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IN CONVERSATION WITH **PRATAP BOSE** HEAD OF DESIGN, TATA MOTORS

On the Zest, the Bolt, the design direction of the company, and what the future holds for Tata

How long have you been at Tata motors?
I formally joined Tata in 2007. I joined the European technical centre as the Chief Designer there. Before that I was at Mercedes-Benz in Japan. I spent two or three years there. Prior to that I was in a two-wheeler company in Italy, called Piaggio. I spent three or four years there as well.

Your background in design was specifically in automotive design?
No. At the time I was studying, we didn't have automotive as a specialisation anywhere in India. So I obviously studied industrial design and product design. Then I came for this auto show in 2006 and happened to meet Mr Ravikant and some people from Tata Motors and I just felt that I should contribute in some

way to an Indian company. They were setting up the European technical centre, and then I became head of design in April 2011. And there were three studios so I brought all three under Tata. So if you see today on all our concept cars there's a Tata Motors design logo, and there's a little booth as well, the Live Design studio.

Was the Nexon name an anagram of Xenon?
Yes, and we've registered some names globally. So when we sat and decided what the name would be, we thought it was quite punchy and short. The thing is when you launch a car, you need to check whether the name is globally registered or not. But we did that because of Horizonext. So today we are three stu-

dios under the Tata Motors brand, about 120 people and still growing. What we can do now that we couldn't earlier is control design end-to-end. It's a very comprehensive capability to have. There are many other companies in India that use parts for the process, but we do everything in-house. It may not all be at one sight, though. We use Turin to build our showcars. It has the best showcar building ability today, I'd say. You can see that from the advanced interior of the Nexon. What I'm saying is that we use that to coordinate the showcar build.

As far as the Zest and Bolt are concerned, in terms of styling and the like, what is at its core?

What I wanted to ensure with these products was that we show the new face of Tata. To show the face of the car is always a challenge but also an opportunity. And we used the two Tata adjectives – trust and humanity. If you see the top line of the grille, it's a very flat, straight line and the lower line is more fluid and more humane. I've used that to actually design the face first and that gives the car a sense of dynamism. First of all, people find it difficult to believe that it's a sub-4-metre car, we worked very hard on the C-pillar

transition. And then around the back, so it doesn't look like a box added to a hatchback. So essentially, the process was almost to design the Zest first and then bring back the lines for the Bolt. And then of course the rear graphics, the lamps are lower, the lines are lower to balance some of the proportion issues we had. Our cars were a little taller and wider. So very much we need to move on with the design language.

So we asked Ian Callum what he thought of the Zest and Bolt and he said he hadn't had a close look yet.

From what I've seen on the blogs and what I've picked up is that the response has been very positive. Today we're in a position where design is a very central process to all of this.

In fact, I was just going to ask that. Most great designs come about because it's encouraged.

Absolutely. In fact, if you see Designnext is one of our three pillars - Designnext Drivenext and Connectnext - and we've never had that before. I've always said that Tata has an engineering reputation, we develop our own engines, so we have the Revotron engine. So if I don't combine that with something appealing, that message will never get out there. So my job is to really attract the customer and once he's attracted, he engages at the second level. Gets deeper, looks at the finish. The third level is that he actually gets a chance to drive the car. I think we've got a few million hits on what's going on at the show. Now, most people make their minds up without even seeing the car in the flesh, on a mobile device. And there you can't talk about the driving experience. So the first level of engagement with the customer is visual, and if you can grab him there, half your job is done. Of course, the rest also has to live up. How he gets treated when he enters the showroom, after he's bought the car and how you support him, and so on.

So this new emphasis on design will follow through into showrooms?

Yes. I'm sure you would have noticed the stand design this time is completely different from what we've had before. I think it's a global stand in the sense that you can walk around the cars, and all of that. The second is that our publicity material is all going to fall in line. Then when you go to the showroom, we've already created a revamp, and when these cars hit the showroom in the second half of the year, we'll be ready with the environment. So we've really brought in the professionalism. But design is really

at the front end of that, because if you don't get that right, all the downlines cannot save a bad design. The product is your spokesman. So like I said, one is your immediate visual, second is your first handshake with the car, we've spent a long time refining that door handle, the door section, when you open the door and what weight it has, the speed at which it opens; that's the detail we've gone into. Then when you get in, we've got a nice small steering wheel. It feels sporty, and doesn't feel like a truck. The EPAS allows you to do that. We've got bigger clusters than before. So all of that subtle detailing, the materials, the textures, glosses, and we've addressed a lot of the issues like the upright seating position, etc. I feel we're in a good position today.

