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The Many Facets of Buses

ost times when we include buses in our movies, stories or when we recall our adventures from travelling, the narration is about what is happening inside the bus. I would argue that everyone has been on a bus before. Many have taken buses to school, from or to an airport or on a long journey during summer vacations. Little do we know how buses will influence us. Look for example at the food that is served in the Hino museum in Japan: there is a food item shaped like a bus in the bento set!

The way buses, and facilities for them, are designed can actually change the behaviour of passengers. Take the new development by Dennis-Alexander, a bus with three doors instead of two. With the added door, people move further into the bus as they know that they can easily exit it when they arrive at their stop. With two-door buses, one still sees people gathering near the door in order to have a quick exit. Another example is the way the bus terminal in Melaka is designed. Yes, people would have to pay for certain amenities, but over time, they are no longer complaining, but appreciating the added layer of comfort and service. One of the most ground-breaking changes for sure will be autonomous driving. Somehow, we haven't really touched upon this in our magazine. And there is a good reason for it: things move too fast! It is amazing (in my view) how quickly the implementation of self-driving vehicles is propelled. I don't know about you, but I can't wait to take a ride in them.

With the final agreement on the High-Speed Rail now going to connect Singapore and Kuala Lumpur, it is going to be seen how this will affect the bus industry. I would think that this development is a good thing. You may ask why, as the train may take away business from the buses. However, there are several stations along the route that will, once the rail is operational, need buses for commuters. What the coach market may lose in business, the short distance operators may pick up. Also, it may be a signal to improve services on board the buses in order to remain competitive. In Germany for instance, the trend is just the opposite as long distance coaches, introduced not too long ago, are chipping away at the train services.

In this issue of Asian Buses we are also listing a number of events again; events that might be of interest to you. Should you wish to see the complete list, we encourage you to head on over to our website. Our researcher, Catherine, has done a great job on finding out all about these. In addition, she is now digging deeper into the intricacies of the commercial vehicle market. There are amazing facts and insights that she is uncovering and these will surely help you if you would want to improve your own business. One item that will shortly be launched is an interactive map of Malaysia with all the service points of all the commercial vehicle brands mapped out. Keep an eye on this as it may serve as a decision making tool for you. Major decisions will surely be made at our expo, which is now almost fully sold, thanks to a great team, having worked tirelessly. In May 2017, the industry will come back together and we will celebrate bus captains, innovations and connected mobility.

I am looking forward to our next ride on your bus. Till then, drive safe

Stefan Pertz

Editor, Asian Buses

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125
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The Busies Drivers.

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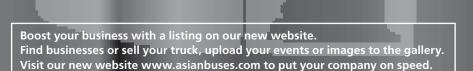
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FUELLING BUSINESS FURTHER

Sin Hock Soon takes Shell FuelSave Diesel for a test drive. It delivered.

Since young, Tony Yew has been ambitious. He never settled for what he had, and that determination made Sin Hock Soon Transport Sdn Bhd, industrial transport and logistics provider, into the success it is today. So when it came to his business' fuel partner, he expected no less. In 2015, Sin Hock Soon started to use Shell FuelSave Diesel as their main fuel supply, right after Yew tested its claims of better fuel efficiency and cleaner engines.

TAKING MATTERS INTO HIS OWN HANDS

Yew had been looking for more ways to further his business, and found that his operations were suffering due to vehicle performance.

"More than ten units were breaking down every month or so. The injectors were badly burnt and jammed with deposits." Investigating the issue, Yew discovered an alarming difference when his vehicles used Shell FuelSave Diesel and when they did not.

"We have saved up to 6% on our maintenance costs since switching to Shell FuelSave Diesel."

That difference greatly affects the business' bottom line.

IN THE DRIVER'S SEAT OF FUEL EFFICIENCY

The result of 100 years of fuel research, Shell created a powerful detergent formula that helps prevent deposit build-up contributing to improved fuel economy over the lifetime of the vehicle. This same formula is used in Shell FuelSave Diesel, supplied in both skid tanks and retail stations.



Unlike the rest, the injector on the far right used only Shell FuelSave Diesel and stayed clean from deposits.

Wanting further evidence, Yew put Shell FuelSave Diesel to trial. He monitored the engine parts of trucks that were either filled with Shell FuelSave Diesel or alternatives, and the results were clear.

"The injectors we used with Shell diesel had no problems. In fact, it still looked like new. From experience, the injectors would have darkened with residue in a short period of three months."

THE FAMILY BUSINESS JOINS SHELL'S FAMILY

All this solidified Yew's decision to work with Shell moving forward. With plans to expand his transnational business across Vietnam, China and Singapore, Yew is confident that this collaboration will optimise their efforts.

Sin Hock Soon stands as one of the largest service providers in Malaysia today, and has over 250 trucks of various capacities in their fleet.

Taking over the family business when they only had 40 trucks, Yew is now training the third generation, including the children of his siblings, so that all of them can be independent and carve their own successes.

Start driving your business further with the fuel that works just as hard as you. Learn more about Shell FuelSave Diesel at www.shell.com.my





Apollo Tyres Steps Up Focus on Malaysia



The Indian tyre maker sets-up an office and a team in the country to better service its customers

fter making its presence felt in Thailand and Indonesia, leading tyre maker, Apollo Tyres announced the setting-up of its office in Malaysia in early June, which is the third largest automotive market in the ASEAN region. Satish Sharma, President, Asia Pacific, Middle East & Africa (APMEA region), Apollo Tyres Ltd inaugurated the company's Malaysian office in the presence of selected business partners and company officials.

Subsequent to setting-up its sales & distribution hub in Bangkok for the ASEAN region, Apollo Tyres has been increasingly focusing on expanding its footprint in South East Asia. The company is targeting a bigger share of the pie in the Malaysian replacement tyre market, which has an annual capacity of 580,000 truck-bus radials and 9.5 million passenger car tyres. Apollo Tyres is building a complete team of sales and service personnel to service the Malaysian customers.

Speaking at the inauguration of the Malaysian office. Satish Sharma. President, Asia Pacific, Middle East & Africa, Apollo Tyres Ltd said, "Over the past two to three years we have been making steady inroads into the Malaysian market as this is a pivotal market for our growth in the region. Our product range fits well with the Malaysian consumer requirements and with the support of our key distribution and retail partners in Malaysia, we have been able to penetrate most of the key replacement tyre market segments. Now that we have a foothold in Malaysia, we believe it is the perfect time to step up our focus in this market with the establishment of the Apollo Tyres' Malaysian subsidiary."

With one of the best road infrastructures in the entire ASEAN region. Malaysia has above 90% radialisation levels in the commercial vehicle segment. Apollo Tyres, with its Apollo Endurace range of truck-bus radials, which has already received high acceptance from Malaysian





customers, is keen to further establish the Apollo brand at the top tier of the truckbus radials market. Similarly, Apollo's passenger car tyres portfolio is capable of servicing nearly 90% of the Malaysian car tyre market, which is currently, one of the largest in the ASEAN region.

"The setting-up of this office, and a legal entity, in addition to accelerating our revenue growth in this market, will also bring us closer to the Malaysian customers and help us better meet their requirements across the entire spectrum of applications," added Satish Sharma.





Shell Singapore Unveils its Latest Diesel Formulation fuel, regardless of whether they're a large, established fleet, a

Shell has launched a new diesel formulation with Active Efficiency Ingredients, designed to improve engine efficiency, which can help your vehicle use fuel less quickly.

hell Singapore has launched Shell FuelSave Diesel, marking the introduction of its latest diesel formulation to the market. The new fuel replaces its predecessor, Shell Diesel, at no added cost. With Active Efficiency Ingredients, Shell FuelSave Diesel is formulated to help improve engine efficiency which in turn can help improve fuel economy. Shell FuelSave Diesel contains special detergents designed to maintain engine condition by helping to prevent the build-up of injector deposits.

We Understand Fuel

Aarti Nagarajan, General Manager, Retail Sales and Operations for Shell Singapore, said, "Having been in Singapore for 125 years, Shell understands that fuel is one of the biggest cost factors for fleet businesses here. We are committed to providing quality fuels, such as the Shell FuelSave Diesel, to help customers improve their fuel efficiency. It is our hope that the new Shell FuelSave Diesel will help our partners make the most of their



fuel, regardless of whether they're a large, established fleet, a newly established SME business or an everyday road warrior like our taxi drivers.

"Shell FuelSave Diesel," Ms Nagarajan continued, will provide fuel economy for both light and heavy duty commercial vehicles."

The launch of Shell FuelSave Diesel follows closely after the opening of Shell Tuas – the first service station in Singapore to be opened in the Tuas South industrial area. Shell Tuas features four high speed diesel pump, which are specially catered to the growing industrial community and fleet customers in the neighbourhood.

Shell FuelSave Diesel is designed to:

- 1.Ignite and burn more effectively than regular diesel, helping produce more efficient combustion in the diesel engine
- 2. Keep diesel injectors clean by preventing the build-up of deposits

Fuelling their Passion

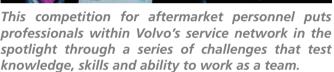
Shell Fuel Scientist, Mae Ascan, added, "At Shell we are passionate about helping the world's motorists get more out of their fuel. This is why we are committed to making better fuels for the changing needs of our customers and their vehicles. From Shell Dynamin, introduced back in the early 1900s, Shell has continuously evolved its fuels that has led to the development of Shell FuelSave Diesel – our most advanced diesel formulation in Singapore yet." Since 1977, Ms Ascan stated, Shell has spent \$1 billion dollars on fuel innovation."

Aside from quality fuels, Shell is constantly looking out for ways to maximise convenience for fleet customers. The Shell Fleet Card is one such example. It offers cashless payment for drivers, a clear and simple invoicing system for the entire fleet, tailored and reliable security features as well as a convenient online account management system.

To find out more about Shell FuelSave Diesel, visit www.shell.com.sg/fuelsave-diesel.

Volvo Trucks' Asia Pacific VISTA Competition





olvo continues to shine a spotlight on strong teamwork and problem-solving skills through this year's Asia Pacific VISTA Competition that concluded in July with worldwide participation of more than 18,500 aftermarket personnel. The 2015-2016 instalment of the international competition roped in more than 4 000 participants from Asia Pacific alone, doubling the enties from the region in the previous competition.

Mr Jacques Michel, President of Volvo Trucks in Asia Pacific said, "We are extremely proud that the number of participants doubled in this year's competition. Our aftermarket professionals are our frontliners who meet and interact with our customers each and every day. They are arguably the most important people when it comes to delivering customer satisfaction and we recognise that."

VISTA begun in 1957 as a local competition aimed specifically at Volvo's mechanics in Sweden and has since outgrown its initial purpose to become the global benchmark for aftermarket professionals. It is to meet and exceed expectations by cultivating a desire to improve skills and form strong bonds amongst employees from around the globe. In other words, Volvo provides employees the opportunity to simply be better at what they do every day through this competition.

"This is not merely a competition. It has a strong heritage and is a very effective competence development tool where teams are tested also on their ability to work together, solve problems together and meet Volvo's required standards," Michel elaborated.

According to Volvo, VISTA is an effective way of motivating and inspiring employees, while also providing a competitive stage for them to learn and develop. It is also a way for Volvo to





show workshop personnel how the company values the hard work carried out in its workshops across the world, and how the company invests in them to perform beyond world-class standards.

Michel explained, "VISTA embodies the aspirations that we as a company have. We strive to be leading in our customer satisfaction and also constantly pursue to be the most desired employer in our industry."

