

Karsan Becomes the Star of Busworld 2023, Held in Brussels, with Its Innovative Products!

Karsan is on the Road in 22 Countries with its 1,000 Electric Vehicles by the end of 2023!

In Brussels, Karsan Introduces Its Technological Innovations Regarding the Future of E-Mobility!

Karsan Maintains Its Pioneering Role in Europe with Its 100% Electric Product Range!

Pioneering the transformation of the public transport with the vision of being one step ahead in the future of mobility, Karsan left its mark at Busworld 2023, held in Brussels, the capital city of Belgium. Okan Bař, CEO of Karsan, one of the most attention-grabbing brands at the fair through its completed 100% electric product range and remarkable growth performance, said, "We are uninterruptedly growing in Europe, our primary target market. We passed 2022 as the leader in Europe thanks to 100% electric e-JEST and e-ATAK. Our rise continued in the first half of 2023. Elevating our share in the European electric urban minibuss and bus transport market over 5 tonnes through Karsan electric vehicles in the first half of the year to 6.7%, we ranked 4th in the market. e-JEST, leader of the electric minibuss market in Europe for three years, keeps this position by reaching a 24% market share in the first half of this year. On the other hand, our 100% electric model e-ATAK, which has led the electric midibuss class in Europe for two years, became the most preferred vehicle of its class in Europe with a market share of 26% in the first half of this year, too. Stating that their targets for 2023 are also as ambitious as Karsan's vehicles, Okan Bař pointed out, "At the end of the year, we will be on the roads in 22 countries with a total of 1,000 electric vehicles. In North America, one of our new target markets, we have already started to provide service with 30 e-JESTs. We will increase this number to over 100 by the end of the year. We will launch our right-hand drive e-JEST model in December as part of the agreement we made for the Japanese market. We have set a sales target of

300 units in the Japanese market for the next three years.

Karsan, which plays a leading role in transforming the transport infrastructure in Europe with its electric and autonomous vehicles, offers its technology and production power to consumers through the world's most famous fairs and organizations. Pioneering the transformation of the public transport with the vision of being one step ahead in the future of mobility, Karsan, in this regard, made its presence felt at Busworld 2023, the largest bus fair in the sector, with its high-tech production power, innovation capacity, and excellent service approach. Karsan, which left its mark at the fair conducted in Brussels, the capital city of Belgium, between October 7-12, exhibited e-JEST, Autonomous e-ATAK, and e-ATA Hydrogen models from its 100% electric product range. On the other hand, Autonomous e-ATAK, the first electric autonomous bus carrying passengers in Europe and America, demonstrated its technology for the participants by carrying out autonomous driving in the parking area during the fair.

Karsan's market share reaches 6.7% in Europe!

Expressing that the fair was busy and productive for them, Karsan CEO Okan Bař said Karsan has become one of the best-known brands in the sector with 60 years of experience and a team of 2,500 people working with a start up spirit. Stating that they, as the company, have made the 100% electric product range ready in the last three years, Okan Bař said, "We are continuously growing in Europe, our primary target market. Thanks to our 100% electric e-JEST and e-ATAK models, we were market leaders in 2022. In the first half of 2023, our growth continued. We increased our share in the European electric minibus and bus urban transport market to 6.7% in the first half of the year.. Having sold 318 units in Europe since its launch, e-JEST achieved a 24% market share in the first half of this year. Our ATAK model, 233 units of which have been purchased by Europeans since its launch, gained a 26% market share in the first half of the year. These two most preferred models in the European electric minibus and midibus market have again taken the lead.

Autonomous e-ATAK carries passengers safely at minus 25 degrees!

Emphasizing that Karsan's Autonomous e-ATAK model continues to render service worldwide, Okan Bař proceeded: "We have been carrying passengers in Michigan and Norway for 1.5 years with our autonomous vehicles. In addition, we have implemented our Autonomous e-ATAK projects in Chateauroux, France, in Bucharest, Romania, at the Presidential Complex in Ankara, and recently at Istanbul Technical University. When all these are combined, our autonomous vehicles, in total, have reached a distance of 50 thousand kilometers and carried 20 thousand

passengers. Additionally, we have had the opportunity to experience and develop our vehicle under different climatic conditions and in various parts of the world. Especially in Michigan, we safely carried passengers with our Autonomous e-ATAK on snowy days, during which minus 25 degrees were seen, and people could not even take their vehicles out. On the other hand, at the IAA last year, we launched ATA Hydrogen, equipped with a fuel technology using hydrogen, the most readily available environmentally-friendly energy source in nature. In addition to electric and autonomous vehicle technologies, we continue to assume our role to be one step ahead in the mobility of the future for hydrogen technology, too."

1,000 Karsan Electric Vehicles will be on the Roads in 22 Countries by the End of the Year!

Stating that their targets for 2023 are also as ambitious as Karsan's vehicles, Okan Bař pointed out, "We have achieved a significant experience due to our 850 electric vehicles which have so far covered 100 million km distance in 22 countries. 1,000 Karsan Electric Vehicles, in total, will be on the roads in 22 countries by the end of the year. In North America, one of our new target markets, we have already started to provide service with 30 e-JESTs. We will increase this number to over 100 by the end of the year. We will launch our right-hand drive e-JEST model in December as part of the agreement we made for the Japanese market. We have set a sales target of 300 units in the Japanese market for the next three years. We, as Karsan, are constantly working on efficient and smart solutions to be the brand that will build the mobility of the future and shape the public transport system. We are also proud that our achievements have been crowned with 11 significant awards in the international arena due to our efforts."

Karsan is there where its customers are!

