In five years, the number of electric buses in Europe has increased from around 200 to 2,200 vehicles. For 2019, the Polish bus manufacturer Solaris Europa claims to have concluded the most contracts for the construction of electric buses. About half are electric-powered Solaris buses circulating in 72 cities, including Berlin (90), Milan (250) and Warsaw (130). 47% of the buses built by Solaris are powered by an alternative propulsion system.

Since 2005, Van Hool has built 130 hydrogen fuel cell buses. For some time now, it has no longer been a matter of small orders, but of large orders for a few dozen vehicles destined for Cologne, Wageningen and Ghizas, among others, in the Netherlands. A huge order of double articulated Van Hool EnviCity tram buses was delivered to Trondheim, in Norway. The Van Hool factory in Macedonia is building 900 buses this year; the factory is designed for an annual capacity of 1,000 buses. The Van Hool plant in Mornant (Tennessee, USA) is expected to start building buses from 2022.

About 20% of the buses built by Scania are now CNG or biogas buses. Recently, the first LNG-fuelled coaches were delivered to a Spanish carrier. In 2020, MAN, in cooperation with transport partners from five European countries, will have 15 MAN Lion City E-City buses tested in a day-to-day operation. The first series-produced MAN Lion City buses will be delivered in the autumn of 2022.

Volvo has upgraded its hybrid buses. They can now drive silently and emission-free up to 50 km/h, whereas previously this was only up to 20 km/h. Depending on the weather conditions and topography, up to one kilometre of emission-free driving is possible. Combined with GPS-controlled geo-fencing, the hybrid bus is now easier to drive in smaller environmental zones. The upgrade is available for the full range of Euro 6 hybrid buses. As a result, fuel consumption and emissions are up to 40% lower than with a conventional Euro 6 diesel bus.

Climate neutral

In its ‘Ximing for Zero’ objective, VDL Bus&Coach is building a brand new, climate-neutral factory in Roesselare (Belgium), where the first buses will be built from the end of 2021 to the beginning of 2022. The industrial buildings will be designed in such a way that only electrically powered buses can be built in a climate-neutral and efficient manner. Meanwhile, almost 500 electrically powered VOLV buses are in service in 17 countries. Taken together, they travel an average of 75,000 kilometres per day, resulting in a CO2 reduction of 70 tonnes per day.

With the X-兵力 Energy 2, tyre manufacturer Michelin offers the very first 275/70R22.5 tyre that has the capacity to carry eight tonnes per axle in a single operation. This allows future generations of electric buses to increase their battery capacity. While current available tyres can carry up to 75 tonnes per axle, the Michelin 275/70R22.5 152/160 X-兵力 Energy 2 can carry up to 8 tonnes per axle. The tyre can be mounted on either the drive axle or the steering axle. The specific design of the tread and sidewalls has been optimised to meet the requirements of urban traffic and to reduce rolling noise and rolling resistance.

Worldwide

The Chinese Yutong company delivers almost 25,000 new energy buses a year. That’s equivalent to 375 per day. In 2018, Yutong built 60,884 buses, including 24,748 ‘new energy’ buses. 726 electrically powered buses were built and 589 of these have been on the road in Europe ever since. Worldwide, more than 120,000 Yutong electric buses are operating in more than 300 cities; resulting in a global market share of 12% for Yutong. For nine consecutive years, Yutong was the largest seller of new energy buses. With the U22 and the T32, Yutong has designed buses specifically for the European market. Eight years ago, BYD was the first exhibitor at Busworld (Kortrijk) to present an electrically powered bus. BYD prides itself on more than ten years of experience in building electrically powered buses and on more than a quarter of a century of craftsmanship in battery technology. BYD profiles itself as a total supplier that also provides, if necessary, the supply and installation of a solar park to generate green energy. Since the start of BYD in Europe, more than 50,000 electric buses have been delivered, most of them in Scandinavia and Spain. Meanwhile, BYD has its own factories in Hungary and France (Boussac) and is collaborating closely with European suppliers, universities and transport companies in order to gain more knowledge about the European market.

Irizar will be present at Busworld Europe for the tenth year in a row, which also symbolises its tenth anniversary as an integral bus manufacturer, after having previously profiled itself as a coachwork builder. The Spanish manufacturer also celebrates its 130th anniversary. Recently, Irizar Benelux was founded and new distribution agreements were also concluded for Germany and Sweden.

