

ISSUE 36 Q4, 2023
RM8.00

ASIAN BUSES

www.asianbuses.com



COVER STORY

Putting the Infrastructure into Electric Fleets

ASSOCIATE IT

What Needs to be Fixed: PMBOA Highlights Issues

ISSN 2289-8921



9 772289 892003
KDN PP18692/03/2015 (034159)

SOUTH EAST ASIA'S **LARGEST COMMERCIAL** VEHICLE EXHIBITION

09 - 11 May 2024

Apply for a booth now to avoid disappointment!

Contact us via *info@asiantrucker.com*

+60 12 207 2344



Organised by

**ASIAN
TRUCKER**

Asian Trucker Exhibition Sdn Bhd
No. 27-1, Block C, Zenith Corporate Park, Jalan SS7/26
Kelana Jaya, 47301 Selangor, Malaysia
Email: info@asiantrucker.com Web: www.mcve.com.my

MINES International Exhibition & Convention Centre (MIECC) Sri Kembangan, Selangor, Malaysia

MCVE 2024

Open for Booking: Malaysia Commercial Vehicle Exhibition will be held 9th to 11th May 2024



CONTENTS

22



08 - EDITOR'S NOTE

MARKET UPDATE

- 10 - WTS Travel & Tours Makes Space for 20 new Scania Coaches and Buses
- 12 - Diesel Technic Asia Pacific Pte. Ltd. Opens New Warehouse
- 13 - Hiroshi Takahashi Appointed as New Managing Director of Hino Motor Sales
- 14 - A Snapshot of the Filtration Market as Seen by Hengst
- 15 - Yutong New Energy Buses on World's Roads
- 16 - Isuzu Premieres BEV Flat-Floor Route Bus "ERGA EV"

CELEBRATE

- 17 - Six Awards for Vehicles from Daimler Buses

EVENTS

- 18 - MCVE 2024 Ready Again as Platform for the Industry
- 19 - Event Calender

LAUNCHES

- 20 - Scania Malaysia Rolls Out the First New Bus Generation Chassis
- 21 - MAN Malaysia Unveils New Coach Chassis with EURO V Specifications

COVER STORY

- 22 - Putting the Infrastructure into Electric Fleets

21



15





Blue.maxx

Clean fuel for your engine.



purifying our planet

Hengst Asia Pacific

25 Bukit Batok Crescent

#10-10 Elitist Singapore 658066

T +65 6818 2880

E info@hengst.de

 HengstAPAC

Hengst

FILTRATION

CONTENTS



32

FEATURE STORY

- 26 - Automechanika Shanghai 2023: A Glimpse into the Future

SPECIAL REPORT

- 28 - JK59 Transport Navigating Challenging Times

TECH TALK

- 30 - Navigating the Shift towards Electric Buses and Trucks

BUS FEATURE

- 32 - Alexander Dennis' Next-generation Electric Buses

ASSOCIATE IT

- 34 - What Needs to be Fixed: PMBOA Highlights Issues

FUTURE TRENDS

- 36 - Up Next: Mobility as a Service

SAFE ROADS

- 38 - MIROS' Collision Prevention System

HEADLIGHTS

ROADTRIP

- 40 - Bus to Hotel

News & Notes



36



40



Others



You

SCANIA REPAIR AND MAINTENANCE CONTRACT

WE SERVICE AHEAD, YOU STAY AHEAD.

If you have a **Repair and Maintenance Contract** subscription for your Scania vehicle and take it to a Scania workshop, we'll perform advanced services to keep your business ahead.

Our Repair and Maintenance Contract is designed to cover more parts of your trucks or buses compared to anyone else, and we replace more than just the specific part to ensure completeness. We provide comprehensive maintenance and repair solutions under one roof, with a transparent contract and service for your convenience. As part of our preventive efforts, we replace parts even before they are faulty. With our contract, you'll have planned downtime for maximum uptime.

Automatically earn 10,000* Scania For Good Loyalty Points when you sign up for a **Repair and Maintenance Contract** today!

Reach out to us at **+603 7845 1000**, send us an email at smyenquiries@scania.com, or visit scania.com.my to learn more about our exceptional service and our Scania For Good Loyalty Programme.



*Terms & conditions apply.

Scania (Malaysia) Sdn Bhd 20000101599 (518505-D), No.1 Jalan Tiang U8/93, Bukit Jelutong Industrial Park, 40150 Shah Alam, Selangor D.E. Malaysia

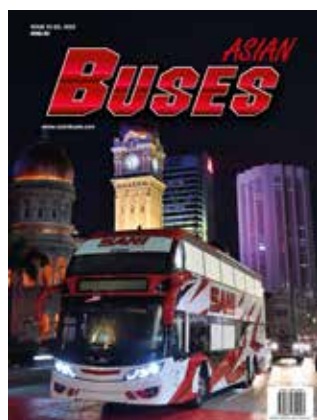
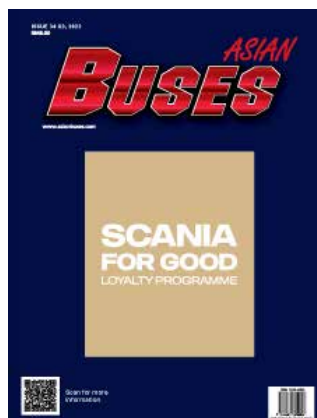
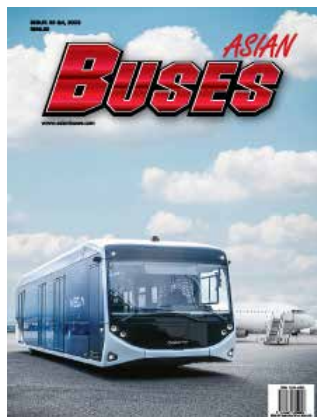
Scania pursues an active policy of product development and improvement. For this reason the company reserves the right to change specifications without prior notice. Furthermore, due to national and legal requirements, some accessories may not be available in local markets. For further information in these respects, please contact your local dealer or visit www.scania.com.my

SCANIA

The Drivers

ASIAN BUSES

YOUR GUIDE TO
ALL THINGS TRUCK



PDF versions are
available for
download at
www.asiantrucker.com

EDITORIAL

EDITOR Stefan Pertz
GRAPHIC DESIGNER Tony
PHOTOGRAPHER Stefan Pertz

CONTRIBUTORS

Dr Andrew Heng
YCP Solidiance

ADVERTISING

Nicole Fong
Nicole@asiantrucker.com

SINGAPOR

Floyd Cowan
Floyd@asiantrucker.com

THAILAND

Songyot Kamontavikun
Songyot@asiantrucker.com

ASIAN TRUCKER DRIVERS CLUB

Sponsorship / Membership
info@asiantruckerclub.com.my

CIRCULATION, CONTRIBUTIONS and SUBSCRIPTION

info@asiantrucker.com WEBSITE and E-NEWSLETTER
www.asiantrucker.com

PUBLISHED BY

Asian Trucker Media Sdn. Bhd. No. 27-1, Block C, Zenith Corporate Park,
Jalan SS7/26 Kelana Jaya, 47301 Selangor, Malaysia www.asiantrucker.com

ARTICLES

Asian Trucker is a registered trademark of Asian Trucker Media Sdn. Bhd. All articles submitted for publication become the property of the publisher. The editor reserves the right to adjust any article to confirm with the magazine format.

Asian Trucker is a bi-monthly publication. The publisher will not be responsible for any copyright violation of articles that have been approved by contributing writers. The publisher accepts no responsibility for unsolicited manuscripts, illustrations or photographs.

PRINTED IN MALAYSIA

Percetakan Osacar Sdn Bhd (Co.Registration : 63461-W)
No 16 Jalan IDA 1A, Industri Desa Aman, Kepong, 52200 Kuala Lumpur

Boost your business with a listing on our new website.

Find businesses or sell your truck, upload your events or images to the gallery.
Visit our new website www.asiantrucker.com to put your company on speed.



WHERE QUALITY COMES FIRST.

Spare parts for trucks, buses and commercial vehicles.

For more information, contact **Terus Jaya Auto**
our authorized dealer in Malaysia.

Follow us on





stefan@asianbuses.com

Events are Back!

The second half of the year has been very different from the first. From January till June, the year 2023 bobbed along at a leisurely pace. However, the second part of this year has been really hectic. Finally, events are back and there was a lot going on during the later part of the year. The Asian Buses team has been travelling extensively, locally as well as internationally. With the uptake in events, there has also been a resurgence of buses.

Many of the events I attended, heard about or seen on TV required buses. The vehicles seem not that obvious, but when thinking about it, they are really an integral part of events. Take for instance concerts, like the recent Coldplay stop on their world tour. I have it on good authority that the crew of 200 plus personnel stayed in a hotel in the heart of Kuala Lumpur. They would have been ferried to the venue by bus. Buses are typically also used to move masses of fans to and from the venues. With capacities of up to 100 passengers, each bus means less cars on the road, faster movement of people and efficient flow of crowds.

Even though we were only a small group of journalists, the organisers of the Automechanika Shanghai 2023 opted for a nicely appointed bus to take us to town for a fringe event. This was welcome as there is more space on a bus compared to a taxi. This matters when bringing equipment to an event that one must always keep within reach. Also, on a bus it is easier to move around when wanting to have a chat with a colleague. Although the exhibition hall was just a short walk away, the bus was a welcome sight at the end of the day taking us back to the hotel. At 18 000 steps a day, a bit of chauffeuring was what was needed.

In Singapore, the opening of a new hotel, using buses as the rooms, was a well-attended event. The initiative gained a lot of attention as it demonstrated how brands can take a more sustainable approach. With Scania buses being used, this is aligned with their mission and a perfect fit. Decommissioned buses are put to a new use; re-purposed to be rooms, they were stripped of the seats and hotel amenities installed in their place. Now we can take the bus to the bus hotel!

Meanwhile, the charging of electric buses are "events" that deserve some mention. We are now seeing electric buses on longer distances and when they have to stop to recharge, the rest areas need to be prepared accordingly. Not only need charging stations be in place, but also facilities to cater to the travellers that will have to bridge the time when the vehicle is being charged. A lot of thinking and planning will need to go into the facilities. So much so, that we made that our cover story where we analyse what it takes to keep buses going.

With only five months to go, I am now also getting very excited about the main event of Asian Trucker Media: the Malaysia Commercial Vehicle Exhibition 2024. Still the largest commercial vehicle exhibition in Southeast Asia, it is back with a comprehensive fringe programme. Many brands have returned, some for the sixth time, participating in all of our exhibitions. There are some newcomers, which have big plans for the show. Visitors would hopefully arrive by the busload. In our previous exhibition, we had a shuttle bus and I hope that someone will step forward to sponsor that again as we can't offer test drives on the premises.

Buses move people, so drive safe,

Stefan Pertz
Editor, Asian Buses

TAKES YOU FURTHER.

**You can always rely on MAN
Bus and Coach chassis.**

MAN Malaysia is now offering EEV* (Enhanced Environmentally Friendly) emission standard engines, giving our customers even greater choice.

Tough, reliable, flexible, versatile and sustainable. MAN Bus and Coach chassis are simply the optimum solutions for your fleet.

www.man.com.my

*exceeds Euro V standards



Scan to follow us on Facebook, Instagram or LinkedIn:





WTS Travel & Tours Makes Space for 20 new Scania Coaches and Buses

Scania Coaches and Buses – 20 New and 20 Old – Support WTS Travel & Tours' Latest Eco-Tourism Venture and Business Expansion.

WTS Travel & Tours, a local travel agency, yesterday announced 20 new Scania K-chassis coaches to support its business expansion. The handover for the fleet of coaches took place yesterday afternoon at the launch of The Bus Collective resort, the company's latest eco-tourism venture.

"Scania is keen to power WTS Travel & Tours' business growth with the delivery of these new premium coaches," said Mr Oscar Wyckman, Country Manager of Scania Singapore, who officiated at the handover. "The Scania K-chassis coaches offer excellent fuel efficiency, safety and driveability, with lower emissions, to complement WTS Travel & Tours' plans to promote eco-tourism and cross-border travel."

The new fleet of Scania K410IB4x2N high-floor coaches utilises the high-performance, reliable and durable Scania K-chassis. The highly efficient powertrain delivers fuel saving and operating economy.

For safety, the Electronic Braking System (EBS), with Anti-Lock Braking System (ABS) and traction control, comes standard with all Scania K-chassis. The new coaches will also include the Scania Retarder, which provides additional braking force and reduces the wear and tear of the disc

brake pads.

The driver area offers excellent visibility and control for further safety and driveability. At the same time, the efficient gearbox combines with a well-balanced weight distribution to provide for a smoother and more comfortable ride for passengers.

Fifteen units of WTS Travel & Tours' new coaches will be delivered in Singapore, with the remaining five in Malaysia. The fleet in Singapore comprises five 45-seater coaches, eight 28-seater coaches and two 21-seater coaches. The body-building work was fulfilled by Truckquip, a Malaysian company specialising in bus and truck body-building.

"In support of the opening of The Bus Collective, we are introducing a fleet of 20 new Scania travel coaches for the benefit of guests travelling locally to attractions as well as overland to and from Malaysia," said Mr Micker Sia, Managing Director of WTS Travel & Tours.

He added: "We have worked with Scania for over 20 years and believe in its capability to support us in providing a premium, comfortable travel experience for our guests, whether enroute to The Bus Collective or on their journey to see the many wonderful attractions of Singapore."