A lot of the concepts that companies have don't turn into production. Like the Megapixel had this thing where you could place your tablet right there and it would turn into your multimedia outlet. A lot of innovations in concept cars, but neither the concepts nor the innovations made it to production. Now, is there a conscious effort to make sure that whatever you do with concepts will have a link?

I think it's a question of priority. At that time my job was to change the way the company was perceived. And how you set up for the future. If you look at the Megapixel's face for example, the connected lamps et al, we brought a lot of that into the Bolt and Zest. It's taken it to the next level because it's a bit stronger and has more character.

So whatever concepts you display henceforth, they'll –

Have a much stronger link, yes. If you look at the Connectnext today, it's one of our pillars. Moving forward, with the media, BYOD (bring your own device) they call it, which is what we had in the Megapixel before they even had a name for it. But today the technology can also enable you to do it. The 3G network is much wider, so while you may have been able to connect a tablet earlier, you may not have been able to link with anything. Today we have that so at least the Harman system will give you content like that. We'll develop our own apps that are quite funky and cool. The same with the engines and drive performance. Now with the three-brand DNA very seriously established, our priorities are clear. And we won't compromise on these three pillars.

Is there a follow-on with the design? The Xenon is quite a butch, macho design. And if you tweak that further, it'll look quite smashing. It's crying out for something more futuristic and what you've displayed with these two, it can easily translate to something better.

If I go back a bit, I've mentioned the ability this company has as a design group. We had to rely on others and that was our process of becoming a carmaker, and there was no head of design, by the way. So the kind of oversight that you need across the range perhaps wasn't there. And we're now bringing all of that in. For the cars we have, the three-pillar DNA elements. And the trucks, we're working on harmonizing the range. The trucks have different life cycles, so the trucks need a little time to bring it all under one roof. And then there are these in-between products like the pick-up you mentioned. Is it a car or a truck? Which design language do you use there? Even



for UVs. We will have three design strategies. Today we're showing more strongly the passenger side of things but as we go on you'll see the other side of the range as well.

You're in a very unique position in the sense that you have everything integrated, but at the same time you also have a new UV design and a CV design and a passenger car design, which probably no firm in the world does. How do you switch on and switch off between the three?

To be honest, I'm more of a car designer even though I came from Piaggio. When I got this responsibility for CVs as well, it was a big learning curve for me. They seem simpler but the complexity is large.

We remember talking to McLaren's design team, and they had once said they had done a design for a truck maker up north and that it was very challenging.

I agree. And that is where my product design background really kicks in. The truck has a different balance between function and style. The driver must feel safe and confident. Also the truck has to express something. But there are issues like access for service. Now I could do a really beautiful facia, but if the service centre needs three hours to remove a

panel, that's money lost for the operator straight away. So in design we get in all these inputs quite early. Serviceability, what needs to be accessed, plus turn around time need to be quick.

So in a sense you've already laid out the design of a truck and how it needs to be, and then you know the request comes in that you now have to design a next-gen truck.

Absolutely. We've made it very design-led again. We have two business units and they're also seeing the potential of what design can do. Plus it's the scale. Most trucks are taller than the person so the angle at which you see a truck and the angle at which you see a car are very different. What you work on in a truck, the vision zone of a person, and what you work on in a car, are totally different. So that's one, the perspective. Then there's also distances. Some environments that a truck operates in is in mines. Like a coal mine. Some of them can be 20 km wide and all you can see are trucks just weaving through. At that distance can you still recognize a Tata truck? Or when it's on a highway in your mirrors, can you really recognize it through its graphic form and shape? So that was something I had to learn. I have a great team thank-

fully, very passionate about trucks. They teach me a lot. But being naïve in a way helps because I see things they don't.

The Nexon does look like it's an evolution of the Megapixel in certain aspects.

The point in design is that you have to be consistent. So you just have to make those slight tweaks and do some fine-tuning. Doing something new every-time is a risk. The very fact that you can recall the Megapixel means that it meant something to you then, and then when you see the Nexon you can make a link. That's important. I don't have the luxury of working for a 100-year-old company. As a carmaker we're just 15 to 20 years old. But it's also an opportunity.

Yes but you're creating the face of the company. When you started with the Indica, even though you started earlier, the face factor started coming only with the Indica.

Yes. And of course the competition set in India and abroad has changed completely. You had how many brands back then? I remember it kept me awake when the Indica was launched in December '98. I couldn't sleep the previous night. You know how people line up outside Apple stores for a new iPhone? I'm just hoping I can create the same for a young boy sitting in India, or the world hopefully, to just sort of give him one sleepless night. And that's where the other aspect comes in. You cannot have a phone with a screen that's bigger than the one you have in your car. Which is why the advance interior concept we've shown – all that physically works. And it's got a rear projector. My main aim is to break this rectangular screen in the car which becomes so cumbersome.

