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## SPECIAL REPORT

**Khimaira Partners with AirGo  
Design for a new Travelling Experience**

## LIFESTYLE

**Healthy Diet Among Drivers for  
Better Lives and Safer Roads**

## COMPANY PROFILE

**Ashok Leyland Banks On Innovation In  
Products, Services**

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# Your Best Option



It was amazing to see how so many things changed in such a short period of time! Up until recently, I would have been very excited about the fact that there are MRT and High Speed Rail (HSR) lines to be constructed. These additions to the public transport system would have meant that there would be an increased demand for buses. First to get workers to the site and back and later commuters would have to be able to reach the train stations, preferably without their own cars. After the dust settled following a nail-biter of an election, we now see a different landscape, with mega projects on hold.

However, I would say that is still good news for the commercial vehicle industry, especially buses. On BFM Radio I heard the other day how a local council representative talked about how buses can be used to ease the traffic jams, get people to work and home quickly and how the free bus concept of Petaling Jaya has made a difference. In his talk, he detailed that the government is coming up with plans that would see several thousand buses being put to work to move people. What many forget is that there is more to Malaysia than just greater Kuala Lumpur and that other cities also need to be made easy to use. And putting the HSR on hold is just another argument for buses: they are easier and quicker to deploy.

Time and time again, our partners talk about comfort when riding on a bus. In this issue we cover a few such items that will make your journey more pleasant. Meeting

with the people behind AirGo Design, we learn about how airline seats inspire bus seats while Nippon Paint gives your vehicle a bright new look with their newly launched range of paints, specifically designed for commercial vehicles. Alternative fuels have been a focal point for me and I am glad to report that a local engineer has made an effort to improve Diesel fuels. In our product focus we also have a lot of information on filters and lubricants.

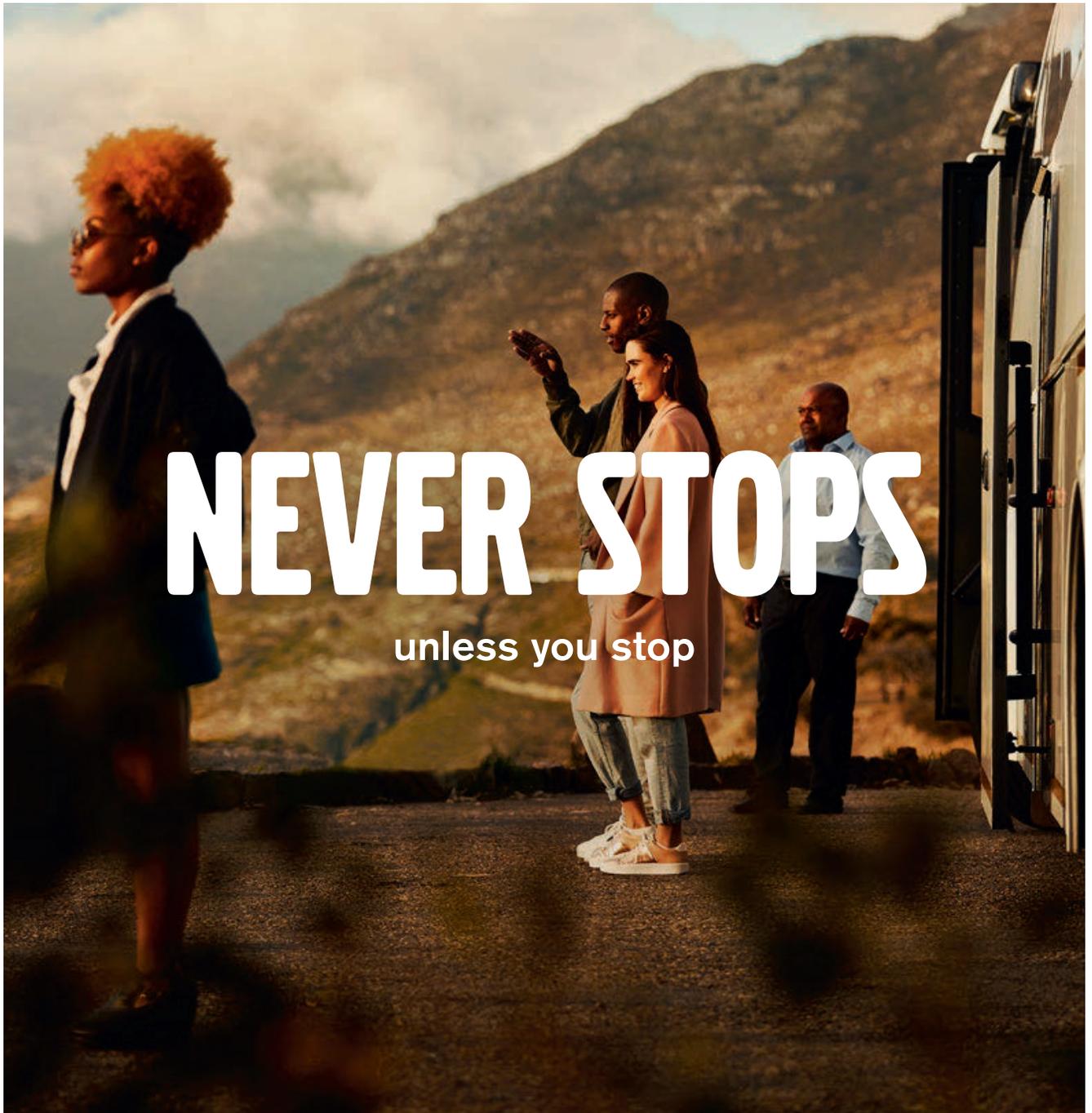
Malaysia is also a stop on the global tour of many CEOs of OEMs. This time, we got to meet the Number One of Scania, who told us what the Swedish brand has in store for the coming years. Scania prides itself in their offering of alternative fuels. When looking at options, one shouldn't forget China though. Carol came back from CAPAS to get us some insight scoops and I must say that some of the products offered in China are getting really good. Global competition, and with it the ability to choose from a wide range, are a good thing as a healthy competition is encouraging innovations. And innovations are what keeps me excited as they represent opportunities to learn something. Maybe that is why Malaysians are encouraged to look East again?

It is time to look forward to MCVE though. With just one year to go, our bi-annual event is shaping up to be a good show again. At this point, many of the spots have been taken and top-tier brands are starting to plan their booths and product introductions. It is amazing how fast time passes. It is almost as sitting in a comfortable bus, having fun and not realising how quickly the miles disappear behind us. I surely hope to see you all at the event, if not before that.

Drive safe!

Sincerely yours,

Stefan Pertz  
Editor, Asian Buses Malaysia



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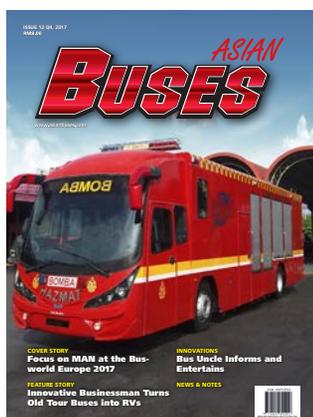
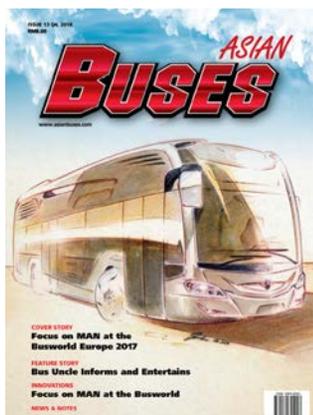
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## Continental's Smart Factory in Penang

**D**igitalisation and connectivity are the aims of having Continental's Penang Plant, Continental Automotive Components Malaysia Sdn Bhd, transformed into an advanced state-of-the-art smart factory.

With new technologies, global competition in manufacturing is rapidly increasing. Driving towards Industry 4.0, Continental's future smart factory will be more flexible, connected and robotised for better yield, and faster action insights. They also aim for a more efficient material handling, and supply and logistics that seamlessly integrate emerging paradigms and technologies.

The EUR7 million (RM31.5 million) investment will also see the warehouse space and facility enhanced, and the Research & Development office will be extended to accommodate more engineers.

Dr Hans-Jürgen Braun, Senior Vice President and Head of 30 Central Electronic Plants worldwide at Continental said the new facility will further enhance quality and agility supporting the market requirements which not only strengthens the base for Continental's business growth in Malaysia, but "It also demonstrates our strong confidence and commitment to our local customers and business partners. This is aligned with our vision and mission for Operational Excellence in our Global Manufacturing Network," he said at the ceremony.

Continental Penang Plant aims to transform towards industrial digitalisation that will empower its business to meet and exceed the challenges of the modern market. The future smart factory will have one continuous shop floor that ensures more efficient people access and process flow, with reduced production space to strengthen cost efficiency. The optimised production layout will enhance the manufacturing capacity and leave more space for the plant to receive more new businesses.

Luciano Oliveira, Managing Director of Continental Automotive Malaysia Sdn Bhd said the transformation will provide for long term viability, with more innovations and digital solutions in the future. "With the expansion, more jobs will be created. The R&D office will see to an increase of another 150 engineers by 2020," he said. He added that production will not be affected by the transformation, which is also why it will take two years to complete. ■

*The EUR7 million transformation will take two years to complete.*



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# Nippon Paint Rolls Out 40 Trend Colours for Mobility 2018/19 for Asia

*Nippon Paint has recently launched its Trend Colours for Mobility 18/19 (TCM 18/19), encompassing a series of 40 colours in four themes – “Transient Glow”, “Conscious Being”, “Essential Balance” and “Seeking Adventure”.*



The TCM 2018/19 was derived through a meticulous colour forecasting workshop held amongst a group of 65 Asian design experts and colour enthusiasts from 11 countries throughout Asia such as Bangladesh, China, the Region of China including Hong Kong, India, Indonesia, Malaysia, Philippines, Singapore, as well as Sri Lanka. These colours were forecasted to drive utilisation across Asian markets for the automobile industry for the year 2018 and 2019.

Elaborating on the inspiration behind Trend Colours for Mobility, Mr Eugene Yong, Senior Marketing Manager of Nippon Paint Malaysia Group commented, “Preferences, choices and style outlines individuals’ character and personality. As pioneers in the paint industry for over 50 years, Nippon Paint continuously pushes boundaries to re-think and re-create possibilities – be it for solutions or colours. We

believe that these thematic, adventurous colours derived by Asian designers would not only hit the right notes amongst Malaysians but to also provide opportunities for personalisation to end consumers, as well as challenge the norms of utilising only conventional colours in the automobile industry.”

The “Transient Glow” colour palette was curated to create a dreamlike, surreal yet elegant and spirited environment. Futuristic and optimistic, the colour set consists of shades of purples and pastels to exude the sense of warm and youthful authenticity. “Essential Balance” was put together to appeal to drivers who appreciate luxury craftsmanship of natural elements. The colours are warm and inviting shades of brown, gold and silver with the addition of grey hues. It exudes zen-like calmness and expresses back-to-basic understated luxury.

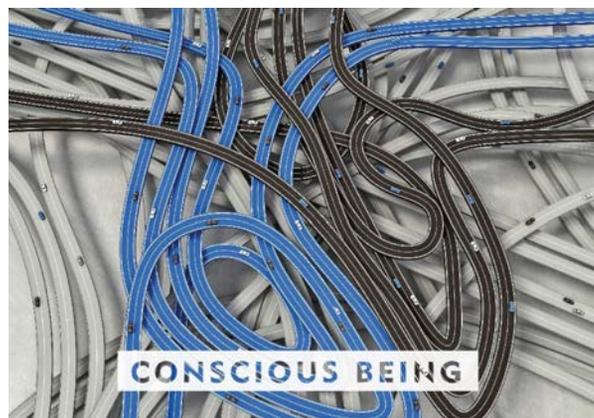
The colour theme “Seeking Adventure” consists of shades of red, green and blue which exudes the sense of natural, rugged, thrill and extreme fearlessness, a preferred choice for experience seekers. Meanwhile, the “Conscious Being” palette comprises of key colours such as blue, grey and silver hues, being the top colour of choice for digital natives who appreciate the possibilities of technology integration in everyday life.

In conjunction with the revealing of the colours, a survey was conducted by Nippon Paint Malaysia Group (‘Nippon Paint’) among 515 car owners, which revealed that 71 percent Malaysian car owners would choose to change their car colour. Traditionally, car owners would change the colour of their cars only if factors such as road accidents or when they wish to sell their cars for a higher resale value.

The survey further revealed that 56 percent car owners were adventurous in their choice of colours and are receptive towards non-conventional colours such as yellow, purple, pink, orange, green, red and blue.

Original equipment manufacturers (OEMs) usually provide consumers the choice of conventional monochromatic colours which are commonly white, black and silver. However, the survey which encompasses 21 percent female and 79 percent male respondents from the age range of 20-39 years shows that Malaysians are open to explore non-conventional and vibrant colours for their rides.

Other key insights unveiled in the survey showed that 57 percent Malaysians prefer compact vehicles while 25 percent prefer sport utility vehicles (SUV) or multipurpose vehicles (MPV) – demonstrating that consumers choose their type and model of cars based on not just users’ needs, but also their age and personality. ■



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# Bridgestone and SBS Transit Partners through the Years



## High Standards

SBS Transit maintains very high procurement standards and requirements for its suppliers. Several product tests have to be conducted before a supplier's products can be shortlisted. Bridgestone Commercial Truck & Bus tyre R192, which was specifically developed for urban bus operations, is one of the products that fulfilled SBS Transit's stringent standards. Over the years, the R192 tyre has undergone several improvements and continues to meet the everchanging and stringent requirements of SBS Transit for public transportation in Singapore's demanding urban conditions.

## Strong Commitment

Apart from the quality of Bridgestone's commercial tyres, Bridgestone Tyre Sales Singapore's strong aftersales support team is always ready to provide technical or operational support to SBS Transit. Bridgestone Tyre Sales Singapore maintains a minimum of two months inventory of R192 tyres for SBS Transit, so that replacements are always immediately available.