Emphasizing that one of the most significant factors in Karsan's growth is the principle of being close to customers and standing by them, Okan Bař stated, "We, as Karsan, aim to be one step ahead with the experience we offer our customers, not only during the sale but also in after sales. Through the cost effective mobility solutions we offer, we aim to provide fast and accessible service to our customers in times of need. In this direction, we offer services by saying, "We Are Where You Are". That is, we offer services, including the approach that Karsan is there where its customer is, and it stands by them. We always try to support our customers through the technical training we provide them, our online help desk, our international call center they can reach 24/7, our remote diagnostic system, our Karsan Flying Doctors, dedicated local after-sales teams and spare parts hubs in different locations. Thanks to our spare parts hubs in Germany and Bursa and the ones in Italy we have put into service, we have accelerated parts delivery by being closer to our customers. Through our remote diagnose service, we can provide instant support to our customers for the detection and resolution of a problem related their vehicle. In cases where

remote intervention cannot be carried out, we immediately go to our customers and offer on-site solutions with over 30 Karsan Flying Doctors" . In addition, we stand by our customers at every moment they need, through our dedicated local after-sales teams, who live and work in countries including Romania, Italy, and Luxembourg, and according to the density in the region, even directly for customers."

Karsan Builds the Mobility of the Future through Its Technological Innovations!

Emphasizing that Karsan is not a company that develops and sells vehicles only, Okan Bař said: "We constantly renew, improve, and develop our technologies to build the mobility of the future. Two of our innovations in this direction are "Platooning" and "Remote Driving" features that we have started to use in our Autonomous e-ATAK vehicle in cooperation with ADASTEC. Platooning technology allows 2, 3, or more 8-meter Autonomous e-ATAK vehicles to operate during rush hours like a single articulated bus with imaginary bellows of 16 meters or 24 meters long. Platooning is a feature through which multiple Autonomous e-ATAK vehicles can move synchronously by following each other, stopping at a bus stop, opening their doors, and continuing on their way again. Operators, if needed, can reach the same passenger capacity or even more by operating 2 or 3 Autonomous e-ATAK vehicles thanks to this feature instead of buying an articulated bus. Thus, while the vehicles are consecutively used during peak hours, energy can be saved with using less vehicles in less busy hours. Moreover, the maneuverability of the 8-m Autonomous e-ATAK is kept, compared to an articulated bus, thanks to this technology. Through the "Remote Driving" technology we have started to use in Autonomous e-ATAK, we can instantly intervene in the vehicle in cases, including unexpected road repair works and accidents that may be encountered on the road. In unpredictable incidents such as accidents and road works, the vehicle is checked remotely without needing a safety driver and can be re-routed. When the safety driver, which is currently required by regulation, is not used anymore, this system eliminates relevant costs for operators who have a fleet of autonomous buses."

Karsan Reduces Consumption at Minus 25 Degrees Thanks to Advanced Heat Pump Technology!

Mentioning the other innovations they have developed to increase the efficiency of electric vehicles, Okan Bař continued: "Heat pump technology promises longer ranges in cold climate conditions but cannot operate in places that are colder than minus 5 degrees. Through the studies carried out within our organization, we have put the "Advanced Heat Pump" technology into use, which can work even at minus 25 degrees. Thanks to this technology we offer in new e-ATA orders, our e-ATA series, which has the longest range in its class, will provide a longer range by reducing the energy consumption to heat itself by 80 percent, even in the harshest winters. We



ONE STEP AHEAD
IN THE FUTURE OF MOBILITY

will integrate this technology into our e-ATAK vehicles in the next stage. We are also working to reduce the weight of our vehicles. We aim to reduce our 12-meter e-ATA vehicle by 600 kilograms this year and reach 900 kilograms in 2025, using recyclable, lightweight aluminum and carbon fiber materials. For our e-ATA model, which offers the best energy consumption and passenger capacity in its class, we will make both the energy consumption and passenger capacity of our vehicles more ambitious with these attempts."

About Karsan:

Karsan, leaving 56 years behind in the Turkish automotive industry, has been manufacturing commercial vehicles for the world's leading brands and its own brand at modern facilities since its foundation. Karsan has been producing commercial vehicles since 1981, and its factory in Bursa Hasanağa has the capacity to produce about twenty thousand vehicles per year in a single shift. Hasanağa Factory, designed with the flexibility to produce all types of vehicles from passenger cars to heavy trucks, from minivans to buses, is 30 km away from Bursa city center and is located on an area of 203 thousand square meters total, 99 thousand square meters of which is indoors.

Positioned as the only independent multi-brand vehicle manufacturer in Türkiye for more than 56 years in the automotive industry, Karsan aims to develop derivative versions of the new and existing vehicles in order to extend its presence to all segments of passenger transportation, in accordance with its vision of being one step ahead in the future of mobility. Continuing its efforts to develop "innovative products and services", "from idea to market" in the public transportation segment, Karsan primarily aims to strengthen its Main Manufacturer/OEM business line.

Karsan manages the entire automotive value chain, from R&D to production, from marketing to sales and after-sales activities. Karsan produces JEST and ATAK models under its own brand. In addition, Karsan produces and sales 100% electric buses e-JEST and e-ATAK models within the framework of the cooperation with the global giant BMW. Karsan also produces 10-12-18 meter sized 100% electric e-ATA buses, and the 12 meter e-ATA Hydrogen. With the technology company ADASTEC, Karsan produces Level 4 driverless bus Autonomous e-ATAK model, which is the first driverless bus carrying passengers across Europe and America. Karsan also manufactures 10-12-18 meter buses for Menarinibus. As of 2022, Karsan has started production of Megane Sedan automobiles for the Renault brand. In addition to vehicle production, Karsan also provides industrial services at its factory located in the Organized Industrial Zone.