



One of the key reasons for predicting strong growth for automotive leather is that growth in sales of premium vehicles will be much faster than growth in automotive sales overall.

CREDIT: BMW



Wanted: tanners to supply extra millions of square-feet of leather

A headline on leatherbiz.com at the end of March sparked extensive discussion at the 2015 APLF exhibition. Can it really be true, people in the industry asked us, that the global leather sector may have to produce an extra billion square-feet of finished leather a year for the automotive industry?

Leatherbiz columnist David Peters has sparked much debate. Using his powers of interpretation, Mr Peters has taken growth projections for the automotive industry and worked out how much impact they could have on tanners. Automotive original equipment manufacturers (OEMs) are bullish about the future and expect to sell millions more cars each year, at least for the next ten years. Figures for the years 2015-2020 are already well defined, allowing Mr Peters to draw the conclusion that as much as an extra one billion square-feet of finished automotive leather may be required in 2020, prompting many visitors to the *World Leather* stand at APLF 2015 in Hong Kong to ask if this can really be true.

Answering the question he himself has provoked, David Peters, says the prediction of an extra one billion square-feet by 2020 is "aggressive" and is at the highest possible point of the projections. But he makes it clear that, even if the true figure ends up being 50% of this, tanners in 2020 are going to have to find hundreds of millions of additional square-feet of finished leather for their automotive customers than they do today. And, crucially, this will be in the context of declining herd sizes and falling slaughter rates in many parts of the livestock and meat

industry and, therefore, suggests that far fewer hides will be available in 2020 for shoe leather and other application areas; the share of the pie automotive OEMs will claim by then will be substantially bigger than it is today.

Two big questions arise from this change: what effect will it have on footwear brands and manufacturers who want to continue to use leather as the main material in their shoe uppers, and what changes will this extra demand from the automotive market impose on tanners and the way they run their operations?

Bordeaux platform

What prompted this whole discussion is a presentation David Peters gave at an industry event in France in March this year. After more than 40 years in executive and management roles across the entire leather supply chain, Mr Peters now runs a specialist consultancy, DLP Advisors. His previous roles have included posts in the UK, the Netherlands and many parts of North America, where he has been based for many years, and have also involved extensive travel in Latin America and Asia. He has also worked for one of the biggest automotive leather



producers in the world. At the end of March, he was the keynote speaker at a special event in Bordeaux, a conference entitled *The Future of Automotive Leather*, organised jointly by *World Leather* and specialist leather cutting technology provider Lectra. In keeping with the event's theme, it was here he revealed the projections that generated the 'billion square-feet' headlines.

Mr Peters' presentation followed one from Ronan Noizet, a Paris-based senior analyst at specialist automotive analyst firm IHS. Focusing purely on car sales, Mr Noizet told a specially invited audience of tanners, OEMs and seating suppliers that his firm expects growth of 18% in the global automotive market between now and 2020, with OEMs adding more than 15 million units to their collective total annual sales by the end of this period. His company calculates global sales to have been around 83 million units in 2014 and predicts that this figure will reach 98 million by 2020.

He predicted that sales of premium vehicles, which account for 10% of the total market at the moment, will grow even more quickly than the overall industry in the period to 2020. IHS puts the growth rate for premium cars over the period at 32%. This is important for the leather industry because premium cars tend to use more leather in their interiors than mainstream cars (luxury cars use even more, per vehicle, but IHS puts luxury's share of the overall automotive market at the moment at 0.3%). The big four German OEMs that dominate the premium segment at the moment, Mercedes, Audi, BMW and Porsche, will still be the dominant players in 2020, he concluded, with around a combined 60% slice of the premium pie. The OEM he pointed to that is most likely to join them and become what he called "a true premium brand" over this timeframe is Italian OEM Alfa Romeo. Sports utility vehicles (SUVs) and sedans will be at the forefront of premium's progress, according to IHS, with 1.5 million more SUVs and 750,000 more sedans rolling off OEMs'

production lines in 2020 than do at the moment.