The standard question – among other cars, which one do you like the most?

Personally for me what Kia has done is impressive. Like you said it's easier to design an exotic than it is to design a mainstream car. I must also say that the Renault Clio is a beautiful car.

DEMING RECIPIENTS

The Deming Award was first instituted in 1950 in honor of W Edwards Deming, originally designed to reward Japanese companies for major advances in quality improvement. Over the years it has grown, under the guidance of Japanese Union of Scientists and Engineers (JUSE) to where it is now also available to non-Japanese companies that have made major contributions to the advancement of quality.

A few Indian companies like Sundaram Clayton, Sundaram Brake Linings, TVS Motor, Brakes India, M&M Farm Equipment Sector, Rane Brake Linings, Rane TRW Steering Systems, Sona Koyo Steering Systems, Asahi India Glass Limited, Sanden Vikas and RSB Transmissions, to name a few, have won it. We feature some of them in our Deming awardees special.



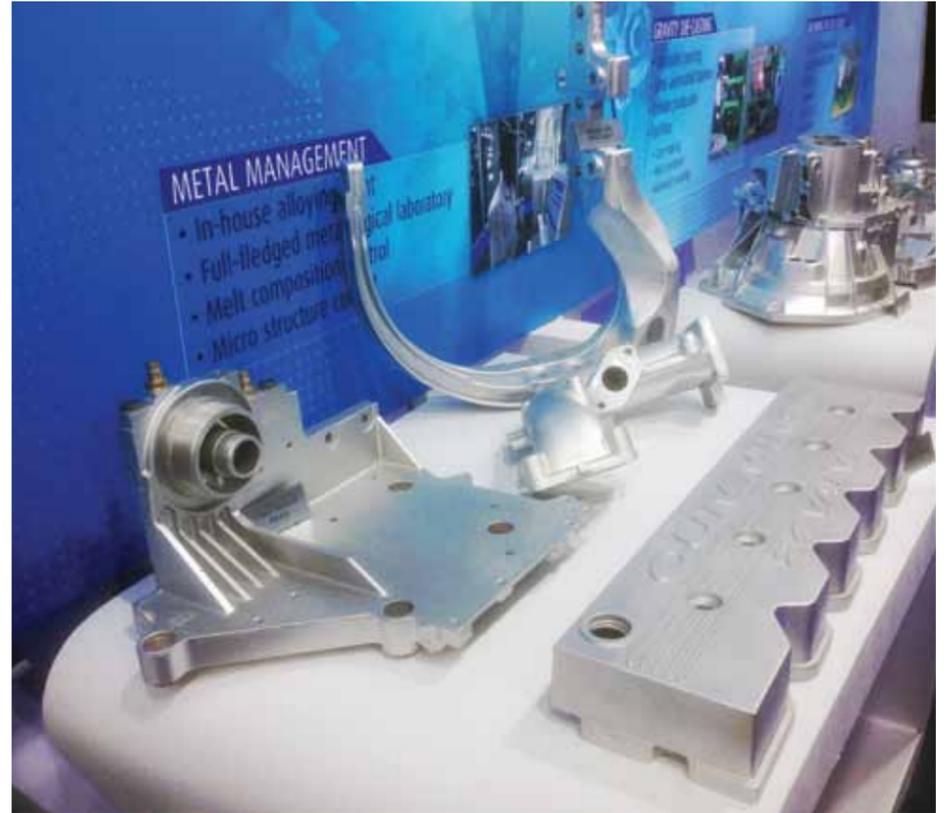
RSB GLOBAL

Started in 1975 as International Auto, RSB Global has grown over the years into one of the biggest automotive component manufacturers in the world. Their quality-driven approach towards manufacturing is what has ensured that they become one among the most respected names in the automotive business today.

RSB Global has a wide range of products in its portfolio. These include everything from propeller shafts to fifth wheel couplings. RSB Global makes propeller shafts that can handle torques between 2,000 Nm to 45,000 Nm. RSB Global uses an in-house metallurgical lab and each of their products undergo rigorous testing which makes sure that the quality levels of all their products are as high as can be. Other products that the company specializes in are transmission components, axles, beams, spare wheel mounting technologies, etc.

Aside from just manufacturing, RSB Global also has several services in its portfolio. RSB runs I-DESIGN, which was started in 2002 to provide R&D services to other manufacturers. It serves clients such as Tata Motors, Volvo and Ashok Leyland by providing CAD, prototyping, testing and validation services.

RSB Global is not just a company that provides products and services in India, their reach extends all over the world. In 2006, they acquired Miller Brothers Manufacturing Co., an automotive components manufacturer from Michigan. In 2011, they established their manufacturing facility in Mexico. Aside from this, RSB Global also has operations running in Brazil.



