

Held in alternate years, Busworld Europe had 23 events in Kortrijk, Belgium while growing to be the largest all-bus show and mostly likely the most important in the world. In 2019, for its 24th event, Busworld moved to Brussels because it needed to accommodate more than 500 exhibitors. Here, Nancy Plachno of NATIONAL BUS TRADER takes a minute to check out this attractive new Setra S 516HDH coach on the show floor.

he Busworld show was originally founded in 1971 in Kortrijk, Belgium by a group of Belgian bus operators. Over the years it grew into being the most important all-bus show in the world. Located in southwest Belgium, Kortrijk is about an hour west of Brussels, about 30 minutes north of Lille, France and a ride of another hour on a TGV train puts you into Paris. Busworld was scheduled in Kortrijk

in alternate years for 23 events until it was bursting at the seams.

Your NATIONAL BUS TRADER staff had attended Busworld since the 1980s and was familiar with Kortrijk. We had our favorite hotel and restaurants. The huge number of attendees made finding a taxi impossible so we learned to ride the local De Lijn buses to the Expo. However, in spite of using nine

display halls and some additional connecting links, the event ran out of room. For the first time since it was founded, Busworld took place somewhere other than in Kortrijk.

For 2019, the 24th edition of Busworld was held at the Brussels Expo from October 18 to 23, 2019. The indoor part of the show was located in eight huge halls plus connecting areas. Expansion over 2017 was obvious. There were 376 exhibitors in 2017 but 511 in 2019 of which 176 were new to the event. In 2019 the exhibitors came from 37 countries with Turkey, Germany and China being the most popular exhibitor headquarter locations. There were 37,274 visitors in 2017 from 118 countries, but this increased to 39,798 visitors in 2019 from 143 countries. Display space also increased substantially from about 538,000 square feet in 2017 up to about 850,000 square feet in 2019.

The Expo is located on the northwest side of Brussels near a tourist area that includes Mini-Europe and the Atomium, the symbol of Brussels. The easiest way to get from the Brussels Airport - which is located northeast of Brussels - to the Expo on public transportation would be to take the Belgian Railways train from the airport to downtown Brussels and then transfer to the #6 subway to the Heysel stop across the street from the Expo. There is also a light rail line serving that same stop and hence many attendees were able to arrive on public transportation. During Busworld, De Lijn, Belgium's transit operation, did run tram type Van Hool Exqui.city articulated buses between the airport and the Expo for this special event.

For readers who ask, our reason for covering some of what happens in Europe (and elsewhere) is that much of this eventually shows up in the United States and Canada. Some of our major advertisers and their partners have factories in Europe including Spain, Belgium, the UK, Germany, Italy, Macedonia and Turkey. Hence, many of the new bus developments in Europe often make their way west across the Atlantic.

It would be obviously impossible to cover this entire event in any kind of detail. Hence, we will intentionally limit our attention to buses that either have a connection to the North American market or have some particular interest. Even then, we will probably condense more than we would like. Even with some editing our report on Busworld will most likely exceed what we can run in one issue of NATIONAL BUS TRADER so expect us to continue with a second part in a following issue.

Special Awards

At each Busworld event, a group of industry experts take a close look at several vehicles that are available. The result is the presentation of awards and labels in several

different categories. Here is a list of some of the more interesting awards.

The Grand Award Bus went to the Van Hool Exqui. City tram bus powered by a hydrogen fuel cell. It was one of several built for Pau, located in southern France just northwest of the well-known religious site at Lourdes. This same bus also won the bus ecology label. The jury praised its safety features and the separate driver's area with cen-

trally-located controls. The Grand Award Coach went to the Volvo 9900, a more sophisticated version of the 9700 that is offered in North America by Prevost. This same model also won the Safety Label Coach because of several features including an automated fire extinguishing system, a black box system and an on-board computer.

Among the transit buses, the Mercedes-Benz electric eCitaro won the Comfort Label

For those of us on this side of the Atlantic, the coach on display most appropriate for the North American market was the new battery-electric Van Hool CX 45E. It was due to make its debut at the United Motorcoach Association Expo in Nashville in January. Many may not be able to tell it form the diesel version of the CX 45, but your editor was very impressed with the fit and finish.