Looking even further ahead, IHS says it believes the automotive industry can look forward to healthy growth until at least 2025. "In 2005, only 40% of the global population had enough money to buy a car," Ronan Noizet said in Bordeaux. "But gross domestic product (GDP) per capita is growing and, by 2025, 75% of the global population will have enough income to be a potential buyer of a car, and between 2015 and 2025, there will be 1.5 billion additional potential buyers of cars, even if many of them are small cars, in the world market."

Finite resource

When David Peters took the floor, one of the first points he made was that herd sizes in important countries such as the US are at their lowest in decades for, mostly, economic reasons. "Food companies are taking protein management to new levels," he said. "It takes them 24 months to get beef onto a plate, compared to four or five months for turkey, four months for pork and just 13 weeks for chicken. So cattle herd sizes will continue to go down. There are 3,400 types of cattle in the world at the moment, but this number is also being reduced. And hides are being affected; the quality trend there is down too."

Across the world, he is convinced cattle slaughter and hide availability will remain constant between now and 2020; he puts the figure at 275 million hides per year. Because of breeding and feeding techniques, livestock are becoming bigger. In 1978, the average live weight of cattle in the US was around 450 kilos, while the average live weight in 2013 was 27% heavier at more than 570 kilos per head. This makes it feasible for the leather industry to produce more square-feet of finished leather per hide, but the number of available hides will stay roughly the same. He has worked out from statistics he has gathered that there are 44 tanning companies in the world at the moment making



Lexus is the only premium automotive brand to use leather in all its interiors.

CREDIT: TOYOTA



automotive leather, working their way through 150,000 hides per day or 45 million hides per year (based on 300 working days per year). This gives an output of two billion square-feet of finished leather per year, an average of around 45 square-feet per hide.

If OEMs increase their production by the levels IHS predicts, they will require more leather and will place bigger orders with tanners. In 2014, market research company JD Power listed the top ten reasons why car buyers choose a specific vehicle model. According to David Peters, leather upholstery can contribute substantially to a car's ability to fulfill four of the ten reasons: durability, interior comfort, quality of workmanship and positive image. "When people buy a car today," Mr Peters said in Bordeaux, "they no longer look at the engine. They know the engine will work. It's the interior they care about; it's the interior that sells the car." He points to BMW, Volkswagen and Mercedes as examples of automotive groups whose production plants are rolling out vehicles with high leather content already, and he gives a special mention to Lexus for its commitment to using only leather in its interiors.

Number-crunching

If the IHS predictions prove to be completely accurate, he works out that overall growth and, in particular, even sharper growth in the premium segment, will lead to an increase in leather demand of 47% by 2020. This would mean automotive tanners consuming more than 66 million hides a year, which is why, erring on the side of caution, Mr Peters draws his conclusion about the projections being too "aggressive". He says: "It would be too much. I think it will go up by around 9 million hides a year and that, by 2020, the global automotive industry will consume 54 million hides per year." This would put the extra square-footage at 400 million rather than a billion, which gives us two ends of the automotive leather growth spectrum: 400 million extra square-feet on the low side, and one billion extra square-feet on the high side.

"It's still a lot, 400 million square-feet," David Peters says. "It means automotive tanners' share of the raw material pie, which is likely to remain at more or less the same size, will hit 25%. And



Industry expert David Peters has taken growth predictions from automotive analyst firm IHS and worked out what they will mean for the leather industry.

CREDIT: WTP



The sustainability director for leather chemicals manufacturer Stahl, Mike Tomkin, believes automotive leather has a bright future, but warns tanners to be aware of one or two threats that could stifle progress.

CREDIT: STAHL

because the pie is unlikely to grow by much, if at all, this extra share that automotive tanners are going to claim will have to come from resources that are going somewhere else at the moment." Footwear is the clearest target. Mr Peters insists many of the big athletic footwear brands are "decontenting, replacing leather with synthetic substitutes, which are far more attractive because of the low oil price, or canvas or split", but plenty of other footwear brands still prefer leather as the main material for their shoe uppers. He suggests they consider using much more widely than most do at the moment alternatives such as goatskin, pigskin and sheep or lambskin. "Footwear manufacturers can use these leathers, while automotive OEMs cannot," he explains. Switching is unlikely to be straightforward for tanners that are used to using bovine raw material. Technical considerations

A traffic jam in Beijing. IHS says that by 2025 an extra 1.5 billion people in the developing world will have a high enough income to buy a car.