At Busworld Europe, Temsa announced the start of a new episode in which the manufacturer wants to be more prominent in the segment of electrically powered buses. Following the already available 9-metre-long Avenue EV with pantograph, the Avenue Electron and the MD9 electric/CITY, the TS 45 E, an electrically powered coach for the North American market, will be presented in the first quarter of 2020. By 2025, Temsa intends to develop a product range that will enable the company to be present in every segment.

Coach of the Year 2020: MAN Lion’s Coach C

During the Busworld Award Gala Evening at Brussels Expo, the Coach of the Year 2020 award was given to Rudi Achinger of MAN Bus by Tom Terjesen, president of the International Coach and Bus of the Year Jury. The jury consists of professional journalists from 22 countries. The Lion’s Coach has undergone a considerable evolution during its existence. The current generation is equipped with a Euro 6D 787 hp version of the 13 litre engine and a Tigmatic robotic gearbox.

During the test drives, the jury noticed how silent the coach is throughout the interior: little or no noise, the tire noise is nicely damped and the engine is barely audible, even in the back. It is equipped with the new 8-ton front axle with independent suspension with ECAS-air springs. The rear axle has a load capacity of 12.600 kg. This is ample, especially for equipment like this test vehicle with 48 seats and a wheelchair lift. The lift is mounted above the front axle.

Under the name ‘SupFlywing Business’, MAN is now promoting this generation as ideal for all kinds of purposes. It also translates into a price of 210,000 euros for this test vehicle, including 8,000 euros for the camera system replacing the mirrors. This splendid MAN system is equipped with MAN EfficientCruise with EfficientRide as well as Automatic traffic sign recognition. The jury agreed unanimously that this coach is very comfortable. It drives so quietly that the use of a laptop or simply taking notes with a pen and paper doesn’t pose a problem. Not even on the sometimes bumpy roads in beautiful Romania. Because that’s where the Coach Euro Test was held this time. In four days, a 4,000 kilometre journey was made, a tour alongside the coaches was made, in which the technology was further examined and there were also presentations by the manufacturers explaining the vision and backgrounds of the technology used in relation to the environment. The Coach Euro Test has two traditional sponsors: ZF and Busworld. They offer the jury two dinners.

The day before the public opening the official gala evening of Busworld took place in hall 10. Chairman Redgy Derschmidt and Managing Director Mieke Glorieux welcomed their guests with a brief history of Busworld from 1971 until now.

After the appetizer, the prizes were awarded. The Mercedes e-Citaro was awarded the Sustainable city bus prize, the Iveco Crossway Natural Power was awarded the regional bus prize and the VDL Futura FHDZ was awarded the touring coach prize.

Subsequently, a motion of understanding was signed between the industry and the EU to promote action for climate-friendly transport (ACT). In addition to constructors, the Federal Minister for Mobility Bellot also signed this declaration on behalf of Belgium.

After a musical intermezzo and the appetizer, the Coach of the Year 2020 was unveiled: the MAN Lions Coach C.
Ebusco launches the 3.0

At Busworld 2019, the Dutch company Ebusco will present its latest acquisition: the Ebusco 3.0. Good news for the Innovation Label of the Busworld Awards. It concerns a bus with electric drive built entirely with composite material. The new bus (Patio PI stand) is a prototype. Ebusco’s CEO Peter Bijvelds expects this Ebusco 3.0 to be ready for series production by the end of next year.

The current Ebusco 2.2 electric city bus is still being built in China. The new Ebusco 3.0 will be built entirely in the spacious production halls of Ebusco’s new factory building in the Dutch town of Deurne. The bus is built of glued carbon fibre reinforced plastic on a carbon spaceframe. A special feature of the Ebusco 3.0 is the drive shaft consisting of only two wheels. This is immediately noticeable in the interior, where the passage between the rear wheel arches is no less than ninety centimetres wide. Thanks to the completely low floor, wheelchair users can easily move from front to back through the bus.

500 kilometres
A ZF AVE130 rear axle with 2x10 kW engines is used. The bus is 33 percent lighter than the Ebusco 2.2 and according to Bijvelds, the light construction provides the new bus with a maximum range of 450 km. The batteries are incorporated in the 3.0 in the floor, which benefits the centre of gravity. Batteries located on top of such a ‘light’ bus would inevitably cause stability problems. Another new feature is that Ebusco can offer this 3.0 version over time with a panoramic roof of seven metres long.

