

Volume 8 Issue 4, 2019
SG\$8.00

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MCI (P) 061/03/2019

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**UD Trucks Quon Concept 202X
Elevates Smart Logistics**

**Volvo 50 years of
Studying Real Accidents**

**Moving From 'Smart' to
'Ideal' to 'Wise' Cities**

**Daimler Trucks Asia
Electrifies, Automates**



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CONTENTS



REGULARS

- 04 Editor's Note
- 13 Events Calendar
- 45 News & Notes
- 48 In the Headlights

MARKET UPDATES

- 06 Bridgestone changes Name of TomTom
- 07 Hyundai's Hydrogen Mobility Solution

EVENTS

- 08 Lots of News in the East
- 09 Events & Exhibitions

COVER STORY

- 10 Quon Concept 202X Elevates Smart Logistics

FEATURE STORY

- 14 ITS World Congress
- 18 Daimler Trucks Asia Electrifies, Automates
- 40 The Smart Alternative in OE Quality

MOVING FORWARD

- 22 Making the Case for Platooning

LOGISTICS

- 26 Driving Efficiency with Smart Logistics

SAFETY

- 28 Volvo 50 Years of Studying Real Accidents

PRODUCT LAUNCH

- 30 The New Mercedes-Benz Zetros is a Robust Off-road Truck

TRUCKING LEGENDS

- 32 King of the Road, Scania V8
- Drives on Strongly 50 Years Later

E-MOBILITY

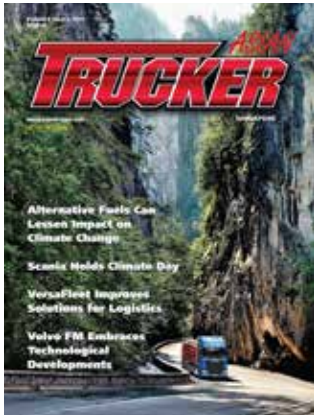
- 34 The World's First Unmanned Electric Truck Started Trial Operation in Port
- 37 Goldbell Launches MoveSG to Champion Mobility
- 38 Cummins Heavy Duty Truck with Fuel Cell and Battery Electric Power
- 39 Tata Motors and Lithium Urban Technologies

Cover Photo – Courtesy of UD Trucks



The Drivers **ASIAN TRUCKER**

**YOUR GUIDE TO ALL
THINGS TRUCK**



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EDITORIAL

EDITOR-IN-CHIEF Floyd Cowan
CONTRIBUTORS Stefan Pertz
Carol Yeoh

GRAPHIC DESIGNER Tony
PHOTOGRAPHERS Floyd Cowan
Carol Yeoh

ADVERTISING & MARKETING SINGAPORE

Floyd Cowan
Floyd@asiantrucker.com

Stefan Pertz
Stefan@asiantrucker.com

MALAYSIA

Nicole Fong
Nicole@asiantrucker.com

THAILAND

Songyot Kamontavikun
Songyot@asiantrucker.com

WEBSITE

Stefan Pertz
Stefan@asiantrucker.com

CIRCULATION, CONTRIBUTIONS and SUBSCRIPTION
info@asiantrucker.com

WEBSITE and E-NEWSLETTER
www.asiantrucker.com

PUBLISHED BY

Asian Trucker Singapore Pte. Ltd. 2C Upper Boon Keng Road #29-678,
Singapore 383002 T: (65) 6749 3748F: (65) 6749 3748

MALAYSIA (HQ) ASIAN TRUCKER MEDIA SDN BHD

Asian Trucker Media Sdn. Bhd. No. 27-1, Block C, Zenith Corporate Park,
Jalan SS7/26 Kelana Jaya, 47301 Selangor, Malaysia
Tel: +60 12 207 5528, Email: nicole@asiantrucker.com

PRINTED BY STAMFORD PRESS

Asian Trucker is a quarterly publication.

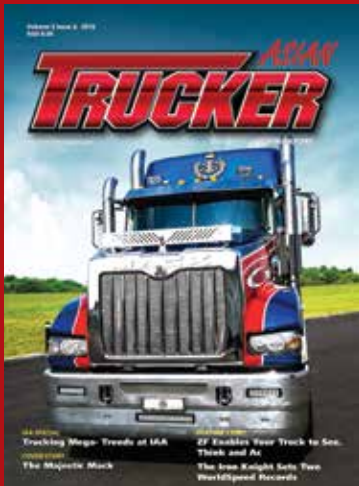
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How Close are Autonomous Vehicles?

Novelist William Gibson wrote: "The future is here – it is just unevenly distributed." And it is the same with information, writes Floyd Cowan, it is here, but not equally distributed.

In recent years I've been fortunate enough to have attended a number of events about autonomous vehicles. A few years ago, listening to the speakers, I had to listen carefully to get up to speed as it was a new subject and I needed to learn. As to be expected when delving into a new subject.

Accepting Assumptions

At that early stage, as you don't know any better, you not only learn the objective information, but you tend to accept the point of view of the speakers. When I heard that this field was rapidly progressing and that autonomous vehicles were closer than the public believed, I accepted that.

Now, as then, speakers believe that among the major roadblocks to autonomous vehicles are the social and legal concerns. Legislatures need to introduce laws that will cover all new situations and all new liabilities that will arise when the vehicles don't work as they are made to do.

Public Acceptance

Another roadblock is public acceptance. Some feel that there will be a need for great social adjustment for people to accept that vehicles will be going here and there without anyone obviously in control of them. Of course, there are always adjustments to be made when a new technology is introduced. In this and the previous century we have gone through incredible changes. Society, as a whole, has accepted the technological changes and adapted them into their lives. Which I believe they will do when totally autonomous vehicles arrive. Except they are already here – in controlled settings.

With new technology often there is dislocation and some people lose out badly. They take the brunt of the change because there is nowhere for them to go. Their skills or their age prevent them from moving into another profession. The rest of society happily goes on its way enjoying the benefits of the new technology. Few people would suggest we abandon the automobile and go back to the horse and buggy. Some do because of the pollution automobiles create – whereas most of us

would rather we developed vehicles that didn't pollute. We have to move forward. We have no choice. Stagnation is not an option.


Progress is Slow

But attending as many sessions of the ITS World Congress as I could I slowly came to the conclusion that there has been little, if any, significant progress along the road to complete automation. The learned people talking at the ITS sessions were saying the same things that speakers were saying three years ago. Some told us that this was happening rapidly. I didn't hear anything that convinced me we are now a big step closer to the reality of autonomous vehicles.

One of the major technologies required for seamless autonomous driving are sensors. Sensors that prevent one vehicle from running into another. Here they are making progress. Where sensors don't do so well is in recognizing potholes. Potholes are the bane of all drivers, but it seems that people do a better job of seeing them and reacting to them than automated vehicles. Hitting a pothole at speed is neither fun nor safe.

Behind the Scenes

I am sure developments are taking place that we are not yet aware of. What is really not clear is how close we are to the future.

As a media outlet that writes about commercial vehicles we are very interested in this subject and we will do our best to keep you informed about all developments. You are also welcome to write to us and tell us about your developments. Please be in touch if you have something to say. 

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SBU. As a result, Bridgestone Europe, Russia, Middle East and Africa (BSEMEA) will become Bridgestone Europe, Russia, Middle East, India and Africa (BSEMEA), one of four SBUs globally, alongside Bridgestone China, Asia-Pacific, Bridgestone Americas, and Bridgestone Japan.

The integration of Bridgestone India into EMEA comes as a result of Bridgestone EMEA's ongoing transformation capitalising on the opportunities digitalisation offers to pioneer mobility solutions that meet the needs of customers for convenience, efficiency and sustainability.

Bridgestone Reveals 'Webfleet Solutions' as New Name for TomTom

As a name, TomTom misses a beat, so Bridgestone gives a new moniker to its recent acquisition.

Following the acquisition of TomTom Telematics by Bridgestone Europe in April 2019, Bridgestone has announced that TomTom Telematics' company name will become Webfleet Solutions as of October 1, 2019.

Strengthening Capabilities

The acquisition of TomTom Telematics was motivated by Bridgestone's ambition to strengthen its digital capabilities, as part of its ongoing transformation from a premium tyre producer into a mobility solutions leader. The new Bridgestone company is Europe's number one provider of fleet solutions, a double-digit growth industry.

The acquisition has reinforced Bridgestone's footprint in data-based solutions that make fleet operations more effective and efficient. Now, the newly-named Webfleet Solutions – inspired by its main solution platform WEBFLEET, which has been providing leading telematics for fleets for the past 20 years – reflects Bridgestone's ambition to provide a wider range of digital mobility and fleet solutions to its customers and consolidate a global leadership position. The EMEA business now serves over 1.2 million vehicles with mobility subscriptions and fleet solutions.

Powerhouse Created

CEO and President of Bridgestone EMEA, Paolo Ferrari commented, "When we acquired Webfleet Solutions at the beginning of the year, we created a fleet solutions powerhouse. Together we have every capability to lead in what is an incredibly exciting, fast growing, and innovative area of mobility. We have the ambition, the infrastructure and resources, the data and insights, and we have the people and their **unrivalled** knowledge. As the new worlds of connected and autonomous mobility rapidly become a reality, together Bridgestone and Webfleet Solutions will ensure that our customers can enjoy every benefit of this new era."

As they have done since the acquisition was first confirmed, teams from Bridgestone and Webfleet Solutions continue to explore new opportunities and innovate together.

Bridgestone Restructures Strategic Business Units

Bridgestone has announced that from January 1, 2020 its India business will fall into the EMEA Strategic Business Unit (SBU), transferring from the China, Asia-Pacific

Unlocking Potential

This transfer will unlock untapped potential in both India and EMEA. As a result of the rapid expansion of the Indian automotive and tyre market, there is great opportunity in the retail, Internet sales, original equipment aftersales, and, in particular, fleets spaces – opportunities that can be better realised when paired with Bridgestone EMEA's experience and expertise. Likewise, Bridgestone EMEA's digital transformation can be accelerated by India's tech skills and IT know-how.

"India is a market with huge potential," stated Bridgestone EMEA CEO and President, Paolo Ferrari, "potential that is definitely being met. Bridgestone India is only 20 years old, in that time we've seen growth in the country build and build to make it a cornerstone market; today we're the largest premium tyre producer in the country, employing over 3,200 people."

Knowledge Sharing

Ferrari added: "There are huge learnings that Bridgestone India can pass on to what is now Bridgestone EMEA, and vice versa; we feel very fortunate that so much knowledge can be shared within our global business to meet ever-evolving customer and market needs. Under the new banner of Bridgestone EMIA, we're committed to working with India to make Bridgestone a leading mobility solutions provider across all three continents our business unit operates in."

This change also means that Bridgestone India will join the recently announced Bridgestone Emerging Markets division, alongside the company's businesses in Africa, the Middle East, and Russia. **T**

Hyundai's Hydrogen Mobility Solution Wins 2020 Truck Innovation Award



Hyundai has been honoured with the second-ever International Truck of the Year (IToY) Truck Innovation Award, validating Hyundai's pan-European initiative for applying clean mobility for commercial vehicles



Validation of Approach

"Earning recognition from renowned international jurors that determine the annual IToY awards is a validation of our approach to commercializing hydrogen-powered fuel cell trucks in Europe and around the world," said Edward Lee, Head of Hyundai Commercial Vehicle Business Division. "The joint venture between Hyundai and H2 Energy was established to accelerate our Fuel Cell Electric Vehicle (FCEV) Vision 2030, and we're honoured that this prestigious group of journalists has recognized our efforts."


(SEOUL) Hyundai Motor's Hydrogen Mobility Solution has won the second-ever International Truck of the Year (IToY) Truck Innovation Award. Hyundai Motor Company and H2 Energy set up its joint venture (JV), Hyundai Hydrogen Mobility, in April 2019. The goal of the cooperation is to expand Europe's hydrogen mobility ecosystem by implementing the use of fuel cell trucks. The joint entity began its active progress toward clean mobility in Switzerland with the company's plans to deliver 1,600 fuel cell electric heavy-duty trucks by 2025. The JV will spread its reach for an innovative pan-European solution for the commercialized fuel cell vehicle market.

Innovations Evaluated

The IToY Truck Innovation Award is determined by a jury of 25 commercial vehicle editors and senior journalists that represent major trucking magazines from Europe and South Africa. They gather to evaluate technological innovations and contributions to energy transition within the commercial vehicle industry over the past few years. The jury voted at Solutrans, an industrial and urban vehicle show, held November 18-23, 2019 in Lyon, France.

The jury highly acknowledged Hyundai Hydrogen Mobility Solution's global approach to the paradigm shift toward clean energy-driven mobility in the commercial vehicle sector. The project's fleet of Xcient fuel cell electric heavy-duty trucks aims to confirm the technical and commercial readiness of vehicles, fuelling stations and hydrogen production techniques to be deployed across Europe.

Last month, Hyundai revealed its commercial truck mobility vision at the North American Commercial Vehicle (NACV) Show in Atlanta, Ga. At the show, Hyundai debuted the HDC-6 NEPTUNE Concept, a hydrogen-powered Class 8 heavy duty truck and Hyundai Translead's HT Nitro ThermoTech Concept, an energy-efficient refrigerated trailer.

The International Truck of the Year was launched in 1977, and currently maintains associate members in the growing truck markets of China, India, South Africa, Australia, Japan, Iran, and New Zealand, as well as 24 jury members that represent leading vehicle magazines throughout Europe. The global combined truck-operators readership of the 24 IToY full jury members' magazines and eight associate members exceeds one million. 



Lots of News in the East

The 46th Tokyo Motor Show opened from 24th October to 4th November. Hosted by Japan Automobile Manufacturers Association, Inc. (JAMA), it was held at the Big Sight venue. Located in a separate hall were the commercial vehicles. Although Japan has a huge commercial vehicle industry, only four brands participated, showing exciting concepts.



UD

At the UD booth one could try a lot of functions that the Quon Concept 202X featured. Asian Trucker spoke to Toshio Shiratori, Design Director, Product Design UD Trucks Complete Vehicle and he told us that in his view automation and alternative fuels are the most important aspects of new developments. That said, for him, automation is even more important as driver shortages are common around the world and the drive train is a part of the entire concept. Visitors could try five modes of the truck, for instance platooning, emergency and pre-inspection. Shiratori designed the front grille in a way that it would communicate with the outside via sound and displays.



Isuzu

At this motor show, Isuzu was all set to reveal their brand new GIGA, which is now being developed to address some of the challenges society is facing. It's equipped with new systems designed with the safety of the driver in mind, such as Blind Spot Monitor (BSM) which uses a millimeter-wave radar to monitor the front and side areas of the vehicle to assist safe turning at intersections and safe lane changes, and pre-crash brake system capable of detecting pedestrians and bicycles. In addition to enhancing the existing safety systems, GIGA is renewed to achieve more comfortable driving profiles with a newly-designed high roof cabin and new interior layout which extensively increases cabin comfort. All these directly contribute to the improvement of working conditions for drivers.