During a natural disaster in Japan, the production of the R192 commercial tyres was affected. In order to avoid any impact to SBS Transit's operations, Bridgestone Tyre Sales Singapore's two months inventory served as standby stock until the factories in Japan were back on-line producing tyres.

## Delivery Priority

Bridgestone Tyre Sales Singapore also places priority on all SBS Transit's deliveries. All orders are processed and delivered to the highest standards and within the agreed timeframe or earlier. In addition, all authorisation procedures and safety requirements are adhered to during delivery.

Lastly, all Bridgestone Tyre Sales Singapore invoices are accurate in meeting SBS Transit's standard practices. The billing process is clear and efficient, with all queries handled promptly and efficiently. ■



*SBS Transit is a business with the highest of standards, which Bridgestone Tyre Sales Singapore has been able to meet for more than 20 years.*

**S**BS Transit and Bridgestone Tyre Sales Singapore have a long-standing relationship that began back in the 1990's. Over the years, the business growth has been significant and today Bridgestone Tyre Sales Singapore is one of SBS Transit's leading suppliers for tyres. SBS Transit is a leading bus and rail operator in Singapore. SBS Transit aims to provide world-class public transport services which are caring, reliable, safe and secure. Today, the company operates more than 200 bus services with a fleet of about 3 000 buses.



# What makes a profession?

**S**ure, practice makes perfect, but there must be some sort of a minimum set of skills you have to have in order to be considered to be a "Professional". In the case of truck drivers, we calling it a profession and the people driving trucks are "Professional Drivers". Now, just how did they become pros at their job? Coming from the German schooling and education system, it was a long ride before I could be considered a professional. There were 13 years of school (excluding Kindergarten as we learned how to socialise there, not calculus) followed by three years vocational training. Later on, I added another four years to obtain two degrees. Yet, I still wouldn't say that I am a top journalist.

## Wide Scope

Considering the task commercial vehicle drivers have to perform, I am always surprised when I hear that a one-week training on the job seems to satisfy most employers. A driving licence seems to be pricey if you need to pay for it yourself but doesn't seem to take up years of training or practice. When we interview professional drivers, they always tell us that driving is just one part of the job. Drivers also have to deal with other people, clients, suppliers, authorities and so on. When exactly is the training happening to equip the drivers to handle these situations?

## Level of Professionalism

If we contrast that to some other jobs out there, it can get bizarre. "Did you have to study for that?" is a question sometimes used to insult the capabilities of a person performing a specific task that is seen as menial. Sometimes I wonder what gives people the right to call themselves professional. For instance, I see bank tellers dressed sloppily and not being able to perform standard tasks without guidance from a manager. It kind of scares me when a bank teller doesn't know how to handle my money. Or, when I receive media invites that read: It gives "Company Name" Malaysia great pleasure to invite you to the launch of "Company Name" Global Report: Death Sentences and Executions 2017. WOW! And this is from Public Relations professionals that have to have a degree, years of experience and an excellent command of the English language! Normally, I get at least a dozen press releases for

things that have nothing to do with commercial vehicles. I am being invited to launches of baby strollers, get send invites to interview CEOs of companies making pet food or get to get up close with the creator of a new fidget spinner. Remember, these people have degrees and are called professionals. I have little training in the area of public relations. But the first thing you learn is that you need to ensure that the content is relevant for the media that you are sending the release to. Now, would you continue to employ a driver that keeps delivering goods to the wrong destination?

## Beyond the Call of Duty

Being professional means more than just having a degree. It is the way you handle things, how you interact with people. A simple note to say that you have received a order form or that the goods have been delayed may avoid a lot of panic. I enjoy working with people that are pro-active in problem notification. Things do go wrong. And that is the moment where professional conduct is being rewarded by clients and suppliers alike. Sitting next to our commercial drivers, I would argue that their conduct also reflects on the standing of the company they work for and the entire industry. I know it can be hard to find a parking space and that it is already annoying to eat in your vehicle, but is it really necessary to park on a pedestrian crossing? What sort of image is that giving?

## Making it Stick

One advantage that other professions have got going for them is the fact that the degrees and training programmes are identical. If you hire an accountant that has gone through a certain career and training, you know what you can expect. And the title Bachelor of Mass Communication tells an employer exactly what the candidate should be able to do. This is unfortunately not the case in our industry. A driving licence seems to just indicate that someone has earned the legal right to drive a commercial vehicle. However, we wouldn't know anything beyond that. We may not need to have drivers to have degrees, but I think a uniform and comprehensive curriculum would make a lot of sense. Perhaps, if we put our drivers through a more rigid and expanded training programme, they too will be regarded as professionals? ■

# Events & Exhibitions

## ASEAN PORTS AND SHIPPING

**Date** : 06 July 2018 – 07 July 2018  
**Venue** : Renaissance Johor Bahru Hotel, Johor, Malaysia  
**Contact Info**: +60 87 426 022  
**Details** : On Tuesday 3 July 2018, there will be a technical site visit for all delegates to the Ports of Pasir Gudang and Tanjung Pelepas to see and study first hand the latest commercial and operational developments taking place in both ports. On Wednesday 3 and Thursday 4 July 2018, there will be two days of Conference Programme featuring 30 world-class conference speakers addressing regional issues and challenges on global transportation and logistics attended by a gathering of 400 senior government officials, industry principals, decision makers, academics, harbour masters, harbour engineers, port engineers, maintenance supervisors and procurement decision makers together with the region's leading shippers, cargo owners, importers / exporters, shipping lines, freight forwarders, logistics companies, ports, terminal operating companies, railway operators, port equipment and services suppliers from countries throughout the ASEAN region. The social highlight of the event will be a spectacular Gala Dinner for all participants taking place on Wednesday 4 July 2018.



## INNO TRADE SECURITY SUMMIT

**Date** : 24 July 2018 – 25 July 2018  
**Venue** : Sheraton Imperial KL  
**Contact Info**: +603 6243 0016  
**Details** : With the rise of globalisation, the world is interconnected more than ever, and with that, comes threats previous generations would not have imagined. In the evolving world of trade and logistics, each new day brings new threats and organizations would need to always prepare and be ready with their prevention and recovery strategies. The INNO-TRADE SECURITY SUMMIT will expose the market on the new technological breakthrough and governmental programmes that can boost their trade security. The delegates will be given a hands-on extensive experience on how to manage their logistics and supply chain processes more effectively. This summit brings together trade professionals from private, public and multilateral organisations to discuss and share expertise on the current trade security issues. The INNO-TRADE SECURITY SUMMIT is targeted for Ministers, Director Generals, Presidents, CTO, CIO, Chief Security Officer, VP of Supply Chain, VP of Logistics, Heads of Illicit Trade, Heads of Anti-Counterfeit, Heads of Digital Transformation and Head of Supply etc

## BANGLAAUTO '18

**Date** : 22 September 2018 – 22 September 2018  
**Venue** : International Convention City Bashundhara, Dhaka  
**Contact Info**: richard@ambtarsus.com  
**Details** : BANGLAAUTO '18 is perfectly timed to provide a business-to-business platform for auto and auto aftermarket suppliers to meet key decision makers and buyers including auto manufacturers, auto parts and accessories manufacturers and retailers, and service and repair workshops operators.

## NSLOA MINI EXHIBITION AND GALA DINNER

**Date** : 28 September – 29 September 2018  
**Venue** : d'Tempat Country Club, Seremban  
**Contact Info**: info@asiaantrucker.com  
**Details** : NSLOA (Negeri Sembilan Lorry Owners Association) will

be holding a Mini-Exhibition and Gala Dinner in d'Tempat Country Club, Seremban, on September 28 and 29 this year. The highlight of the event will be the Gala Dinner on the 29th September, while other activities are aimed at bringing the industry together for networking, learning and exchange of experience and ideas.

## CAMAUTO 2018

**Date** : 01 November 2018 – 3 November 2018  
**Venue** : DIECC (Koh Pich), Phnom Penh  
**Contact Info**: makos@ambtarsus.com  
**Details** : CAMAUTO 2018 is the ideal business-to-business expo that connects auto parts suppliers to thousands of key buyers and decision makers. It is valuable opportunity to introduce your product portfolio to industry professionals.



## KUALA LUMPUR INTERNATIONAL MOTOR SHOW 2018

**Date** : 23 November 2018 – 19 May 2018  
**Venue** : MITEC, Kuala Lumpur, Malaysia  
**Contact Info**: -  
**Details** : After a five year hiatus, the Kuala Lumpur International Motor Show (KLIMS) is back for 2018. The Malaysian Automotive Association (MAA) announced KLIMS 2018 today in a ceremony officiated by Datuk Seri Mustapa Bin Mohamed, minister of international trade and industry.

Today's announcement ceremony was held at the Malaysia International Trade and Exhibition Centre (MITEC) in KL, which will be the new venue for KLIMS 2018 from November 23 to December 2, replacing Putra World Trade Centre (PWTC). The theme of this year's show, the ninth, is "Beyond Mobility". MAA is expecting 350,000 visitors for the 10-day show.





**Dato Mohamed Ishak Bin Abdul Hamed, Chairman, ARC**

## ARC All Set to Return to KL for Second Edition

The second edition of the Asian Retread Conference (ARC) is well in lane for launch. The two-day event will be held at Sime Darby Convention Center in Kuala Lumpur, Malaysia, on October 2 and 3, 2018. Themed on "Better, Faster, Cheaper," ARC 2018 will bring together some of the leading global players in tyre retreading under one roof to focus on the win-win features of the industry.

First of its kind in the region, ARC is organised by Asian Business Media (ABM), publishers of Tyre Asia, the popular international magazine on global tyre industry, and Epic Fresh, Malaysia, in association with Tire Retread and Repair Information Bureau (TRIB), USA. ARC proved to be a path-breaking conference on retreading industry when it debuted in 2016 at the same venue. It is now returning with greater opportunities for knowledge-sharing and networking.

Dato' Mohamed Ishak bin Abdul Hamid, Chairman, ARC, said: "Retreaders Strike Back. That's how ARC 2016 ended, echoing the urgent need for the retreading industry to act with the advent and threat of cheap new imported tyres. The ARC 2018 tagline: BETTER, FASTER, CHEAPER captures in essence the actions needed for retreaders to remain competitive, relevant and to be the first choice of customers."

As in 2016, the conference has a line-up of globally known industry experts as speakers. The final list is getting into shape. Currently, the list includes Dr Zairossani Mohd Nor, Malaysian Rubber Board; Adam Gosling, TyreSafe Australia; Sudharshan Varadaraj, Elgi Rubber Company, India; Rajiv Budhraj, Automotive Tyre Manufacturers Association (ATMA), India; Dirk G.H. Reurslag, VMI, Holland; David Wilson, Retreading Business, UK; David Stevens, TRIB, USA; Colin Clarke, Schill + Seilacher "Struktol," Germany; and Jos Uijlenbroek, Ferm RFID Solutions BV, Germany.

Malaysian Rubber Board (MRB) is the Corporate Sponsor of ARC 2018. Other sponsors include Eversafe rubber, Elgi, Tyresoles, and Struktol. The event is supported by various international agencies, institutes and research centres.

ARC 2016 was a huge success, setting a benchmark for participation in a debut conference with over 250 delegates from across the globe. There was uniform opinion about the need for such a gathering of tyre retreading industry stakeholders to discuss future developments and challenges.

The second edition is being designed in such a way as to live up to the reputation it created two years ago. 



# CAPAS 2018

*The 5th edition of the Chengdu International Trade Fair for Automotive Parts and Aftermarket Services (CAPAS) which was held from 24 to 26 May 2018 at the Chengdu Century City New International Exhibition and Convention Centre concluded with a resounding success.*

**A**n indispensable trading platform for business, information exchange and investment for the automotive industry in Southwest China, CAPAS 2018 saw significantly higher participation figures across 45 000sqm of exhibition space as compared to previous years.

CAPAS is an event jointly organised by the China Council for the Promotion of International Trade, the Automotive Sub-Council (CCPIT-Auto), Messe Frankfurt (Shanghai) Co Ltd and the China Council for the Promotion of International Trade, Sichuan Council (CCPIT-Sichuan). The event served as a platform for industry players from the Sichuan region and beyond to tackle the challenges that resulted from the Chinese government's recent focus on environmental protection as well as enhance their competitiveness in the market.

## Themed Zones

To complement product offerings, the exhibition this year was divided into six themed zones. These themes were in response to the region's demands, surrounding transformation, upgrade and sustainability. Zones at the show included:

- 1) Quick Fix, Replacement Parts and Chain Stores Zone
- 2) Automobile Lifestyle Zone
- 3) Commercial Vehicle Zone
- 4) E-mobility and Infrastructure Zone
- 5) Made in Sichuan Zone
- 6) Supply Chain Procurement Zone

Both exhibitors and visitors reacted positively to the enhanced theme zones as the clear categorisation provided allowed efficient and effective business matching. Visitors to the exhibition were reportedly impressed with the diversity of international exhibitors encompassing Germany, France, South Korea, the United States of America, Japan, Spain as well as Singapore.



## Company Focus

Amongst the participants at the expo include Zhuhai Yinlong Energy Co Ltd. Headquartered in Zhuhai, the company was set up in 2009. Since 2009, the company has been committed to researching, developing, producing and selling lithium batteries and its related materials. Later, its business expanded to research and development, production and sales of power systems for electric vehicles, whole electric buses, intelligent peak load and frequency regulation systems. To date, the company has established a closed loop industrial chain in the new energy industry.

Since its formidable entry in the new energy industry a decade ago, Yinlong has successfully developed a series of titanium batteries, making new breakthroughs in five major areas namely safety of batteries, temperature



range suitable for the batteries, fast charging and discharging of batteries, service life of batteries and industrialisation of batteries. Currently, Yinlong batteries can be recharged and discharged in just six minutes; a significant achievement.

