Electric Busworld Russia

The second edition of Busworld Russia Powered by Autotrans, held in the Crocus Expo Exhibition Centre in Moscow from 23-25 October, was a resounding success. Compared with the previous edition in 2016, there was a 46% increase in visitors, to 5,050. They came from all over Russia and abroad to see the latest developments in the industry.

There were 84 exhibitors from 14 countries, occupying a area of 9,000sqm, making Hall 2 a very lively venue. At the end of the third day, Didier Ramoudt, President of Busworld International declared that the fair was a great success.

The Russian manufacturing industry is certainly keeping pace with developments in new technology like electric drives and autonomy. One of the dominant themes was electric buses. There have been several projects in Russia in recent years.

Indeed, in June 2012, at Busworld Russia in Nizhny Novgorod, there were two electric prototypes. At that fair, the Likino factory, trading as LiAZ, launched the -6274, a full low floor 12-metre electric bus. LiAZ, a subsidiary of the dominant GAZ Group, developed that bus in conjunction with several Russian partners and much of the equipment was located in a full height compartment at the rear of the vehicle, slightly restricting passenger capacity.

Coming up to date, the -6274 model was one of the star exhibits at Busworld Russia. It had...
been progressively developed and the roof was strengthened to carry 6 nickel-metal cadmium batteries, giving an extended range and a full low floor interior layout.

Battery specifications and performance are critical in Moscow because of the extremes of temperature. Ultra fast charging is an impressive feature, giving the buses a full day’s range without the need for intermediate charging.

Following an extended in-service trial with Mosgortrans, the operator of surface transport in Moscow, an order was placed for 100 units. The first 10 entered service in September and many more are due to be delivered before the end of the year.

KamAZ is the best known builder of heavy trucks in Russia but has a factory building buses in Neftekamsk. KamAZ received a similar order from Mosgortrans for 100 12-metre electric buses broadly to the same specification and performance requirements as the LiAZ models.

Each of the two contracts was valued at RUR6.35bn and included the maintenance of the buses for 15 years and the installation and maintenance of 62 fast charging stations for the same period.

Russia seems to be fully up to speed in the electric bus revolution. The vehicles have lithium-titanate batteries which can be fully recharged in 10-20 minutes, designed for 20,000 cycles of charge and discharge. Moscow has now said that, subject to satisfactory performance, it will purchase at least 300 electric buses per annum.

Following improvements in battery technology and control systems, two or three manufacturers of trolleybuses have recently introduced models that have traction batteries which can enable them to run off-wire for several kilometres. The batteries can be recharged when the buses re-connect to the overhead wires. We cannot remember when a trolleybus was last shown at a Busworld exhibition, but KamAZ displayed a full low floor -62825 model with batteries giving an off-wire capability of more than 20km.

KamAZ had a prominent stand at the entrance to the exhibition and also showed an autonomous vehicle developed with Nami. This was wider than some of the autonomous vehicles seen so far in Western Europe, but it still had capacity for four seated passengers on a rearward facing bench seat, another four at the back of the vehicle on a forward facing bench seat, and room for standing passengers in between. Confusingly, it was known by KamAZ as its -1221 model, but also as the SHATL. One hopes this is the Russian spelling of shuttle!

This stylish little vehicle was 5,114mm long, 2,046mm wide, and 2,385mm high. It had a maximum speed of 60kph and a range of 120km on batteries that were located under the floor.

A totally new entrant to Busworld exhibitions was PC Transport Systems which came with its innovative Pioneer electric midibus. This was unique in having a large battery pack towed in a trailer behind the vehicle, but with an extra battery on the roof, in combination giving a range of 150km. This would enable the bus to drop off a trailer with the batteries nearly depleted and to replace them with fully recharged trailer in a matter of minutes. For a first launch of new concept at a major exhibition, this was a promising concept and we look forward to seeing future developments.

Volgabus has been building it CityRythm range of low floor city buses for several years. It came to Busworld Russia with the -12E model. This had high density batteries that could be fully recharged in five hours overnight, giving the bus a range of 300km, sufficient for normal full day operation.
The GAZ Group showed a selection of its comprehensive vehicle range. In addition to the LiAZ electric bus for Moscow, there were the latest versions of its sturdy NEXT minibuses, designed for up to 4.6 tonnes gross. Models are available for a wide variety of specifications, ranging from urban and school buses to small coaches.

The PAZ (Pavlovsk) subsidiary is by far the largest bus producer in Russia, making up to 10,000 units per annum. These are all around 7-9 metres long and available with petrol, diesel or CNG engines. The 8.8-metre NEXT has refreshed styling and is available as a midi-coach for around 30 passengers.

The largest member of the GAZ family comes from its Likino factory. The articulated -6213 low floor city bus was shown with new front and rear end styling.

Several importers have become established in Russia. The factories of some, for instance in Korea and China, are closer to customers in Russia than the domestic manufacturers.

MAN, and especially its Neoplan brand, have a strong following in Russia at the premium end of the market. Examples of both the MAN Lion's Coach and the tri-axle Neoplan Tourliner were in the exhibition and attracted many visitors.

