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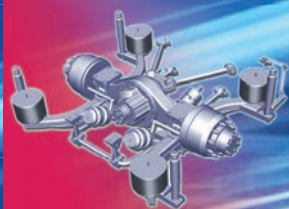
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# Smarter Buses

I was watching TV in my hotel room in Singapore when the news came on that Singapore is aiming to become driverless for public transport within the next 10 - 15 years. In order to study this notion, the Island state already set up some test vehicles in tourist spots and places of interest. While these only move a few people at a time, this certainly is the sign of things to come. With algorithms predicting passenger volume, taxis are also soon becoming autonomous. One aspect fascinated me the most: the current buses are programmed to stop if anything comes within a three meter radius. Could this be the end of fatalities on the road? Driverless vehicles would certainly mean the end of a profession as we know it. But here too, Singapore has the answer as they are planning to re-train these people that would be out of their jobs. Clearly, the future has arrived and with it maybe the end of the driver shortage that is clamoured in the industry?

There certainly is an increasing need for public transport in South East Asia with megacities sprouting. In a recent conference I learned that the traffic volume in Kuala Lumpur is currently at the state that is described as being at a stage where it will be impossible to cope with any more traffic. Well, if you commute to work, that's no news. What will be news is that there are new ring-roads that integrate Park&Ride with BTS in order to disperse commuters into the city centre. As I am living far from "town", it may still be a while until I can enjoy a bus ride that allows me to write to you while someone else is driving. There is a bus hub ready near me, it is just a matter of time for it to open. As our recent questions showed, the perception is that city planners aren't doing enough to consider the needs of buses.

Meanwhile, it really takes some creativity to construct a "Crazy Bus" as our friends in Thailand do. These rolling discotheques are not only pumping out hot tunes, but they also feature stunning airbrush artwork and interesting design items, such as an array of Bibendum (Michelin Man) figurines, which are illuminated at night. Having heard these buses in action, it is no wonder that they are so popular in Thailand. Everyone likes a Crazy Bus! A good dozen buses could be seen departing for a weekend trip. Well, some buses could be heard long before they were visible, thanks to speakers installed outside on the bus. A lot of fun was had by passengers dancing around the buses, taking pictures and generally having a good time. I am just not sure if I would want to take a ride on these buses as you can't just get off once you had your dose of techno-music. I might be getting old, preferring the quiet running of a well build coach on the highway, eating up the kilometres.

Speaking of which, it is amazing to see how all the manufacturers of buses are looking at South East Asia as their growth markets. We should be in a position where companies will see continued expansions and improvements. However, it is still strange that the world largest bus expo is in Europe, hardly any Asian OEM is cracking the European market and, surprisingly, all the photos available on image banks show buses in European settings. I thought Asia is the focus? So show me!

**Stefan Pertz**

*Editor, Asian Trucker Malaysia*

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# The Drivers.

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# Buses win big at TOTY 2015



*The fourth instalment of the Truck of the Year Award saw a packed ballroom with industry players eager to take home the coveted trophy.*

The New Straits Times-Petronas Urania Truck of the Year Awards Night on September 29, 2015 was held at The Saujana Subang with the who's who of local trucking gathering. Before the excitement peaked at the awards ceremony, ideas and news were shared during an informal networking, making this not only a success for the winners, but for everyone attending. The Minister of Transport Datuk Seri Liow Tiong Lai was the guest-of-honor at the awards night which was attended by over 150 guests.

"This award was initiated four years ago by the New Straits Times to enhance the safety, productivity and efficiency of Malaysia's land transport and logistics industry by recognising best practices, role models and entities who produced outstanding public service" said YBhg. Datuk Abdul Jalil Hamid, Group Managing Editor, The New Straits Times Press (Malaysia) Berhad.

He continued to state "More importantly, it is also in recognition of the champions of our land transport industry comprising truck and bus companies who help to make Malaysia globally competitive."

Two stage bus operators took centre stage at this year's NST-Petronas Urania Truck of the Year (TOTY) Awards night held at the Saujana Hotel in Subang today.

Perak Transit Berhad was named as the recipient of the Outstanding Private Sector Stage Bus while Prasarana's Rapid Penang was awarded the Outstanding Public Sector Stage Bus award.

## Special Mention awards for citation at NST-Petronas Urania Truck of the Year Awards Night 2015

Both these Special Mention awards are to honour exemplary services in public transport which are important not only in assisting urban travel but also reducing congestion.

Bus operators were judged on a variety of criteria, including reliability, dependability, cleanliness and friendliness of staff.

## Outstanding Private Sector Stage Bus: Perak Transit Berhad

Perak Transit Berhad is one of the stage bus companies in Perak servicing mainly Ipoh town since November 2009. Perak Transit Berhad has a fleet of 23 buses and operates 26 routes connecting other areas with Ipoh town.

Since its operation in 2009, Perak Transit has developed and improved its services constantly. One of these is providing high quality service to customers by replacing old buses to newer ones equipped with the latest features to facilitate passenger safety, especially the elderly.

## Outstanding Public Sector Stage Bus: Rapid Penang

Rapid Penang is a leading public transport operator in Penang.

It commenced operations on 31 July 2007, upon being launched by former Prime Minister Tun Abdullah Ahmad Badawi. Today, it is part of Rapid Bus Sdn Bhd, a subsidiary of Prasarana Malaysia Berhad.

Currently, Rapid Penang has 400 buses operating in eight corridors with 51 routes, providing shuttle services for inter-corridor links on both the island and the mainland.

One of the services is known as the Central Area Transit - a free bus service in which passengers could hop-on and hop-off as often as they like, giving tourists the opportunities to explore Georgetown. All these buses are equipped with ultra-low flooring and are OKU- friendly. ■

# Scania crowns champion at Driver Competition



*Seeing a huge increase in participation, the Scania Driver Competition has a new champion following a gruelling final at the Sepang International Circuit.*

A total of 16 finalists from both bus and truck category competed in the toughest practical finals yet which saw Saiful Nizam Abd Aziz representing Bank Simpanan Nasional Malaysia and Abdul Aziz Amir representing Shaziman Transport Sdn Bhd, Malaysia, being crowned Scania Driver Competitions 2014/2015 Malaysia-Singapore (SDC) Champions.

## Public events

Leading up to the finals, Scania also hosted public events where drivers and non-drivers could try their skills. These were modelled after the actual competition, but open to anyone that wanted to give it a try. One of these sessions was held during MIBTC 2015 in May at the Mines and over the period of three days over 400 participants stepped up to the challenge. Daily winners were announced at the Scania booth inside the main exhibition hall in front of cheering audiences. "It is very encouraging to see how many people are actually eager to try the parcour. Naturally, this is also a way for us to showcase our product and maybe win over some drivers to vote for Scania" Ian Tan, Marketing and Communications Manager Scania Southeast Asia said during the proceedings.

Another such public event was held in conjunction with the Gala Dinner of the Association of Malaysian Hauliers in August at the Setia Convention Center. This special edition was won by Mr. Vissnu s/o Rengasamy, Managing Director of L&R Haulage Sdn. Bhd – Champion, Mr. Said Harun, Port Klang Branch Manager of Kontena Nasional Bhd – 1st runner-up and the only female participant Ms. K. Maria, Assistant Manager of LTS Logistics Sdn Bhd – 2nd runner-up.

## Higher purpose

"The purpose of the competition is to recognise as well as elevate the skills of the drivers in the aspects of safety, fuel economy and environmentally-friendly driving," said Marie Sjödin Enström, Managing Director of Scania Southeast Asia, Scania Malaysia and Scania Singapore. "After all, the driver is the single most important asset for all transport operators."

The bus and truck champions each took home RM10,000 in cash, a championship trophy and an achievement certificate. Their companies were also awarded with RM5,000 worth of Scania service vouchers. To win it, they had to go through challenges that consisted of

fuel economy driving test, defensive driving test, "Knock-the-Cone-and-Head" precision test and "Boardwalk" obstacle test.

The finalists were shortlisted from a total of 1,005 participants during the initial theory submission stage. Coming from Malaysia and Singapore – an almost 50% increase in participation from the previous year – the participants had to go through subjective and objective questions covering their knowledge on local transportation laws and regulations, fuel-efficient and safe-driving techniques, occupational hazards and health practices, and reactions to emergency procedures. The shortlisted finalists were:

## Bus Category

- 1) Shahmunir Nordzahir – individual representation, Malaysia
- 2) Ramli Ab Rashid – Konsortium E-Mutiara Berhad, Malaysia
- 3) Mohamad Farli Mohd Amin – Sani United Sdn Bhd, Malaysia
- 4) Saiful Nizam Abd Aziz – Bank Simpanan Nasional, Malaysia
- 5) Mohd Helmi Ramli – Cosmic Angle Travel & Tours Sdn Bhd, Malaysia
- 6) Ab Rahman Awang – Konsortium E-Mutiara Berhad, Malaysia
- 7) Ghazali Shafie – Rapid Penang Sdn Bhd, Malaysia
- 8) Mohd Ridzuan Abdul Rahman – individual representation, Malaysia

Since the inception in 2003, Scania Driver Competitions continued to grow in stature around the world with over 50 countries and over 200,000 drivers participating today.

"The Scania Driver Competition celebrates its 10th anniversary this year and Scania Malaysia and Scania Singapore are very pleased that we have successfully collaborated for the fourth time with JKJR, MIROS and the Embassy of Sweden to promote safety for all road users," said Marie Sjödin Enström. 🇸🇪



# How our cities become smarter



*With further urbanisation, cities are in need of solutions in order to cope with in- and outbound traffic. In the recently held conference titled "Smart Cities Asia 2015" experts shed some light on how megacities are becoming smarter in managing traffic.*

In his presentation, Chua Soo Kok, Director, North-east (KL) Highway Consortium Sdn. Bhd. used the notion of LOS (Level of Service) to illustrate the current state of the traffic in and around Kuala Lumpur. "Will the MRT solve this issue?" he asked. His answer was a "Yes and No". Using the LOS calculation, he showed that currently some 50 lanes of highways would be needed to let the traffic flow into and out of the city of Kuala Lumpur. This is actually the number of lanes available and the reason why a simple incident will paralyse the city. According to him, the optimum would be some 111 lanes to manage traffic. Statistics show that in 2011 there were some 6.8 Million Person-Trips per day for the greater Kuala Lumpur region. These were 18% on public transport and the remaining 82 % with private vehicles. For 2017, the forecast estimates some 9.4 Million Person-Trips per day. Out of this number, 25% are on public transport. He said that "While the MRT will counteract congestion, there is still a massive increase in personal transportation that is used by commuters to get to and from work". One of the measures taken by the Malaysian government is to set up another ring road, complete with Park and Ride facilities and BRT Systems to disperse commuters, easing the traffic woes. Given the increased traffic volume, there will certainly be an increased interest and need for BRTs for the Klang Valley.

of only 20 seconds, they are still not capable of moving as many people as a MRT or Monorail. In his presentation he identified two mega-trends: firstly the effort to recover energy when vehicles break. He commented that "If they can do this in the Formula 1, then we should be able to apply this to buses as well." The other push was towards setting up Vehicle-to-Vehicle (V2V) communications. This should allow for BRT's to have even shorter headway times, eventually almost matching the numbers of people moved in MRTs.

"We are "Here". And we are here, attending this conference, as we would like our name to be seen and the put the message out there" said Rychie Albert, Business Development Manager APAC Enterprise Sales - Vietnam, Indonesia & Philippines of HERE, a Nokia company. The company utilises modern technology to gather data and with that improve traffic flow. For instance, the company is the infrastructure provider behind the "Grabtaxi" platform, allowing passengers to see which taxi is in their vicinity. "We are moving towards autonomous driving. It would be certainly possible here in Malaysia in the near future." In his view, all the building blocks are ready, they just need to be deployed in a smart way. While mainly developed for passenger cars, the technology would ultimately also be suitable to be used in commercial vehicles, enabling smoother and more convenient rides.