With the purchase of the new fleet of coaches, WTS Travel & Tours will automatically be inducted into the Scania For Good Loyalty Programme, earning Loyalty Points, which can be redeemed for Scania products and services.

The Bus Collective resort, where the handover ceremony was held, uses 20 retired Scania public buses previously operated by SBS Transit. These buses have been upcycled and repurposed as luxury suites to immerse visitors in the history and geography of Changi Village.

WTS Travel & Tours was incorporated in 1989 as a travel agency offering overseas and inbound travel services, including tours, accommodation and ground transportation. Its latest venture into The Bus Collective was made in partnership with LHN Group and Sky Win Holding. 🚐



ASIAN BUSES

SUBSCRIPTION FORM



Personal/Company details

Mr/Mrs/Mdm/Ms :

New I/C No :

Company :

Address :

Tel no (O): (HP):

Email :

☐ ASIAN BUSES

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)
No. 27-1, Block C, Zenith Corporate Park,
Jalan SS7/26 Kelana Jaya, 47301 Selangor

Tel : 03 7886 5313





Diesel Technic Asia Pacific Pte. Ltd. Opens New Warehouse

State-of-the-art facility offers various advantages



“Luck in misfortune” seems to be the motto this year for Diesel Technic Asia Pacific Pte Ltd. After an energy-sapping move, the parts supplier’s team can continue to hit the ground running. Although the not entirely voluntary relocation of the Singapore-based subsidiary initially demanded a lot of human and financial resources, it ultimately turned out to be a real stroke of luck, with all kinds of benefits for all parties.

The official opening ceremony of the new, state-of-the-art facility took place on 20 October 2023. But back to the beginnings: In April of this year, Diesel Technic Asia Pacific was informed that a move was imminent as the then current building will get demolished and so the search was on for a new, suitable warehouse and office complex. After thorough research, the choice fell on a building that was located in the immediate vicinity and fully met or even exceeded all requirements. In short: The new location for Diesel Technic Asia Pacific harbours great potential. First of all, the new site has a larger area of storage space thanks to a larger floor area and higher ceiling. In this way, it is possible to store more products. Thus, the product range is expanded and a larger number of products is quickly available for the customers on the Asian market. In general, the team can report a higher degree of efficiency as a result of the move. This is partly due to the fact that the new building has only one floor and not two as before, so there are no more cross-floor processes but time savings in relation to all processes and workflows. Moreover, a cargo lift is no longer required; instead, a ramp allows direct warehouse access. Besides, the new

site has eight dedicated own loading bays, and the shared loading bays are a thing of the past.

Furthermore, when searching for a new warehouse, it was particularly important to Diesel Technic to include the factor of environmental protection. This is why the new location is an environmentally friendly Singapore Green Mark building, which means that special attention is paid on energy efficiency.

As the location is only 200 meters away from the previous building, employees and customers continue to benefit from the convenient location.

With the strong support of the Diesel Technic Asia Pacific team and the colleagues from the German headquarter another milestone – a successful move in just six months – was achieved.

The new address of Diesel Technic Singapore is: 5B Toh Guan Road East #05-03, Singapore 608829



Hiroshi Takahashi Appointed as New Managing Director of Hino Motor Sales

Hiroshi Takahashi has been appointed as the new Managing Director of Hino Motor Sales (Malaysia) Sdn Bhd, succeeding Atsushi Uchiyama. Hiroshi Takahashi officially started his role on October 1, 2023. With two decades of experience in Vehicle Sales and After-Sales Services, Takahashi began his career at Hino Motors LTD, Japan, in 2004. During his 16-year tenure there, he has made contributions to the After-Sales Planning and New Vehicle Sales Planning departments.

In between those years, he also supported Kyushu-Hino Motors, one of Japan's largest dealers, for three years. Takahashi was responsible for operational efficiency and optimizing workshop capacity utilization when he was leading the After-Sales Service Planning team. Notably, this included making improvements in the appointment system, recruitment support, and the implementation of Kaizen (improvement) activities to enhance areas with potential for improvement. These initiatives were crucial at that time as Japanese dealers grappled with severe manpower shortages and customer maintenance appointments were limited due to full capacity.

Stepping into his new role at Hino Malaysia, Takahashi aspires to enhance existing operational practices internally and externally, with a strong emphasis on intensifying vehicle sales and after-sales efforts. These efforts are important to ensure the satisfaction and happiness of Hino's customers, dealers, and business partners for long-term success in business. In addition to the commitment to excellence, the welfare and happiness of Hino's employees are to be prioritized, as they serve as the backbone of the company. Takahashi further emphasized Hino's commitment to putting technology and innovation as integral components of their strategy to optimize operational processes. Hino Malaysia aims to ensure increased efficiency and seamless functioning, all aligned with the core mission: 'Maximize Customer Vehicle Uptime and Minimize Vehicle Lifetime Cost'.



Air Filtration Systems

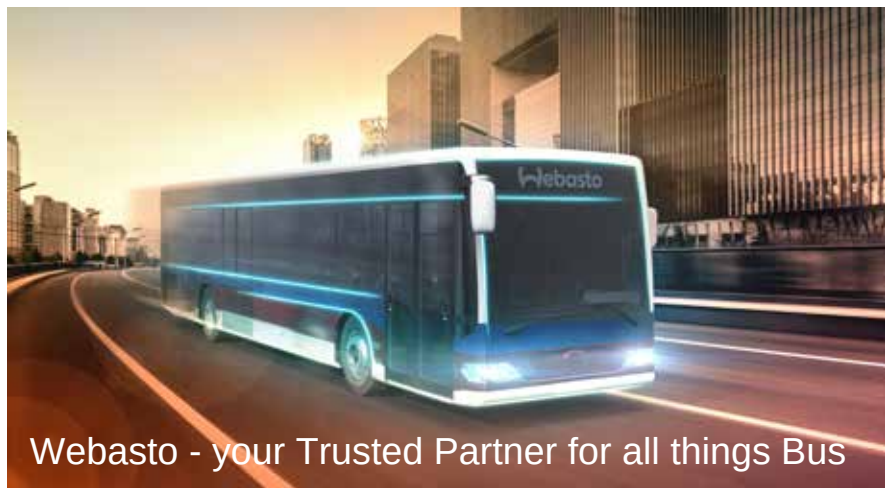
Remove 99.995% of airborne infections including Covid-19

HEPA-14 Medical grade air filtration solution can be retro-fitted to any Bus, Ambulance or mass transport system providing protection from airborne infections and contaminants. Straight forward installation, automatic filter monitoring and easy, contamination free, filter exchange.

HVAC

Webasto is your reliable solution provider when it comes to conventional & electric heating & cooling systems for your bus. All the required components come from a single source and are matched so that they complement each other perfectly.

Our extensive range of innovative heating & cooling solutions for Buses, Mini and Midibuses include rooftop systems with cooling capacity up to 36.0 kW or integrated systems ranging from 4 - 16 kW.



Webasto - your Trusted Partner for all things Bus

E-Mobility

With over 90 years of automotive expertise and a sustainable vision, Webasto has developed a modular, **plug & play, scalable battery system** perfect for a wide variety of applications. Our high-quality, high-performance and high-safety battery products enable a secure and long-term investment into a green mobility.

Webasto's Integrated thermal management system for electric vehicles, provides complete system competence integrating new technologies and components to guarantee consistent and optimum temperatures for passengers, batteries, powertrain and power electronics.





A Snapshot of the Filtration Market as Seen by Hengst

Utilising the Automechanika Shanghai as a base to gather intelligence, the event marks a pivotal point for Hengst as the market for filtration is shifting.

Filtration is a crucial aspect for commercial vehicles to keep them running. Hengst is a Tier 1 OE supplier to German car makers. Reflecting on the changes that this market has seen during and now post pandemic, speaking exclusively to Asian Trucker was Frank Maergner, Sales Director, Hengst Asia Pacific Pte Ltd, who made it his personal mission to be present during Automechanika Shanghai 2023.

The pandemic brought with it disruptions of the filtration market. While the world ground to a halt, Hengst noticed that the demand for filters in buses was drastically down while the need for filters used in passenger cars and trucks went up. "This has to do with the changed behaviour of commuters and shoppers during the lockdowns," Maergner explained. In parallel, the increase in energy and transportation cost has opened up opportunities. Brands that are offering cost savings could increase their sales. This is where Hengst's strategy paid dividends: producing locally, the brand managed to have an extremely high availability rate around 80 percent, which Maergner rates as still very good considering the circumstances. "Those that depended heavily on production sites in China faced challenges, while our factories in Europe were able to continuously produce our filtration products." Today,

Maergner says, the last supply chain issues have been resolved and part availability is back to pre-pandemic levels of over 95 percent availability.

The Automechanika Shanghai is a pivotal point for Hengst. It is the last show to attend and with production facilities in China, it is a meeting point for both, local and international distributors and dealers. Maergner noted that the exhibition has grown, as has Hengst's business in the region and the event offers a platform for networking. "We find that the personal interaction has become very important again in doing business, especially here in Asia," he stated. At the show, Hengst exhibited program extensions including CCV's



Active Crankcase Ventilation compact design bolted directly to the engine block

(Crank Case Ventilation) for passenger cars and commercial vehicles. Following the transmission filter launch in 2018, Hengst is now also offering complete oil pans with integrated filters on all products.

The highlight in 2023 for Maergner has been to see the hydraulic filtration segment of Hengst take off. Having acquired the Rexroth business from Bosch three years ago, now the effort bears fruit and the increase in order intake is encouraging. In addition, the off-highway market has shown a steady and healthy growth. Both of these are important observations as it is likely that these two segments will continue with solid growth even when fleets are now being electrified. In both cases, there aren't suitable electric solutions available to replace the common and tested ICE engines with hydraulic applications or vehicles that are running in tough environments away for infrastructure. On the topic of electrification, he pointed out that electric vehicles also require a significant number of filtration solutions. In general, fleets in Asia are still more dependent on older technology, which require traditional filtration solutions.

Discussing the market landscape, Maergner said that the Asian market continuous to grow as the filtration market is more fragmented with more, smaller players plying their trades. The growth of the market is connected to the ability of the brand to penetrate into these smaller distribution chains. Meanwhile, he is confident that the market has realised that alternative products, especially copies or counterfeit products will have a short-lived success when customers are trying to curb cost. He relayed that customers realise that cheaper parts are not able to withstand the working conditions normally found in their operations and thus, they are swiftly to switch back to premium products. "When we talk to serious fleet owners, they will typically stick with quality brands while others may opt for cheap replacement parts."

In recent years, China-made commercial vehicles have seen a surge in demand world-wide. To address the needs for filtration modules, Hengst has set up a plant in China and is servicing their truck and bus OEMs directly from within the country. Maergner opined that "There will be an increased demand for our modules as the Chinese commercial vehicle manufacturers will continue to expand their production volumes."



Yutong battery electric bus E12 in Saudi Arabia

Yutong New Energy Buses on World's Roads

Yutong new energy buses are showing strong development momentum around the world and have realized global layout. The total sales volume of new energy buses exceeds 175 000, sold to more than 100 countries and regions, accounting for more than 10 percent of the global market share.

Yutong new energy buses have won the favor of global customers with their superior performance, reliable quality and advanced technology. YEA is the first integrated software and hardware technology platform in the commercial vehicle industry built by Yutong, with its keen market insight and self-development and self-control ability of core technologies, opening a new era of "Hardware integration and Software over-the-air" for new energy commercial vehicles. Relying on Yutong's Tera-scale data support, YEA is committed to solving many tricky problems, namely insufficient driving range, low

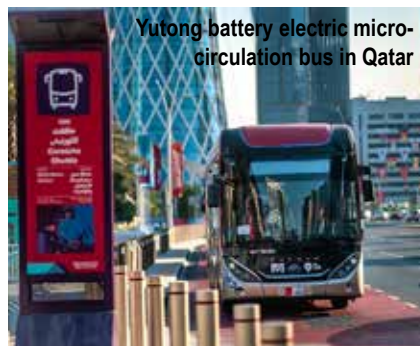
operation efficiency, insufficient power, low attendance rate, poor operation stability, lack of experience regarding the operation and management of new energy vehicles, life cycle TCO higher than fuel vehicles. Make new energy vehicles more commercial, durable and usable.

Yutong battery electric E12 provides green transport for the public in Denmark, Poland and the United Kingdom, and safe and comfortable riding experience for passengers in extremely hot environment of Saudi Arabia. ICE12 solves the problem of intercity travel for the public in France. Yutong battery electric micro-circulation buses solve the traffic problem of the last mile of the city in Qatar. Dual-powered trolleybuses provide green mobility for the public in Mexico.

Yutong continues to explore the global market and promote "Go electric, go intelligent connected, go high-end, go international". Yutong "will continue its journey to create a shining business card that represents the brand image of the bus from China!" 



Yutong battery electric bus E12 in Denmark



Yutong battery electric micro-circulation bus in Qatar



Yutong dual-powered trolleybus in Mexico



Yutong battery electric bus E12 in Poland



Isuzu Premieres BEV Flat-Floor Route Bus “ERGA EV”

Launching in FY2024 as part of company's vision for a carbon neutral world.

Isuzu Motors showcased its battery electric vehicle (BEV) flat-floor route bus, “ERGA EV,” during the Japan Mobility Show 2023. Embodying the future of public transportation, the fully flat-floor design significantly improves passenger safety and the BEV technology greatly reduces environmental impacts. The official launch of the vehicle in Japan is planned for the end of FY2024 (ending March 31, 2025).