Every Volvo personnel that takes part in VISTA benefits from the experience by acquiring new knowledge and further development of their existing skills. This has led to an overall increase in performance applicable to their day-to-day interaction with customers. Participating teams also receive the opportunity to strengthen the image of their respective workshops and improve customer satisfaction.

Mr Filip Van den Heede, Vice President Aftermarket of Volvo Trucks Asia Pacific is delighted with the competition. "Everyone who takes part in VISTA is guaranteed to come away from this experience with improved skills and new knowledge, which is why we encourage all our employees to participate. Everything that the participants learn while competing has a direct impact on the quality of services we provide to our customers."



MCVE Gains Momentum

With the fringe program shaping up, South East Asia's largest commercial vehicle expo is gaining momentum with key players from the industry putting their support behind it.



elegates can look forward to an even more exciting event compared to the last instalment of the expo, which was held in 2015. "We realize that drivers of commercial vehicles, while typically underrepresented, play a huge role in the daily operation," Stefan Pertz, Organiser of MCVE 2017, said. "To this extend, we are going to make a bigger effort to bring in drivers to see the show. For our Asian Trucker Drivers Club members there will be a lunch on Saturday."

Further evolving the idea of the food trucks, MCVE will host a R & R area in which delegates can enjoy fresh coffees and finger food while having their discussions with business partners. This is also in the spirit of "Connected Mobility" as this is the area where the organisers hope to see people making new connections. Meanwhile, the seventh Asian Trucker Networking Night will be back and delegates and exhibitors alike are invited to join the sub-event on the Friday night, the traditional day for this happening.

The event is also seeing strong support from industry players other than manufacturers of trucks and buses. Meanwhile, the Association of Malaysian Hauliers has put their support behind the event, as have several media titles. Locally, Tyreman, Bus & Truck News, Asia Business Review and Newpages join international titles TruckMagz (Indonesia), Asia Auto Parts and TyreAsia (India) will be present during MCVE 2017.

"We are also grateful for new exhibitors joining us, for instance Volvo Bus and Chevron, which are major players in their respective industries," Pertz stated further. "There will be some very interesting products on display," he promised.



JBTC-Expo: Supporting Safer Roads

Organized by the Johor Sand & Granite Lorry Operators' Association (Persatuan Pengusaha Lori Bahan Batuan Johor), the inaugural Johor Bus, Truck and Component Expo gathered industry players to promote road safety.







eld in Danga City Mall Convention Centre, 12 to 14 August, the event featured a number of activities that were aimed at making Malaysian roads safer. Thanks to the support of key authorities such as SPAD, JPJ, JKRJ and organizations like MAI, MIROS and Puspakom, there was plenty to be learned. Throughout the weekend, presentations were given and delegates were invited to participate in discussions. JBTC was launched by YBhg Tan Sri Dato' Seri Dr Syed Hamid Syed Albar, Chairman of the Land Public Transport Commission (SPAD), with Scania Malaysia as the Platinum sponsor. Scania was showcasing the wider range of sustainable transport solutions for customer's profitability.

Set up just outside the expo hall was Scania's Driver Competition, JBTC-Expo edition. Here, hosting a slimmed down version of their original competition, Scania offered delegates an opportunity to test their driving skills. By "knocking the cones", drivers could demonstrate how well they can maneuver a truck in a confined space while the clock was ticking. Marie Sjödin Enström, Managing Director of Scania Southeast Asia, Scania Malaysia and Scania Singapore, who was present throughout the event, said "This may seem like a skill test only, but through this, we are actually making drivers safer. When you know your truck that well that you can manoeuvre it with such skills, then you will handle it with more care during daily operations."

Attended by a big crowd was a panel discussion on how everyone can play their roles in making roads safer. Moderated by Stefan Pertz, Editor of Asian Buses, the one hour long session provided insights into the work of several government agencies and questions were raised concerning the state of road safety in Malaysia. "How are we going to have our overnight breaks?"

one driver asked. "We understand that it is not legal to park on the emergency lane, but at the same time, there aren't enough parking lots at the rest and recreation centres along major highways." Obviously, truckers are facing a Catch 22 situation: continue driving fatigued or receive a traffic summon.

Also present was Manbeni Machine tools, which demonstrated how regular wheel alignment can help to make buses be safer while moving passengers. "We need to continue educating companies about this. Many don't know that you can and should also align the rear axles of your truck or even the trailer axles," Mr Wong of Manbeni said.

In conjunction with the JBTC-Expo, the Johor Sand & Granite Lorry Operators' Association also held its annual dinner. Here again, Frankie Chia President of the association urged members and guests to "Slow down - Safe lives". To underline his message, very graphic videos where shown before the dinner.



TBS is Leading Innovation









Terminal Bersepadu Selatan is the only bus terminal in Malaysia in operation using a smarter system to make the user experience more pleasant. Here is how it works.

nternally known as "CTS", this software has been hailed as a tool that makes the life of operators easier while eliminating unwanted side-effects of running a bus terminal. The abbreviation CTS stems from "Centralized Ticketing System" and it was created by Terminal Bersepadu Selatan's (TBS) management. The system was developed in the year 2011 and TBS is the one and only terminal using this advanced system, giving their facilities an edge.

Why use CTS?

According to the Senior Manager Operation/Quality Management Representative of TBS, Mr Faizal, CTS is their intelligent creation that facilitates bus operators' management while offering more options to passengers.

"Passengers will be able to make a wider selection in terms of seat type, bus company, timing, destination, etc. Our duty is to provide a platform, which is the CTS system, and gather all bus operators trip schedules into the system. Other than that, we will not interfere in the running of the business of operators found in the terminal," said Faizal.

"With the system, we successfully eliminate all the negative activities, such as touts and intermediary functions while we eliminate interference from illegal third parties," he added.

Another advantage is that passengers do not need to go from counter to counter if their ticket selection is not available. Tickets from different companies can be checked at the same counter.

The beauty of the system is that passengers can also compare the prices of tickets offered by the bus operators, which leads to better choices.

How Does it Work?

Let's say a bus company that is registered under the CTS would like to run for ten trips on a certain date. In such case, the particular bus operator will enter all the details about the trip into the system. Once completed, the system will assign the company to a bay number for departures.

When the bus arrives at the terminal and enters the bay, a sensor will automatically detect the number plate of the vehicle using Automatic Number Plate Regonization (ANPR). If the bus is in the wrong bay, an alarm will be triggered not only in the bay area but as well at the terminal management center. Operators will use the system via a user access and a password that is controlled by TBS management.

To register under the system, a bus operator has to follow a few house rules and regulations. If failing to comply, the buses from said company are not allowed to operate in the terminal.

"In case anything happens during the trip, it would be easier for the responsible authority to act fast because we keep the details of who, what and where," explained Faizal.

IAA 2016 Will Remind You of What's Good in Buses





Are electric buses the new mega trend now? Fajar takes a tour of the fair to answer this question and to scoop up other insights from the show.

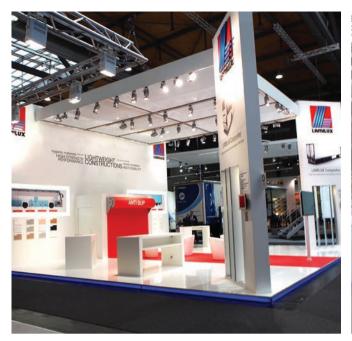
or the first time we feature the world largest exhibition for commercial vehicles, the IAA Commercial Vehicles, in this seventh issue of Asian Buses. It is the 66th IAA in Hannover, Germany, as the leading international trade fair for mobility, transportation and logistics. The origins of the IAA can be traced back for more than 100 years. In 1897, eight motor vehicles were exhibited to the public at the Bristol Hotel in Berlin. From these humble beginnings, a regular exhibition was established that, due to its high visitor turnout, had to be separated into an alternating exhibition of passenger cars and commercial vehicles in 1991. In odd-numbered years the IAA Cars is held in Frankfurt; even-numbered years see the IAA Commercial Vehicles in Hannover.



Impressions

Luxurious and innovative are my two words to describe the IAA 2016 for the exhibits in the bus category. I was impressed with the new technologies brought by each bus company, and it has automatically changed the way I look at a bus now. For this year, what I can conclude is that key players in bus world are focusing on the concept of the fully electric bus, and that it is going to be a hard game for alternative fuels to find a footing in this segment.

An eye-catching design and the striking colours of a bus body makes you feel like you want to start using public transport and further more, the discussion on the alternative fuels is one of





the hot topics for the bus industry now. Bus manufacturers I spoke to claimed that even if they lost money for investing on alternative fuels, they will not stop but keep educating the society on this new approach because they see the potential of a better future in long term.

The expo was huge and it hurts my feet to walk all day at the expo, so it was a relief when I saw they provide a shuttle-bus to go around at the fair gorunds. And true to the spirit of the event, it was all new buses! As I stepped into the bus, I felt free, quiet and very comfortable, plus with the new approach to designing the entries, it made it easy to hop on and off from the buses.

Services

IAA 2016 definitely gives a whole new idea to change the mindset of the society as well as the industry. Users have been convinced that it is going to be hassle every time they want to use public transport: confined spaces lead you to squeeze yourself in with strangers, no privacy and less comfort which can affect your mood for the day. Well not anymore.

Scania displayed their hybrid and biogas buses at IAA 2016 together with special features that take comfort into the next level. According to Mr Christian Levin, Executive Vice President Sales and Marketing for Scania, introducing the alternative fuels to the society is quite a challenge for them as convincing people to accept changes would take a bit of an effort.

Lamilux is one of the most Europe's most established and experienced manufacturers of daylight system and fibre-reinforced composites in the world.

Meanwhile, being one of the leading companies in the sector of production of insulation materials for construction for over 50 years, Brianza Plastica just opened their second production site in Rovigo.

A low floor city bus from a Turkish company was looking very compact and it is the smallest electrical bus with wheelchair accessibility, giving full utilization on narrow roads. We also saw a bus company from China which is aiming for zero emission and no pollution to the environment with their 20 meter pure electric buses.

Besides the innovations to be seen, IAA 2016 was one big family gathering for everyone in the commercial vehicle industry. Naturally, there is tough competition between suppliers, customers, and manufacturers but you can see everyone is trying to make the world a better place to live in. When the demand is high, that is when you know you are doing something right for the industry.









Scania Presents New Bus Technology at IAA

While groups of visitors buzz in and out of the buses on display, Christian Levin, Executive Vice President Sales and Marketing shares with us insight into other developments.

t the world largest commercial vehicle expo, the IAA in Hannover, Germany, Asian Trucker meets Christian Levin, Executive Vice President Sales and Marketing to talk in an exclusive interview about the global market of buses. Being a former Managing Director for Scania Switzerland and Italy, he came back to his origins to be responsible for the global development of the brand. "We have done a great job to be back in the top three in Europe. However, there are still many markets where we have huge potential," is his opening statement. For this year, Levin is focused on building all of Scania's business units: bus and truck, and the services that are required to support these tangible products. On top of that, emphasis is on connectivity.

The Moving Bus

Naturally, in his previous functions, he has been working, living and dealing with with buses, but has been focused more on working directly with the trucks. Within Scania, buses are the spearheads, but trucks are the products that provide the volume. "We use the components in big volume to be able to be really competitive in the bus industry. Scania is investing in taking all those great components that we had to develop in our trucks to put them into the next bus generation that will come pretty soon. Based on my experience in the field, I would say that there is a close symbiosis between trucks and buses," said Levin.