Busworld's Grand Award Bus went to the Van Hool Exqui. City tram bus for Pau, France. It was powered by a fuel cell electric drive. While this particular show leaned heavily to battery-electric buses, some of the experts mentioned that fuel cells could become more prominent if batteries with more capacity are not available in the near future.



while the MAN Lion's City Hybrid took the Safety Label. The Yutong U12 was given the Design Label and, as mentioned previously, the Ecology Label went to the Van Hool tram-type Exqui.city hydrogen fuel cell bus for Pau, France.

With coaches, the Comfort Label was awarded twice. One to the Van Hool EX11H which I think is a European high-level coach that seats about 44 passengers. The other went to the Setra TopClass S 531 DT which would be the double-deck version in the new 500 series. The Design Label was given to the Yutong T13 while the electric Yutong ICe12 got the Ecology Label. As previously mentioned, the Volvo 9900 also received the Safety Label for coaches.

Among the non-vehicle exhibitors, ZF Friedrichshafen AG was given an award for the CeTrax electric drive. Volvo Bus Corporate also received an award for their Volvo Electric Driveline.

Our NATIONAL BUS TRADER staff can add to this with our own compliments. Irizar treated the press well with a roped-off area limited to members of the press. Mercedes-Benz/Setra offered some impressive food and Van Hool had some excellent beer.

Trends and Observations

Even before Busworld was over, people were already talking about this being a show dominated by battery-electric transit buses. It seemed like companies that did not have a battery-electric bus in the past were introducing their first one at Busworld. Many of those manufacturers that had built battery-electric buses in the past offered new and larger models at this show. It might also be noted that in the past, most European orders for battery-electric buses were for tests and trials. It has only been recently that we are seeing larger electric bus orders.

An interesting side note is that the bus experts told us not to give up on hydrogen fuel cell power too soon. Both the batteryelectric buses and the hydrogen fuel cell buses have cost problems. Batteries are not only expensive, but their lack of capacity is holding back the range on electric buses. Hydrogen fuel cells are also expensive. However, the experts are suggesting that the cost of hydrogen fuel cells will likely decrease as production increases. Hence, if battery capacity does not improve, the hydrogen fuel cell system may have an increasing edge over battery-electric buses. You might note that the Grand Award Bus for this event went to the Van Hool hydrogen fuel cell Exqui.city bus and not a batteryelectric bus.

The other thing we noted at this event was the substantial number of new models and new exhibitors. It gave the impression that the industry was changing right in front



Volvo deserves credit for being one of the first engine builders to embrace battery-electric power. Introduced and unveiled at this event was their new 7900 battery-electric articulated bus.



On display at Volvo was their 9700 series coach which is popular with European bus operators. The Volvo 9700 coach is also available in North America and is sold and supported by Prevost.

of our eyes. I already mentioned that a number of new battery-electric transit coaches made their debut at this show. The reality was that it went substantially beyond that. Several established companies that were regular exhibitors continued to expand their non-electric product lines. Reportedly, 176 of the exhibitors were new at this event. We saw brands of buses that were new to us, integral buses from a body builder and a composite electric transit bus we had not heard of previously. The event went beyond interesting.

Buses on Display

Rather than try to come up with a way of our own to logically put the bus manufacturers in order, we will simply follow the press conference list provided by Busworld. Press activities started on Thursday morning at the **Volvo** stand. My memory is that Volvo has been first on the list for a while and graciously provides welcome coffee, juice and eatables to feed the crowd. Because of possible confusion, I should mention that the 7900 is Volvo's popular transit bus model while the 9700 and 9900 are intercity coaches.

Unveiled and introduced at this event was the new 7900 battery-electric articulated transit. Available in lengths of 18 and 18.7 meters (59 and 61 feet), the 7900 artic can carry 150 passengers and reportedly has energy consumption 80 percent more economical than a diesel bus. I give Volvo a great deal of credit for being one of the first engine builders to move rapidly into

electric buses. The 7900 is also available in a hybrid version and a diesel version.