ERGA EV is the first BEV flat-floor route bus developed by Isuzu to realize zero carbon emissions. The BEV's layout flexibility allows for the

elimination of steps at the rear of the bus, creating a fully flat-floor interior, allowing passengers to easily get on and off the bus as a conventional non-step diesel-engine bus. All seats are accessible without steps, making movement within the bus completely barrier-free. In addition, smoother acceleration and deceleration, as well as lower vibration and noise levels, maximize passenger safety and comfort. With these improvements, Isuzu aims to eliminate on board accidents, such as falls, entirely.

It has a seating capacity of up to 90 passengers and is equipped with a

variety of features to improve safety and comfort, including an automatic emergency braking system, a lane departure warning system, a unique blind spot monitoring system, adaptive cruise control, and even USB charging ports for sitting passengers.

With this vehicle, Isuzu aims to support the notion of free movement of people and goods, anytime, anywhere. As a design philosophy, vehicles made by Isuzu have to be safe, comfortable, human-centric, and convenient. The Isuzu Group looks to the future in creating an array of products and services that drive prosperity for people and society as a whole. ■



Six Awards for Vehicles from Daimler Buses

Mercedes-Benz and Setra collect awards at the Busworld trade fair for buses and touring coaches including the Grand Award and Comfort Label for eCitaro and Setra TopClass S 515 HDH awarded sustainability award from the trade journal Autobus.



Daimler Buses has won a total of six awards at the international trade fair Busworld, held from 7 to 12 October in Brussels. The specialist panel at Busworld Awards honoured the eCitaro with the “Grand Award Bus” and the “Comfort Label” awards. The Setra TopClass S 516 HDH received the “Grand Award Coach” as well as two “Coach Comfort” and “Coach Safety” label awards.

eCitaro – Emission-free with High Energy Capacity

The eCitaro with the latest generation of NMC3 battery on board is an example of the high level of development at Daimler Buses in the segment for zero-emission city buses. Third generation lithium-ion batteries introduced at the end of 2022 have a very high energy capacity and are very durable. The solo bus features three battery packs with a total capacity of 294 kWh. Thanks to its high energy capacity, the eCitaro featuring the new generation of batteries is ideal for long route cycles and subsequent mains charging at the depot.

S 516 HDH Offers Maximum Long-distance Comfort

Setra – the brand has been the epitome of premium touring coaches for over seven decades. The next generation of Setra ComfortClass stands for a versatile


touring coach concept that meets the strictest requirements in economy, safety and flexibility. Like all exclusive TopClass HDH models, the award-winning S 516 HDH takes bus tours to a new level. Maximum longdistance comfort, individual luxury and technical excellence combine to create a true travelling experience.

Sustainability Award for the Setra TopClass S 515 HDH

The Setra brand received further recognition. The Italian trade magazine Autobus awards S 515 HDH the “Sby Sustainable Bus Award 2024”. The expert panel made up of international bus/touring coach specialists presented the Setra TopClass touring coach with the sustainability award for safety, comfort, efficiency and intelligent technologies, established in 2016.

Active Drive Assist also scored high marks amongst the panel: “The semi-autonomous driving system represents a milestone in the touring coach industry and pushes the boundaries of driver assistance systems.”

Awards Underline Daimler Buses’ Claim to Leadership

For Mirko Sgodda, Head of Marketing, Sales and Customer Services at Daimler Buses, the awards received in Belgium are clear messages to the industry: “These internationally acclaimed awards raise our leadership role in both the development of electric mobility and the expansion of new safety and assistance systems.” 



MCVE 2024 Ready Again as Platform for the Industry

Returning to the previous format, Southeast Asia's largest commercial vehicle exhibition is set to be yet again the platform to enable the industry to showcase innovations and to nurture dialogue.



In anticipation of significant changes to the industry, there could be no better time to host an exhibition. Electrification is powering ahead and many commercial vehicle suppliers are readying themselves to introduce their vehicles to Malaysia. Meanwhile, the transition to battery electric or hydrogen-powered vehicles is happening with changes to the legislation. Malaysia is poised to upgrade emission norms to EURO IV standards, thus requiring a new generation of vehicles to be introduced to the market.

According to the organisers, several big name brands have already confirmed their participation in the upcoming instalment of Southeast Asia's largest commercial vehicle exhibition. Some of these have even confirmed their booth again during last year's event to ensure that they retain their spaces. A number of exhibitors are adding extras to their stand in the form of sponsorships. Returning to support the event by providing the casual meeting space is Hengst, who are again named as R & R Sponsor. Meanwhile, PETRONAS Lubricants International has significantly increased their footprint by taking up a larger space in addition to being the Official Lubricant Partner. Having utilised MCVE 2022 to boost their brand with sponsorship, MAN Truck & Bus is back again as Gold Sponsor for the upcoming show. "We are very grateful for the support our sponsors are giving us. Each sponsorship comes with a tailored package to enhance their participation. This is very encouraging for us as we see the event as more than just a display of products, but a means to enable communications on various levels with the market," Stefan Pertz, Organiser of MCVE 2024 said.

Having emerged from the pandemic, organisers are planning to revert to the previous format of the event, whereby an extensive fringe program will be designed to educate and entertain delegates and exhibitors alike. "There are many interesting ideas afloat at the moment and we are in discussions with several parties that would want to elevate their presence at the show with additional activities," Pertz added. Those planning to attend are encouraged to visit the official website frequently as

any confirmed activity will be listed as and when it is officially made a part of the program.

The sixth MCVE will be held in the Malaysia International Exhibition and Convention Centre from 9 to 11 May. While many of the spaces have already been allocated, organisers point out that there is still plenty of exhibition space available and that exhibitors will be able to customise their booths to suit their needs.



Events & Exhibitions

Taipei Smart City Summit & Expo 2024

Date : 19 – 23 March 2024

Venue : Taipei, Taiwan, Nangang Exhibition Center

Smart City Summit & Expo (SCSE) will be addressing the growing demand for sustainable development and solving urban issues, we bring the industry and public sectors together in the most comprehensive intelligent solution event in Asia-Pacific. As artificial intelligence technology develops, the applications begin to play a key role in government delivery of citizen services. Smart cities are entering a new phase of Smart City 2.0 by integrating AI as well as IoT technologies into services.

The exhibitors gathering here in the event will showcase a wide range of products and services like cutting edge information technologies services, energy management services, transportation services and many more related products and services

Tyrexpo Asia Bangkok

Date : 15 – 17 March 2024

Venue : BITEC | Bangkok International Trade & Exhibition Centre, Bangkok, Thailand

Contact : <https://www.tyrexpoasia.com/>

Meet the global tyre industry in one place. Increase sales. Beat the competition. Expand your business. Accelerate your career. More than 250 Brands: In May 2024, the international tyre industry meets in Bangkok, Thailand. Source new suppliers, see new products and expand your network all in one go.

Malaysia Commercial Vehicle Expo 2024

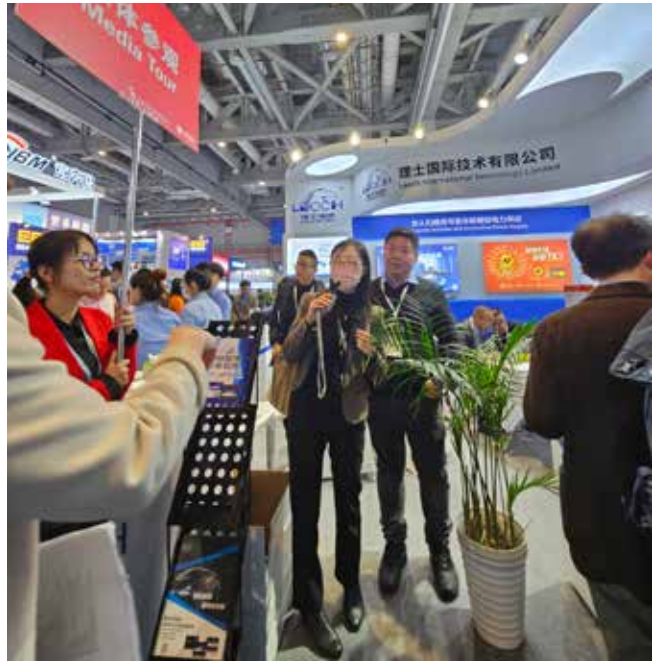
Date : 9 – 11 May 2024

Venue : Malaysia International Exhibition & Convention Centre

Contact : www.mcve.com.my

Malaysia International Exhibition & Convention Centre (MIECC) in Kuala Lumpur. Over 8 000+ square meters of exhibition space: MCVE is the largest exhibition dedicated to commercial vehicles in South-East Asia.

During the show, relevant government agencies, professional societies, and associations will join the organizer to provide updates on their products, services and the latest in trucking, bus business and public transport.



IAA Transportation

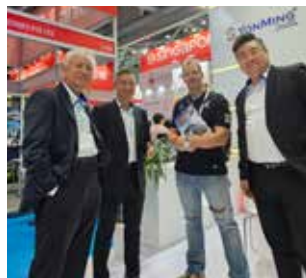
Date : 17 – 22 September 2024

Venue : Deutsche Messe, Hannover, Germany

Contact : <https://www.iaa-transportation.com/en>

The IAA TRANSPORTATION 2024, the leading international platform for logistics and transport and the most important global forum for the most important topics of the future in the industry, is devoted to the main topics of infrastructure and charging infrastructure for transport and commercial vehicles.

The event theme will be kept as per the event's motto "People and Goods on the Move" and are pleased to once again give you the opportunity to meet decision-makers and multipliers from industry, media, politics, potential customers and the entire value chain of commercial vehicles including buses, logistics, transport or infrastructure to meet.





Scania Malaysia Rolls Out the First New Bus Generation Chassis

Scania Malaysia rolled out the first New Bus Generation (NBG) chassis from Scania's Regional Product Centre (RPC) at Port Klang today. The new and improved chassis offers the best in sustainable mobility, profitability, and driver & passenger environment to fleet operators. The momentous occasion was celebrated by Scania employees and the roll-out was officiated by Heba Eltarifi, Managing Director of Scania Southeast Asia and Anand Kalaskar, Director of Regional Product Centre Malaysia & India.

Compared to previous generation, the NBG can save up to 9 percent on fuel and emissions – without compromising on performance, to provide fleet operators with the best profitability and sustainability. The NBG range of chassis, for urban transport and regional coach, also comes FAME-prepared up to Biodiesel 100 as standard.

The NBG is built to offer enhanced safety for both drivers and passengers through reinforced chassis construction at the front and rear. The chassis also comes with standard safety systems such as Electronic Braking System (EBS) with Anti-Lock Braking System (ABS) and Traction Control. Lane Departure Warning (LDW) is now included as a standard safety for all NBG chassis. Advanced Driver Assistance Systems (ADAS) features such as Blindspot Warning, Adaptive Cruise Control (ACC), Vulnerable Road User Collision Warning and Advanced Emergency Braking (AEB) can be added to provide unparalleled safety for both drivers and passengers.

The NBG is developed with driver and passenger environment in mind. The first-class driver area offers the best possible work environment in terms of ergonomics, reachability, climate control, and comfort. In addition to that, excellent visibility for the driver, an overall well-balanced vehicle, a powerful and reliable powertrain, and great turning radius, makes for outstanding drivability. A comfortable passenger experience is achieved through a forgiving suspension, an efficient gearbox with smooth transmission, powerful engines, and a well-balanced weight distribution. Additionally, the efficient climate system, low noise and high-quality environment, excellent drivability, and our driver services contribute further to improved passenger comfort.

Scania's range of Total Solutions offerings continues to help fleet operators maximise their profitability and sustainability. Every purchase of a Scania NBG chassis comes with 2-year Maintenance. Fleet operators who sign up for a Repair and Maintenance Contract will get Scania's comprehensive maintenance and repair solutions, with a transparent contract and service at their convenience. Scania's Repair and Maintenance Contract is designed to cover more parts of their buses or coaches compared to anyone else, and we replace more than just the specific part to ensure completeness. As part of Scania's preventive efforts, we proactively recommend the replacement of certain components before they reach their end-of-

life so fleet operators can have planned downtime for maximum uptime.

All NBG comes with 10-years of Scania Fleet Management Monitoring Package for operators to monitor the operational efficiency of their fleet. When operators include Driver Training & Coaching for their drivers, it can provide a significant impact on the reduction of fuel consumption and CO2 emissions by up to 10 percent. Fleet operators who purchase a bus or coach with a Scania NBG chassis will automatically be inducted into Scania For Good Loyalty Programme and earn 5 000 Loyalty Points. Signing up for a Repair and Maintenance contract will further earn them 10 000 Loyalty Points. Fleet operators can utilise their Loyalty Points to redeem for more Scania products and services, giving them increased profitability and sustainability for their business. "The New Bus Generation roll-out not only signifies a new level of sustainable mobility, it also signifies the continuous drive by the Scania team to support our customers in their shift towards a sustainable transport system," said Heba. 🇸🇬





MAN Malaysia Unveils New Coach Chassis with EURO V Specifications

MAN Truck & Bus (M) Sdn Bhd (MAN Malaysia), the first vehicle manufacturer in Malaysia to offer EURO V engines as standard across its entire Truck range, has once again demonstrated its leadership in sustainable transport solutions by unveiling its new EURO V specifications coach chassis.