Mitsubishi Fuso

Mitsubishi Fuso Truck and Bus Corporation (MFTBC), under the umbrella of Daimler Trucks Asia (DTA), was exhibiting five vehicles at the 46th Tokyo Motor Show 2019. MFTBC's booth featured the world premieres of the "Vision F-CELL", a concept fuel cell-powered light duty truck, and the model year 2019 Super Great heavy-duty truck, Japan's first series-produced commercial vehicle equipped with SAE (Society of Automotive Engineers) Level 2 automated driving technology.

The Vision F-Cell is Fuso's concept of an electric truck that uses the power of a Fuel Cell as one option to extend the range of an electric vehicle. Fuso is a leader in electric trucks and was the first brand to launch an all-electric truck in small series production in 2017, the eCanter. Since then, more than 140 eCanters have been delivered to customers in Japan, Europe and the United States. With the Vision F-Cell, a fully drivable concept model, the brand is to explore the benefits of fuel cell technology for use in their vehicles.



Hino

FlatFormer will change the concept of mobility forever. Not only will it bring greater efficiency to the mobility of people and goods, but it will evolve mobility into a space where value is provided to people through services. While there are diverse range of services that enrich our lives, mobility, the provider of these services must also be "super-versatile." The elements that bring super-versatility into reality are mobility platforms that maximize usable space, and service platforms that ensure the optimal use of these spaces. With FlatFormer, services themselves become mobile. By sparking metabolism of old and new in our lives and communities, FlatFormer can dynamically vitalize our urban areas and create prosperous and sustainable societies where people can connect with each other and each individual is able to achieve happiness. **F**

Events & Exhibitions

ROADS & TRAFFIC EXPO THAILAND 2020

Date : 12 – 13 February 2020

Venue : BITEC, Bangna, Thailand

Contact Info: Valerie Lim at +65 6322 2766 / valerie.lim@terrapinn.com

Details : Supporting the sustainable development of the nation's transport infrastructure is a key focus of Thailand's Ministry of Transport. In line with the Thailand 4.0 vision, the 20-year National Transport Infrastructure Investment Plan 2017-2036 is geared towards achieving transport efficiency, and creating green, safe, inclusive and innovative transport. By harnessing the power of digital technologies, and building out and renewing transport networks and systems, the government is making unprecedented acceleration in making Thailand a hub for connectivity.

To drive greater public infrastructure investment and increase investor confidence, the government has also rolled out its Transport Infrastructure Investment Plan, which is linked to the 20-year National Strategy and the 12th National Economic and Social Development Plan, and emphasises transport modality shifts, increased connectivity, and enhanced mobility.

EVM ASIA 2020

Date : 24 March – 26 March 2020

Venue : MITEC, Kuala Lumpur

Contact Info: support@ambtarsus.com

Details : Malaysia will host the region's first international exhibition dedicated to the manufacturing of electric, hybrid and autonomous vehicles – EVM ASIA 2020, from 24-26 March 2020 at the Malaysia International Trade and Exhibition Centre (MITEC), Kuala Lumpur. It is the RIGHT PLACE and TIME for suppliers of machinery, equipment, parts and components, software, systems, applications and e-mobility solutions to showcase their products and services as automotive manufacturers are gearing up their facilities for electric and hybrid vehicles.

EVM ASIA 2020 is the event to unveil the Future of Mobility Technology



THE 8TH INTERNATIONAL EXHIBITION AND CONFERENCE ON RUBBER INDUSTRY AND TYRE MANUFACTURING

Date : 17th – 19th June 2020

Venue : Saigon Exhibition and Convention Center (SECC)

Contact Info: +84 28 3848 8561 Fax. +84 28 3848 8564 Email. info@veas.com.vn

Details : Rubber & Tyre Vietnam 2020 is one of the most attractive annual international events in Viet Nam. This will be a chance to all the coating enterprises for not only meeting and exchange value experience but also finding opportunities to co-operate with a lot of both local and abroad companies reliably.

Rubber & Tyre Vietnam 2020 will focus on these main areas: Rubber Raw Material, Machinery Technology for Rubber Processing and Rubber related products - especially Tyre. Beside, Rubber & Tyre Vietnam 2020 will establish application of new technology, new product and materials which meet the demand of improving production from advanced countries to Vietnam market.

MALAYSIA COMMERCIAL VEHICLE EXPO 2021 (MCVE)

Date : 17 June – 19 June 2021

Venue : Mines Exhibition and Convention Centre

Contact Info: info@asiantrucker.com

Details : Back for the fifth time, Asian Trucker invites you to be part of the largest dedicated exhibition for commercial vehicles in Southeast Asia. Following the success of the past events, we are returning with the show in June 2021 with plans to expand the space.

Buyers, purchasers and operators have the opportunity to review the latest offers in terms of trucks, busses, services and components. During the show, relevant government agencies, professional societies, and associations will join the organizer to hold seminars and updates on their products, services and the latest in trucking.

IAA COMMERCIAL VEHICLES 2020

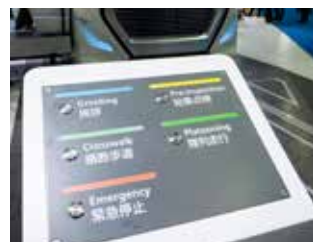
Date : 24 Sept – 30 Sept 2020

Venue : Deutsche Messe, Hannover, Germany

Contact Info: iaa@vda.de

Details : Vans, buses and trucks – commercial vehicles are a major part of our lives. Today we can choose from an extensive range of goods worldwide that are delivered right to our doors. This would not be possible without freight transport and logistics. And it is the commercial vehicles that cover that last mile. They carry over 70 percent of transported goods and therefore form the backbone of transport and the economy. They are also service providers and chauffeurs. They dispose of our waste, help us to move house, assist the rescue services, take our children to school and drive us to work. So commercial vehicles actually keep our everyday lives "on the go."

The IAA Commercial Vehicles in 2020 will address the question of what the future of commercial vehicles will be like. The IAA takes place in Hannover and is the world's leading trade show for transport, logistics and mobility. And in fact the whole commercial vehicle sector is on a path of innovation. As in many other branches of industry, the particularly important topics here are automation and connectivity, safety and security, environmental protection, electric mobility and new logistics and traffic concepts for the towns of the future. It offers a unique cross section of the entire value chain in the industry, from vehicles to transport and logistics, and from manufacturers to the many medium-sized suppliers.

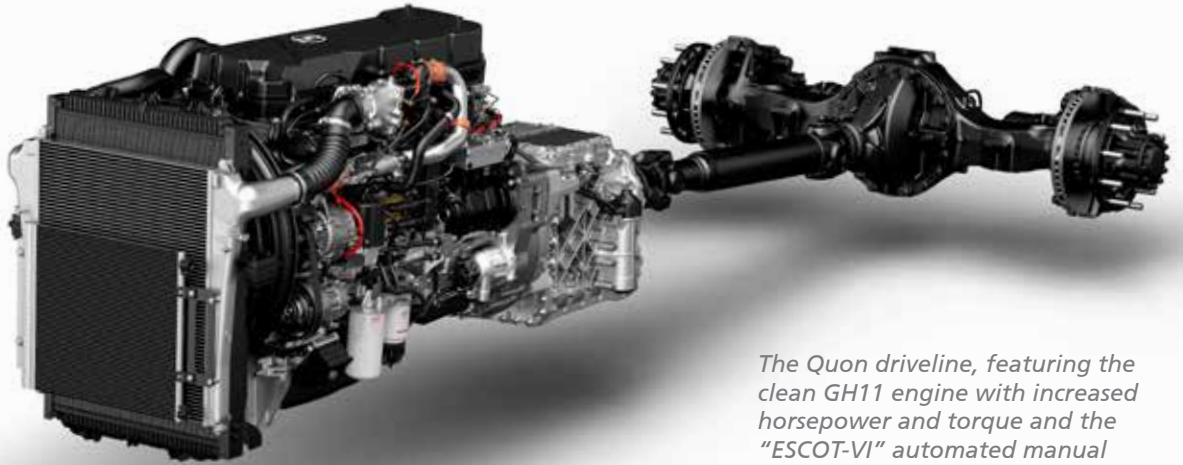




Quon Concept 202X Elevates Smart Logistics

UD Trucks show how INNOVATION FOR SMART LOGISTICS will create a better world with solutions for today, tomorrow and the future

UD Trucks has introduced an array of innovative solutions that will make logistics smarter and society better for today, tomorrow and the future. Some of these Innovations were shown for the first time at the 46th Tokyo Motor Show 2019; Hybrid Raijin Electromobility Demonstrator, uptime-improving apps, and Quon Concept 202X, which incorporates automation, electromobility and connectivity in new imaginative ways for the future.



The Quon driveline, featuring the clean GH11 engine with increased horsepower and torque and the "ESCOT-VI" automated manual transmission with enhanced fuel efficiency, is available for all models. The driveline uses advanced technology for high levels of fuel efficiency and smooth driving comfort with minimal fatigue.



Innovative Solutions Address Industry Challenges

Logistics is the lifeblood of society, but the industry is facing challenges including driver shortages, an explosive increase in e-commerce deliveries, road congestion and pollution.

According to a study by Boston Consulting Group, there will be a shortage of about 240,000 truck drivers in Japan by 2027. Another study by CBRE Group predicts that the expansion of e-commerce in the US will create demand for over 450,000 new jobs in the logistics industry alone in 2018-19, more than twice the number of industry new hires since 2013.

Innovation for Smart Logistics

"People depend on logistics and logistics depend on people. We provide innovation for smart logistics by making the trucks

the world needs today. That has been our vision since our foundation. We want to help make logistics smarter," says Takamitsu Sakamaki, President UD Trucks. In Japan, where the aging of the national population is unprecedented, "we see open innovation and collaboration with stakeholders across different industries as key to creating and implementing innovative solutions."

Products that Excel

Smart logistics for today means offering trucks that are fuel efficient and offer high payload. Moreover, trucks should be easy to drive for anyone – male or female, new or experienced drivers. UD trucks feature electronically controlled automated manual transmissions to make driving easier and highly efficient engines for lower fuel consumption.

UD Trucks' flagship heavy-duty model offers an array of transportation solutions for today. The Quon excels



on five essential features: drivability, fuel efficiency, safety, productivity and uptime. Innovation that puts people first provides a truck that is a pleasure to drive.

Innovation in Automation

In 2018, UD Trucks announced its innovation roadmap “Fujin & Raijin. Vision 2030”. In the area of automation, the company is currently participating in a truck-platooning project on highways and testing Level 4 autonomous driving in confined areas. In the area of electrification, UD Trucks is developing various technologies with a special focus on hybrids.

UD Trucks is targeting mass production of fully electric and autonomous trucks by 2030.

Fujin Level 4 Automation Demonstrator

The specially adapted heavy-duty Quon employs network-based RTK-GPS (Real Time Kinematic Global Positioning System) combined with autonomous driving technologies such as 3D-LiDAR. This was the actual vehicle used in Japan’s first Level 4 autonomous driving trial by heavy-duty trucks on public roads in August 2019.

Douglas Nakano, Senior Vice President of Technology, noted: “When we imagine the logistics of tomorrow, one of the key solutions for our time will be automation. In August this year, we took a big step forward. We aim to offer commercialized autonomous driving solutions in confined areas in 2020.”

Hybrid Raijin Electromobility Demonstrator

This clean, quiet and powerful hybrid prototype is adapted from the heavy-duty Quon. Towards 2030, UD Trucks will

develop fully electric heavy-duty vehicles that maximize payload and power while drastically reducing noise and achieving zero emissions.

UD Trucks is developing various solutions, particularly focusing on heavy-duty hybrid trucks that can run purely in electric driving mode as needed – in food warehouse applications for example.

Leading the way in Connectivity

UD Trucks contributed to a major milestone of the Volvo Group celebrating more than one million connected trucks, buses and construction equipment across the globe. UD Trucks has sold 60,000 connected trucks worldwide. Utilizing the data collected from connected vehicles has the potential to improve productivity, uptime and safety, while reducing emissions and noise.

UD Trucks is introducing three new apps to improve vehicle uptime via telematics: “My UD Truck” for drivers, “My UD Toolbox” for mechanics and “My UD Fleet” for truck fleet operators. These apps will be tested with selected customers within 2019. UD Trucks will continue to develop various services and apps in order to make our customers’ business more efficient.



Re-imagining Smart Logistics

Quon Concept 202X will take smart logistics to another level. This future concept truck will be intricately connected to its surroundings, including other trucks, infrastructure and people, achieving new levels of efficiency, productivity, safety and sustainability. It will become indispensable to the infrastructure of future smart societies that will see significant strides in the use of IoT (Internet of Things) and AI (Artificial Intelligence).

Quon Concept 202X will employ various cutting-edge technologies including AI, personalized displays and camera monitoring systems. The heavy-duty truck of the future puts people and society at the center. The truck connects people to each other, and people to the transportation infrastructure. It connects rural and urban, produce from the farm to the dinner table. It is more friendly and safe. **T**

ITS World Congress Envisions Moving From 'Smart' to 'Ideal' to 'Wise' Cities

The first ITS World Congress held in Singapore was a great success as participants met and shared information as they work to make theory reality in future mobility. William Gibson wrote: "The future is here – it is just unevenly distributed." The 26th ITS World Congress proved him out.



Over five days from October 21 to 25, 2019 the 26th Intelligent Transport Systems World Congress was held for the first time in Singapore and in SE Asia. This year's Congress brought together 90 countries and close to 14,500 participants. A total of 321 exhibitors showcased their latest products and innovations as part of the Exhibition at the Suntec Convention & Exhibition Centre. Several technical demonstrations took place at The Float @ Marina Bay and off-site locations.

Intelligent & Wise

Themed 'Smart Mobility, Empowering Cities,' the Congress was opened by Singapore's Minister for Transport Mr Khaw Boon Wan. "As a Transport Minister, I look beyond the technology element. Politically, what matters is that we develop a transport system that is fast, safe, reliable and affordable for all people to enjoy. It must contribute to their quality of life, and this is what matters to them most. Technology is a means to achieving these political outcomes. Any intelligent transport system must be developed and implemented wisely. In short, an intelligent transport system must also be wise."

While the Congress is a platform to showcase the latest innovations and technologies for smart urban mobility, and is an opportunity for policymakers, industry and academia to share insights, experiences and best practices, the Minister noted that technology didn't dominate his decision making. "First, we take our time to understand and clearly define the public transport problem we are trying to address, before assessing the options. We take a technology neutral stance. We explore a wide range of technology platforms before landing on a few promising solutions, based on hard-headed calculations. This preparatory work allows us to be able to choose wisely."



