

busworld® DAILYtimes

EUROPE BRUSSELS WEDNESDAY 11 OCTOBER 2023



Irizar continues to innovate

Irizar and Irizar e-mobility present four latest-generation Irizar vehicles on stand 602 in hall 6 (1,710 sq m): an Irizar i8, an Irizar i6S Efficient vehicle, an Irizar ie tram electric vehicle and the new hydrogen-powered Irizar i6S Efficient.

Irizar and Irizar e-mobility present four latest-generation Irizar vehicles on stand 602 in hall 6 (1,710 sq m): an Irizar i8, an Irizar i6S Efficient vehicle, an Irizar ie tram electric vehicle and the new hydrogen-powered Irizar i6S Efficient.

All exhibited vehicles have significant innovations compared to current models in terms of technology, sustainability and fuel consumption reduction. They include the new hydrogen-powered vehicle and a range of vehicles with a new generation of integral Irizar chassis, which are lighter, more comfortable and consume up to 5% less fuel.

They also come with the most demanding safety and cyber security systems on the market, an improved driver station with a new dashboard design, weight reductions and therefore improvements in fuel consumption and emissions.

At Irizar, they focus all their efforts on decarbonisation, electrifying cities and reducing the consumption and emissions of their vehicles. They aim to be a key player in the sustainable mobility of the future. It is clear that the future for Irizar will be multi-technological and they are ready for it.

» continued article see p. 2



The original MINIBUS
made in Dortmund

HALL 4 – BOOTH 419A

Sprinter City, Sprinter City ELECTRIC,
Sprinter Mobility, Sprinter Transfer



TREMONIA
MOBILITY

Colophon

BUSWORLD DAILY TIMES IS A PUBLICATION OF BUSWORLD EUROPE. IT IS PUBLISHED ON A DAILY BASIS DURING BUSWORLD EUROPE 2023 ORGANISED IN BRUSSEL EXPO FROM 7 TO 12 OCTOBER 2023.

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8720 Wakken
Belgium

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Bieke Bruggeman, Jos Haas

PREPRESS

TC&P
Karel Lodewijk Dierickxstraat 36
9000 Ghent
Belgium

PRINT

CTP digital printing
Grotenhoutlaan 5
2300 Turnhout
Belgium

PUBLISHER

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» continuation of article p. 1

This first hydrogen vehicle has been developed exclusively by Irizar, in collaboration with the companies and technology centres involved.

The vehicle is currently in the testing phase and is undergoing various tests. The Irizar i6S Efficient Hydrogen has a range of up to 1,000 km and a minimum charging time of about 20 minutes.

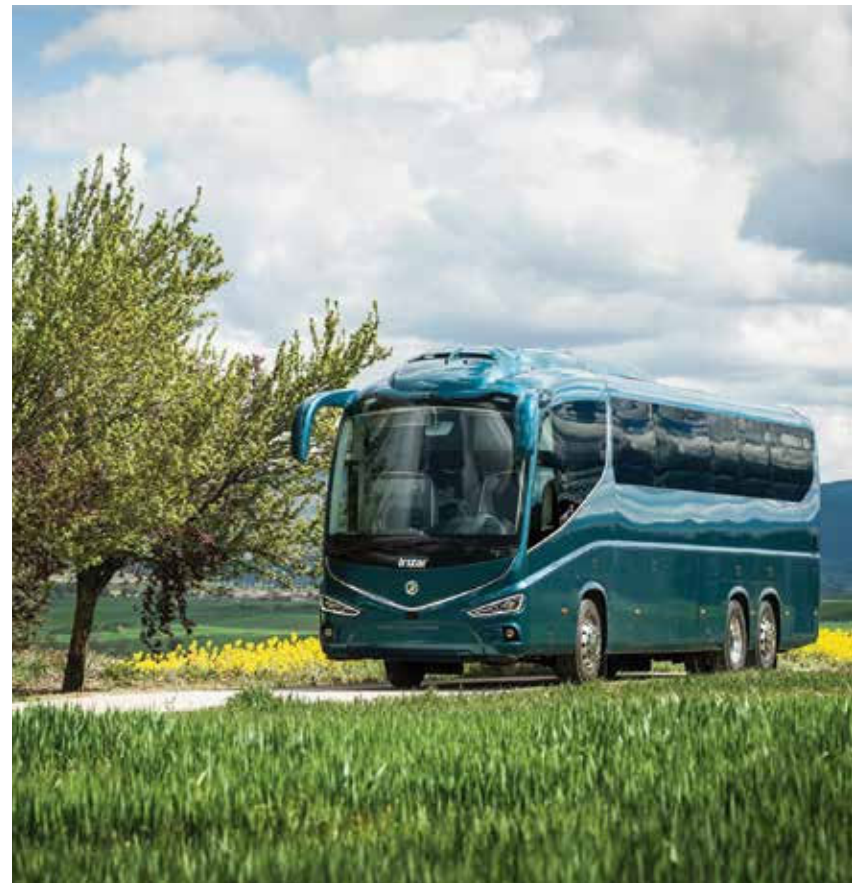
If necessary, it can also run 100% electric at certain times. The future range of hydrogen vehicles, which currently consists of the Irizar i6S Efficient and Irizar i4 models, will feature significant improvements over the first version presented at Busworld, including more luggage space and passenger capacity, greater range and lower weight.