The new MAN RR5 Coach chassis with low-emission EURO V engine was showcased to more than 60 guests comprising some of the biggest bus service operators and bodybuilders in the country at the 2023 edition of MAN BAGUS, an annual gathering for key players from the bus industry.

Tom Kuiphuis, Head of Bus for Australasia & Greater China/Focus Malaysia, MAN Malaysia said that the fuel-efficient and proven MAN RR5 Coach chassis with EURO V specifications was the ideal solution for bus operators who were currently grappling with rising operating costs and fares.

“Our B100-ready MAN RR5 Coach chassis with EURO V specifications with its proven fuel efficiency, performance and reliability can lower total cost of ownership whilst assisting bus operators meet increasingly stringent emission regulations,” he said.

With the transport industry being one of the biggest contributors of greenhouse gases, Tom pointed out by simply switching from EURO III to EURO V, the emission of particle mass can be reduced by 80% and nitrogen oxide (NOx) by 60 percent.



At the event, MAN Malaysia also presented the model year 2024 MAN RR5 Coach Chassis with many upgraded features. New features included a brand new multi-functional steering wheel, 12-inch high-definition driver's display with 3D graphics, chassis with mid-frame and 400-litre fuel tank and a whole suite of the latest ADAS (advanced driver assistance systems).

MAN Malaysia Managing Director Andrew O'Brooks said that moving forward, the EURO V engine will be standard across the entire MAN Bus and Coach chassis range. He also reaffirmed the company's commitment to deliver the best possible after-sales support to its customers through strategic network expansions, enhancing its pool of technicians and renewal of its fleet of MAN Service Mobile vehicles. 🚩



Putting the Infrastructure into Electric Fleets

Going hand in hand, electric trucks require a new type of workshop and yard. ABB E-Mobility shares insights on what it takes to prepare operations for the electrification of fleets.



With the advent of electric drivetrain solutions comes the need to also have a network of charging stations. Similarly, to the common petrol stations, these need to have sufficient coverage throughout a country to ensure that fleets have access to the energy to keep them going. To find out what it takes to put the infrastructure for electric commercial vehicles in place, Asian Trucker spoke to ABB E-Mobility. ABB E-Mobility is a global leader in electric vehicle charging solutions, with the highest uptime and largest installed base of DC fast chargers in the market. Our vertically integrated offering includes the widest portfolio of AC and DC charging hardware, a range of digital services and advanced energy and fleet management solutions. Using critical cloud-based connectivity, ABB E-Mobility can provide 24/7 remote monitoring and diagnostics.

With more than 13 years of experience in DC fast charging we have an unparalleled reach with sales of more than one million electric vehicle chargers across more than 85 markets, over 50 000 DC fast chargers and more than one million AC chargers.

Before any such charging infrastructure can be installed, it needs to be developed to meet the marketing needs. The starting point is the question about what does it take to develop the charging infrastructure for trucks? Lee Jin Lee, Asia-Pacific Region Lead explained that the process, encompassing R&D, product development, as well as testing and validation of the solutions, may span a timeframe of approximately two years. Electric vehicles are fundamentally different from ICE-powered ones, and this is reflected in how different a E-Truck workshop and yards from the traditional ones for instance.

Besides the workshop being different, Fleet Management Solutions will be different. ABB E-Mobility have the possibility to bring a transformative element with its remote diagnostic capabilities for EV chargers, supporting better operational planning. Additionally, the company also introduced sequential overnight charging solution, redefining traditional approaches. This shift also



prompts a holistic review of energy infrastructure, integrating considerations for grid capacity with solar and battery energy storage system – an aspect often neglected in conventional depots.

As ABB E-Mobility is not the only supplier of charging infrastructure one should also analyse the offerings from the other players as there are significant differences in the quality and performance of chargers. “Several low-cost competitors have entered the market with their charging hardware. However, the reliability and after-sales service of these offerings are yet to be proven. In mission-critical operations, uptime is paramount,” Lee pointed out. The market features numerous players from the European Union and China, making it challenging for fleet operators to discern the extent of serious contenders, with only a handful standing out.

Many transporters wonder if they need twice the space for now in their yards. Lee said “No, not exactly. Our system features a split design with an overhead cable management system designed to maximise space efficiency. The power cabinets can be situated up to 100 meters away from the dispensing guns, with each cabinet strategically mapped to serve four dispensing guns.”

The optimal solution varies based on factors such as the battery size of the truck fleet, fleet size, operational schedule, grid capacity, and the power output of the chargers. These factors need thorough examination in relation to the grid capacity. It’s important to note that there is no one-size-fits-all standard solution.”

In order for workshops to prepare for the electrification of truck and bus fleets, there are several considerations. Implementing a successful E-truck/bus fleet management strategy requires a nuanced understanding of the fleet’s model and make, tailoring solutions to specific needs. Simultaneously, ensuring grid capacity and establishing an organized operational schedule are crucial for seamless



integration and efficiency. Equally significant is assessing scalability for future growth, creating a comprehensive and adaptable system. Lee believes that this approach would position for both current success and future growth in E-truck/bus fleet management.

At a recently held exhibition focused on electrification of transportation, Tengku Datuk Seri Zafrul Abdul Aziz, Malaysia's Investment, Trade and Industry Minister pointed out that there was promising adoption of EVs globally over the last few years. "The Asean EV market, which was only valued at nearly US\$500mil in 2021, is now projected to reach US\$2.7bil by 2027," he said during the launch of E-Mobility Asia (Ema) 2023 trade show. Tengku Zafrul said more progressive steps must be taken to reskill and upskill local industry players to keep up with the expected spike in demand for charging stations.

To reduce dependability on the grid and to become more sustainable, companies are increasingly installing solar panels. These can be part of an integrated solution for a workshop or yard when it comes to the overall set-up. The solar energy can be harnessed from the panels and stored on the Battery Energy Storage System, effectively mitigating grid limitations and enhancing the charging infrastructure. When specifying chargers for the depot/workshop, it's crucial to consider the fleet's battery size, the number of vehicles, and grid limitations. Tailoring the chargers to the operational schedule ensures efficient charging during peak times and downtime.

When assessing costs, it is crucial to consider various aspects such as M&E, civil works, charging infrastructure, and maintenance including spare parts. Additionally, if applicable, factoring in the costs associated with service level agreement is essential for a comprehensive financial evaluation. Although early adopters are already adding electric vehicles to their fleet, others may be reluctant. The development of BEV trucks for instance has been accelerating. One could be debating if it is better wait for now as technology will rapidly evolve and what is being added to the workshop now will be obsolete very quickly. Lee has a solution for this conundrum "In navigating the evolving realm of EVs, a symbiotic relationship between automotive OEMs and charging infrastructure emerges as a key determinant of market success. Being proactive in acquiring a comprehensive understanding of EV technology positions operators advantageously, ensuring preparedness for the widespread adoption of electric vehicles." With a product life cycle lasting a decade, this underscores the significance of staying technically adept to thrive in the dynamic landscape of the EV industry.

The lack of skilled electric vehicle (EV) workers nationally was also recently addressed Tengku Datuk Seri Zafrul Abdul Aziz, Malaysia's Investment, Trade and Industry Minister. At a recently held exhibition with focus on electrification of

transportation he pointed out that there was promising adoption of EVs globally over the last few years. However, he cautioned that, if Malaysia is to keep up with the rapidly expanding regional EV market, appropriate measures need to be taken now.

The ASEAN EV market, which was only valued at nearly US\$500mil in 2021, is now being projected to reach US\$2.7bil by 2027, he said during the launch of E-Mobility Asia (Ema) 2023 trade show.

Tengku Zafrul said more progressive steps must be taken to reskill and upskill local industry players to keep up with the expected spike in demand for charging stations.

As local bus builders are gearing up for the electrification of fleets, Asian Buses went to find out what the impending shift to a new propulsion system means for workshops and body builders. Terus Maju Services Sdn Bhd (Terus Maju Services) have already announced that they are ready to offer electric buses. At this point in time, buses using internal combustion engines (ICE) are still the most commonly demanded versions. Loo Jia Sheng, Business Development Director, Terus Maju Services Sdn Bhd told Asian Buses, "Currently we are using our own workshop, which is to fulfill the requirement to repair and manufacture electric buses."

In order to manufacture electric buses, Terus Maju Services had to invest in staffing and training. According to Loo, training is a priority for workers. Workers must have good knowledge of the





wiring diagram and safety precautions are paramount. For example, workers must understand the differences between high and low voltage cables and how to handle them. Electricity used for battery electric vehicles (BEV) has very high voltage and if mishandled can be deadly. To handle the high voltage cables, workers are required to wear electrical insulating gloves and any other factory safety equipment. Other than that, the worker needs to use high voltage multimeter devices to check the electricity prior to many procedures. This is to alert them to the potential danger and to ensure the right tools are used in the right manner. Besides that, the space must be spacious and with good air ventilation. Water and electricity being a dangerous combination, work on BEV must be performed under a roof.

It may sound obvious, however, when installing charging stations, one will need to ensure that the electric grid of the premises is sufficient. Loo also advocates the use of good quality cables. Besides the hardware, workshops and body builders would have to invest in the skills of their workers. "Yes, manufacturing electric buses requires us to focus more on computer skills. It is different from combustion engine mechanics," Loo said. To repair electric buses, one needs mechanics who are experts in electrical and wiring. "We now need technicians that are able to read the voltage multi meter device, correctly interpreting what they detect and having knowledge about cables and electrical diagrams as well." In contrast, the mechanics

working on combustion engine repair mechanical parts such as brake system, suspension system, steering system, tires and bearing by replacing components.

Loo cautioned customers to try to fix an electric bus in their own workshops. "This is a big no. their mechanics must be well trained before they fix the electric bus. It is better to leave that to experts, which are properly trained and equipped." There are fewer parts in an electric bus. Loo explained that the construction of an electric bus is easier, as there are fewer components compared to an ICE-powered bus. However, the only complexity is the wiring diagram and cables. Loo recommends that bus operators ensure that the electrical bus is being serviced periodically, although a BEV runs on fewer components and does not require frequent replacement of fluids, like engine oil, for example.

Not only the mechanics need to be trained, also the driver has to be trained to operate this new type of bus. A driver of a BEV would have to stay alert and focused while driving the electric bus as s/he has to monitor the condition of the bus. Special attention needs to be given to the battery capacity, electric motor, battery condition and road condition. A BEV currently requires more thorough journey planning to make sure the battery capacity is sufficient to operate, and when it is the right time to charge the bus. Considering the potential hazards of a BEV, drivers must know emergency evacuation procedures in case of an emergency. ■





Automechanika Shanghai 2023: A Glimpse into the Future

With a significant increase of exhibitors, the event welcomed crowds back and offered a snapshot of what the future of mobility will have in store.



From 29 November to 2 December 2023, Automechanika Shanghai opened its doors for the 18th edition, housing more than 5,300 exhibitors in over 300 000 sqm of the National Exhibition and Convention Center (Shanghai). Globally recognised as one of the most influential platforms for the automotive industry, the exhibition remains steadfast in its commitment to supporting business growth and navigating market transformation. Amongst some 60 fringe events, the debuting International Automotive Industry Conference 2023 Presented by Automechanika Shanghai, was a major highlight; it included a series of events that zero in on the developments and advancements within specific sectors.

Shifting Focus

Arriving in Shanghai, one thing is very obvious: electric vehicles are taking over. Battery Electric Vehicles are dominant in the streets of the metropolis. Citizens of Shanghai are also ditching the bicycle in favour of electric scooters. This trend is reflected in what Automechanika Shanghai 2023 had to offer with large numbers of exhibitors now shifting their attention to this new technology. As the drivetrain is changing, it is widely accepted that there are fewer components in an electric vehicle. However, at the same time, there is more complicated and sophisticated technology on board.

Conflicting Views: Clear Direction

With the rapid adaptation of electric drivetrain technology, one view expressed is that traditional mechanics might soon be finding themselves in search for a new profession. It has been argued that the way electric vehicles are being maintained will be resulting in less work for the technicians to be carried out during scheduled services. However, as became clear through the seminars and presentations held during the Automechanika Shanghai, there will be an increased need for highly trained and specialised (new) jobs. The highly sophisticated technology already found in electric vehicles will need to be serviced by specialised personnel. Having spoken to Olaf Mußhoff, Director Automechanika at Messe Frankfurt, Asian Trucker learned that the event series is going to reflect this going forward. Speaking on behalf of the entire management team involved in Automechanika, Mußhoff relayed that upcoming events will highlight more on technology and service providers for technology than parts as an acknowledgement of the current shift in mobility.

Picking representative brands to demonstrate the current market development, a number of exhibitors stood out.

Exhibitor Focus: BASF

As a global leader in the industry, BASF is committed to delivering cutting-edge chemistry-powered solutions that drive the future of mobility. From advanced materials, fluids and coatings to sustainable technologies and solutions,



our comprehensive portfolio is designed to empower automotive manufacturers and suppliers to create the next generation of vehicles that are safer, more efficient, and more environmentally friendly. Representing BASF as Director, Business Management Formulation, Fuel and Lubricant Solutions, Performance Chemicals, Mr Krzysztof Patryk Stolarzewics spoke to Asian Trucker about their offering as shown at Automechanika Shanghai.