Chris Mentzer

Timing for Adoption

The Minister added: "Second, we do not rush to be ahead of the curve, to be the first in adopting new-fangled technologies for essential services like public transport. What is crucial is that we are plugged-in and are fully aware of what new technologies are available. This may require us to participate in their development through joint R&D, trials and pilots. Such participation allows us to



organised by ITS Singapore with the support of Enterprise Singapore (ESG). The Singapore Pavilion featured 12 participating companies, comprising a range of start-ups, small and medium-sized enterprises and large corporates, which unveiled their latest innovations for smart mobility.

Technology Intertwined

Looking at the thick programme book I was mulling about how I could unearth the gems relevant to commercial vehicles. A gentleman who was attending his sixth ITS pointed out, “Everything is related to commercial vehicles – this is what this is all about – it is about how all this information and technology is inter-related with the goal to create a perfect, seamless transportation system.”



As I attended sessions this became more obvious. The use of data was a theme and subject of many sessions. Intelomatics took the opportunity to introduce a new data visualisation platform to provide unique insights into the mass-movement of people and vehicles. High-quality traffic, weather and IoT data is available thanks to Intelomatics new portal that allows for the dynamics between transport and the economy to be better understood.

Capturing Data

Intelomatics’ COO, Stephen Owens, says the new portal allows for instant access to valuable, accurate data to make informed data-driven decisions about our cities. “We capture data through millions of sensors located on roads, in vehicles and infrastructure. In the past, it has been a challenge extracting this data to be used in a meaningful way. Our new data portal allows users to quickly see correlations between activities that they previously couldn’t – for example, while the relationship between transport and the economy is complex, we can now dive deeper and faster into how people are moving, and use that information to more accurately support economic predictions – particularly those that rely on transport.”

Rong Li



Mark C. Kopko



influence global standards and to have a more objective assessment of the state of maturity of a new technology. This allows us to better judge the timing for adoption, and to scale up wisely.”

During the five days the Congress featured close to 200 sessions and interactive panel discussions, 30 technical demonstrations and tours, as well as 11 associated events, including LTA’s inaugural Autonomous Mobility Summit.

Latest Innovations

In addition to the sessions, the public could enjoy free admission to the ITS World Congress Exhibition to look at the latest technologies, research and innovations by over 300 exhibitors. Highlights included a Singapore Pavilion,

Mr Owens continued, “The relationships between transportation and the economy are very complex, and as a result, have often been

FEATURE STORY ASIAN TRUCKER | 16

poorly understood — for example, how differing modes of transport apply to different stages of an individual's journey and how traffic incidents and congestion influence a journey. By looking deeply into the data and looking at how people are moving, Intelmatics can enable data-driven decision making based on movement factors."

Off Road Challenges

The session 'At the End of Paved Road' looked at the development of technology that will be required when the structured environment that is paved and is preferably well marked comes to an end. Many of the currently utilised sensors and mapping techniques will struggle in that environment as it changes significantly with the seasons and the visual cues that radically vary. Chris Mentzer, Southwest Research Institute pointed out that to deal with the challenges of off road one needs to drive at a slow speed to avoid hazards while mapping the route for later use. Challenges will remain, such as a dog sleeping on the road – which obviously can't be mapped. Dust and blowing snow create difficulties for sensors and water is always very tricky as well.

Mark C. Kopko, Pennsylvania Department of Transportation spoke about the challenges faced in Pennsylvania such as unique road uses – Amish, farm equipment – unique infrastructure, covered bridges, one lane bridges and metal gate bridges and unique conditions of gravel, snow and connectivity loss. All this makes it difficult for developing automated vehicles.

Driverless Trucks

In the session on 'Automated Driving: Automated Vehicle & Integrated System of Connected Automated Vehicles and Highways' it was pointed out that the smart highway is still in development.

Xiaopeng Song, of Zhejiang China's Smart Highways Programme stated that different stake holders have different concerns. "Intelligent vehicles and smart highways need to support each other and coexist."

Rong Li, Plus.ai, China, speaking about Self Driving Trucks pointed out that China has 7 million trucks and a trucking market worth US\$780 billion.



"Driverless trucks could reduce operating costs by 24% a year. Savings come in reduced fuel costs, reduced insurance premiums, reduced administration and garage time. The accident rate can be reduced by 80%."

Road Freight Transport

Three sessions were held to discuss 'Efficient and Sustainable Operation of Commercial Vehicles on Highways'. Road freight transport faces several main challenges: (1) greening, reducing GNG emissions and fossil fuel dependency, (2) managing an increasing flow of heavy vehicles on existing infrastructure, (3) extending the lifetime of ageing road infrastructure exposed to longer and heavier trucks, (4) financing the maintenance and operation of the infrastructure and collecting the fair price for the infrastructure use.

Combined ITS solutions can resolve these challenges. They include smart infrastructure, access programmes, electric road systems, high capacity vehicles, advanced heavy traffic monitoring and direct enforcement, routing and monitoring of connected vehicles, free flow tolling and tax per kilometer. Infrastructure and fleet managers, carriers and regulatory bodies are the main actors, which need to build together and implement these solutions.



Opening Ceremonies

Matthias Winkenbach, MIT Megacity Logistics Lab, USA, noted that multi modal solutions are being used to facilitate deliveries – especially in the face of increased e-commerce. In some situations, trucks are parked near a location where high sales are anticipated. From there the product can be delivered by foot, by scooter and by public transportation. Speakers talked about the use of mixed transportation – that of freight being delivered via public bus, subway or train. With the increased use of alternative transportation methods this could decrease the use of light and heavy-duty trucks in city centres and other congested areas.

It's All Connected

In his opening speech, Minister for Transport Mr Khaw Boon Wan stated: "Let me conclude. No country can successfully develop ITS without international cooperation, in areas such as the harmonisation of standards. We can also shorten the learning curve through frequent exchange of best practices. It is therefore important that we continue to engage one another, at platforms like this World Congress."

While it may not seem obvious why small automated scooters and flying taxis have anything to do with commercial vehicles, developments in one area can impact others and raise the overall technological level. Exchanges of ideas and technology can only improve and speed up further development in all areas of transportation. The 26th Intelligent Transport Systems World Congress facilitated a massive exchange of facts, theories and ideas. **F**

Shared Mobility

Paulo Humanes, PTV Group, Germany, who spoke at the Congress, has written: "Shared mobility could well be part of the solution, however only when combined with autonomous vehicles it develops its full potential." "For the full benefits of automation, the infrastructure needs to be adapted. But this isn't yet the key technology. The full benefits of automation will come later on when the infrastructure adapts to the technology of autonomous vehicles. The infrastructure in cities is all around the car and its driver being a human, that is why we have lags at traffic lights and traffic signs are coloured and shaped in certain ways and that is why roads are designed with such tolerances for the human behaviour. In the future we won't need to take this in consideration."

Last Mile Options

One of the biggest transport problems globally is road congestion. Congestion costs Europe about 1% of its GDP every year and is the cause of a large amount of carbon emissions. With this in mind, delegates dove deeply into last mile distribution and methods of dealing with it, while not contributing more congestion.



Daimler Trucks Asia Electrifies and Automates

The atmosphere was eclectic we arrived in Kawasaki, Japan, which is home to the FUSO brand. After our visit to their India plant (We reported in Asian Trucker Malaysia issue 49), we were not just welcomed to what the organisers themed “Meeting FUSO”, but ushered into the innermost sanctum of any bus brand: their Research and Development centre.

Meeting FUSO

Although the brand is well known, a general introduction to discuss the history and structure was a welcome start into the three-day program, which was led by the top management of the Japanese make.

Mitsubishi-Fuso is part of the Daimler conglomerate. Their ambition, as a group, is to be the undisputed leader in the commercial vehicle industry. This is to be achieved through a push in innovation leadership, global market presence with platforms that meet market demands and a strong customer focus. Currently, Daimler products are available in over 170 countries, which is made possible also through the use of shared platforms, utilising a network of global resources. “This means that we can deliver the best and newest products to our customers and be the first to do so,” said Mr Hartmut Schick, President & CEO of Mitsubishi Fuso and the Head of Daimler Trucks Asia. Recently, the brand has shifted its focus for the vehicles to electrification and to connectivity.

Being a leader means different things. For instance, as a listed company, the company is being judged by its financial performance. Profitability is important for the shareholders. With that comes also sustainability, which is an important aspect for business partners, such as the distributors and dealers, who have also invested in the brand. In terms of new technology innovation, Daimler aims to set the pace when it comes to future features, safety, reliability, efficiency and comfort. This also includes emission issues, which means that minimum requirements are to be met, or even exceeded. Profitability and technology are closely linked in the view of the FUSO management. If the company manages

Buses, test drives, Typhoons and the Tokyo Motor Show were among the highlights of an exclusive visit to FUSO in Japan where Stefan Pertz was also allowed into the innermost sanctum of the brand: their R & D Center.

to incorporate better features, higher technology, also the profitability of the customer, the user increases.

Heavily Invested

While the brand has not yet written off the Diesel engine, as it is still one of the best suited means of propulsion for buses, major investments are being made to push for innovations in the area of alternative fuels. In specific markets, there is still growth potential to be realised with buses running on Diesel and FUSO is eager to further increase their market share there. Schick cited UAE and South East Asia as some of the markets that are in that cluster. In the coming years, 1.5 Billion Euro will be allocated to research and development annually. Of that, 500 Million Euro will be secured for the development of Level 4 Automated driving. According to

Schick, this is required to ensure that customers will be offered the best possible solution.

The global network of design and development centres works both ways. This allows for faster developments and focus on certain components by individual centres. Currently, the E-Actros and E-Citaro are also undergoing trials with customers.

Uniformly Connected

Besides electrification, Daimler is also leveraging on connectivity. Utilising one common piece of hardware, all new vehicles are connected, and data can be gathered for further enhancements and improvements of the vehicles. During the presentation, Schick said that Daimler Trucks has sold over 300 000 connected vehicles that are connected via their various systems. "The benefits are clear: this will lead to less downtime through predictive maintenance."

Connectivity also enables autonomous driving. FUSO was showing a Level 4 autonomous driving Super Great at the Tokyo Motor Show. Currently, FUSO is waiting for legislation to be amended and implemented to regulate this new type of vehicles. One aspect that is likely forgotten by many though is the data security. The systems used need to be able to withstand hacker attacks that could result in harm to drivers and other participants in traffic. This, according to Schick, is one aspect that needs to be taken into consideration during the design process as well.

Holy Centre of Operations

It was the first time that a group of media representatives were allowed into the actual room in which the new buses are being developed and one could feel the pride in the new centre. Having heavily invested in upgrading production facilities, to the tune of 11.8 Billion Yen for the production line and another five Billion Yen have been earmarked for the refurbishment and relocation of the own retail network. Thus, as a result, the new centre brings together planning and production with increased efficiency. High tech allows for 3-D printing of models and parts, transfer of shapes from clay models to CAD programs and live



designing of buses on a big screen. Aiding the development process is virtual reality, which allows to get an impression of what a vehicle would look like in real life when on the road.

The starting point for any design development is the customer. In regular engagements with clients Daimler analyses the requirements that users are having. The question asked is "What is important for the individual customer?" When it comes to individual solutions, the direction is clear: as a global player, Daimler offers products that are suitable fits for any market, however, prides itself with the ability to create individual solutions. Keeping the driver safe and offering a comfortable environment are major considerations for the design. These are the values of the company and highly important to adhere to when developing new designs. As a Japanese brand, the exteriors FUSO vehicles are inspired by the local culture, such as Anime. Perhaps the most interesting approach to the new vehicle design is that the designers try to break new ground. The mantra is that the designs need to be thought provoking and that if a design is liked right away, then something is wrong. As Schick said "A design may need to take two years before it grows on the audience and is liked after in-depth discussion and discourse."

Sales, Sales, Sales!

Daimler Trucks Asia is part of Daimler Trucks. In 2018, Daimler Trucks sold approximately half a million vehicles all over the world. Daimler Trucks Asia is present in Japan and India with production facilities and is able to offer a total of over 1 200 product variants when including the Bharat-Benz branded trucks in the portfolio. The offering, as clearly defined, is two-part: one is the hardware, the actual bus and the second part is the customer service, the after sales. On top of that, Daimler offers customised financing for customers. Looking at the global footprint, Daimler maintains regional centres, production partners, distributors and dealers to ensure the widest as possible reach. Almost 60 percent of vehicles sold are configured in EURO 3 or above, thereby mostly exceeding the requirements of the markets. The challenge, as FUSO's top management sees it is to satisfy the market with products that meet the demand for more sophisticated transport solutions.

Efficiency, safety and comfort are the focal points when developing products to meet those demands. Efficiency means that the company is sharing platforms and knowledge in order to bring the best solution to a specific region or even customer. Safety features play a big role, especially now, where the company is pushing for autonomous driving. Functions to ensure safety are not just limited to protecting the driver, but also people and property outside the bus, for instance with sensors that detect and track cyclists and pedestrians. Lastly, the comfort of the bus directly impacts the performance of the driver and emphasis is given to making the cab as comfortable as possible.

Top Quality: Proven!

Connectivity is a key driver of developments, as evident in the vehicles of FUSO. However, the data gathered is not just used for platooning or to let the owner know where the vehicle is currently located, it also allows for insights in the area of quality management. Letting us in on the work done in his department was Michael Moebius, Head of Quality Management Daimler Trucks Asia. "If we cannot demonstrate our approach, then we are not transparent. And if we are not transparent, we are not credible," he said as he invited a group of visitors to see how his team is working on ensuring how the brand maintains top quality levels. What sets Daimler Trucks apart from other manufacturers, according to Moebius, is the fact that the quality management team is involved in the entire process of producing the vehicles,



including the design process. Thus, staff working in his department can react extra-fast in case of any issues as they are fully involved in every aspect of the manufacturing of the vehicles.

Within a short span of five years, the quality management has made tremendous changes when it comes to data analysis. What was once done on Excel sheets has long since moved to Big Data Analysis and further to Big Data Telematics today. The objective was to create a system for the early detection of failures with the tangible benefits of reduction in warranty cost and improved customer satisfaction as a result of reduced downtime. This is achieved by using warranty claims, service history and product quality reports and running it through a set of analytical techniques. The output is many fold: real time diagnosis, batch prediction, statistical analysis and trend visualisation. "One relatively simple example these days is the battery discharge trend. We know what the battery charging and discharging behaviour is like when it comes to the end of its lifespan. We can then take measures to bring the bus in and to replace the battery before it fails," Moebius said. This, in his words, has moved his department from being reactive to being proactive.

Monitoring thousands of connected vehicles, via a multitude of sensors, the quality management team of Daimler Trucks Asia can effectively anticipate any issues that may arise in the buses that are out on the road. And not only that: if a part shows problems, the systems used can show every bus that is using the exact same part. Probabilities and extrapolations indicate the severity of the issue and guide the team in their following actions. Knowing where each vehicle is has helped them find stolen trucks and also to prevent severe damage to vehicles. In one instance an alarm went off, showing dangerous levels of oil pressure in one particular truck. The team called the driver, asking him to stop immediately. As it turned out, the owner had decided to service the vehicle in-house, using an oil filter with the wrong specification. A major engine damage could be averted.