In coaches, Volvo now offers a 15-meter (49.2 foot) version of their 9700 coach which makes it available in four lengths: 12, 13, 14 and 15 meters or about 39 to 49 feet. Both the 13- and 15-meter versions are available with the rear passenger door behind the rear axle, thus providing a larger luggage compartment. In addition to the 7900 articulated and two of the 9700 coaches, Volvo also showed the 9900 coach, the model that won the Grand Award Coach for 2019.

Our next stop was at **Solaris**, the largest bus builder in Poland. Solaris has been making substantial progress in the area of alternative fuel transit buses with nearly half of their production involving alternative drives. This attracted attention from potential buyers and Solaris was recently acquired by CAF, a Spanish railcar maker, although the Polish government became a minority owner with 35 percent.

The most impressive vehicle on display was a four-axle, 24-meter (78 feet), three-section articulated Trollino 24 metro-style trolley bus that could carry as many as 215 passengers. It was so long that we never did get a good photo of it. We did note that Solaris mentioned that by 2050, more than 60 percent of the population of the world will be living in urban areas.

Displayed nearby were two Urbino buses, the standard Solaris transit model. They are available in lengths of 8.9, 12, 18 and 24 meters and with optional drives. Shown was a 12-meter Urbino 12 with hydrogen fuel cell power. Also on display was an 18-meter Urbino 18 with three axles and battery-electric drive.

From here we moved on to the **Daimler** stand, one of the largest in the show with eight vehicles on display. Since **Mercedes** and **Setra** buses are combined in the Evobus

Solaris is now owned by CAF, a Spanish railcar builder, with a minority interest by the Polish government. They already have substantial experience building battery-electric buses. Shown here is their Urbino 18 Electric, an 18-meter, three-door articulated with battery-electric power.





As you can tell by the destination sign, this is the new eCitaro batteryelectric transit from Mercedes-Benz. Mercedes was a little slow in getting into electric buses, but the eCitaro is now in production and in operation. Since the Citaro model, which is offered in several lengths and power options, is the most popular transit in Europe, we expect to see this new eCitaro become popular quickly.

Intouro

Mercedes-Benz also offers several coaches for tours and charters. Shown here is their Intouro model which is like a two-door suburban. It is available in three lengths with passenger capacities ranging from 51 to 59. There are several options that permit customization for specialized applications. Mercedes also offers other coach models better suited to higher quality long distance charters and tours.

organization, they are typically displayed adjacent or at least nearby. Each had four buses on display.

On display was the Mercedes-Benz Intouro model. This is a two-door suburban design available in three models with passenger capacities ranging from 51 to 59 passengers. There is a wide range of options available so the Intouro can be customized for different kinds of applications and uses. A Tourismo model was shown next to it. This is a popular two-door European touring coach available in four different lengths from 12.3 to 13.9 meters (40 to 46 feet). It is also available with right hand drive for the British market and a shorter "K" 34-foot version.

Mercedes showed the new Sprinter Travel model. In Europe, the Sprinter is available in several different models for a wide range of applications including shuttles and city transit applications. This new model is set up like a small tour bus with standard seating for 18 (or up to 21 if ordered) plus a tour guide. It is obviously designed for comfortable but economical transport for small tour groups.

The fourth Mercedes-Benz bus on display was their new eCitaro. The Citaro is the most popular transit bus in Europe. It is offered in different lengths and power options with manufacturing taking place at the big Mercedes facility in Mannheim, Germany near Frankfort. Like some of the

engine builders, Mercedes was a little slow in moving to battery-electric power but now has the eCitaro already in production. It is available in both a 40-foot length with two or three doors and as a 59.5-foot articulated with three or four doors. It is noteworthy that Mercedes showed their new electric transit bus and not their traditional diesel-powered Citaro. What with the popularity of the Citaro model and the major trend to battery-electric power, the eCitaro should become an immediate favorite on the market.

