



Car interiors, a new world

Automotive industry expert Professor Ferdinand Dudenhöffer believes the industry has a bright future and that suppliers of materials for automotive interiors are poised to take up one of the most important positions in the entire car supply chain.

A leading expert in automotive industry research says interiors are going to be cars' most important features in future and that original equipment manufacturers (OEMs) are going to have to innovate with regard to the way they use materials. The University of Duisburg-Essen's Professor Ferdinand Dudenhöffer describes the work that car companies need to do as "giving their customers a new world".

His top five trends for the future of the industry are lower-cost cars, proliferation of vehicles around the world, reductions in carbon emissions from cars, autonomous driving and mobility on demand. OEMs will keep selling cars (74 million passenger cars sold in 2014), and even in markets such as the European Union, the US, Canada or Japan, which he describes as "saturated", meaning most people who can and want to drive are driving, the replacement market is a combined total of 35 million vehicles a year. "If China follows the same pattern as these markets, the replacement market there is going to be 50 million cars a year," the professor adds.

Elsewhere, new car ownership will increase as personal wealth increases, and because the world economy is growing, the car market will grow. Professor Dudenhöffer believes it will reach a figure of around 110 million new vehicles a year by 2025, with almost 40 million of those selling to consumers in Asia.

And in terms of production, his view is that Mexico and China will become the most important car-manufacturing countries in the world. Factories in Germany make a 5.5 million cars per year now; by 2020, Mexico will produce 5.4 million, he projects, and he adds: "By then, that will be more than Germany."

Dacia, the Romanian OEM bought by the Renault Group in 1999, provides what he calls "the success story par excellence" in lower-cost cars. "No car manufacturer in the world had ever gone from zero to one million cars per year in less than ten years, but that's what Dacia did between 2004 and 2012," the professor says. He recounts that Louis Schweitzer, Renault chief executive at the time of the acquisition, realised Asian economies (badly affected by the Asian financial crisis of the late 1990s) were certain to make a comeback, and that to be ready with a sub-\$5,000 car was a good idea.

Perhaps of more immediate interest to the leather industry, he believes the popularity of low-cost cars will have little impact on the impressive rise of the SUV in recent years. Twenty years ago, the industry had begun to wonder if the days of gas-guzzling SUVs had gone for ever, at least in the US. Now, SUVs come in all shapes and sizes and these vehicles have become the most important segment in the market, according to the professor. He does not believe that the world needs an SUV convertible, but says that won't stop car manufacturers from producing these models and that the public will roll up to buy them.

Interior designers rejoice at the launch of new models because every body style needs its own interior, he explains. The variety is becoming greater all the time. Audi, for example, has tripled its number of model lines since 1999 from 10 to 30. "BMW





believes it can make an almost infinite variety,” he says. “It’s not there yet, but the variety is increasing all the time. BMW bosses have calculated that the number of options already is 10 to the power of 32.”

Questions over carbon emissions will also make a difference to tanners and other suppliers of materials for car interiors. In the European Union today, cars are permitted emissions of 130 grammes of CO₂ equivalent every kilometre, but in 2021 this will reduce to 90 grammes. Interior materials suppliers will be expected to contribute towards these savings by making their materials more lightweight; to save weight is to save carbon.

Driverless cars divide the OEMs at the moment. In 2015, the leadership team at Porsche described the concept as hype, while its counterpart at Daimler said it was open to the idea. Audi is one of the OEMs working hard on the idea; it has already carried out extensive tests of a system it already has in place for “piloted driving”, which allows the driver to relax and let the car do the job (as long as the speed stays below 110 kilometres per hour). Ferdinand Dudenhöffer says keeping an open mind is important and offers those who refuse a warning from history: “In the train industry, no manufacturer of steam locomotives ended up in the post-steam world because they could not open their minds to it. But each year, 1.2 million people around the world die in road traffic accidents. We have the technology to decrease that. We are the problem, not the car, and technology to allow cars to drive themselves will help immensely.”

He believes this will prove to be good news for OEMs and car rental companies because they will have a bigger target market: in addition to today’s motorists, people who are unable to drive because they don’t know how, are unwell or too advanced in age will be able to buy or hire a car. Smartphone-based car hire firm Uber is on the record as being a supporter of self-driving cars, and with good reason because 75% of its overheads at the moment are the owner-drivers of Uber cars.



Professor Ferdinand Dudenhöffer of the University of Duisburg-Essen speaking at a 2015 event to celebrate Stahl’s Centre of Excellence for Automotive in Waalwijk. CREDIT: STAHL

In this scenario, the professor insists that car manufacturers must redouble their efforts to offer high-quality interiors, saying that those who cut corners here will be taking “a great risk”, while those who invest well in interiors have much to gain. It’s in developing high-quality interiors that OEMs and their partners can bring car owners or rental customers into contact with the new world Ferdinand Dudenhöffer envisages. “Materials are the starting point for that new world,” he says.

This is good news for tanners, whose conviction that leather offers OEMs the greatest possible opportunity to make car interiors special is probably stronger now than at any time for years. But tanners will have to keep innovating too. Interior materials manufacturers are going to have to play a part in meeting car users’ increasing demand for communication and entertainment inside their vehicles, Professor Dudenhöffer says. He explains that these suppliers are going to have to produce materials that have smartphone-like touchscreen surfaces. “All car manufacturers are thinking about touchscreen technology,” he says. “I think that in about 20 years’ time, a car interior will be a giant touchscreen.”



Audi is one of the automotive companies that has already tested ‘piloted driving’, in which technology can relieve the driver of her or his duties. CREDIT: AUDI