SUNDARAM CLAYTON

Sundaram-Clayton Limited is one of India's oldest manufacturers of die cast automotive components. Established in 1968, SCL is now a major supplier of die cast parts to automobile manufacturers like Volvo, Mercedes-Benz and Nissan. The company operated four plants – three in Chennai and one in Hosur.

SCL has been continuously evolving its manufacturing processes to keep pace with the rapidly changing world of technology. It is this focus on staying up to date with modern technology that has kept SCL on top. Only the latest technologies in pressure die casting, gravity die-casting and low-pressure die casting are used at SCL. Everything from components for heavy commercial vehicles to two wheelers is manufactured by SCL.

At SCL, quality has always been a focus area. Every single component manufactured here is of the highest quality. All of their 81 pressure die casting machines, 47 gravity die casting machines, 18 low pressure die casting machines and 300 machining stations make sure that each and every product is a straight fit on to its final application.

With an in-house design and development centre, SCL has managed to cut down tremendously on the time it takes a product to get from drawing board to finished product. Everything from advanced solid modeling to flow analysis is done at their designing and development centre.

With its dedication and vision, SCL is well on its way to becoming a full service provider. Soon, everything from product design to die casting and machining will be done in house helping SCL become the best in terms of quality, cost and delivery time.



SONA KOYO

With sixteen plants all over the world, Sona Koyo is India's biggest manufacturer of steering systems. With a range of products that fall under the broad category of steering and driveline systems, Sona Koyo caters to a wide range of automobile manufacturers as an OEM supplier. These include Maruti Suzuki, Toyota, Hyundai, Tata Motors and Mahindra & Mahindra to name a few.

Sona Koyo Steering Systems was started in 1985 and is currently the Sona Group's flagship company. It has ties with Autotech France, SAS and JTEKT – both respected steering systems manufacturers from Europe and Japan respectively. The company has manufacturing facilities in Germany and USA.

The Company offers a wide range of products to its customers. Some of them are steering columns for heavy commercial vehicles, clutch disc assemblies, axles, bevel gears, rack and pinion steering systems, steering shafts, etc. Thanks to their consistent quality levels and class leading practices they were conferred with the TPM excellence awards in 2007.

The company employs over 3500 employees across India at their various manufacturing facilities. With in-house testing and design facilities helping them create the best products in the market, the firm has been able to acquire 11 patents in their name. So much has been the success in their business that Sona Koyo Steering Systems Ltd. has a 60 percent share in the Indian steering system market.

SECURITY PRIORITY

Counterfeiting continues to be a matter of great danger to India's commerce as well as to the lives of citizens across the country. Despite the enactment of stringent laws to punish counterfeiters, this unscrupulous activity shows very little signs of abatement. The ACMA brought together a section of its members, whose businesses are adversely impacted by counterfeiting, and agencies which have been actively developing solutions to counter the activity, at a seminar on 'Packaging, security labels and brand protection solutions for the aftermarket'.

The element of bodily harm and in some cases even death arising from the inadvertent usage of counterfeit auto parts by consumers is a grave matter and singular concern to the Indian auto component industry. Research conducted by ACMA found that of the total Rs 33,000 crore aftermarket, fakes accounted for nearly 36 per cent, leading to a loss to the government exchequer to the tune of Rs 2,200 crore per annum; an estimated employment loss of over 1.15 million jobs, consumption of additional 109 million litres of petrol and 8 million litres of diesel per annum. Most rampantly