Demand

Typically, in most counties, Scania's business comprises of 90 percent trucks and the remaining 10 are buses. There are some countries however, where the buses constitute up to 20% from buses. The countries where there is a higher demand for Scania buses would be Mexico, Brazil, and Colombia. Closer to home, Prasarana is developing quite well in the Malaysia market throughout last year. Indonesia is a relatively fresh bus market for Scania, and the city of Jakarta is on place where Scania is highly successful in convincing the local authorities to opt for more sustainable transport solutions and systems. According to him, the demand in Europe countries itself is rather stagnant, but is increasing in Asia and Latin American countries.

IAA 2016

"At IAA, we have three buses here with a lot of innovations and we are pushing for the hybrid bus, of course. We also prepared lots of updates, news and information for our target audience. We feature flat floor city buses and while it is not an entirely new product, the new design and new body look is something that is grabbing the attention of visitors. Apart from that, there are new technologies coming in from the drive line side," he explained.

"One of the interesting topics to talk about are the alternative fuels for buses. Scania has a full line up of Euro 6 gas compliant gas engines for example now and has adopted them for biogas and natural gas. A great step forward is the development of HBO (biodiesel adaptation) which is available for 100% of our bus engines" he added.

What's Interesting?

As fuel economy remains a key driver of businesses, the Scania Driver Score is a tool that has been welcomed by fleet owners. The Driver Score is continuously displayed in the instrument cluster, giving drivers an immediate feedback on their performance in percent for each of the five categories. This allows the driver and owner of the bus to monitor driver behavior on the trip computer. The driver can choose to see a total score or split it into different categories such as hill-driving, anticipation, brake usage and choice of gears.

"The system works by giving the driver stars, up to five stars per area. The driver will as well get immediate feedback, and some tips. This system was not created just to improve and assist the drivers in developing their skill and driving technique, but to help the fleet owners monitoring the performance of their drivers," said Levin.

In South East Asia, this system is currently not available, but Scania customers may eventually be able to make use of it. When the Driver Score will be added for South East Asia has yet to be announced. Using this system, the fleet owners can set up internal competitions or give incentives for good drivers. But what's important is the possibility to always make use of the support Scania provides to be a better driver.

Expectation

The major purpose of joining the IAA is to make it feel like a family gathering between the suppliers, customers and other parties. It is also to find new prospects and for new and existing customers to appreciate the new products, technology and the new vision. "Positive feedback is always good to grow the brand," Levin closes before heading to the next appointment.

Continous Innovations and Intense Drive from Lamilux

By now one should be used to Lamilux being a powerhouse of innovations. Again, at the IAA 2016, the company comes through with the presentation of new solutions, coupled with staff driven to go the extra mile.



aking us through the innovations is Mr. Christoph Meiler, Sales Manager for innovative fibreglass solutions. The first product Lamilux is featuring at the IAA is their antibacterial solution, which works with all their Gelcoats. Through this, 99.9 % of bacteria are killed upon contact with the surface. Lamilux's AntiBac is tested and certified and can last decades. What is interesting is that the product was initially developed for applications in the medical industry. "AntiBac was conceptualised for mobile hospitals. I point out that the bacteria are permanentely killed upon contact," said Meiler. For the commercial vehicle industry, Anti-Bac is suitable for reefer trucks and any transport solution that is dealing with food. "We have already gathered some good feedback from companies active in food transportation," he added.

Next he shows us the Lamilux High Strength X-treme Gelcoat. Through special ingredients, this laminate offers an extreme flexural strength, tensile strength and modules of elasticity. Meiler said that "You can apply this directly on a frame, without the need for a plywood frame. That obviously saves weight." Adding to that, Lamilux is showing their solution for anti-slip. "Here we can immediately make use of the laminate, unlike in the traditional production method, which required the material







to dry for two to three days. The time savings in the production are tremendous when using our product." One key trend Lamilux has identified is the departure from steel and other metals when building commercial vehicle bodies. The industry is looking for lighter weights, which offer higher payloads, while making better use of resources.

Here at the IAA we are also meeting with Mr Louis Mary, Southeast Asia Sales Manager. He joined Lamilux in the beginning of the year to handle the South East Asian market. Previously he was already in the composite industry, however his scope of work was not specifically on the materials side.

Focus South East Asia Market

"For me, it was an interesting market to start with in the sense of diversity and dynamics. There are quite a few countries in Asia, obviously with different languages, different rules and different habits, especially when it comes to commercial vehicles," is a short summary he has about his initial experience.

"From our perspective, we see a lot of potential for our business growth in the market. We slowly shift the mentality to accept innovative changes and as we expected, some countries are going slower than others, but nevertheless, we will get there eventually."

"As for my short experience, I could say, Thailand is very receptive, as is Vietnam and Singapore towards our products. He continued to say that "Our aim is to add value to the market with our high quality products and backing them with support because we are based in South East Asia. Apart from that, we strive to deliver a better support to our customers than our competitiors,"

"My job here at the IAA is help expanding our network plus meeting existing and new customers. I do my best in presenting our new products to convince our customers to give us a chance to prove their value."

Presence is What Matters Most for Brianza Plastica

The demand for laminates with better characteristics have triggered an evolution that has made the Italian made Elycold and Elyplan fiberglass laminates, an optimal solution for recreational and temperature-controlled vehicles.







he IAA 2016 once again brings the massive crowd from all over the world to either source new and innovative components or to seek new ideas while being a part of this international commercial vehicle expo. We visited the booth of one of the leading companies in the field of fiberglass laminates for industrial and commercial sectors, the Italy based Brianza Plastica. At their booth we met Andrea Bollani, area manager, who has been working with the Company for four years. He is in charge of Eastern Europe, Australia and South East Asian Countries.

"For our business, we see stronger demand in the European and Australian markets. As we go further, we are aiming for China as a possible new market for the next growth phase of our business and we're looking with great interest to Asian market".

Brianza Plastica has three factories that produce handmade laminates, while a fourth site is relying on a higher degree of automation, as a consequence of the different product lines that are created in order to meet the requirements of clients around the world.

At the IAA 2016

According to Bollani, their booth is bigger than two years ago and it is a better opportunity for them to showcase all their various ranges of products. IAA is in fact a perfect opportunity to present and boost their brand names, Elycold and Elyplan and to present the new Elyplan embossed finishing, suitable for commercial vehicle sector.

"We do have different products ready and we would like to launch them, for example our flexible materials, but we need that customers know that the Company is ready to give an immediate feedback to all requests. We will introduce the new PVC for flooring, a fantastic application for the recreational vehicle (RV) sector, rather than trucks. Apart from that, we are also working on a few new projects for the development of our business," he explained, keeping us in suspense as to what the Company has in store.

Challenges

Bollani has been handling various overseas markets and with that come insights that are highly valuable. For instance, he acknowledged that "Language is one of the challenges for us when introducing the product into countries outside Europe, such as China or Japan. It is almost impossible to meet and present to small companies that are not export oriented in such Countries." Communicating the benefits of Brianza Plastica's products become a hurdle if one does not have a local agent there. "Naturally, we are always on the lookout for qualified local agents for better communication between all parties."

"We are also looking forward to be part of MCVE next year in Kuala Lumpur. It is definitely a good opportunity for our business to grow," he ended.



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Terminal Melaka Sentral- Where the Journey Begins

Fajar used to be the terminal user for three years when she was a student, going back and forth to Ipoh, her hometown. This time she went back to learn more about the inner workings of the facilities.

alacca or Melaka, is a must visit state in Malaysia, known as "The Historic State", located on the Malay Peninsula. The wealth of interesting history and knowledge makes it the center of attraction for tourists and the locals alike.

Not just for the sake of old memories, our writer went to Melaka to visit the main bus terminal in the state, Melaka Sentral.

History

Melaka Sentral is one of the largest public transportation terminals in Malacca city, and is located between Jalan Tun Abdul Razak and Jalan Panglima Awang. It was built in February 2003 and in operation the following year as Melaka Sentral Complex. All long-distance and local buses now operate from this terminal, a good 4.5 km from the historic heart of the city. The main building of the complex is the terminal itself and is

supported by Pasar Besar Melaka Sentral (market), the third building Bazaar Melaka Sentral and the smallest sized building, which is Medan Selera Melaka Sentral (food court). The total size of the development is 26 acres of land and the construction period of the terminal was 14 months.

The Main Man

Mr Mohd Saleh, General Manager of Terminal Melaka Sentral since 9 Febuary 2004, is also the person that is responsible for everything that is going on inside the compounds of the terminal. He talked with us about the many challenges that he has faced.

"Some changes need time to be accepted. Previously, most of the bus operators used to pick up or wait for their passengers only at the roadside under uncontrolled and upleasant conditions. It used to be dirty, hot and many times chaotic.







When we built Melaka Sentral, we offered more convenient services and advanced systems, under one roof, that are pretty similar to an airport. The advantages that we offer are not free, for example, we do provide a clean and well-maintained public toilet, but users need to pay the entrance fee. This extra charge was an issue back then," he said.

"My second duty is to ensure that this development generates returns on the investment made by the state government. They invested RM 51 million to build the complex and we are here being entrusted to manage it, to lease shops and spaces to interested parties, to provide the necessary facilities and at the same time to earn income to pay for the operational cost, as whatever excess that there is will be called to be returned to the state," he explained.

Architecture

According to Mr Saleh, the terminal was designed in such a way that it is to provide the best facilities and amenities for all public transportation users, especially those who travel by using interstate buses and also domestic buses. Apart from that, it was designed to be able to accommodate 350 units of shops that come in different sizes.

It's conceptual foundation is the "Rumah Melayu Melaka" (Malay houses) concept, as can be seen in the structure of the terminal's roof. There is a green garden inside the building to support a healthy environment winthin the complex, something that has been encouraged by the state Government.

There are 36 interstate bus operators and one bus company that handles domestic routes, the latter being Panorama Melaka Sdn Bhd.

"We recorded around 16 percent of the users to be foreigners and five percent foreign workers who work in the state and the balance are the locals. Bus operators start as early as 5 am and keep up until midnight, while the shops will be open from 10 am to 10 pm," said Mr Saleh.

State of Attraction

"We were aware of the incoming tourists, both locally from Malaysia and foreign, when we started the operation of the terminal. We anticipated what will be their respective requirements, the basic needs of all the travellers and their expectation. With that noted, we communicated with all the hotels in the state, and after we completed our research, we came up with a special hotel reservation counter in the terminal as well as the customer service counter to provide a convenient experience to the travelers. This counter will provide public phones where passengers can make free calls to any hotel in the state and travellers can check-in directly from the counter and some hotels can even arrange a pick up from the terminal.

Events

Terminal Melaka Sentral was launched by the former Prime Minister, Tun Dato' Sri Haji Abdullah bin Haji Ahmad Badawi "A few years back, we also organized a grand musical concert, collaborating with a radio company," beamed Saleh. "Every festive season, we will organize a cultural and a musical show as well," he added

Bus Operators

The general manager mentioned that they are really strict about all the procedures involving bus operators. Bus operators are briefed before they accept the offer to operate under the terminal's roof. The do and don't, pros and cons, as well as the guidelines, the management and public expectation are ensured to be crystal clear between both parties.

Moreover, Melaka Sentral's management also works closely with SPAD and JPJ to ensure that safety is ensured and all the processes in the terminal run smoothly.



Greyhound's Prototype GX-1

Harry Valentine presents this bus technology discussion paper as a template for a future front engine double decker coach.

