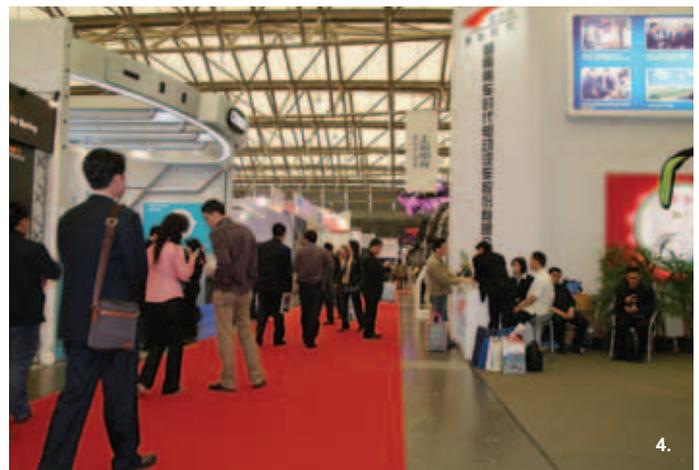
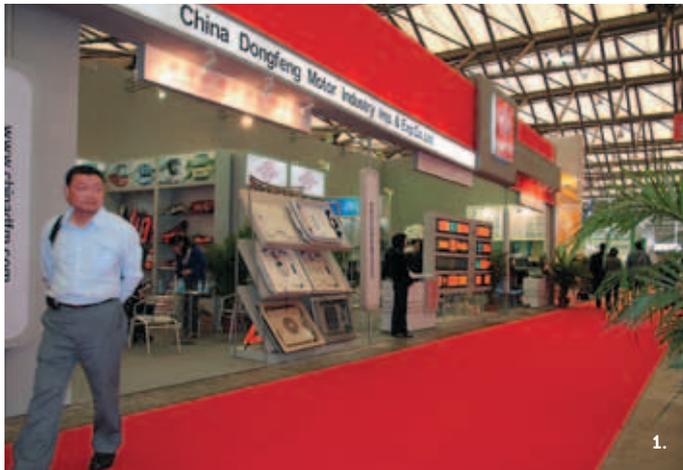




# busworld

## NEWSLETTER



# busworld asia

## NEW TECHNOLOGY

1. China has a very strong component supply industry.
2. Sunlong's prize winning coach with new logo.
3. Youngman offers an extensive range.
4. A typical colourful component stand.

Despite concerns about the global financial crisis, Busworld Asia was remarkably well attended by exhibitors and visitors. As always, it was held in the Shanghai New International Expo Centre in Pudong, running for four days from 8 to 11 April.

The exhibition area was only slightly smaller than in previous years, almost fully occupying two of the massive halls. Two of the largest manufacturers stayed away, probably because of a competing city bus exhibition being held three weeks later in Beijing, or probably because they had no new models to launch.

Their absence was more than compensated by a lot of technical innovation and the usual strong presence of component and accessory suppliers.

Over the four days, almost 8,000 visitors came to Busworld Asia. The vast majority were

from the Peoples Republic of China, but nearly 600 came from 39 other countries around the world, reflecting the growing importance of export markets to the Chinese manufacturing industry and component makers. They came from Europe, North America, South America, Africa, Australia and several Asian countries.

Looking at the vehicles in display, there were two notable trends. Firstly, it was encouraging that some Chinese manufacturers are now sufficiently confident of their own capabilities to introduce new styles that were distinctive and not inspired by designs from other parts of the world. There were some clean, classic, designs that looked good and will not date quickly. Secondly, there were some technically very advanced products, such as full-size all-electric buses, suggesting that China could have a leading advantage.

The stimulus to develop all-electric vehicles has come from the World Expo, to be held in Shanghai next year. The organisers require 120 all-electric buses to work within the exhibition grounds, and a further 150 hybrid vehicles to run peripheral services.

The Shanghai Automotive Industry Corporation and Volvo Bus Corporation have a joint venture, Sunwin Bus, located in the suburbs of Shanghai. They have supplied around 13,000 of the 15,000 buses running on regular services in Shanghai.

One of their exhibits was a "pure-electric" bus, built to an overall length of 11.98 metres. This vehicle had its floor, from the front entrance to just beyond the portal rear axle, only one step above the ground. Beyond that, there were steps up to seats that were mounted above a large bank of lithium iron phosphate batteries. They contributed to the relatively high unladen weight of 13,400kg, which restricted the maximum passenger capacity to 70 people.