Meanwhile, Peter Edwards, Director of Engineering, Scomi International demonstrated why it may not be that easy to solve traffic issues. "Buses are the easiest to deploy, but obviously, they only move a small amount of people". Although cities like Istanbul have deployed successful BRT-Systems with a headway

The event was held in PWTC in Kuala Lumpur and organised by Knowledge Group of Companies. As guest of honor, the Deputy Mayor of Kuala Lumpur was present to close the event after two successful days of networking, learning and discussions. 



# Iveco Bus delivers the first Euro VI hybrid buses in the Italian city of Bologna



*A fleet of nine hybrid Iveco Bus Urbanway buses is destined for use in urban public transport in the regional capital – all in the name of sustainable mobility.*

**L**ower emissions, reduced noise and increased performance: the Iveco Bus Urbanway Full Hybrid allows for a reduction in consumption of up to 40 per cent compared to conventional buses, along with a 33 per cent reduction in carbon dioxide (CO<sub>2</sub>) and a 40 per cent reduction in nitrogen oxides (NO<sub>x</sub>) per kilometre in comparison with diesel versions.

Iveco Bus has presented the first of nine 18m Urbanway Full Hybrid buses to Tper (Trasporto Passeggeri Emilia-Romagna) - a public transport company formed following the merger of ATC -transport, the primary road transport company for Bologna and Ferrara, and regional railway company FER. The nine-strong fleet are the first hybrid Euro VI buses to be registered in Italy for public transport. Tper is the first company in Italy to adopt the Iveco Bus Urbanway Full Hybrid model, although these buses have been operating successfully in other European cities, providing high levels of environmental sustainability in urban public transport.

Pierre Lahutte, Iveco Brand President, says: "We are proud to be the first to place Full Hybrid buses into circulation in Italy, and to be playing our part in implementing increasingly virtuous urban transport solutions. The Urbanway Full Hybrid by Iveco Bus meets all sustainable mobility requirements: lower emissions, reduced noise and increased performance. The skills and expertise gleaned by Iveco Bus with regard to vehicles with alternative drive systems has allowed us to convince a number of municipalities to adopt these, attracting many others in the search for an alternative to the diesel engine. 2015 was a record year for us, in that more than half of the Urbanway models which we produced were hybrid electric and CNG versions, demonstrating how the transition to alternative energies is already a reality for us".

Iveco Bus Urbanway Full Hybrid buses are equipped with a Euro VI heat engine and an electric drive system featuring special devices that do not emit exhaust gases when the vehicle is stationary, offering excellent results in terms of reducing emissions on urban missions. Indeed, thanks to the vehicles'

energy storage system, during braking, at traffic lights and at bus stops kinetic energy is not dispersed into heat, but transferred to the lithium-ion batteries that power the electric drive motor.

The battery-powered serial hybrid technology system for energy management and recovery provides for remarkable fuel economy, as well as a reduction in polluting emissions in urban areas. The Urbanway Full Hybrid – which, thanks to the "Arrive & Go" function, allows drivers to pull into and leave bus stops in full-electric mode – cuts fuel consumption by up to 40 per cent compared to a conventional bus, as well as reducing carbon dioxide (CO<sub>2</sub>) emissions per km by 33 per cent and nitrogen oxides (NO<sub>x</sub>) per kilometer by 40 per cent compared to diesel engines.

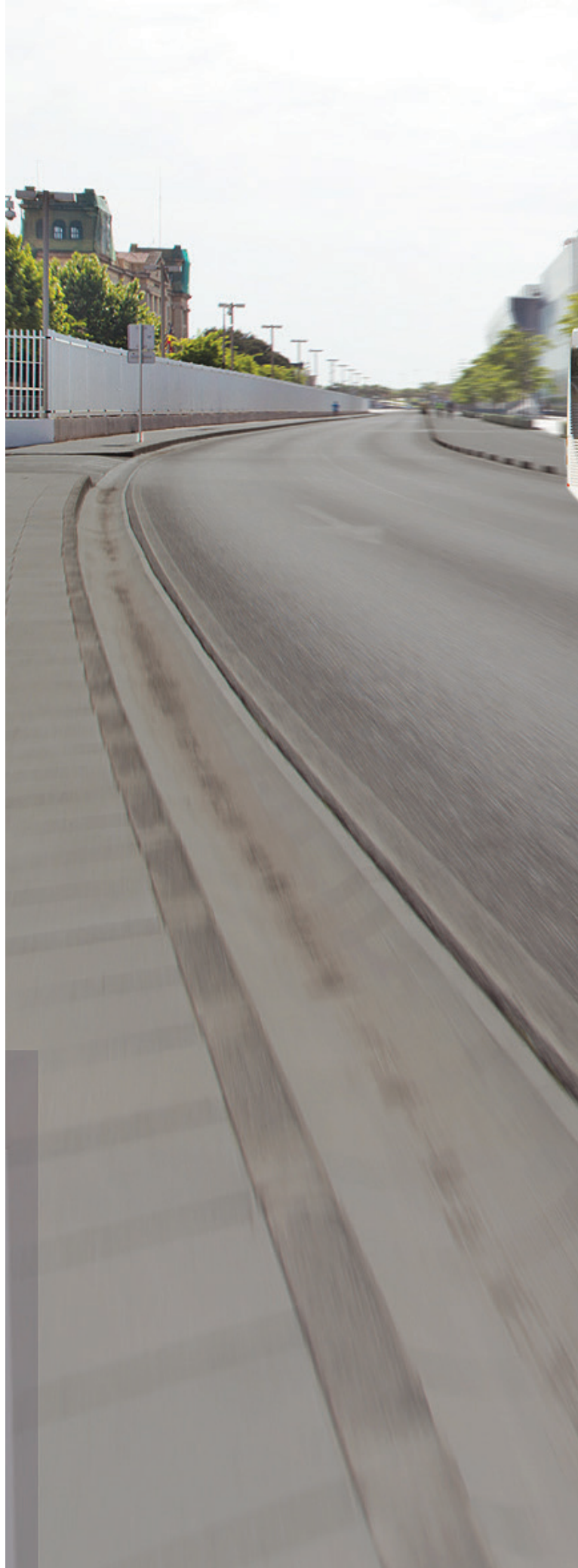
In addition, with a simplified, lighter structure, the Urbanway Full Hybrid can carry more passengers in well-lit, quiet and comfortable surroundings. Equipped with four doors, a low floor, a manual tilting ramp and a large central area for the safe transport of one wheelchair and one pushchair, the bus can carry a total of 148 passengers, including 33 seated.

The low noise of this vehicle is one of its great strengths – the electric "Arrive & Go" mode used when approaching and leaving bus stops temporarily disables the generator, leading to zero vibrations and a reduction in noise levels of more than 50 per cent. The perceived acoustic benefit is immediate; not only for passengers but also for pedestrians and local residents, as well as for the driver who, above all, can now enjoy a calm and quiet working environment.

The new buses are equipped with a powerful 60kW air-conditioning system for maximum comfort in all seasons, as well as technologies including locator devices and communications instruments for contacting the central operations centre, in addition to external destination announcements and internal "next stop" announcements. ■

# MAN celebrates 100 years at Busworld 2015

*MAN came away from the world's premier trade fair for buses with awards and a number of new contracts.*





It was Anton von Rieppel himself who approached Adolph Saurer in a letter written in December 1914. This gave rise to negotiations between the two companies. Mr. von Rieppel had originally planned to acquire a license from Saurer to build his own trucks. But Adolph Saurer wanted to enter into a cooperation that would guarantee his participation in the company. After several months of negotiations, the industrialists finally reached agreement – and this joint venture laid the foundation for truck and bus production at MAN.

From then on, things moved very quickly. By July 1915, LWW was already producing its first trucks at a plant in Lindau. This plant took over the joint venture from Saurer. Only four months later, production activities were relocated step by step to Nuremberg. Not only was the entire plant and all the machinery moved, but Lastwagen Werke also took over all the forty Lindau employees.

### Omnibuses for transporting parcels

As well as trucks, LWW also produced omnibuses, mainly for the “Reichspost” and city transport companies. Especially the country buses built by LWW were a common sight on the roads at that time. The “Reichspost” used them to transport not only passengers, but also letters and parcels. Just like the trucks,

these first buses were also 2 to 3.5 ton cardan vehicles – all fitted with a four-cylinder spark ignition engine, engine brakes, carbide lighting, petrol lamps, bulb horns, wooden wheels and a set of solid rubber tyres.

M.A.N. und Saurer worked closely together until 1918, then Saurer and his company pulled out of the joint venture. And from 14 November 1918 onwards, this was also reflected in its name - the company then became officially known as “M.A.N. Lastwagen Werke” (M.A.N. Truck Works). From then on, the Nuremberg site paved its own way in the development and production of trucks. Successfully. Until today.

With the TGX D38, the latest flagship of the truck fleet, MAN sets new standards in efficiency and performance. The MAN engineers also have a keen eye on the future of mobility. They are working hard to make the vehicles even more customer-friendly and economically. And customers appreciate this: Numerous fleet operators, breweries and local authorities have been relying on commercial vehicles made by MAN for decades.

### MAN Lion's Coach – “100 Years Edition”

MAN has released a ‘100 Years Edition’ of the MAN Lion's Coach to mark the product's anniversary. The vehicle is now available in a limited run of 100 units.

The Lion's Coach is a high-deck touring coach and a true all-rounder on the road, providing value for operators and comfort for passengers. The ‘100 Years Edition’, which is being marketed throughout Europe, represents a real showpiece, designed to appeal primarily to customers with a love of the product. The MAN Lion's Coach EfficientLine is equipped with a 440 hp D26 engine and the MAN TipMatic gearbox. The package also satisfies many customer requirements thanks to the GPS-assisted EfficientCruise cruise control, as well as other assistance systems





such as EBA and LDWS. Specially designed upholstery featuring the MAN lion and Texas grey metallic paint further enhance the model.

The anniversary '100 Years Edition' of the MAN Lion's Coach was presented to the public at the Busworld 2015 trade fair in October. The special edition will be available to customers, configured with its own basic equipment and selected optional extras, until 31 December 2015.

#### **MAN city buses – safe, efficient, comfortable**

Over the past three years, the Lion's City has been consistently product optimised, in order to offer customers the best possible quality and maximum benefit. The key measures implemented: weight optimisation, improved serviceability, greater passenger capacity as well as significantly lower fuel consumption. Particular attention has been paid to efficiency and optimisation of fuel consumption. In addition to various weight-reducing measures and Euro 6 exhaust technology, there are also features such as Idle Shutdown and the new automatic transmission software for ZF EcoLife Step 3 as well as a new two-stage air compressor. Another highlight at the fair is MAN's new city bus doors, a robust and maintenance-free solution for tough everyday conditions.

In addition to efficiency-boosting measures, MAN has also comprehensively enhanced its city bus portfolio in terms of driver comfort. For example, MAN is one of the first manufacturers of city buses to offer the new ISRI NTS2 generation of driver's seats as standard, with MAN placing particular emphasis on comfort and ergonomics in the cockpit, the driver's workplace. Key features of this are the lumbar support, the 3D adjustable seat and seat air conditioning.

#### **Lion's Intercity makes its trade fair début**

The MAN Lion's Intercity is being exhibited at an international bus fair for the first time in Kortrijk. It is tailored specifically for long-distance use, or as a shuttle bus, as well as for use as a robust school bus, and combines first class convenience with great functionality and superior safety along with top MAN quality. The vehicle not only sets standards with its striking, aerodynamically optimised design and excellent driving characteristics, but first and foremost with its efficient fuel consumption and low life-cycle costs. The concept behind the low TCO: consistent lightweight construction. Also, sophisticated aerodynamics and great ease of maintenance and repair contribute to the low operating costs.