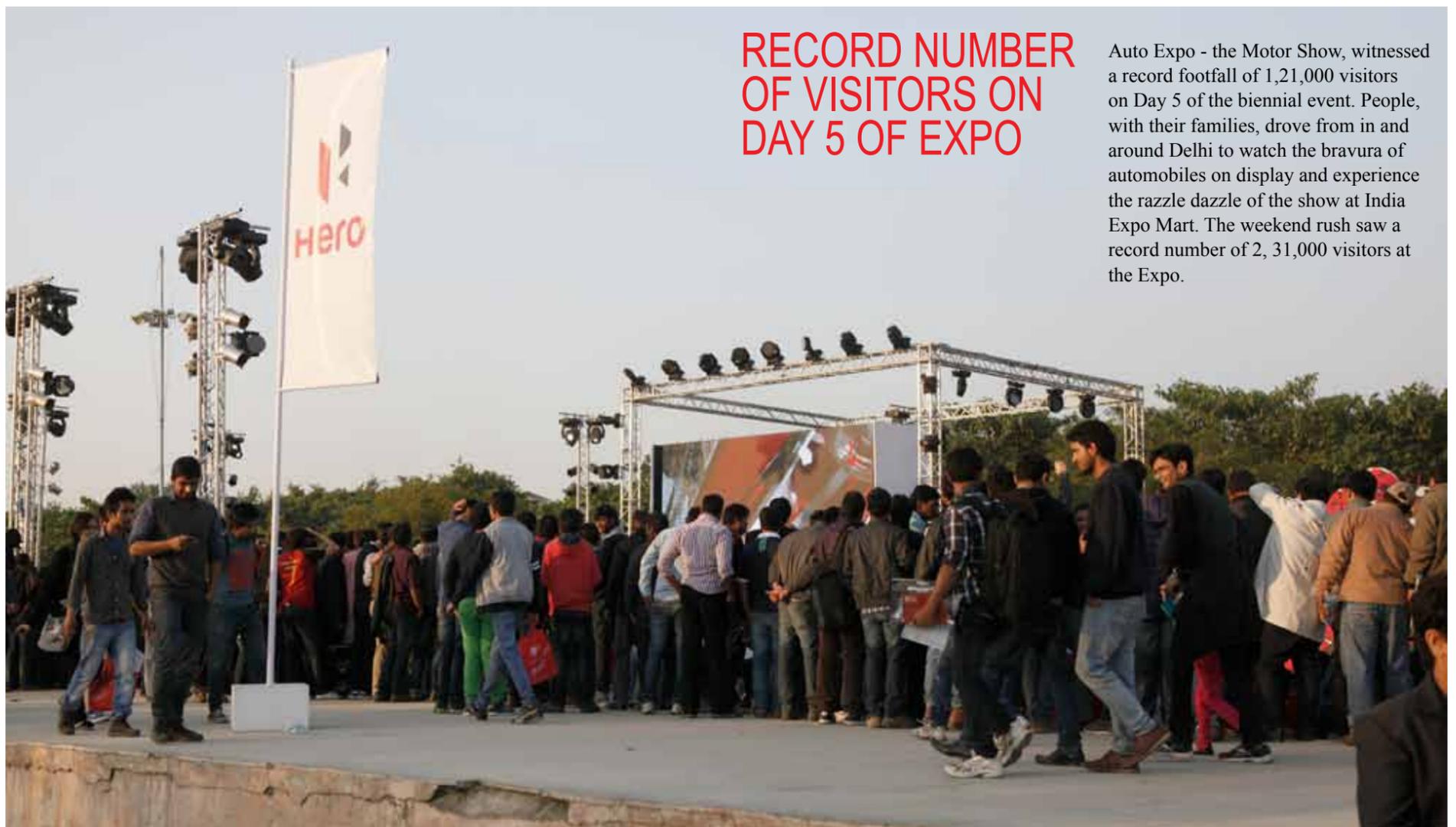


counterfeited products include clutches, bearings, filters, brakes, brake linings, rubber rings, auto electrical, all of which

are related to safety rather than the cosmetics of a vehicle.

The conference covered numerous

presentations by a host of solution providers from the packaging and brand protection fields.



RECORD NUMBER OF VISITORS ON DAY 5 OF EXPO

Auto Expo - the Motor Show, witnessed a record footfall of 1,21,000 visitors on Day 5 of the biennial event. People, with their families, drove from in and around Delhi to watch the bravura of automobiles on display and experience the razzle dazzle of the show at India Expo Mart. The weekend rush saw a record number of 2, 31,000 visitors at the Expo.