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A detailed discussion about the seats for the Mercedes-Benz F015. OEMs could help the tanning industry make its raw material go further by making car seats smaller.

CREDIT: MERCEDES-BENZ

include the difference in size of small skins compared to hides and their suitability for use in some of the machinery bovine tanners use. Goat has long been used in women's shoes, in particular, with many famous women's shoe designers often choosing glazed kid for their creations. But it's a leather that may prove a little thin for men's shoes and linings would probably be required, adding cost and labour.

Less is more

Naturally, none of this will affect beef production one iota. Hides are a by-product, what Mr Peters refers to as "the wrapper" that the meat comes in. An increase in demand for hides from any tanner or any automotive OEM will fail to put a single extra cow in a field or feedlot anywhere on earth. Only an increase in demand for beef and favourable market conditions can put extra hooves on the land.

We have already mentioned that some extra square-feet will become available as cattle grow bigger. An important step the leather industry itself can take is to work harder to educate consumers, automotive engineers and designers that natural marks in leather are not necessarily ugly defects. "Leather has flaws just as wood has flaws," says David Peters. "An acceptance of natural flaws will allow tanners to achieve better yield, perhaps 60% or 70% (compared to the current average, 55%), from the raw material that is available to them. There will be more of a trend to use semi-aniline leather in car interiors, so the leather will be more naked. This means the flaws will show more and also that consumers may, in time, notice slight changes in colour. This isn't a problem. If you look at a pair of aniline boots, the left one and the right one don't always match in colour. Why do we think the seats in a car have to match? We need to change that." Something else designers could do is make car seats physically smaller.

But Mr Peters identifies serious challenges that tanners are

going to have to address on their own, perhaps receiving some help and advice from their main technology providers. "The problem isn't the beamhouse," he continues. "The beamhouse can move from shoe to automotive, even if this means a move from wet blue to wet white. It's no big deal. Retanning is where the constraints are. There is not enough retanning capacity in the world right now to satisfy the levels of automotive demand we expect. This is a problem because so many of the big tanning groups outsource this part of production. Also, shoe-focused companies tend to have different equipment for retanning." He believes that, in response, automotive tanners already active in Mexico will increase their operations and that their counterparts in China will "grow astronomically", with many tanners who focus on footwear now making the move to automotive. Tanners in Brazil will finish and cut more, instead of taking their locally sourced raw material to wet blue, wet white or crust only. And the US? "The US will come back as a producer of crust and finished leather," David Peters insists. "Practically no one is retanning in the US these days, but crust production there will increase; it's a natural progression and there is certainly an untapped resource there for high-quality automotive leather."

Tanning and retanning are limited in many parts of Europe, too, especially in relation to OEMs' production footprint, which has relocated many of the continent's car factories in the east, in countries such as the Czech Republic, Slovakia and Hungary. There is, therefore, some potential for automotive leather growth in Europe, too, mostly in these countries in the east. He believes tanneries, including finishing and cutting plants, need to be where the OEMs and their tier-one suppliers have their factories and final assembly lines. He is encouraged by recent advances in cutting technology because he thinks it may usher in a change he feels is needed. "Cutting kits and putting them into a pizza box for delivery to tier-one seating suppliers is not efficient," he insists. "The key to extra efficiency would be to cut by component and according to the grade of each hide because the challenge is yield." Technology providers say this is what today's solutions can offer: the system will see faster and more accurately than even the most expert human eye how best to use every possible piece of each hide that comes onto the conveyor belt, assessing each with every component for every model for every customer in mind.

It's about the margins

Mike Tomkin, sustainability director of leather chemicals manufacturer Stahl, says his company agrees that there is an exciting future ahead of automotive leather, and also that there are several "threats" to this bright future that it will be important for the leather industry to pay attention to.