Furthermore, Yinlong batteries boast a service life of over 30 years and can withstand temperatures ranging from -50°C to 60°C. With such high safety standards and high energy efficiency, it is no wonder the company's batteries have gained immense popularity amongst customers which includes a number of globally renowned enterprises such as AES, Bombardier, Vestas, Ford, State Grid Corporation of China and Shenhua Group.

The company's current fourth generation lithium titanate batteries have managed to cut production costs by 40% and improved energy density by 60% as compared to its predecessors. In 2016, Yinlong successfully developed hydrogen titanium power assembly, which integrated the high power density of lithium titanate batteries and the high energy density of fuel cells. The timely appearance of the hydrogen titanium power assembly is expected to solve the pressing problems faced by current new energy vehicles; an example being unsatisfactory continuous driving distance.

### Local Hero

Presently, Yinlong's buses are operating in more than 80 cities such as Beijing, Guangzhou, Shenzhen, Tianjin, Chengdu, Nanjing, Wuhan and many more. In 2014, Yinlong's Dang Dang bus was seen travelling on the tourist line surrounding Tiananmen Square and it was also designated as the official carrier for the 22nd APEC Meeting in Beijing. In 2016, Yinlong's 12-metre electric double decker became the designated vehicle for the second Sino-US Low Carbon Summit. In July the same year, the bus was put into service on China's first electric double decker tour route. In November 2016, Yinlong's fleet of buses were selected as the reception vehicles for the 11th China International Aviation Expo and the 8th China International Aeronautics and Astronautics Forum.

With such an impressive list of achievements, it is no wonder Yinlong has been awarded with an equally impressive list of awards in the mere 10 years it was established. Some titles include China's Trustworthy Products, World Bus Award at Busworld Expo and Electric Bus of the Year at the annual China's Best Commercial Vehicle Voting. In 2016, Yinlong titanium technologies won the much coveted Bluesky Award from UNIDO (United Nations Industrial Development Organization).

### Events within the Event

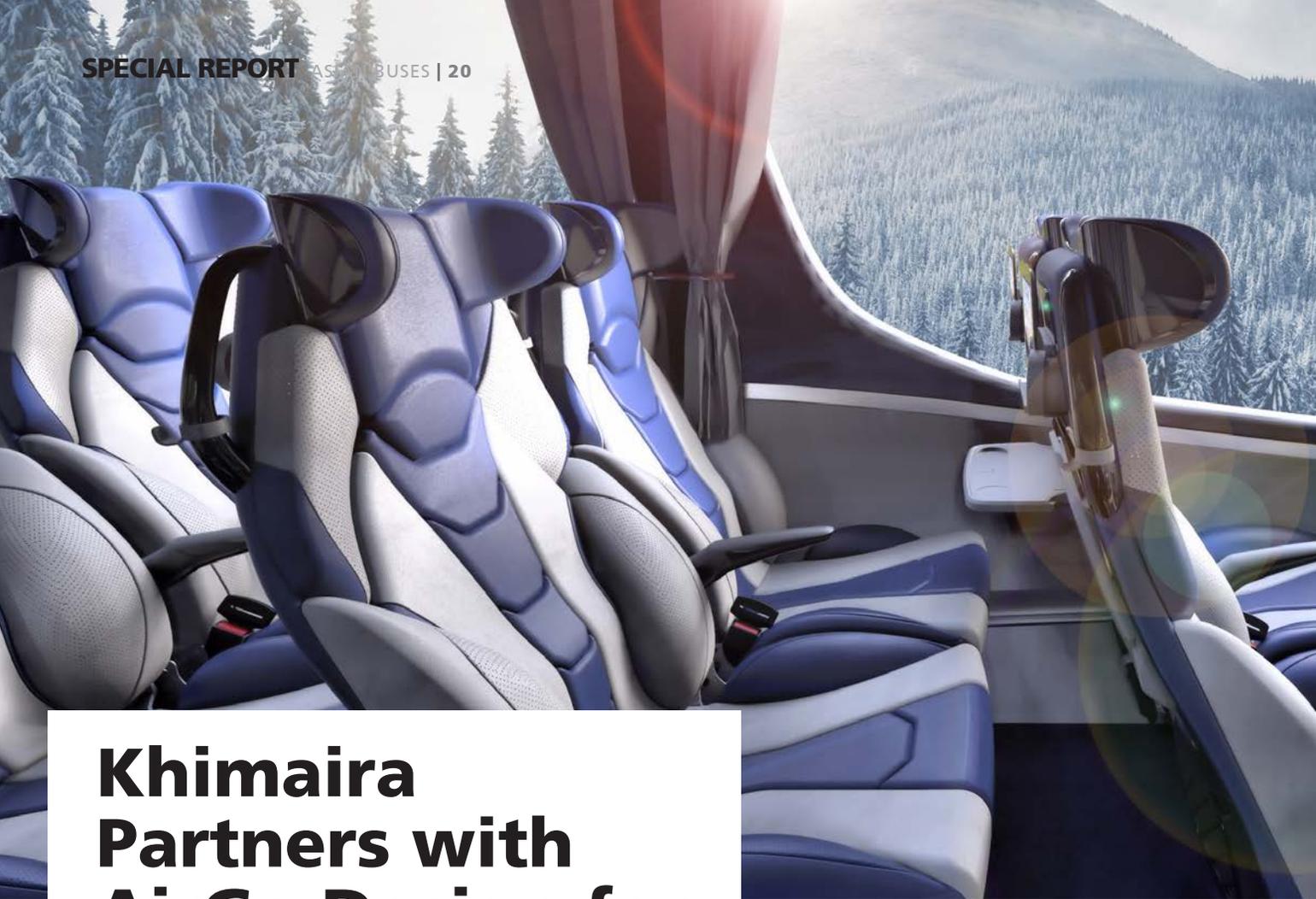
To complement the show, a total of 20 fringe events were lined up during the entire three days that the exhibition was held. Transformation and environmental consciousness was the talk of the town. These concerns are playing a bigger role than ever across the automotive industry, especially so with new energy vehicles and intelligent manufacturing demonstrating the

need to reform to cope with such challenges. This is especially crucial as the Chinese government is moving towards electrifying buses to keep up with the environmental challenges such as air and noise pollution. As it is, the city of Shenzhen already has the world's largest all electric fleet – bigger than New York's, Los Angeles's, New Jersey's, Chicago's and Toronto's electric bus fleets combined.

Keeping with the theme, the fringe events also included a number of precious training sessions conducted by industry experts and leaders. Each of these events received enthusiastic feedback from the attendees due to comprehensive coverage of the industry's hottest topics. Manufacturers, distributors and users were able to gauge a comprehensible direction on how the industry is transforming and how to better equip themselves to adapt to the market changes.

This year's edition of CAPAS saw an increase in the number of visitors as well as exhibitors, a testament to the success and credibility of the show. Visitor numbers rose 4 percent from 17 378 in year 2017 to 18 016 this year. Exhibitor numbers also recorded a 12 percent increase with 583 exhibitors as compared to 522 last year. ■





## Khimaira Partners with AirGo Design for a new Travelling Experience

*European seat maker Khimaira partners with Singapore based airplane seat designer to give our region better seating options for buses.*

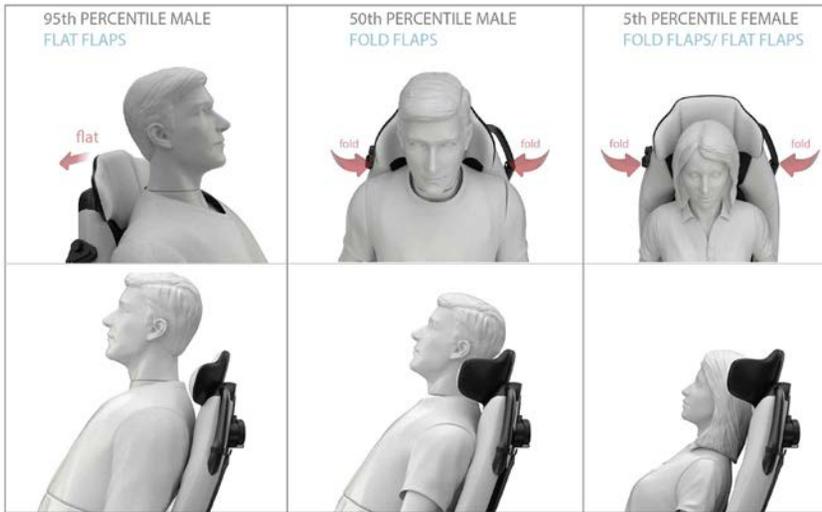
**R**ide comfort is paramount when travelling with a bus. Low noise emissions from the tyres play a role, but the key component is undoubtedly the seat onto which we place ourselves for short or long distances when we board a bus. A new generation of seats is poised to take the market by storm and Asian Buses met with the people behind this new ground-breaking design.

Represented locally in Singapore and Malaysia by AirGo Design, Khimaira has a wealth of experience in the manufacturing of seats for buses, ships and trains. Together with AirGo Design, the company has developed bus seats that stem from airline seats, which not only need to be comfortable, but also lightweight to save fuel.

In an exclusive interview, Mikko Poutanen, CEO of Khimaira Oy, relayed his story and plans on how the company is preparing to wow the South-East Asian market.



AirGo closely works with Khimaira to develop multiple prototypes before a design is finalized



AirGo does detailed 3D body scanning to develop designs with superior ergonomics



We may all remember the car brand Saab. What many may not know is that Saab also makes planes. As a supplier to the car industry, the predecessor of Khimaira was supplying to Saab. In 1994, a decision was made to re-locate the factory and through a separation, Khimaira was established. Right from the beginning, Khimaira was providing bus and coach seats to Volvo.

Having supplied bus and coach seats for some 20 years, the company now looks back at a track record of working with Volvo, Scania and some smaller customers. "This would make us a provider that is positioned in the premium segment," Poutanen said. In addition, Khimaira also supplies seating solutions to the Finnish defence industry as well as ships and rail, however, the bus related products make up for some 80 percent of the product mix.

According to Poutanen, what matters most is the user experience. Taking into consideration Ergonomics, design and passenger comfort make for the focus of the product development. On top of that, safety is crucial. When developing a bus seat, there are two possible approaches. One way is to develop a seat, drawing on the experience in developing such products and offering it to the market. The second option is that the seats are constructed based on a specific set of requirements from a client. In the case of the cooperation with AirGo Design, it is the former.

"What is remarkable is to note that the design or structure of seats has not really changed fundamentally in the past decades," he said. With the expertise of AirGo Design, Khimaira has incorporated a highly ergonomic approach though. Stemming from the expertise in designing seats for planes, the design incorporates elements that are important in the aviation industry. Khimaira, as the manufacturer, brings a lot of know-how to the table when it comes to the production of these seats. "We are talking about a true symbiosis here."

When asked about the differences and similarities, Poutanen explains that there are, of course, significant differences between airline and bus seats. However, when broken down to the essence of having to provide a comfortable seat for many hours, as one finds them in long distance coaches, then one also finds similarities. "Naturally, you can derive some insights from airline seating." Weight is an issue for both industries though. If you have some 50 seats on a bus, a kilogram more per seat will make a difference. Other issues that need to be considered are local requirements which "We are naturally taking into account."

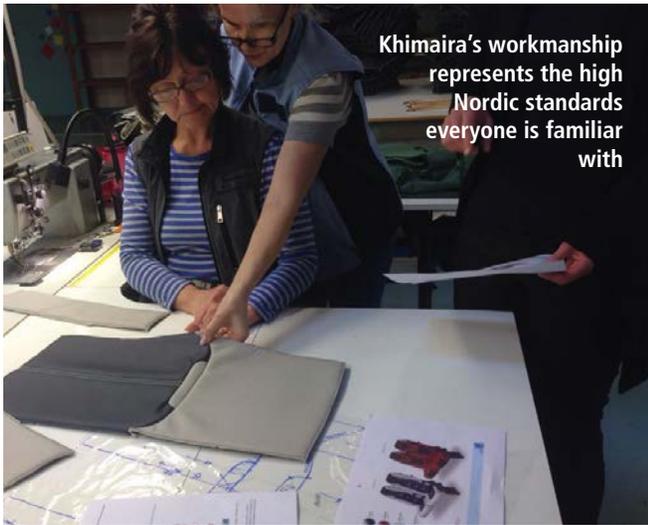
Having successfully launched the new line of bus seats in Europe, Poutanen is confident that the Asian markets will also rejoice when they are able to offer a new and fresh design to coach builders. Given the long list of possible options and accessories, for now, the production will take place in Europe, while he is confident that a high degree of localisation will be realised very soon after demand for the new products is at a level permitting to do so.

One of the many upholstery designs developed by AirGo



The seat can be fully customized to have accessories like tablet holder, USB charging, footrest, tray table, etc





Khimaira's workmanship represents the high Nordic standards everyone is familiar with

### Khimaira at a Glance

Khimaira specialises in creative and solution focused passenger seating design, cost-efficient assembly and high-quality components as well as high-standard upholstery, polyurethane padding and furnishing component production.

The company's modern production facility is located on the southwestern coast of Finland in Kalanti, Uusikaupunki. Khimaira Ltd. delivers seating in Finland and elsewhere in Europe. Over half of our production is exported. A flexible team production, experienced professionals and good connections have convinced prominent automotive and boat manufacturers to choose Khimaira Ltd. as their seating supplier.

As the leading manufacturer of bus seats in the Nordic countries Khimaira has a vast experience of the industry's demands and the customers' various needs. We have built our operation to match our customers' needs fast and flexibly. This is the foundation of our whole operation model.

Our bus industry products include our own collections of passenger seats, interior upholstery for buses, curtains and special seats. Many of our customers have designed their own seat models and left the manufacture of the product as a whole to us. More often than not we take part in the customers' seat design from the beginning and always consult the customer. By doing this we can express our views on the flexibility and cost-efficiency of the product's manufacture.