E-MOBILITY

For more than a decade, Irizar e-mobility has been electrifying cities. This year, a unit of the electric tram Irizar ie will be presented for the first time in Mexico.

Irizar e-mobility is present in 11 European countries and will have more than 1,000 vehicles on the road in Europe by early 2024. This new generation of buses includes improvements in terms of safety, with the new GSR2 ADAS standard, which includes vehicle cyber safety.

The buses are also equipped with a new generation of batteries with lower consumption and greater range, improving available energy in BOL and EOL by 30 per cent. ■



The Irizar i6S.



The Irizar ie Tram.



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BOOTH 471 / HALL 4

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DB Ebusco.

Deutsche Bahn goes for Ebusco

Up until 2026, Ebusco will remain Deutsche Bahn's (DB) main supplier of 12- and 18-metre electric buses. To this end, the two directors signed a new framework agreement at a brief ceremony. The original framework agreement dates back to 2022 and ended in 2024. Via this framework agreement, DB now owns 100 Ebusco 2.2 buses, several of which are already on the road and will soon be used in more than 10 different projects. Furthermore, the companies are in

final talks for definite orders, which will take the total to more than 100 buses. To date, Deutsche Bahn has ordered 100 Ebusco 2.2 buses, but the contract also offers the option of also ordering the lightweight Ebusco 3.0 buses. Patrick Oosterveld, Sales Director at Ebusco: "With this framework agreement, we expect two more fantastic years in which we will make a major contribution to emission-free transport in Germany." ■

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Brazil present at Busworld for the first time



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The Busworld App replaces the paper catalogue. It has a floorplan, an exhibitor list, a product list, a seminar list and you can even see other visitors and contact them.

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- Step 1:** Activate your profile if you did not do this yet. An e-mail was sent to you from busworldapp@busworld.org on 1 September or later (when you ordered your ticket). You need to open this e-mail and activate your profile by choosing a password.
- Step 2:** Download the app on your phone (use QR code or look in your store for 'Busworld').
- Step 3:** Login with your e-mail and password. If you forgot your password, click on 'Forgot Password?' and you can set a new password.
- Step 4:** Use the app as much as you can.

busworld

AWARDS IN 2023: 3 COMPETITIONS

The renowned Busworld Vehicle Awards



The 20th edition of this competition took place on 30 September with 14 competing vehicles: 8 buses and 6 coaches. And the winners are...



**MERCEDES-BENZ
E-CITARO**
HALL 5 | BOOTH 503



**SETRA
S 516 HDH**
HALL 5 | BOOTH 503

As always, the best performances in the different sub categories are awarded with a best of category label.

BUS

- **Label of Excellence DESIGN**
VDL Bus & Coach - Citea New Generation
- **Label of Excellence COMFORT**
Mercedes-Benz - e-Citaro
- **Label of Excellence ECOLOGY**
Ebusco 3.0
- **Label of Excellence SAFETY**
Anadolu Isuzu - Citivolt

GRAND Mercedes-Benz - e-Citaro
runner up Ebusco 3.0
runner up Anadolu Isuzu - Citivolt

COACH

- **Label of Excellence DESIGN**
Yutong T15 E 14
- **Label of Excellence COMFORT**
Setra S 516 HDH
- **Label of Excellence COMFORT**
Van Hool - T16 Astron
- **Label of Excellence ECOLOGY**
Yutong T15 E 14
- **Label of Excellence SAFETY**
Setra S 516 HDH

GRAND Setra S 516 HDH
runner up MAN Truck & Bus - Neoplan
Tourliner L
runner up Van Hool - T16 Astron

The new Busworld Digital Awards, spotlighting digitalization in bus and coach



Acknowledging the growing importance of digital technologies in the bus and coach sector, Busworld, is proud to present the Busworld Digital Awards. This exciting new competition aims to recognize and celebrate the groundbreaking digital innovations that are transforming the bus and coach experience.

Shortlist in the 4 categories

Out of the 35 candidates, the jury selected a shortlist of 3 candidates per category. The final winners will be announced at the Digital Mobility Solutions Conference on Wednesday 11 October.