Setra had four buses on display adjacent to the Mercedes-Benz buses. The first of these was an S 415 LE Business. This is a ComfortClass bus and looks more like a two-door suburban. "LE" means low entry because the front of the bus, through and including the rear door, is low floor. Mobility devices can enter up a ramp at the center door and park on the street side of the bus. There are flip-down seats for passengers in this area if no mobility devices are on board. Two of the coaches were Top-Class, similar to the model sold in the United States and Canada. The S 516HDH is nearly 44 feet long and had all the traditional coach features as well as the center European door. HDH stands for High Deck High so it sits well off of the ground. Adjacent was an S 515HD model, which was similar in appearance but only about 40 feet long.

The other Setra coach on display was their S 531DT model. This is a double-deck coach nearly 46 feet long with seating for 83 passengers. Two stairwells going up are standard; one at the center door and the other at the front either behind the driver or as you come in the front door. Since someone will ask, I might mention that in Europe the TopClass has moved up to the "500" series while the "400" series is still available on this side of the Atlantic.

Setra had four coaches in display and offers three different classes. This is their S 415 LE Business model that belongs to their ComfortClass. It is effectively a two-door, low-entry suburban and can accommodate mobility devices with a ramp at the center door.





Van Hool had eight buses on display with six of them being coaches painted red. The TX 27 double-deck Astromega had a ZF Traxon transmission and a seating capacity of 89 plus driver and tour escort. Nearby, an EX15 model had right-hand drive for the British market.



At the end of the Van Hool display was the new battery-electric CX 45E for the American market. This photo shows the driver's cockpit area on the new model. While it did look much like the diesel CX 45, the overall impression was very neat and professional.

Van Hool had a total of eight buses on display. Six of these were either TX or EX tour and charter coach models with two doors. Some had the new mirrorcams and the longer ones had three axles. Making its debut was the new EX11 H designed to provide big coach features in smaller coaches. It had a ZF Traxon transmission and a length of only 36 feet. A version with a lower floor is also available. The EX15 M had right-hand drive for the British market while the EX16 M, with a length of 43.5 feet, came with a Paccar engine. The largest of the coaches was a TX 27 Astromega three-axle, double-deck with a ZF Traxon transmission that could seat 26 passengers on the lower level as well as 63 upstairs plus a driver and tour escort.

The one transit bus on display was an Exqui.City 18 two-section articulated tram bus with hydrogen fuel cell power. It can carry 125 passengers, can be refueled in 10 minutes and is one of an order built for Pau, France. As mentioned earlier, this Exqui. City not only took the Grand Award Bus but also the Ecology Label. Displayed adjacent was the new battery-electric CX45E for the American market. It uses Proterra technology and has a working range of about 300 km (about 186 miles). It will make its debut in the United States at the UMA show in Nashville. While the coach looks pretty much like a standard CX45, I liked the dash and the way the electrical components had been added.

Our next stop was at the **Scania** display stand. This Swedish company was brought

into the Volkswagen organization in 2014. The big event at the show was the unveiling of their new battery-electric version of their popular Citywide Transit Bus design. Known as the Scania Citywide BEV, this new low-floor, 12-meter model has three doors, a range of 80-150 kilometers and can carry up to 100 passengers. Range can be extended with a roof-mounted pantagraph charger. Also on display was a Scania chassis. For many years, Scania has had much success in providing chassis to body builders.

The third vehicle on display was Scania's new Interlink LNG coach. Scania's Interlink is available in different lengths from 10.9 to 15.0 meters, two or three axles and several power options. Powered by Liquified Natural Gas (LNG) the coach on display had a range of about 1,000 kilometers (620 miles). It was said to be the first gas-powered intercity coach but this was questionable since MCI in the United States had been delivering CNG-powered commuter coaches for several years.

From here we moved on to the **Iveco** stand where seven buses were on display. Owned by an Italian company but based in Lyons, France, Iveco was formed in 1999 by the merger of Fiat and Renault. For several years, buses were built under the Irisbus name but now everything uses the Ivecobus name. While these buses are not well known on this side of the Atlantic, Iveco produces a wide range of buses including minibuses, transits and coaches. They are known for offering a wide range of power options.