### Prize-winning NEOPLAN Tourliner

At Busworld 2015 in Kortrijk, an international panel of judges awarded the IBC Comfort Award 2015 to the NEOPLAN Tourliner for its exceptional level of comfort. In the outdoor area of the Xpo Centre in Kortrijk, it was possible to take a ride in the luxurious coach, a 5-star vehicle with VIP seating for 32 passengers. The seat rows on the left are individual seats, while the rows on the right are double seats. The interior fittings include easy-to-view monitors, a 56 litre fridge and a handy on-board kitchen.

### MAN and NEOPLAN coaches – with added enhancements on request

In Kortrijk, MAN will also be presenting highlights from its Bus Modification Center (BMC) for buses and coaches, which meets special customer requirements when it comes to giving the final finish to their buses. The NEOPLAN Cityliner has an individual lounge interior designed by the BMC, which supports communication on the road. This includes a special light and sound system, specifically designed for this coach.

where passengers can socialise, with a spacious L-shaped, fully equipped galley, 18 Exklusivo-Plus seats and two face-to-face double seat seating groups with height-adjustable tables.

### Trends and Challenges

“Reliable engines and being the first to have perfect uptime. This is what makes us successful. We have a lot of experience in engineering and are testing extensively” said Rudi Kuchta, Senior Vice President Sales Bus, when asked what makes MAN buses such successes. From the design phase onwards, the approach is to be sure MAN / Neoplan customers have best uptime. The clever design of modern buses also considers emergency breakdowns. In the unfortunate case of an accident, the vehicles are designed for easy access and repair. Segmented sidepanels allow to change them quickly, thus getting the bus back on the road in a fast and cost effective way.

As bus manufacturer, MAN keeps a finger on the pulse of trends to be able to address the needs of the market with the right products. “Seen here, and as announced for the first time, the Emobility roadmap is a key development for us” Kuchta stated. From the already established Hybrid bus it will be an easy move to Emobility. However, Kuchta also cautions customers as the challenge will be to have MAN technology available everywhere. One of the issues to tackle is the fact that safety features vary for the buses produced in various Euro emission norms.

The NEOPLAN Skyliner double-decker coach combines two functions in a single vehicle: On the lower deck, there is a bistro

Market requirements vary vastly and no country is identical to another. MAN responded to these needs by offering a new Double-Decker for Asian markets. Kuchta explains that the company needs to “Be open for new products. Although Europe





constitutes 60 % of our market with complete buses, outside markets make up 70% in chassis. Our challenge is to manage the various applications and solutions."

Even though the buses may look different across the world, the issue of running cost is the same issue for every operator. Therefore TCO is the key. As a result, operators in some countries are now also looking at driverless vehicles in order to reduce

cost, eliminating humans from the list of costs incurred in the operation. Kuchta also emphasizes that the various engines using an array of fuels are created with the same aim in mind. Technology could be immediately implemented, but the speed with which this happens depends on country specific legislation.

With cities growing and soon 80% of people living in cities, mobility solutions are becoming increasingly important. When asked if city planners are doing enough to considerate and incorporate the needs and requirements of buses, the answer is unfortunately "Not enough". Normally cityplanners will design and bus makers respond with an appropriate product. Emobility however will require a closer relationship between the parties. Systems need to be integrated into the infrastructure. For example it would be possible to charge batteries at traffic lights (opportunity charging), but this requires that the roads are prepared for this. Globally, MAN estimates that by 2030 electric buses will constitute some 60% of the market.

**But first: Safety**

No matter how important fuel efficiency and overall operational cost reductions might be, human lives are still the most important aspect. Modern bus structures are developed according to the ECE 66.02 Norm plus a lot of active and passive safety





systems such as lane guard or braking assistance. MAN offers a number of safety features, but also systems that may not be as obvious in helping to improve safety. Kuchta cites the CDS, Comfort Drive Suspension. The CDS will adjust the stiffness of the suspension depending on the speed and driving pattern. With this, the driver is relieved of some stress and will be more relaxed, thus driving safer. "Yes, this is primarily a system that improves comfort, but also safety."

**Overseas perspective**

MAN representatives observed that the Busworld is becoming more and more international. Visits from Asian customers show the importance and significance of the exhibition. Kuchta states that there are strategic pillars for the company in Asia. The distributor in Thailand and own company in Malaysia, with both countries as focus markets are testament to this. This year also marks another significant step for MAN in Asia as the CKD operation in Thailand commenced business in 2015, with a strong focus on coach business. As each market is different, the operations are as individual as the countries MAN operates in.

"We will continue to invest in Asian countries. We are enthusiastic!" said Kuchta, pointing out that next year the 800th bus will be delivered in Singapore within the short span of only 4 years.

**MAN Lion's City GL CNG is "Bus of the Year 2015"**

The MAN Lion's City GL CNG city bus has been acclaimed as "Bus of the Year 2015". In the "Bus Euro Test", the articulated bus powered by gas impressed an international jury of recognised journalists. The award is one of the most prestigious trophies in the bus sector. The MAN Lion's City GL CNG with its CNG drive in Euro 6 provides an extremely low-pollution, climate-friendly and at the same time economic mobility solution for urban




traffic. Fuelled with biogas or e-gas, the articulated bus can be operated nearly CO<sub>2</sub>-neutral and therefore at the full electric vehicle level (well-to-wheel). Its vehicle concept, designed for inner-city routes with very high passenger numbers, also helped the Lion's City GL CNG to win the "Bus of the Year 2015".

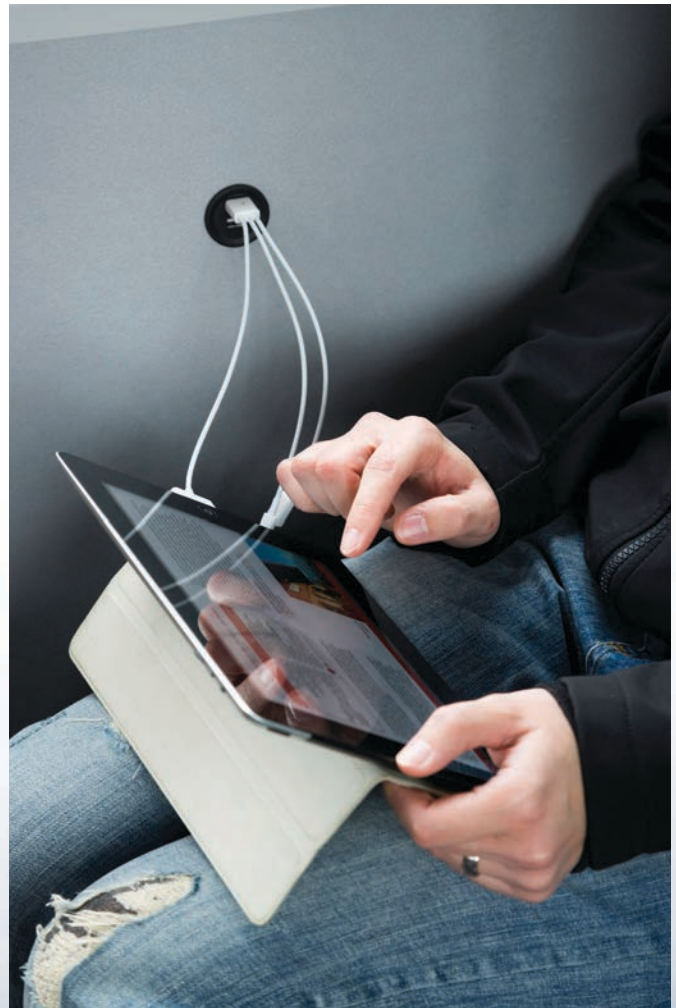
MAN presented the Body Builder Award to the Malaysian company Gemilang during the body manufacturers' evening at Busworld. Gemilang produces bus bodies for MAN's operations in Singapore, Malaysia, New Zealand, Uzbekistan, Australia and Hong Kong, building coaches as well as city buses.

### **Success for MAN at Busworld 2015**

MAN can report very positively on this year's Busworld trade fair, with the company having secured a number of new contracts, mainly on the Belgian and French markets, but also with customers in Germany and in the overseas markets of the Middle East and Asia. Over 100 vehicles were sold in total.

Among the highlights showcased by MAN was the MAN Lion's Intercity, making its debut trade fair appearance, and equipped with numerous efficiency-increasing features, the Lion's City attracted the interest of transport operators from all over the world. NEOPLAN's premium products, designed with their special upgrades, captured the visitors' attention and also aroused a great deal of interest from experts in the coach tour industry.

The excellent performance of MAN's vehicles is already evident from the two prizes that were awarded to MAN's buses at the event: the IBC Comfort Award 2015 for the outstanding levels of comfort offered by the NEOPLAN Tourliner and the ECW Award for the comfortable and ergonomic design of the MAN Lion's Coach C (100 Years Edition). 



# MATTA - More than a travel fair



L-R, Minister, Jaya Kumar (VP-Ground Transportation), Datuk KL Tan (VP-Inbound) and Datuk Hamzah Rahmat (President)

*Not all of our readers are travel or tour operators and therefore they may only think of MATTAs as an event series that allows us to grab cheap vacation packages.*

There are currently some 3800 travel and tour companies in Malaysia. These operators are not only moving locals, but also tourists. As such, they have a high responsibility. Firstly, tour operators need to ensure that the people they move are safe and secondly, as they are in many cases the first people tourists meet, they have to uphold a positive image of the country. In order to give the industry a unified voice and a strong code of ethics, MATTAs was founded as a travel trade association. This would also make it easier for the government

In 1975, a group of travel and tour agents initiated an association to represent their interests. That association, aptly named Malaysian Association of Tour and Travel Agents or MATTAs for short, started with 30 members. The founder of MATTAs was the late Mr. Loh Yit Lock who was also the 1st President. The President is elected for 2 years and can run a maximum of 2 times. Usually business owners volunteer their time to support the association.

Today, with a full time secretariat in Kuala Lumpur, its headquarters, MATTAs has state chapters in Perlis, Kedah, Penang, Perak, Federal Territory of Kuala Lumpur, Federal Territory of Putrajaya, Melaka,

Negeri Sembilan, Pahang, Terengganu, Kelantan, Selangor, Johor, Sabah, Sarawak and the Federal Territory of Labuan. The office of the CEO has some 30 staff - enabling many activities, for example the popular MATTAs fairs. This event is one of the ways the association raises funds to carry out its operation.



MATTAs objective is to promote the interests of the travel and tour industry in Malaysia.

Companies in this sector are licensed by the Ministry of Tourism and Culture and they typically fall into one of these three categories: ticketing, inbound or outbound. For the inbound travel the permits might come from SPAD, which also handles Bus Persiaran (known as Excursion / Tour buses). After the initial foundation of MATTAs, companies

operating as tour or travel operators had to be a member. Initially, they all were members with MATTAs. However, in the meantime other associations have been formed and companies may opt to join one of them. There are five in total and MATTAs holds about 80% of companies within the market as members.

MATTAs has a code of ethics in order to improve the industry, however, these are only recommendations and are not meant to be duplicating what is already in the rules as per the law.

The most relevant sub-committee for bus operators would be the one for Ground Transport. It is also headed by a Vice President and facilitates dialogs with SPAD or Singapore for example.

According to MATTAs the success of tour operators is closely linked to tourist arrivals. Many local people use their own transportation when they travel within Malaysia and may only require buses for trips around their vacation destination or for corporate events using buses. Usually, the first Quarter of the year is the indicator for the coming year. ■

Peter Danielsson - Safety Director, Volvo Buses

**“I CRASH BUSES FOR  
A LIVING. YOUR LIVING.”**

Every day millions of people around the world rely on our buses, and our job is to bring them safely to their destination. So our vision is clear: zero accidents with Volvo Group products.