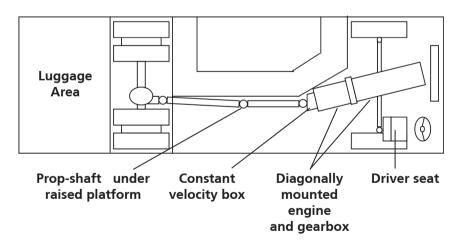


■ hortly after the end of World War 2, the then president of Greyhound bus lines, Orville Caeser unveiled the prototype GX-1 double decker motor coach powered by twin rear mounted engines. The lack of luggage capacity prompted Greyhound to develop an extended length split level motor coach called GX-2 which General Motors built under the designation of PD-4501. Later developments in bus technology and in long-distance bus transportation now prompt a re-examination of GX-1 as a template for future development of a front engine, double decker intercity bus capable of offering increased luggage capacity.

Technical Precedents

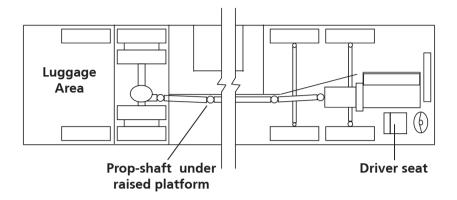
The Van Hool model 925 that MegaBus has introduced on several North American intercity routes places the left side lower level passenger seats on a raised platform that is 2-steps above road level. It is at the same height as the lower level floor of a standard front engine, British built double decker bus of a bygone era. Several bus builders offer vehicles with transversely mounted rear engines that include an

Layout of Concept Modern Front Engine Double Decker coach – Right hand drive



- Sunken central lower gangway/aisle
- Staircase above gearbox and behind driver
- Raised platform on right side of gangway
- Lower passenger compartment between engine and rear wheels
- Luggage area above and behind rear axles with 30% to 50% greater capacity than rear engine bus
- Hypoid Ring & Pinion inside offset differential
- Custom made CV-box bolted behind gearbox

Layout of Concept Modern Front Engine Double Decker coach – Right hand drive



- Sunken central lower gangway/aisle
- Forward ascending staircase behind driver
- Engine inclined to 30 or 45-degrees to left side, with optional horizontal front engine
- Driver seat to extreme right, ahead of front axle
- Air or coil springs high above shoulders of front axle
- Prop shaft under raised platform on right side of gangway
- Lower passenger compartment between engine and rear wheels
- Luggage area above and behind rear axles with 30% to 50% greater capacity than rear engine bus
- Hypoid Ring & Pinion inside offset differential, with optional double reduction gearing
- Integral construction with main weight carrying truss member located in sidewall, between windows of lower and upper level.

angle drive power train that connects to the rear drive axle. The angle-drive input to the rear axles are offered at 10, 25 and 30-degrees from the bus center line.

In some cases, the differential may be an offset or side-pot design located with is center located at about 8-inches from the bus center line, with clockwise or right-hand rotation input from the rear. The input rotation remains the same if the axle is rotated about its transverse center line to accept power from the front. On some buses with transverse rear engines with left side transmission and side-pot differential, the outer edge of the driveshaft passes within a few inches of the left side of the inner left side tire.

Forward Angle Drive

A bus built with left side-pot differential and 30-inch driveshaft (between U-joint centers) would result in the lead U-joint being placed 12.5-inches to the left of the trailing U-joint, or 20.5-inches from vehicle center line. The combination of an aisle width of 19-inches, a structural

member of 3-inches width under the left side raised platform and 8-inches diameter driveshaft, would provide 4-inches clearance between structural member and driveshaft. Standard U-joint operating angles of 3-degree could reduce the clearance to 2.5-inches, with a shorter length of driveshaft further reducing clearance so as to make space for other equipment.

A double decker bus built with a raised platform on the lower right side would be restricted to a differential with an input of 80-degrees, or 10-degrees from the vehicle center line. A driveshaft of 42-inches would place the leading U-joint at 7.25-inches to the right of the trailing U-ioint, or 15.25-inches from vehicle center with standard 3-degree U-joint angles shifting the leading U-joint to 17-inches and allowing 1-inch clearance between 8-inch diameter driveshaft and 3-inch wide structural member. Double decker coaches built with right-hand drive would feature the raised right side lower platform.

Tilting Rear Axle

There would be scope to tilt the top of the rear axle forward, perhaps by 10-degrees to place the driveshaft at a lower level. For left side raised lower platform, the leading U-joint would be 50-inches ahead of the power axle and could be lowered by 8.5-inches. For raised right side lower platform, leading U-joint would be 59-inches ahead of rear axle center line of 21-inches above road level and could be lowered by 10-inches. Placing the driveshaft at a lower level would provide easier maintenance access when the bus is in the garage for scheduled upkeep.

Double Cardan Joints

A pair of U-joints can be connected to form a double cardan joint that operates as a constant velocity joint. Some heavy duty, all-wheel trucks feature double cardan joints built into the drive-steer axles, at the center of the kingpins. It is also possible to build a casing around a double cardan joint and use splash lubrication to keep the bearings

operational for extended duration. The casing would also protect the bearings from contamination by water and dirt. Double cardan joints housed inside casings (CV-boxes) would be part of the drivetrain of a front engine, double decker motor coach.

The rearmost CV-box would be located under the raised platform and ahead of the rear axle and carry power through either a permanent 10-degree angle (right hand drive bus) or permanent 25-degree angle (left hand drive bus). Depending on the engine installation at the front, there may be a need for at least one or possibly 2-CV boxes located on the driveline behind the engine and under the staircase located immediately behind the driver. The CV-boxes would be free from noise and offer greatly extended service lives courtesy of continuous lubrication and protection from dirt and water.

Engine Installation

During the mid-1960's, French bus maker Berliet supplied several front engine double decker buses to Paris. A horizontally mounted MAN 6-cylinder engine with crank line offset to the left was located ahead of the front axle.

below the driver station that was placed on a raised platform across from the front door. In the UK, the front engine Bristol Lodekka carried the engine at a slight angle, next to the driver. Certain models of Bristol Lodekka, Dennis Loline, AEC Bridgemaster and Albion-Leyland Lowlander as well as the Berliet placed the staircase behind the driver and partly above the gearbox.

Horizontal (diesel) bus engines from MAN and Mercedes Benz tilt to the left and are suitable for installation under the driver and ahead of the front axles of left hand drive buses. Volvo offered horizontal bus engines of 10 and 12-litre displacement that tilted to the right and can be installed ahead of the front axles and below the driver in a right hand drive bus layout. Engines may be installed partly above the front axle, slightly tilted and slightly skewed with front overhangs of 42 to 48-inches, with driver seat cushion and backrest above a wheel well.

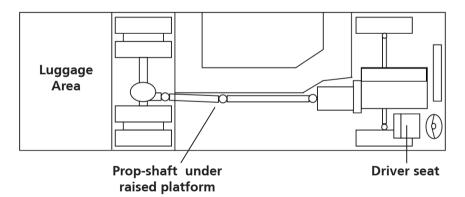
Front End Layout

The combination of modern sound insulation technology and sound wave cancellation technology could reduce

interior noise levels. Some modern front-engine buses with setback front axle utilize bodywork that includes a tilt-forward front section that incorporates the sound insulated engine cover. In the garage, the tilt-forward section provides excellent access to the engine. A tilt forward section at the front of a double decker bus would require a short single level section at the front of the vehicle, perhaps with a swept back aerodynamic profile above the lower level with front of upper level beginning behind the driver station.

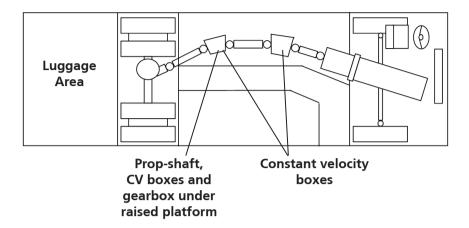
A swept back aerodynamic profile above the lower level would be extended to buses with horizontal front engines placed below the driver and ahead of twin-steer front axles (15m and 50-ft buses). Extensive sound insulation would be installed above, to the side and to the rear of the engine compartment. Tiltforward front section may be considered to improve engine access. Entrance doors would be located both ahead of and behind the twin front axles. The staircase and luggage area would be located above the front axles as occurs on South American intercity double decker motor coaches.

Layout of Concept Modern Front Engine Double Decker coach – Right hand drive



- Sunken central lower gangway/aisle
- Forward ascending staircase above gearbox and behind driver
- Engine inclined to 30-degrees to left side
- Driver seat to extreme right
- Air springs on shoulders of front axle
- Prop shaft under raised platform on right side of gangway
- Lower passenger compartment between engine and rear wheels
- Luggage area above and behind rear axles with 30% to 45% greater capacity than rear engine bus
- Hypoid Ring & Pinion inside offset differential
- Integral construction with main weight carrying truss member located in sidewall, between windows of lower and upper level
- Fuel tank possible next to prop shaft

Layout of Concept Modern Front Engine Double Decker coach - Left hand drive



- Sunken central lower gangway/aisle
- Staircase above gearbox and behind driver
- Raised platform on right side of gangway
- Lower passenger compartment between engine and rear wheels
- Luggage area above and behind rear axles with 30% to 45% greater capacity than rear engine bus
- 60-degree Ring & Pinion inside offset differential
- Custom made CV-box bolted behind gearbox
- Optional longitudinal front engine with input and output CV-boxes on gearbox

Driver Area

Some designs of tilt-cab trucks with setback front axle place the driver's seat above the wheel well and next to the engine. This configuration may serve as the basis of the front end design of a front engine double decker motor coach with a single front axle. Some truck cabs include a bunk for the driver and serve as design precedent for the front of a front engine double decker coach that could combine a separate driver's door with access between the driver seat and the staircase of the passenger compartment in companies where 1-person operation prevails.

Buses with twin-front axles and horizontal front engine would place driver station on raised platform, with upper level seating beginning above the leading front axle due to swept back, aerodynamic front end. Such front ends exist on 4-axle, rear engine intercity double decker coaches in Argentina and can be extended to buses with horizontal front engines. A separate driver-only door would be optional, as would a petition separating the driver from the passenger area. The bus could be designed for either one-person or 2-person operation, the latter including an onboard food area.

Rear of Bus

While the prototype Greyhound GX-1 was a 2-axle bus, an extended length 3-axle version was on the drawing board and appeared as the split level General Motors 'Scenicruiser' PD4501. A frontengine-over-the-front-axle double decker concept motor coach would be a 40ft (12.2m) 3 powered -axle bus, with single-tire non-powered. (lifting and selfsteering) trailing axle placed behind the angle drive power axle. North American models would feature a rear overhang of 120-inches (10-ft or 3m) between center of the trailing axle and rear of bus. Some jurisdictions allow 3.6m overhang from the trailing axle and other even allow 4.0m overhang.

Twin Rear Power

The larger 4-axle bus would feature the same rear section layout in regions where roads are free from snow and ice, with twin-rear powered axles for operation along low-traction roadways. A power divider built into the driveline ahead of the leading power axle could split the power into 2-propeller shafts, one for each rear axle. To provide short term starting traction, a super-capacitor

could supply power to an electric motor built into the 2nd powered rear axle. Alternatively, a tank of compressed air could supply starting power to an air motor built into the 2nd rear axle.

Conclusions

A modern, front engine double decker long distance bus with a low-level central aisle (gangway) that uses a conventional single reduction rear axle is possible and could offer greatly increased luggage carrying capacity in the rear luggage area.

About the Author:

Harry Valentine has worked in various capacities over a period of many years in the bus transportation industry. He holds a degree in engineering from Carleton University (Ottawa, Canada) and is a bus enthusiast. He may be reached at harrycv@hotmail.com

SITCE Congress and Exhibition Explores how to **Make Cities More Liveable**

lobal urbanisation is on the rise. By 2030, the Asia Pacific region is expected to be home to an unprecedented total of 22 megacities. Asian Buses had the opportunity to talk to three of the speakers of the upcoming SITCE Congress ahead of the event to gain some insights into how we will cope with the increase in demand for public transport.