Testing! Testing! More than One-Two

True to his word, Moebius took visitors through the entire process of quality testing. "We are no different from Apple, say. We have a product that is designed in one place, manufactured in another and used in a third. While in theory, this all sounds easy, quality assurance is not!" In their test lab, parts are being artificially corroded for some time to simulate aging of parts, microscopic structures are being evaluated to ensure that the quality is as per specification and many parts are being examined to ascertain their worthiness for use. The team pulls out parts from the production at random and also asks for parts that have been in use for some time to be brought in for examination.



One of the things that makes this test lab unique is that Japan has constantly earthquakes. While one may not feel it, but the ground in Japan is shaking all the time. According to Moebius, this may affect the test results. To demonstrate this, a giant pendulum hangs in the lab, showing visitors that this is not just made up, but a constant problem for the quality management group. In case of more forceful tremors, test results may be distorted. By monitoring the earth's movement using a seismograph, a cross reference to any test result is possible should any issue arise later on, thus linking any botched test to the impact that the moving earth may have had.

Testing on Track

As testing a lab does only allow for scrutinising parts and assemblies, the complete vehicle needs to be tested on the road. Daimler Trucks Asia maintains a proving ground just two hours outside Tokyo, where in a dedicated area, a team of 300 staff performs tests on finished vehicles. With all track combinations connected, the total length of the track is 14.4 kilometres. The facilities were set up in 1980 and now feature all the facilities to simulate real life driving conditions and beyond. Besides the track, some 170 test benches are housed in the proving ground to support the rigorous evaluation of the vehicles. The track has a six lane high speed track and a 5.3 kilometre long rough terrain track. Within Daimler Trucks Asia there are two test tracks, whereby the second one is in Chennai, India. Previously, each track would be used to test the vehicles made in the local market: the track in Japan for Mitsubishi Fuso and the one in India for Bharat Benz. However, recently, this has been changed and now both tracks are used to test any vehicle.

As the testing is taken to an extreme, the stress on the vehicle is increased, this accelerating the aging of the vehicle. Within a short period of time, the entire lifespan of the vehicle can be simulated. However, as that would also result in the full load of stress over decades unloaded onto the driver, here a robot is used to drive the test vehicle. "We want to subject the vehicle to the stress test, not some poor human," said Hironobu Ando, Director, Head of Testing Asia, Product Engineering Trucks Asia, Head of Kitsuregawa Proving Ground.

His favourite test is the EMP chamber, where vehicles are tested in terms of their reaction to electromagnetic impulses and radiowaves. Further, the test is to show that the vehicles do not emit any harmful radiation. While this test has been introduced 10 years ago, only recently other

manufacturers have started to use this method as well. Besides such extreme conditions, the proving ground has all the possibilities to simulate any conditions that the vehicles may be subjected to. "That said, while we can go to extreme conditions, we usually simulate what our customers are doing. Yes, things break in extreme conditions, but such conditions are the exception, not the norm. We need to test in real-life conditions." He explained that a test with a truck being driven for five million kilometres revealed some 700 failures that were not detected in the truncated tests in the extreme conditions of the proving grounds. In addition, the facilities offer the "Flying Doctor". In case a dealership cannot rectify a problem, the vehicle will be brought in for examination by experts.

Snapshot: FUSO Rosa

The model year 2019 Rosa has been upgraded with new safety features like AEBs (Advanced Emergency Braking System), ESP (Electronic Stability Program), and LDWS (Lane Departure Warning System) as well as EZGO & Hill Start Assist.

Specifications

- Model: BE740G
- Engine: 4P10(T6)
- Engine displacement: 2.998L
- Maximum engine power: 129kw (175ps) / 2,860rpm-3,500rpm
- Maximum torque: 430N*m (43.8kgf*m) / 1,600-2,860rpm
- Transmission: 6 speed AMT

Also Awarded: Aero Queen

The 2019 model year Aero Queen large coach bus won the Good Design Award. The vehicle combines a cutting-edge silhouette with technologically advanced features focusing on pedestrian and passenger safety.

The Aero Queen achieves safety, comfort and economy thanks to various in-vehicle safety devices. Besides these excellent safety features, its revamped exterior sports the new "Fuso Black Belt" design identity, as well as a new LED headlamp and fog lamp. The "Fuso Black Belt," a new design approach that highlights the Fuso logo, adheres to Fuso's traditional brand history, including the V-shaped emblem. With this award-winning bus as a starter, the design approach will be applied to all Fuso vehicles that will be launched down the road.

Design Points

- 1 Design identity: Black Belt design with which Fuso products can be identified at a glance
- 2 LED headlamp: The characteristic signature lamp that highlights Fuso's identity also at night
- 3 V-shaped design: Fuso's traditional emotional design is inherited

Aero Queen large sightseeing bus

The model comes with a wide array of safety features, including Active Sideguard Assist, the first among domestic large coach buses, which monitors the driver's blind spot on the left side of the vehicle for safer driving, Emergency Driving Stop System (EDSS), which will automatically bring the vehicle to a halt if something goes wrong with the driver, and Active Brake Assist 4 (ABA[®]4), a collision avoidance system with an additional pedestrian detection capability, thereby boosting driver assistance technologies significantly. **F**



Making the Case for Platooning

Original Equipment Manufacturers, research centres and governments are doing tests on platooning in the hopes that it will have positive environmental impacts. Not everyone is happy with the early results.

Platooning involves two or more equally spaced trucks driving on the motorway in a convoy. Using connectivity, trucks in a platoon or road-train can communicate with each other. Distance, speed and braking can all be controlled using radar and cameras as they receive information from the trucks in front.

Paving the Way

"The business case is fantastic," Gunnar Tornmalm, head of pre-development automation at Scania was quoted in Transport Topics. "For me, it's the low-hanging fruit. It requires investment, but it's not so dramatic as [individual] driverless vehicles. ... And I think it paves the way for full automation on the road."

Scania is well advanced in cutting edge autonomous technology and platooning. The aim is to organise convoys of four trucks – with the three trucks following the lead truck autonomously driven, as well as to fully automate the processes for precise docking and undocking of cargo.

Singapore Tests

Scania designed the world's first full-scale autonomous truck platooning operations, based on its own advanced technology. The platoon uses public roads while transporting containers between port terminals in Singapore. This multi-year project is organised by the Ministry of Transport and the PSA Corporation. Toyota is also participating in this project.

The Government of Singapore is at the forefront of new autonomous vehicle technology. Singapore has tested autonomous cars, taxis, utility vehicles and buses, as well as trials of truck platooning concepts. Truck platoons have already



Chung Anh Tran

shown the potential to achieve major fuel savings as well as contribute to increased road safety.

Daimler Reassessing the Value

Daimler Trucks, on the other hand, is reassessing its view on platooning. Daimler Trucks defines platooning as the electronic coupling of two or more trucks with significantly reduced distance



Volvo Sees Savings

Volvo states that the average platoon can save up to 10% of a truck's fuel consumption. "This figure will rise to 15% cent in the coming decade, as trucks drive closer and closer to each other. CO2 emissions are also reduced as a result of fuel being saved, while safety is increased by the connected trucks sharing information."

Why Platooning is the Future

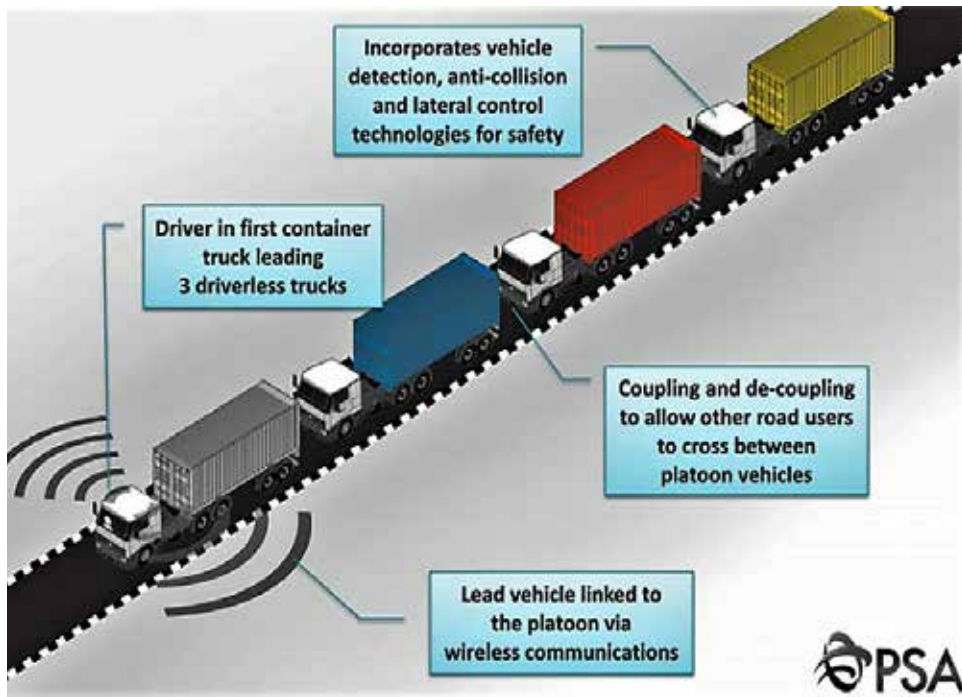
DB Schenker, MAN and Fresenius University of Applied Sciences have tested autonomous convoys under real conditions and identify major benefits that makes them believe that platooning is the future. "This may at first sound contradictory, but well-planned convoys operated via a wireless local area network (WLAN) actually ease the traffic congestion. Space is created by two trucks requiring only 50 metres instead of 90 metres. This adds up considering the global potential.



between them to, in theory, improve aerodynamics and therefore save fuel. Daimler Trucks has tested platooning for several years but has not seen the saving in fuel.

In a release Daimler stated: "Results show that fuel savings, even in perfect platooning conditions, are less than expected and that those savings are further diminished when the platoon gets disconnected and the trucks must accelerate to reconnect. At least for U.S. long-distance applications, analysis currently shows no business case for customers driving platoons with new, highly aerodynamic trucks. Daimler Trucks will, of course, remain committed to all partner projects that are still ongoing.

Dr. Chung Anh Tran, Head of Autonomous Driving at Deutsche Bahn points to a large road map. Routes marked in colour are suitable for transporting general cargo by road. "At least 40% of the kilometres we cover are suitable for platooning," he states. Society, in particular, will benefit from this. If more existing gaps are used on the motorways, this will improve the traffic flow for everyone.



Less Fuel Consumption, Lower Emissions

Platooning also provides savings in terms of consumption, the MAN report continues. “Although fine adjustments are still required in this respect, it is a step in the right direction and this means less fuel consumption, less expenditure and lower emissions. Trucks travelling in convoy use the slipstream of the vehicle ahead. Platoon trucks currently maintain a distance of 15 to 21 metres between each other.”

“A reduction down to between 10 and 15 metres could increase the fuel savings further from four percent at present up to 10 percent”, states Sebastian Völl, Project Manager for Autonomous Driving at MAN. “The slipstream effect would also increase if the GPS-based cruise control functions (MAN Efficient Cruise, MAN EfficientRoll) were used – this was not possible during the practical testing due to requirements imposed by the authorities.”

Opportunities Exist

Chung Anh Tran, Head of Autonomous Driving at Deutsche Bahn, is convinced of the opportunities offered by autonomous logistics. Dr Tran is one of the pioneers of automation in freight transport. Deutsche Bahn is one of the world’s largest logistics service providers with its business divisions DB Schenker for road transport and DB Cargo for rail transport.

Tran, who was heavily involved in the world’s first testing of platooning in real traffic, believes autonomous driving will have a major influence on business models of the future. Platooning is part of this. “Our goal was to be able to integrate platooning into our real logistics. We have implemented this with success. The platoon truck technology is working perfectly. The positive feedback from truck drivers has even exceeded our expectations. Their acceptance of automation is a key factor.”

Traffic Flow will Improve

While sceptics fear that platoons may become a traffic obstruction and cause more problems than they solve Tran doesn’t believe this will be the case. “I would give a somewhat provocative answer to that,” he states. “Convoys of trucks in the inside lane are commonplace these days, they are just not autonomous. The traffic flow will improve through platooning because trucks that are coupled together will take up less space. In addition, the high number of accidents involving trucks can be reduced. These are usually caused by human errors. Autonomous controls are safer.”

Tran believes the technology needs to be developed further in order to reach its full potential. “Multi-brand platooning is essential for our logistics, i.e. the opportunity to combine trucks with a variety of brands. A digital interface needs to be created for this. Even multi-company platooning would then be feasible: several logistics companies combining their consignments. This could be done on the fly using an app. I am sure that new interesting digital business models will arise based on platooning that will make transport more efficient.”

Boosting Productivity

While Scania hasn’t reported on recent developments from their platooning tests in Singapore Claes Erixon Head of Research and Development at Scania says platooning is an



2018–2025.” According to the report, the global truck platooning market garnered \$500.9 million in 2017 and is expected to garner \$4.59 billion by 2025, growing at a CAGR of 32.4% from 2018 to 2025.

Stringent government policies for reducing emission in the transport sector, lowered fuel consumption, and supportive government initiatives for platooning drive the growth in the market. However, expensive platooning technology and increase in security & privacy concerns hinder the market growth. On the other hand, expanding size of fleet of truck platooning and surge in production of fully autonomous trucks create new pathways in the industry.

DATP Segment to Dominate

Based on platooning type, the driver-assistive tuck platooning (DATP) segment contributed nearly 99% of the total market share in 2017, and is estimated to maintain its dominance throughout the forecast period. This is owing to autonomous trucks being in development phase along with feasibility of trucks with level 1 and level 2 automation for truck platooning. However, the autonomous truck platooning segment is expected to grow at the largest CAGR of 46.6% during the forecast period, 2018–2025. This is due to continuous developments carried out by the leading truck manufacturers producing trucks equipped with autonomous technology. **F**

opportunity to boost productivity. “With the vehicle population in Singapore approaching one million, the initiative seeks to address the increasing travel demand and land constraints; 12% of Singapore’s total land is used for road and land transport infrastructure. Additionally, it faces a shortage of drivers.

Singapore has been established as a “living laboratory” for new vehicle concepts that will increase productivity, road safety, optimise road capacity and enable new mobility concepts. “Trucking, as we know it, is a highly labour-intensive industry,” says Mr Pang Kin Keong, Permanent Secretary for Transport and Chairman of the Committee on Autonomous Road Transport in Singapore (CARTS). “We face a shortage of truck drivers. In this regard, truck platooning technology presents us with an opportunity to boost productivity in both the port sector and the trucking industry. It will also open up opportunities for truck drivers to take on higher-skilled roles as fleet operators and managers.”

