

Auto-Fokus

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What will our cars be like in the future?

Working for the automotive industry is always a great challenge. No day passes without the press announcing impending revolutions. American software and cell phone giants recommend themselves as the automotive manufacturers of tomorrow and other futures researchers foresee the insidious death of the car anyway. It is hard to say what will become reality. However, I dare say that the urge for individual mobility will remain unabated.

Whether this will be realized in one's own car remains to be seen, just as well as the kind of drive used. In the long term, the electric motor will win, not least if legislation becomes even stricter for combustion engines and there are no other alternatives for big cities in view of increasing nitrogen oxide pollution.

This is certainly disturbing, all the more so as no-one is able to assess the dynamics of this development yet. In spite of financial incentives, the majority of buyers shows no propensity to open up for electric mobility.

Against this backdrop, the longterm planning for new vehicle concepts and manufacturing plants becomes a real challenge.

What is comforting, though, is the fact that the car of the future – no matter whether it is driven by diesel, gasoline, hybrid, fuel cell or battery technologies – will need a body that will not be totally different from today's car bodies.

As a manufacturer of automation technology, we are watching this development with great interest and hope that we will find the right answers for the models of tomorrow, too.

Kind regards,



Olaf Tünkers

Sofa car from Daimler

In order to make driving cars more attractive for young people again, the automotive manufacturer Daimler has come up with a new idea – the so-called "Daimler Sofa".

The equipment is geared specifically to the needs of the Z generation – a lot of space, technology and comfort. The classical seat arrangement is a thing of the past. Only the driver seat in the interior reminds us of a conventional car. The other passengers take a seat on a comfortable lounge from where they can easily network with the outside world using LED screens, holograms and other recent technological innovations.

It goes without saying that the Daimler Sofa is absolutely clean. The fuel cell hybrid technology of the vehicle takes the environmental

aspect into account which is becoming ever more important for the Z generation.



Daimler Sofa

Talking of buses

Autonomous mini bus

The first autonomous car rides in Holland. The 7 km long test track of the "WEpod" starts on the campus of the university of Wageningen. The new vehicle class rolls through public traffic without having to use a separate lane. Navigation is pre-programmed and supported by a GPS signal. However, the vehicle for six persons does not come fully unattended. A control

centre uses various cameras in the interior and exterior areas to monitor the minibus. In addition, the passengers can use the emergency buttons at all times in order to stop the ride in dangerous situations.



WEpod

Straddling bus on tracks

7.80 m wide, 4.50 m high and a capacity of up to 1.400 passengers – these are the characteristics of the electric bus of the Chinese company Transit Explore Bus (TEB) which is to be used in big cities soon.

The generous dimensions of the straddling bus allow for two car lanes to pass underneath which means that the bus may be integrated into traffic. The first prototype is set to be tested in 2016 in Qinhuangdao in northern China.



Vision of straddling bus

"Wild beasts" in traffic

Who does not know them, the cars with the "fierce look" – which is no longer a feature only of the "big" cars from Daimler, BMW or Audi.

What used to be a characteristic of the cars riding in the fast lane has become a standard look in traffic.

No matter whether for compact

cars, sedans or SUVs, the new vehicles often remind us of dangerous, unpopular predators. We will have to wait and see whether this design trend

will remain successful in the long term. Let's hope it won't!



VW Golf



Hyundai i20



Renault Mégane



Toyota Yaris

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Ghost town



Mcity

House fronts made from cardboard, a roundabout to infinity – welcome to Mcity! The new district of Ann Arbor near Detroit looks like a ghost town. However, this cannot be by chance when you see only robots passing by on the streets.

It was roughly one year ago that the 13 hectare large testing ground of the Michigan University was inaugurated with the support of numerous giants of the industry like Ford, General Motors, Bosch or

Toyota. The investment of about US\$10 million was geared to a single goal: the development of autonomous vehicles under unrestricted and realistic conditions.

Keeping the real world out, all kinds of scenarios may be tested here in order to promote the research for the future utilisation of automated vehicles efficiently.

Mammoth trunnion systems at JLR Solihull

Fascinating TÜNKERS technology – during his visit to Jaguar Landrover in late 2015, India's prime minister Narendra Modi was quite impressed

by the Jaguar XE, the new plant and presumably also by the mammoth trunnion systems from EXPERT-TÜNKERS.