DIGITAL OPERATIONAL EXCELLENCE

- **Iveco Bus**
IVECO ON Heavy Buses Digital Services
Hall 4 | Booth 402B
- **TOTT UP**
GPS Training Partner
Hall 11 | Booth 1114
- **ZF Group**
SCALAR
Hall 5 | Booth 537

E-MOBILITY MANAGEMENT

- **Chargepoint**
Battery Health Package
HALL 9 | Booth 937
- **MAN TRUCK & BUS**
eManager
Hall 4 | Booth 401
- **Rampini**
Hy4Drive
Hall 6 | Booth 606A

DIGITALLY ENHANCED DRIVING

- **Anadolu Isuzu**
V2X
Hall 4 | Booth 403
- **Daimler Buses**
Active Drive Assist 2
Hall 5 | Booth 503
- **Karsan**
Autonomous e-ATAK
Hall 5 | Booth 501

DIGITAL ON-BOARD COMFORT

- **Actia**
ACTiVi solution
Hall 4 | Booth 409
- **MAN TRUCK & BUS**
New Digital Cockpit and MAN SmartSelect for Model Year 2024
Hall 4 | Booth 401
- **Navaho Technologies**
Navaho Transport Systems
Hall 6 | Booth 689

Busworld Innovations, your opinion counts



In 2023, visitors can decide if an Innovation Nominee is innovative for them or not? Out of 26 candidates 10 nominees were selected by the Busworld Awards jury. Go to their booth, evaluate the new product, scan the voting QR code and... vote! If the product gets 50% or more YES votes, it will become an official Busworld Europe Innovation 2023.

**INNOVATION:
✓ OR X?
YOU DECIDE!**

- **C Trine Engineering**
EcoRapidBusDesign
Hall 11 | Booth 1182B
- **Generation Phoenix**
ELeather
Hall 7 | Booth 718
- **IRIZAR**
Irizar i6S Efficient hydrogen
Hall 6 | Booth 602
- **Jaakko-Tuote Oy**
JTSolar glass
Hall 8 | Booth 861
- **Konvekta AG**
Konvekta CO2 heat pump thermal management system for electric doubledecker buses
Hall 5 | Booth 508
- **Robert Bosch Automotive Steering GmbH**
ServoE
Hall 5 | Booth 510
- **Saint-Gobain Sekurit**
Transport Reflexcontrol
Hall 7 | Booth 760B
- **Superlee Corporation**
3 in 1 DRL/DI/POS combination light
Hall 9 | Booth 958
- **Thermo King**
Athenia ENVI heat pump with R744
Hall 4 | Booth 426
- **Twiliner**
Twiliner coach seat
Hall 2 | Booth 227

BUSWORLD CONFERENCE PROGRAM

Wednesday also means third day of the knowledge program and third half day of the **European Zero Emission Bus Conference**. Having a fleet of zero emission buses is good for the environment when you use green electricity, but how good and feasible is it for the bus operator's bank account? Time to investigate how financially viable the switch to zero emission buses is today, and what business models are possible for you to implement in your business.

Are you preparing your business for the digital era that we live in? The

future is all about data is not a lie. The more data you'll have the better decisions you'll make, the more efficient you will work and the happier your (future) customers will be. Join us for the **Digital Mobility Solutions Conference** starting at 09:30.

Tomorrow we are putting the future of coach tourism and long distance services in the picture. From zero emission developments to access to cities, to the new drive and rest time regulation and the future of group tourism in Europe. Enough food for discussion on the final day!

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TODAY

(WEDNESDAY OCTOBER 11TH, 2023)

ZERO EMISSION BUS CONFERENCE (PAID)

LOCATION: MEETING CENTER HALL 7, AUDITORIUM 500

ECONOMICS OF ZEBS

- **09:30:** Opening Address
- **09:35:** Total Cost of Ownership Case Study on BEBs and FCBs
- **09:55:** Panel – Building a Strong Business Model for BEBs (Battery Electric Buses)
- **10:45:** Hydrogen Fuel Cells as Enabler for Mobility Decarbonization: Symbio's Solution for Buses & Coaches

THE FUTURE OF FUNDING MODELS FOR ZEBS AND ASSOCIATED INFRASTRUCTURES

- **11:30:** Panel - Financing a Full Fleet Transition: Public Funding Options
- **12:20:** 1198 Buses Powered by REFIRE: A Journey by Hydrogen-Electric
- **12:30:** Panel – Building a Strong Business Model for FCBs (Fuel Cell Buses)

DIGITAL MOBILITY SOLUTIONS CONFERENCE (FREE)

LOCATION: MEETING CENTER HALL 11, LEVEL 3, ROOM 1122

- **09:30:** Opening - Welcome and Policy Making on Data Driven Mobility
- **10:00:** Bus & Coach in Next Generation Mobility Concepts
 - Keynote 1 by ITxPT
 - Keynote 2: Insights From the Bus Services Industry on the EU Multimodal Digital Mobility Services Initiative
 - Panel Debate
- **11:30:** Digital Operational Excellence via Telematics
 - Keynote
 - Panel Debate
- **14:00:** Smart Energy Management When Deploying Electric Buses
 - Keynote 1 by European Commission
 - Keynote 2 by Hitachi Energy
 - Panel Debate
- **15:45:** Digitally Enhanced Driving
 - Keynote: 'The European and member states' approach on the implementation of autonomous buses and shuttles" by ERTICO – ITS Europe
 - Panel Debate
- **17:00:** Announcement of the Busworld Digital Awards Winners

