



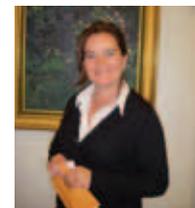
busworld

NEWSLETTER



busworld kortrijk

FULLY BOOKED



There are several reasons for celebration of the next Busworld Kortrijk which will be held from 21 to 26 October. Although it is five months ahead, and everyone is looking forward to the summer, Busworld Kortrijk is fully booked. It will be a landmark event, because it is the 21st edition in Kortrijk and it's 40th anniversary.



Mieke Glorieux, Director of Busworld Kortrijk, confirms that there will be more than 50,000sq m of exhibition space. She has signed up 356 exhibitors from 32 countries worldwide. There are 71 vehicle builders and 285 suppliers of components, accessories and services.

Once again, Busworld Kortrijk will benefit from the additional space gained with the nine halls and the Rambla.

We can expect to see many new products and technical innovations. Bus and coach manufacturers are starting to reveal their plans for engines which meet the more stringent Euro 6 emissions legislation, coming into force for vehicles first registered on or after 1 January 2014. There seems to be a general consensus that Euro 6 engines will be heavier and more complex. That is a challenge for designers, especially on luxury coaches, where maximum axle weight limits can already be critical.

1. Handing over the Coach of the Year 2010 trophy to Michael Goepfarth of Mercedes-Benz.
2. Busworld Kortrijk is famous for world premieres and unveiling ceremonies are very popular.
3. Turkish exhibitors are well represented at Kortrijk.
4. Hostesses are always welcoming at Busworld Kortrijk.
5. Ankaï came all the way from China to Kortrijk.
6. Otokar's Kent city buses are now running in Istanbul.

Although the bus and coach industry has a remarkably good record on safety, further safety-related legislation is going to come into force over the next two to three years. The roll-over strength of superstructures on interurban and luxury coaches has become more stringent, with the new R66-01 standard. There are also plans to make vehicles safer by front under-run protection systems, reinforcing the underframe beneath the seats of drivers and couriers.

Electronic Stability Programme is already available, either as standard or optionally

on a number of luxury coaches, but that will also become mandatory. Other electronic aids include features like Brake Assist, Downhill Brake Limiter, Lane Guard System and Electronic Braking Systems. All these electronic features help to make coach travel even safer.

The fact that Busworld Kortrijk is fully booked is a remarkable vote of confidence by the exhibitors. In most countries, registrations of new buses and coaches have recovered from the effects of the global financial crisis. Many smaller coach companies put off the decision to purchase new vehicles during the height to

the crisis, but replacement has now become imperative.

It is the same with city buses. They tend to have a long average life, but that means that many buses with older and more polluting engines are still in service. They need to be replaced, especially if the industry is to achieve targets of doubling the use of public transport by 2025.

More information on: www.busworld.org

alternative fuels

DRIVE SYSTEMS

Only city buses are suitable for use with alternative fuels or drive systems. Storage systems would take up too much space and add too much weight on interurban and luxury coaches. Hybrid drive systems thrive in stop-start situations, where the best savings in fuel consumption can be achieved.

Over the years, we have seen various new ideas come into favour, and in some cases, go out of favour. Compressed natural gas is popular with some politicians, because, until recently,

emissions were cleaner than diesel. Some European markets never took to CNG. In others, it is noticeable that registrations in the last year or two have fallen.

Gas buses require extensive refuelling facilities. In order to achieve a full day's range without refilling, they must carry up to eight large cylinders on the roof, adding to the unladen weight of the bus, and in some cases restricting the maximum passenger capacity. Consumption per kilometre is typically 1.6-1.7 times that of diesel. Gas therefore only makes sense when the level of taxation is zero or at least much lower than that of diesel.

Liquified petroleum gas has come and gone because there were very few customers for it. It became totally uneconomic to produce LPG engines. Because LPG was more dense than air, there had to be strict safety procedures and systems in workshops.

MAN worked for several years with hydrogen fuelling a modified diesel engine, but came to the conclusion that the technology had no long term future.

In Sweden, and to some extent Norway, there is demand for buses fuelled by biogas. There, politicians believe that every city and town should have a factory which can convert sewage, waste food and other similar products into gas which can be used in buses and municipal vehicles. Politically, it sounds attractive, because it solves the otherwise unpleasant problem of getting rid of waste material. On the other hand, it is a development conundrum for manufacturers. Do they spend large amounts of money developing variants of their engines to run on biogas, when the total potential market is so small?

One has to sympathise with Håkan Karlsson, President of Volvo Bus Corporation and his



A Scania bus running on CNG.

engineers. The Volvo Group spent lots of time and money developing a hybrid drive system which could be used in city buses, local trucks and construction equipment. It must be very frustrating that there is practically no interest in hybrid buses in Sweden, while the concept has proved successful in single and double deck city buses in a number of other European markets.