And we do it the Volvo way, with world-leading safety development focusing on how to avoid accidents in the first place. This means developing buses with superior handling properties and advanced active safety systems that help the driver operate the bus in the safest way possible. Every Volvo bus comes equipped with an electronically controlled braking system (EBS), which includes both anti-lock braking (ABS) and Lining Wear Sensing that evens the wear and lets the driver know when the brake pads will need

changing soon. Volvo's state of the art Electronic Stability Program (ESP) assists in the prevention of vehicle rollover and driving off the road - even in the most slippery conditions. Our latest safety innovations on their way include Forward Collision Warning, Auto Brake Assist, Lane Keeping Support, Adaptive Cruise Control and Pedestrian Detection; and will take us even closer to reaching our zero accident vision.

We're convinced our zero vision will come true. It's just a question of when. Until then, we're proud to keep leading the way with a range of pioneering safety innovations that are making their mark throughout the vehicle industry.

*This is a global advertisement and not all features are available in all markets or on all models.*

*For more information about the safety features available on Volvo buses and coaches contact Volvo Bus Malaysia on +60 1 9221 4451 or visit [www.volvobuses.com](http://www.volvobuses.com)*

**Volvo Buses. Driving quality of life**





# Moving People - Connecting Neighbourhoods



Australian High Commissioner Philip Green

*The Australia Bus Industry Confederation held its 2015 Conference in Singapore with the goal to have an exchange of information not only between countries, but between the attending speakers and delegates.*

“The theme for the 2015 National Conference is Moving People - Connecting Neighbourhoods,” BIC Chairman Wayne Patch welcomed the delegates in the Ballroom of the Grand Copthorne hotel on the Opening Day, Monday November 9. “Convening in Singapore gives us the opportunity to embark on a learning exchange program about how we go about the business of moving people and how we connect our neighbourhoods. The 2015 BIC National Conference programme brought together speakers from across Asia Pacific speaking about making “bus business” a “business success” in Australia and in other Asia Pacific countries.”

### **An Important Industry**

“The bus and coach industry has an important role to play in providing sustainable travel choices and making neighbourhoods connected and liveable,” Mr Patch continued. “The full Conference program offers a wide range of learning from the Asia Pacific region and international experience focussed on how we move people today and in the future to make our cities and regions liveable, vibrant and sustainable.”

“During the three days delegates will have the opportunity to critically examine the role of government and industry in shaping future land transport policy that connects our neighbourhoods to deliver productive and efficient cities and regions.”

### **Rising Influence**

Following Mr Patch the High Commissioner to Singapore Philip Green, the Keynote Speaker, officially opened the Conference and told the delegates, “By having your conference in Singapore





Dr Poon Joe Fai

you will find a very modern international city of rising influence. The rise of Asia is the greatest dynamic of our time," the High Commissioner stated. The global influence is shifting from the traditional economic powers to Asia. Asia's total GDP will surpass the US and the EU combined. This phenomenon will affect every aspect of human endeavour - especially that of transport. This will bring both opportunities and challenges," he continued. "Asia is learning and adapting faster than any continent in human history.

"Singapore is a vibrant, go ahead city. Singapore is changing. It has long been an efficient state, but that is just one part of the picture now. It is a global centre. It is the second largest financial centre in the world and is challenging Switzerland for the top spot. Australian businesses are being managed from Singapore and a growing number of decisions being made here are consequential to Australia."

### Smart City

He talked of Singapore being a centre of innovation and noted that it is developing itself as a 'Smart City'. "It is making itself a model for the way in which cities can operate."

The High Commissioner reminded delegates, "The rising tide of Asian wealth will be a source of lucrative contracts for Australians. I urge more of you to expand off shore and take advantage of what is happening in Asia."

### No More New Roads

Singapore's Land Transport Master Plan, Lessons for Australia was Dr Poon Joe Fai, Director Policy - Land Transport Authority Singapore, topic. Dr Poon explained that one of Singapore's biggest challenges is its limited area. "We have only a limited amount of land on which to house our people, build factories, hospitals, roads and schools, and train the SAF," he stated. "Therefore, we decided to give top priority to investments in public transport, and to put private transport in second place. We do not have the land to allow an unlimited growth of private cars."

Understanding this gives you insight into the direction LTA policy has taken in recent years. Since 2008 Singapore has shifted its perspective. "We are now giving top priority to public transport," Dr Poon stated. "In 1995 our philosophy was to provide quality public transport choices. In 2008 it was changed to "Making public transport a choice mode."

### Improving the Experience

To get people to leave their cars at home and take public transportation the Land Transport Master Plan 2013 made its focus to enhance the travel experience on public transport. The LTA set out to make more bus and train connections with the goal of expanding the rail network - doubling the network by 2030.

Having more buses and trains means less waiting for passengers - all passengers including those in wheelchairs. "All buses will be wheelchair-accessible by 2020 and all MRT stations and bus interchanges to be barrier free," said Dr Poon.

"We are stepping up bus lane enforcement and we are making more bus lanes and installing more mandatory give way to buses signs." While increasing travel options LTA wants to reduce reliance on private transport."

### The 20 Minute City

Following Dr Poon a panel discussion was held discussing 'Moving People Solutions for Policy Thinkers - Achieving the 20 minute city - Part 1. The session was chaired by Michael Apps, Executive Director, Bus Industry Confederation, Australia.

The Keynote Address was delivered by Kate Carnell, CEO Australian Chamber of Commerce and Industry who talked on 'Why Cities are important for Australia.' We need to make our cities more productive," she stated. "If we do nothing our cities will become more congested and travel times will increase."





BIC Chairman Wayne Patch

'Connecting Neighbourhoods - the 20 minute city,' was the topic of John Stanley, Adjunct Professor Institute of Transport and Logistic Studies, Business School, University of Sydney. He defined a 20-minute city as being able to access of what you need within 20 minutes of your home by walking, cycling or public transportation. To achieve this clustering needs to happen, creating complete communities throughout larger urban areas.

**Improvements Needed**

Paul Barter, Adjunct Associate Professor and Research Trainer Advisor, University of Singapore spoke about 'Singapore Public Transport Policy (a long view)'. He gave an overview of the history of transport in Singapore. When it became obvious that private handling of public transport wasn't serving Singapore well the government got involved and over a period of years improved the service. More needs to be done. "The MRT is great, but not good enough. The buses are not good enough. Waiting 15 minutes for a bus is not good enough if your trip is only five minutes."

Part 2 on the 20 Minute City saw Dr Jaya Shankar P, Department Head Intelligent Transportation Systems, Institute for Infocomm Research (PH) Agency for Science, Technology and Research (A\*Star) speak to the 'Smart Nation - aligning policy, operation and technology for Singapore urban mobility'.

Following Dr Shankar, Michael Roschlau, Retired President & CEO of the Canadian Urban Transit Association speech was titled "Toward Integrated Urban Mobility in Canada: the evolution of Government Policy and Investment trends."

**Bus Priority & BRT**

Bus Priority and BRT in Asia, Australia and NZ – What can we learn from each other? was the next session. "Trends in BRT - a

global perspective" was Chairman Robert Pearce's theme. He is Executive Director, UITP Australia/New Zealand.

Michael Deegan, CEO Department of Planning at Transport and Infrastructure SA discussed the history, performance and future of the Adelaide O-Bahn Busway. Michelle McCormick, Integrated Transport and Land-Use Planning Manager, Planning and Investment at NZ Transport Agency gave a presentation on Bus Priority and BRT in New Zealand. "Bus Priority and BRT in Seoul" was the topic of Professor Dr Kwang Sik KIM, Department of Urban and Regional Planning - Faculty of Built

Environment, Universiti Teknologi Malaysia. "Implementing BRT in Malaysia - Past, Present and Future: The Case of Iskandar Malaysia" was presented by Dr. Muhammad Zaly Shah, CMILT Associate Professor/Academic Manager (Research) - Faculty of Built Environment, Universiti Teknologi Malaysia.

**Singapore's New Model**

Vincent Loh, an independent Urban Transport and Planning Consultant, addressed the audience on Bus Operations in Singapore. He gave the background of the bus industry in Singapore, the current regulatory or "territorial based" model and spoke on the new contracting model that recently saw a London based company beating out the two established local companies for new and existing routes being offered in the first package.

"In transition to the new model," he stated, "the government has funded more buses and routes, and enhanced service levels and standards. It introduced the Bus Service Enhancement Programme (BSEP) in 2012 to increase capacity and improve frequency. By 2017, 1,000 new Government funded buses will be injected into the bus network through new routes and supplementary services."



*BIC Presented its National Awards*

### **Improving Standards**

"Bus service reliability measured by Excess Wait Time and On-Time Adherence under the Bus Service Reliability Framework (BSRF) has been on trial since Feb 2014 for inclusion in the new model. The government will raise bus service levels in the new model to beyond those under BSEP, already an improvement over current.

"The purpose of this exercise," said Mr Loh, "is to make public bus services more responsive to changes in ridership, and commuter travel demand and expectations. It will inject more competition into the industry to raise service levels for commuters while emphasising cooperative engagement to "grow the pie".

Mr Loh stated: "The Government contracting model (GCM) means:

- LTA determines the routes and service standards
- Bus operators contracted via competitive tendering for the right to operate
- Bus operators are paid fees to operate while fare revenue is retained by the government
- Government owns all bus infrastructure like depots, workshops, buses and systems (e.g. fleet management and ticketing)
- Lowering entry barriers to attract more bus operators"

### **More Buses More Challenges**

With the government putting more buses on the road Mr Loh says, "More buses require more bus priority measures to ensure bus speed, run time and dwell time at bus stops etc. not to be adversely affected. With more bus routes and rail lines, service information and journey planning need more accurate, clearer, smarter and friendlier access e.g. mobile apps 2.0 etc."

Mr Loh stated that he enjoyed the conference and opportunity to share experiences and information with people of like-minded interest and profession. "There are common challenges despite different scales and conditions of operations in Singapore and Australian cities."

### **More than Meetings**

There was much more to the conference than meetings. There were Partners Program that included Lunch with the Australian High Commissioner. Dinners that gave the Australian delegates to see an aspect of Singapore. "Garden Rhapsody" Gala Dinner Gardens by the Bay was sponsored by Mercedes-Benz Australia Pacific. BIC took the opportunity to present their National Awards sponsored by IVECO Bus, and Australian Bus & Coach Underwriting, Bus Industry Confederation, Australia. 



*Mr Vincent Loh*

# Land Public Transport (LPT) Symposium 2015



*The 4th iteration of this annual event was bringing together local and international expertise from the land public transportation sector.*

**T**hemed “Journey into the Future- Building People Centric Mobility”, the full day event took place in Sunway Putra Hotel, Kuala Lumpur. The symposium begun with the LPT Gala Dinner and Industry Awards that were held at the Putra World Trade Centre (PWTC) on the evening of the 17th November. During this award night, SPAD highlighted a number outstanding industry players recognized by SPAD and peers for their service excellence and motivation. A total of 33 award recipients from a total of 10 award categories were presented, with three new categories being introduced this year. Asian Buses is proud to be serving on the panel for this prestigious award in 2015.

The LPT Symposium 2015 comprised of five sessions discussing various topics. However, the most relevant for our readers would have been the topic “Beyond Greater KL and Klang Valley: Keeping Malaysians on the Move”.



As land public transport benefits all of us, but is especially important for people living outside of the Greater KL, as it becomes a necessity. It is the primary, or only, transportation option for people who cannot drive, or do not have access to private vehicles. Affordable and reliable public transport enables commuters to reach work, access health care, and education. The continuously rising need for transportation is seen to be spurring private investment and driving economic development. The topic was a discussion on how to improve the public transport within Klang Valley with a focus on these few aspects: the shrinking subsidies, rising fuel cost and increasing passenger demands. Speakers involved were Dr. Prodyut Dutt, Chief Development Officer, Land Public Transport Commission (SPAD), Jeffrey Miller, Principal Transport Specialist, Asian Development Bank (ADB), Y.Bhg. Datuk Ismail Ibrahim, Chief Executive Officer, Iskandar Regional Development Authority (IRDA), Zulkifli Mohd Yusuf, Chief Executive Officer, Rapid Bus Sdn Bhd and Suhaimi Sulaiman, Host, Astro AWANI.