TOMORROW

(THURSDAY OCTOBER 12TH, 2023)

ZERO EMISSION BUS CONFERENCE (PAID)

LOCATION: MEETING CENTER HALL 7, AUDITORIUM 500

STATE OF PLAY FOR ZE COACHES AND LONG DISTANCE SERVICES

- **09:30:** Opening Address
- **09:40:** Market Development and Demand for Zero-Emission Coaches – Focus On French Market
- **10:00:** Panel – Zero Emission Coaches: Meeting the Needs of Customers
- **10:50:** Daily Drive – Exploring the Technical Experience and Challenges of Operating a Fuel Cell Bus Fleet

ZE COACHES/LDS CHALLENGES AND OPPORTUNITIES

- **11:30:** Learnings From the Deployment of the Network to Support Deployment of the Zero-Emission Coach Ecosystem in Germany
- **11:50:** Zero Emission Coach Ecosystem - Technological Challenges and Business Adaptations (Infrastructure Focus)
- o **12:50:** Closing Speech

THE FUTURE OF COACH TOURISM (FREE)

LOCATION: MEETING CENTER HALL 11, LEVEL 3, ROOM 1122

- **14:00:** Welcome & Introduction
- **14:20:** EU Policy on the Access to Cities for Coaches
- **14:40:** The New EU Drive and Rest Time Regulations for Coach Drivers
- **15:00:** The Future of Group Tourism in Europe
- **15:30:** Network Event

Habas aims to conquer Europe with four-bus display

In 2021, Turkish company Habas, decided to leverage its 67-year-old experience in manufacturing to enter the bus market. The progress has been very rapid, with the company exhibiting four monocoque buses at Busworld Europe.

The COMFORTCITY e/Electric is a 12 metre super-low floor city bus featuring 353kW power, in a lightweight structure. The bus can accommodate as many as 106 passengers.

The ALFACITY -e/Electric 8.2 metre Super low floor urban midi bus, in three door configuration is powered by 282kW batteries and therefore optimally designed for narrow roads. The ALFALUX - e/Electric 8.2 midi coach is also powered by 282kW batteries and can carry as many as 35 passengers with large luggage capacity.

While the focus may be on electric buses, Habas is being practical by not neglecting diesel buses. The COMFORTCITY diesel 12 metre full low floor city bus has at its heart a 11-litre 300PS Euro 6E PACCAR engine.

All buses offered by Habas feature good design, LED daytime running lights, a modern digital and ergonomic instrument panel, a sporty steering wheel with adjustable height and depth, comfortable driver's seat with lumbar support, armrests and a high hood, powerful air-conditioning. Intarders and hill holder support are standard features on the bus. Rear view mirrors with cameras, driver cabin air conditioning, automatic central lubrication system, passenger information system, passenger counting system, electric roof hatch are optional features.



Habas.

Habas positions itself at the premium end of the Turkish market and is ambitious in its European foray with a capacity of 1,500 buses.

RICH ORIGINS

The foundation of the 'Hamdi Basaran Topkapi Oxygen Factory' were laid by Hamdi Basaran in 1956, Habas Industrial and Medical Gases

Manufacturing Industry. The company has achieved a number of firsts in the industrial and medical gases, iron and steel, natural gas, energy, LPG, banking and finance, heavy machinery sectors.

To pave the way for its automotive industry foray, Habas acquired Honda Turkey's manufacturing plant for commercial vehicle production. ■

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ZEB Conference kicked off

The ZEB Conference kicked off with a bang yesterday, with several prominent European politicians emphasising the importance of the decarbonisation of buses and coaches in Europe.

Mike Dolman, Partner at ERM, and Redgy Deschacht, President of Busworld Foundation, representing the co-organisers of the conference, welcomed attendees to the first ever edition of the conference to be held alongside Busworld Europe and extended their gratitude towards the sponsors, speakers, and all participants of the conference. Mr Deschacht noted, 'The European Zero Emission Bus Conference, in tandem with Busworld, offers opportunities for all stakeholders in our energy transition... We hope to deepen our collaboration in the years ahead. The sharing of knowledge and the developments of technology and solutions, will remain vital.'

The Flemish Minister for Mobility, Lydia Peeters, officially opened the conference (alongside conference organisers Busworld Foundation and ERM) to over 250 participants, high-

lighting Flanders' commitment to reducing its CO2 emissions. 'Flanders has intensified its climate ambitions. Mobility accounts for more than 20% of emissions in Flanders, which must be reduced to safeguard the climate, and our health.' The Minister has been instrumental in agreeing a ban in sales of fossil fuel vehicles from 2029, advocating for the electrification of bus fleets and depots (equating to over 3600 buses in Belgium), and supporting bus and coach companies in their journey to zero emission. 'There is no time to waste but we have the technology and knowledge needed for the transition.'