Market Share

Allied Market Research has published a report, entitled, “ Truck Platooning Market by Technology (Adaptive Cruise Control (ACC), Blind Spot Warning (BSW), Global Positioning System (GPS), Forward Collision Warning (FCW), Lane Keep Assist (LKA), and Others), Platooning type (Driver-Assistive Tuck Platooning (DATP) and Autonomous Truck Platooning), and Communication Technology (Vehicle-to-infrastructure (V2I), Vehicle-to-vehicle (V2V), and Vehicle-to-everything (V2X)): Global Opportunity Analysis and Industry Forecast,



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UD Trucks' Smart Logistics can result in a wide range of efficiencies and savings for fleet owners and create better working conditions for drivers.

As trucks are integral to the delivery of shipments, fleet owners need to optimize their fleet by increasing efficiency and managing costs. Technology will play an even bigger role in strengthening the logistics and supply chain network.

Key Challenges Facing Fleet Owners

While opportunities abound in the logistics sector, fleet owners face challenges that could affect the bottom line.

Over the past decade, the trucking industry has faced a severe shortage of drivers. With about 70% of all freight transported by road, the decreasing pool of drivers could strain resources and impact the supply chain. Companies have struggled to hire and retain drivers due to the challenging working conditions.

Driver Safety

Fatigue, stress, speeding, unfamiliarity with routes, distractions from smartphones, extreme weather and unforeseeable traffic conditions can affect driver safety and cause accidents. Eliminating avoidable accidents is essential

to keeping drivers safe, to prevent lawsuits, reduce downtime, and mitigate expenses such as repair costs or vehicle write-offs.

Spending on fuel makes up a large chunk - typically 40% - of fleet operating costs. As volatile fuel prices can push up operating costs, it is important for fleet owners to maximize fuel efficiency and lower fuel consumption. They need to plan the most economical routes and clamp down on errant driver behaviour which can cause fuel wastage.

Managing multiple priorities. Fleet owners have to balance safety, quality and capacity while operating a profitable business. They need to ensure they can meet demand, especially during seasonal peaks, while eliminating problems such as complicated routes and inefficient scheduling which can eat into productivity.

Benefits of Smart Logistics

Technology is disrupting almost every industry, including the logistics and supply chain sector. Smart logistics can be a game-changer, catalysing greater efficiencies and improving monitoring and tracking. From telematics hardware to GPS data from e-logs, and data from sensors in truck engines, tyres and brakes, smart logistics incorporates intelligent asset tracking tools to provide real-time visibility while on the road.



Already, a new breed of trucks is equipped with connectivity, diagnostics and intelligent systems that can share data such as speed, direction, position and fuel usage. In the coming decade, the eventual automation of trucks could lead to a 47% fall in truck logistics costs by 2030 and a 40% reduction in delivery lead times, according to industry estimates.

AT the Forefront of Smart Logistics

UD Trucks has invested in Smart Logistics solutions, outfitting trucks with connected devices and safety features that are equipped with real-time data analytic capabilities to improve efficiency, safety and productivity.

Trucks such as New Quon are equipped with active safety features that can warn drivers of risks on the road, enabling them to respond immediately to avert danger. The Traffic Eye Brake radar and camera system alerts drivers if vehicles ahead are too close. Through in-built cameras, the lane departure warning system notifies drivers when they have unintentionally strayed into other lanes while a driver alert system can estimate if a driver's concentration has lapsed based on steering irregularities. UD stability control sensors can detect unstable conditions on the road such as slippery surfaces and the system can control engine output and braking power to restore stability.

Automated Manual Transmission

Automated manual gearbox simplifies the operation of heavy-duty trucks and relieves driver stress by incorporating automatic gear changing functions.

Using GPS to predict road conditions such as road gradients and corners, ESCOT automatically chooses the optimum gear according to vehicle speed, loading weight and engine rev. By taking away the need to manually shift gears, which can happen about 1,000 to 1,500 times a day, drivers can concentrate fully on the road. The ESCOT also has an ECO mode which helps optimize fuel savings. The result: better reliability, fuel economy and driver safety.

UD Telematics Services


UD Telematics provides fleet owners with full visibility and control over the fleet. It can generate reports on fuel utilization and driving behaviour, enabling better route planning for more efficient fuel consumption. It helps fleet owners manage fleet uptime by supporting planned regular preventive maintenance. Track and trace capabilities provide precise information of the vehicle location at all times, allowing for contingency or alternative route planning in the event of traffic congestion.

With an integrated web portal and mobile app, fleet owners can keep track of the fleet through a dashboard from anywhere, at any time. Through these insights, quicker and more effective decisions can be made to reduce costs and increase profitability.

Accelerate Growth

A showcase in Smart Logistics UD trucks are equipped with Smart Logistics solutions that come with advanced safety features, ESCOT and UD Telematics to help fleet owners overcome business challenges and accelerate growth.

UD Telematics allows fleet owners to monitor each vehicle's condition and plan for service needs before a potential emergency occurs. Preventive maintenance and an extended clutch life lead to higher uptime. Reports on driving behaviour and fuel consumption help fleet owners to optimize fuel economy.

UD Trucks' smart logistics can help fleet owners in every area of operations and provide a safer more comfortable experience for drivers. 



1.35 million people die globally in traffic each year. “We work for the safety of all road users, both inside and outside our trucks. Our vision is zero accidents. There is no other alternative,” says Anna Theander, Accident Research Team Leader (right), standing together with Anna Wrigge Berling, Traffic and Product Safety Director at Volvo Trucks (left).



By investigating actual accidents and carry out analyses, the Accident Research Team can understand how accidents occur. This information can then be used in the development of safety systems.



“Every year 1.35 million people are killed globally in traffic accidents. This is something we take very seriously,” explains Anna Wrigge Berling, Traffic and Product Safety Director at Volvo Trucks. “Investigations by the Accident Research Team contribute valuable insight which ultimately helps give truck drivers a safer working environment and improve traffic safety for all road users. In addition, the work supports our safety vision that there should be no accidents involving Volvo trucks.”

Real-Life Accidents Supplement Planned Crash Tests

“Safety has been a core value at Volvo since the company was founded,” comments Anna Theander, the Accident Research Team Leader. “And in 1969 the Accident Research Team was created to investigate real-life traffic accidents. The objective was, and still is, to make traffic safer by using this information to improve future vehicle design.”

Today, the Accident Research Team is a cross-disciplinary safety research network of safety experts. They create and share unique insights about the causes of real-life accidents – adding to the knowledge gained from laboratory crash tests. In addition, the team uses data analysis of national and regional traffic statistics to gain even deeper understanding.

50 Years of Studying Real Accidents to Improve Road Safety

Safety has been a core Volvo value from the earliest years of its inception and by going to the scene of accidents Volvo investigators gain valuable knowledge.

This year, 2019, marks the 50th anniversary since Volvo Trucks’ Accident Research Team began to systematically gather, analyse and act upon in-depth information about real-life traffic accidents. The knowledge gained provides unique value in the development of safety systems and future vehicle designs, with the objective of making trucks and transport safer.

The Art of Investigation

The Accident Research Team’s (ART) work focuses on improving both active and passive safety for Volvo trucks. Research into passive safety is designed to minimize the consequences of any accident, and active safety means avoiding or mitigating accidents. Understanding how traffic accidents occur, by deeply investigating actual incidents, can help prevent accidents from happening again and protect human lives.



2019 marks 50 years since the start of Volvo Trucks' Accident Research Team. The team's insights and knowledge, gained from investigating real-life traffic accidents, add unique value to the development of safety systems and future vehicle designs



By investigating actual accidents and carry out analyses, the Accident Research Team can understand how accidents occur. This information can then be used in the development of safety systems.

Learning from History to Help the Future

"The deep knowledge that the ART attains serves as valuable safety input and guidance for our product development teams," explains Anna Wriqe Berling. "Although the ART does not by itself develop safety systems, our safety experts' understanding of complex accident scenarios gives the product development teams additional competence and confidence to create solutions that go beyond what was initially thought to be required."

"For 50 years, the Accident Research Team has been learning from the past by investigating accident sites to feed crucial safety information to our product developers," states Anna Theander. "And looking to the future, the insights that the ART holds will continue to contribute to Volvo Trucks further work to proactively improve road safety, for traditional human driving as well as for new autonomous vehicles." **T**

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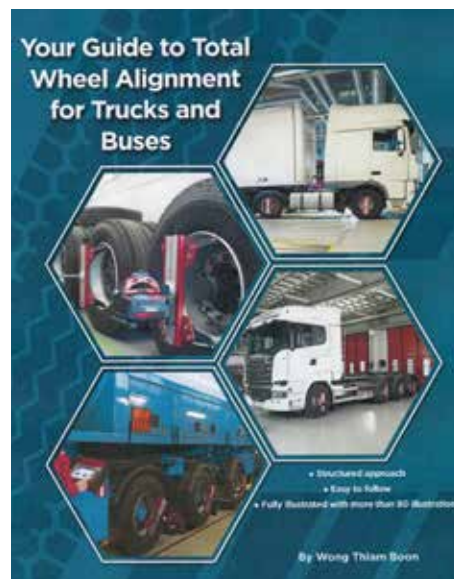
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Stefan Pertz,
Editor, Asian Trucker Malaysia
Editor, Asian Buses

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The New Mercedes-Benz Zetros is a Robust Off-road Truck

The new Zetros, a unique off-road truck that stands for excellent quality, is the result of more than 120 years of experience and know-how.

Manufactured in Wörth Germany, at the largest truck assembly plant in the world, Mercedes-Benz presents the latest generation of the Zetros, that is more powerful, more uncompromising and more versatile than ever before. Right down to the smallest of details, it's made for extreme conditions, be those on the road or in rough terrain.

Completely Reworked

The robust off-road specialist is made to transport goods in tough and inaccessible terrain. The highly capable 40-tonne off-roader has been designed specifically for operations in markets with a high proportion of off-road use. The new Zetros has been completely re-worked all-round. From a technical standpoint, the new-generation Zetros comes equipped with more powerful engines capable of delivering as much as 375 kW (510 hp) as well as a pleasing 2400 Nm of torque.

On the outside, the new model generation is discernible from the striking, restyled radiator grille which, thanks to optimised air-flow guidance, ensures even more effective cooling. The new Zetros is characterised by extreme off-roading capabilities which result from its permanent all-wheel drive system. It features numerous detail improvements, including such things as easier access to the cab or a re-designed instrument panel.


Made for Developing Markets

Just as before, the new Zetros remains available in Euro III and Euro V variants for markets with poor fuel quality and thus finds its principle markets in regions like the Middle East, Africa or Latin America. The Mercedes-Benz Zetros is a heavy-duty truck which has been developed for demanding transport tasks involving high payloads. This is why it is often used for delivering supplies to remote regions, as well as in energy exploration and in forestry operations.

The new Zetros can be used the world over in all manner of extreme climates – from hot desert regions right up to the Arctic. Tried and tested features remain while what is better has been further improved. Without compromise, the new Zetros is now pursuing its mission: to reach every destination. And now it's even more powerful.

Comfortable Cab

In addition to its extraordinary off-road qualities and proven operational strength under extreme conditions, the striking cab-behind-engine truck is now a reliable contender for long-distance haulage, too. For rough and dusty tracks, for example. Or for asphalt roads in disrepair.

The Zetros effortlessly overcomes potholes and muddy ruts, mountains and hills, sand, dust, cold and heat. Whilst impressing driver and crew alike with its comfort and safety. That is why the Zetros is the perfect vehicle not only off-road but on the road too. Wherever a conventional truck reaches its limits, the new Zetros simply continues its journey. Thanks to proven electronic systems and easily accessible technology. 



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King of the Road, Scania V8 Drives on Strongly 50 Years Later

Every legend has its beginning. And every legend starts out with a humble beginning. In the trucking world, there is a legend that started out as an answer to the ever-growing demand of power, performance, and reliability. That legend, is the Scania V8, dubbed as the King of the road. And fifty years later, the King is still ruling the roads.

How it all began

Understanding the need for trucks with higher engine output to cater for future demands, in 1962, Bengt Gadefelt, Head of Design of Scania led his team into developing a more powerful engine as they realised that Scania's then 8 and 11-litre inline six engine with an output of 250 hp would not be sufficient in the future.

"We realised that about 350 hp was needed to achieve good 'driveability.' That meant approximately 100 hp more than our other engines," said Gadefelt later, as he looked back at the project. So Gadefelt and his colleagues went to the drawing board to design an engine that would also tackle the challenge of fitting a bigger and more powerful inline eight engine underneath a more compact and forward-controlled trucks, that was the trend back then.

After meticulous work and experimentation, Gadefelt and his colleagues came up with a ground-breaking concept that covers all of their expectations when it comes to having a powerful engine but with the ability to be driven at low revs and compact enough to fit Scania's trucks; a 90-degree V8 featuring a 14.2-litre swept volume engine. The V8 engine came with a V-shaped valve covers on its individual cylinder heads and was able to produce high 350 hp output that combined with a torque curve that encouraged the usage of low engine speeds, creating a robust high performance engine that can tackle very long and demanding tasks while maintaining great fuel economy. It also came with a distinctive rumble that Scania's V8 engine would be identified by – the King's voice as some may call it.

The V8 journey

1969 – Scania unveiled the LB140 truck to the world, the first V8 engine from Scania with a 350hp that was heralded as Europe's most powerful diesel truck engine.

1991 – Scania launched the Scania Streamline truck that reduced fuel consumption by 4-5 percent and cut the drag factor by 12-15 percent. The Scania R143 500 with its V8 engine rapidly became popular among truck fans all over Europe.

1991 – Scania introduced two V8 range of Euro 1 engines in conjunction with Scania's 100th anniversary: a mechanically governed 450 hp engine and a 500 hp EDC engine, the first Scania engine to break the 500 hp barrier.



2000 – the V8 received a facelift by introducing a more powerful 16-litre V8 Euro 3 engine to replace the legendary 14-litre V8. The new engine was also incorporated with Scania's modular concept whereby many components, including the cylinder, were the same as the ones used for inline engines. This provided customer with better uptime with faster service handling period.

2005 – The Euro 4 and Euro 5 V8 engines were introduced with the broadest range of engine outputs: 500, 560 and 620 hp and up to 3 000 Nm of torque.

2010 – V8 engine received an increase of the swept volume from 15.6 to 16.4 litres and introduction of a new and lighter yet stronger cylinder block in CGI (compacted graphite iron).

2010 – A new V8 legend was born with Scania R730, a 730 hp V8 with a maximum torque of 3,500 Nm. It is Scania's most powerful truck engine to date.



2016 – Scania launched the New Truck Generation coinciding with its 125th anniversary with the V8 range presented the following year featuring a reinforced cylinder block, 80 kilograms lighter, and 200 new components out of 650 engine components.