“In order to persuade users to use public transport instead of their private vehicles, we need to make sure that the public transport systems are in place, comfortable and efficient,” said Dr. Prodyut Dutt, Chief Development Officer, Land Public Transport Commission (SPAD).

“Punctuality, coverage and reliability are the factors needed in public transport to encourage people to use it and it shall be the local authority to play their role to achieve it,” said Zulkifli Mohd Yusuf, Chief Executive Officer, Rapid Bus Sdn Bhd.

“Any town planning should involve public transport facilities and if it has been considered in the first place, then there will be no issue fighting for space for public transport,” he added.

Delegates commented that it was a very convenient discussion and it did provide a lot of answers needed. Now the public may be looking forward for actions and changes in the future, enhancing the public transport systems in the country. ■



# What My Nationality Has to do With Road Safety

*Stefan Pertz has been criticized in social media for commenting on road safety in Malaysia. Shouldn't one be more concerned about the message more than who is delivering it?*

It is a good question, what does my nationality have to do with road safety? I could tell you. In one word. But I would rather discuss this a bit. Several times now I have been asked why I would get involved in road safety in countries that aren't mine. I would answer: why not?

Just imagine a tourist arrives in a new country where he experiences how people drive. This is unavoidable as one would use taxis, walk around or even take a long distance coach to see the countryside. It is here where an opinion about road safety is formed. Such a tourist would come back and tell his / her friends about the conditions found there. And this could be either a pleasant experience (like taking a taxi in Japan) or rather one that is freightening (Just this week alone I saw three motorbike accidents with the riders ending up severely mangled on the road side).

I've lived in Malaysia for a long time, and I am not just a casual observer, but I think, we can all make a difference when it comes to road safety. Why not tell the cabbie to slow down? Why not ask the trucker not to park in a way that would block the view onto the street when you exit your office building's car park? Surely, this would impact you no matter what colour your passport is.

I also stick my neck out to defend local truck drivers. Yes, there are some that aren't adhering to the rules and it is those that we hope to reach with Asian Trucker and the activities we run. Sometimes I comment on Facebook posts that deal with road safety. Some respond by telling me that it isn't my business as I am not a local.

their vehicle is big and they will be safe, therefore no need to buckle up. Guess what! That was the thought in Europe some decades ago too. But we have moved on and improved things.

Anyway, don't you think that I should have the right to comment on behaviour of people around me? I could also comment that people are irresponsible when they throw rubbish on the ground. Or maybe I can comment on the skills of local chefs, comparing the cooking skills of locals with those in Europe. Oh, hang on, I can't do this as I am not a local! I would rather ask what qualifies a local that hasn't got much to do with commercial vehicles, other than sharing the road, to comment on such issues. Has Michael ever climbed up into a bus to see what "blind spots around a bus" really means? I have. And not just once.

Perhaps it could also be the case of the Japanese consultant that urged us to pretend to be a fish in a bowl and jump out to get a different point of view? I would argue that sometimes we actually need outsiders to give things a fresh perspective or impetus. There are many experts working in areas such as construction, oil & gas and IT in South-East Asian countries. So why can't a foreigner be involved in road safety? When it comes to passenger cars, users actually seem to prefer European makes, as they are safer. Must be our expertise in making safe things that one is after, yes?

In short, my nationality has nothing to do with road safety. And yet, it is everything to do with it. Funnily, we get criticised when we get involved in something that the locals



**Michael** *Stefan Pertz, are you from Malaysia? If not, you should not give statements in support of Malaysian truckers. The fact*

Really? I think I have all the right in the world to talk about this as, even without spending every day around bus drivers, I can observe driving behaviour. Also, I may have some views that I bring with me and could constructively add to the discussion.

Take seat belts for instance. Some bus captains may not use them as they think

aren't touching. If everyone would do their part for road safety, nobody would need to make noise, no foreigner, no local. And to those thinking that I am disqualified to talk about this topic as a result of having the "wrong" passport, I would like to remind them that I am also a participant on the roads just as they are. I invite those to join us in our effort to make the roads safer. 🇲🇾

# The MIROS Safety Star Grading Program



MIROS has developed and introduced a Star Grading Program SSG program to provide an indicator for the public when choosing the best service

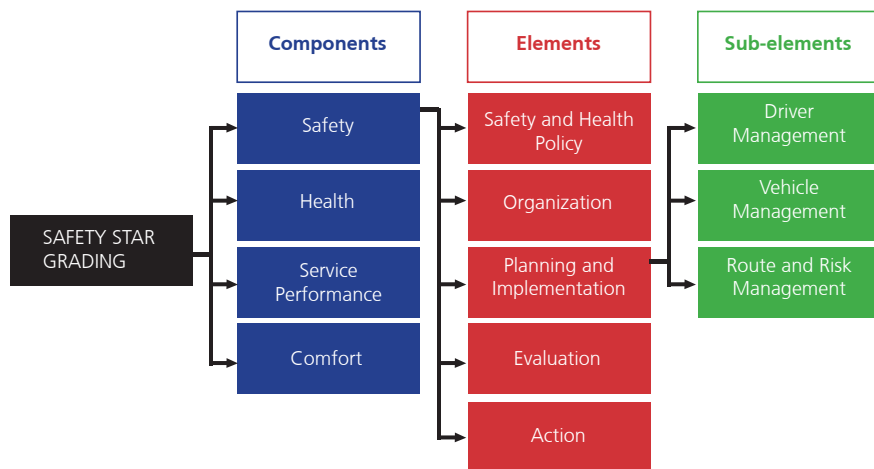
In 2013, MIROS, which is supervised by the Ministry of Transport (MOT) has come out with the program known as Safety Star Grading Program. In this program, bus operators will be classified according to their level of safety and health performance. The rankings are from one to five stars, with five stars being the best. From the program, it is expected that vital information on the level of safety and health of bus operation can be disseminated for the consumption of the general public in making the right choice for a better and safer journey. Bus operators also will be benefited in terms of their image, publicity and reputation. Furthermore, it can guide them on how to improve their offering.

Since it was started in 2013, MIROS has spent around RM 140 000 in developing the system. Up to date, a total of 23 express bus operators have been assessed by MIROS. Out of these 23, six operators have been awarded with star ratings.

Asked if such a good initiative like this is going to be established as a compulsory requirement for bus operators, we received the following answer: "Well, not yet. We have discussed this matter with the Ministry of Transportation and there was a time when Deputy Prime Minister of Transportation, YB Datuk AB. Aziz bin Kaprawi made a media statement to make this program as a compulsory requirement for bus operators. Even so, why it is not yet being implemented as planned? It is because there are still few factors that need to be considered and MIROS is still depending on JPJ and SPAD for any decision making because MIROS is not an enforcement agency. However, we are still in the process of moving towards that level," said Miss Ilhamah Binti Othman, Head of Crash Injury Science and Prevention Unit/ Vehicle Safety and Biomechanics Research Centre.

## Conceptual Framework of the Program

The framework of Safety Star Grading is made up of four main components, which are Safety, Health, Service Performance and Comfort.



numbers of requirement for the compulsory and optional items depend on each level of star grading. Apart from that, bus operators have to comply with three conditions:

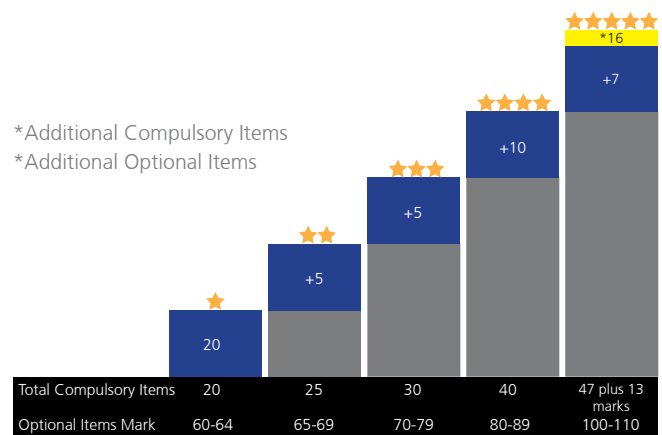
3. It is related to Demerit Points from the total marks obtained by a bus operator. The marks will be deducted from five to ten points according to incidences and violations committed by the operators.

Operators that would like to participate in the program can simply register online through the MIROS website. Sani Express was one of the participants that participated in the SSG and obtained a four star rating. This was the highest star rating so far. This grading system will multilaterally evaluate at the level of safety and health operation of bus operators. Information on star rating results from the assessment will be provided to the public in an easy consumable form so that the public can make right decision on the best services for their safe journey.

and Comfort. The Safety components is further divided into five elements: Safety and Health Policy, Organization, Planning and Implementation and Evaluation and Action (POPEA). Subsequent to that, the element of Planning and Implementation is further divided into three sub-elements which are Driver Management, Vehicle Management and Route and Risk Management.

In this conceptual framework, there are 47 compulsory items and 16 optional items to be complied with. The minimum

1. The bus operators have to comply with minimum requirements of compulsory items for each star rating in order to get rating for each particular star.
2. The bus operators must obtain certain scores in order to obtain the respective level of stars.



Safety items requirement according to the level of star grading.

# Controlled traffic runs smoother

*Modern technology is crucial when it comes to managing traffic flow.*

*Another home-grown brand is leading the way in order to give way to traffic, making our trips smoother.*

None of us likes to wait at traffic lights. However, they are necessary in order to manage the flow of vehicles at intersections and turns. Many main roads, the arteries of our cities, experience high volumes of traffic during certain times (rush hour) while traffic may flow at lower density during the day. This is when controlled traffic would ease the burden.

TrafficSens Controller is an advanced version of actuated control that takes advantage of advance information about vehicle trajectories to achieve more effective and efficient signal timings. As a result, the vehicles spend less time passing through the network than they would if a fixed cycle-length control strategy were employed. Because the vehicle flows are observable, through field sensors, it is possible to generate traffic-responsive stage sequences and switching times that minimize delays. The distributed intelligence at the intersections is used in conjunction with shared information about vehicle movements. It is prepared to make use of either wired or wireless communications technologies.

The signal timing evolves in a traffic-dependant responsive, intelligent manner; where the signals talk to one another and share data about the vehicle



flows as well as the signal indications being provided (greens, stage sequences, etc.). By doing so, they individually and collectively find switching sequences and times that minimize the delay for all vehicles. By doing this, stopping is reduced as well as trip times. Vehicles are serviced at the intersections expeditiously when they arrive. The signals prepare to provide greens in a logical, traffic responsive sequence. Minimum delay trajectories are created by having greens be provided for the oncoming vehicles just before they arrive or as soon thereafter as possible.

TrafficSens System (M) Sdn. Bhd. is a fast growing Malaysian company with a mission towards providing intelligent and advanced traffic management systems. The company has been offering their system for some five years by now and close to 200 units of their controllers have been installed. Customers include DBKL, Johor Baru and Negeri Sembilan.