In quite a number of countries, the operation of city buses is contracted out. Typically, a tender will require services to be provided for around five to seven years. If a diesel bus is used, it is relatively easy to calculate a reasonable residual value for that vehicle at the end of the contract.

In the case of gas fuelled buses, there are very few prospects of finding a second owner for a mid-life vehicle, therefore its value has to be marked down near to zero over the life of the contract. This inevitably puts up the operating cost per kilometre and must ultimately be recovered either from the fare box or from local or national tax payers.

Scania has promoted ethanol as an alternative fuel, saying that it comes from totally renewable resources. More than 600 Scania buses are running in Stockholm, fuelled by ethanol and an order has been taken for 50 from Brazil. Originally, ethanol was produced in Sweden from surplus European wine, but more recently it is derived from the sap of trees which are felled for the paper industry.

The emissions from ethanol-fuelled engines come well within European limits, but the fuel

needs to be taxed at a minimal level, compared with diesel, to make economic sense. It can be carried on board the vehicle in a tank, like diesel, although the tank has to be substantially larger. Ethanol fuelled engines run at higher temperatures, therefore they require more frequent changes of filters and lubricating oil.

While other manufacturers might have looked at ethanol, Scania seems quite convinced about its future. It certainly makes sense in countries like Brazil, where there is ample agricultural land to produce plants from which ethanol can be derived.

Various forms of biodiesel are also becoming quite widely available and most modern engines can run on them without any problems. They are normally a mixture of diesel with fuel from a renewable resource, such as rapeseed methyl ester.

Hybrid buses have been around for longer than most people realise, but the rising price of diesel fuel is making them economically more attractive. Normally they would use a smaller diesel engine, often set to run within its most fuel-efficient speed range, powering a generator which in turn provides current to an electric motor or motors. In some applications, the thermal engine can be switched off in particularly sensitive areas.

Both parallel and series hybrid systems are now running in several European countries and there are likely to be examples in Bus-world Kortrijk. Mercedes-Benz has launched a fuel cell hybrid version of the Citaro city bus,

where the only emissions are water vapour. Development costs can be shared with other divisions in Daimler and fuel cells promise a zero emission future.

All electric buses have been around for many years in the shape of trolleybuses but we are on the threshold of new systems which do not need overhead wiring. Batteries offer only a limited range and are therefore only found in small buses running in inner cities. However, some manufacturers are confident that battery technology will improve, offering longer range for larger buses. Volvo Bus Corporation and Shanghai Automobile Industry Corporation have formed a joint venture to develop this technology.

Battery powered buses can be given fast boosts of electric current during the day either from overhead power supplies or inductive loops under the surface of the road at bus stops, thus extending the operating range to a full day.

Manufacturers cannot be expected to invest in all the alternatives. For them, the challenge is to prioritise and select the technologies which they believe have the most promising long term future.

1. A Mercedes-Benz fuel cell hybrid bus.
2. Volvo has sold its 7700H hybrid buses in several markets.
3. A Van Hool fuel cell hybrid bus.
4. A Solaris series hybrid articulated bus.
5. A Hess trolleybus, built in Switzerland.
6. A hybrid double deck Volvo bus for London



1.



2.



3.



4.



5.



6.

new citaro

POINTS TO THE FUTURE



Crossing the Arctic Circle on testing.



They are not mandatory on city buses, but it is an excellent safety feature. It also simplifies production, if all models comply.

The floor of the driver's compartment has been raised to give easier eye contact with standing passengers. The batteries have been moved forward, beneath the driving compartment, giving improved weight distribution. The front sub-frame has been strengthened to give additional protection to the driver in the event of frontal impact.

Citaro becomes the first city bus to be offered with the option of Electronic Stability Programme (ESP) which was originally developed for coaches. Mercedes-Benz believes that ESP is a useful safety feature, particularly where there is snow, ice or a large amount of water on the road surface.

Mercedes-Benz launched the new generation of Citaro city bus in Mannheim towards the end of May. The full range will be introduced over a two year period, in preparation for the introduction of Euro 6 emission standards on 1 January 2014. The original Citaro, launched in 1997, in solo and articulated versions, has grown to a family of 28 variations. It would be impossible to change them all at once. Also, there are many quotations and orders for the current Citaro family.



The structure showing reinforcement beneath the driver and the roof meeting rollover regulations.

Considerable effort has gone into weight reduction, even though the structure of the new Citaro is stronger. Because some versions of the new model will be suitable for interurban services, and therefore capable of running at maximum permitted speed, the new structure complies with R66-01 roll-over regulations.

Every aspect of the design has been analysed for weight saving, and that is a challenge to competitors. The interior lighting uses fit-for-life LED's which consume less power. On a direct specification comparison, new Citaro is 90kg lighter than its predecessor, but it will end up 30kg heavier when a Euro 6 engine and cooling system are installed.