"We are addressing the needs for coolants, brake fluids and coolants. Especially when it comes to electric vehicles, coolants are highly important and that is what we showcase here at the show," he said. With the boom of this drivetrain technology, BASF has also recognised that there needs to be a new type of coolants that is suitable for BEV. Stolarzewics explained that a key aspect of coolants for BEV is that they need to be of low conductivity. In fact, as he demonstrated, there is an increased need for coolants for BEV, contrary to the common believe that BEV will do without fluids altogether. Systems are bigger and there are more components requiring specialised fluids present in BEV.

The fluids on board a BEV itself also need to be engineered to specific needs. Especially when it comes to the batteries, the quality of fluids used in and around it can impact the longevity of the battery pack and the capacity of it. A direct connection can be established between the fluids and the performance of the BEV. "It can be noted that the Chinese brands related to BEV have made big strides forward in tandem with China booming when it comes to electrification of mobility." However, Stolarzewics is confident that German brands will remain strong as they enjoy being reputable for high quality products.

While BEV are becoming more and more popular, the ICE will remain a mainstay of the transport industry. Here, BASF is offering fuel additive to enhance the performance of heavy-duty trucks. "This is required as in many countries in the Asian continent the Diesel quality is not of a quality as needed for modern engines." Echoing others, he also opined that many applications may not be suitable for electrification and that therefore we will still need Diesel and additives for a long time.

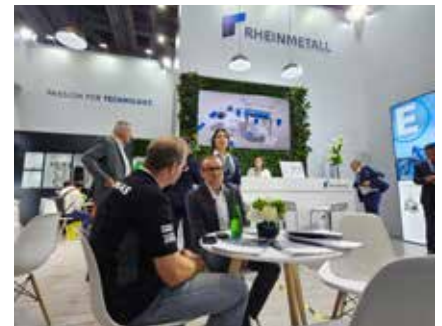
With autonomous vehicles on the horizon, fluids are slipping into the limelight. Being able to transmit impulses faster than copper, they are better suited to be used where fast reactions are needed. Corrosion protection is another aspect that BASF is placing emphasis on as the ability to protect the systems from corrosion and thus failure is critical. Although Stolarzewics admitted that such technology may not be available for all types of vehicles, it is one area that has tremendous potential.

Exhibitor Focus: Rheinmetall

Presenting a new brand structure, Rheinmetall was well positioned in the Automechanika Shanghai to promote the individual pillars of the business, namely Rheinmetall, Pierburg and Kolbenschmidt. Dr Oliver Lazar, Managing Director MS Motorservice Trading (Asia) Pte. Ltd met with Asian Trucker to explain how the separation of the piston business, under the Kolbenschmidt brand, is supporting the overall direction of Rheinmetall in view of electrifying mobility. "Within the Rheinmetall conglomerate, we are now positioned in the material and trade division. This

allows us to better push for technology development for example for new propulsion technology."

With the push for electrification, it may be the dawn of the piston for combustion engines. "Therefore, we are splitting off the piston business. Pistons will still remain an important item for the aftermarket however." Exhibitions, like Automechanika Shanghai, play an important role for Rheinmetall as these platforms allow for an effective and coherent way to communicate with the market. In particular, Lazar was happy to have physical events again after the pandemic as nurturing business relationships is crucial and there is no better way than having a look and feel. "We are glad that we can have events again as these are the occasions where we meet our partners from all over the world, not just one market." 📸



Automechanika Shanghai 2023 hailed as a resounding success with a 16 percent increase in visitor numbers breaking all-time record

The 18th edition of Automechanika Shanghai, which took place from 29 November to 2 December 2023, recorded an overwhelming surge of participation in its return to the host city. Attendees praised the show's emphasis on innovation, not just in terms of breakthrough developments, but also upgrades to traditional solutions, which have an ongoing foothold in the market.

- Onsite visitors: 185,284 from 177 countries and regions
- Exhibitors: 5,652 from 41 countries and regions
- 16 country and region pavilions
- Scale: over 300 000 sqm
- 77 fringe events

JK59 Transport Navigating Challenging Times



JK59 Transport's Director, Victor Jiang, shares insights delving into the business's rich history and addressing current issues.



A glance at the country map reveals Victor's strategic emphasis on Jurong Island, showcasing unique business strategies that maximise bus utilization while minimising travel distances. JK59 Transport extends its services beyond corporate clientele to schools and offers ad hoc rentals with drivers included, showcasing flexibility in meeting diverse transportation needs.

Reflecting on the company's growth, Victor emphasizes the meticulous approach to optimization, focusing on the western region of Singapore and Jurong Island. "Fuel was my largest operational cost, and creating efficient travel routes was my top priority," Jiang explains. This, he adds, could only be achieved with the help of strong partners supportive of his approach. One such partner is Volvo Buses. "When you purchase a bus, it is not just a chassis, there is a lot more that comes with it and we have been depending on the insights from Volvo to assist us in making the right choices."

Jiang's bus fleet selection process involves critical considerations, including passenger comfort, fuel economy, and after-sales service. Volvo stands out as one of the top brands, as their 8-liter engine enhances fuel efficiency. Recently Victor has been buying Volvo – all Euro VI because they are very fuel efficient, and their resale value is very good. The missions handled by JK59 Transport typically involve inner city, short distances where operating vehicles in the most efficient rev range is challenging; therefore, engine management plays a significant role in how Jiang utilises the Volvo buses.

Jiang expressed that he is feeling uncertain about the number of new busses he will acquire next year, attributing it to the declining trend in transportation needs that he is witnessing. The company is presently prioritising the resumption of services for projects paused during the pandemic.

With the Volvo buses, Jiang also has peace of mind when it comes to safety. "Safety has been a big concern for many years and now we are about as far as we can go. I am sure there will be more developments, but they will be incremental." As Volvo's chassis are equipped with the latest safety technology, Jiang is sure to have the best possible package to address the needs of moving people safely.

With over 40 years of experience in the trade, Mr Victor Jiang, JK59 Transport's Director, brings seasoned expertise to the complexities of the industry. In 2007, he assumed official leadership when his elder brother, Sherwin, chose to step back from day-to-day operations. Sherwin's modest start with a single midsize bus has burgeoned into a fleet of 60, supported by an 80-strong workforce. The team comprises 50 drivers, 20 bus attendants, and 10 office staff at their headquarters in Lorong Kilat, Singapore.



And now we get back to the present. "Fifteen years ago," he says, "the once strong ability to foresee the future has diminished. Currently, navigating the future is challenging due to numerous uncertainties and unanswered questions." Jiang has realised that strategic planning has been hampered somewhat as the implications of global disruptions are more severe on a local level. In order to minimise uncertainty, he again turns to Volvo buses. "The brand has been here for a long time, which means that they are not going to abandon clients here if things get a bit rough." He added that there are a number of new entrants to the market, however, he believes that the Swedish marque has in place the systems and operation to support Singaporean clients through thick and thin. The trust in the brand is reflected in the re-sale value, as Jiang pointed out.



Just before the year comes to an end, JK59 Transport received another Volvo B8R coach to be added to their impressive fleet. "We're truly honoured to be the continuous preferred choice of JK59. A returning customer is the best affirmation that you're on the right track. We appreciate the trust JK59 places in us, and we're committed to delivering excellence every step of the way," said Mr Achuth Das, Country Manager, Volvo Group Singapore Pte Ltd. He told Asian Trucker that his team is excited about the continued journey of success and reliability with JK59 Transport.

Navigating through industry upheavals over the years, Victor acknowledges the present uncertainty, contrasting it with earlier periods of more predictable business prospects. However, he remains unfazed, quoting from Kung Fu Panda: "Your mind is like water. When agitated, it becomes difficult to see. But if you allow it to settle, the answer becomes clear." Victor patiently awaits the settling of the situation, prepared for any eventualities that may arise. ■



Navigating the Shift towards Electric Buses and Trucks

Addressing Key Concerns with HELLA's Innovative Solutions

By: Dr. Andrew Heng (Head of Asia Pacific Marketing) and Albert Susanto (Head of Special Application)

On one hand, the rapid adoption of EVs in the passenger car segment in Malaysia is driven by a number of factors, including government incentives, environmental concerns, and the increasing availability of EV models. As of 2023, the EV adoption rate in Malaysia has reached one percent of total vehicle sales, which is not too far compared to a global average of 6 percent.

On the other hand, the adoption of EVs in buses and trucks is still in its early stages in Malaysia. However, the government has set ambitious targets for EV penetration in these sectors, with the aim of having 60 percent of all new buses and 30 percent of all new trucks powered by electricity by 2030.

The Passenger Car EV Revolution and its Implications for Buses and Trucks

The rapid adoption of electric vehicles (EVs) in the passenger car segment is poised to have a significant impact on the bus and truck industry. As electric mobility gains traction, bus and truck operators are facing a series of challenges that need to be addressed to ensure a smooth transition to this sustainable and efficient technology.

1. Range anxiety: The limited range of EVs is a major concern for bus and truck operators, particularly in long-haul applications. HELLA addresses this challenge by offering a range of intelligent lighting systems that effectively reduce energy consumption without compromising illumination. These systems utilize high-efficiency LED technology and advanced lighting control systems to optimize energy usage, maximizing the vehicle's range and extending its operational capabilities. Additionally, HELLA's expertise in smart charging solutions can help operators efficiently recharge EVs during downtime, providing a seamless and convenient charging experience that minimizes range anxiety and maximizes operational efficiency.

2. Weight optimization: Weight plays a crucial role in the performance and efficiency of EVs. Every kilogram shaved off the vehicle's weight translates into improved fuel economy and range. However, heavy batteries can significantly impact the weight of EVs, particularly in buses and trucks. To address this concern, HELLA Shapeline lighting system, is designed with weight optimization in mind. Its compact and lightweight design minimizes the overall vehicle weight, contributing to enhanced fuel efficiency and range. Additionally, the modular design of the system allows for easy replacement of individual components, further reducing weight and maintaining optimal performance without the need for extensive recalibration or system overhauls.



AVAS

Bi-LED Essential



3. Maintenance costs: The unique operating conditions of buses and trucks necessitate lighting systems that are not only efficient and durable but also easy to maintain. High maintenance costs can strain fleet budgets and reduce the overall profitability of EV operations. To overcome this concern, HELLA LEDayFlex III combination lamp and HELLA Valuefit Blade auxiliary light system, are designed to withstand the harshest environments. These systems incorporate high-quality materials, advanced sealing techniques, and corrosion-resistant coatings to ensure long-lasting performance and

resistance to dust, dirt, and extreme temperatures. Additionally, the modular design of these systems simplifies maintenance procedures, reducing downtime and minimizing maintenance costs.

4. Safety enhancements: The need for enhanced safety features becomes paramount as EVs become more prevalent. Advanced driver-assistance systems (ADAS) play a crucial role in improving driver visibility and reducing accidents. However, integrating ADAS technology into EVs can be complex and expensive. HELLA addresses this challenge by offering a suite of advanced lighting features that support the functionality of ADAS systems. These features can include dynamic brake lights, lane departure warning indicators, and adaptive brake lights that illuminate in response to braking intensity, providing enhanced visibility and improving the overall safety of EVs.



Rain-Light Sensor



LEDayFlex III

A more Sustainable Approach in Reducing the Environmental Impact

As the world transitions towards a more sustainable future, the bus and truck industry is playing a crucial role in reducing the environmental impact of transportation. One of the key challenges facing the bus and truck industry is the need to reduce emissions.



ShapeLine

In the non-passenger car segment, halogen headlights are only slowly being replaced by LED variants; in bus, truck and other commercial vehicles, the market share for halogen variants is still up to 80 percent. In buses, too, only one in three headlights is equipped with LEDs. Traditional halogen headlights are a major source of emissions. This is because halogen bulbs are less efficient and have a shorter lifespan than LEDs. The emission of a HELLA LED bus headlight perform 30 percent better than those of the halogen variant. HELLA LEDs are much more efficient and require much less energy to operate, so that over the life of the luminaire only 40 kg of CO₂ are produced instead of a good 100 kg for the halogen version.

Sustainability is not just the responsibility of businesses and governments; it is also the responsibility of individuals. We can all make a difference by making small changes in our everyday lives. By working together, we can create a more sustainable future for bus and truck transportation.

Conclusion: Collaborating for a Sustainable Future

HELLA, a global leader in automotive technology and part of FORVIA, the 7th largest automotive supplier in the world, is at the forefront of providing innovative solutions to these challenges, paving the way for a future of electric buses and trucks that are not only environmentally friendly but also operationally efficient.

As the demand for sustainable and efficient transportation solutions grows, the bus and truck industry is poised for a significant transformation towards electric mobility. HELLA, with its extensive portfolio of lighting, electronics, and safety systems, is well-positioned to support this transition. HELLA's commitment to safety, sustainability, and innovation makes it a trusted partner in shaping the future of electric mobility for buses and trucks, enabling a transportation ecosystem that is both environmentally friendly and operationally efficient. With its innovative solutions and commitment to the future of mobility, HELLA is helping to pave the way for a sustainable future for the bus and truck industry. 🚗



Bi-LED SlimLine



Valuefit blade



Alexander Dennis' Next-generation Electric Buses

Alexander Dennis, launched its next generation of battery-electric buses for the UK and Ireland with the unveiling of the new Enviro100EV small bus and Enviro400EV double decker. They provide a step change in performance and are part of a wider family of next-generation zero-emission buses.

The new buses have been engineered fully in house as zero-emission vehicles from the ground up. They introduce a stunning new design language that emphasises their zero-emission credentials and allows local authorities and bus operators to make a landmark statement of their investment in a cleaner fleet.