The system can be installed within two weeks, given that the civil side of the road construction is ready to take the system. To gather the data of the traffic volume,

induction loops or wireless sensors are used. Customers will have access to the control panel and can monitor the performance via smartphones. If the thought of a failure is a concern, then road users can be rest assured that safety is the prime concern of the programming. Should the controller malfunction, the traffic lights will go to their default setting of flashing yellow lights. ■





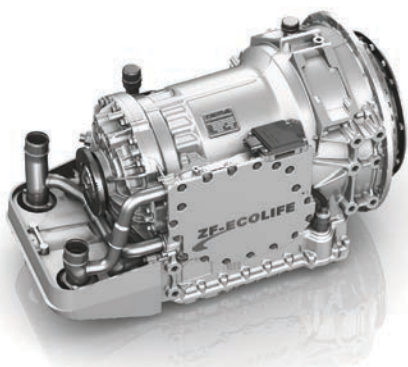
## City Buses Become More Efficient, Quieter, and Lighter Thanks to ZF: EcoLife Automatic Transmission with Start/Stop Function

**Z**F Friedrichshafen AG presented its extensive product portfolio for midibuses, city buses, and coaches on the Busworld Kortrijk. The innovations included the reengineered ZF-EcoLife automatic transmission which now features the start/stop function. Fuel savings of up to ten percent can be achieved with this function alone in conventional diesel city buses. An additional electric motor in the driveline is not necessary and reduces thus costs and installation space. The further development of the AVE 130 electric portal axle is a suitable solution for electrically driven buses. For ZF, automotive megatrends like efficiency, safety, and automated driving play an as important role as social and political long-term factors or the increase of comfort for drivers and passengers when developing new products.

The worldwide trend of urbanization, imminent gridlocks in global megacities, and international, enhanced environmental standards: In the public transport sector in particular, the requirements for high-performant, noise- and emission-reduced mobility concepts are constantly increasing. "Efficient and economic system technologies relieving the public transport sector, the companies, and the cities alike and enabling safe and comfortable traveling for passengers are in high demand," explained Andreas Moser, Head of the Axle & Transmission Systems for Buses and Coaches business unit of ZF Friedrichshafen AG. "This is why we are constantly working on optimizing our products: functional innovations, lightweight design, or the electrification of the driveline play an important role."

### **ZF-EcoLife: one driveline system, two premieres**

An excellent example for the continuous product improvement is the ZF-EcoLife 6-speed automatic transmission: At this year's Busworld Kortrijk, the technology company presented for the first time the innovative start/stop function for the already very fuel efficient and high-performant conventional bus transmission that decreases fuel consumption in urban applications by up to ten percent. In the transmission, the engineers strengthened the converter and the lock-up clutch of the series transmission. Another novelty is the EcoLife Coach transmission variant that now excels with an input torque of up to 2 300 Nm for intercity buses and coaches.



### **Tailored to the future:**

#### **AVE 130 electric portal axle**


The year 2015 will also see the market launch of the next evolutionary stage of ZF's successful AVE 130 electric portal axle for city buses: Significantly increased performance and torque values of the two motors close to the wheel make the application of the highly efficient electrically driven low-floor axle even more attractive for public transport authorities. The maximum electric output of the two water-cooled, asynchronous motors integrated into the axle will increase from the existing 2 x 120 kW to 2 x 125 kW. At the same time, the effective nominal voltage of the electric motors will increase from 350 to 400 V, while the maximum torque climbs from 2 x 465 Nm to 2 x 485 Nm. Furthermore, additional space for standing areas and seats is created with the new AVE 130 since the conventional drive shaft and propeller shaft in the rear are no longer needed. Not least, the AVE 130 yields significant weight advantages: Thanks to its two integrated electric motors, it weighs up to 500 kg less than all other solutions with electric central motor.

### **Intensified overall competence: axle systems for all bus classes**

Another ZF product premiere at Busworld Kortrijk was the AV 133 low-floor axle for buses. The successor of the worldwide established AV 132 was from the ground up designed for modern BRT (Bus Rapid Transit) traffic concepts and new vehicle generations. The AV 133 version with aluminum spring carriers excels with a weight advantage of 45 kg. The new axle program of the A/AV 110 for midibuses rounds off the product portfolio in this segment.

### **ZF driveline consultancy:**

#### **on the road with optimized fuel consumption**

However, not only advanced technology plays an essential role for improving the public transport sector. In order to enable transmission and axle systems to achieve their full efficiency potential, they must be ideally adapted to one another. Thus, ZF offers an additional, modular service concept for public transport authorities. The route-related driveline consultancy for a detailed on-site analysis of route and vehicle-specific parameters is used by the ZF experts to calculate the ideal configuration parameters. The recommendations given as part of the consultancy have already decreased the fuel consumption of buses in operation by up to four percent. 

# Father Christmas's Finest Sleigh Goes by the Name Travego

*Mercedes-Benz is making the Christmas Travego available for customers' private Christmas tours with its eye-catching livery and unusual lighting.*



It is probably this year's most striking "sleigh" from Mercedes-Benz. When the 135m LED fairy lights on the Christmas Travego start to sparkle, a Christmassy atmosphere on the roads is guaranteed.

## Take the Sleigh for a Spin

The idea for this unusual Christmas Travego came about at the Mercedes-Benz bus and coach sales office in Munich. The Christmas scene was conjured up on the vehicle's contours by the DesignStudio at Mannheim's bus and coach plant, whilst the livery and light system was created by the bus and coach refiner Heymann. Sporting this livery and adorned with LED fairy lights, the impressively equipped Travego M is intended for use by customers this Christmas.

Following registration and consultation with the responsible Mercedes-Benz contact, bus operators can use the vehicle for an evening in the pre-Christmas period for their very own Christmas tour. There are already concrete plans: the Christmas Travego is to accompany the Regensburg Cathedral Choir to a selected Christmas concert. An enterprise from Augsburg intends to use the Christmas Travego to accompany severely

disabled children to an event free of charge, and a Straubing bus and coach company is planning to take a kindergarten group to and from a Christmas market.

## Programmable Lights

The Travego M was originally pure white, and its light system controls now feature multi-stage programming. The system can be switched on and off from the driver's workstation. In the luggage compartment the operator has several programs from which to choose: a steady light or blinking light with steplessly variable speeds.

The colours red, green or blue can be activated in each case. These colours can be used in pairs or combined as a whole depending on everyone's wishes. The Christmas feeling in the air at any particular time can decide which combination is used.

From 28 December 2015 the Travego will in all probability be out and about as the Travego touring coach again, that is unless Käthe Wohlfahrt or Father Christmas themselves want to use the sleigh and its blaze of lights the whole year round. 🎄



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messe frankfurt

# Bus Priority and BRT in Asia, Australia and New Zealand

*Bus Priority and BRT, though not new, are being explored as public transportation options in cities around the world. At the Bus Industry Confederation Conference held in Singapore in November 2015, four speakers made presentations on the subject.*



Blue buses for trunk routes



Red buses for inter-city routes

**'B**us Priority and BRT in Asia, Australia and New Zealand. What can we learn from each other' was the theme of one session of the Bus Industry Confederations Conference that was held in Singapore.

## Operating O-Bahn

The Chair, Robert Pearce, Executive Director, UIP Australia/NZ introduced Michael Deegan, CEO, Department of Planning, Transport and Infrastructure SA to talk about the Adelaide O-Bahn.

The O-Bahn Busway is a guided busway that is part of the bus rapid transit system servicing the northeastern suburbs of Adelaide. The O-Bahn Busway was originally conceived by Daimler-Benz to enable buses to avoid traffic congestion by sharing tram tunnels in Essen, Germany.

Adelaide's O-Bahn was introduced in 1986 to service the city's rapidly expanding northeastern suburbs, replacing an earlier plan for a tramway extension. The O-Bahn busway provides specially built track, combining elements of both bus and rail systems. Adelaide's track is 12 kilometres long.

## Integrated System

Interchanges allow buses to enter and exit the busway and to continue on suburban routes, avoiding the need for passengers to transfer to another bus to continue their journey. Adelaide's system includes three interchanges: Klemzig, Paradise and Tea Tree Plaza Interchange in Modbury. Buses travel at a maximum speed of 100 km/h and the system is capable of carrying 18,000 passengers an hour from Adelaide city centre to Tea Tree Plaza

in 15 minutes. Currently the busway carries about 31,000 people per weekday.

Why a Guided Busway? Mr Deegan responded. "First there were environmental considerations. The O-Bahn is low noise and has a low physical intrusion on the city. It also had the potential for electrification and it provides a high quality of ride.

## Electrification

An electrified network would give passengers a world class service that is safer, environmentally friendly and efficient. The electrification began in June 2013 and new electric trains, masts and overhead wires have been installed along more than 37km of the southern rail network between Adelaide and Seaford.

The overhead wires along the railway lines between Seaford and Hallett Cove Beach were energised in June 2013, and between Hallett Cove Beach and Hove in November 2013. In January 2014, the remainder of the Seaford line from Seaford to Adelaide Railway Station was 'switched on'. On 2 May 2014 the Tonsley line was 'switched on' and on 3 May 2014 the Belair line was 'switched on' between Goodwood Station and Adelaide Railway Station.

## O-Bahn Features

According to Mr Deegan cost was another consideration for going with the O-Bahn. "

"It has a lower cost than light rail," he stated, "but a modest premium to a bus road network."



The system is a fully guided with a separate track. It has a cruising speed of 80km/hr and there is no signalling throughout the system. Using railway-type fasteners it has guide roller rubber wheels attached to the steering mechanism of the bus. Drivers are not required to steer the bus while on the guided track.

### Implementing BRT in Iskander

While Adelaide's system has been in place for sometime Mr .Muhammad Zaly Shah, Ph.D., CMILT, Associate Professor, University Technology Malaysia talked about "Implementing BRT in Malaysia - Past, Present and Future: The Case of Iskandar Malaysia, where a new system is being planned."

"The impact of Iskandar Malaysia development will result in increased trip generation by 14-fold," said Mr Shah. "By 2020, trips on the Nusajaya corridor will tremendously increase as planned developments are delivered. If nothing is done," he stated, "there would be reduced wealth sharing opportunities and increased cost of living. The roads will be three times more congested. Compared to Singapore and other global cities, Iskandar Malaysia is far behind in the provision of sustainable transport.

### 10 Corridors Proposed

The proposed IM Bus Rapid Transit Network consists of 10 corridors, to be implemented in three phases. It will be a multi-modal mass transit system for the Iskandar Malaysia Region that will be comprised of rail and road based transit modes. BRT is one of the main modes to be implemented in phases.

"We aspire to provide 90% service coverage and increase the public transport modal split from the current 15% to 25% by 2018 and 50% by 2030," Mr Shah noted. "When complete, the total length of the network will be 386.4km."

The network will be integrated within the five Flagship Zones with Transit Oriented Development, Park and Ride Facilities and Mobility Centres. The IMBRT is expected to contribute a 4.2 times multiplier effect on the economy and a 2.3 times multiplier effect on job creation.

### Savings Anticipated

"Road capacity will increase from 8,000 to 30,800 passenger per hour per direction (pphd)," he continued, "whilst retaining existing traffic capacity at 6,000pcu/hr/dir, (passenger car unit per hour per direction). It is estimated that the savings to the community will be RM 458mil/year by 2025 with the expected increase of ridership growing from 0.6 mil (2013) to 4.4 mil passengers (2025) with modal split of 30% in 2020 and 50% in 2025."

Additional benefits include: "Community cost of road accidents is expected to reduce from the projected RM 305.9mil/ year to RM 192mil/year in 2025, thus improving individual, social and psychological well-being."



Fare Collection



Riccarton Rd –waiting lounge and bus priority

**Efficiencies & Enhancements**

“Delays are expected to be reduced from the projected 177,958 hours/ day or economic loss of RM 960mil/year to 13,496 hours per day or RM 72,878,400/year in 2025,” Mr Shah stated. “The economic enhancement of newly developed areas and centres will be engineered by the BRT system and network; where people movements and mobility will improve the labour forces connectivity.”

As well as economic benefits, the improved system will have a positive environmental impact. “It will contribute to Malaysia’s commitment to reduce greenhouse gas emissions intensity up to 40% by 2020 (based on 2005 level.). It will be an affordable and sustainable system that is self-sustaining in the long run, saving the government from continuously having to subsidise it.