Innovation and safety
Electric propulsion is no longer new, but this Ebusco offers plenty of innovative, practical ‘gadgets’ on board that also improve safety. A driver is recognised out sacrificing robustness, stiffness and safety. Furthermore, the drive consists of 27 inverters and Chinese LifePO4 batteries. According to Bijvelds, the light construction provides the new bus with a maximum range of 450 km. The batteries are incorporated in the 3.0 in the floor, which benefits the centre of gravity. Batteries located on top of such a ‘light’ bus would inevitably cause stability problems. Another new feature is that Ebusco can offer this 3.0 version over time with a panoramic roof of seven metres long.

During the breakfast session, Mr Debashish Bhattacharjee from UN-Habitat will explain the possibilities to show case modern public transport systems including electric buses in a dedicated session on future bus systems.

Please see https://wuf.unhabitat.org for more information.

The last and the first
Pascal Van de Voorde, business manager of the Brussels Fun Cars, does not shy away from a stunt. During the last edition of Busworld in Kortrijk he was the very last buyer at the fair and in 2019 he is the first buyer at the first Busworld in Brussels. In exactly 10 o’clock on the opening day he hit the gong. At VDL it has become a tradition that the buyer beats the gong with every sale. “I wanted to appear in the history books,” laughs the ever charming Brussels native. Pascal and his wife Cindy bought a very luxurious edition of the VDL FHD19 450.

The new composite Ebusco 3.0

Innovation Labels awarded

As the last in Busworld Awards series, the jury announced the winners of the Innovation Label. Following companies were awarded:

**COMPANY**
1. Ebusco
2. Xiamen King Long United Automotive
3. AKASO AG
4. Volvo Buses
5. ZF Friedrichshafen AG
6. Dafo Vehicle Fire Protection AB
7. GEA Rock GmbH
8. Nissa Lang GmbH & Co. KG
9. Stoneridge / OBLACO

**PRODUCT TYPE**
Prototype 3.0 composite electric bus

**PRODUCT NAME**
- Ebusco 3.0
- Apolong
- AKASO System AKM CYC
- Volvo Electric DriveLine
- Cellfax
- Lilian Fire
- GEA Rock H190 StarCO2mpressor
- Mirror Replacement Digital Camera System
- Mirror Replacement Digital Camera System

**UN climate plan signed**

Kinglong, VANDAMME REINIGTECHNIK and Deeware signed the United Nations action plan for climate-friendly transport (ACT) in the Busworld VIP Lounge. Alstom, BYD, Catenia, MAN, SAFIRA, SOLARIS and Yutong also supported the UN climate plan in the past. Interested exhibitors are still offered the opportunity to sign the UN climate plan in the Busworld VIP Lounge.

**BUS-pl from Poland makes its debut**

The Polish conversion company BUS-pl presents itself for the first time at Busworld. The mini- and midi-buses produced by BUS-pl are based on the Mercedes-Benz Sprinter. The young enterprise has already had a few successful years. BUS-pl makes its debut at Busworld. The company comes with a few new solutions to improve comfort and interior design. Customers have the option of having their own designs built by BUS-pl, or they can choose from a number of options. In addition to technical advice, the Polish bus manufacturer can also assist with financial aspects of the purchase. (Hall 4, stand 1028)

**Happy birthday!**

At Busworld several coaches celebrate their birthday. For example, the Tourismo, which is 25 years young. The success story of the Tourismo started in 1994 under the name O 350 Tourism. In a quarter of a century Mercedes continued developing this vehicle. The youngest generation of the Mercedes-Benz Tourism was launched in the autumn of 2017. By that time, more than 26,000 copies of this popular coach had already been built.

At Busworld, other manufacturers are celebrating the anniversary of one or more models:

- Van Hool celebrates the 60th anniversary of the EX at Busworld. The first vehicles in the range to be built in Macedonia were presented at the IAA in Hannover in 2014.
- The Otokar Vecito T was presented at Busworld 2009, today this model is known as the Otokar Uysal T Crossway (10 years).
- Ivecro celebrated the 40th anniversary of the Daily last year. This year the Crossway celebrates its tenth anniversary.

**UN Habitat in a collaboration with the Busworld Academy invites bus manufacturers to apply for events to showcase low and zero emission buses to participants, including the high level delegations from countries from all over the globe.**

Get the latest news in the run-up to the trade fair and while it’s going on, receive the latest news in the run-up to the trade fair and while it’s going on. All you have to do is register on our website busworld.org