The 11.1m-length Enviro400EV double decker is designed to shift the crowds on busy urban and interurban routes, advancing electrification options for core services across the UK and Ireland with a range of up to 260 miles.

The Enviro100EV is a highly manoeuvrable small bus just 8.5m long and 2.35m wide, while feeling like a larger vehicle and covering up to class-leading 285 miles on a single charge.

Innovation with Leading Technology Partners

Alexander Dennis has integrated the new zero-emission driveline in house, working with leading technology partners.

Voith Turbo supplies the Voith Electrical Drive System (VEDS), which has been specifically developed for the requirements of urban and interurban buses. While the Enviro100EV uses the medium-duty variant of VEDS, the heavy-duty version is employed in the Enviro400EV for gradeability and maximum reliability even at higher operating speeds.

A future-proof battery system has been developed in partnership with Impact Clean Power Technology. Using NMC lithium-ion cells, it delivers a higher total energy throughput – up to 1.4GWh in the Enviro400EV – that will allow operators to meet operational requirements with the original set of batteries for longer.

The battery packs are mounted within the chassis and rear of the vehicle as well as under the staircase of the Enviro400EV. Underfloor packs are mechanically isolated rather than directly bolted to the chassis, protecting them against external loads from twists and impacts that could cause premature failure.

If replacement batteries are needed during the operational life of a vehicle, they will benefit from advances in battery capabilities without the need for vehicle modifications as pack dimensions and interfaces with the vehicle are standardised. Impact is already planning a future iteration of NMC batteries for Alexander Dennis that is expected to increase range even further.



Benefits for passengers, drivers and vulnerable road users

With battery locations optimised to balance weight distribution and avoid intrusion into passenger spaces, the Enviro400EV double decker has a conventional lower saloon layout with a flat floor, improving legroom for seated passengers and increasing overall passenger capacity by up to 19 percent.

Access to the upper deck is via Alexander Dennis's proven 'squarecase' with no angled steps, which offers an optimum combination of practicality and safety. Once upstairs, passengers will enjoy the view through full depth windows as well as a new panoramic upper front glass and optional skylights. The working environment for bus drivers has also been improved with a new steering wheel, configurable dashboard display and improved heating, cooling and ventilation in the cab.

A redesigned geometry of the vehicle front provides drivers with better direct vision and protects vulnerable road

users. Combined with further measures around the vehicle including latest assistance technologies such as speed limiting technology and audible warnings, Alexander Dennis's next generation of battery-electric buses meets current and upcoming targets of Transport for London's Bus Safety Standard, for which the manufacturer has been a development partner and was recognised with a TfL Supplier Award.

Industry-leading warranty and total cost of ownership calculation

The new Enviro100EV and Enviro400EV come with an industry-leading five-year warranty as standard. Paul Davies said: "We believe that the thoughtful engineering, premium component specification and build quality should be backed up, and it will be. Our batteries have an eight-year warranty as standard, and an extension is available out to 12 years on a sensible commercial basis."

Alexander Dennis will work with authorities and operators to model their operational requirements for its next-generation electric buses through an industry-standard multi-physics simulation, estimating the useful life of their batteries on the intended routes and producing running boards covering daily temperature and battery state of health.

Sample analysis shows that thanks to its class-leading 1.4GWh energy throughput, the Enviro400EV will be able to cover two consecutive seven-year contract terms on typical Transport for London routes without a battery change, or typical provincial routes for up to 20 years with just one mid-life change of batteries.

With this route modelling and by factoring in finance options, power supply, maintenance costs and available grant funding, Alexander Dennis will offer its customers a 20-year total cost of ownership calculation. The manufacturer can further support cities and bus companies' transition to a zero-emission bus fleet by recommending funding partners – including those ready to underwrite a full 20-year term – and infrastructure providers, or by working with customers' existing partners.

Fully supported by AD24

With the next-generation buses fully developed in house by Alexander Dennis's experienced team of engineers, they will be fully supported by the manufacturer's AD24 aftermarket division.

Spare parts will be stocked in the UK with 24/7 ordering through the AD24 website. Field service engineers have been equipped for the new components and trained by the AD24 Training Academy, which also offers bespoke training courses for customers at its own facility or on-site at operators' premises.

Technical publications have been taken to the next level for the next generation, introducing fully interactive manuals that seamlessly link to technical support options and parts ordering in a single-login digital solution.

Completing the support suite is AD Connect, a new, bus-dedicated telematics solution that gives operators the vehicle and fleet performance data they need as well as enhanced diagnostics, parts and repair information to further increase

vehicle uptime. AD Connect is accessed directly through the AD24 portal or via integration into customers' existing fleet management systems.

Transformational manufacturing improvements

The Enviro400EV will be assembled in Larbert, where Alexander Dennis has transformed its facility and overhauled its build process by introducing digital support tools and reducing the number of build stages to improve material, process and quality control.

These new working methods will be progressively rolled out to all of the manufacturer's sites including Scarborough, where the single deck production hall is being expanded along with the recently-announced addition of an off-site kitting and logistic facility.

This will benefit production of the Enviro100EV, which takes advantage of Alexander Dennis's global operations footprint before having its high-value components including axles, driveline, batteries, doors, seats and destinations fitted at Scarborough. Its chassis and body frame will be produced under direct supervision to Alexander Dennis designs by the company's long-standing contract manufacturing partner in Zhuhai.

Completing the next-generation range

The Enviro400EV and Enviro100EV for the UK and Ireland are part of the wider family of Alexander Dennis next-generation zero-emission buses that also includes the three-axle Enviro500EV double decker for international markets, launched earlier this year in Hong Kong.

An international version of the Enviro100EV is under development, as is the autonomous Enviro100AEV and an open-top variant of the double deck Enviro400EV.



The next generation of Alexander Dennis battery-electric buses for the UK and Ireland will be completed in 2025 with a new Enviro200EV single decker that will also be fully engineered and built in house. In addition to its next-generation buses, Alexander Dennis will continue to sell and support electric buses built in partnership with BYD. Over 1 500 of these BYD–Alexander Dennis Enviro200EV and Enviro400EV are currently in service across the UK and Ireland. ■

What Needs to be Fixed: PMBOA Highlights Issues

Recently, buses have been back in the limelight. Buses came to the rescue when the Aerotrain at KLIA failed and a recent tender by PRASARANA calls for a large number of buses to be entered into service shortly. However, following the pandemic, there are still a number of issues that need to be addressed to enhance services provided. Asian Buses spoke to Malaysian Bus Operators Association (PMBOA) President, Datuk Mohamad Ashfar Ali. He highlighted three issues that have been on the Association's agenda for a long time.

The Driver's Card

"We recommend that each express bus driver be given a bus Driver Card by APAD / JPJ. If a driver wants to become a bus driver in an express bus company, they must make an application to APAD / JPJ together with a letter of support from the company that will employ the driver and obtain a Driver's Card from APAD / JPJ."

This suggestion dates back to the year 2009 when following the various problems encountered between operators and bus drivers, PMBOA have proposed to the Vehicle Licensing Board (LPKP) that an identification card system be created by LPKP for express bus drivers such as which has been created by LPKP for taxi drivers.

When the Land Public Transport Commission (SPAD) was established, PMBOA raised the issue of Driver's Cards for express bus drivers to the Chairman of SPAD. "SPAD accepted the idea and after a week of meeting with PMBOA's President, even a press release was issued."

In 2017, Datuk Nancy Shukri stated in Parliament that Driver Cards for express bus drivers will be introduced. This was supported by a pilot project named "Pilot Bus Driver Card Project" with 11 express bus operators, which was initiated in December 2017. However, in June 2018, SPAD was dissolved and replaced by the Public Land Transport Agency (APAD). Since then to PMBOA's knowledge, nothing has been done by any party to issue an express bus Driver Card.

"Once APAD was established, APAD continued to issue taxi driver cards. However, for reasons unknown to us, APAD does not issue express bus driver cards," Ashfar said. The recommendation by PMBOA to introduce such card is based on the needs of the industry. This driver's card will be issued by APAD / JPJ after the driver is confirmed to have no Police summons, JPJ or court action before the driver can be employed by the express bus company. This ensures the integrity of the driver and operators will have more confidence in hiring.

The bus driver also needs to get a letter of support from the company he wants to leave and also from the company where he wants to work and approval from APAD / JPJ before the driver can change jobs to another express bus company. Should summons have been issued against the driver all summons must be settled before the driver will be given permission by APAD / JPJ to transfer to another express bus company. APAD / JPJ will then cancel the old driver's card and issue a new driver's card. With this the problem of arrears of summons will be solved and the driver will be more responsible when driving the bus in the future.

In practice, the driver's card must be displayed in the express bus where all passengers can see it so that they can know the driver's name if they want to make any complaint against the driver. "With the Driver Card displayed on the bus, passengers are assured that the driver is a genuine driver who has been screened and certified by APAD/JPJ as a competent driver. This will give confidence to passengers," Ashfar explained. One of the issues commonly reported is that passengers feel uncomfortable not knowing about the status of a driver.

This goes both ways: with the driver's card displayed on the bus, the driver will be alert and careful while driving the bus because passengers can easily identify the driver and report to the authorities if the driver drives carelessly or commits any other offence. PMBOA is confident that this System will end the practice of rogue bus operators who use uncertified drivers and/or temporary drivers who rarely drive buses to operate express buses. This endangers not only the lives of passengers but also endangers other road users.

Ashfar stated that "APAD / JPJ have the experience and knows the process of issuing driver's cards because APAD now issues them for taxi and JPJ issues them for e-hailing drivers.



APAD/JPJ also have a database from the "Pilot Bus Driver Card Project" operated by SPAD. Finally, since both APAD and JPJ are under the Ministry of Transport, APAD/JPJ will have no problem accessing the driver database to verify driver's details and check if there are any summonses issued to bus drivers.

Why Two Drivers?

The Road Traffic (Amendment) Regulations 2004 now require any public service vehicle traveling over four hours or over 300km must have a second driver. The idea is that the second driver should replace the first driver after four hours or 300km.

Document 2007 (MCP 1/2007) by the Malaysian Road Safety Research Institute (MIROS) titled "Code of Health Practice and Safety Environment for the Transport Sector" among others states on page 35 para 3.2.5 and page 36 para 3.2.6 that it is found that the existing system (i.e. the first driver and the second both being in the same bus throughout the journey) is not bringing about the desired result because there is a "high probability" that both drivers will be awake and chatting throughout the journey. As a result, there is no rest time for both drivers. Consequently, the second driver will not have enough rest in the bus during the journey, compared to resting at home or in the hostel provided.

"As a result, the driver is "likely" to work more than 16 hours a day. Through our several meetings with the Ministry of Transport, MIROS, SPAD and APAD, we have proposed that this "Second Driver" requirement is cancelled," Ashfar reported.

Alternatively, PMBOA has also proposed that the second driver does not need to board the vehicle at the start of the journey as currently required by JPJ according to their interpretation of the Regulations. Instead, the change of driver takes place at an agreed point along the journey at 300km or four hours whichever comes first as preferred by SPAD according to their interpretation of the regulations.

"We understand that MIROS has supported our request and the Ministry of Transport has agreed in principle with our recommendation more than two years ago. Nevertheless, until today we have nothing feedback or requests for discussion with the Ministry of Transport or APAD/JPJ."

Bus Driver Shortage

During the pandemic, many bus drivers have taken up alternative jobs and are now no longer available to the transport industry. This has made the situation of bus driver shortages worse. The transport industry has been facing the problem of driver shortage for more than 20 years. The situation is getting more critical every year. There is currently an annual shortage of approximately 5 000 bus and lorry drivers in the country. This deficiency is due to the following reasons:

- Drivers retiring,
- Drivers migrate to work in Singapore,
- Drivers leave the transportation industry to work in other industries and
- Many potential employees who are interested in becoming bus or truck drivers cannot afford the entry fee which is considered high (approximately RM5 000.00) to obtain an E License and a GDL Truck License or a PSV or Bus License.

The lack of drivers has made it difficult for bus and truck operators and created discipline problems among existing drivers. "The drivers, knowing that they are difficult to replace, mostly ignore the instructions of their employers and refuse to pay the fines for the various offenses committed by the drivers such as speeding, wrong parking, ignoring red traffic lights and others issued by the relevant authorities to the operators."

However, despite repeated pleas for help from the Government over the past few years to help solve the driver shortage, no substantive action has been taken by the Government to help alleviate the problem. Therefore, PMBOA has requested the Ministry of Transport to help to overcome this dilemma. PMBOA hopes that funds can be obtained from the Government for the Ministry of Transport and/or the Ministry of Human Resources to establish a permanent scheme to provide free training through Driving Schools (selected by the Ministry of Transport and/or the Ministry of Human Resources) to those interested in becoming bus or lorry drivers.

"It would be highly appreciated if these ministries could look into the above problem by asking the Government to allocate funds for the permanent scheme to provide free training every year to generate a sufficient number of bus and lorry drivers to overcome the perpetual problem of driver shortage."

This will result in the following stated benefits:

- It will reduce the current shortage to meet the needs of the entire transport industry in line with the Government's policy to make Malaysia a logistics hub for E-commerce,
- With more drivers, the transport industry has the option to select better quality drivers and weed out bad drivers to reduce road accidents in the long run,
- School leavers/unemployed will gain skills (i.e. professional driving) to enable them earn a living,
- With more drivers, Malaysia can happily send them to Singapore or other countries. Sending their money back to Malaysia will help Malaysia earn foreign exchange,
- More drivers will allow the tourism industry to grow and generate more income for Malaysia,
- More drivers will reduce the driver shortage issue in the transport/logistics industry especially in the port and road transport sector which is the backbone of Malaysia's economy.