Eamonn Mulholland, researcher at ICCT, celebrated that the sales of electric city buses overtook those of diesel for the first time in Europe – and indeed, for the first time in any European transport sector. 1 in 3 city buses registered are now electric, driven by both demand and supply. The study highlights, however, that Europe is far from a global leader (e.g., 97% of new city buses are electric in China), although some member states have been keeping pace (e.g., Netherlands, Finland, Denmark, etc.). ■



Miss Julia Wills next to Mieke Glorieux (centre) and Mister Ali Murat.

Radiant miss and mister Busworld

A big smile, efficiency and industry knowledge: these are the ingredients to crown themselves Miss and Mister Busworld. Julia Wills and Ali Murat are honoured to hold the coveted title for a year.

Traditionally, the Miss and Mister Busworld titles are awarded to two remarkable persons. The honour of Miss Busworld went to Julia Will of the German company OMR Omnibushandel based in Untersteinach. 'I was totally surprised when I was awarded the title. This makes me incredibly proud and happy.

Of all the fairs, Busworld is the most professional fair I have experienced. There is also a family atmosphere here,' says Julia enthusiastically.

Ali Murat (52) of Otokar was crowned Mister Busworld. Ali is an established name in the bus world. '24 years of experience has given me many friends. Now I will meet even more,' says Ali. From now on, I will go through life with two identities: that of Ali and that of Mister Busworld. Maybe I should get my title tattooed,' jokes the awarded laureate. ■

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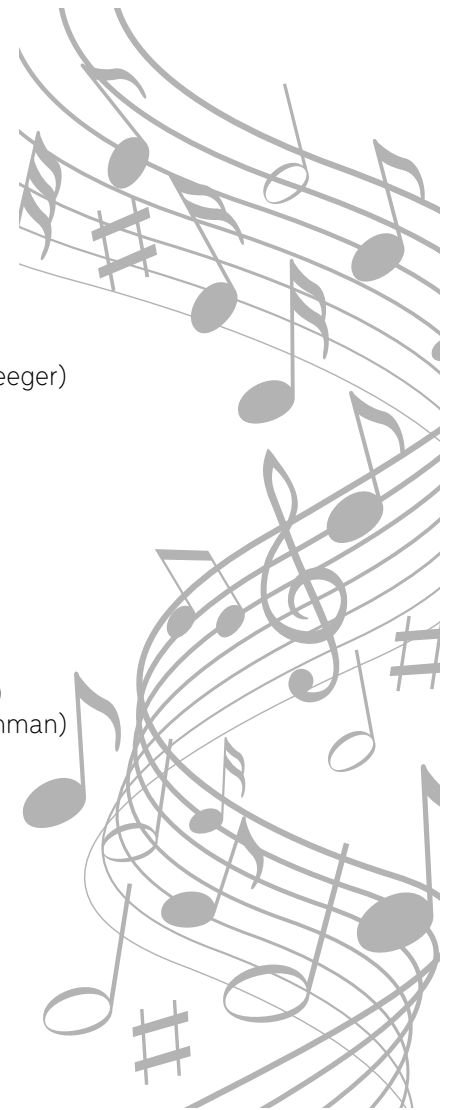
There is music in bus and coach

Bus and coach have been inspiring numerous lyricists and composers for years. If it's not about the long rides, the tough driver or the bus stop, then even wheels and windscreen wipers can inspire.

In a nutshell, there is more than enough music in bus and coach for anyone who may be interested in creating a Busworld playlist on their Spotify account.

Below, in no particular order, you can find a list of 45 songs. Who will further complete the list to 50 or more? Let us know at (email address DailyTimes@busworld.org).

1. Wheels on the bus (children's song)
 2. Hail to the bus driver (children's song)
 3. Magic Bus (The Who)
 4. Bus Stop (The Hollies)
 5. Thank God and Greyhound (Roy Clark)
 6. Buses and Trains (Bachelor Girls)
 7. The Power is on (The Go Team)
 8. New York State of Mind (Billy Joel)
 9. Blame it on the Bus (Mo Kamikaze)
 10. What if God was one of us (Joan Osborne)
 11. Double Dutch Bus (Frankie Smith)
 12. National Express (The Divine Comedy)
 13. Does this bus stop at 82nd Street (Bruce Springsteen)
 14. Another One rides the Bus (Weird Al Yankovic)
 15. America (Simon and Garfunkel)
 16. Under the Boardwalk (The Drifters)
 17. Kiss me on the Bus (The Replacements)
 18. Trailways Bus (Paul Simon)
 19. Get on the Bus (Destiny's Child)
 20. Mark on the Bus (Beasty Boys)
 21. Bus to Baton Rouge (Lucinda Williams)
 22. Bus Rider (The Guess Who)
 23. On a Bus (INXS)
 24. Slow Bus Movin' (Fishbone)
 25. If you miss me at the back of the Bus (Pete Seeger)
 26. Bus Driver (Muddy Waters)
 27. Backseat of a Greyhound Bus (Sara Evans)
 28. Kneeling Bus (Pavement)
 29. On the Bus Mall (The Decemberists)
 30. Make the Bus (Janelle Monae)
 31. Brief Bus Stop (Ani Di Franco)
 32. Bus Named Desire (Soul Asylum)
 33. Back o da Bus (Limp Bizkit)
 34. Waitin' for the bus (ZZ Top)
 35. Roll Bus Roll (Jeffrey Lewis and the Junkyard)
 36. You're crazy for taking the bus (Jonathan Richman)
 37. Bus 22 to Bethlehem (Bobby Cole)
 38. Busload of Faith (Lou Reed)
 39. Heikki's Suburbia Bus Tour (Sixto Rodriguez)
 40. Oh Susanna's Greyhound Bus
 41. Country Bus (Jack Thackray)
 42. Twenty Seven Strangers (Villagers)
 43. Venga Bus (Venga Boys)
 44. The Bus Driver Song (Flight of the Concorde)
 45. School Bus Driver (Trampled by Turtles)
- ... ■