Mr Andy Boulton

Radial Design, Reduced Stress

Andy Boulton, Customer Development and Technical Director Asia Pacific. Alexander Dennis Limited, has some additional comments on the revolutionary three door design used in one of their buses, as requested by Singapore's Land Transport Agency.

"We responded to the LTA's tender to develop a three door, two staircase concept vehicle for them to use for passenger engagement activity at three "Bus Carnival" events." He says. These carnivals were held in various locations in Singapore during March and April 2016. The LTA conducted surveys to gain passenger feedback during these events. Apparently, the bus also solves the issue of people crowding near the doors. "People tend to be afraid that they may not be able to leave the vehicle at their stop, they want to be close to the door to guickly alight from the bus. Now that there are more exits, people don't display such behaviour, knowing that they have plenty of ways to step out," are insights that he shared.

As the largest double deck manufacturer in the world, Alexander Dennis has extensive design, development and engineering experience in producing class-leading double deck vehicles which transport the maximum number of passengers seated in comfort whilst occupying a compact footprint on congested city streets. The ultimate aim of this three door, two staircase concept vehicle is to expedite boarding and disembarking improving the onboard passenger flow and experience.



Ms Joni Ong

Better Design, Buses Included

"To answer the question why there needs to be a re-design of MRT stations, we can answer as follows: the purpose of the MRT redesign is to create a better ride experience for our commuters and does not affect bus planning or operations. We are striving to make public transport the people's choice by enhancing their travel experience," says Joni Ker Shing Ong, Land Transport Authority, Singapore.



Mr Soi Hoi Lam

Small Place, Good Connectivity

Also an island, Macau has unique challenges. Soi Hoi Lam, Transportation Infrastructure Office, Macao, shares some interesting pointers on how the small island manages the transportation of tourists and locals alike. "Macao is a small but compact city. Most places are within walking distances from the view points of a large metropolitan area, though the notion of "short distances" means differently in local terms. Walking has been an important mode and a number of facilities to encourage walking and to make it easier, e.g. overcoming the differences in elevation, and more comfortable is being built," is his short but concise summary. To cater for mid- to long distance travel, a light rapid transit system is being built, in stages, with the first stage, "Taipa Line", targeted to open in 2019. The Taipa Line will connect major activity centres and residential areas in the Taipa/Cotai areas, as well as connecting the Taipa ferry terminal, airport, Lotus check point, and a bridge linking Macao peninsula.

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Trailblazing Trends

aturally, we want our trucks to become better over time. What drives the improvements of vehicles is oftentimes pure imagination, something that we may want to call "Science Fiction". Murrali Thalor gives us a glimpse of what innovations can do for us to improve our lives on the road.

Kids Kaleidoscope

It is a known fact that necessity is the mother of invention. Here the paradox is that we do not know what will be the future necessity. The present day aspirations are moving faster. The designers, on their part, relentlessly seek different methodologies and new technologies to make an absolutely brilliant vehicle. But will they meet the future needs?



The search for the aspirations of tomorrow begins with the kids of today. The leading global automotive supplier Bosch asked a group of six-year olds, what they will want from their car when they grow up. They gave very fantastic and challenging replies. These kids wanted their cars to be driverless, self-parking and to pick them up when needed.

Most of the kids want their car to be more than just a method of transportation. They want the front seats to turn around to face the back seats and a table in the middle for them to party.

It should have a bed for the passenger to rest, while the car will drive on its own to the destination. They will tell the car where to go and that's it. The car has to download the map from the cloud and take them to the desired destination.

Some of them wanted the seat belt to fasten itself once on board. They need a radar for the car, like the one for the aircraft, to make driving safer. The kids also want their cars to be powered by electricity and be kind to the penguins and polar bears, with less greenhouse gases.

These are wonderful inputs for the system suppliers and many of these ideas could very well be transferred to commercial vehicles. One may just as well ask what kids want their trucks to be like if they were taking up the profession of a driver. This is not a new trend. During one of my trips to Japan a decade ago, a friend who worked for Toyota Motor Corporation said, the company used to study the expectations of children to understand what they wanted in future. The kids then wanted to have control systems in the steering wheel of the cars, like they have in the video games. Soon these things became a reality. The challenge of knowing what we want continues, despite a galaxy of innovations.

Backseat Reminder

The RVS-BLB Brilliant Backseat Reminder System, released by Rear View Safety, the industry leader in the sales and distribution of back-up camera systems, is one of the latest trailblazing innovations that won accolades recently. This 'backseat reminder system' reminds the drivers to take children, pets, or any other valuables from the backseat of the car. Several kids and pets that were left behind in cars have died from heatstroke and this was the driving force for this innovation.

The specialty of the Brilliant Backseat Reminder System is its simplicity. When the driver arrives at the destination and leaves the vehicle, the RVS-BLB activates a moderate audio alarm to remind him about the cargo, if any, in the back seat. If this alarm is not turned off in 40 seconds, the system activates the vehicle's horn. How many of you truckers have once forgotten your valuables or important documents in the cab?

Another trailblazer is the new technology that analyses a person's natural speech to detect and monitor Alzheimer's disease and other cognitive disorders. The innovation was recognised recently as the new technology- deployed artificial intelligence to analyse about 400 variables like pitch, tone, and rate of speech with 85-100 percent accuracy.

Innovations continue...

T Murrali (aka) Murrali Thalor is the Editor of Auto Parts Asia, India.



Buses – The Blind Spot of Society

Why does the general public not appreciate bus drivers and can anything be done about it asks Stefan Pertz.

have had to defend bus drivers on several occasions. Some of Asian Buses' readers have also seen articles of mine where I argue that the bus industry may need to step up its effort to advertise itself and to present a positive image. In many discussions I have with people outside the industry there seems to be an obvious blind spot about the trucking industry. Here is a good definition of the term blind spot: "an area or subject about which one is uninformed, prejudiced, or unappreciative."

Uninformed

How are people uninformed? For starters, many don't know that driving a bus could be the starting point for great career. We have seen programmes that take in university graduates who begin their career by driving for a number of years before shifting into management roles. Whenever journalists from car magazines drive a bus they are impressed by how comfortable the vehicle is and how easy to drive. You might have thought that they should know.

Many motorists aren't aware of the characteristics a bus displays on the road. For example, that a bus has blind spots and its braking distance is longer than a car's. People are also uninformed about the contributions buses and bus drivers make to society. Not only in terms of job creation, but also in allowing many other industries to actually function. Try building a new home without a truck delivering the building materials.

Incompetent

We often hear: "If you can't do anything else, you drive a bus." A prejudice labelling bus captains as too incompetent to hold a "decent" job. Recently I was in Japan. I got myself some spices in the supermarket. At the cashier, all the cute girl had to do was scan the items, take my money and feed the notes into the cash register. The machine would then spit out the balance. I had to pack my own groceries. Now, please

compare that with the many different tasks a bus driver has to carry out: Paperwork, maintenance, driving, orientating and making sure that nobody gets hurt. It is a tough and demanding work.

Another stigma that long distance drivers have to deal with is that they are said to take drugs. Surely, there must be some that do. But I guarantee that there are drug users in most professions. Lastly, what many do not realize is that there is good money to be made as a driver.

Unappreciated

It is also obvious that many people don't appreciate buses and their drivers. Yes, it is inconvenient when a truck needs to stop to allow passengers to alight and traffic has to manoeuvre around it. Surely it will be more inconvenient when people can't get to work or visit their families. In short: You can't have it all. Buses are a crucial part of our daily lives and we need to acknowledge that buses may need some extra concessions.

We need to appreciate the fact that truckers spend their days sitting behind the wheel for long hours. They are not always able to stop where they want as that will trip off the GPS geofencing. Handling a heavy vehicle, with its blind spots in traffic that can be crazy, can make for a stressful day. Long distance drivers are away from family and friends for long periods.

Undone

Any wonder that there is a shortage of drivers? The long stressful days are one reason. The public attitude towards the profession is another. Perhaps if we showcased more of our heroes, spoke more about the stellar careers offered by the industry, and the importance of the driver-bus combo, we might be able to move out of the blind spot and into the lime light.



ZF Enables Your Bus to See, Think and Act

What may sound to some like far-away science fiction is already reality at ZF where the German company offered a view of things to come in the very near future at their Global Press Days. Stefan Pertz takes his hands off the wheel to report from the event.

esides medium duty trucks, heavy duty trucks, buses of various types, a crane and the "ZF Innovation Truck" were all lined up at the ZF-owned test track near Aachen, Germany. Except for the crane, all vehicles were available for test drives to demonstrate how ZF products improve safety, comfort and fuel economy. The one topic that dominated the event was autonomous driving and there was plenty of it. It is important to mention that technology used for autonomous driving was mainly demonstrated on trucks, but would just as equally work on buses. However, ZF used the buses to demonstrate ridecomfort, electro-mobility and ways to improve handling.

Globally, ZF identified key megatrends and is working towards fulfilling the needs arising from them: Efficiency, Safety and Automated Driving. With the latter, there certainly exists ambiguity, but ZF's management believes automated driving will happen over time.

Buses Start to See Think & Act

At a number of stations ZF demonstrated various aspects of their innovations. First off was the evasive manoeuvre demonstration, whereby a truck came barrelling down a track with a car parked in its way. The truck would then break and execute an evasive manoeuvre to avoid a rear end collision. It isn't difficult to see how the same system could find its way into buses, especially long distance coaches that would travel at high speed on highways.

The steering system interprets a sudden "pulling" of the steering wheel (response to driver warning) at Level 1, as a command to start the EMA. During automated control, the software constantly calculates the optimal evasion route and adjusts the steering angle accordingly. The software algorithm continuously monitors and compares the calculated and actual steering trajectory. The integrated roll-over protection function



in the EMA is adapted for such extreme driving situations. This function is integrated into the ESC system and the lateral acceleration sensor through networking and is a feature in the ZF Innovation Truck 2016. Incidentally, the driver can override the EMA at any time during the autonomous evasive manoeuvre by simply taking control of the steering wheel, brakes or throttle.

Sensors are Key

Key to this solution is the combination of sensors – a camera sensor mounted on the front windshield accurately monitors road markings (S-Cam), and a radar sensor (AC1000) measures distance. Later on, everyone was asked to ride along in the truck and to experience the same scenario from inside the truck.

It is here where the critical questions came up and ZF explained that fully autonomous driving would still take some work on the algorithms. For instance, driving on a highway is a relatively un-complex scenario. There are no intersections, no pedestrians nor tight corners for example. However, there are many more sub-events to consider in urban settings. Simply take the erratic behaviour of pedestrians that needs to be factored into the system. However, ZF is gathering insight into all of these and is adding them to their programmes.

Self-Drive Sessions

Next up was the station whereby attendees could either drive a range of buses or hop on as passengers. ZF demonstrated how gearboxes and suspension systems make a difference when it comes to driving comfort and also how they reduce energy consumption by using start-stop functions for commercial vehicles.

One of the highlights to drive were the big coaches, which barrelled around the track at high speed while running completely stable and comfortable. Having been dropped off to take pictures, it is also remarkable how quiet buses nowadays run.

Reverse Thinking

Reversing a truck with a trailer is the master discipline for truckers. Docking stations in warehouse traditionally feature rubber buffers which the trailer is backed up to. A small jolt tells the driver that he has indeed closed the distance and that the trailer is now flush against the wall.