The King of the road today

Today, Scania's V8 is at the forefront of the heavy haulage industry as it is the perfect vehicle providing high initial power and torque than the normal inline engine and capable of transporting heavy load while maintaining good fuel economy. The eight cylinder engine ensures that load is spread for smoother running and fewer torque thus providing drivers with excellent performance, longer engine life, increased uptime and increased productivity.

Amongst the components that also contributed to the increased uptime is Scania's Hydraulic Retarder, which is designed to handle all or the majority

of the braking work and provides better control of the vehicle when driving on downhill gradients with heavier load. This provides for a safer driving environment as well as increased service life in particular for the wheel brakes. Scania's modular system also ensured that the trucks performance can be customise to suit the driving needs as well as increased uptime.


With the introduction of the New Truck Generation, the V8 variation has four areas of focus: increasing fuel efficiency by five to eight percent to improve customers' profitability, improving serviceability to increase the vehicles' uptime, improving production processes to increase quality, and a contemporary design – all of which are key components of success within the heavy haulage industry such as mining and timber. And coupled with Scania's Total Solutions, the V8 is ever ready to maintain its position as the King of the road.

Closer to home, The King of the road can be seen hauling up heavy loads for Malaysian companies since it was first introduced more than five years ago. Aside from heavy haulage, low loader is another common application of the Scania V8 in Malaysia. Logistics, haulage, and freight forwarding companies such as Tiong Nam Logistics Holdings and Harbour-Link Group Berhad rely on Scania's V8 trucks to accomplish their tasks.

"Scania's latest V8 trucks are made for drivers and operators who demand high average speeds, enduring value and power. The latest improvements to the V8 engine has created a more robust engine to reduce the time spent in workshop thus allowing vehicle owners to concentrate more on achieving higher profitability," Tom Kuiphuis, Pre-Sales Director, Scania Southeast Asia.

The future for V8

With a superb track record for performance, fuel efficiency, and great prospect in heavy haulage, the King of the road is not ready to settle down just yet. Scania envisions that the V8 will be in greater demand in the future as heavy haulage industries such as timber and mining, that still require the need of high performance, robust trucks to transport heavy loads.

"At Scania, we are always working towards improving our vehicles such as the V8 trucks and fine tuning them to perform even better whilst further minimising the impact we have to the environment. Our goal is to provide for the best uptime for the business that matters most – our customers," added Tom. 



The World's First Unmanned Electric Truck Started Trial Operation in Port

SINOTRUK has put into use the world's first unmanned electric truck in Tianjin Port, China marking the important step forward for the unmanned L4 electric truck to move from the concept to commercial use.

Launch Performance

Invited guests witnessed that without human intervention, the unmanned electric vehicle, equipped with laser radar, an HD camera and an intelligent calculation unit, made the required movements which included road driving, parking, container loading/unloading and response to barriers. It realized the whole-process automatic driving and transportation ranging from container handling to storage yard.

According to Mr. Zhu Lianyi, the Vice Director of Technology & Telecom Department, Tianjin Port (Group) Co., Ltd., the success of trial operations not only demonstrates that China has made new breakthroughs in intelligent driving of an unmanned electric truck in port working conditions, it also provides feasible solutions to solving the problem of automatic transportation in a container dock. Moreover, it makes positive attempts to promote innovative development of green and smart logistics in China.

Focus on Intelligence and New Energy

The unmanned electrical truck, in addition to the eye-catching battery module, doesn't differ greatly from ordinary container trucks in appearance. It is equipped with a Beidou positioning system and laser radar, mm-wave radar, camera and other devices. Equipped with additional AI technologies, it can work at night, in fog, rain and downpours, as well as in complex situations of cross-operation of staff, vehicles and equipment. It can operate 24-hours in all-weather conditions and working conditions in the port.

Building on the competency and knowledge accumulated over the past six decades and using the leading design philosophy, SINOTRUK has utilized AI, Internet of Vehicles, cloud computing, new energies, new materials and other innovative technologies to customize for the port the world's first L4 unmanned electric truck, HOWO—T5G. It is equipped with the world's leading

The launch of SINOTRUK's first unmanned electric truck signals the expanded development of e-mobility and self-driving vehicles in China.

driving system and the mature and reliable pure-electric central drive control system. The fully-loaded truck can drive about 120KM and the charging time is less than one hour.

Steady R&D

SINOTRUK has made great breakthroughs in intelligence and the new-energy field because of its steady efforts in R&D and manufacturing. As the birthplace of heavy-duty vehicles in China, SINOTRUK has always emphasized the exploration in intelligence and new energy. It is the leader of intelligent manufacturing and the pace setter of new-energy vehicles in China.

In terms of intelligence, in September 2016, SINOTRUK launched the first-generation intelligent truck, which combined rear-end collision prevention, side-turn prevention, lane straying prevention, anti-sliding and self-adaptive cruise control, etc. Active safety of heavy-duty trucks in China has made new steps.



Center and setting up the Academician Working Station. SINOTRUK products now cover several categories, including pure electric, hybrid and clean energy products.

In July 2017, SINOTRUK developed its first hydrogen fuel cell yard tractor, which has attracted great attention in the industry. This time, the trial operation of a pure electric truck provides the new green choice of port vehicles.

Academic Cooperation

Mr. Tian Lei, Vice Director of the Department of Vehicle Electronics Design in the SINOTRUK Technical Development Center, said that SINOTRUK cooperated with academician Li Deyi of the Chinese Academy of Engineering to establish the SINOTRUK Academician Working Station for Intelligent Connected Vehicles. The trial operation was spearheaded by academician Li Deyi. SINOTRUK, Tianjin Port and Tianjin Main Line Science and Technology Co., Ltd. entered deep technological cooperation and made joint technological innovations. It is a bold attempt of partnership among vehicle manufacturer, port company and high-end developer, which will speed up the upgrading of unmanned electric truck R&D, encourage the automatic container dock to realize revolutions and strongly stimulate upgrading and development of smart and green logistics in China.

The automatic container dock is the future trend of ports, and the major indicator of world-class marine port in the world. For most ports, it is feasible to make automation upgrading and renovation of established container dock. However, they have to solve the problem of horizontal transportation of containers in a feasible and economical way.

Economically Feasible

At present, horizontal transportation in automatic container dock adopts two models. One is AGV plus magnetic nails buried in the road, which will cost nearly 10 million RMB. The other is unmanned electric trucks, which can drive automatically and intelligently in the dock and storage yard, transporting the containers to the designated position, thus not only shortening the transportation process, but resulting in a lower price.

“Is the plan economically feasible?” Dr. Zhang Tianlei, founder & CEO of Tianjin Main Line Science & Technology Co., Ltd asked, “In terms of cost, expenditures in unmanned electric trucks are about one third of AGV. However, the cost will fall as automobile manufacturers realize mass production. In terms of future use, the unmanned electric truck is featured by a plain structure, the easy purchase of spare parts and the same maintenance and repair as a conventional container trucks. As a result, the routine maintenance cost will be lower. In addition, because unmanned electric trucks don’t need to use other special apparatuses such as magnetic nails, they can not only adapt to large-field operations in the port, but also drive out of the port to meet demands for cross-border transportation.”

Pushing Forward

Based on the trial operation in Tianjin Port, SINOTRUK will focus on China’s efforts to push forward green transport, develop intelligent trucks used on intelligent highways, mines and logistics parks, launch the intelligent electric container trucks that feature better automatic driving performance, lighter weight, stronger chassis, faster charging and longer mileage, thus helping intelligent logistics make upgrading in the Beijing-Tianjin-Hebei region, work hard to build itself into the first-class company with global competitiveness, make sure SINOTRUK products become the synonym of Best Quality, and help China upgrade from Big Manufacturing Power to Strong Manufacturing Power, and upgrade from Made in China to Developed by China. **F**

Trucks to Market

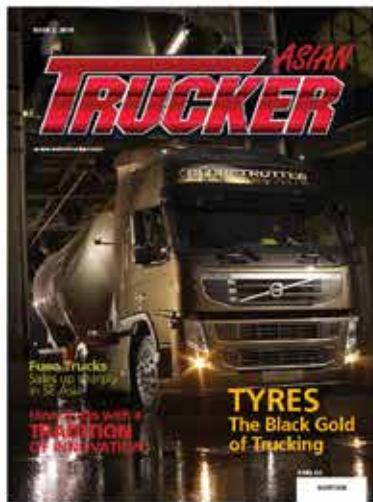
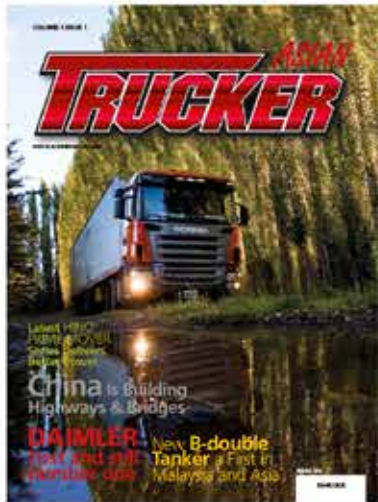
In December 2017, the first 20 intelligent trucks of SINOTRUK were put into market operation, leading China’s intelligent heavy-duty trucks into the new stage of commercial and industrialized development.

In February, SINOTRUK kicked off a large marketing campaign of intelligent trucks in seven cities, resulting in orders for 1,041 intelligent trucks. SINOTRUK recruited Ms. Cassell, the leading expert in the global AI development, as SINOTRUK’s strategic consultant of AI. Cassell making a speech at SINOTRUK after viewing the SINOTRUK production line and first-generation intelligent trucks, she praised the intelligent trucks, and said she was amazed by its technologies.

New Energy Vehicles

In the field of new-energy vehicles, SINOTRUK takes the lead in the transition from the old power force to the new one by developing natural-gas heavy-duty trucks, establishing the Hydrogen Power Vehicle Innovation

Subscription Form



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Goldbell Launches MoveSG to Champion Mobility Start-Ups

(Singapore) Singapore's largest player in leasing and distribution of commercial and industrial vehicles, Goldbell Group, has unveiled MoveSG – South East Mobility Start-Ups, Asia's leading mobility accelerator programme that offers participants immense flexibility while presenting them valuable access to leading global and regional transport, energy, mobility and engineering companies. MoveSG was launched in Singapore in August 2019 with the support of key industry partners such as Shell, Avis Budget Group, ComfortDelGro Ventures, Momentum, AIRmaker and Enterprise Singapore, with the intention to catalyse the growth of future technology champions in the area of mobility, transport and logistics and push for solutions to real problems in Singapore and the Asia-Pacific.

Nurturing Mobility Solutions

"We started MoveSG to pilot and nurture mobility solutions and business models in smart cities all around Asia," says Arthur Chua, CEO of Goldbell Group, "With our extensive and highly developed transport network, as well as the government's strong push towards the transformation of Singapore into a smart nation, Singapore is a perfect sandbox for disruptive mobility solutions to be created, tested and perfected. We look forward to working closely with Enterprise Singapore and our global partners to discover these start-ups and provide them with an unprecedented opportunity to pilot these ideas in Singapore and beyond, ultimately growing them into the next giants in mobility."

MoveSG provides unprecedented mentorship and investment opportunities with leading transport companies, and participants are set to receive all the support they need to bring their innovative mobility solutions to life.



Unique One Year Programme


MoveSG is currently the only mobility accelerator among partners participating in Enterprise Singapore's Startup SG Accelerator initiative, and the first mobility accelerator in Singapore that is run by a homegrown leading mobility business. Goldbell has more than 40 years of experience in Singapore and Asia, and can therefore offer successful applicants a one-year programme like no other:

- access to Goldbell's own fleet of more than 8,500 commercial and passenger vehicles; mentorship by Goldbell's team of international mobility experts;
- pilot opportunities with Goldbell and MoveSG's leading corporate partners: Shell, Avis Budget Group, ComfortDelGro Ventures, Momentum (corporate venture arm of SMRT Corporation Ltd) and AIRmaker and
- a tangible opportunity to secure investments from the programme itself or venture partners.

Additionally, international applicants don't need to relocate physically to Singapore immediately – they have the flexibility of doing so at their own pace when their regional business starts to pick up.

Strong Growth Ambitions

Mr Ted Tan, Deputy CEO of Enterprise Singapore, said "As a participant of the Scale-up SG programme that helps aspiring, high-growth local companies scale rapidly, to become leaders in their fields and be groomed into future global champions, Goldbell has continued to demonstrate its strong growth ambitions, with this latest accelerator programme that focuses on future mobility, a nascent area that has good potential to take off in urban environments such as Singapore. We look forward to Goldbell's partnership with startups to develop practical and innovative solutions that will not only change the way we live and move around, but also revolutionise the local mobility ecosystem to create new growth opportunities and efficiencies for our transport and logistics industry."

More than 50 applications have been received since the launch of MoveSG. Among the confirmed companies are Neo Aeronautics Pte. Ltd, Carmen Automotive Pte. Ltd, Resembler Pte. Ltd, Web2Ship Inc. 



Cummins Heavy Duty Truck with Fuel Cell and Battery Electric Power

Believing that end users may need more than one type of power Cummins has developed a truck that can run on more than one power source.

At the end of October 2019 Cummins Inc. unveiled its latest innovation, a heavy-duty truck with fuel cell and battery electric power. Cummins' strategy is to provide its customers with a broad portfolio of power options, from diesel and natural gas, hybrids, to battery electric and hydrogen fuel cell solutions.

An Important Step

"Developing this cutting-edge hydrogen fuel cell truck as a technology demonstrator," said Thad Ewald, Vice President, Corporate Strategy at Cummins and leader of the company's Electrified Power business, "is an important step in gaining valuable insights that are critical to continue developing the right solutions for the market and preparing for the next 100 years. Some companies make headlines talking about the future, but we're busy building for the future."

"In the long run, the customers we serve will likely need more than one type of power, depending on their specific markets, applications and use cases. We are uniquely positioned to help our customers select the right solution for their needs. Our deep technological expertise and global service and support network means we are able to help them transition from one technology to another at the time that's best for their business."


Zero Emissions

The zero-emissions class 8, 6x4 day cab tractor is a technology demonstrator suitable for vocational applications, including regional haul, urban delivery operations, port drayage and terminal container handling.

The truck was designed and integrated by Cummins in Columbus, Indiana and includes a proton exchange membrane (PEM) fuel cell from Hydrogenics, a recent addition to Cummins. The truck was designed for a 90-kW fuel cell and is scalable in 30 kW or 45 kW increments up to 180 kW, and also has a 100-kWh lithium-ion battery capacity. The truck has a range of 150 to 250 miles between filling up, however, that range can be extended with additional hydrogen tanks, by increasing the tank storage pressure or installing additional fuel cells to optimize management of the vehicle load factor. Many of the critical components of the powertrain, including the PEM fuel cell, system controller, powertrain controls, wire harnesses and junction boxes, among others, were designed and developed by Cummins.