**Bus Priority and BRT in Seoul**

Professor Kwang Sik Kim of the Department of Urban and Regional Planning, Faculty of Built Environment Universiti Teknologi Malaysia (UTM) gave a presentation on Seoul’s BRT and Bus Priority.

“In 1986,” Prof Kim stated, “the first dedicated curbside bus lane was created. In 2002, 64 dedicated curbside bus lanes with a total length of 219km were in existence, but the curbside bus lanes did not function well because of mixed traffic such as cars, taxis, and trucks. The length of the curbside lanes has been reduced to 93km over the years.”

**Corridor Network of Median Bus Lanes**

As the old system wasn’t working well as a Corridor Network of Median Bus Lanes (MBL) was created. “A network of 124km median bus lanes on a radial pattern of 13 trunk corridors in connection across the city was developed,” Prof Kim explained. “MBL lanes are located in the middle two lanes of traffic, which is separated from general traffic lanes. No fully segregated lanes were installed due to lack of road space in the central part of the city. Colouring MBL lanes in red enhanced the image and permanence of the MBL.”

There are 326 bus stops in the middle of the roads and the type of surface material on runways at bus stops is red colour bricks, which gives it higher visibility. A disadvantage is that passengers must cross lanes of traffic to reach platforms which creates safety concerns.

**Service Design**

Prof Kim noted: “Frequent services are provided with average headways of three to five minutes during peak time, and five to seven minutes during off-peak. On some routes the number of operating buses increases for peak time. MBL service is integrated with feeder and inter-city buses, and subway services.”

The fare collection system, based on smart card technology, takes on-board payment and verification through the front door. “A flat fare or single fare system with five free transfers between buses within 30 minutes is used,” continued Mr Kim. “There is a discount transfer between bus and subway or subway and bus on the basis of an integrated fare system.”

**Bus Information**

Bus arrival information at a bus stop in a median bus lane shows the bus number, arrival time, bus type and buses arriving soon. “Seoul has taken several Bus Priority Measures,” Prof Kim said. “Bus lanes; bus only streets; priority at traffic signals; curbside controls; bus stop clearways and borders and traffic signal coordination and phasing. BMS keeps bus priority to improve travel times and service reliability for bus passengers. TOPIS gives a warning to vehicles which are illegally running in the median bus lane. The approach to bus priority in Seoul is a holistic and whole bus route management approach.”

Prof Kim added: “The result of these measures is increased average bus speeds making transit time-competitive to the car (10-15kph to 20-25kph). It has reduced the use of private vehicles (modal share of the car went from 26% in 2004 to 23% in 2013). There has been an increase in overall bus passenger

satisfaction to a record high of 88% in 2010. It has also brought environmental benefits to the city because of operating CNG-fueled buses."

### **BRT Extension**

A new BRT has recently been extended from Seoul to three neighbouring cities. With a total length of 42km this BRT system costs between US\$1.3 million and US\$4.1 million per kilometre. The capital cost components within this BRT project included busways, bus stops, depots, pedestrian infrastructure, and property acquisition.

Prof Kim concluded: "Since the 1960s Seoul has taken a long journey to improve its public transport system. It has developed an efficient, attractive, and cost-effective system of the median bus lanes to meet the growing demands of transport. The MBL of Seoul may not meet the universal standards for BRT, but in the local context it has been well developed and it is very efficient."

### **New Zealand Now**

When Michelle McCormick, Integrated Planning Manager addressed the delegates about Bus Priority and BRT in New Zealand he began by speaking about the scope and scale of the 2015-18 National Land Transport Programme (NLTP). The NLTP chipped in \$10.5 billion with local governments putting up \$2.72 billion and the Crown funding \$0.69 billion of the total National Land Transport Programme of \$13.9 billion.

### **Auckland Success Story**

From the 1950s -1990s Public Transportation was in severe decline as the motorway network was developed and New Zealanders took to the cheap imported cars. "From the late 1990s to now," stated Mr. McCormick. "There has been growth in public transportation investment and patronage. The Northern Busway, which was not always seen in a positive light, has been a great success story. From Day 1 its success was underestimated. Ridership far exceeded the expectation of planners and patronage continues to grow."

With the Northern Busway being such a success there are plans to extend it from Constellation to Albany. "Auckland Transport is investigating station options in Rosedale/Lower Albany area and assessing residential/business catchments, topography, and future growth," Mr. McCormick noted. "There are new network bus proposals and changes anticipated to feeder services. The aim is to align work and deliver stations in parallel with the NZTA motorway project. Major population growth is anticipated in the northwest. By 2046, 87,000 new residents and 43,000 new jobs are expected."

### **Auckland Bus Priority Background**

The Vision is to create an integrated, efficient and effective public transport network that offers a wider range of trips and is the mode of choice for an increasing number of Aucklanders.

Mr. McCormick noted that the population in Auckland is growing and there is more pressure to increase the people moving capacity along the city's corridors. Buses are a key transport mode to achieving this. "Parts of the bus network suffer from poor levels of service: slow bus speeds, reliability and delays caused by conflict with other general traffic," he stated. "Bus priority plays an essential role in reducing Auckland's traffic congestion by helping buses get where they need to go

faster and more efficiently. These can include bus/transit lanes, bus advance signals, and lead in lanes at intersections. The objectives of the Bus Priority programme is to improve journey times and reliability, to increase patronage and to improve value for money."

### **Bus Priority Strategy**

"The strategy," Mr. McCormick stated, "ensures that bus priority projects are carried out at the right time and at the right cost. Using real-time bus data with patronage data, corridors can be assessed for opportunities for time savings, for feasible infrastructure type, and for project impacts on other road corridor users.

"New corridors will be prioritised based on those which maximise travel timings and reliability improvements, and which are cost effective for bus passengers without imposing unreasonable costs to other road users."


### **Low Investment**

"Historically, there has not been much investment in bus priority in New Zealand," Mr. McCormick acknowledged. But that is changing. "The objective is to deliver 45 km of bus lanes in the next three years. The challenge is on! Eighteen kilometres of new Bus/Transit lane are to be implemented this fiscal year (FY), including Bus Lanes in the CBD as part of City Rail Link Bus mitigation measures.

"Ten minor efficiency projects are also to be delivered this FY. For 2016-2018 a budget of \$11.4m has been designated for the programme. Thirty frequent corridors are to be investigated, 20 additional minor efficiency projects will be investigated and delivered and an additional 27km of Bus/Transit Lane is to be constructed.

### **Rugby, Not Bus Priority Champs**

Mr. McCormick said that to grow the Public Transport mode share requires investment. Studies have shown that BRT has the highest benefits, then LRT then Bus Priority. LRT has highest costs (five times more than BRT). Bus Priority and BRT can be developed incrementally but LRT is best developed comprehensively. It is technically feasible to build all options," he stated. "But there are significant property impacts from BRT/LRT along the SH1 corridor, and additional impacts from a LRT tunnel. Which ever system is built it needs supporting policies such as land use and parking developments."

Mr. McCormick concluded: "New Zealand are the World Champions in Rugby, but not we are not world leading in bus priority. We are making progress. Bus priority is now being seen as a key part of major roading projects. We are looking at combination of solutions and priority measures." 





# Innovations and service from MAN

*The world's largest bus exhibition is a spying glass into the future of transport technology. Award winning MAN Truck & Bus drew back the curtains to let us have a glance at what future technologies will look like.*

**M**AN was represented with its comprehensive bus expertise at this year's "Busworld 2015" trade fair, which took place from 16 to 21 October 2015 in Kortrijk, Belgium. Whether it is a luxury coach with a bistro upgrade or an application-optimised city bus and intercity bus - individuality, innovation and interactivity are reflected in the MAN product range. At booth 204 in Hall 2 visitors had the possibility to view the full range of MAN Truck & Bus buses, featuring a wealth of innovations. The key topics was fuel efficiency and safety. Asian Buses met with Hartmut Mueller, Managing Director of MAN Truck & Bus Malaysia Sdn. Bhd. to find out more about these innovations and how they are going to be implemented in Asia.

## At the Busworld

First, Mueller provided us with a background on the expo and its significance for Asia's bus market. During

a tour of the MAN stand he said "Firstly, Busworld Kortrijk is the most important exhibition for the bus industry. World-wide. Here you can see anything and everything that relates to the bus industry. All suppliers and bus makers are here. If you don't find something that belongs to a bus here, then it does not exist".

According to him, the vehicles, technology and products on display are the future for the bus business in Asia too. This is especially true for safety features and technology to clean exhausts as they are highly developed in Europe. "And Asia will follow these standards sooner or later. This is an outlook to the future" he added.

While it may take some time for innovations shown at the Busworld, Malaysian customers can already see an improvement in the bus business. MAN's man in Malaysia pledged to improve the

service network and there are now two recently opened sites, one in Johor Baru and another in Prai. "These are located directly along the highways to Thailand and Singapore as there is a lot of traffic. Through them we provide better services in the case of a breakdown too", Mueller said. Recently, the German brand also extended their network in the East coast region, collaborating with local firm Minufa. Here, Minufa will take care of bus repairs as well as handling regular maintenance. To be able to respond to breakdowns faster, three new service trucks, complete with workshop repair equipment in the back, are now active and can be deployed in an instant. The on-board equipment even allows for larger repairs to be carried out outside the fixed locations. Mueller is happy to report that the company has closed a lot of gaps in the Malaysian service network previously found.



### Significant difference

Especially on the bus side, customers are looking for efficiency, better economy as buses drive long distances. Maintenance and fuel efficiency are items that allow for cost savings. This is where customers are looking for European brands. MAN is a leader in efficiency and lower cost of ownership is what the company is aiming to achieve. When asked about Asian products, Mueller replied that there is "A change of mind of customers when it comes to Chinese products. Many are coming back to European buses as they are more reliable." These thoughts are reflected in MAN's approach to Total Cost of Ownership (As shown on the MIBTC 2015 booth earlier this year). Bus operators clock 100 000s of kilometres on each vehicle and saving a few cents per kilometre will result in tremendous savings in the long run.

Customers can expect MAN to be adding more and more safety features, such as automatic braking systems. These will be added step by step. As these cannot be simply imposed on the customers, MAN Malaysia is currently discussing with interested operators which features are to be added. At the present moment, customers have to specifically order additional safety features.

"Governments should provide more help when operators are upgrading their safety features to electronic safety features. This saves lives and is a good way to promote road safety" is his pledge to the ruling parties across Asia. Safety features are going to be the main focus of many bus manufacturers. The industry is now looking at electronic tools to improve safety as axles and bodies have been optimised to a high degree.

In Europe, all buses are equipped in a way that easily allows disabled or handicapped people to use them. For Citibuses it is even mandatory to have such features. MAN is making an effort now to add lift systems onto coaches to allow more handicapped people to use them.

Looking at the home market, he sees that there are a lot of opportunities for improvement when it comes to making public transport more accessible for handicapped people as not all buses and all stations are designed to accommodate them. ■





Natthapong Chuapon knows where to find the craziest buses in Thailand



Speakers. Lots of them. And in all sizes.



A bistro makes the journey a pleasant one



And naturally, you need a good crowd of party-crazy people to hop on board. They need a lot of stamina as the trips can take a while and there is no stopping the Crazy Bus.



Several exhaust pipes on both sides of the bus are vital to pump out engine sounds too.



Tailor made attire is optional and can be obtained from the people behind the CrazyBus Thailand website.



Sacrificing a few seats, a DJ console is to be installed. It has to have a lot of lights, strobes and lots of buttons.



# Build your own "Crazy Bus"


**S**awadee Krap and welcome on board Thailand's "Crazy Buses". These rolling discotheques are famous and loved by Thais and tourists alike for their airbrush artwork, over the top accessories and the speaker systems that shake the ground.