Jaguar Landrover plant in Solihull, UK

Current vehicle projects

These are some of the cars TüNKers is currently working for



Audi AU58X A6 successor



Skoda SK4xx Kodiaq



BMW X5/X6



VW 371 New Jetta



Daimler MFA New A class



Audi Q5 China



Daimler VS30 New Sprinter



Ford B515 Ecosport



Ford B479 Fiesta



Volvo XC40



Landrover X540

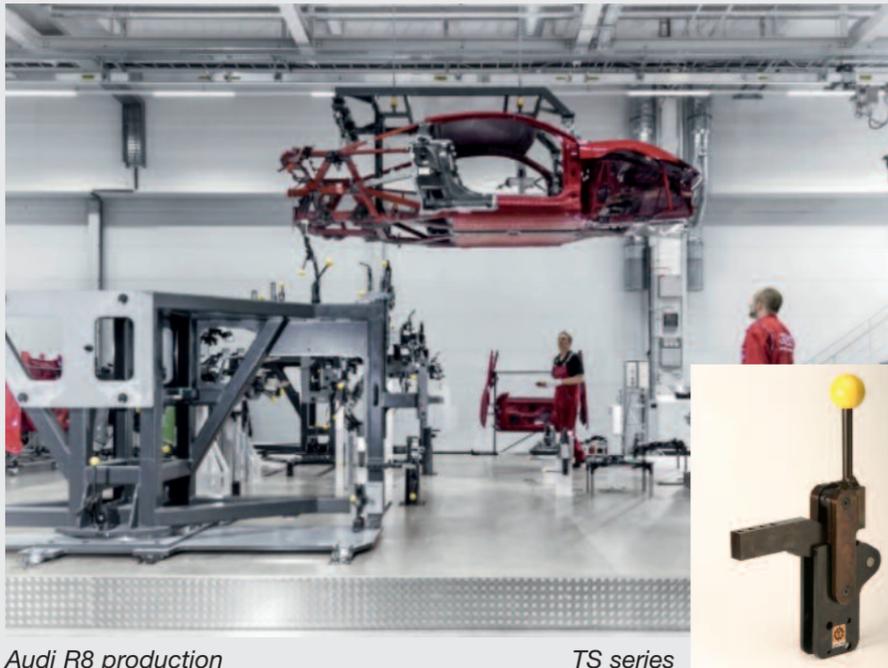


Renault U60

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Audi R8 production

Eye-catchers – the yellow “dots” recognized by the yellow ball handle) cannot be overlooked. TÜNKERS manual clamps type T5 series (to be



Audi R8 production

TS series

“Green Skin” project

Front, side panels and roof – all covered with a robust, 5 square metre large green skin of plants. This is the new vehicle project from Daimler’s subsidiary Moovel.

With a carbon binding of seven kilograms per year, the “Green Skin” project is to improve the life cycle

assessment of the vehicles and attract potential buyers. As a first step, the complete car sharing fleet of the Moovel affiliate Car2go could be equipped with the green skin.



“Green Skin” project

Autostadt Wolfsburg

Autostadt Mittellandkanal



The fact that many cars of the VW brand are produced in Wolfsburg is widely known. The city near Fallersleben founded in 1938 as “Stadt des KdF-Wagen” has since been home to one of the world’s biggest automotive plants. But Wolfsburg has much more to offer.

First, we have to mention the Zeithaus museum which does not only include an excellent classic car museum, but also shows the history of automotive production in a very lively way, offering special events on a regular basis. The Autostadt, which is one of Germany’s largest theme parks also includes the Ritz-Carlton luxury hotel and various art installations such as a 15 m long scent tunnel with 2160 flower pots.

Another highlight of the city is the Wolfsburg art museum presenting above all modern and contemporary works and featuring excellent solo exhibitions – currently “Wolfsburg Unlimited – A City as World Laboratory”.

The “Phaeno” science centre designed by star architect Zaha Hadid which is located close to the railway

station is not only impressive from the outside. Here, young researchers can make technical and scientific experiments at more than 350 interactive stations.

Wolfsburg offers a totally different attraction for those who love the architecture of the 1950s. After all, it was in the 1950s that most of the current townscape was erected, as e.g. the very nicely restored railway station with black tiles, but also the complete city centre. Star architect Alvar Aalto created the “Kulturhaus” centre and the spectacular “Heilig-Geist” church.



Heilig-Geist church

The “Kulturhaus” centre is considered a total work of art, as even

minor details like of the interior like door handles and lamps were designed by Aalto himself.