### About AirGo

Founded in Singapore in 2013, AirGo Design is Asia's first developer of aircraft seats for economy class. Their flagship product defines a new standard in economy class seating. It introduces state-of-the-art composite materials technology to the industry and combines it with an award-winning design which has been praised as the "Future of Airline Seating" by the likes of ABC News, USA Today, Reuters, The Economist, NBC News and Daily Telegraph in over 200 news articles and more than 15 languages.

The world's first full-composite aircraft seat is 50% lighter than a conventional economy seat which is primarily made of aluminium. AirGo seats offer almost 1 ton of weight-saving on a typical narrow-body plane like A320 and if all airlines today started using AirGo ultralight seats, the industry would save \$1.2 billion in fuel and 7.5 billion kg of CO2 emission annually. AirGo works with a global network of more than 30 partners to develop its product and currently operates an R&D center (Advanced Seating Solutions) in Kuala Lumpur, Malaysia as well.

### Why venture into the bus industry

With the vast experience from airline seats, branching out into other areas was a natural move for them. We asked Alireza Yaghoubi, Chief Technology Officer, Airgo Design Pte. Ltd. about this. "Our composite is perhaps too expensive for a typical bus seat, but a lot of big players in other industries are interested in our design technologies. Our aircraft seat offers a totally new level of comfort. 3D scanning technology provides more legroom, wider seatbacks and very versatile headrest. Carefully-selected multi-density foams in the cushion also gives a greatly improved long-haul comfort. So, our decision to move into segments like bus and marine were directly due to a strong pull from those industries."

We were contacted by pretty much everyone in the supply chain, from bus manufacturers like Volvo, to operators like Greyhound in the US, and ferry builders like Penguin Shipyard in Singapore (ferry seats are almost identical to bus seats). The advantage lies in the fact that the AirGo designed seats are not only comfortable, but also lightweight and therefore fuel-saving.

### Partnership with Khimaira

"As I mentioned, our composite technology is too expensive for the bus industry, so we never had a reason to develop our own seat frame from scratch. Khimaira is a well-known brand in Europe and we came across them through our Finnish connections (AirGo's team is half-Finnish)," Yaghoubi elaborates. We then met and realised that we have a common vision. They have developed one of the lightest seats in this category and are expanding their capacity to go far and beyond Europe. We are a perfect match.

### Unique Products

Apparently, this is not your average bus seat. The seat itself is made in Finland and represents the high Nordic standards that everyone is familiar with. The workmanship, the design and the material quality is top of the line. Besides that, Khimaira through its partnership with AirGo is bringing elements from the aerospace sector to the bus industry for the first time. AirGo's award-winning design is unlike anything that you see in the market today. "Having said that, we have a range of products; all the way from a basic seat with designer seat cover and genuine leather from Scotland, to a high-end model which has multi-density cushion, articulated headrest, USB charging, tablet holder, etc." There's an option for everyone depending on budget and requirements. ■

# ASIAN BUSES



## SUBSCRIPTION FORM

### Personal/Company details

Mr/Mrs/Mdm/Ms : .....

New I/C No : .....

Company : .....

Address : .....

Tel no (O):..... (HP:.....

Email : .....

I hereby enclose RM Cheque.....

being made payable to Asian Trucker Media Sdn Bhd

4 issues RM40

6 issues RM60

Mail/fax this form to:

**Asian Trucker Media Sdn Bhd ( 902834-K )**

**8th Floor, West Wing,**

**Menara Rohas Perkasa,**

**50450 Kuala Lumpur.**

**Fax no : 03- 2719 5588**

# Healthy Diet Among Drivers for Better Lives and Safer Roads.

*There are many healthy food options out there, but our drivers must first break the habit.*



**D**riving trucks or buses could be quite an odd lifestyle. While it is hard labour with the loading and unloading of goods, it is also sedentary where a driver sits behind the wheels for long hours.

If we observe these drivers during their lunch breaks at rest stops (R&R), we would more likely than not find their plates heaped with rice and their choice of side dishes, with generous douse of curry. They might say they need such a meal for the energy to load and unload, but if they were to continue with a long journey, is it the right choice?

Of course, a healthy diet is a must for everyone, not just for commercial vehicle drivers but diets differ from one individual to the next depending on their daily activities, among other factors. In our case, eating healthy is vital not just in the general sense but also to avoid driver fatigue or tiredness, distracted driving and to remain focused behind the wheel.

According to the United States Center of Disease Control and Prevention, the average lifespan of truckers is 61 years, which is 16 years less than the average people. In 2016, The Telegraph published

an article which cited that seven in 10 deaths are fuelled by diet and lifestyle factors. The article quoted Professor John Newton, chief knowledge officer at Public Health England as saying: "Countries used to worry about the impact of infections like HIV, malaria and measles on people's health, but now it's the fallout from poor diets, smoking and drinking too much." Our modern-day bus drivers are at risk for obesity, heart disease, diabetes, colon, lung and laryngeal cancers, hypertension, sleep disorders, digestive problems and increased stress, all of which could be avoided simply by choosing the right foods to eat.

So, what contributes to fatigue? Fatty and sugary foods. In Malaysia, favourite breakfast dishes are nasi lemak and roti canai. One plate of nasi lemak contains 400 calories of which are 13g fat, 58g carbohydrate and only 10g protein, while just a piece of roti canai contains 302 calories, with 10g of fat, 46g of carbohydrate, 25g of sugar and 7g of protein. A main dish is usually accompanied by a variety of kuih (local cakes) and our signature thick teh tarik to wash it all down, both packed with sugar. Have these for breakfast, and a driver might find himself nodding off before lunchtime.



To improve focus, one should drink more water and avoid sugary beverages. Water gives the brain the electrical energy for all brain functions, including thought and memory processes, and it has been proven to help you think faster and be more focused. Sweetened drinks, meanwhile, contain calories which despite that, does not make a person eat less. Moreover, in the case of fatigue, sweetened drinks only help in a short period of time. In long drives, constant consumption of sweetened drinks, even coffee, could lead to overeating.

We all grew up eating three meals a day and while this works just fine for desk job workers who could afford to take 40 winks when they are feeling drowsy, it may not be the best choice for bus captains who could not even afford to feel drowsy even for a second. Many nutritionists suggested breaking their meals down to five times a day, including snacks, to metabolise food more efficiently. Eating every three hours helps to maintain stable blood sugars levels and prevents energy crashes, lack of concentration, fatigue, food cravings and overeating.

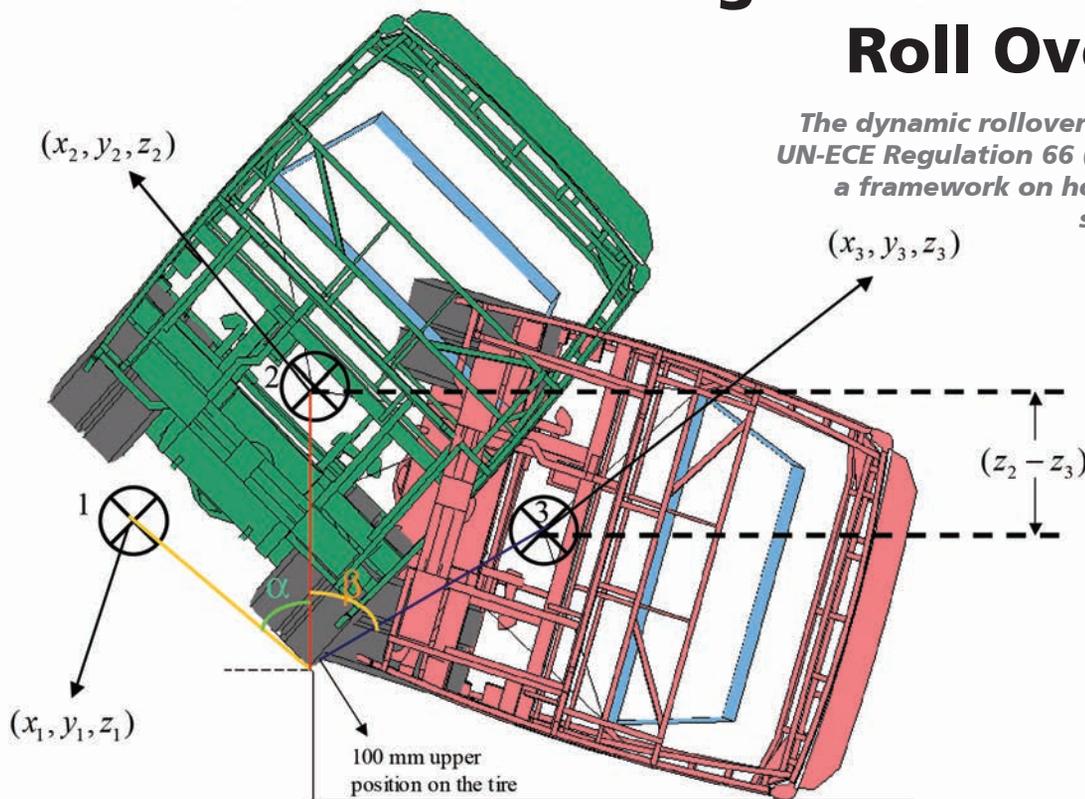


Bringing packed food for the whole day is a great way to ensure drivers are able to eat breakfast, snack, lunch, snack again and dinner. Healthy yet easy meals to pack include grilled meat, sandwiches, cut vegetables and fruits while snacks like unsalted nuts (loaded with protein and good fat) and dried fruit (satisfies the sweet tooth) will always come in handy.

Although packing your own food is ideal, not everyone has time to prepare five mini meals before hitting the road. There is also the storage issue. To keep food fresh, drivers might need to have portable fridges or food warmers in the cabin, but our Malaysian captains might not find this to be convenient. Therefore, they have no choice but to buy food from the roadside stalls and R&Rs. Drivers can still choose to eat healthy at their regular stops by cutting on the rice and fill their plates with vegetables and a piece of protein. Although the smell is tempting, avoid fried fish or meat if there are the steamed or grilled versions available and instead of curry, go for soup.

There is always an option, although not much, to eat healthy wherever they are but most importantly, these drivers must have the awareness and the will to eat healthier. Undoubtedly habits are hard to break but it must be done not only as an effort for better health in general, but to make them safer drivers on our roads. 🍴

# Making Buses Safer with Roll Over Tests



*The dynamic rollover test according to UN-ECE Regulation 66 (UNR 66) provides a framework on how to make buses safer in accidents.*

Vehicles carrying passengers need to be as safe as possible as human lives are at stake in case of an accident. For buses, the worst-case scenario would be a roll over whereby the bus would land on either side or even the roof. We met with Dato Ir Foong CC of FCC Consulting Engineer to learn about how buses are constructed to give the most possible protection in the case of a roll over.

## Catastrophic Impetus

In Malaysia, the idea of having comprehensive roll over testing for buses stems from an accident that happened in 2007. The 2007 Bukit Gantang bus crash was the worst road accident in Malaysian history before the 2010 Cameron Highlands bus crash and 2013 Genting Highlands bus crash which claimed 28 and 37 lives respectively. Twenty passengers on board the bus were killed in the accident which took place near Bukit Berapit, Bukit Gantang, Changkat Jering, Perak. It occurred on 13 August 2007 at 4.40 am, when the bus driver, Rohizan Abu Bakar, lost control of the bus as it was going down an incline and it crashed into a ditch at the 229th kilometre of the North-South Expressway. In this case, the bus plunged into a ravine with the roof collapsing. Passengers were crushed between the roof and the chassis. This was due to the lack of the protection in the roof structure.

## Implementation of Regulation

"When the crashed vehicle was recovered and examined, it was found that the structure of the roof was not suitable to protect passengers from harm in the case of such a roll-

over" Foong explains. This triggered the government to seek ways to ensure that the structure in future buses was ensured. Hence the roll over test according to ECE R-66 with regard to the strength of their super structure was implemented. From then on, the global norm ECE R-66 was included in the regulations for large vehicles carrying passengers. ECE R66 Rev 1. Amend2. applies to single-deck rigid or articulated vehicles belonging to categories M2 or M3, Classes II or III or Class B having more than 16 passengers. "Given this definition, even school buses, carrying 16 or more passengers would also have to be subjected to this test. It is not about the size, but capacity of the vehicle." Before any model of a bus in mass production is approved by the authorities, the positive results of the ECE R-66 test have to be submitted. The test results have to be certified to be in accordance to the regulation.

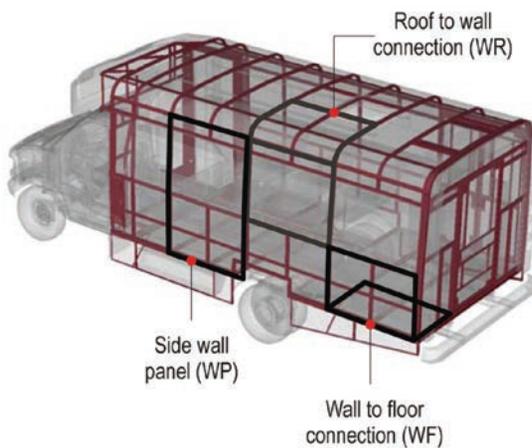
## Bus rollover

- Although overall rollover frequency is four percent in all bus accidents, there is a five times greater risk of fatalities (Spanish Data)
- For general bus crashes, usually 19 percent of occupants are killed
- For rollover, 42 percent severe injury or passenger fatality
- In a bus rollover, the passengers will have a longer travelling distance of hitting the bus interior compared to that of a car occupant as most bus passengers do not use the seat belt and there is generally more space in a bus

## How to Test?

Basically, there are two different ways to determine the strength of the bus super structure. The first alternative is to physically roll over a bus that has been built. As an option, computer simulations may be used to simulate the rollover test. In the physical test, the bus will be placed on a platform and slowly tilted over. A high-speed camera will capture the process and the images can reveal the damage done to the vehicle. For every bus, there is what is called a "residual space". This is the safe area in which the passengers will survive, even if the super structure is crushed. No parts of the super structure are to enter the residual space as that would mean a potential harm to the passengers. Should the test show any part entering this survival space, the test is a "fail".