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OVERVIEW OF THE EXHIBITORS

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3RTABLET	674	CALB GROUP CO., LTD.	7110	GDP KORAL S.R.O.	766
5M S.R.O.	909B	CAMIRA	947A	GENERAL CAB	422
A.T. INDUSTRIES	643	CAPTRON ELECTRONIC GMBH	743	GENERATION PHOENIX	829B
A&K FAHRZEUGTEILE HEIDENAU GMBH	811	CAR-BUS.NET	805B	GERFLOR	834
AB THOREB	437	CARA - EUROPEAN CLUSTER FOR MOBILITY SOLUTIONS	1137A	GEYUSHI AUTOMOTIVE INDUSTRY GAI	801A
ABB E-MOBILITY	784	CARPENTER	1137A	GI PLAST	984
ABB TRACTION	745	CARROSS'CENTER - BELGIAN BUS SALES	680	GK DRIVE SYSTEMS	918
ABC INFORMATIQUE	647	CARSPEED	1183	GLASS4WHEELS	927A
ACDEOS BV	858	CBM	754	GLAZING BUS & TRUCKS	824
ACE INGENIERIE - MEKABOY	1140A	CEGELEC MOBILITY	1137A	GOLDEN DRAGON	P1
ACTIA	409	CEMKA	405	GRAMMER AG	960
ACTICONCEPT	816A	CENTO GROUP	805C	GRANTEX	717
ADIBUS	840	CHANGZHOU HAOCHEN IMP. & EXP. CO., LTD	434	GRAYSON THERMAL SYSTEMS	638
AESYS SPA	605C	CHANGZHOU SUNLIGHT ELECTRICAL APPLIANCE CO., LTD	7106	GRL SEATS	712
AIR PRODUCTS NV	1165A	CHARGEPOINT	937	GUANGZHOU RONGSHENG TECHNOLOGY CO., LTD.	1154
ALCOLOCK	1176	CHENGDU WHASIN ANCHENG TECHNOLOGY CO. LTD.	1163A	GUCHEN	1133
ALLISON TRANSMISSION	618	CHRIST WASH SYSTEMS	942	HÜLERYÜZ	604B
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ATLAS BUS / EUROLINERS	987	DANYANG DONGGANG LAMPS LANTERNS CO., LTD.	985A	HUBER+SUHNER	1151
ATS	423	DENSO EUROPE BV	792	HÜBNER GROUP	755
AUDIOBUS SL	831	DHOLLANDIA NV	453	HÜBNER TRANSPORTATION GMBH	755
AUSON AB - NOXUDOL - MERCASOL RUSTPROTECTION & SOUND DAMPING	412	DIGITAX AUTOMOTIVE ELECTRONICS	1115	HUNAN WEILI AUTO PARTS APPLIANCE CO.,LTD	749
AUTO COOL INDUSTRIES	765	DIRILIS AUTOMOTIVE TEXTILE	1190A	HÜRSANPER OTOMOTIV	1145
AUTO-MOTION SHADE	985B	DOGA	532	IAV GMBH	964
AUTOCAR EXPO	1164A	DORAGLASS - DORA OTOMOTIV CAM SAN. VE TIC. A.Ş.	711	ICARVISIONS (SHENZHEN) TECHNOLOGY CO.,LTD.	912B
AUTOCLIMA SPA	927B	DRABPOL	413	ICON.LU	840
AUTOEQUIPS TECH CO., LTD	1138B	DUTCH ELECTRO TRANSPORT LIGHTING	650	IKARUS GROUP	903
AUTOLIFT SRL	754B	E-POWER & INPHASE	1139D	ILESBUS	707
AUTOMECANICA	604A	E-T-A ELEKTROTECHNISCHE APPARATE GMBH	773	IMAGRY	1164D
AUTOMET	945	EBERSPÄCHER SÜTRAK GMBH & CO KG	629	IMPACT CLEAN POWER TECHNOLOGY	785
AUTOMOBILITY-X APS	957	EBM-PAPST MULFINGEN GMBH & CO. KG	521	INDCAR	402A
AUTOTERM	1139B	EBUSCO	603	INGERSOLL RAND TRANSPORT SOLUTIONS	1164B
AVEURO	806	ECUTRONIC GMBH	755	INKA YAPI BAGLANTI ELEMANLARI SANAYI VE TICARET	1163B
AYATS	804	EJOIN	814C	INOVA OTOMOTIV	714
AYGERSAN	641	EKOENERGETYKA-POLSKA S.A.	843	INTAP AT SP. Z O.O. SP.K.	921
AZIMUT ELECTRONICS	433	ELINTA MOTORS	P4	INTEGRO	525