Envision Success

To help all original equipment manufacturing (OEM) customers and end user envision how Cummins' fuel cell power can enable their success, the truck has been intentionally designed without collaboration from any of the company's OEM partners.

Cummins has made several recent announcements around fuel cells like the acquisition of Hydrogenics, a memo of understanding with Hyundai Motor Company to collaborate on hydrogen fuel cell technology across commercial markets in North America and an investment in Loop Energy, a fuel cell electric range extender provider. 



Tata Motors and Lithium Urban Technologies Partnership set to Leapfrog Electrification of Transport Service Market

Reinforcing their position at the forefront in the electrification drive, Tata Motors and Lithium Urban Technologies, the world's largest commercial EV fleet providers, outside of China, have announced their partnership. Both companies will explore bespoke models to address requirements of customers who are increasingly looking for tailor-made mobility solutions in the market across passenger, mass transit and freight segments.

Spanning development and supply of both commercial and passenger vehicles, Tata Motors bags an order of 500 electric vehicles from Lithium Urban Technologies

400 New E-Vehicles

As the first milestone, Tata Motors and Lithium have signed a contract for 400 newly launched, Tigor Sedan EV, with an extended range of 213 km, to be supplied by FY20 and deployed across India. This partnership plans to additionally induct 100 electric vehicles, which would include cars to be launched in near future, like Nexon EV for corporate leadership transport services. These steps will be pivotal for Lithium to significantly expand its current fleet of 1000 EVs to further consolidate its leadership position as the largest EV based mobility service provider.

will add further differentiation to our service offerings for the passenger services. This partnership with Tata Motors will ensure availability of new form factors and enable viability of new market segments across passenger, mass transit and freight. Lithium would move quickly to integrate the company's paradigm-shifting LUTEC (LithiumUrbanTec) EV mobility utilisation software with the new vehicles."

"This is not just the most significant milestone for Tata Motors' E-Mobility Business," Mr. Shailesh Chandra, President – Electric Mobility Business & Corporate Strategy, Tata Motors Ltd. said, "but also a big turning point in the EV market, which is now likely to see fleets electrify faster than ever before. We are delighted to enter this partnership with Lithium, who are on their pragmatic journey of expanding their zero-emission transport service rapidly. We are committed to nurturing this valued partnership as we address the evolving mobility needs of our customers through various disruptive business models."

The new Tigor Electric Sedan, with an extended range of 213 km, certified by ARAI is available for both fleet and personal segment customers. This vehicle qualifies for a FAME II incentive for eligible commercial customers. It offers an enhanced driving range, low cost of ownership, connectivity, comfort of a sedan and zero emissions. **T**

Enabling Viability

Mr. Sanjay Krishnan, Founder, Lithium Urban Technologies added, "We are excited to partner with Tata Motors for the supply and co-development of EVs. The induction of new extended range Tigor EVs and future EVs into our portfolio

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The Smart Alternative in OE Quality

Hengst launches new campaign for the independent Aftermarket. Being a radical new approach, we wanted to know more in order to relay the insights to the market.

Brand-name quality is also of great value on the independent aftermarket for spare parts: Epitomizing superior dependability and economy, it lays the foundation for satisfied repair shop customers. Hengst has made these advantages the key focal points of a new communication campaign that is geared towards the Independent Aftermarket (IAM). Running the campaign under the motto of "The Smart Alternative", the filtration specialist summarizes all advantages to independent specialist companies that are associated with service parts in OE quality.

Brand-name products are of particularly great benefit in the area of vehicle repairs that are suited to current market value. Durability and high performance will pay off in the long run for wholesalers and for independent aftermarket repair shops and their customers. By contrast, outwardly "affordable" replacement parts are prone to lead to unscheduled downtimes, causing anger and frustration all around, due to their substandard quality or defects in the material.

Compare that to Hengst: As a development partner for a great many well-known automobile manufacturers, the company is in a position to offer to the independent market services of great quality and innovation that are on par with the services provided by the original manufacturers. Better yet, Hengst also boasts an exhaustive product selection that covers nearly all requirements thanks to its 2,600 filter applications and is promptly available thanks to the company's powerful logistics system. Hengst's promise of performance is capped by personal service and marketing as partners.

The slogan of "The Smart Alternative" is asserted by a new look which accentuates the distinctive "H" and the company colours blue and yellow as brand recognition features.

Asian Trucker spoke to Oliver Nabrotzky, Global Group Vice President Independent Aftermarket, to find out more about the motivations and benefits behind the campaign.

In their statement, Hengst claims that "outwardly "affordable" replacement parts are prone to lead to unscheduled downtimes". They are not just saying so, but backing this with data and insights. At first glance, many products we use on a daily basis seem to offer us identical advantages - whether they are of brand-name quality or represent a generic, more affordable alternative.



If damage can be attributed to the use of substandard filters, the warranty granted by the automotive manufacturer is usually rendered void. This is a risk that can certainly be avoided by relying on filters in OE quality.

When selecting vehicle filters, however, you should always pay attention to quality - no matter if you buy an oil filter, fuel filter, air filter or a cabin air filter. Made from premium and temperature-resistant materials, these highly sophisticated products have a decisive influence on the performance and lifetime of your engine, fuel consumption, pollutant emission and air quality in your vehicle's interior.

"Our products - from small filter inserts to complex fluid management modules - are put through their paces by us. We have the most modern testing facilities at our disposal for this purpose (Asian Trucker reported in our Sep/Oct 2018 issue). For example, tests with inferior filters show a higher differential pressure in oil filters, which has an influence on increased fuel consumption." Nabrotzky stresses that collapse resistance is also an issue here. Apparently, they have already seen completely destroyed oil filters that get into the engine circuit and can lead to capital damage.

Fuel filters must reliably filter particles and water from the fuel, otherwise abrasion or erosion can damage the injection system or the distributor pump.

In air filter elements with limited media stability due to insufficient impregnation, the effective filter area is reduced and a breaking medium can lead to complete filtration loss. Stable media of a Hengst element with optimum impregnation prevent the pleats from being packaged, the filter surface is retained and the filter remains fully functional throughout its entire service life.

The term "SMART" in the context of this campaign is an abbreviation.

Hengst as a family business shows that continuity, value orientation but also flexibility, speed and innovation are the basis for success on the world market - and have been for over six decades. "We have worked out our competitive advantages and made them the key points of the new communication campaign. "SMART" as a further development of our communication forms the framework for our focus on our customers, which is already accepted in the market today."

Each letter is charged with added value, which in turn sets us apart from the competition:

S stands for supply and means that we guarantee on-time delivery of the right products at the right place. On-time delivery and a global network of supply centers are our contribution to fast and dependable logistics.

M for margin describes our focusing on a win-win scenario. Protected regional sales territories and a strategy that avoids over-distribution helps for stable margins.

A as in attention means our customer focus. Service instead of unnecessary waiting times is our conviction. We live and breath these principles every day and everywhere on the globe.

R like reliability expresses that our work does not revolve around investors or fund hunters who merely regard filtration as a means to widen their profit margin. As a family-owned company we live that business because it is our passion.

T for top-quality characterizes our stature as an OEM for the world's best manufacturer's brands and it's a testimony to our drive to afford our customers nothing but the best quality.



Under the motto of "The Smart Alternative", the filtration specialist summarises all advantages to independent specialist companies that are associated with service parts in OE quality. "Our campaign is aimed at our direct customers from the independent aftermarket like wholesales and exporters. But of course at their customers such as independent workshops. Partners at all levels do not want to be troubled by unreliable partners or customer complaints about inferior products," Nabrotzky elaborates.

The campaign is being rolled out by Hengst in the worldwide aftermarket and has already become "visible" at various trade fairs. For example the AAPEX trade fair in Las Vegas or the Automechanica in Shanghai. Nabrotzky says that they have already received very positive feedback from the market and are delighted that this new campaign has been well received.

This new approach necessitates that partners are also looked in. This is going to be achieved through training sessions to bring distribution partners up to speed on this campaign. "The campaign takes place on all channels, including direct communication with our customers. At the heart of our campaign are the people who live the Hengst Filter brand story and whose actions have provided the basis for the campaign in the first place. We also underline this with real people for each letter, who authentically fill the statements with life. Customers are kindly invited to discover "SMART" at www.hengst.com/smart."

As a new campaign is extremely different from those that Hengst ran in the past and from what we are



seeing today. It is more playful which undoubtedly is what they are aiming for. It reminds of modern comics. Obviously, the creators of this campaign are not afraid that Hengst as one of the main global OE players will lose its image of a serious OE Filtration developer in the independent aftermarket. Nabrotzky underlines this by saying that "We created a clear and unmistakable layout that sets us apart from the competitor environment. The campaign uses our strong brand image, which we have built up not least through our OE expertise. We are convinced that our customers can differentiate between a strong appearance and the basis of this - a reliable partner both for the world's leading manufacturer brands as an OE partner and as a trustworthy companion in the independent aftermarket. The image of communication is one thing, but the messages that are lived every day are another. We are convinced of both."

However, as this campaign sets out to put Hengst onto a new direction, there are several issues that need to be addressed to make this future-proof. Filtration systems from Hengst can be found in all engines from worldwide manufacturers in the passenger car, commercial vehicle, agricultural and construction machinery sectors. In the field of fluid management modules for commercial vehicles, Nabrotzky is proud to report that they are even the world leader.

"Fortunately, our order books in the OE sector are full and in 2019 alone we have invested 60 million Euro in new plants and machinery to prepare the planned series start-ups of the major manufacturers."

Nabrotzky has more good news to report as he is saying that "In the truck sector we had in 2019 a SOP for MAN Truck & Bus with a fuel service center module. The module is a five-stage filtration system with lifetime water separation, in




which the single stages are optimally integrated in a pre-filter and main filter. For Sinotruk, a fuel filter for natural gas engines also went into series production this year. As well as an oil filter, a cylinder head cover and our Blue.maxx fuel filter system for the new TCD 5.0, 4-cylinder engines from Deutz and a fluid management module on the MDEG engine base for DDC. Series start-ups of various filtration systems for Daimler Trucks, Weichai, Scania and DAF are planned for the next few years."

As everyone is talking about electrification of commercial vehicles, this is also a topic that concerns the management at Hengst. Without a combustion engine, there would not be a need for engine oils for instance, thus the oil filter as we have known it for decades will no longer be required. According to Nabrotzky, developments in the global markets are becoming increasingly unpredictable. Technological upheavals caused by the electrification of drives or digitization are also affecting their business. "All these developments present us with challenges that we are already tackling together with our customers." The focus here is on opening up completely new business areas with the topics of transmission oil filtration, smart filtration or solutions in the field of electromobility, e.g. for oil-cooled axle elements, as well as the expansion of the industrial filtration division.

"Despite uncertain conditions in some areas, we continue to operate in a future market with enormous growth potential." Current forecasts assume that the global filtration market will double in the next ten years. Filtration remains simply exciting and offers so many opportunities to remain a specialist in this field in the future.

There are several driving forces that are pushing innovation in Hengst. Firstly, the company aims to optimise product costs for customers. This is not done by driving the price of raw materials down, but by engineering clever filtration solutions. One example would be the way air / liquid flows are designed. If there is better flow in filtration modules, better fuel efficacy can be achieved. Another way is to design filters in ways that allow for the replacement of parts that have reached their lifespan (filter insert) but keeping those components that are not subject to wear and tear (filter cartridge). Such approach will not only reduce the cost to replace the filter, but also vastly reduce the wastage of valuable materials. Therefore, Hengst is of the opinion that the spin-on filter concept is no longer contemporary. What might be most surprising fact is that Hengst has an enormous capability in terms of production depth.

This expertise and knowledge is ingrained in the production of the filters. Standing amidst the filter production in the HQ is a machine that produces plastic end caps. When asked why this is done in-house, the answer from the production manager is surprisingly simple: nobody produces as many of these caps as we do and therefore our quality and know how is better than that of any outside supplier. Besides volumes of knowledge about filtration, Hengst also has production capabilities to produce injection mould aluminium components. The foundry produces modules between 250 gram and 11 kilogrammes. In order to do so, Hengst needs to be knowledgeable about the entire process from melting to injecting the aluminium, from designing to testing. All components are being tested using very specific test protocols. It was learned that even the ambient temperature needs to be controlled for tests in order to not distort the results.

Similar, Hengst also produces plastic parts needed for their filter manufacture. Again, this requires in-depth knowledge of the raw materials and their characteristics. To streamline the production, Hengst typically designs and constructs own production robots and machines in order to meet the specific needs of their product design. Given the enormous knowledge about raw materials, production methods and in-house capabilities, it is no wonder that the company is so highly innovative as everything needed is at hand. Their effort is being recognised as aluminium parts from Hengst are winning awards from bodies focused on the die-casting industry, which is not where Hengst sees itself in! 




Thomas Hilse IVECO Brand President

Iveco Appoints New Brand President

IVECO has appointed Thomas Hilse as IVECO Brand President. In this role, effective from November 1, 2019, Thomas Hilse has taken on global product management, sales, marketing and network development responsibility. He is tasked with building on the brand's position and expanding its presence in the world markets. He will be based in Turin, Italy.

Gerrit Marx, President Commercial and Specialty Vehicles, commented: "We are pleased to welcome Thomas into our organisation. He joins us at a momentous time in our history, when we have just launched our new Daily light commercial vehicle range and the IVECO Way range with the new IVECO S-WAY heavy-duty truck and introduced significant advances in digitalization and servitization in our offering. Thomas brings a very strong track record in

the commercial vehicles business and vast international management experience, which will be valuable in steering the future success of the IVECO brand around the world."

Thomas brings a very strong track record of 22 years of experience gained in the Truck, Bus & Commercial Vehicles Industry through various international management positions for different brands in Europe, NAFTA, Latin America and South-East Asia. His roles have covered all aspects of the business, from Sales and Business Development, to Customer Service and Product Planning, reaching the position of CEO. He studied Mechanical Engineering and Business Administration and holds an M.A. in International Relations. 

Afton Chemical Completes Multimillion Dollar Expansion Of Japan Technology Center




(Tsukuba, Japan) Afton Chemical Corporation has announced the completion of its Japan Technology Center expansion in Tsukuba. Mr. Jon Heese, City Councilor for Tsukuba, opened the Center with Mrs. Regina A. Harm, President of Afton Chemical Corporation and Mr. Sean Spencer, Vice President and Managing Director of Afton Chemical Asia.

The investment provides an expansion of the analytical and mechanical laboratories to increase lubricant additive testing capabilities. This includes standardized and bespoke tests for transmission fluids, gear lubricants,

passenger cars, motorcycles, commercial and off-road vehicles engine oils as well as industrial hydraulic oils. The expanded facility will provide its customers with enhanced technical services such as sample blending, physical/chemical analysis and performance testing that comply with international and Japan unique test methods like ASTM, JIS, JPI, JASO and JCMAS.