Anadolu Isuzu of Turkey has attended previous editions of Busworld Russia and said that it was planning the assembly of its urban buses in Russia. It had four examples of its range in the exhibition, all medium-sized and with the option of front or rear mounted engines.

Chinese manufacturers currently account for the highest percentage of imports to Russia. Ankai, Higer, King Long, Yutong and Zhongtong and their importers all displayed their latest products.

During the three days of the exhibition, Busworld Academy and local partners organised wide-ranging conference sessions. A number of leading Russian and international industry personalities attended including the Deputy Mayor of the Moscow Government, along with many delegates from Eurasian bus and trolleybus operators and others.

Busworld and its partners were delighted with the success of the event and are already planning the next edition.
The latest new destination is Jakarta, the capital of Indonesia. Busworld South East Asia will be held from 20 to 22 March 2019 in the Jakarta International Expo (JIEXPO) Kemayoran-Jakarta, a venue that is fully up to international standards.

The population of Indonesia is around 268 million people. It is the fourth most populous country in the world. About 55% of the people live in urban areas and their median age is around 28 years.

Indonesia is the world’s largest island country with more than 13,000 islands! More than half the population lives on Java, the world’s most populous island. Other parts of Indonesia are favourite holiday destinations, especially Bali.

Jakarta, the capital, is reckoned to have the second most populous urban area in the world. The country has abundant natural resources like oil and gas, also gold, tin and copper. The main cities in Indonesia suffer greatly from congestion and pollution. One of the main tasks is to replace the massses of minibuses with larger vehicles. The Government has introduced a small number of Bus Rapid Transit routes in Jakarta, but there is an urgent need to expand the network and to introduce similar systems in other major cities.

The large bus market is contested by European and Japanese manufacturers, in many cases working with local bodybuilders. Until recently, their chassis were largely truck derived, with high frames. Passengers had to climb three or four steps to enter a bus, resulting in longer dwell times at bus stops and slower journeys for passengers. Scania was probably the first to introduce European style accessible buses but they can now expect competition from their Swedish rival, because Volvo has already announced its plans to re-enter Indonesia and attend Busworld. Many years ago, Volvo supplied 200 double deck buses, built in Scotland, to Jakarta.

All the main European Volvo models are available in right hand drive so it will be interesting to see how Volvo plans to tackle this major market. There is a limited network of BRT routes, some with South American style high floor buses and boarding platforms. However, Volvo can also offer hybrid buses, bus chassis, including double deck, and a range of two and three axle coaches with various gangway heights.

There might well be opportunities to introduce alternative fuels in Indonesia. The country has abundant supplies of natural gas and is in the early stages of considering electric buses.

Germany cleans the air with... diesel

The European Commission will provide €107 million so that 90 municipalities in Germany will be able to retrofit diesel buses to bring them up to the latest emissions standards. Up to 7,000 buses could be involved, and the funding is in line with EU state aid rules. The measures will contribute to reducing nitrogen oxide (NOx) emissions by over 2,000 tonnes per year while limiting distortion of competition.

The measure is part of the German Federal Government’s “Immediate Clean Air Programme for 2017-2020” which aims to reduce NOx emissions as quickly as possible. Details of the programme have still to be announced but the average price of €15,000 per bus is a fraction of the price of buying new zero emission vehicles.

Book your visit for Busworld Europe

Busworld is already preparing for the first Busworld Europe, to be held in Brussels Expo from 18 to 23 October 2019. Already, the Busworld team is busy taking applications and reports very high demand even though the floor area will increase from the former maximum of 40,000sq m of Kortrijk to 60,000sq m.

Mieke Glorieux, Director of Busworld Europe, says that she is anticipating a massive display of around 400 vehicles, with strong emphasis on electric and autonomous models. In addition, there will be a full supporting cast of component and service suppliers. The whole industry is moving at a faster rate than probably ever before, with innovations being announced almost every week.

For more information on Busworld Europe, visit the Busworld website and do not leave it too late!
Great variety at **Busworld India**

The 8th edition of Busworld India was held from 29 to 31 August in Bengaluru (Bangalore).

It was organised in collaboration with the Association of State Road Transport Undertakings (ASRTU), the official national body of public transport operators in India, and supported by the Bus Operators Confederation of India (BOCI), representing the state and private sectors respectively and jointly controlling more than 1.7 million vehicles. They helped to attract visitors from all over India, not only to the business sessions, but to go round the exhibition.

India is a massive market. The population is more than 1.35 billion. In the financial year from April 2017 to March 2018, a total of 75,459 buses and coaches of all sizes were registered. More than 16,000 of them were over 12.0 tonnes gross.

There are reckoned to be more than 150 million scooters and motorcycles in circulation, but car ownership is increasing at a rapid rate. More than 26 million are now in use, compared with less than 2 million buses and coaches. Traffic congestion and pollution are serious problems, especially in the major cities.

At Busworld India there were 115 exhibitors, not only from India, but from China, Korea, the United States, Turkey and several European countries.