In keeping with what appears to be the theme of this event, their most noteworthy item was the unveiling of their new E-WAY battery electric bus by Heuliez. It is available in lengths of 9.5 and 12 meters plus an 18-meter articulated. The E-WAY can be charged overnight by cable or along the route with an overhead pantagraph charger. Their Daily minibus line has been expanded

Scania unveiled the battery-electric version of their Citywide transit bus. It is 12 meters long, had three doors and has a range of 80-150 kilometers. Scania has been part of the Volkswagen organization for several years but retains its traditional name.





MAN showed their Lion intercity coach that was 13 meters long, came with 48 seats and had a lift and two wheelchair spaces. MAN's Lion Coach line has been very popular in Europe. These Lion coaches are built in a factory in Ankara, Turkey.



Originally introduced in 1967, the double-deck Neoplan Skyliner model has been in production for 52 years. This one had steps going up on the right side and a kitchenette on the lower deck. Note the new Opti-view cameras instead of mirrors.

with new models and two were on display. Two different versions of their popular Crossway transit bus were on display as well as an Crealis trolley bus. Representing its tour and charter coach line was a two-door Evadays model.

Moving on, we discovered that **MAN** and Neoplan had several different types of buses on display in what was easily one of the larger exhibit areas. Neoplan buses were once built in the United States, but production ceased several years ago. The primary Neoplan company in Germany was acquired by MAN in 2001. Operations were soon merged into MAN and the Neoplan facilities were closed. Ten years later, in 2011, Volkswagen obtained a controlling interest in MAN. It was suggested that the initial plan was to combine them with Scania to create the largest truck builder in Europe. So far all three builders have retained their original names. In Europe, the bus manufacturers tend to provide maintenance and mechanical support for their customers at multiple locations. MAN highlighted their BusTopService with approximately 100 quality bus workshops around Europe.

Two of the coaches on display were Neoplans. Expectedly, one was the popular double-deck Skyliner model that was introduced in 1967 and has been in production for 52 years. This newest version had the front steps going up on the right side of the coach and a kitchenette on the lower deck. It provided comfortable seating for 76 passengers and came with the new OptiView rear view cameras. The second Neoplan was a Tourliner L. Launched in 2017 as the entry level Neoplan charter and tour coach, the Tourliner merges traditional Neoplan styling with an economical luxury coach. On display was one of two Tourliners being used by "The World of Hans Zimmer" music tour of Europe. The musicians did perform during Busworld and the vertical stripes on the side of the coach were dancing with the music.

MAN buses on display included two minibuses from an expanded product line. The MAN eTGE Combi is the first electric minibus in the MAN range of buses. Adjacent was the new MAN TGE City, based on the TGE van, for smaller capacity city service. I might note that there is also a TGE Intercity model for intercity transportation of smaller groups that was introduced in 2018. Representing MAN's line of city transit buses was an 18.75-meter (61.5 feet) articulated MAN City model. Apparently in keeping with the theme of this show, they also displayed 12-meter three-door MAN 12E all-electric transit bus with 35 seats.

On the coach side of the product line, MAN showed their Intercity model with

their new D15 diesel engine. This model is designed for school bus and intercity transportation. It will carry up to 53 passengers in "Intercity Lite" seats. A more traditional MAN Lion's Coach on display has been popular with European coach operators. It was 13 meters in length, had 48 seats and offered a lift and two wheelchair spaces.

Since we look at Busworld Europe as the largest and most important all-bus show in the World and since it only takes place in alternate years, we feel that it is important to get this information to our readers since some of it may impact the bus industry in the United States and Canada in the future. Rather than seriously edit our report on Busworld, we have elected to print it in two parts. Part two will appear in a following issue.

The Neoplan Tourliner on display had external graphics indicating that it was being used for a musical tour of Europe by The World of Hans Zimmer music group. Shown here was a musical performance at Busworld during the show. Although not obvious in this photo, those vertical strips on the side of the coach lit up and "danced" with the music.



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