ENGAGING STUDENTS

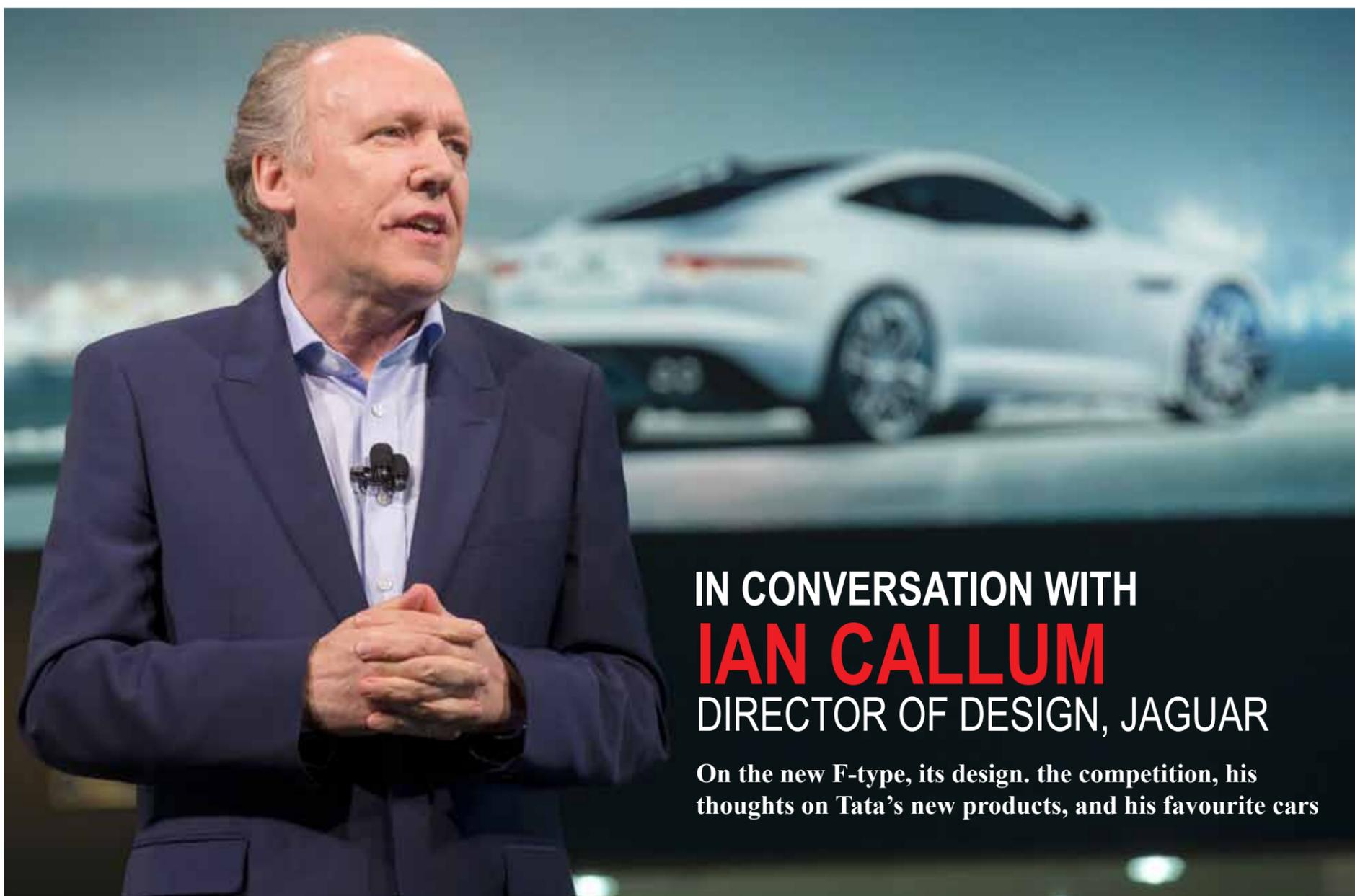
In an effort to increase the engagement of the student's community with the industry on a continuous basis, a contest for students from engineering backgrounds was organized at the Components sector in Pragati Maidan from Feb 6-8, 2014.

Contestants were asked to identify new technologies on display from various exhibitors and submit details in a specified format, their entries with detailed note on the technologies identified and its usage and how it helps the industry in improving the overall quality.

23 Colleges from across India participated in this contest and they closely interacted with exhibitors. A detailed presentation was submitted by each participant and findings from each participating team was vetted and scrutinized by the jury.



ACMA organised a Golf event as part of the Auto Expo



IN CONVERSATION WITH **IAN CALLUM** DIRECTOR OF DESIGN, JAGUAR

On the new F-type, its design, the competition, his thoughts on Tata's new products, and his favourite cars

My question is in two parts. While the F-type to the average person is an evolution of the Jaguar design, is there a worry that the F-type is going to follow the same track of the Russian doll philosophy? If so, how are you going to try to prevent that?

Actually, the way it is, is that it's an asset. We realized that when we were designing the next car, we were designing something very different. I'd argue that German brands are very similar, whether it's the 3 or 5 Series or an A4 or even an A6. But it is important to create a family look that is related to each other. Because you need to get visibility and familiarity on their own. So we have the XF and the XK, but if we do another car below the XF, we need to have a common family link. So I don't think it's a danger. I think we need to make it different enough so that people feel like they're buying something different, but at the same time I think it's important to get that commonality.

You mentioned German cars. Apart from the styling cues, what's the one core thing that differentiates the F-type intrinsically from German sports cars like the 911?

I don't really consider where the competitors are and what they're doing. You guys have made that comparison, certainly performance guys will make that comparison. In terms of design and the package, it stands from a series of first principles. We have the engine to work with, we have the drivetrain, we have the wheelbase, we have the track and the width to bear in mind for all the components, and we move them around if it doesn't suit the style; that happens a lot. And we moved some things around to get the bonnet height as low as possible. I'm not sure, apart from the characteristics of the car; yes it is a sports car, but beyond that it's quite a different character, and the nature of Porsche is the same. They'll design a Porsche and that's what it is.