To resolve the shortage issues, the Operators had adopted several approaches:

One approach was to ask transport operators to advance money for prospective "drivers" to obtain their bus/lorry driving licence. However, once the license was obtained, the majority of these drivers "disappear" without working for the transport operator who financed them or returning the money extended to them by the transport operator.

Secondly, to create awareness of the problem and the fact that being a bus driver is a lucrative profession, roadshows conducted by transport operators together with the Ministry of Transport was carried out. The main purpose of the "roadshows" was to inform potential drivers about the vacancies that exist in the bus/lorry industry. Unfortunately, almost all inquiries were from drivers who already work in the transport industry and plan to change jobs or from those who do not have a driver's license. This did not serve the purpose of getting new drivers into the transport industry to overcome the shortage.

Thirdly we approached the HRD Corp. The HRD Corp has a scheme in place where transport operators can use their HRD Corp Contribution Fund to train drivers. We had written to the HRD Corp regarding this. But HRD Corp's requirement is that these "drivers" must first be employed by transport operators. Salaries must be paid for these "drivers" before they are eligible to apply for use of the HRD Corp Fund. This scheme did not go well with transport operators because after paying salaries, EPF etc. for these "drivers" there was no guarantee that when these "drivers" after obtaining their driving licences will continue to work for the transport operators who sponsored them. As a result, this scheme was not taken up by transport operators.

The Ministry of Transport had recently introduced "one-off" schemes to train lorry and bus drivers but these are limited to a fixed number of drivers to be trained and meet only a very small percentage of the requirement of the Transport industry. What the industry requires in an ongoing/permanent training scheme to churn out trained drivers to fulfil the ever increasing demand of the transport industry. Shortage of drivers does not only affect the bus operators but also the transport including as a whole which includes lorry, tourist, factory and school bus operators.

"There are other issues that we, as an association, are currently dealing with. However, PMBOA believes that these three are the most pressing matters. If we can address these, then we will be able to advance the industry. We hope that we can garner more support from the Government as bus transportation is a crucial aspect of the economy," Ashfar concluded. ■



By: YCP Solidiance

Up Next: Mobility as a Service

MaaS can be beneficial for multiple stakeholders including customers and users, cities and transport authorities, and service providers.

- **Increased Mobility:** Offers enhanced mobility experience and flexibility without the need for personal vehicles
- **Cost-Saving:** Reduces the overall mobility budget for users by offering lower cost of usage and the cost of vehicle purchase
- **Traffic Reduction:** Reduced congestion and reduced CO2 emission to move towards greater sustainability
- **Productivity:** Reduced journey times and increased productivity of customers and end-user
- **Sustainability:** - Provides enhanced system-level control toward more sustainable mobility patterns - Reduced cost for dealing with CO2 and NO2 emissions, congestion, and pollution
- **Real Estate:** Supports urban real estate development by traffic reduction and increasing productivity
- **Customer Understanding:** Enables better understanding of customer needs through sharing of data among trusted partners
- **Super-app Opportunity:** Provides an additional opportunity for developing a super-app system where operators might offer various services leveraging the data

Mobility as a Service (MaaS) is the culmination of various forms of transportation that have become deeply integrated in the lives of those living in Southeast Asia (SEA) over the past decade. Both public and private sectors have adopted MaaS as a solution to the challenges of rapid urbanization such as traffic congestion, transportation effectivity, high costs, and sustainability. The MaaS market in SEA was on an upwards trend until it took a big hit during the COVID-19 pandemic. However, growth has resumed as restrictions have lifted, and the market is forecasted to continue expanding exponentially over the next five years. In SEA, Indonesia, Vietnam, Thailand, and Singapore are at the forefront of MaaS as these countries are champions for MaaS sub-areas mobility, ride sharing, or ride-hailing.

MaaS is expected to continue growing in SEA due to the need for more mobility options. The current transportation network and system still has room for improvement, and MaaS is an attractive alternative to improve accessibility and convenience. Some of the new and upcoming areas would be more electric and autonomous vehicles, digital



transformation, and digital payments. MaaS will no doubt become a part of everyday and normal life to meet consumer demands and create a more robust transportation network in SEA.

Definition: Mobility as a Service (MaaS) is the integration of various forms of transport and transport-related services into a single, comprehensive, and on-demand mobility service.

Tax incentives and government initiatives are key for driving the sector forward, while the

shortage of legal frameworks and underdeveloped infrastructure have emerged as biggest barriers for MaaS in the region.

Drivers of MaaS:

Tax incentives have been provided by SEA governments to encourage the development of MaaS services as part of an ongoing initiative to build smart cities. Most of tax incentives are geared towards the use of electric vehicles for MaaS. The growing number of smartphone and internet users in SEA has paved the way for the development of MaaS. The increasing number of e-commerce businesses and the expanding use of e-wallets for transactional purposes are driving the industry forward. Development of highly secure and safe payment gateways is also expected to contribute to the MaaS market's growth during the forecast period.

Barriers for MaaS:

There is a lack of a comprehensive legal framework for MaaS. Governments have yet to provide clear guidelines on licensing, safety, and insurance requirements which would hinder scalability of services and integration. Many cities in SEA have limited public transportation infrastructure, which can make it challenging to provide reliable and efficient MaaS services. Additionally, the quality of existing services may be poor, which can make it difficult to attract users to avail of MaaS solutions. For MaaS to deploy a real-time information system, it is necessary for operators to have the required technology. The data's format and the ability to transmit information by the integrated operators are some of the challenges to overcome in order to guarantee the quality of MaaS and ensure the trust of users in the system. In addition, uncertainty about the reliability and cost of new MaaS related hardware and software is also a hindrance for adoption.

About the Authors

Shin Thant Aung Director, YCP Solidiance, is a Director in the Thailand office of YCP Solidiance, with ten years of strategy consulting experience. He specializes in digital transformation and mobility, collaborating with major automotive, OEM, and EV players in APAC and the US.

Evan Escalaw, Associate, YCP Solidiance, is an Associate based YCP Solidiance's Manila office. Before joining YCP Solidiance, he worked at one of the largest multinational risk consulting and insurance broking firms, where he focused on account management, new business development, and corporate strategy.

Ryan Chua, Analyst, YCP Solidiance, is an Associate based in the Manila office of YCP Solidiance too. Prior to joining YCP Solidiance, he worked at one of the most popular information technology companies in the Philippines, where he focused on business analysis, project management, and IT development. ■

Case Study: Indonesia

With a population of more than 270 million, Indonesia is a large country that faces different levels of challenges in terms of transportation and mobility. Fortunately, Indonesia has been proactive in tackling these issues.

Project Description

Due to the nation's large population, the country has been facing issues with carbon emissions and daily gridlocks. Through new initiatives and businesses such as ridehailing, car-sharing, and other mobility options, Indonesia has been able to combat these issues. However, the emergence of such businesses also comes with its own set of challenges.

Challenges

Difficulty in managing regulatory framework. Incorporating digital networks with MaaS on a national scale. Geographical conditions which make it challenging to set up the infrastructure needed.

Strategy

Work closely with industry partners to create regulations. Work with industry partners on infrastructure development, including intelligent traffic systems, digital systems, and charging stations.

Results

Indonesians have a wide variety of affordable options for travel now thanks to ridehailing, ride sharing, and micromobility. Supports economic growth by generating livelihood. Goal for one million EVs on the road by 2025 seems to be achievable.



MIROS' Collision Prevention System



Through the analysis of road crashes, we know that road crashes between motorbikes and heavy duty commercial vehicles are the most severe, most likely to end with a fatality. Although such instances do not make the bulk of the accidents reported, this situation deserves special attention because this scenario is so deadly. One of the common instances is when a biker slams into the back of a bus parked on the emergency lane on the highway. Conditions are usually stacked against the biker: it is night, there is not enough light to make the bus visible from afar and the biker is travelling at high speed.

To address this particular issue, MIROS (Malaysian Institute of Road Safety Research) started a project in 2019, which is coming to bear fruits now. Purposefully named, the MIROS Motorcycle Collision Alert System (MCAS) has exceeded expectations. The idea was to use LIDAR (Light Detection and Ranging) to detect stationary objects in the path of the biker. The creation of a cost-effective system was possible due to the drop in prices for LIDAR systems in recent years. After the lab test by MIROS, the team around Mohd Khairul Hapiz Ibrahim, MCAS Project Lead, MIROS, involved 32 volunteers who would test the system in their daily lives.

How it Works

MCAS is a pre-collision warning system based on LIDAR and it can be retrofitted to a wide range of motorcycle models. The MCAS system is designed to detect a vehicle/object in the forward direction within 200 m range. It will activate automatic audio and visual alert to alert the rider should there be an obstacle in the way. The intensity of alert activation is based on the time to collision (speed and distance to hazards). There are two alerts: one visual via LED lights and one buzzer. The LIDAR sensor will have to be installed forward-facing on the front of the bike, whereas it has to be perpendicular to the ground. It has been reported that some bikers managed to recalibrate the LiDAR when it was not working properly (e.g., change in mounting angle, etc), making it work perfectly.

Field Test Results

Putting the MCAS system to the test, 32 bikers trialled it. There were 18 different bike models, from 100 to 600 cc, going a total of 78 000 Km on the road, clocking over 7 500 hours driven with the MCAS. MIROS evaluated the data looking for instances

of SCE (Safety Critical Event) and SBE (Sudden Braking Event) and found that both had significantly dropped. The number of SCE dropped by 57.2 percent while SBEs dropped 67.3 percent. The number of potential crashes avoided was recorded at 899 instances in the three months the units were installed on the vehicles.

A promising level of operational capacity of MCAS was observed. Based on the preliminary data collected and analyzed to date, MCAS appears to demonstrate strong safety benefits to warrant larger-scale deployment both within Malaysia and beyond. A surprising side-effect could be observed as the MCAS can help riders to develop safe riding skills, such as being more aware of their surroundings and anticipating potential hazards. MCAS helps riders to gauge safe gap, to maneuver around sharp bends, and to apply safe speed management. Riders reported that MCAS increases risk appreciation and reduces likelihood of risk taking (e.g. lane filtering, etc.). The immediate and prompt warnings provide feedback on riding behavior, such as tailgating or speeding.



VISUAL SIGNAL OF IMPENDING IMPACT



HEART OF THE MCAS - FRONT-FACING LIDAR



COLLISION AVOIDED (CAR TO SIMULATE A STATIONARY TRUCK)

Figuring How the Buses Run

Having lived in Malaysia for 15 years, I know some places extremely well. The neighbourhood around my home is the proverbial back of my hand. Noises are the heartbeat of the taman and the I know when it is a good time to go to specific places for a meal. Oftentimes I visit places I am less familiar with though. Singapore is one of the more frequently visited places while it took me 23 years since my last visit to Shanghai. Most places offer bus services of some sort to get around the city. In Singapore I get often scolded for depending on taxis; hardly do I take a bus in places I visit less often.

Why is that you may ask. My answer is that I don't have the time to work out the bus routes. Getting from one place to another usually means that one must change buses. Sometimes more than once. If you are not familiar with a place, then it may be a problem finding the bus stop. Knowing which is the right place to get off, either to change or it being the final destination could be tricky. If someone told me that I would have to alight at a station called Bukit Nanas may not be very helpful as I wouldn't know which one that is.

There might be maps and indicators to guide passengers, but in many places, they are in languages foreign to me. There may be announcements in English, however, sometimes they are hard to understand. During one of my recent trips to Singapore we took the bus as my friend knew the route and we simply followed, which made things easy as our "guide" had already figured out how to go to where we needed to be.

A first obstacle is already placed in front of me in the form of the tickets. Here in Malaysia, we can use our favourite plastic: The Touch n Go card. As soon as we travel abroad, we will need to figure out how to pay for the bus. Buying individual tickets for each trip may slow us down. Some cities still use cash. Pre-paid cards could end up being souvenirs with still some value on them that will never be spend.

There could be apps that can guide passengers. I wouldn't know as I don't want to download myriads of apps that I would only need once. Or I may need them time and again, but I am not keen on an app that notifies me about stuff all the time when I don't really use it. I also try to resist become too dependent on the phone. Of course, these are all reasons that I have found for myself to not use buses when I am in an unfamiliar city. Essentially, I have talked myself into favouring taxis (or ride hailing, which still requires a mobile phone). I KNOW that in some places the bus will be faster as there are designated lanes.



stefan@asiantrucker.com

Maybe I am not alone with my troubles taking a bus outside places I know intimately? However, I should think that especially tourists will find it difficult to switch to buses. Could there be a way how the uncertainty could be taken out of the equation? There must be a way how navigating a unfamiliar place could be assisted by modern technology. I envision a Waze for buses, something that will work in most countries, offers the appropriate information to get from A to B and highlights issues along the way, pointing to when to change buses and if there are better routes.

It would interest me if you are considering taking buses when you travel to other countries or if you are favouring the convenience of a hired car. Would you take the bus to go around town when you are to meet for business? Or is a bus trip something that is too much hassle to plan as you are not familiar with the system as well? 🚗



Bus to Hotel

Reviving retired buses into luxury suites: The Bus Collective unveils Southeast Asia's first resort hotel using repurposed buses.