You can reach Wolfsburg easily. When you take the ICE train from Düsseldorf or Essen, you will be there in less than two hours. Leaving the train, you are immediately in front of

the VW plant or the city centre, respectively. There is hardly any automotive plant in Europe that is easier to reach, which is why Wolfsburg is also recommendable for a weekend trip with the entire family.



VW plant

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Mechanical Engineering Day

On June 30, 2016, North Rhine-Westphalia's Minister of Labour Rainer Schmeltzer visited TÜNKERS Maschinenbau GmbH in order to get an impression of the company together with various groups of pupils. The event took place on the occasion of the annual Mechanical Engineering Day under the aegis of the Minister of Labour, Integration and Social Affairs initiated by the Chambers of Commerce of North Rhine-Westphalia (NRW), the "Metall NRW" association, the "IG Metall" trade union and the "VDMA NRW" association in cooperation with "OWL Maschinenbau" and the "zdi initiative NRW".

It is the aim of the Mechanical Engineering Day to establish close ties

between the mechanical engineering companies and the local schools. The hands-on experience of mechanical engineering is to give the pupils further orientation in view of their future professional life and provide the companies with an opportunity to find suitable candidates for the apprenticeships they offer.



Visit by Minister of Labour Schmeltzer

TÜNKERS outdoors

Greetings from the TÜNKERS Bike & Hike Tour 2016!

This year, from 26 until 29 May, some of our dear colleagues spent a weekend together mountain biking, hiking and boating in the Ardennes. A total of 24 staff from two continents



Bike & Hike tour 2016

and three TÜNKERS companies joined the crew – TÜNKERS Ratingen, SOPAP and TUNKERS Mastech USA.

CSR Day



(from left:) Marion Maxwell & Oliver Ulrich

The "Aktionstag der Wirtschaft Ratingen" (local CSR Day) took place on June 3, 2016.

Companies from all industries in

Ratingen assigned staff for this day to help clubs, social and cultural institutions in Ratingen implement specific projects which they could not handle otherwise.

TÜNKERS, for example, helped to get the kindergarten vehicles of the Ratingen-based day care service Am Söttgen going again and install a new shelf system for the shed. Thanks to the great commitment and enthusiasm of the numerous small craftsmen who were busy screwing, sawing and hammering, all "construction sites" were completed successfully.

The annual "Aktionstag" is to

strengthen Ratingen as a business location, improve the networking activities among the companies and promote joint social commitment sustainably.

At the after-work party in the evening, the achievements of the day were celebrated by all those involved.

The project under the aegis of mayor Klaus Pesch was initiated by Unternehmensverband Ratingen e.V., Aktiv für Ratingen e.V., the "Dumeklemmer Stiftung", the economic development office of the municipality of Ratingen and the Ratingen Marketing GmbH (RMG).



(from left:) Oliver Brünink & Kaptan Hondur

Symposium 2016



New conveying technology concept

"Automation Interactive" – the motto of the Symposium 2016 attracted once again numerous national and international customers and partners to Ratingen where they could get a hands-on impression of TÜNKERS' new products on two busy days. With a total of 385 visitors, a new record was scored.

Particular highlights of the "Automation Interactive" exhibition

were the new TÜNKERS U-clamp, the innovative concepts of conveying technology "around the corner" and "with elevator", the EXPERT-TÜNKERS dual roller table as well as the first prototype of an electric pump support stand from TÜNKERS-NICKEL Dosiersysteme.

As always, the presentation of new products was accompanied by an exchange about current and future projects. Lively discussions were not only heard in the workshops offered, but a constructive transfer of ideas also took place in the exhibition space immediately in front of the products. This, and the fact that this year, TÜNKERS' Symposium was held on the company premises met with a very positive response from the attendants.

In line with the motto of the Symposium, all visitors had the

chance to take a look at the exhibition from a rather unusual perspective. A climbing installation at a height of 5 metres above the ground made it possible for them to explore the clamping and gripping technology from an – admittedly shaky – point of view.

As in the past few years, selected renowned partner companies like IBS, Mitsubishi Electrics or Topometric were invited to contribute to the Symposium as co-exhibitors.

The good mood during daytime was rounded off by the excellent evening programme including goal wall shooting, live cooking at the smoker and a band playing live music.

We would like to thank all people involved and look forward to the Symposium 2017!



Exhibition in the "new hall"

For more information about products and applications mentioned in this issue, please contact:

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