Here, ZF offers a solution that will not only render the rubber buffers obsolete, but also makes the life of the trucker easier in addition to avoiding dangerous situations when moving backwards.

Stepping out of the cab, a driver will use a tablet computer to drive the truck via remote control. This allows the driver to check for any obstacles s/he wouldn't see from inside the cab. Getting closer to the loading bay, the truck starts to see, think and act by measuring the distance between the wall and the trailer. Once the trailer is close enough to the wall, the trailer and truck combination brakes automatically, avoiding the collision between the vehicle and the loading platform. This is all done while the driver monitors the progress walking next to the truck.

Zero-emission driving

The AVE 130 electric portal axle is ideally suited to various drive concepts for city buses: whether as a serial hybrid, all-electric drive powered by a fuel cell or battery, or from the trolley wire. The increased use of brake energy or - in combination with hybrid drives - the use of smaller combustion engines helps to considerably reduce fuel consumption and emission of pollutants in comparison to conventional concepts. Laneindependent, zero-emission driving is now also achievable in the city. This enormously increases cost-effectiveness and availability for use.



Each wheel is driven by a compact, high-speed, liquid-cooled asynchronous motor to keep the axle weight including the integrated motors low. As no separate engine or propshaft are required, this reduces the amount of space required and the vehicle's weight. The extra space allows room for a more powerful battery or an upgrade of the vehicle's interior in order to transport more passengers.

No special wheel components are required with the AVE 130. The tire-rim combinations used in normal buses as well as the standard disk brakes can both be used. The brakes are fitted in the same low-maintenance position as with the standard axles Hands off the Wheel

The next demonstration was probably not for the faint hearted as ZF lined up a tiny electric powered vehicle in front of the massive Innovation Truck. Bolting off is the car with the truck in tow. Turning out of a roundabout and onto a long straight, the truck driver takes his hands off the steering wheel and the feet off the pedals, engages the truck in self drive mode. And it self-drives! When the car slows, the truck will keep its distance and upon taking up speed, the truck also accelerates.

As you learn in driving school that your hands have to be in the five past eleven position whenever possible, this can certainly spook you. Full stop! And the truck stops and takes up speed again as the car floors it. Not only does the truck mimic the speed of the car, but it also follows the road with its bends and curves. Meanwhile, the highly developed gearbox makes accelerating the mass of some 40 tonnes look like child's play.

Naturally, it is somewhat simpler to make autonomous driving work on highways as there are fewer exceptional events. ZF acknowledges the complexities of urban settings as there are many more things to consider, for instance pedestrians, oncoming traffic and playing children with balls bouncing onto

the street. These situations need to be fully understood first and integrated into the system before one can really take the autonomous vehicle into these settings.

New orientation

Originally named "Zahnradfabrik Friedrichshafen" (Gear manufacture Friedrichshafen) ZF has long since evolved into more than a company providing mathematically designed hitech gears. This is apparent in the logo we know today as it only states "ZF". While the brand of the company may have lost a few letters, the business has added a wide range of units. On display at the press event were gearboxes alongside brake systems, suspensions, steering systems and electric drive trains.

Speaking to management representatives, they explained that there are good reasons for the diversification. Firstly, ZF has always seen itself as a company driven by innovation. Secondly, in many vehicles, and not only commercial vehicles, the components need to be working together harmoniously. If one is to provide both, drive train, suspension and brakes for example, this is ensured. "We have evolved, and today the name ZF stands for top quality in everything we do and our global clients realise that," said Peter Lake, Member of the ZF Board of Management.

Asian Perspective

ZF has a presence in many countries across Asia Pacific, i.e. Australia, China, India, Indonesia, Japan, Malaysia, Philippines, Singapore, Taiwan, Thailand and Vietnam.

Does one need to adjust products according to needs in different parts of the world? After all, topography, missions, climate and uses of the trucks are different. ZF answers these issues by working with the truck OEMs and in consideration of the environment.









Five steps of autonomous driving

To classify the various stages of being fully autonomous, ZF has categorised "Driving into five categories:

ASSISTANCE

- 1) Non-Automated: Driver only and/or assisted Driver acts him-/herself
- Partially Automated: Driver monitors the automated functions

CHAUFFEUR

3) Highly Automated: System monitors its functional limits and passes responsibility back to the driver when it reaches its limits

PII OT

- 4) Fully Automated: System can master all tasks itself within a specified use case
- 5) Driverless / Autonomous: System can master all tasks in all situations itself. No driver required

From the beginning, in the development phase, parts or components such as gearboxes and axle systems are already designed with a myriad of calibration and adjustment options built into them. This means that parts can be adjusted without having to alter the fundamental structure of the part to meet the needs of specific markets. It also means that there is a great amount of flexibility available for the OEMs.

Adopting to Needs

When developing parts, the severity of climates and uses will also be considered. For example, in the subtropics, humidity will

ZF Asia Pacific

ZF Asia Pacific Pte Ltd was established in Singapore in 1987. It has served as the hub for ZF Services in the Asia Pacific region for more than 25 years, and has set-ups in 12 countries across the region, i.e. Australia, China, India, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, Thailand and Vietnam. The Singapore office is renowned for its' competency in supporting customers in the OE, parts sales and workshop service business; serving both the automotive and marine industries. It is also responsible for the aftermarket product brands of ZF and provides a complete range of aftersales services, supported by its own comprehensive service network and extensive web of dealers and distribution networks across the region.



require special attention. When it comes to further improving efficiency, ZF cautions against being overly confident that there is still room for improvement as this is also governed by the law of diminishing returns. At some point, it may not be worth the effort anymore as there is too much added complexity and cost in order to achieve further improvements in one area. However, ZF is committed to a Kaizen approach of continuous improvement.

Peter Lake has some additional input as he is responsible for ZF Corporate Market, ZF TRW Sales and Business Development, Region Asia Pacific. "We are working mainly with the European, US-American, Korean, Japanese and some of the Chinese truck OEMs. However, it is up to them to take up the options we offer. Adoption is driven by the vehicle manufacturer."

Hybrid or Electric

Adoption depends on the OEMs as they would know the markets best, however, Lake sees that Japan is highly advanced, with the goal to use the 2020 Olympics to really drive autonomous driving for public transport.

Some adaptation of new technology is also limited by what is available. While buses nowadays could be fully electric, long distance truck applications are currently not possible to realise with electro mobility. However, Lake sees hybrid vehicles in trucking first. The direction is clear, with the future being electric and autonomous driving though.







Scania Thailand Positive About First Half of 2016

Last year, Scania Thailand's Managing Director Stefan Dorski laid out plans for this year. Asian Buses's Stefan Pertz met up with him to check if the plans are still on track.



hen we met last with Stefan Dorski, Managing Director of Scania Thailand in 2015 he was enthusiastic. This year his mood can almost be described as ecstatic. Taking a tour of the premises, he points out to the area where the vehicles are prepared for the collection by clients. "Look how empty this space is! There have been a lot of orders and our stock is selling fast this year," Dorski exclaims.

The expansion of the Scania Service network is on a good way, too. According to him, Scania is still on track to reaching the target of 16 locations by 2018. "We have learned in 2015 that growth needs to be done in a smart way," is his summary. One of the learnings is that one needs to adapt to the vehicle population in a specific area. The size and location

of a workshop has to depend on the number of vehicles currently present and estimated to be in the vicinity of the service centre. Recently, a new service centre was opened in Nakhon Sawan and Scania will have a new presence in Laem Chabang. This is a relocation of the existing locale as it has proven to be no longer suitable. "We will move to a location that is easy to access for our customers." To provide services to clients in Rayong, a temporary workshop was set up. Dorski said that this was very much appreciated by the market. Currently, the workshop is a container solution with just a metal roof. "It is small and simple. No doubt that we will be there in order to support the heavy industries found there." Recent news have revealed that Scania in India is hoping to double their production within a few years. "Naturally, we hope to grow

too, but it will still take some time until we can be as ambitious as our Indian colleagues," he says with a smile as he states that plans and strategies have been put in place.

When asked about current market trends, the sobering resume for the AEC is that there currently seems to be no effect. When Scania is meeting with operators, there has yet to be any feedback on what is the benefit of the AEC. "So far, this question has yet to be answered. We have to bear in mind that, just like in the EU, these things will take time and it may be too early to be expecting huge impacts," he said. Echoing his colleagues from Malaysia, he emphasised that Scania is ready to support any operator that is active in Cross border operations. "If we have a customer with a need for such



contract, then we can arrange this with the other countries. The main issue is to ensure that the service can be provided." Dorski states that the Scania management is extremely happy with first part of the vear. While the total market is on same level with some 16 000 heavy trucks the company was able to grow even though the total number is stable. He draws the conclusion that the approach to training of staff has been right. In the past months, the investment in hiring and training sales people has been proven right. That said, Dorski however cautions against too much optimism "But it is still a tough fight and will continue to be." One of the yard sticks of measurement will be the participation in the upcoming Scania Driver Competition, which will be announced at the end of the year. Participants can expect an even tougher competition with new players entering to vie for the coveted trophies.

One thing that Dorski observes is that operators are also moving to become more professional in their approach to running the business. While cash flow is still one of the main concerns, the notion of Total Cost of Ownership is a concept that more and more people embrace. It is the communication that has lead to Scania's success: the way of how sales people deal with clients. It is all about profitability increase for customers. To this end, Scania argues that one has to start with the right product, then assist with driver training (proper use), proper maintenance, with contract if possible.

"This way, customers are extremely happy with the product as they have few breakdowns. Some, despite 24-hour operation rarely have any need for emergency services. This is how they save on money and time spent in workshops," is his conclusion. To round the offer off, one should offer competitive financing. Customers would not only benefit from better uptime, but also from higher residual value as a consequence of having the right agreements and plans in place.

"As such, our customers see a real benefit from looking at improving profitability by looking at quality, fuel consumption and safety. Uptime now becomes a crucial factor in their operation." Many are now starting to evaluate the initial purchase price with the benefits of long term fuel savings. Citing low oil prices would however not mean that operators shouldn't keep an eye on fuel consumption either. Dorski would argue that a five percent saving on fuel is, and will be a significant reduction of cost that shouldn't be squandered away by driving less carefully. Current oil prices will not remain at this level and the buses are used over a long period of time, hence one needs to have a long term view on this issue.

Here, Scania Thailand can help operators with analysis of GPS data. "It is a good thing that Thailand has imposed that GPS systems have to be on board of every vehicle." Through this, Scania is able to analyse driver behaviour and

coach drivers and operators. Currently, Scania deploys a third party system as the company waits for their own system (Scania FMS) that Scania will launch during 2016. The push for alternative fuels, such as the municipal waste that Scania is pioneering, for example are seemingly not high on the list of priorities for the government. Dorski said that "Thailand as a large sugar cane producer could benefit from Ethanol driven buses and trucks. Compared to electric vehicles, Ethanol engines are a well proven technology."

Currently, the Thai market for coaches is in a limbo. There is a growing uncertainty in the market as the government is about to issue a new law, restricting the height of buses to four meters. This would almost certainly end the era of the double-decker bus as we know them. With a total market 1 500 new buses per year, the answer for Thailand's operators would be the long bus. Recently operators running long distances were also hit by the competition that arose in the form of low cost airlines.

This year, Scania Thailand has more than one reason to be celebrating: They have been in Thailand for 30 years and the company is celebrating its 125th anniversary. Thailand's operators can look forward to the end of the year where Scania will be commemorate this with a big event to celebrate.