### Sample of a roll-cage structure



Computer simulations are optional to the destructive tests with actual buses. In computer simulations, the Finite Element Analysis is used. The finite element method (FEM) or finite element analysis (FEA), is a numerical method for solving problems of engineering and mathematical physics. Typical problem areas of interest include structural analysis, heat transfer, fluid flow, mass transport, and electromagnetic potential. The analytical solution of these problems generally require the solution to boundary value problems for partial differential equations. The finite element method formulation of the problem results in a system of algebraic equations. The method yields approximate values of the unknowns at discrete number of points over the domain. To solve the problem, it subdivides a large problem into smaller, simpler parts that are called finite elements. The simple equations that model these finite elements are then assembled into a larger system of equations that models the entire problem. FEM then uses variational methods from the calculus of variations to approximate a solution by minimizing an associated error function. Again, should the simulation show that any part of the super structure enters the residual space, the test has failed.

## Pros and Cons

Computer simulations have the advantage of being cheaper than using actual buses to test. However, there are also issues that need to be highlighted with

this method. To begin with, the principle of "Garbage In, Garbage Out" applies. In other words, the result is only as good as the data being fed into the simulation. If a simulation would yield a "Fail", the simulation can be adjusted with thicker beams, stronger connections and different materials. "That said, where is the procedure that a coachbuilder would utilise the stronger materials following a change in specifications needed to comply with the ECE R-66?" is a flaw in the process of building a bus that Foong points out.

## Stiffening It

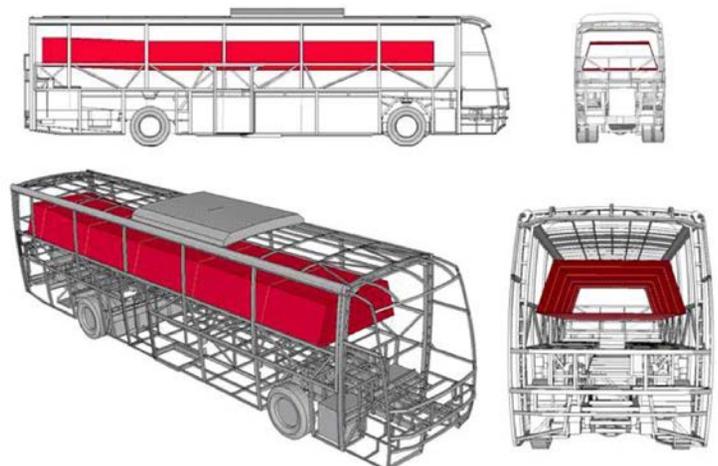
One way of ensuring that the super structure is stiff enough, with sufficient structural integrity is to build a roll-cage structure. This is done by having beams that go over the residual space and are made from metal beams without any welds or connections. Any weld or screwed connection constituted a weakened structure. Should a coachbuilder want to substitute the full-length beam with a weld, it needs to be done continuous and by a qualified welder. "It is important to note that the roll over test regulations do not stipulate any specific materials to be used. As long as the vehicles passes the

test, it is considered a safe vehicle," Foong elaborates. According to him though, the roll over cage is the best option in terms of safety. Substituting welding with bolts, specifications regarding the number, diameter and quality of bolts need to be followed.

## Getting Out

It is noteworthy that accidents involving commercial vehicles constitute only a very small portion of all fatal accidents recorded in Malaysia. Typically, fatal accidents involve motorbike riders, which are the least protected participants in traffic. However, when an accident involving a bus happens, there are usually several fatalities as a consequence of the circumstances and the simple fact that there are many people on board. "We need to emphasise on vehicle safety as the government is encouraging the public to ditch private cars and to use public transport." Looking at the residual space, one will notice that the bus captain is well outside the survival space. "Actually, the bus captain should be the last one to leave a crashed vehicle as s/he is to help passengers to get out. In older bus designs, there is no door for the driver to jump out." ■

### Red area: Residual Space



# Ashok Leyland Banks On Innovation In Products, Services

By T Murralli



**A**shok Leyland's Managing Director Vinod Dasari is a happy man as his company, India's second largest medium and heavy commercial vehicle manufacturer, ended fiscal year 2017-18 with annual sales of more than one lakh trucks, its highest ever. The company closed FY18 with record revenues of Rs 26,248 crore and record profits of Rs 1,563 crore, and increased market share across all segments.

The momentum continues as the sales in April registered 79 percent growth. The CV manufacturer posted total sales of 12,677 units, compared to sales of 7,090 vehicles the same month last year. "We are facing production constraints in meeting the demand. For the last six months, we have been facing challenges in delivering large trucks," Dasari said.

"Last year has been a good year for us. What differentiates us is that we did it on the back of our innovations like the iEGR technology. It has proved its mettle across the markets and the customers have placed their trust in us. Another innovation, the Digital Market

Place, since its launch in August 2017, has become very popular with our fleet owners. More users are getting on to the platform, deriving benefits of our digital technology," he said.

At the recently-concluded Global Conference, the commercial vehicle maker showcased the full range of innovative products and solutions. "This Global Conference is a platform where we showcase our innovations in products and supporting technologies which help us take our brand philosophy of 'Aapki Jeet, Hamari Jeet' forward," Dasari said. Products like the 41-tonne fully built truck and MiTR left-hand-drive will fuel growth in the current fiscal. "Our industry-leading solutions in network and spare parts are unique. We will continue to be the leaders in customer satisfaction and focus on profitable growth," he said.

Ashok Leyland had a tedious journey from the tough days of 2013-14 when it turned positive only in the fourth quarter. The industry had fallen from 3.5 lakh units a year to around two lakh units. The erosion in the industry affected the company very much. Therefore, Ashok Leyland restructured its growth strategies on several counts, including reducing the break-even point and containing overheads.

The CFO of the company Gopal Mahadevan said, "We reduced our working capital, rationalised manpower, and improved the quality of products disruptively. Not that the product was poor, but we made mistakes in strategic positioning. Along with the





restructuring growth also happened, and we opted for disruptive growth. We invested in the services business, and exports. We also launched new products.”

### Profitability

During the last four years the company has been consistently delivering double digit EBIDTA margin, he said. Its working capital, according to him, is negative and the company is net cash positive. Rationalisation of manpower resulted in enhanced productivity and the manpower cost as a percentage of revenue is significantly lower than what it used to be, between 6.5 to seven percent.

The company's network six years ago had only 350 points of presence. It has reached up to about 2 850 touch points for sales, service and spare parts. Besides, it has 'workshop on wheels,' to support customers' requirements. It has 'knowledge on wheels,' to teach mechanics on the nuances of new technologies. In addition, it has been offering service reaching the customers by motorcycle, and it is turning out to be one of the largest business delivery models.

### International Business

On the international front, the company has witnessed record revenue of about Rs15 000 crore in fiscal 2018. It has been quite a quantum jump and the company plans to grow to about 25 percent to one-third of the revenue coming from international business in the years to come.

Revenue from aftermarket reached about Rs1 000 crore while the defence business has been gaining significant momentum. Recently the company won a major order from the Ministry of Defence to supply high mobility 10x10 vehicles that has been fully developed in India and by Indians. During the last two years the company has won 31 tenders, which will result in a cumulative revenue of about Rs 5 000 crore over the next decade. The revenue for the company from the defence segment has doubled in the past two years to reach Rs 800 crore in 2017-18.

### New Methodologies

Internally, the company has been changing the way it is working. The project 'Aspire' investigates those processes that have not been adding value to anything and are





time consuming. Four functions - finance, HR, quality and procurement - have been encompassed in the project that help simplify the entire process, without affecting the functionality. Asked what was the key driver for the change, Mahadevan said, "In 2013-14 we had just completed a huge capital investment, spending Rs 5 000 crore. These were to expand and refurbish manufacturing operations in Pantnagar, acquiring Optaire and JV with Nissan and John Deer."

The inflexion point for the company was when it decided to create a portfolio that it wants to grow and exit from the non-core business. This saw the company divesting equity shares. It did away with John Deer, while it acquired the entire portion of Nissan since LCV business was inevitable for the company. These vehicles not only helped it gain much inroads in the domestic market but also there was enough indications for opportunities in exports in several markets including Middle East, South East Asia, and Africa. The company sees sweet spot in Africa and Middle East. Besides, it is also looking at South East Asia and Russia where it may look at setting up smaller operations. "It is better that an African customer sees that we are in Dubai than in India. It costs some extra dollars, but it is worth it," he said.

The strategy is to go with a smaller vehicle where turnaround is shorter, build a brand, immediately load it with an ICV – intermediate commercial vehicle-- and then go with larger trucks. If it has to grow with larger trucks it has to have a platform before taht, and the dealers also will be stuck with working capital. The failure impact will be smaller and there is possibility to carry out course correction. That is why LCV is very important for the company, as the margin in the business is as

good if not better than larger vehicles, Mahadevan said. Yet another restructuring taken up by Ashok Leyland was to merge Hinduja Foundries, because it was an investment not managed by the vehicle maker.

"For us all these initiatives are very critical. As we move forward, in the next 10 years there will be divergences from these. The whole universe is moving from core manufacturing to digital. It is going to be very important to stay and own the customers. We have to build on our manufacturing capabilities. As we invest in manufacturing operations, we have to build disruptive capabilities in getting the customer, which is the rationale behind 2,850 touch points which need to continue to grow," he said.

As part of its strategy the company is looking at leveraging its products and their customers during the entire product life-cycle. For a truck that costs about Rs 25 lakh to Rs 30 lakh the overall life cycle cost is estimated to be around Rs 3.5 crore, including the cost of fuel, tyre, lube, insurance, spares etc.

Though the entire economy is running around the truck, the company is not yet part of the cycle. This is where the company sees sweet spot and to leverage it, it is planning to offer digital solutions apart from core manufacturing.

Secondly, it will also look at investing in the new energy vehicle while also continuing its focus on internal combustion engines. "We have also internally decided that there are three things - quality, people and brand- we will focus on, and everything has to converge into Aapki Jeet, Hamari Jeet. Five years later our basic idea is that the domestic truck business should be about 50 percent or lower in the overall revenue pie, which is currently at about 65 percent," he said.

### Technology

Ashok Leyland showcased last year the full range of its future-ready products, based on intelligent Exhaust Gas Recirculation (iEGR) technology for BS-IV engines. This technology has multiple benefits like 10 percent better fuel economy (than BS-III engines), BS-IV compliant up to 400 hp engines, and needs



no POC (particulate oxidation catalyst) and additional electronics or sensors. It is lighter than SCR and incurs lower maintenance cost. Overall the BS-IV engine can improve the cost of ownership benefits by about 10 percent over SCR technology-based vehicles. While the development is progressing on powertrain side, managing security issues and preventing hackers form part of major responsibilities for any OEM in software and electronics.

Asked how Ashok Leyland is managing the security issues, the CTO of the company, Seshu Bhagavathula, said, "There are about 18 failure modes that can be created by tampering a system. And we know them all because we see them in the field. We have observed about 18 serious ones and about 10 more which are not serious but over a period they may get into serious mode. We believe that we will be able to offer a system which will be almost fail-proof." Engineers and service personnel are opposite. Engineers build something, and the service people open it. On the areas that he sees technology playing a role especially in the driveline, chassis, engine, braking, safety and also light weighting, he said, the conventional one will never die-off just like that." It will take much longer for the commercial vehicles. But partial electrification is happening, with Euro-6 or BS-VI; a battery support is given for anything that could create high emission. That's called partial or mild electrification. There will be more integration at the chassis level with lot of electrification, wiring harness, controls etc. There will be lot of sensors in BS-VI vehicles and even if one sensor fails, it is possible to identify it. If someone manipulates, the sensor can alert on the same."

There are a lot of controls that happen on the chassis side. The weight reduction will happen quite a bit because there is a lot of regulation coming in. Earlier, the company had to build trucks for managing overweight and therefore, it used to be very bulky. Now it is gradually reducing, and this will have an effect on the chassis.

"On changes in the electrification, we will see school buses and campus buses electrified; trucks that work inside the factories will be autonomous, not driverless. In India there will be no driverless ones. There will be drivers, but they will be autonomous. We believe there is a big market for platooning in this country. The last answer is, the chassis and body built together; fully built solutions are being chosen and we are ready for it," he said.

The company displayed several products at the Global Conference. In the trucks section it displayed BOSS 1223 LHD Russia spec- Euro 5, Captain 2523 LHD- Ivory Coast spec, Guru 10T with 17 ft HSD, Captain 2532 with 16 cum WRS rock body, Captain 4932 with Trailer, 41T Fully Built Load Body Unitised bearing, slipper ended suspension, Boss 1616 Sleeper Cab with 12KL POL Tanker and 3718 Tipper. The company also displayed a few vehicles in the light commercial vehicle category including DOST +, Partner, MiTR and MiTR LHD. In the bus section the company had Alpha, Pearl, Lynx Strong, Freedom, Oyster and Falcon. It also showcased solutions for defence, spare parts and network development.

### Remanufacturing

Giving a push to green initiative, Ashok Leyland displayed a range of remanufactured products. The products displayed included engine, gearbox, starter motor, alternator, turbocharger, air compressor, cabin, power steering gearbox and power steering pump. These aggregates were reconditioned by experts at the company's factory maintaining high quality standards, fit and finish using precision equipment and genuine spare parts to maintain OE specifications. Besides, these reconditioned parts are tested to meet the stringent quality norms ensuring trouble-free operations. The company's easy exchange norms and pan India warranty makes reconditioned aggregates an attractive buy and value-for-money for vehicle users. 🚛





# Cleaner, Cheaper Diesel by Local Engineer

*Marizan Nor Basirun and his team put MOSTI funds to good use when they produced the eco-friendly Kleen Diesel.*



**A** cheaper and greener diesel alternative is finally available with Kleen Diesel, a water-diesel emulsion product newly launched by Malaysian company MN Fuel Solutions Sdn Bhd.