Mercedes-Benz has raised the bar in city bus design and the new Citaro is bound to be one of the stars of Busworld Kortrijk.



The softer styling of the new Citaro.

Mercedes-Benz has raised the bar on city bus design with the new Citaro. Although production models will be supplied with Euro 5 or EEV engines for quite a time, many features have been designed in anticipation of Euro 6. They gave clear indications of how the designs of city buses will evolve.

Although the new Citaro has the same family look as the current range, the frontal styling is more round and softer. More shape has been put into the side panels by flaring over the wheel-arch panels. The rear aspect is the same as the current Citaro, but will be substantially modified when Euro 6 engines are installed.



The bright interior uses weight saving materials.

EUROPEAN COACH OF THE YEAR

The biennial competition to find the European Coach of the Year was held recently in the Norwegian town of Arendal. The contestants were an Irizar i6, a tri-axle Scania Touring, a Setra S416 GT-HD, a VDL Futura, a Viseon Bus C13 and a Volvo 9500. They were judged by the leading trade journalists from 17 European countries with a series of static and on-road tests. The winner of this coveted award will be announced before the trophy is handed over by the Chairman of the Jury at Busworld Kortrijk.



Testing took place in the beautiful town of Arendal in Norway.

TURKISH DELIGHT

The next edition of Busworld Turkey will be held in Istanbul from 19 to 21 April next year.

There are encouraging signs that registrations of new buses and coaches in Turkey are recovering, although the country did not suffer the same banking problems as in many parts of Western Europe. Turkish banks are more tightly regulated and finance has continued to be available for the purchase of new vehicles.

Although there have been a small number of tram projects in various Turkish cities, buses still account for a very high percentage of local public transport.

Coaches are also very popular on an intensive network of express services, all across Turkey and into neighbouring countries.

Istanbul is one of the world's greatest cities, an important cultural and trading centre. It is also becoming an increasingly important airline hub, with a growing number of regional destinations. Busworld Turkey will be held in a modern exhibition centre, close to the Ataturk International Airport. More details will be published in future editions of the Newsletter.

For bookings:
mieke.glorieux@busworld.org
Early birds are early served.

HELP WITH HOTELS

As any regular visitor to Busworld Kortrijk knows very well, finding hotel accommodation can be difficult. Kortrijk is a small city which is not geared for events as large as Busworld, therefore many people find accommodation in nearby towns and cities, including Lille in France.

The Busworld website has been redesigned to help the search for hotel rooms. There are links to tourist information websites for Kortrijk, Ghent, Ostend and Roeselare.



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There is also an on-line reservation service for Bruges where you can select from various categories of hotels.

To find out more, go on line at:
www.busworld.org/vistors/hotels

RUSSIAN REVIVAL

The second edition of Busworld Russia will be held in Nizhny Novgorod from 5 to 7 June 2012.

The first edition, held in June last year, was very popular with exhibitors and visitors alike. It is believed to have been one of the first exhibitions held in Russia exclusively for the bus and coach industry.

At that time, orders for new vehicles were running at fairly low levels, but there are now encouraging signs of a recovery, with higher numbers of factory shipments in

the first quarter of 2011, compared with the same period in the previous year.

Although most of the sales are made by domestic manufacturers, they are keen to improve and modernise their technology. Companies like Cummins and MAN have supplied gas engines. ZF and Voith are also active, but there are also many opportunities for component and technology suppliers to establish links with Russian builders and operators. Make a note of the date in your forward planning.

For bookings:
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AFTERWORK & NIGHTLIFE AT BUSWORLD KORTRIJK 2011

Busworld Kortrijk would not be worthy of its name
if we did not lay on any after work activities.

FOR THIS YEARS EDITION OF BUSWORLD KORTRIJK, WE PRESENT:

THE EXCLUSIVE BUSWORLD MIRROR PALACE

Busworld 2011 will be able to have an unique place-to-be in the city center (Schouwburgplein) for our gatherings after the working hours. A Mirror Palace will be installed as place to be in the middle of the center.

LATE NIGHT OPENING OF THE RESTAURANTS IN KORTRIJK

Several Restaurants will stay open longer especially to host Busworld with a smile. An agreement was signed by several restaurants (18 restaurants) to keep their kitchen open until 22u30 to 23u00.

EUROPEAN COACH WEEK

The European Coach and Bus Week will be held on 14 to 18 October, over the weekend preceding Busworld Kortrijk. Both buses and coaches can participate and more details will be included in the next Newsletter. In the meantime, for further information, please contact sonja.vandewiele@busworld.org

NEWSLETTER ONLINE



The Busworld Newsletter is now available on-line at www.busworld.org. Alternatively, we can arrange to send it to you by e-mail. Please make your request to philippe.lefebvre@busworld.org.