B.C.E.	514	ELLAMP SYSTEMS	808B	INTERGLASS	447
BAE SYSTEMS	630	EMİR VIP GRUP	1105B	IRIZAR	602
BAHATTIN DOGAN AUTO LOCK SYSTEMS	923A	ENGIN OTO	909A	ISRINGHAUSEN / AUNDE	799
BALLARD POWER SYSTEMS EUROPE	790	ENRX	687	IVECO BUS	402B
BARAN A.S.	780	EPENGLE	518	JAAKKO-TUOTE	861
BE-GE SEATING DIVISION	451	EPSOTECH	1137A	JBM AUTO LTD.	1102B
BEDIA MOTORENTECHNIK GMBH & CO. KG	7103A	EQUIPMAKE	610	JEMA ENERGY	653B
BEIJING SINOVIATION ELECTRIC VEHICLE TECHNOLOGY CO., LTD	961	ERA ELEKTRONIK	534	JING-JIN ELECTRIC	849
BEULAS	1108	ERDAL LABEL	880A	JIUDING NEW MATERIAL CO.,LTD.	850B
BIKELINER	823	ERDUMAN OTOMOTIV	1107	JOKON	635
BITIMEC SRL	935	ERENER DESIGN	704	JOST WERKE	1141A
BITZER	528	ERMISBUS - MERCEDES BENZ SPECIAL TRUCKS BUS PARTNER	1106	JVS ARTICULATION SYSTEM	789
BLABLAÇAR BUS	814B	ERP BILGISAYAR YAZILIM	1112	K-BUS GMBH	469
BLUEBUS	833B	ESREFKAROSER	948	KALIBRE BORU	1187
BMC AUTOMOTIVE	703	ETKA-D	439	KARADAG GRUP OTOMOBIL MOTORLU ARAÇLAR SAN. VE TIC. LTD. STI.	1110A
BMZ POLAND	452	EUROCOLVEN SAU	947	KARSAN	501
BÖDE - DIE TÜR	759B	EUROLINE	956	KEMPOWER	833A
BODE SUD S.P.A.	513	EVERISE INDUSTRIES (S.Z.) LTD	1161A	KEYES ENGINEERING	754C
BORGWARNER	523	EVERSUM MOBILITY SOLUTIONS GMBH	1103B	KIEPE ELECTRIC GMBH	1169
BRASLUX	615A	EVM LTD	805A	KING LONG	P3
BRIGADE ELECTRONICS BV	750	EVONITY BV	1111	KNEITZ / HOLMBERGS / SCHÖPF	446
BRIST AXLE SYSTEMS SRL	763	FAINSA	767	KNORR-BREMSE	1161
BSG AUTO GLASS CO.,LTD	1134B	FARHYM AUTOMOTIVE	522	KNS OTOMOTIV	807A
BSPL 1 SP. Z O.O.	651B	FARPLAS	830	KOMTELSYS REUM GMBH	880B
BUR-CAN OTOMOTIV NAK.İNŞ.İTH.İHR.SAN.TİC	1105A	FÉDÉRATION NATIONALE DES TRANSPORTS DE VOYAGEURS	852	KÖNIG KFT.	738
BURGAFLAX	769	FERQUI - NEGOBUS	1109	KONVEKTA AG	508
BURSA TRIM OTOMOTIV	735	FIAA - INTERNATIONAL FAIR OF BUS & COACH	1164E	KORMAS ELECTRIC MOTOR	419C
BUS FACTORY	801B	FILTRATION CONTROL	1179	KOTA FABRICS	408
BUS LED DISPLAY-ZHONGZHIGU	748	FINN LAMEX SAFETY GLASS OY	825	KREATE PLUS	7100
BUSSIPRO	826	FLEXIN GROUP SRL	1167B	KREISEL ELECTRIC	854
BUSTRONIC	919	FLOKSER TEKSTIL	415	KUANTUM GLASS	531
BUSWORLD	1105	FOGMAKER	512	LAM S.P.A.	890
BUSWORLD APP HELPDESK	1105	FORSEE POWER	790	LANG	651A
BUSWORLD SOUTHEAST ASIA - GEM INDONESIA	1105C	FORTAL	526	LANGZAUNER GMBH	611
BUSWORLD TÜRKİYE	1189A	FPT INDUSTRIAL S.P.A.	424	LANTAL TEXTILES	675
BUVETEX INTERNATIONAL	620B	FRANZ HARBECK GMBH	1128	LANTECH COMMUNICATIONS GLOBAL, INC.	850
BYD	705	FRANZ KIEL	758	LAZZERINI	639
C.E. NIEHOFF & CO. LTD.	612	FREEWAY®	1136B	LEMANIA ENERGY	1189F
C.F. MAIER EUROPLAST	1138C	FRENZEL COMPETENCE GMBH	7103B	LESSWIRE GMBH	808B
CAETANOBUS	810	FREUDENBERG E-POWER SYSTEMS	715	LEX & HESSE GMBH	950
		GAMA	807B		