After eight years of intense research and development, Managing Director Marizan Nor Basirun said they were the first in the country to

have successfully developed clean diesel, which significantly reduces black smoke and pollution even when compared to diesel commonly found in the market.

“It is also cheaper than regular diesel products by five cents a litre,” he told Asian Trucker at the launch ceremony recently. Marizan, who is also an engineer, spearheaded the project due to air pollution, which is primarily caused by the transportation industry.

“Many studies have shown that NOx (nitrogen oxides) and particulate matters produced by vehicles have caused deaths especially among little children and the elderly.

“Based on my readings, I was aware that a water-diesel emulsion is effective in cutting down pollution, which has already been practiced in Europe for a long time,” he said.

Marizan had enquired for the European formulation but the cost was too high so he decided to do the research himself, which he described as “very systematic and thorough.” His research was funded by the Ministry Of Science Technology & Innovation (MOSTI). He had also contacted local universities that were also doing the same research but did not get much help as they were also struggling with it.

He said there were two issues in the research. They needed a blending facility, which Marizan and his team managed to build. They studied extensively until they narrowed down the right water-diesel percentage. Getting the right percentage of the mix was the second issue, which the team managed to achieve by having their own blending facility.

Producing a stable water-diesel emulsion was a challenge, because without stability, the water and diesel will separate.

The European standard (CENCWA 15145) is Marizan's benchmark. It requires the product to remain unseparated for at least three months but Marizan said his products have lasted one to two years without separation.

MN Fuel Solutions ran tests of Kleen Diesel through field trials with Tiong Nam lorries for three months. They tested the W5, W10 and W15 formulas and found that W10 was the best for internal combustion engine. It showed optimum performance with no black smoke and without compromise on power and mileage.

The challenge of putting Kleen Diesel out in the market, Marizan said, was that Malaysians are generally averse to local technology, but he was confident that acceptance among Malaysians is slow but sure.

"The Malaysian transportation industry consumes 12 billion litres of diesel a year. If we can get five percent of the market, it is already a huge success. Some companies do see our potential with the W10 and some have requested that we develop W20 for them (for fogging)," he said.

MN Fuel Solutions' target markets include the transportation industry, burner-related industry like crematoriums and factories and local authorities.

"Many factories and crematoriums find it hard to comply to environmental requirements while as for local authorities, they would be interested in the W20 for fogging, which uses either water or diesel-based materials however many opt for diesel as it is more efficient than water fogging. This is where W20 comes in as it is cleaner, but performs 100 percent the same as diesel," Marizan commented.



To market Kleen Diesel, he added, blending facilities are needed all over the country and this needs a lot of funds. He hopes to partner with big companies who care about the environment.

"Fleet companies with their own yards can even have a blending facility in their yards as the blending facility is only the size of a 20-ft cabin. We can train their staff on how to man the facility on their own," Marizan said. One blending facility produces 25 000 litres of clean diesel a day.

Another advantage of Kleen Diesel is that it works on both Euro 2 and Euro 5 engines. In fact, according to Marizan, it offers a better solution than Euro 5 Diesel. Consumers can also use Kleen Diesel interchangeably with regular diesel without having to modify the engines.

At the launch ceremony, Malaysian Technology Development Corporation (MTDC) Chief Executive Officer Dato' Norhalim Yunos said it was good to see funds given maturing into new technology.

"It is very important to have a product that can be utilised in many sectors like transportation, production and fogging. We need more people like Marizan who are willing to take risks," he said in his speech. ■





SCANIA



## An update from Scania's CEO

*Henrik Henriksson sees Asia as powerhouse and Malaysia's potential with biofuels.*

Scania Group President and Chief Executive Officer, Henrik Henriksson, was in town recently to talk to reporters about Scania's drive for customer profitability through sustainable transport solutions.

Besides sustainability, at the press conference Henriksson, with Scania Group Executive Vice President and Head of Sales and Marketing, Christian Levin and Managing Director for Scania Southeast Asia, Marie Sjödin Enström, addressed other issues as well including their relationship with other brands in the Volkswagen group, competitions and investments.

With Volkswagen Bus and Truck, which has owned Scania since 2015, Henriksson said each brand within the group has different positioning in the market and each is strong and has strategies in different areas. Other brands in the group are MAN, Volkswagen Caminhões e Ônibus and RIO.



**Scania Group President and Chief Executive Officer, Henrik Henriksson**

"We have different positions which we design ourselves, not by the group, and by our own decisions. Scania runs like an independent company which benefits from being a part of a bigger company, the Volkswagen Trucks and Bus family where we share research and development. The Volkswagen group has many

resources, they are big on technology, which benefits Scania and our customers, and I think that is the most important thing," he said.

When it comes to competing, Henriksson added that although they are in the same big family, they hit each other hard in a healthy competition environment, which is the philosophy of the Volkswagen group.

He saw Scania as a very strong brand which ensures that it benefits from what is good from the group but at the same time preserves its independence and focuses on what is good for the customers.

### **Scania's Presence in South East Asia**

South East Asia is a very important growth area for Scania. According to Henriksson, it was already a strategic choice 20 years ago when Scania set foot in the region namely Malaysia, Thailand and Singapore.

"While we are also now looking at the Middle East and Africa, I would say that the actual powerhouse now is Asia, with the centre of gravity being Southeast Asia. We see great growth potential in Malaysia. Investments are happening here in infrastructure, and Malaysia itself is at the centre of everything," he said.

For the Asian market, the group expects an increase of 40 percent vehicle orders growth for this year, as compared with 2017 sales. The company's average Asian sales was in the range of 20 percent of its global vehicle orders.

Enström said local presence will get a boost with the opening of three service facilities for heavy vehicles in Malaysia in the coming three-year period, to further strengthen sales and services for trucks, buses and power generation engine customers.

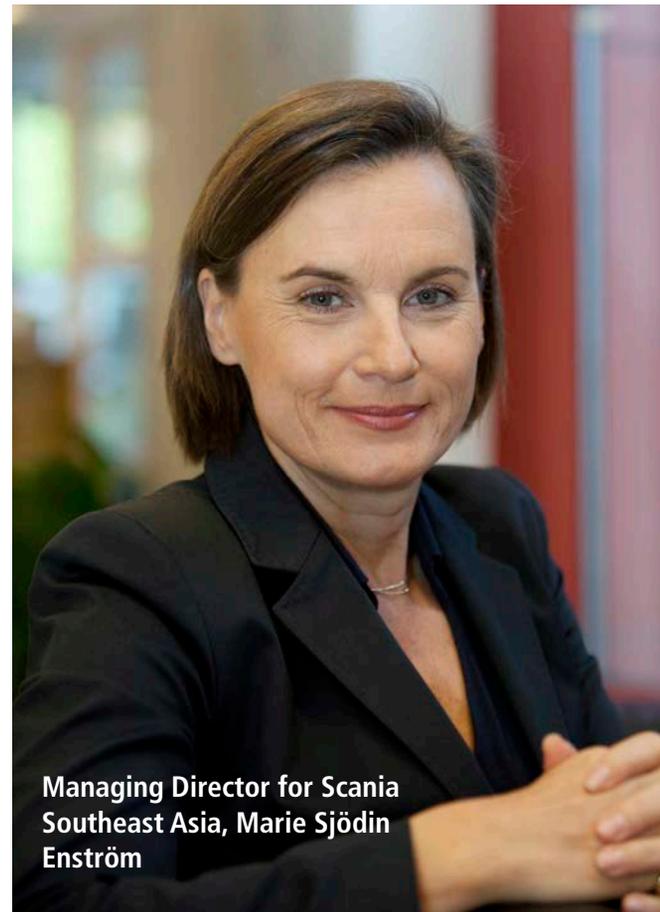
"We are very happy with the bus development and market which we are also dominating. We are getting very good feedback from customers. With the development of MRT lines happening, there will be a need for more feeder buses, so we will continue to work with the operators. Meanwhile, on the truck side, last year we had a growth of 95 percent and with the oil and gas businesses renewing their fleet, we will continue to grow," she said.

Apart from the vehicles, Henriksson added that Scania will also continue to invest in its financial services operation. "It is very important for us to be able to offer a total solution for our customers including vehicle services, financing, insurance and so on," he said.

### **Sustainability**

"Scania wants to drive the shift towards a more sustainable transport solution," Henriksson said. "We have to make sure we bring down the CO<sub>2</sub> emissions from the transport that we provide to the world."

He acknowledged Malaysia's potential and opportunity to produce and use local biofuels, both biogas and biodiesel produced from palm. "Besides shifting to biofuels, we are



**Managing Director for Scania  
Southeast Asia, Marie Sjödin  
Enström**

also working on how to bring down the fuel consumption of normal diesel through driver trainings. We can use the fleet management connection to identify which drivers need to be trained, to bring down the fuel consumption.

"At Scania, 10 years ago we could say that customers can fill up on whatever they like but now we are saying that it is not good enough. We can help you find sustainable fuel wherever you are in the world," Henriksson added.

There is also a lot of demand and pressure from the customers of Scania's customers. "Big companies these days have a sustainability agenda and they need to fulfil it and that is driving the change all over the world whether you are transporting people or goods, logging or forestry.

"You cannot run a business that is unsustainable anymore because no one will buy your products and services, or invest in you, and no one wants to work for you because the young generation will not want to work for a company that is unsustainable," Henriksson concluded.

For more on Scania's drive towards sustainability, go to [www.asiantrucker.com](http://www.asiantrucker.com). 



Original, high-quality filter from Hengst



Cheap, low-grade filter with early signs of quality issues

# Filters Look the Same, are the Same, are They?

**W**hen we ask people “what is the job of a fuel filter?”, we most likely get funny looks and a snipped answer: filtering fuel!?! – which is correct but not all. What if we said fuel filters are also the “fuse box” for the fuel injection system?

Unlike oil filters, fuel filters don’t have a bypass valve for a very important reason. The job of a fuel filter is to protect the injection system – at all costs! Once the fuel filter can no longer take contaminated fuel, it clogs up, pressure builds until it blows. The result: fuel supply can interrupt, even stopping the engine. Free flow of contaminated fuel on the other hand will severely damage the injection system and cause multi-thousand-dollar bills for injection system repair or replacement.

Injection systems can generate up to 5 000bar at the nozzle tip in passenger cars (eg. Volvo V60) and 2500bar in a modern truck common-rail system. With nozzle holes of just around 0.4mm in trucks and 0.15mm in passenger cars, there is literally very little room for particles in fuel.

Hence, filters need to meet OE specs including the right micron, the right filter media, correct collapse pressure and differential pressure. Taking short cuts here can become a quick, very expensive affair.

Filters play an important part in engines to function properly and for our own health (cabin filters and aircon filters). But how can you determine, if your acquired filter product is of good or bad quality? They all look the same. While telling them apart is not easy there some simple things you actually can do:

**Weigh them.** If your acquired filter differs vastly in weight from the genuine one, start asking questions.

**Break them:** turn them, twist them, break them and compare your results. You will find that OE filters will be a lot harder to break than cheap copies, although they look the same or even better.

**Sniff them:** This sounds odd but can reveal a lot. If the filters are the “same”, why does the scent often differ so much then? Keep in mind there are only a handful OE filter media manufacturers available worldwide.



Original Hengst Filter E82KP suitable for DAF, RENAULT. Top/bottom end plastic discs are heated up to insert the filter media into the plastic to ensure a perfect seal.

### Differential Pressure

Filter tests are important to ensure its performance and engine reliability. One of the very important processes each Hengst filter needs to go through is the Differential Pressure Test. In this test the pressure is measured before (dirty side) and behind (clean side) the filter. The gap between both is called differential pressure. If the gap is minor it may be an indication for fluid passing through too fast or even a leak. If the gap is too high, it may be an indication for the micron fibers being too small or some blockage possibly. Both scenarios are not good. Hengst has made it their task to find the best of both without jeopardising overall performance.

### Collapse Pressure

Filter tests are important to ensure its performance and engine reliability. One of the very important processes each Hengst filter needs to go through is the collapse pressure test.

In this test the filter is pressurised under simulated working conditions until it blows. The Hengst Stack-Filter for example can withstand one of the highest oil pressures measured in today's engines: 17 bar, the engine oil pressure can build up to 15 bar. All Hengst filters have a safety buffer to ensure its performance.

### Size does matter!

Which micron size is best? A question Hengst gets asked often. A common belief is that: "the smaller, the better". However, this is far-fetched. The micron size of a filter very well depends on its intended use. When it comes to the requirements for filters, the different engine oils have different viscosities and different engines have different operating pressures, service intervals, filter space, fluid flow capacity requirements to name just a few.

If the micron is too small, the filter can clog up and blow, if too large filtration is jeopardised. In both cases engines can lose performance or even be damaged.

The difficult task is to find the right filter media for right job. This also requires also a comprehensive knowledge of oil and fuel behaviours under different conditions.



To give an analogy, Hengst likes to compare this with Tea. Is every Tea the same? Each tea has different requirements in regards to water temperature, bag material and time to brew to ensure the best taste.

Hengst works with all fibers necessary to have best filtration results and our benchmark is always OE. 



### Field Test

Left: Hengst Filter E82KP D36 after a 15 000km scheduled service interval. Filter has darkened but structure and integrity of filter is still in perfect condition; ensuring proper sealing and filtration of fuel until scheduled replacement. Discoloration is a normal occurrence during the filtration process. Right: Inferior filter made in China supplied by a German brand after 15 000km. Structure and integrity is completely lost. Glue to attach plastic ends to filtration material has become brittle resulting in complete separation of both parts and causing fluid bypass. No filtration and filter/glue parts can enter the fuel system.

# Petronas Lubricants Got You Covered

*With ViscGuard, the Petronas Urania lubricant range is just about everything your commercial vehicle needs.*

**W**e have all heard it before, time and time again, of how unscheduled downtime is one of fleet owners' biggest nightmares. They are on a continuous hunt for the best solutions not only to give their fleet the best performance but better protection for their machines and also kind to the environment.