We met with Natthapong Chuapon, one of the administrators of the "Crazy Bus Thailand" Facebook page and website [www.crazybusthailand.com](http://www.crazybusthailand.com). A PHD student for chemical engineering, he not only knows where Thailand's Crazy Buses are going each weekend, but he also knows what components need to go into one of these rolling stereos.

"Some of these can cost up to 10 Million Baht" he says. We assume that most of that money is going into the sound and light systems. "Today is a public holiday and this company has booked a number of buses for a weekend trip for their staff",

is his explanation for the congregation of buses in the Lat Krabang Industrial Estate north of the Suvarnabhumi Airport outside Bangkok.

Thumbing away in a corner is the most famous crazy bus and people are already dancing at 7:30 in the morning. The entire bus is shaking from the assault pounded out by the speaker array fixed to the front of the bus. Inside we find a fully fledged DJ console, light system, more speakers and some crazy passengers matching the bus.

These buses can be booked for private or corporate tours and have a huge fan club. Some 22 000 Facebook fans follow the tours of the buses. It is quite a sight when the convoy rolls out. Some buses can't be seen, but heard from far. Here is what you need to create your own Crazy Bus. 



One may add a row of mirrors to ensure around-the-bus vision.



A 'glow in the dark shift stick', giving the driver control over the gears.



A good looking co-pilot is optional.



A sound mixer that is operated by the driver adds to the skills needed by the captain.



More speakers in the doors in order to make use of all available space for maximum entertainment.



You need decorative items that are lit up at night. The more the better.



For maximum exposure, outdoor speakers are needed. These announce the arrival of the crazy bus from far.



Clean rims. All the time.

## Scania Malaysia opens Kuala Terengganu Service Centre



**From left to right;**

Chandra Rajan, Scania Region Manager for Region East, Marie Sjödin Enström, Managing Director of Scania Southeast Asia, Dato' Hj IR Mohamad Dalib, Director of Automotive Engineering Department of JPI, Gary Archer, Services Director of Scania Southeast Asia, Wan Noaimadudin Wan Mohamad Kamal (Aiman), Branch Manager of Scania Kuala Terengganu, officiating the Launch of the Scania Malaysia Kuala Terengganu Service Centre.

Scania (Malaysia) Sdn. Bhd. has officially launched its Kuala Terengganu service centre on October 13th. Customers in the East Coast region can now send their Scania trucks, buses and coaches, marine, industrial and power generation engines to this service centre for regular maintenance.

"The opening of Scania Malaysia Kuala Terengganu service centre demonstrates our continuous improvement in providing the best services for all our Scania customers for their best profitability in this state, region and across the country," said Marie Sjödin Enström, Managing Director of Scania Southeast Asia.

A complete service solution, Scania Malaysia Kuala Terengganu is now part of a vast network of 10 Scania service centres in Malaysia. The service centre covers an area of 3,759.18 square metres consisting of three bays and one pit. It will be operated by well-trained Scania technicians, service advisors and parts personnel. With support from Asian Parts Centre in Singapore, Scania Genuine Parts are available at this new service centre. New standby service van adds to a growing fleet of roadside assistance in this state and in the country.

The service centre is headed by Wan Noaimadudin bin Wan Mohamad Kamal (Aiman). As the Branch Manager, he

has a Degree in Mechanical Engineering (UiTM) & has been with Scania Malaysia and Scania Regional Product Centre for more than five years now. He reports to Chandra Rajan who is the Region Manager for Region East.

In conjunction with the service centre opening, Scania made an official handover of trucks and coaches to customers.

Agensi Pelancongan & Adik-beradik took ownership of two units of K360IB4x2 bus and Suwara Travel & Tours Sdn. Bhd. took one unit of the same model, while Syarikat Pengangkutan Bumi Pantai Timur Sdn. Bhd. took the keys to 2 units of K410IB4x2 buses – all are financed by Scania Credit.

Sentosa Jaya and Yusri Maju also received 2 truck units of G460CA6x4EHZ with Retarder and 1 unit of P410LA6x2MNA with Opticruise respectively on the same day.



## Synchronizer gears for buses

Guaranteed quality has made the brand DT Spare Parts the leading brand in the international independent Aftermarket for commercial vehicles. The complete range includes all required spare parts for trucks, trailers and buses, including all standard synchronizer gears. Synchronizer gears form the transition between gearwheel and shift collar. Through friction, they bring both wheels of the required gear to the same rotational speed, so that this can be engaged without declutching.

During the gear shifting, the shift collar is pushed to the gearwheel. In the process, the locking piece pushes the synchronizer ring onto the conical part of the gearwheel.

Through the friction of the synchronizer ring, the gearwheel is accelerated or decelerated. The synchronizer ring is supported over the lugs on the shifting body. Due to the play in the lugs on the shifting body, the synchronizer ring is repositioned by about a half a tooth width and thus blocks the shift collar's way into the gap in the teeth of the gearwheel. Once the synchronization is established, there is no longer radial force acting on the synchronizer ring.

Due to the chamfering on the end faces of the shift collar and synchronizing ring, the synchronizer ring is turned back. The tooth spaces become free and the shift collar can be slid over the teeth. The gear is engaged. Quiet synchronization is guaranteed by precisely coordinated gear teeth. The synchronizer rings are forged. This production method ensures a more consistent tooth form with high strength.

The friction surfaces of the synchronizer rings are coated with Molybdenum. This protective layer is characterized by excellent frictional properties and guarantees minimum wear during the synchronization.

# Electromobility running smoothly for city buses



“Electromobility protects the environment, is quiet and works” says Ralf Arnold. The Managing Director of Ziehl-Abegg Automotive makes reference to a number of city bus manufacturers in Europe who are successfully incorporating the ZAwheel gearless in wheel hub drive. Electric buses from various manufacturers with ZAwheel were on show at Busworld in Kortrijk (Belgium).

The message from Ziehl-Abegg at Busworld is clear: electromobility in the area of public passenger transport is a tried and tested technology and in operation in several European cities. At an international press conference on 16 October two experts will be reporting on the practicality of city buses fitted with ZAwheel in use on scheduled routes (14:30, Hall 4, booth 429).

## Intelligent charging technology allows for smooth integration into diesel vehicles

In the spring, Eckhard Schläfke, Head of Transport Operations Stadtwerke Münster (Germany), commissioned five electric buses into operation as part of the ZeEUS Project. How can a local authority integrate five electric vehicles into an existing fleet of diesel vehicles? The Public Utilities Department has installed quick charge stations in the Public Utilities Department depot as well as at the two bus termini. These stations use the quick charge process to recharge the batteries on the roof of the vehicles during the normal scheduled waiting period. Referring to the battery reserve, Schläfke says that “even if there is no time to charge the battery, e.g. because of delays, the bus can continue operating”. Thanks to the charging stations being

located at the termini and the efficient ZAwheel drive, the dimensions of the batteries have been kept to a minimum; the vehicle weighs hardly any more than a conventional bus

After years of waiting and testing Ralf Arnold believes the hour for electric city buses has now come: “The time is ripe, the political pressure is there - and we have the right drive solution to meet the need.” In every comparison test the ZAwheel gearless in wheel hub drive is clearly the front runner in terms of noise characteristics, efficiency and operating costs. By not having any gears the ZAwheel also scores over diesel-powered vehicles and hybrid buses in terms of life-cycle costs

## ‘One-stop shopping’ for electro retrofitting saves time

There is increasing interest amongst fleet operators in the electric retrofitting of conventionally powered city buses (diesel, gas) with ZAwheel. “In this context the companies are looking for a single project planner and conversion partner”, reports Arnold. Ziehl-Abegg meets this requirement from two aspects: any standard bus 10.5 and 12 to 18 metres in length can be easily converted into an electric bus with ZAwheel by being retrofitted with the new ZAaxle drivetrain module. In addition, in Benteler Engineering Services (Munich), there is another company that offers an all-round, worry-free retrofitting: package, from system analysis and/or design, to conversion; even the homologation is offered at Benteler Engineering Services on a ‘one-stop shopping basis’.



## SPAD excited about budget allocations for public transport

The Malaysian Budget for 2016 is an all-inclusive budget that will accelerate Malaysia’s growth. The Land Public Transport Commission (SPAD) says it is pleased with the commitment reiterated by the government to transform the land public transport system both in Greater Kuala Lumpur/ Klang Valley and across the nation.

With the significant allocations provided for the development of Malaysia’s public transport system, specifically in the rail and bus network, SPAD is able to continue with the development of key initiatives within the National Land Public Transport Masterplan (NLPTMP).

A total of RM67 million is being allocated for bus operations in rural areas as well as a RM1 billion allocated for the Bus Rapid Transit (BRT) in Kota Kinabalu and RM1.5 Billion for the KL-Klang BRT.

## 66th IAA Commercial Vehicles 2016 in Hannover

The origins of the IAA can be traced back to more than 100 years. In 1897, 8 motor vehicles were exhibited to the public at the Bristol Hotel in Berlin. From these humble beginnings, a regular exhibition was established that, due to its high visitor turnout, had to be separated into an alternating exhibition of passenger cars and commercial vehicles in 1991. In odd-numbered years the IAA Cars is held in Frankfurt; even-numbered years see the IAA Commercial Vehicles in Hannover.

**Dates:** September 22th to 29th, 2016

**Venue:** Fairgrounds of Deutsche Messe, Hermesallee, 30521 Hannover, Germany

## Giti makes its presence felt with opening of Malaysian office

Participating in MIBTC earlier this year, Giti already hinted at an expansion into Malaysia. In September, the company made a move and set up their office in Oakland Industrial Park, Seremban. Here, Giti as a manufacturer, has built up a team to service Malaysia market. The purpose of this local office is to ensure that the contact with local customers is “more in-depth and professional” according to a Giti spokesperson.

# Keep it neat and tidy



Just like the profession, the look of bus captains has developed from a casual attire into a uniform that is looking like a pilot's. Not only in terms of functionality, but this is also an improvement to create a positive image of the bus driver. We met with a bus captain that applies this not just to the uniform, but also in the image he carries.

Obviously, as an ex army member, uniforms are nothing new to him. Having devoted his life for 22 years to the protection of our nation, soon after he reached the age of 39, (he is now 41) he decided to jump into a different field, which was to become a bus driver. "Why a bus driver? Well, because I was a military truck driver, so it is not that far fetched from what I was doing in the military," said Mr. Iskandar Zulkarnain, a captain for Konsortium E-Mutiara Bhd.

Being with E-Mutiara for two years, and as his first company to work with, according to Mr Iskandar, it's pretty much the same environment as the military. Not only do you need to wear a neat and tidy uniform, but the discipline is quite strong in the company.

"I was nurtured with a disciplined routine every single day back in the military, until it became a part of me no matter where I go. As a bus driver, to maintain the safety and the comfort of passengers, it can only be achieved if I discipline myself too. Here we are talking about taking care of my health, always

being in a positive and fresh mood, full of energy to perform my duty, and giving service with a sincere heart," said Mr Iskandar. "Everything was rough back then in the military, people in my circle, my environment, etc. As a soldier, we were trained to be tough and not so gentle in handling any situation. But things I've learned in being a bus driver (and still learning) are different: normal people are more sensitive and emotional. I need to be extra concerned and extra alert in implementing my responsibilities," he added.

## Free Time

Mr. Iskandar's favourite sport is "Sepak Takraw". A game that uses a rattan ball and only allowing players to use their feet, knee, chest and head to touch the ball. He joined a club to stay active and he plays every weekend.

"I still consider myself as a new driver with a lot of room for improvement, especially when driving during the raining season where slippery roads can be more risky. Landslides, for example the one that happened recently in Karak Highway, are things that can happen and that one needs to be prepared for", he explained the challenges of being a bus driver.

He enjoys his work in E-Mutiara and as a bus driver. For Mr. Iskandar, he still has an urge to explore more in his new field and we, Asian Trucker wish him all the best for future! 🚐

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