We'll design a Jag and that's what it is. I don't think we're as conscious of each other in design terms. Perhaps when you get into the 3 Series, A4, C-Class, you're probably much more aware because you're into much more demanding, physical attributes and the package drives a lot of what you are doing.

Ferrari has its own customization department, in the hope that in 30, 40 or 50 years, when they come out with those one-offs or customs, they retain their value. Do you see something like that with Jaguar? Because to some extent I can see that with the Project 7.

We have a department called ETO. And we're expanding that rapidly. And it's headed by John Edwards who's just taken over. And John's determined to turn it into something extremely important and positive. So the answer is yes, we're definitely going to be moving forward with that. So if you want a customized Jaguar, we'll make you one. It may cost a lot of money though. And it's great fun for us. We initiated Project 7, we haven't planned to build it yet, but potentially we could. And we'll filter these ideas to ETO. They welcome them.

What do you think of the new Tata Zest and Bolt?

I haven't had the chance to see them. I mean, I saw them yesterday for the first time, and it's great stuff. I mean it's a great example of 21st century design, which I think is extremely strong. And I think they're characterful.

Is there anything you would have done differently?

I'd have to look at them. But yes, I really appreciate them. And I think the one opportunity Indian car manufacturers have got is that they've made it fun. The Indian population wants a car that says something from this generation. But I'd have to

go and examine them a little better.

So we'll get back to you on that.

Yeah. We do work with Tata. We're very close in terms of business.

Was the C-X17 a greater design challenge for you and your team? Say, in comparison to the F-type?

It was a challenge yes. We've never really done a crossover before. But I felt the C-X17 came out well with the feeling that it stands for what Jaguar stands for. The first couple of iterations weren't exactly what we wanted. But we learn very quickly. And we came up with the car you see today and I'm very pleased with it. It meets the brief well and a lot of people said it looks like a Jag. It works quite well and I think if you see it on the road, it'll be quite striking. The roofline's not as high as most SUVs.

Is there is a family resemblance?

I'm not aware of that. But the design is very Jaguar. The headlights are very XF. But other than that there's very little in common. I think people want to find that commonality but they won't find that. I think the most they'll find is switches in common between the two. If it's good, it's good. But I think it's very much our own space. I don't see any confusion.

Does the F-type come in British racing green?

Yes, it does.

I just haven't seen one, so I was curious.

But nobody buys one. Nobody wants green cars.

Why do you think that is? I mean, colours do speak to people.

I don't know. I personally don't like green cars. The only green car in the family we had, we smashed into a tree. It's an interesting colour though. It was fashionable in

Germany for a while in the 90s but then it lost favour. It's a very hard colour to sell. I see greens for trees and grass. But we do have a beautiful racing green. White is really nice, too. Especially with the tan interior. I have to admit though that the green XKR-S in black wheels looks stunning. But green in Britain doesn't really work.

Of the recent cars you've seen, what catches your fancy? Something that you've seen in the last year.

I think there's some interesting bits from Kia. I like the new Corvette a lot. I prefer it to a lot of other sports cars. I prefer it to Ferraris, in fact. I think it's just better design. Although the 458 is a nice car. It was the first good-looking Ferrari for a long time. In terms of normal cars, I love the VW Up. I think it's a fabulous piece of design. If I were to design one for myself, not Jag, that's how it would end up. I like Audis too, I think their new e-tron, the next TT, I love the interior of that car. And Porsche. I do like the new 918 911. The 996 was not good. And the 993 is my all-time favourite.

Classic cars?

Well, my favourite car's the 250 short wheelbase Ferrari. To go to the other end, I love the Fiat '65 Riviera.

Do you think the Bugatti Atlantic is pretty?

It's not pretty actually, it's quite brittle. But not many modern Bugattis are beautiful, in my opinion.

What do you expect from Geneva?

I think you'll see a lot of small performance cars. Lots of powerful cars. I don't think the days of the BMW M3 are over. I think they're just finding their mojo again. The A-class is a huge change in direction. From us, well, the new small car is smaller than the XF. Beyond that we'll take it one at a time. And no, you won't see anything at Geneva from us.

ALL THE NEWS

DAY 5: 9TH FEBRUARY

There was a little something for everyone at the India Expo Mart in Greater Noida. Right from the heavily guarded ML with bulletproof glass to the gorgeous Jaguar Project 7. There was even an electric cycle by Hero that showed the way of the future.



The Rs 2.49 crore Mercedes-Benz ML Guard version weighs just 350 kg more than the regular ML, but has bulletproof glass that can withstand shots from many hand-held guns.



The Project 7 is a single-seater design study based on the Jaguar F-Type convertible.