Petronas' commercial vehicle lubricants are developed to deliver superior protection to ensure reliability and optimum performance for heavy-duty diesel-powered vehicles. Commercial vehicles are often required to perform difficult tasks under extreme conditions, therefore requiring premium heavy-duty diesel engine oil formulated and developed to protect hard-working buses and ensuring the most efficient and dependable performance.

Petronas Urania is developed for outstanding diesel engine performance, formulated with advanced additive technology for total engine protection, enhanced efficiency and performance. The Petronas Urania premium range is an environmentally-friendly lubricant for on and off-highway heavy-duty applications, developed for Low-Ash technology compatible with modern emissions control devices such as Exhaust Gas Recirculation (EGR) and Diesel Particulate Filter (DPF).



Not only that, the Petronas Urania range now also comes with ViscGuard. This range of high quality engine oils are formulated to effectively guard against engine deposits build-up and maintain optimal oil viscosity for longer engine life. Petronas Urania with ViscGuard is formulated with robust oil film to effectively guard against engine's silent killers (engine deposits), preventing abrasive wear and oxidation to maintain optimal oil viscosity. The integrity of the oil is maintained all the way through to the next oil change, safeguarding the buses' most valuable asset, which is the engine.

Chief Executive Officer of Petronas Lubricants Marketing Malaysia Sdn Bhd, Anton Salleh Hashim, said: "One of business owners' biggest fears is an unplanned downtime as money and reputation are at stake. Our products, through the Lub-Edge Programme, has a direct impact on the total cost of ownership for our customers. We also ensure that our customers keep operating and meet their daily business commitment."



**The Petronas Urania with ViscGuard range:**

**1) Petronas Urania 3000 LS**

Designed to effectively guard against engine silent killers (engine deposits: soot, ash, deposits and varnish), preventing abrasive wear and oxidation to maintain optimal oil viscosity. This helps in extending engine life and reduces the total cost of ownership. The Petronas Urania 3000 LS 15W-40 is suitable for Low-SAPs and other heavy-duty diesel applications including modern, high-



output, low emission engines fitted with emission control system (DPF, SCR, DOC and EGR technology), turbocharged and naturally aspirated engines in both on and off highway applications.

Customers will benefit as the Petronas Urania 3000 LS maintains oil at optimal viscosity levels, delivering optimal lubrication to prevent unplanned breakdowns; has excellent control in deposits build-up, delivering optimum fleet's engine performance; effectively combats high concentration of soot build-up, critical to prevent loss of vehicle horsepower; has longer oil drain capability up to the highest mileages recommended by OEMs; reduces acidic levels leads to corrosion, making your fleet engines more durable and longer life; and has outstanding protection with high anti-wear properties to protect engine in severe conditions.

Low SAPS oil is suitable for Euro VI and Euro V heavy duty diesel applications including modern, high-output, low emission engines fitted with emission control systems using DPF, SCR, DOC and EGR technologies. It is also suitable for new and old turbocharged and naturally aspirated diesel engines, both on-highway and off-highway, running on low or ultra-low Sulphur diesel and bio-diesel.

Petronas Urania 3000 LS meets or exceeds the requirement of MAN M3575, Volvo VDS-4, Renault RLD-3, Cummins CES 20081, Mack EO-O Premium Plus and CAT ECF-3/ECF-2/ECF-1-a, among others.



## 2) Petronas Urania 3000

Suitable for all types of heavy duty diesel applications including modern, high-output, low emission engines fitted with emission control system using EGR technology. It is also suitable for new and old turbocharged and naturally

aspirated diesel engines, both on-highway and off-highway, running on high or ultra-low sulphur diesel and bio-diesel.

It meets or exceeds the requirement of API CI-4, ACEA E7, Global DHD-1, MAN M3275, Volvo VDS-3/VDS-2, Renault VI RLD-2/VI RLD, Cummins CES 20078/20077 and Mack EO-M Plus/EO-N, among others.



## 3) Petronas Urania 800 (Variants: Urania 800 20W-50 and Urania 800 15W-40)

The Petronas Urania 800 variants are formulated with ViscGuard to effectively guard against engine silent killers (engine deposits: soot, ash, deposits and varnish), preventing abrasive wear and oxidation to maintain optimal oil viscosity. This helps in extending engine life and reduces the total cost of ownership. Both Urania 800 variants are suitable for heavy duty diesel applications including turbocharged and naturally aspirated diesel engines, both on-highway and off-highway, running on high or ultra-low sulphur diesel.

Customers will benefit as the Petronas Urania 800 maintains oil at optimal viscosity levels, delivering optimal lubrication to prevent unplanned breakdowns; effectively combats high concentration of soot build-up, critical to prevent loss of vehicle horsepower; and reduces acidic levels leads to corrosion, making your fleet engines more durable and longer life.

It is suitable for heavy-duty diesel applications including turbocharged and naturally aspirated diesel engines, both on-highway and off-highway, running on high or ultra-low sulphur diesel, and meets or exceeds the requirement of API CF-4.



#### 4) Petronas Urania 500

The Petronas Urania 500 monograde series is formulated for older commercial vehicle diesel engines to help control against wear and control corrosion. It is suitable for older heavy-duty diesel applications including turbocharged and naturally aspirated engines in both on and off highway applications.

Customers will benefit as the Petronas Urania 500 maintains oil at optimal viscosity levels, delivering optimal lubrication to prevent unplanned breakdowns; piston cleanliness and minimising deposits build-up, protects engine from wear; helps dispersing soot, hence reduces soot-induced oil thickening; and good TBN retention effectively neutralising the acidic by-products from combustion.

It is suitable for all types of older commercial vehicle diesel applications and high-revolution turbocharged diesel engines for both on-highway and off-highway and meets or exceeds the requirement of API CF/SF.

#### Research Facility in Turin, Italy

Petronas emphasises on partnerships, which is the driving force behind its winning formula as they share knowledge, technical capabilities and expertise.

The Petronas Global Research and Technology Centre in Turin, Italy is a physical embodiment of the continued commitment in innovation in fluids technology inspired by collaboration and co-engineering with its partners. Partners include the FCA and CNHi group.

During the official launch of the centre in March this year, Petronas Vice President of Downstream Marketing and the Chairman of the Board of Directors for Petronas Lubricants International (PLI), Dato' Sri Syed Zainal Abidin Syed Mohd Tahir sealed their commitment to further research and development in fluids and lubricants that would reduce carbon emissions which is a primary concern in the industry.

“Our state-of-the-art technology centre in Turin is the heart of our research and development initiatives around the world. It plays a key role in Petronas’ growth strategy, reaching well beyond its original role as a research centre in Europe focused primarily on local needs. We will leverage on this centre to bring global expertise to serve the technological and technical requirements of Petronas lubricants’ business in Asia, Africa, Latin America, and North America.

“This will ensure that our customers worldwide have the best level of understanding, support and care that they have come to expect from industry leaders,” he said at the event.

Emphasising on the commitment to invest in technology, Petronas Lubricants International Group Managing Director and Chief Executive Officer, Giuseppe D’Arrigo announced their pledge to be the world’s leading Technology Solutions partner with a strong commitment to enable businesses to grow. Championing CO2 emissions reduction through their unique approach to technology and co-engineering came up top in their agenda. With that, they will be committing 75 percent of all future research and technology investment behind emission reducing projects. 



International Collaboration (L to R) John Zheng, Manager, MAN MRO Kinetics Automotive Services, Nelson Seah, Assistant Manager MRO, Kinetics Automotive Service, Navin Manogaran, Branch Operation Manager, Thayalan Subramaniam, Head of After Sales, MAN Truck & Bus

## At Your Service, Beyond Borders

*As if a breakdown alone isn't enough hassle, when they happen while your vehicle is in another country, things can become even more difficult. MAN however stands ready to help you, even across the border.*

In theory, the ASEAN Economic Community should make cross border movement of goods and labour easier. In reality, however, some barriers still exist. Taking goods from Malaysia into Singapore is a routine operation. When a Malaysian truck from Malaysia breaks down in Singapore though, it can get difficult.

Thayalan Subramaniam, Head of After Sales, MAN Truck & Bus (M) Sdn Bhd, is proud to report that in efforts to provide superior service, MAN Malaysia and ST Kinetics work hand in hand to assist drivers with broken down trucks. He explains that "The situation is complicated. While our customers are allowed into Singapore, we cannot send in a tow truck and have the broken truck moved back to Johor Baru, where we have a service centre. Typically, if a breakdown occurs, drivers would then call an independent workshop." While an independent workshop might be able to patch up the vehicle, non-genuine parts may be used, or the technician is not trained to work on MAN vehicles, thus carrying out repairs that may not be done right.

Thayalan also emphasised that MAN offers international warranty, which customers can rely on. "In these cases of breakdowns beyond our borders, what matters is that the client is being helped quickly. A breakdown is a stressful event. If you are being greeted by professional staff attending your issues, you will immediately feel assured that you will get back on the road quickly."

Recently, MAN was able to help some of their Malaysian customers via ST Kinetics. "When we received the call, we got in touch with ST Kinetics." The approach was simple: MAN customers should be receiving a superior service,



no matter where they are. Following this, ST Kinetics picked up the job and helped with expertise and parts to get the vehicles back on the road. Mr Chin Yong Pheng, Vice President / Kinetics Automotive Services said "If we don't deliver a consistent brand experience, how can we sustain our business? And a MAN customer is a MAN customer, no matter where their breakdowns happen. Our task is to first help such a customer and then sort things out between the various parties in the background." According to Thayalan, one issue is the cost differential between service



in Malaysia and Singapore. "We aim to satisfy the client. This means that we will have to bear additional cost in case the parts and service fees are exceeding those charged in Malaysia. Sorting that out is between MAN and ST Kinetics."

One of the issues that arise when fixing trucks on the road is the communication. Truck drivers may not be able to clearly identify or communicate the issue. Should that happen, then the service van may not be equipped with the correct or sufficient parts. Navin Manogaran, Branch Operation Manager, added "We may have the parts needed in our Johor Bahru branch, but getting them to the broken-down vehicle may not be possible as we would have to cross the border." With a stockpile of some five million Singapore Dollars' worth of spare parts, ST Kinetics is ready to handle most issues very quickly.

Echoing what MAN is preaching in Malaysia, ST Kinetics also understands itself as a one stop solution provider whereby it is not just about selling trucks but maintaining them. "While we are able to respond to any breakdown in Singapore within one hour, we cannot stress the importance of preventive and predictive maintenance enough. Any breakdown will cost money and if possible, should be avoided." ■

#### **ST Kinetics – MAN Distributor in Singapore**

In Singapore, MAN vehicles are imported and distributed by ST Kinetics, a company of ST Engineering. There are seven technicians on stand-by, helping with the services of the fleet of MAN vehicles in the island state. Four service vans can be deployed in case breakdowns happen while three are typically stationed in bus depots. Vans carry standard parts to be ready to handle the most common repairs.



## **Empowering You in the Age of Smart Nations**

i Vision specialises in customising and integrating both hardware and software solutions for the mobile, Internet of Things (IoT) and Industrial Internet of Things (IIoT) sectors. Leveraging on our expertise across multiple technological platforms, we can assist you in the IoT transformation of your systems to incorporate smart features such as user interaction platforms, data collection, analysis and protection.

### **Products**

Power your enterprise with our proven IT products with customizable and scalable features.

- \* On-time Mobile Attendance System
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- \* Customised Software Solutions and Development (Microsoft.NET, UWP, Java, Python)





# Bus Enthusiasts, Who Would Have Thought?

*There are people out there, standing around and looking at buses.*



Buses are often seen by people in general as a boring mode of transportation. In Malaysia, the common perception is that buses are for those who cannot afford their own cars or even motorcycles. Who would think it to be fun to share a seat with strangers, stand when there are not enough seats, breathe in a variety of body odours, and wait for a long time if the bus is behind schedule?

Well, bus enthusiasts would. A random check on the internet led us to a community of bus lovers, and another, and another. They are everywhere. They are like bird watchers, but with buses.

Bus enthusiasts are interested not only in the buses' designs and models, but they look into the vehicle's life including the fleet numbers it has carried with different owners and when mechanical parts or interior fittings were renewed. Like bird watchers, they stand by the roadside with notepads and cameras, monitoring bus routes.

They are intrigued in the operation of bus companies and their fleets in general. Bus enthusiasts may collect scale models which may be customised to replicate particular vehicles or entire fleets. They may also collect uniforms and paraphernalia. Also known as "bus spotters", there are clubs or societies that organise "fan charters" by chartering a bus of choice and photographing it on different parts of the chosen route. Bus outings that take in a number of depots, with photographic tours of each, are also popular.

In Singapore, the Singapore Bus Spotters Association spots every make and model of buses on the roads. They not only study the services' frequencies, areas served, and passenger loads of buses, but also play a more responsible role of sending feedback to the Land Transport Authority (LTA) and bus operators when they see things that can be improved.

The Straits Times quoted the association's president, Liu Ying Jun, 24, as saying: "We will just write in as the public and say that we are concerned about these routes and give suggestions." Association member Teo Boon Kiat said they would go out of their way to try new routes. He would make a trip to the Central Business District just to test the City Direct services run by private operators.

They would also go to scrapyards to collect bus souvenirs. Muhd Naz Farihin, 19, bought an electronic display board installed on the front of buses to show its service number and routes, for SGD300. He had it rewired so it could be powered by his laptop power adaptor. He also has licence plates and badges.

In the Philippines, there is a Facebook page called "Pinoy BUS Enthusiast" with over 5 000 followers, where they share pictures of buses they see around the cities. The pictures are accompanied with descriptions like the fleet company, the bus brand or unit, and the routes it serves. There is also a similar social media account on Instagram, simply named "Bus Enthusiast" by Indonesian fans. It features photographs of buses on the road, in the factory during building processes and bus collectibles. It is also a platform for bus lovers to sell bus souvenirs like t-shirts and phone cases carrying the designs of their favourite buses. This Instagram account has over 45 000 followers.