Nestled in the heart of Changi Village, The Bus Collective isn't just a resort hotel; it's a testament to innovation and sustainability. Picture this: once retired public buses, now transformed into elegant and eco-conscious luxury suites. This visionary project, a collaboration between WTS Travel ("WTS") and partners, brings a truly one-of-a-kind experience to Southeast Asia.

As the sun sets over Changi Village, a fleet of repurposed buses stands tall, each one meticulously crafted to offer a unique blend of comfort and luxury. But that's just the beginning. The Bus Collective isn't just a place to rest; it's a sanctuary where history meets tranquility in a way that's never been seen before. The grand opening event was officiated by Minister Dr Maliki Osman, Minister in the Prime Minister's Office, Second Minister for Education & Foreign Affairs and Grassroots Adviser for East Coast GRC GROs (Siglap). Under the Green and Vibrant pillars of the East Coast Plan, the project brings to life the possibilities of repurposing for sustainable actions.

The Bus Collective will enhance the Changi Village leisure ecosystem and create employment opportunities. WTS Travel Managing Director, Micker Sia said: "By introducing The Bus Collective, we are redefining luxury hospitality, and pioneering an eco-conscious approach to tourism in Singapore. This visionary project showcases the powerful synergy between nature, tourism, and environmentalism

for the greater good of our community. Through innovative thinking and resourceful execution, we are breathing new life into retired buses, transforming them into an unparalleled experience for our guests." Unparalleled sustainability through repurposing

The Bus Collective proudly stands as a testament to the potential of innovative design thinking in driving positive change. Each guest room, born from the rebirth of retired buses, not only rejuvenates these vehicles but also establishes a precedent for integrating eco-conscious practices within the construction and hospitality sectors. This distinctive approach showcases the harmonious convergence of creativity, environmentalism, and tourism, enriching our community and forging unforgettable experiences for both locals and tourists. Seamlessly integrated luxury and environmentalism The Bus Collective redefines luxury hospitality by seamlessly integrating elegant comfort with environmental consciousness.



Luxury isn't an afterthought; it's the very essence of our hospitality. Guest rooms exude a blend of comfort and sophistication, boasting features like composite lamination, marble tops, invigorating rain showers, sumptuous beds, and lavish bathtubs. Our service staff are adept at providing tailored experiences, ensuring that guests preferences are met with the utmost care. Connecting to Changi Village's vibrant ecosystem and to Singapore's myriad attractions Strategically positioned, The Bus Collective complements the vibrant Changi Village ecosystem, offering guests effortless access to attractions such as the Changi East Boardwalk and Changi Chapel & Museum. It offers an Experiences Centre that organises mindfulness experiences as well as tours that look at the history and geography of Changi Village. In support of launch, WTS has introduced a fleet of 20 new travel coaches for the benefit of guests travelling locally to attractions, as well as overland to and from Malaysia.

Inbound tours and Sit-In-Coach tours are becoming more popular with tourists. The new coaches provide a premium, comfortable travel experience for our guests – whether enroute to The Bus Collective, or on their journey to see the many wonderful attractions of Singapore. Community engagement and employment opportunities




The Bus Collective is committed to engaging with the community through the creation of employment and partnership opportunities. Through employment, we hope to recruit and nurture a team of dedicated hospitality professionals, ensuring each guest receives the highest level of service. Our engagement initiative seeks to strengthen the neighbourhood, especially small businesses by collaborating with them on guest experiences. Guests can savour the rich culinary heritage of the area at nearby restaurants that we have identified.

We are also working with tour operators to offer insightful journeys through Changi's history and natural beauty. Through these partnerships, The Bus Collective sets a shining example of how a collaborative, community-centric approach can elevate the hospitality industry, offering guests an authentic and enriching stay that goes beyond the conventional hotel experience. The Bus Collective represents a significant milestone in the revitalisation of Changi Village's tourism landscape. As Singapore strives to become a sustainable urban destination, The Bus Collective leads the way by exemplifying how eco-conscious elegance and comfort can harmoniously coexist. ■

We help to connect your workshop to customers by listing it on our service network locator.

- Free of charge service.
- Email us your service location.

 info@asiantruckerclub.com.my




TRUCKER ASIAN

Ashok Leyland Bags Order for 1 666 Buses from Tamil Nadu State Transport Undertakings

Ashok Leyland, the Indian flagship of the Hinduja Group and the country's leading commercial vehicle manufacturer, has bagged an order from TN STU's (Tamil Nadu State Transport Undertakings) for 1 666 buses. This is the single largest BSVI order received from State Transport Undertakings and will further contribute to strengthening Ashok Leyland's dominant position in the bus industry.

Ashok Leyland has been the most preferred brand by TN STU's with more than 18 000 Ashok Leyland buses operational in its fleet, comprising over 90 percent of total fleet. These buses will be specially designed to ensure

outstanding passenger comfort and will be equipped with the advanced iGen6 BS VI technology, featuring a robust 147 kW (197 hp) H-series engine. This engine is expected to enhance safety, comfort, and reduce the overall cost of ownership (TCO).

Ashok Leyland is the 4th largest manufacturer of buses in the world and India's largest bus manufacturer. This order is another significant stride in fortifying its leadership position and further emphasizes the enduring trust that Tamil Nadu STUs consistently bestow upon Ashok Leyland's outstanding products and services. 

COP28 Transport Day puts Spotlight on Cities and Shows Pivotal Role for Public Transport


Cities count for 75 percent of global CO2 emissions. They are at the intersection of population growth, economic activity and greenhouse gas emissions. Put simply, they are at the centre of any climate action.

For the first time at COP, on 6 December, the thematic day put cities and local governments, including urban transport, at the forefront. The 'Multilevel Action, Urbanisation and Built Environment/Transport Day' brought together local leaders including mayors, governors, parliamentarians and business professionals. Speaking at the Ministerial Meeting on Urbanisation and Climate Change, UN Climate Change High-Level Champion Razan Al Mubarak emphasised how important cities are to every aspect of global heating: "Subnational governments are the primary implementers of localised action, and the first responders to the disasters associated to climate change."

It is clear: public transport plays a vital role both in fighting global heating and in adapting to a changing climate. It is the best solution to decarbonise cities, fast track the energy transition and slash emissions before 2030. It is the cheapest way to decarbonise people's daily mobility.

"We are here today to put cities and urbanisation at the heart of the climate agenda", said Maimunah Mohd Sharif, Executive Director UN-Habitat as she opened the


ministerial meeting. "We will discuss the need to align local and regional climate action strategies and unlock financing for much needed change." "Mayors, local leaders, are your first responders to crises in cities. This ministerial is establishing itself as the peak body for multilevel climate action. We are here to bring local voices to the global level."

One of UITP's main recommendations for national governments is to support regional and city governments. NDCs should detail how they will enable and support city-level action on public transport. National ministries and local governments as well as the public transport sector need to cooperate, and align strategies, communication and processes for collective multi-level coordinated NDC efforts and updates. 

World's First Series-production Mercedes-Benz eCitaro G Fuel Cell Delivered

Rhein-Neckar-Verkehr GmbH, or rnv for short, is setting an important standard for increasing environmental friendliness in local public transport within the Rhine-Neckar region: The world's first all-electric Mercedes-Benz eCitaro articulated buses from series production with a fuel cell as a range extender and a range of up to 400 kilometers are in use in urban traffic throughout the cities of Mannheim and Heidelberg.

The ceremonial handover of the first three Mercedes-Benz eCitaro G fuel cell vehicles took place on November 23, 2023 on the premises of the rnv depot at Bergheimer Strasse 155 in Heidelberg in the presence of Dr Andre Baumann, State Secretary at the Ministry of the Environment, Climate and Energy of Germany's Federal State of Baden-Württemberg. Till Oberwörder, CEO of Daimler Buses, handed over the keys of the three premiere vehicles to Martin in der Beek, Technical Director of Rhein-Neckar-Verkehr GmbH, as well as Prof. Dr Eckart Würzner, Mayor of the City of Heidelberg.


In addition to the three eCitaro G fuel cell vehicles, a further 45 eCitaro articulated buses of identical design will be delivered successively by mid-2025. 40 of the total 48 vehicles will be destined for regular service in Mannheim and Heidelberg. The eight other buses will be used in Ludwigshafen am Rhein. In addition, rnv has an order option for an additional 27 eCitaro G fuel cell vehicles, with which rnv's bus quota can be increased to a total of 75 fully electric fuel cell articulated buses provided by Daimler Buses by 2027 if required. 

More Electric Buses to be Deployed in Singapore from December 2024

The electrification of Singapore's public bus fleet took a stride forward with the first large-scale award of contracts for new electric buses and the charging systems to support them. Announced by Acting Minister for Transport Mr Chee Hong Tat at the Singapore BusTech/RailTech Grand Challengey, two contracts to procure a total of 360 electric buses and another two contracts for the deployment of charging systems in bus depots at Sengkang West, East Coast and Gali Batu were awarded.

These contracts comprise of 240 electric three-door single deck buses to BYD (Singapore) Pte. Ltd. for a contract sum of about S\$108.1 million and 120 electric three-door single deck buses to Cycle & Carriage Automotive Pte. Limited for a contract sum of about S\$58.3 million; EV


charging systems in bus depots at Sengkang West and East Coast to Busways Pte Ltd/ Shell Singapore Pte Ltd Consortium at a contract sum of about \$31.3 million; and EV charging systems in bus depot at Gali Batu to Presico Engineering Pte Ltd at a contract sum of about \$14.8 million.

From December 2024, the new electric buses will be progressively deployed for passenger service to replace diesel buses that are reaching the end of their statutory lifespan. Charging systems will also be installed at the bus depots progressively from December 2024. Singapore's LTA is committed to having a 100 percent cleaner energy bus fleet by 2040. By 2030, electric buses are expected to make up half of Singapore's public bus fleet. This is the first batch of large-scale tenders for bus electrification. 

ZF Celebrates Production of Three Million Electric Motors

The global demand for electric drives for passenger cars and commercial vehicles is increasing rapidly – and so are ZF's production figures: "Within just 18 months, ZF has doubled electric motor production from just under one and a half million to three million," explains Roland Hintringer, Head of the Electric Motors Product Line at ZF, adding: "Thanks to highly automated, volume-flexible and modular systems, we are able to serve our global customers as required."

The production figures and forecasts make it clear that ZF is successfully advancing the transformation towards electromobility. "Our role as an innovator is also an important factor," emphasizes Roland Hintringer. ZF has already announced that it will develop the magnetic-free electric motor I²SM – a separately excited synchronous machine with inductive energy transfer – for volume production which, in contrast to the magnetic-free concepts available on the market today, is uniquely

compact and has the highest power and torque density. ZF has recently demonstrated the potential of ZF's new developments for further efficiency and thus range gains in electromobility with the EVSys800 electric drive: The prototype is 35 percent lighter than current electric drives and reduces CO2 emissions in production and operation by 20 percent. Innovative stator winding technologies, a new cooling concept and the compact design make these major optimization leaps possible. 

HINO CARBON NEUTRAL STRATEGY



Hino Motors, Ltd Announced its Initiatives for Carbon Neutrality

Our society is faced with many issues to tackle, such as “environmental/energy issues,” “problems with logistics,” “the declining birth-rate and the aging population,” and “the growth of demand for safety and reliability.” In order to deal with these issues, Hino’s management thinks that it is required to offer products and solutions that would contribute to “carbon neutrality,” “labour saving,” and “safety and peace of mind.”

The CPO (Chief Product / Project Officer), Koji Toyoshima, in charge of the management of products and business of Hino said, “In order to achieve carbon neutrality, it is necessary to reduce CO2 emissions to virtually zero in the entire lifecycle of each vehicle, including ‘production,’ ‘use,’ and ‘disposal,’ and it is essential to reduce the discharge of carbon through

the use of diesel oil as fuel of automobiles. Our policy for making vehicles carbon-neutral is to reduce consumption by ‘improving mileage,’ ‘adopting electric vehicles,’ ‘switching to low-carbon fuel,’ and ‘streamlining the entire logistic system’ and use appropriate types of vehicles according to purpose while ‘making internal-combustion vehicles carbon-neutral’ and ‘distributing electric vehicles.’”

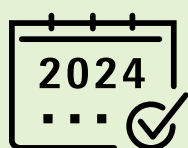
With the mission of “we make a better world and future by helping people and goods get where they need to go,” Hino will realize multiple pathways with a variety of energy available through the improvement of internal combustion engines and under the Range Extender BEV platform scheme for realizing carbon neutrality, and offer solutions to meet customer needs. ■

CAPAS

CHENGDU

16 – 18.5.2024

Chengdu Century City New International
Exhibition & Convention Center, China



Save the date

Grasping opportunities from the latest industry trends in Southwest China

Chengdu international trade fair for automotive parts
and aftermarket services

www.capas-chengdu.com



V O L V O

VOLVO B13R EURO6 PLATFORM



The all-new Volvo B13R is a platform for superior productivity. A powerful new engine offers fuel savings of up to 9%, making a substantial difference to operating costs. An updated chassis with a new driver's environment makes every mile behind the wheel an amazing experience. And your passengers will enjoy the improved comfort and safety. The all-new Volvo B13R is truly a premium offering, ready for whatever comes ahead.

www.volvobuses.com/sg/

Volvo Buses. Driving Quality of Life