Nippon Paint's ULTIMA is Your Ultimate Bus Paint

We take a closer look at the latest product from Nippon Paint, which is specifically designed for commercial vehicles to give your fleet a shiny new look.

ippon Paint saw the growth in the bus industry and realising that there is a need and opportunity, decided to act fast by creating a new series of products meant for large areas. This new series covers the complete paint process from priming surfaces such as steel to the clear coat giving it protection and shine. Nippon Paint's new ULTIMA features one component (1K) and two components (2K) acrylic and urethane based products.

Starting off for adhesion

NIPPON ULTIMA U-750 EPOXY PRIMER is a two component (2K) solution that is suitable as a first coat over new surfaces to ensure adhesion of the coloured paint. It is designed for almost all surfaces: Stainless and galvanised steel, aluminium and fiberboard used in commercial vehicles. It has excellent adhesion characteristics, high corrosion resistance and chemical resistance.

Smoothing out

NIPPON ULTIMA U-770 PRIMER SURFACER is an Acrylic lacquer primer for the bus, truck industry and general steel work. It is normally applied after the epoxy primer or it can be used as spot primer. It features good workability, fast drying, is easy to sand, provides a smooth surface and good adhesion to various substrates.

Making it shiny and protective

NIPPON ULTIMA 8600 HIGH SOLID 2:1 Clear Top Coat: This two component (2K) polyurethane clear coat is applied on top of the colour coat and it features high gloss, high build finish and low drying time which meets the large surface areas painting requirement. This results in a perfect paint flow and leveling on your buses and trucks. Workshop operators would want to hear some more about the characteristics and how Nippon Paint's new creation can make their work easier. Here are some more features:

User friendly

- Workshop painters will like Ultima's good workability
- Easy spraying
- Easy to sand primer surfacer (NIPPON ULTIMA U-770 PRIMER SURFACER)
- Easy to polish
- Slow drving (NIPPON ULTIMA 8600 HIGH SOLID 2:1 TOP COAT CLEAR) The addition of thinner helps to control the paint behavior so that the application can be adapted to various weather conditions and surface aspects

Good Quality

- Long lasting vehicle apprarance
- High corrosion resistance primer (NIPPON ULTIMA U-750 EPOXY PRIMER)
- Good color retention basecoat
- Excellent Gloss & Excellent Durability clearcoats (NIPPON ULTIMA 8600 HIGH SOLID 2:1 TOP COAT CLEAR)

In line with its recent brand and corporate repositioning from "The Paint Expert" to "The Coatings Expert", Nippon Paint today serves multi-segments such as architectural, protective, industrial, automotive and marine, in both functional as well as aesthetic categories. As the number one total coating solutions provider, Nippon Paint Group is the market leader in Asia spanning across 15 countries.











Delo MG

Let's go for 80,000 kilometers* between drain intervals.



Delo® 400 MGX SAE 15W-40 with ISOSYN Technology is a NEW API CJ-4 oil for heavy-duty engines. Delo 400 MGX is specifically formulated for applications on and off road using Diesel fuels with high or low levels of sulfur. It provides long drain performance and superb parts protection with excellent deposit control and soot dispersal contributing to long engine life. The Delo family of products with ISOSYN Technology help provide extended service protection, maximize engine durability and minimizing operating costs.



Delo Let's go further.

Learn how the Delo family of products can help you go further, visit CaltexDelo.com

*Caltex Delo® 400 MGX SAE 15W-40 has been successfully field tested in Detroit Diesel DD15 engines out to 80,000 km oil drain intervals in over the road long haul service with successful performance. When extending oil drain intervals always check OEM recommendations and utilize used oil analysis to safely extend oil drain intervals to protect key engine components.

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Double deck concept bus aims to speed-up boarding

and enhance passenger experience



Radical Design - Revolutionizing buses

At the first of three bus carnivals that took place across Singapore earlier this year, the public had the opportunity to view a concept vehicle that could pave the way for a new generation of public transport in Singapore. Introducing an innovative, intelligently designed concept double deck vehicle that aims to speed up boarding and alighting times by improving passenger flow was one of the highlights of the roadshow.

The Enviro500 concept bus is the result of close collaboration between the Land Transport Authority (LTA) and Alexander Dennis Limited (ADL), the world's most renowned double deck

bus manufacturer, and features an additional door at the rear of the bus, which can be accessed by upper deck passengers via a second staircase.

The second and third doors act as the exit points for all riders, the result being an efficient, two-stream passenger flow throughout the vehicle that speeds up boarding and alighting, reduces vehicle dwell time at bus stops, enhances the passenger experience and contributes to broader-based traffic management initiatives.

Challenge Accepted

Bill Thong, ADL's Singapore General Manager, commented: "As a global business we are used to major customer involvement initiatives. These contribute greatly to determining the wants and needs of customers in that market. "The LTA challenged ADL to design and build a double deck bus with three doors and two staircases which they believe will transform the passenger experience. Passenger feedback to the Enviro500 concept bus will enable us to better understand their views and we hope to learn a great deal from this exercise."

Having said this, Bill is hopeful that ADL Enviro500 concept bus has covered most of the bases as it already incorporates a whole range of leading-edge design and technology initiatives which have already made ADL's Enviro500 the most popular high-capacity double deck bus in the world.

More Than Meets the Eye

High back contoured seating is complemented by coloured, mood lighting throughout the bus and it is fully WiFi enabled with USB charging ports at all seats. Passenger safety is high on the agenda with no less than 15 CCTV cameras strategically

placed inside and outside the bus. These are augmented by modern information systems providing clear, audible and visible passenger announcements.

Similarly, all age groups are catered for in the carefully thoughtout interior design. Seven, clearly marked, priority seats are accessible from the low floor area while there are is also a dedicated ramp for wheelchair passengers which gives direct access to a reserved docking area opposite the centre door.

High Tech on Board

Improvements for the driver include a comfortable, ergonomically designed seat within the spacious cab area. A large curved windscreen offers excellent visibility, and a CCTV monitor gives the driver all round clear views for the added security of passengers.

The Enviro500 concept bus can easily be converted to serial production and has been design protected for Euro6 emissions, further improving street level air quality around the city and helping Singapore attain its clean-air targets.









ALL ABOUT THE BUS ASIAN BUSES | 40













Fun Bus Stuff From Around South-East Asia







The Tracking Guru

We take a look at the fleet solutions offered by M2M Network Sdn Bhd, developer and provider of customized and integrated telematics solutions.

Network Sdn Bhd provides remote monitoring of equipment and devices to improve efficiency, minimize downtime. reduce maintenance costs, and ultimately improve service availability. One of the key features of the system is that the device monitoring the location of assets has its own power supply. It is therefore suitable for vehicles that cannot supply sufficient power to a tracking product or where connections to the power supply compromises the covert requirement of the service. Applications include a broad range of possibilities, including the tracking of cargo, luggage, motorcycle, marine, vehicle, people and pets.

Fleet Management

With their product, M2M Network addresses a wide variety of fleet management needs:

- Basic tracking
- Harsh driving behaviour monitoring
- Crash detection and analysis
- Vehicle status monitoring
- Basic OBDII PID monitoring

- Remote control of vehicle functions
- Vehicle security and emergency management
- Self powered applications
- Waterproof enclosures

Features of Maxxi V300 a 24/7 fleet management solution:

- Using M2M, it very easy to handle multiple vehicles on one screen
- Big Fleets can be managed very easily and efficiently by creating groups
- Maximum graphical user interface for fast and easy understanding & handling
- Vehicle's current location with status details on maps
- All vehicle with last updated status
- Vehicle's and Driver picture with complete details
- Alarms History Reports shows all the received alerts and faults detail with their location on map
- By clicking on alarm icon on map it shows the alarm details and a list view of alarm details also shown on right panel
- History Playback shows the travelling detail of vehicle with location on map



and the alerts or faults received in the selected period

- Clicking on any vehicle to see its details with ignition ON/OFF status
- Daily movement of vehicle can be seen on screen just by selecting play back

Apart from that, M2M Network also offers MDVR V400, a 24/7 mobile video monitoring solution, providing a live video stream for the operator. For more info, you may visit their www.caronline.guru website.



Chevron's Delo 400 MGX **Answer to High Sulphur Diesel Fuels**

When your trucks are working, your business is driving profits. For Chevron, the goal is to give you the confidence to safely push Diesel engines further to help minimize operating cost and maximize performance.

hevron has positioned itself with lubricants that stand for one thing: reliability. Chevron's new advanced formula ■Delo 400 MGX SAE 15W-40 provides excellent soot dispersancy, wear protection and sludge control to guard against loss of engine life.

Fully Tested

Fully field tested, Delo 400 MGX SAE 15W-40 has shown superb performance in extended-drain applications using low and high-sulphur Diesel fuels. In both, Cummins and Detroit Diesel engines, the lubricant achieved greater than 80 000 kilometre oil-drain intervals in both types of engines while protecting the engine. The engines were taken apart after over 800 000 kilometres on the engines for inspection, showing minimal deposits and wear.

Customer Benefit

This Delo product is specifically formulated for applications on and off road using Diesel fuels with high or low levels of sulphur. As such, the engine parts are well protected, providing optimum service life and minimal maintenance. This contributes to maximum vehicle utilization and uptime.

As Delo 400 MGX SAE 15W-40 is backwards compatible with previous API oil service categories and engine models, it allows fleet managers to use it with either high or low sulphur fuels to help minimize inventory.

Service Considerations

Delo 400 MGX has superb Total Base Number (TBN) retention for use in either extended drain applications or use with high sulphur diesel fuels to ensure excellent acid neutralization. It is formulated for exceptional performance in either High (up to 2000 ppm) or low Sulphur Diesel fuels.

Delo 400 MGX SAE 15W-40 is excellent for use in new advanced engines developed to meet the latest emissions and reliability standards and in engines equipped with features like four-valve heads, supercharging, turbo-charging, direct injection, shorter piston crowns, higher power density, intercooling, full electronic management of fuel and emissions systems, exhaust selective catalytic reduction, exhaust gas recirculation, and exhaust particulate filters.

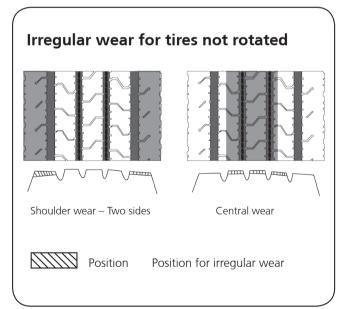
Chevron however advises that user should always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.





Rotate Tyres for Better Mileage

lyres should be serviced periodically following the rotation patterns provided in the vehicle's owner's manual or as established by the industry. Using tyre rotation as a preventative maintenance will equalize front-to-rear and side-to-side wear rates while enhancing wear quality and pattern noise. Any minor 1/32" to 2/32" differences in front-to-rear tread depth between tyres that might be encountered immediately after periodic tyre rotations at intervals between 4 000 to 7 000 Kilometres won't upset the vehicle's hydroplaning balance and should not preclude rotating tyres. For that matter, any differences in wear rates actually indicate that tyre rotations should be done more frequently. One of the reasons tyre rotation is necessary is that highways have a chamfered surface in order to allow rain water to run off. While this reduces the risk of aquaplaning, tyres will wear unevenly as a result of the surface shape of the road.



Weight borne on different positions (D → A Increasing fatigue degree of tire) In dual tire use, weight on inside tire is relatively big generally and heat absorbed from brake drum is relatively high due to less ventilation.

(C) (B) (A)

(B) (C)

Tire Rotation to Increase Mileage

Due to concerns of damage to tyre shoulder and bead in heavy duty transport, proper tyre rotation can extend service life of tyre. The first position exchange: 2-3 times of rotation before complete wearout of tyre followed by the second position exchange.