The Indian Government is keen to introduce electric buses in eight major cities, as part of measures to reduce pollution. Already, a few have been put into service. The only electric buses in the exhibition were shown by BYD which is collaborating with Olectra Greentech. Their 12-metre K9 bus had a low entry layout and a range of 300km with its lithium-ion phosphate batteries. The partners also showed a shorter K6 midibus.

Belkommunmash from Belarus announced its plan to enter India with a local partner and showed models of its 17.6-metre electric bus and a tram.

There has been major development of the highway network in India in recent years, making longer journeys by coach much more feasible. There is a limited sector for sleeper coaches. MG Automotive launched three coaches, with two of them on Bharat Benz chassis, namely the Glider Seater with 43 seats and the Glider Z Sleeper with 30 berths. The company also launched the Dream Z, a luxury sleeper coach based on a tri-axle Mercedes-Benz chassis.

Almost all buses and coaches in India have a combination of separate chassis and bodywork. There are an amazing number of permutations. However, Force Motors had on its large stand a world premiere for its Monobus Traveller integral midicoach.

It was good to see Tata Motors at Busworld for the first time. This major manufacturer has a very comprehensive range, from minibuses right up to full size vehicles. It is a strong player in the city bus market, with the option of diesel or CNG engines. Tata also has a joint venture building coaches with Marco Polo.

Prakash Automobiles is another expanding builder and displayed a 45-seat Vega coach on an Ashok Leyland chassis and the Capella 30-berth sleeper coach on a Bharat Benz chassis. There were a large number of suppliers of components and services. The Indian supply industry is well established and protected by duties on fully imported components. Companies from other countries tend to look for local partners. They recognise that India is a rapidly developing market.

For example, Agility Fuel Solutions builds high capacity, lightweight, carbon fibre composite tanks for storing CNG, enabling a range up to 800km for buses. The Austrian company, Fasching Safety Belts is well known for its products, and has added a new passenger seat monitoring system that prevents children from being left behind in hot school buses.

The Spanish company, Hidral Global produces electro-hydraulic automated wheelchair ramps to make buses more accessible to the elderly and disabled. Eberspächer and Valeo Motherson both offer products to meet the increasing demand for heating, ventilation and air conditioning systems.

The Indian industry is moving at a pace. During Busworld, the local Bangalore Metropolitan Transport Corporation confirmed a target of replacing all its existing diesel buses by electric vehicles in three stages. It plans to reach 30% by 2021, 50% by 2023 and 100% by 2025. It is a highly ambitious target.

Didier Ramoudt, President of Busworld International, confirmed the success of the exhibition. “Busworld India 2018 broke all records during its eighth edition both on the level of visitors as well as on the level of exhibitors. Also the co-operation with BOCI and ASRTU brought an added value to the exhibition. We look eagerly to our next edition and will keep on bringing the different national bus and coach industries together under one international roof, sharing knowledge, technology and networks!”

The next edition of Busworld India will be in Bengaluru in August 2020.
Busworld goes to Kazakhstan

Busworld Central Asia is a new destination on the Busworld map, and the first edition will be held in Almaty from 25 to 27 June 2019. What is the attraction of Kazakhstan and the potential for bus and coach manufacturers, suppliers and service specialists?

Kazakhstan was the last of the Soviet Republics to declare independence during the dissolution of the Soviet Union in 1991. In fact, Russia itself collapsed only ten days after that declaration. Kazakhstan remains closely affiliated with Russia and is a member of the Commonwealth of Independent States.

The area of Kazakhstan of 2,700,000sq km is equivalent in size to Western Europe. A small part of Kazakhstan is located west of the Urals and is therefore considered to be in Eastern Europe. The capital is Astana, but the largest city is Almaty. The Government moved to the capital in 1997.

Kazakhstan is the largest land-locked country in the world. The current population is around 18.5 million people and 50% of them live in urban areas. Kazakhstan has an interesting mix of ethnic origins. Native Kazakhs account for around 65%, but there is a significant Russian minority of around 25%. The country is the dominant nation in the northern central Asian region economically. It accounts for 60% of the region’s GDP.

Kazakhstan has the largest and strongest performing economy in the region. It is estimated that, since 1993, there has been more than $40 billion in foreign investment in Kazakhstan in the oil, natural gas and mineral extraction sectors. The country has substantial reserves of uranium, chromium, lead, zinc, manganese, copper, coal, iron and gold.

Kazakhstan is an interesting bus market. The cities have invested in new low floor vehicles, coming from Western Europe, China and Korea. A few years ago, IVECO supplied 350 buses fuelled by compressed natural gas to Astana. These were all delivered before a World Expo in Astana in 2017 with the theme “Energy of the Future”.

Kazakhstan is also promoting itself as a tourist destination. Short-term Visa-free entry is available to the citizens of quite a large number of countries. There are regular direct flights to Almaty from quite a number of Western European cities, from Turkey and from a number of Southern and Eastern Asian countries.

Tourists are attracted by a wide variety of scenery and activities, with very attractive prices. There is a limited amount of domestic manufacture of buses and coaches, but tremendous opportunities to supply this exciting market.

We will bring you further information on Busworld Central Asia in future editions of the Busworld Times.