The RS7 is the most powerful Audi on sale, producing 557 bhp from its 4.0-litre turbocharged V8



Piaggio brought along its NT3 quadracycle concept that was first shown some years ago at Milan



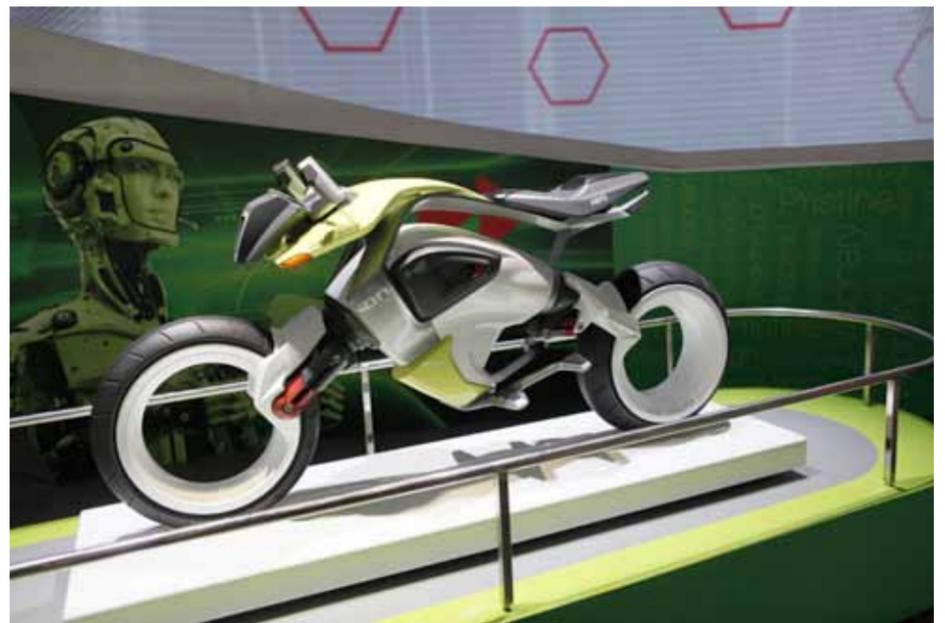
The Nexon is Tata Motors urban SUV concept that could go into production by end-2015



After the successful launch of the YZF-R15, Yamaha is readying its next bike in the entry level sports segment - the R25. Rumour say it will be powered by a 250cc parallel twin



The Simpl-E-city is Hero's take on what urban electric mobility will be in the future



Hero's Ion is a concept electric motorcycle that is hub driven



Moto-Morini's Scrambler will soon make its way to India thanks to Vardenchi



Terra motors claims the Kiwami accelerates as hard as a 1000cc sports bike

INDIAN COMPONENT MAJORS



SHARDA MOTORS

Sharda Motor Industries Ltd is an Indian tier one components manufacturer and the market leader in manufacturing exhaust systems, catalytic converters, independent front suspension, seat frames, and seat covers (two and four wheelers). While they provide components to foreign markets such as the US, their main client base comprises of Indian manufacturers such as Mahindra & Mahindra for whom they provide exhaust systems for vehicles ranging from the Bolero to the XUV 500. They also provide exhaust systems Hyundai and Tata motors. Since its inception Sharda Motor Industries has produced all its components in-house. The raw material is also obtained from Indian outfits. Currently the company has manufacturing plants in the same cities as their OEM's manufacturing units and aims to secure more Indian OEMs over time.



SURI INTERNATIONAL

Suri International is an aftermarket specialist that provides a wide variety of aftermarket components such as brake cup, brake hoses, valves, wheel cylinder assemblies, dust covers etc. Suri International is a home grown brand with a complete focus on export oriented operations. Over time Suri International has increased their product range providing hydraulic brake parts, fuel injection parts, sheet metal components etc. Being in the aftermarket business often means not having the safety enjoyed by OEM suppliers. However Suri International has expanded its operations over the years, manufacturing all the components by themselves and exporting them globally owing to an increase in demand.

FORMERLY BUSINESS STANDARD MOTORING **TOPLESS FUN IN THE MERCEDES-BENZ SLK55 AMG**

MOTORING

FEBRUARY 2014 ₹125 WORLD

HONDA CITY
TAKES ON THE
VW VENTO AND
HYUNDAI VERNA
'CAN HONDA WRESTLE BACK
THE KING-OF-THE-HILL TAG?'

DRIVEN!

MARUTI SUZUKI CELERIO
(ALTHOUGH THIS IS THE A-WIND CONCEPT)

EXCLUSIVE!
ALAN RIDES
THE BUELL 1190RS

AUTO EXPO PREVIEW | TATA NANO TWIST | SKODA SUPERB FACELIFT

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