Professionals Rely on Quality From MANN-FILTER

MANN-FILTER "Best Brand 2016" according to "trans aktuell", "lastauto omnibus" and "FERNFAHRER"

The readers of the German trade magazines "trans aktuell", "lastauto omnibus" and "FERNFAHRER" have voted: MANN-FILTER is the "Best Brand 2016" in the Filter category – for the fifth year in succession on June 24th 2016.

rom transmissions and tires, brakes to refrigeration units and not forgetting the filters: in over 20 categories, almost 10,000 readers gave their opinion on the brands whose products impress them most. The results provide a clear insight into product policies and brand positioning in the industry. The overwhelming majority of respondents once again opted for MANN-FILTER in the "Filter" category. With this result, the quality brand was able to repeat its success of the last four years and extend its lead over the second-placed brand significantly. The vote for the "Best Brand" and for the "Best Commercial Vehicle" is organized by ETM-Verlag Stuttgart, a specialist publisher which issues all three magazines.

OEM quality in the independent aftermarket

The prize was officially awarded on the evening of June 23, 2016 in Stuttgart, Germany. It was accepted by Jörg Engels, who



as Director Brand Management in the automotive aftermarket is responsible for the MANN-FILTER brand. Engels was delighted with the award: "We are proud that the readers of three such important trade magazines for the transport industry have given a clear vote of confidence in MANN-FILTER as the No. 1 filter brand in the commercial vehicle segment. It further motivates us to continue impressing our customers with uncompromising OEM quality, market coverage of more than 90 percent in the European commercial vehicle market and a high-performance service offering."

MAI Launched New Technology Centre to Help Automotive Sector to Innovate



he Malaysia Automotive Institute (MAI) has launched a new advanced automotive technology centre known as the MAI Intelligent Technology Systems (MITS), a first-ofits kind in Malaysia, to boost product design capabilities and innovation within the domestic automotive components and parts supply chain.

The MAI Intelligent Technology Systems (MITS) is set up to fill the technological gap within the domestic automotive sector, through a one-stop facility that integrates advanced software, hardware as well as technical consulting support for automotive parts design & development and system engineering works. The system's main hub is housed in MAI's headquarters in Cyberjaya.

Altair Engineering Sdn Bhd, a wholly-owned subsidiary of US-based simulation technology and engineering services company, Altair Inc., will collaborate with MAI as the 'simulation' technology partner for MITS.

MITS is designed to serve the entire automotive parts and components supply chain targeting mainly Tier 1 and Tier 2 companies. It plays a key role in facilitating and helping these companies in their product design and development initiatives without the need to invest in expensive software, hardware and technical consulting services.

Altair believes simulation is more than a tool. By applying simulation technologies upfront in the product design process; automotive design engineers will be able to develop innovative, weight-optimized products with better performance. It also allows them to validate design and optimize safety and durability parameters, while reducing design cycle times, bringing new products to the market quicker.

Altair's HyperWorks Unlimited (HWUL) solution which is installed at MITS will form the backbone of the facility. Users will be able to undertake different simulation tests to validate their product design and engineering processes, including crash, electromagnetic, Noise-Vibration-Harshness (NVH) and manufacturing simulation, while working closely with Altair's experts in light-weight engineering and composite.

Over 200 Workshops

Received Visit From ZF

he German company has a number of brands under their wings. With this campaign ZF aimed at promoting Sachs products to workshops in the Klang Valley. The team spent some 20 days on the road, visiting workshops, talking to their owners and conducting surveys among customers present.

Asian Buses met with Mr. Chia Wai Yin during the visit of the ZF team and he was full of praise for the activity "Of course customers accept the more expensive products as they are simply of a better quality. Hopefully, with this campaign, we can increase our sales as well, but also, it is important that our staff gets to know more about ZF, Sachs and other products they offer."

"The main objective is to create awareness in the market. We have been a late comer to the market with these products, but are seeing good responses from customers as a result of this workshop program," shared General Manager of ZF Sales & Service (Malaysia) Sdn Bhd, Mr Cheah Chee Luen.

SACHS currently offers shock absorbers for more than 6,570 references, including 1,984 references for Asian vehicles. While ZF Services' Lemförder brand offers steering and suspension for popular Asian car brands.





Goodyear Reports Strong Net Income for First Half of 2016, Driven by Solid Performance in Asia Pacific

The Goodyear Tire & Rubber Company reported robust results for the second quarter and first half of 2016. The leading tire manufacturer in the world recorded a strong net income of \$202 million for second quarter of 2016, and \$386 million for first half of the year.

Asia Pacific's second quarter 2016 sales increased 8 percent from last year to \$528 million. Sales reflect a 21 percent increase in tire unit volume, primarily due to growth in Japan and China. This improvement was partially offset by unfavorable foreign currency translation. Replacement tire shipments were up 38 percent. Original equipment unit volume was up 1 percent.

myBAS Ipoh Begins Full Service with Roll-Out of Second Phase

The Stage Bus Service Transformation (SBST) programme implemented by Suruhanjaya Pengangkutan Awam Darat (SPAD) registered further traction as the myBAS service in Ipoh was fully operationalised effective 1 September 2016. Offering commuters better integration and an expanded bus network, the service now covers 19 routes across 314km. Following the Phase 1 rollout in June under which 6 new routes were first introduced, myBAS Ipoh has recorded a ridership of 47,147 passengers as of July 2016.

Ipoh is the third capital state in Peninsular Malaysia that has benefited from the Government funded myBAS service, in addition to Kangar and Seremban. With an investment of RM100 million, myBAS will also be rolled out in Johor Bahru and Kuala Terengganu to improve mobility and access.

First introduced in August 2015, the SBST programme aims to reform and improve operator viability by helping them focus on delivering a better commuting experience and not depend on fare box revenue to sustain and raise services standards. In addition, there is an incentive element factored aimed at encouraging the bus operators to generate more revenue by growing their customer base.

Events & Exhibitions













INTERNATIONAL BUS EXPO (IBE)

Date : 26 October 2016 – 28 October 2016

Venue : Rimini Fiera, Expo Centre

Contact Info : (+39) 02/806892

Details : IBE takes place biennially to provide visitors and exhibitors the opportunity to discuss transport, school tourism and energy efficiency It is attended by highly-qualified demand-side operators who are very interested in bus products. It is also the only marketplace that attracts the whole supply side in its entirety.

EURO BUS EXPO 2016

Date Venue Contact Info

16
01 November 2016 – 3 November 2016
National Exhibition Centre (NEC), Birmingham
+44 (0) 1273 645168 (Pippa Allsop –
Operations Manager)
This free-to-attend three days show offers an
unrivalled opportunity to meet with the
industry and see the latest vehicles, service and
product innovations, all under one roof.

BUSWORLD INDIA

Date Venue

Contact Info Details

10 November 2016 – 12 November 2016 Bangalore International Exhibition Centre (BIEC), Bangalore, India +91 (0) 124 4232941 / sales busworldindia@interads in Busworld India 2016 is the 7th edition of the series and offers an excellent opportunity for bus and coach manufacturers, component suppliers, technology providers and market leaders to showcase their latest products, technology, services and solutions.

REIFEN CHINA 2016

Venue Contact Info Details

01 December 2016 – 03 December 2016
Shanghai New International Expo Center
+49 (0) 201 72 44 – 780 (Ayben Durumoglu)
Originating from Germany, REIFEN China was launched in 2007 with the aim to establish an ideal platform of international communication for Chinese tire and related industries thus opening the doors of opportunity for a completely new line of innovative shows for the tire manufacturers and dealers.

BUSWORLD LATIN AMERICA 2016

Date

05 December 2016 – 07 December 2016

Venue

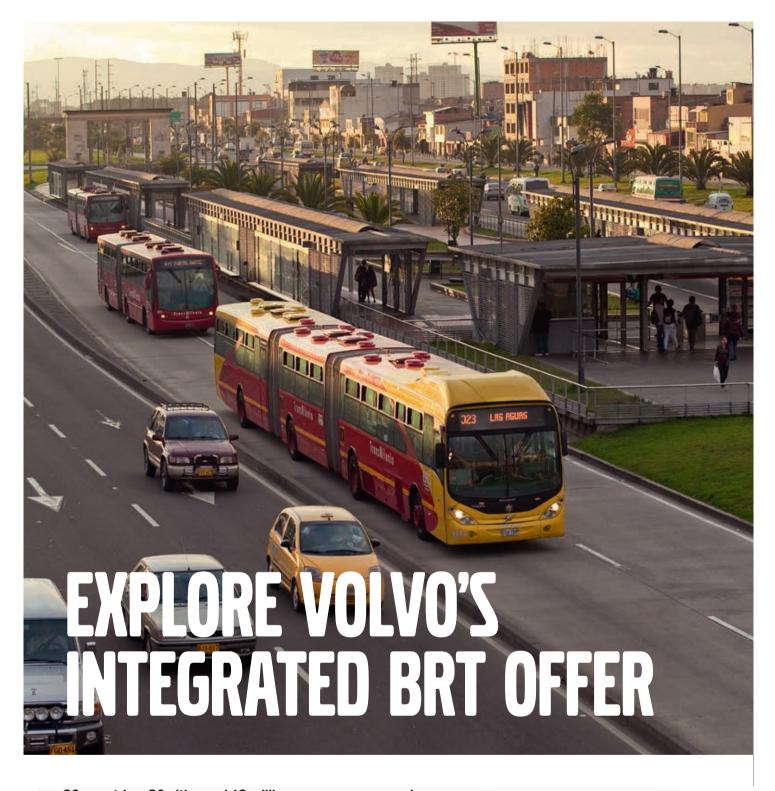
Plaza Mayor, Medellin

Contact Info

+57 311 2362228 / Fabio.rodrigues@busworld.org

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BUS RAPID TRANSIT BY VOLVO

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This time around, we interviewed a very soft spoken young man, age 27, who is a bus driver in the historical city of Malacca.

r Mohammad Adha works with Panorama Sdn Bhd for almost five years and from his expression while being interviewed by Asian Buses, he definitely loves his job.

Before he started his unexpected career for someone who is still young, Mr Adha took an automotive course at Bukit Beruang Community College, Malacca and the course developed his interest in big vehicles. After he finished his studies, he sat for a bus licence and applied for the job as a driver.

"Every day, I will have five trips driving the bus around Malacca, hence, 20 minutes of rest for every stop is what I usually do. So far, the thought hasn't crossed my mind, yet, to drive a bus in a different city, because I am still enjoying driving in my own hometown. Being a bus driver in the city where tourism plays an important role is what makes it interesting as sometimes you have to be the tour guide as well. Not just that, you will get the chance to meet people from different countries," said Mr Adha.

He also added that he knows every detail of the road network in Malacca including the shortcuts. He loves the feeling when he is able to help the tourists that are trying to find ways, are lost or need information about Malacca. "Sometimes, even the locals won't be able to help the tourists," he smiled.



"Traffic in Malacca is not that bad, and I can still handle my own emotions when dealing with traffic. Things that may delay my trip are usually bad weather or when people pay the bus ticket with large notes, and I have to prepare the small change for them," said Adha.

Some may consider him to be too young to be in the field, however, Mr Adha is always keen to improve by learning from the more senior drivers. Being among the veteran drivers makes him more mature in thinking and decision making. Any job that requires you to meet people every day and face various behaviours will definitely test your patience. "The seniors that I'm close with always remind me to control myself and be as rational as possible. Safety of the passengers is what matters the most," he explained.

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