Stahl's information from tracking this market is that the figure of 150,000 hides per day go into making automotive leather around the world at the moment is accurate. This means, Mr Tomkin points out, that this segment of the leather industry is 15 times the size it was in its early days 35 years ago. In the 1980s, the focus was on the US, with around 80% of all the automotive leather in the world being produced and consumed there before Europe and, later, Asia began to catch up. In 1980, Mike Tomkin believes automotive's demand for hides was around 10,000 per day.

The main reason he offers for this growth is not the investment OEMs are willing to spend on putting leather into the interiors of their vehicles, but the amount of money they are able to make from doing so. "They are able to charge around €2,000 more if the car has a leather interior," he says, "when the extra cost for

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the OEM is probably €200 or €300. This represents a fantastic margin and this is the real driving force for growth in automotive leather.”

Possible threats to ongoing prosperity in the automotive leather sector include the need for the leather industry to put across effectively to OEMs the sustainability credentials of leather. This ought to include information on the progress tanners have made in traceability, in reducing the presence of volatile organic compounds in the chemicals they use and in making sure leather can make a contribution to the overall recyclability of motor cars, the Stahl director says.

“I know of one OEM that has said its greatest concerns in terms of materials are aluminium, copper and leather,” he continues. “And that’s all to do with traceability. They are concerned about the source of the metals, such as bauxite mines. With leather, the concerns are to do with deforestation and animal welfare. We know that the Brazilian industry came under attack some years ago from Greenpeace, and we know that, since then (2009) it has done a great job of addressing this. But this has not had an impact yet on OEMs and, therefore, this issue is going to keep coming to the surface.”

In contrast, the debate surrounding chrome in general, and chrome VI in particular, which has been running inside the leather industry for years, has not hit the automotive industry yet, according to Mr Tomkin, but will in the future. “We know this story is exaggerated, but it’s still out there. Audi said 23 years ago that it wanted to move to chrome-free leather. Volvo and Honda followed and we expected the floodgates to open, but the others didn’t follow, and now those three OEMs are all using some chrome-tanned leather again.” Across the piece, he calculates that between 15% and 25% of all the leather being consumed by the automotive industry at the moment is chrome-free and he says there has been “no significant increase” in recent times.

Something new

Elsewhere in the world of leather chemicals, he says Stahl is starting to “move away from crude oil” and to make some of its products from bio-based raw materials, a development he describes as “exciting” for the chemical company and for tanners because OEMs are always looking for something new, something to give them an edge over their competitors. Reducing the weight of leather is also “of great interest” to OEMs. “If automotive tanners make progress in any area, they must tell OEMs; the OEMs want to hear it,” he insists. “Even when the customer asks tanners to take all the solvents out of their processes and the tanners groan. Solvents have been of great practical use in developing tanning processes but the leather industry has to keep moving to lower levels of volatile organic chemicals (VOCs).”

Tackling waste in the tannery in ever-more assertive ways is equally important. Mr Tomkin says one of the changes in production that he believes will take place in tanning is that spraying “could disappear” from tanneries. He says improvements in roller-coating systems are so impressive and productive that spraying could cease to be used in tanneries within ten years. “Improvements are coming through all the time,” he explains, “and it’s very exciting to see this because, in the past, we have seen waste of up to 40% using spray systems. We expect roller-coating to take over.” This, and similar improvements he points to in lower-energy drying of hides, are also among the pieces of good news OEMs need to hear from their automotive leather suppliers, Mr Tomkin feels.

“There is no reason why growth cannot continue for automotive leather,” he concludes. “It has a great future if it pays attention to the possible threats, and it will be very difficult for shoes to keep up. But why does all the profit stay with the OEMs when the poor old tanner is struggling for margins? OEMs will have to learn that they have to pay a fair price.”



Two-tone nappa leather for the Mercedes-Benz GLE. Leather can help car companies fulfil four of the top ten reasons listed by JD Power for why car buyers choose a specific vehicle model.

CREDIT: MERCEDES-BENZ