruct the line of sight, nothing that doesn't belong or isn't serving a function at any

given moment. The rear head restraints extend only when passengers enter the car. And you'll search in vain for control switches. Instead, the car features what we know from our smartphones something that has not yet been realized in series automotive production, and definitely not as thoroughly as in the Audi prologue: The entire instrument panel is a clear, tranquil, dark surface. Only when the engine is started do occupants see that it's a touch display. The instrument panel is dynamically oriented to the driver. The front passenger has his or her own display. In the prologue, Audi connect also means the driver and front passenger can transfer data back and forth between their displays, sharing information. "It will certainly be a few years before that makes its way into series production," Lichte says. "What we're showing in the center console, however, will be available in similar form in the next A8. It will be the birth of an entirely new operating concept. A milestone for Audi!" "Vorsprung durch Technik," to be precise.





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