Sunwin said that the pure electric bus could travel for more than 150km on fully charged batteries. That, they reckoned, was equivalent to six or seven hours in typical city traffic. Depleted batteries could be completely recharged in three hours. Alternatively, the used battery pack could be taken out and replaced with a fully charged pack in ten minutes. Using that system, one spare battery pack could keep two pure electric buses running practically all day.

There is a cost penalty. A standard low entry diesel-powered city bus from Sunwin costs around € 100,000. A pure electric bus is nearly twice that price and a spare battery pack is around € 90,000, although Sunwin hopes prices will come down as demand rises. China is investing heavily in nuclear power which will offer inexpensive electricity, while diesel prices are expected to rise over time. Sunwin believes that the higher initial price will be recovered by lower running costs over a vehicle's lifetime.



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1. The pure electric bus from Sunwin Bus.
2. A hybrid bus by Hunan CSR Times Electric Vehicle Co.
3. Yves Deleare, Vice President of Busworld, speaking at the opening ceremony.

Sunwin also displayed an 11.29 metre hybrid bus. It was based on a modified Volvo B7RLE chassis. A Cummins ISBe 220 engine powered a generator which fed current to lithium iron phosphate batteries. This vehicle accelerated from a standing start solely on electric power, with the diesel engine coming in and driving through an automatic gearbox until the next stop. Electricity was regenerated during the braking process, with air brakes only used to bring the vehicle to a final stop.

Another very interesting hybrid bus was launched by the Hunan CSR Times Electric Vehicle Co. That company is a joint venture, based in Zhongzhou, between an electric locomotive research institute, Tsinghua University and the Sany Group. They have developed the first series hybrid drive buses in China, making a range from 10-12 metres overall length, using diesel engines from 160-220bhp.

The Shanghai Shenlong Bus Co, trading as Sunlong had a large stand and several interesting exhibits. On the first day of Busworld Asia, the company launched its new logo, fea-

turing a stylized dragon. Sunlong's hybrid bus used the Alcan bolted aluminium structural system and had a number of safety features. The company said that the base model could be supplied with diesel, CNG, LPG, hybrid or all-electric drive systems.

Sunlong also won a top prize in Asian Coach Week with a stylish and well finished 12 metre luxury coach. Its appearance was most attractive and will not date quickly.

Down the centre of each hall, there were parallel aisles with the stands of component manufacturers and accessory suppliers. The Chinese industry can now offer every kind of product, from engines to transmissions, glass, seats, lighting, entertainment systems, and so on.

Some of these companies were formed as joint ventures with foreign manufacturers. That gave the Chinese access to well proven components, but most of these companies are now increasing the Chinese content to keep down costs and remain competitive in a very busy market.

Busworld Asia is so popular that it will be held again next year, but the dates have not yet been finalised.



# busworld asia

## ASIAN COACH WEEK

Chinese manufacturers look forward eagerly to Asian Coach Week, which is held on the days immediately preceding the opening of Busworld Asia. The number of entries was fewer than in some previous years, but included some very interesting and technically advanced vehicles. China is probably the only country in the world where several new bus and coach models are introduced each year. The rate of progress is commendable, or alarming if you happen to be a competitor!



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Teams of international judges assessed a selection of buses and coaches, looking at features like driver and passenger safety, comfort, standards of construction, ride and handling, acceleration and braking, and enhanced safety features.

The tests were carried out in pleasantly warm weather on a vast area of concrete at the International Exhibition Centre. This gave the judges who were driving the opportunity to make a series of tests under simulated traffic conditions, including a very tight slalom course set between plastic cones to assess steering and manoeuvrability.

It was an ideal opportunity to try out new electric and hybrid vehicles. Oddly, some Chinese designs still combine a smaller diesel engine with a generator and a manual gearbox. These accelerate on electric power up to around 15-20kph, when the diesel engine and manual transmission take over.

There were two all-electric full size buses, from BCI and Sunwin. Both had rapid, step-free, acceleration, maybe more rapid than necessary in a vehicle that could be carrying standing passengers. Although the electric motors were silent, other noises could be heard, like power steering pumps at the front, and tyre noise. These are very early days

1. Musical quartet at the awards ceremony.
2. New coaches from Sunlong and Zonda.
3. Sunlong city bus with Alcan structure and Eaton hybrid drive system.
4. A Higer low floor tri-axle bus.

in the development of all-electric buses. No doubt, many improvements will be introduced and they could become a normal part of the street scene in many cities.