"The expanded Japan Technology Center with its integrated technical support and performance testing will enhance our ability to provide quick and effective solutions to our customers in Asia, and will provide customized solutions 'Made For' key Japan OEM projects," said Mrs Harm.

Afton has an extensive network of research and development and testing facilities in the United States, China, India, Japan and the United Kingdom. 

Full Truck Alliance Plans To Dominate The China's Truck-Sharing Market


(Guiyang, China) Called China's Uber-for-trucks, the startup Full Truck Alliance (FTA) has set its sites on dominating China's national truck-sharing market, according to Bloomberg. By creating a marketplace that connects millions of mostly independent truckers, the Guiyang-based company, 228 miles south of Chongqing, makes money by charging a fee when brokering transactions. The company has 5.5 million registered truck drivers, accounting for 90% of the total number of freight truck drivers on China's highways.

Formed by a merger between China's two largest truck-sharing platforms - Huochebang and Yunmanman - the company has attracted backers that include SoftBank and Tencent, Sequoia and Alphabet Inc's CapitalG. Despite dominating the truck-sharing sector in China, Full Truck Alliance is now confronted with the same challenges that on-demand businesses worldwide face - proving its business model can lead to sustainable revenue and profit growth.

Luo Peng, joint president of Full Truck Alliance Group and CEO and co-founder of Guiyang Huochebang Technology Co, says the platform will offer comprehensive services for truck



drivers such as financial products for electronic toll collection payments, fuel and tire purchases, and loans to boost transactions. The Alliance makes money by selling top-up toll cards and directing drivers to service stations.

"We broke even both in the accounting and cash flow sense," noted FTA chief financial officer Richard Zhang. "I don't want to commit to a timetable here, but eventually we probably want to go for an IPO." 


New MAN Website Puts Focus On People And Stories

MAN Truck & Bus has comprehensively overhauled its corporate website. Multimedia stories involving the global commercial vehicle sector are the centrepiece of the new website with movers and shakers as well as users getting a chance to speak. Stories from all over the world reveal where and how trucks, vans and buses/coaches from MAN are used.

Exciting reports, exclusive interviews, high user-value reports, thrilling photo stories and films – a variety of contributions give website visitors relevant information on the MAN company, innovations, technologies and key industry trends: What are the rules of good commercial vehicle design? How does the turning brake function? Why is the turning point in mobility working so well in Paris – and what can other big cities learn from this metropolis? Visitors can find the answers to these questions and a lot of other issues on the new website. Those interested can obtain valuable

expert knowledge on trend issues such as e-mobility and automated driving, learn about products in use and find out which forward-looking solutions MAN is working on.

The website incorporates information on company sites, technical terms from the commercial vehicle world, press and career portal as well as highlights from MAN's more than 100-year history. "We have completely overhauled our corporate website presenting MAN at its best. We put the focus of attention on people and stories, thus giving useful knowledge to our website visitors about technology, industry trends and, of course, our company, in an entertaining way," says Stefan Klatt, Head of Corporate Communications at MAN Truck & Bus. "Using good stories, we say what we stand for: as a provider of innovative transport solutions, MAN makes customers' daily lives easier."

www.mantruckandbus.com 

Scania Hybrid Sustainable Truck Of The Year



(Italy) The Scania L 320 hybrid truck has been awarded Sustainable Truck of the Year in the distribution category. This is Scania's fourth consecutive victory and confirms its leadership in driving the shift to sustainable transport. The award is presented by the trade magazine Vado e Torno. "This is not and will not be the ultimate solution for all environmental problems, let alone displace the commonly demonised diesel engine. However, the Scania hybrid now exists and that is anything but a negligible achievement," says Vado e Torno's Managing Director Maurizio Cervetto.

Cervetto praises Scania's approach in offering customers a wide range of alternatives. "Scania lets each customer choose the solution that best fits their operation – from gas to HVO, from biodiesel to bioethanol – that all

help reduce carbon emissions and aim to make heavy transport more sustainable."

"We are extremely proud to receive this award again," says Franco Fenoglio, Managing Director of Italscania, "which further confirms Scania's commitment to offering the highest levels of sustainability, both economically and environmentally."

Scania's second-generation hybrid truck is available both in plug-in hybrid (PHEV) and hybrid electric vehicle (HEV) versions. It has a Scania 9-liter, 5-cylinder in-line diesel engine that can run on HVO (hydrotreated vegetable oil) or diesel. This works in parallel with an electric motor capable of delivering 130 kW (177 hp). The vehicle can operate in a fully electric mode up to ten kilometres.

The award recognises sustainability, which includes efficiency, safety and operating economy. The Scania L 320 not only contributes to lower emissions but also to lower noise levels. Additionally, with the L-series' better visibility, it helps improve safety for pedestrians and cyclists in cities.



A New Distributor For Iveco In Bangladesh

(Dhaka) IVECO is expanding its operation in Bangladesh by appointing Runner Trading Ltd (RTL) as its new distributor in the market. RTL is a subsidiary of Runner Group, one of the major commercial vehicle distributors in Bangladesh. The appointment of RTL is a part of the brand's vision and long-term strategy to expand and supply high-quality vehicles to its customers in Bangladesh. The brand is introducing a full range of vehicles and services to provide complete solutions for the country's commercial vehicles industry. IVECO vehicles have gained a reputation as the preferred choice of many government agencies, having won numerous tenders.

Thanks to this agreement signed on October 1, 2019, IVECO's product offering in Bangladesh will initially include the Trakker trucks for long haul logistics and construction sectors;

the 682 trucks in the heavy segment and the Daily in the light commercial segment for high-end city transportation.

Michelangelo Amelia, Business Director for IVECO South East Asia and Japan, stated, "Bangladesh is a fast-growing market whose economic growth is boosting demand for commercial vehicles. The development of heavy industries and the improvement of new infrastructure as well as the growing population are just some of the drivers for the increased demand for goods transport vehicles and commercial passenger vehicles, such as buses." **T**

Filter Status in Real Time with Comprehensive Software Solution



Information on the status of their vehicles is a valuable asset for the fleet operators of agricultural machines, construction machines and heavy duty commercial vehicles. The smooth operation of their vehicles is only possible if the vehicles are properly maintained.

Previously, operators had to rely on their experience or fixed intervals to determine the right time to service the filters installed in the vehicle. With its comprehensive software solution including sensors, MANN+HUMMEL is the first filter manufacturer worldwide which offers a solution for precise monitoring of the filter status.

This proactive monitoring offers many advantages over common reactive measures. Until now fleet operators have had to determine the filter status by time-consuming visual inspection which could lead to an incorrect assessment or alternatively fixed servicing periods are maintained. With the new solution from MANN+HUMMEL, they can now view the exact status of their fleet at any time and ensures that the filter is always changed at the right time. In addition, maintenance times are precisely matched to the machine schedule, unplanned downtimes are reduced and the risk of exceeding the service life can be eliminated. This has a positive effect on the efficiency of the vehicles and thus reduces the total operating costs. **F**

FAW and Toyota Signed an Agreement on Electrification and Intelligent Connection

FAW Group Corporation (FAW) and Toyota Motor Corporation (Toyota) have signed a strategic cooperation framework agreement on the development of electrified and intelligent connected vehicles.

According to the agreement, FAW and Toyota will make full use of their strengths, provide more hybrid vehicles, plug-in hybrid vehicles, as well as all-electric vehicles and hydrogen fuel-cell vehicles for Chinese consumers to meet their multiple mobility demands, and jointly promote the R&D and popularization of electrified vehicles in China. In addition, the cooperation will also help the two sides to realize resource sharing and personal exchanges.

FAW and Toyota will strive to satisfy the multiple mobility demands of Chinese consumers, while making their due contributions to the protection and improvement of ecological environment of China, the agreement said. **F**



Xu Liuping, Chairman of FAW Group Corporation (right) and Akio Toyoda, President of Toyota Motor Corporation (left)



Could I Take the Pressure?

Ask anyone if they have issues at work and if they feel overwhelmed sometimes and I am certain they will all say "Yes". I believe that people in certain professions are subject to more pressure and stress than others. Maybe you are thinking of commercial pilots. They have tremendous responsibilities! However, I believe one job I am not made out for is that of being a trucker; I better stick to truck captions.

Sneakers aren't Trainers

Why do I say a trucker may be subject to pressures I couldn't handle? Well, let's start with the education and the constant need to upgrade oneself. I left school some 15 years ago and have since only acquired knowledge on Facebook. I am not a trained journalist. This is something that fell onto my desk and while winging it at first, I got the hang of it and eventually I managed to get good enough to be a writer and to win an award. Now, would you trust me with a B-Double and your goods on board? Maybe not. You would insist I go for proper training first with a licence that I would have to sit for and pass. For as long as I have been writing for Asian Trucker, there have been calls for more and more high-level courses to be taken by truckers to ensure they are up to speed. Or should I say that they stay within the speed limits? Some operators even have training academies!

Being Away

Long distance drivers also have to deal with the fact that they may not see their family for several days. Driving here and there may mean the vehicle is a rolling living room with sleeping quarters. Some vehicle makers have added a cosy cabin to the cab so relief drivers can rest. However nice that may be, it still doesn't replace the homely abode one's apartment is. Being away from home and hearth also means depending on food available along the road. Which may not only be unhealthy but also limited in choices. Recently, I was lucky that I had a whole row of seats to myself on a plane. I still could not make that work for me as a place where I could really rest.

Higher Authority

Next up: the boss. If an office worker comes in a little late, then the boss may not even say anything. "Traffic bad la!" usually settles that. If your truck driver comes in late, then there is a whole chain of issues that ensue. Late departure of the driver results in upset customers or if the truck needs to be replaced with another driver that colleague may not be too happy. Add to that the need to drive as fuel efficient as possible. As soon as fuel consumption goes up, there will be a chat to be had. Same goes for the tyres. If they wear out too quickly, then one would have to answer for that.

Highest Authority

When driving a truck, the most precious thing on board are (besides the driver of course), naturally, the goods transported. What I have learned in these years is that managing machine and passengers at the same time requires skills. You can't just floor it at the traffic light as the load may tumble around in the back or even fall off. The truck also needs to be kept clean. And the recipients expect to get their orders on time. And sometimes, other road users may re-enact the movie "Falling Down" and take out some aggression on the truck driver. Never have I heard that a client of an accounting firm would burst into an office and spit at people or yell if the audit report is not done fast enough. In contrast, my keyboard takes a beating every day. When I hit the keys, there is no complaining from that side.

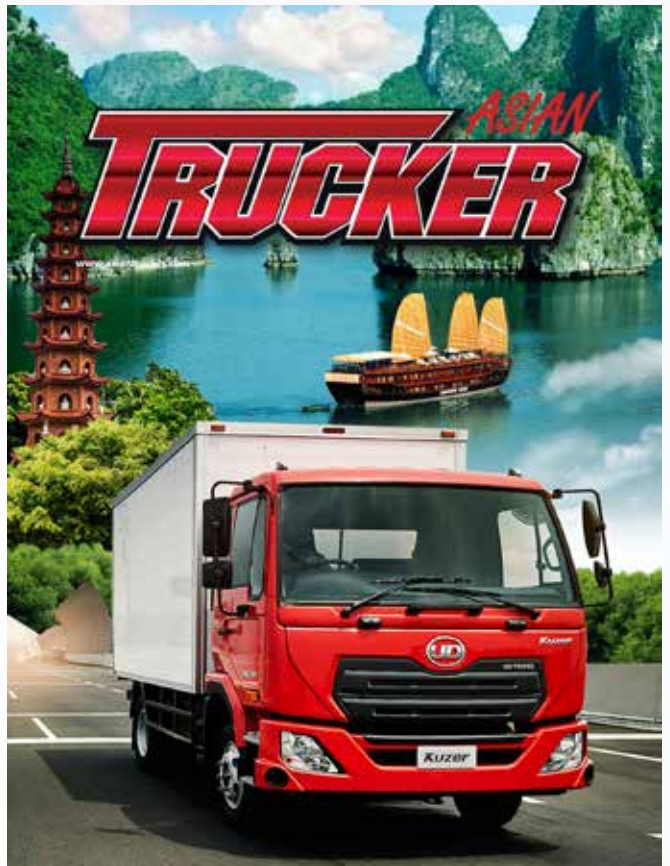
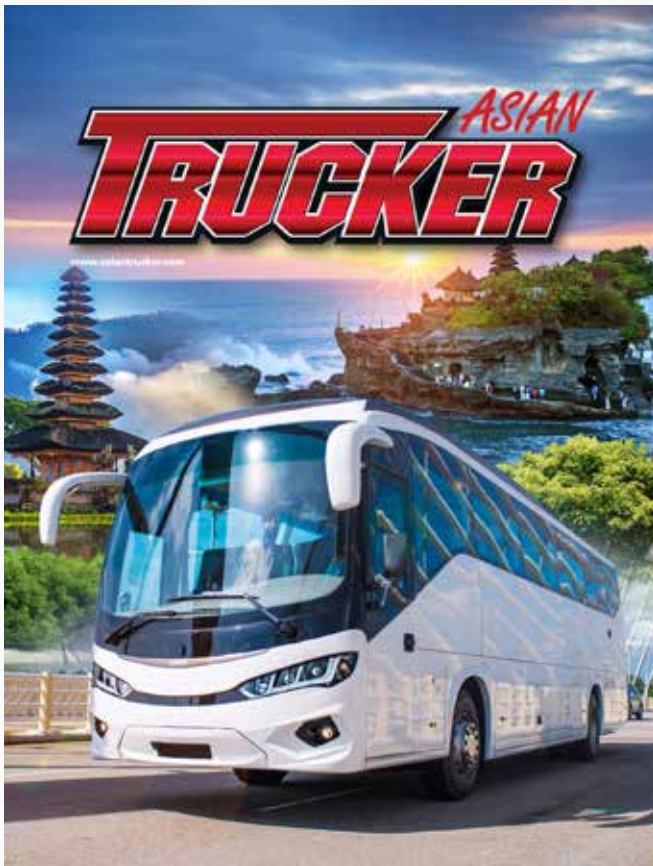
Overall, I think I will stick to pen and paper. I truly admire how people moving people keep their calm with all the stressful situations they face. Maybe I am not cut for that, just as someone else may not want to sit at a desk all day writing about buses. **T**

Why can't other Magazines Give you the Same Market Intelligence?

Asian Trucker, as the foremost provider of communications platforms for the commercial vehicle industry in South East Asia is embarking on two special projects for 2020. In the coming year, we will publish magazines that deal with specific markets. Some of those include legislative challenges, insights shared by industry players, market intelligence, expansion into the Vietnamese market and much more.

Seeing as roads account for almost 70 percent of freight volume in Vietnam for example, the commercial vehicle industry in the country is poised for growth.

We are also trying to contact some government bodies to provide us with more accurate data.



To know more and to book your advertising contact:

Carol Yeoh - Carol@asiantrucker.com / +60 16-411 0348



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