The buses featured in the Filipino and Indonesian social media accounts are mostly normal city buses. To the non-enthusiast, there is nothing special about those buses. If they visit the "Crazybus Thailand" Facebook page, however, they might change their perception on "boring buses." Really giving bus enthusiasts something to get excited about, the Thai bus operators go over the top in designing their fleets inside out. The exterior of these buses are mostly in striking colours and some are even spray-painted with their favourite movies or superheroes. Their interior will make you ask, "Who needs night clubs?" Neon lights and rows of speakers are just a few of their accessories.



Daryl Charles, a 19-year-old British teen who has loved buses since he was a child, explained his (and those like him) fascination towards buses to Wales Online. "There's always something to see be it new vehicles, old vehicles, or rare allocations. It's interesting to follow certain vehicles through their lives, so to speak. It's great to be able to keep track of buses and coaches as they move from operator to operator, are re-allocated and repainted," he said.

He found it fascinating how each vehicle was different from the next, whether it was the livery, interior, sound of the engine, design or branding. There are double-deckers, single deck buses, articulated buses and coaches. "There are so many variations available it's sometimes hard to keep up," he said.

Now that we know there are people standing around looking for nice bus to snap pictures of, the next time we ride in a bus, smile and give a peace sign to the stranger at the roadside with a camera. We might even give buses a deeper appreciation than just seeing them as a means of transportation. 🇸🇮



# MAARA Celebrates 10th Anniversary



On Sunday, 15th of April, the Malaysia Automotive Recycling Association (MAARA) celebrated their 10th Anniversary of the founding of the Association. "We are delighted to be celebrating this together with friends and business associates or peers from different business communities. We are also much honoured to have YB DATUK SERI DR WEE KA SIONG, Minister in the Prime Minister Department and DATO SERI PHANG AH THONG, MAI CHARIMAN as well as all associations from Overseas and around the Country for joining us for this celebration," said Mr Gwee Bok Wee, President of MAARA.

The past 10 years have been interesting for MAARA and her Members: In meetings and dialogues held with members, they have always presented their perspectives and issues in this industry. Some of the members will approach the association specifically to seek assistance for problems they encounter.

A good example for MAARA is the combined industry efforts to convince the Government to scrap the policy banning the imports of used parts a few years ago. "Our industry not only contributes to our economy, but also to the preservation of the world environment." Recycling auto parts is beneficial for the environment because it reduces the need to manufacture new parts. A lot of resources, time and effort go into the manufacture of auto parts. Moreover, the manufacturing process produces a lot of waste, smoke and pollutants. By recycling auto parts, we can contribute significantly towards reducing the pollution caused during manufacture of new automobile parts. ■

## Go-Ahead London is First to Operate Next Generation, Ultra-low Emission Hybrid Bus from ADL and BAE Systems



Alexander Dennis Limited (ADL) and BAE Systems have delivered the first 39 Enviro400H double-deck buses with Series-E hybrid technology to launch customer Go-Ahead London. Using ultra-capacitor energy storage to further reduce life cycle costs, this

next generation hybrid bus has achieved Ultra Low Emission Bus certification with 37% lower greenhouse gas emissions than conventional diesel buses.

Series-E maintains the series hybrid system architecture – proven in over 1,300 existing Enviro400H hybrid buses – in which the diesel engine only acts as generator to produce energy for the electric drive. This now utilises a lighter and more compact direct drive permanent magnet traction motor, which no longer requires a speed reducing gearbox, thereby increasing efficiency and minimising wear. An ultra-capacitor energy storage system replaces the previous generation's batteries. Designed to last the lifetime of the bus, this ultra-capacitor storage will reduce total cost of ownership by not requiring mid-life replacement. Due to this and other improvements, a 53% reduction in the cost of parts and consumables is predicted over a ten-year period.

Through its increased efficiency, the Enviro400H with Series-E hybrid technology has demonstrated best-in-class fuel economy in the LowCVP's UK Bus test cycle, with fuel consumption 6% lower than its predecessor. Tank-to-wheel CO<sub>2</sub> equivalent emissions of 684.9g/km are 37% lower than those of a conventional Euro VI diesel bus, making the Enviro400H with Series-E technology an Ultra Low Emission Bus and qualifying it for funding from the Department for Transport's ongoing £48m Ultra Low Emission Bus Scheme. ■

# Cleaner, Lighter and Lower TCO: VDL Bus & Coach Launches the Next Generation Futura

VDL Bus & Coach is launching the next generation VDL Futura, equipped with a new driveline. In doing so, VDL is taking the next step towards improved fuel economy and lower maintenance costs. For the new driveline VDL Bus & Coach has once again opted for high-quality, proven components from DAF and ZF.

The combination of the new DAF MX engines with the ZF gearboxes is quieter, more economical and contributes to further reduction of the Total Cost of Ownership (TCO). The Futura single-decker variants are equipped with the DAF MX-11 engine, available with various power ratings. The engine is paired with the ZF Traxon automated manual gearbox as standard, and the fully automatic ZF Ecolife is available as an option. The Futura double-decker is built standard with the MX-13 engine in combination with the ZF Traxon gearbox. A new option for this variant is the combination of a DAF MX-11 engine and the fully automatic ZF Ecolife gearbox. This combination is ideal for line service and regional transport as well as for providing intercity connections.

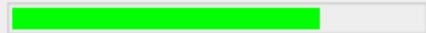
The new generation driveline has a positive impact on repair and maintenance costs. Among other things, the maintenance intervals of the MX-11 and MX-13 have been increased to 100,000 km. Mainly for high annual kilometre operation there is the possibility of an oil change interval of up to 200,000 km. The layout of the engine

compartment is arranged for greater efficiency and therefore even better accessibility. This makes performing service work even easier and faster. 

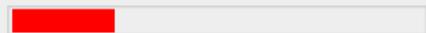
## Snap Poll

**Should Tesla also  
make Electric Buses?**

Yes - 75%



No - 25%



The voting for this poll has ended

## Heat-AX Keeps Your Bus Cool

**H**eat-AX has a product which will bring comfort to bus commuters and increased profits for the operators. Through their thermal reflective coat, Heat-AX is a simple and yet effective way to help bus operators bring down fuel consumption from running AC units - resulting in improved profits to the operators. The savings are estimated to be around 10 to 15% by the company.

According to Heat-AX, one would simply apply Heat-AX reflective coat onto the rooftop of the bus. Heat-AX's insulating feature will minimise heat from the sun entering the bus, thus reducing the load on the air conditioner compressor.

The benefits from the simple application of Heat-AX are:

- Saves money thus higher profits
- Provides comfort for drivers and commuters
- A simple one time investment which reaps long term savings 



# Continental Presents ContiConnect™ Digital Tire Monitoring Platform with Unique Sensor



The 147-year-old premium tyre manufacturer has created an efficient solution for remote tire monitoring, allowing fleet managers to see tyre pressure and temperature data for the entire fleet in a single web portal, every time trucks return to the fleet yard. With ContiConnect, fleets are able to maximise efficiency with routine tyre maintenance and effectively improve up-time of their vehicles. Conti Connect was launched in Malaysia on April 10th, 2018 in front of a crowd of fleet owners and media.

This intelligent solution was developed with the key objective of lowering overall driving costs for commercial vehicle fleets. The intelligent sensor will also be able to evolve as Continental continues its pursuit in bringing its customers more value in total tyre management.

ContiConnect helps fleets lower their costs and increase uptime in multiple ways: saving maintenance time, protecting tyres from long-term damage, reducing tyre-related breakdowns and tyre wear, and improving fuel efficiency and improving safety for all road users. Identifying and resolving tire issues immediately upon return to the fleet yard helps protect the tyre from long-term damage, ensuring maximum removal miles and improved casing retreadability. Continental's tyre sensors can identify creeping air loss, one of the major causes of tyre failure, before it would typically be noticed in a pre- or post-trip inspection, helping to reduce tyre-related breakdowns on the road. In addition, verifying proper tire inflation guarantees the highest possible fuel efficiency to save fuel costs, reduces tire wear for long tyre life, and helps to prevent tire blowouts for optimal safety. Tyres are considered a important reoccurring cost for commercial fleets; with ContiConnect, fleets can ensure maximum profitability with the lowest overall driving cost. ■

## Over 4,400 HIGER Buses Cheer for FIFA World Cup Russia

On June 14, 2018, the FIFA World Cup, held every four years, opened at Luzhniki Stadium, Moscow, capital of Russia. As a Chinese bus brand with the largest market holdings in Russia, HIGER carrying the passion and dream of fans from across the world presented a beautiful view during the World Cup. It appeared in the 11 host cities, including Moscow, Saint Petersburg, Kazan, Sochi, Rostov-on-Don and Volgograd.

As a renowned Chinese bus brand, HIGER entered the Russian market in 2005, has so far exported more than 4,400 fine buses to Russia, covering over 10

models including 9m-12m coaches and double-decker buses. They mainly serve urban public transport, tourist transport, rental and other fields. HIGER has established 38 service stations in Russian cities including Moscow, Kazan, Saint Petersburg, Samara, Rostov and Sochi, to ensure timely service response, thus being highly recognized by customers for its stable and reliable products, as well as efficient and considerate services.

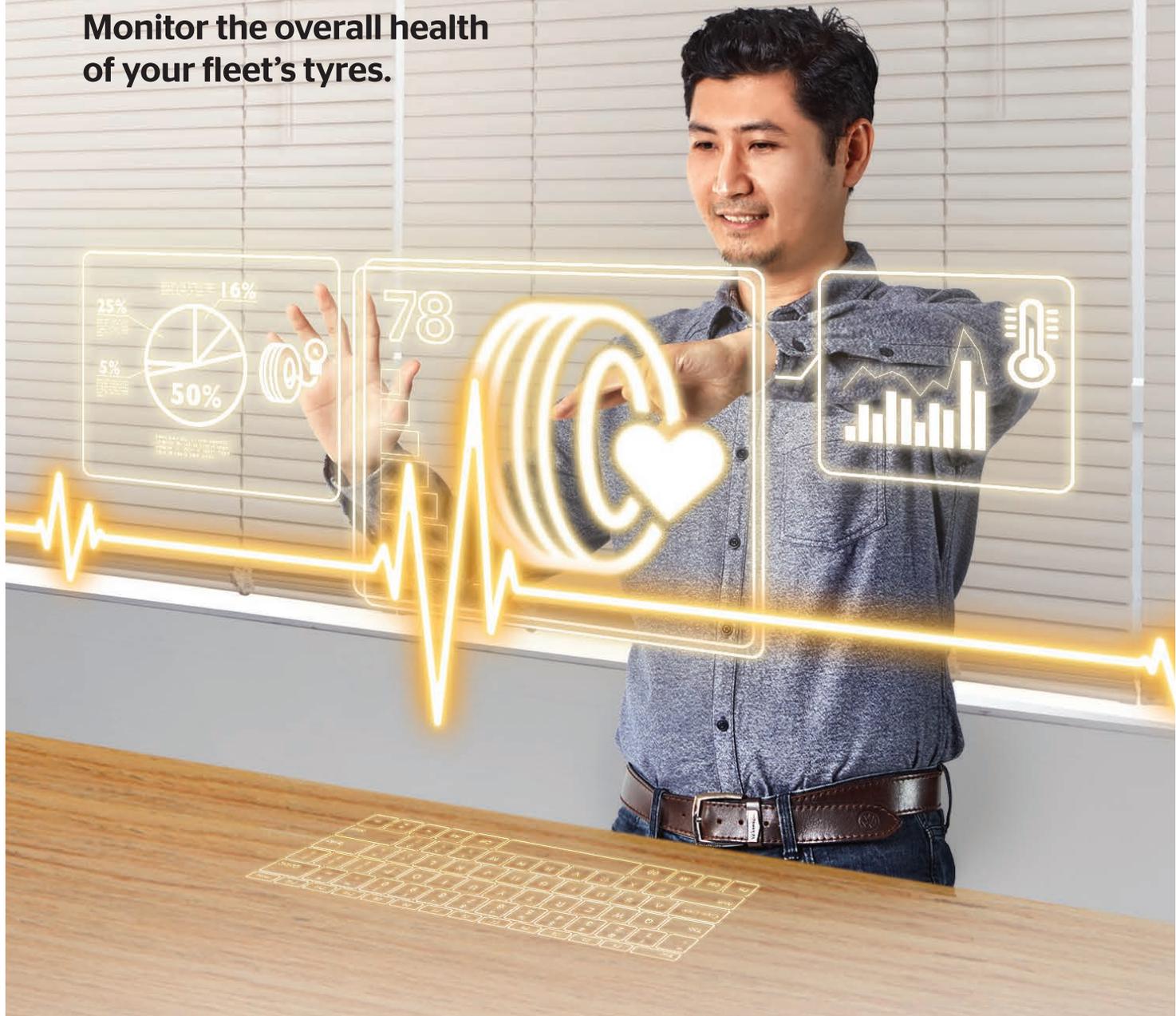
In March 2006, HIGER made over 100 improvements to 10 models to meet the needs of the Russian market, successfully passed



a Russian certification and got an order for over 200 units in the year. Meanwhile, HIGER sent service teams to Russia to provide long-term after-sales service training and follow-up service, thereby ensuring the normal operations of its coaches in Russia. This move earned HIGER a good reputation in Russia and laid a solid foundation for HIGER to become the sales champion in Russia.

China National Exhibition 2007 in Moscow took place from March 26 to 29, 2007. During the exhibition, HIGER signed an agreement on exporting 1,000 buses to Russia, which was China's bus order from Russia. Wu Yi, then Vice Premier of the State Council of China and Dmitry Anatolyevich Medvedev, then First Deputy Prime Minister of Russia attended the signing ceremony. In the same year, HIGER got an order for 300 buses from Kazan. ■

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