After the tests, the juries made detailed assessments, with remarkably few points separating the winners in some of the categories.



Awards were made at a banquet on the evening preceding the opening of Busworld Asia. The winners of the various categories were:

**Authentic Chinese Bus of the Year**  
Hunan CSR TEG612SHEV hybrid bus

**Authentic Chinese Coach of the Year**  
Shanghai Sunlong SLK6120F6A3

**Luxurious Coach of the Year**  
Higer KLQ6147S double deck coach

**City Bus of the Year**  
Shanghai Sunlong SLK6121UF13H

**Intercity Bus of the Year**  
Higer KLQ6140GQ

**Green Bus of the Year**  
Shanghai Sunlong SLK6121UF

**Best Safety Equipment of the Year**  
Higer KLQ6147S double deck coach

**Coach Appearance of the Year**  
Zhongda YCK6128HG – the B7

**Best New Energy Bus of the Year**  
Jiangxi Kama Business Bus  
JXK6120BRE1

**Best New Energy Coach of the Year**  
Jiangxi Kama Business Bus  
JXK6830CRE2

**Best Engine Producer of the Year**  
DAF Components

**Best Bus Electrical Equipment of the Year**  
Xiamen Xococo

**Continued Excellence in Performance**  
Youngman Group

**Bus Builder of the Year**  
Shanghai Shenlong Bus

**Coach Builder of the Year**  
Higer Bus Company

**Green & New Energy Bus of the Year**  
Shanghai Sunwin SWB6121

# full house AT KORTRIJK

Despite the global financial crisis, Mieke Glorieux, Director of Busworld Kortrijk, is happy to report that the fair is completely sold out. "We have had hardly any cancellations. We have never seen such demand from component and accessory suppliers from all over the world. All the additional space that is being created at Kortrijk Xpo will be fully occupied and we are looking forward already to another tremendous success!"

New construction work and alterations at Kortrijk Xpo will give a large increase in floor space and also offer exhibitors and visitors more accessible and friendly facilities. Most people will be delighted that there will no longer be the long and winding entry and exit through tented pavilions.



Busworld Kortrijk will be held from 16 to 21 October 2009. We will carry much more news about the exhibition in the next Newsletter.

## BUSWORLD & IRU

Busworld is proud of its long and successful partnership with the International Road Transport Union (IRU) in Geneva, representing the entire road transport industry worldwide through a network of 180 members in 74 countries.

Busworld has a long record of running exhibitions which display to the world state-of-the-art technologies and designs that improve the environmental, safety, and economic performance of buses and coaches, and further increase the comfort and quality enjoyed by drivers and passengers.

This technological process would be much less effective without the IRU's continued efforts to develop appropriate and harmonised

framework legislation to facilitate the smooth operation of vehicles at domestic and international levels. High-quality vocational training for drivers and managers alike, as provided by the IRU Academy, is equally important to achieve the highest safety and environmental standards provided by these vehicles.

That is why Busworld is not only proud of its partnership with IRU, but is committed to strengthening even further the co-operation in order to combine the highly complementary dimensions of the profession with a view to uniting people and ensuring their sustainable mobility everywhere in the world. Busworld is implementing the IRU slogan: "Working together for a better future".

## NEW MODELS FROM SCANIA AND HIGER

Scania and Higer have strengthened their collaboration with two new models that were launched in Busworld Asia. They have successfully sold the A50 coach, mainly to Hong Kong, hence the appearance of a right hand drive model on Scania's stand. They are used intensively on services linking Hong Kong with a large interchange on the border with the Peoples Republic of China.

This model has now been joined by a simpler, multi-purpose, coach, designed to appeal to a lower market segment in Hong Kong.

One of the stars of the show was the new KLQ6147S, a very stylish double deck coach on a Scania tri-axle chassis. The design and construction of this coach were of a very high standard, with a good number of safety features.

Although the imported chassis makes the Scania-Higer combination expensive compared with those that have Chinese drivelines, Scania believes that customers on intensive



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1. The first double deck coach body from Higer, on Scania chassis.

2. Scania Higer coach for Hong Kong.

work soon recover that margin through greater reliability and durability.

The models that are built with Scania are intended for the highest segments of the market. Higer builds a very modern range of medium and large city buses and coaches in very large numbers in its ultra-modern factory in Suzhou.



2.

## CHINESE-AUSTRALIAN JOINT VENTURE

Bus & Coach International, BCI, has its headquarters in Perth Western Australia. The company has entered into a 60:40 joint venture with the local government in Jiangxi to form the Jiangxi Bonluck Business Bus Co. Bonluck builds an extensive range, including low entry

city buses, midcoaches and full size coaches up to 13.7 metres long.

They use many Australian components in their manufacture, including steel, also US equipment, like Cummins engines, which are zero-rated for import duties under a free trade agreement between Australia and the US.

The timing of their venture seems inspired, because demand for buses and coaches in Australia has risen well beyond the capacity of the domestic bodybuilding industry. Last year, BCI sold 151 Chinese-built vehicles, taking fifth place in the Australian market. The Government has introduced a stimulus programme to invest in new buses and that is predicted to boost the market again in 2009.

In addition to diesel-powered coaches, BCI launched two all-electric vehicles in Busworld Asia. One was a 12 metre city bus, using lithium ion batteries, offering zero-emission travel in city centres. The other was an 8.3 metre midicoach with an external wheelchair lift

An all-electric city bus from Bonluck.



The busy Bonluck stand.

just ahead of the rear axle. This coach had a light integral construction with large banks of Hitachi lithium ion batteries occupying much of the luggage area under the floor between the axles. It can travel up to 120km on a full charge, depending on the application. A customer in Australia had agreed to buy the vehicle unseen, and not even knowing the final price!



## SURPRISE FROM IRIZAR

In recent years, Irizar has expanded from its headquarters in northern Spain to become a global bodybuilder with factories in several countries. Its Chinese joint venture, Tianjin Irizar, now mainly builds the New Century coach on Nissan, Mitsubishi and MAN chassis. The previous Century body remains available for the limited demand for sleeper coaches.

At Busworld Asia, Tianjin Irizar created a surprise by launching the i4CLE low entry city bus. This was based on a Chinese Eurostar chassis with the floor only one step above the ground from the single width front entrance to the double width centre exit.

Tianjin Irizar had cleverly adapted the i4 body, launched in Europe two years ago as a multi-purpose coach with a higher floor, to meet demand in China for a more highly specified and comfortable city bus. An air-conditioning pack was mounted over the front axle, concealed



The i4CLE low entry bus by Tianjin Irizar.

beneath a cowl which blended very neatly with the roof line. Tianjin Irizar has built four prototypes and is now actively marketing the new model. This is the first time that the Chinese subsidiary has built a city bus.

## ZONDA LAUNCHES THE B7

The Zhongda Automobile Group, trading as Zonda, had a large stand with a good selection of products from its extensive range. The Nanjing Jinling Double Deck Bus factory contributed a 12 metre tri-axle city bus with double width doors ahead of the first and second axles, leading to a flat floor only one step above



An articulated low floor city bus from Zonda.

the ground, ahead of the second, drive axle. An unusual feature of this vehicle was a straight, forward-facing, staircase leading from the second door to the upper deck. It seemed to occupy a large amount of space.

Zonda also launched the B7, a new 12 metre luxury coach, built to an overall height of 3.8 metres. This was praised by the judges in Asian Coach Week as a good-looking product that can compete on world markets at a high level by carefully applying in-house skills and expertise. They were impressed by its bold lines and careful detailing. They said it was "altogether a good product which proves that Chinese coach manufacturers can stand on their own feet with regard to creativity."



A double deck city bus from the Zonda Group.

## MULTI-CHANNEL VIEWING

The Xiamen Xococo New Technic Co is the leading manufacturer in China of bus and coach entertainment systems, also safety and security cameras. The company won a special prize in Asian Coach Week for its introduction of a video-on-demand system which offers the possibility to store more than 100 films. Even the most regular of long distance coach travellers is unlikely to be faced with the same film twice!

## INDUSTRY NEWS

If you need to keep up with what is happening in the fast-changing world of buses and coaches, including manufacturers, component suppliers and services, then log on regularly to [www.busworld.org](http://www.busworld.org). On the menu page, there is a facility called NEWS. The latest information is gathered from around the world and summarised in brief informative articles. It takes only a few minutes of your time each week, but it will keep you right on top of what is happening in the global industry and in areas where your company is active.

## NEWSLETTER ON LINE

The Busworld Newsletter is now available online at [www.busworld.org](http://www.busworld.org). Alternatively, we can arrange to send it to you by e-mail.

Please make your request to [mieke.glorieux@busworld.org](mailto:mieke.glorieux@busworld.org).



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