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EUROPE BRUSSELS
7-12 OCT 2023

MAIN ENTRANCE
EXIT NORTH



PC
ASTRID HALL



- Catering
- Reception
- Vestiaire
- Toilet
- Accessible to people with disabilities
- Hotspot
- Defibrillator
- Meeting point



MAIN ENTRANCE
EXIT SOUTH





CATERING POINTS

- 1** 4 Eat Fastfood
Belgian Fries & burgers
- 2** Nina
Assortment of italian pasta & pinsa
- 3** Poule et Poulette
Chicken nuggets, chicken wings and fries, soupe tom ka kai & wrap with chicken
- 4** Pico Bello
Assortment of pasta & panini
- 5** Thai Café
Thai Specialities
- 6** Be Shop 5
Mini market with sandwiches, hot dishes, soft drinks, snacks and hot beverages
- 7** Brasserie 58
Table service 'Brasserie'
- 8** Eaters
Asian streetfood with pokéballs & banh mi
- 9** Mr. Boudin
Belgian upgrade hot-dog
- 10** Belgian Beer Bar
Belgian beers, salads, sandwiches, croques & sweets
- 11** O'6 Gin bar by Open Up Farm Distillery
Gin bar & meet stew based on gin
- 12** Dim's
Dim sums & bao
- 13** Fritkot De Corte
Belgian fries & fricandel and poulycroc
- 14** Mamy
Croque Monsieur, pancakes & cookies
- 15** Joris
Assortment of belgian artisan sweets
- 16** Hot-Dog
Hot-dog
- 17** Cocotte en scène
Fresh juices, smoothies & healthy bagels
- 18** Le Pain Quotidien
Bio sandwiches, salads, soups & sweets
- 19** Ellis Gourmet Burger
Famous burgers & fries
- 21** Be Shop 9
Mini market with sandwiches, hot dishes, soft drinks, snacks and hot beverages
- 22** Chess Catering
Self-service with pasta, salads, vol-au-vent, 1/2 chicken

Opening hours catering

07-11 OCT
10:00 until 19:00

12 OCT
10:00 until 18:00

- 23** Les délices d'Eric
Assortments of hot coffee, pancakes, waffles, sweets, sandwiches, ...
- 24** Kaffee velo
Barista, waffle & croque monsieurs
- 25** La belle liegeoise
Waffles, sweets

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OVERVIEW OF THE EXHIBITORS

LEYLAND HOSE & SILICONE SERVICES LTD	923B	REVAR AUTOMOTIVE	505	TELMA	648
LINDE	435	ROBERT BOSCH GMBH	510	TEMSA	400
LOOP ENERGY	682	RÖCHLING INDUSTRIAL SE & CO. KG	693	TEQ SA	941
LUMINATOR TECHNOLOGY GROUP	438	ROŠERO	202	TEZPAR BUS SPARE PARTS LTD.	652A
LUMIPLAN	428	ROSHO AUTOMOTIVE SOLUTIONS GMBH	1138A	THE GAME EXPERIENCE	1189D
M.S.R. OTOMOTIV	713	ROTA / NSK OTOMOTIV	614B	THE PICTURE EXPERIENCE	1189B
MAFELEC	530	ROTAREX FIRETEC	1185	THERMO KING	426
MAFLOW BRS S.R.L.	940	RPS S.R.L.	906	THERMOBUS S.R.L.	808B
MAGNA POWERTRAIN ENGINEERING CENTER STEYR	814A	RUD SAVOIE CHAINES	856	TM TEKNIK OTOMOTIV EKIPMANLARI LTD. STI	519
MAGNETIC NORTH	683	RUPF INDUSTRIES	1146	TONGDA	920
MAKERSAN	731A	RUSPA	467	TOTT UP	1114
MAN TRUCK & BUS	401	SAFE - T-PUNCH™	851	TRAMMUSEUM BRUSSELS	803
MARCOPOLO S.A.	702	SAFETY TECH, A GAUZY COMPANY	636	TREMONIA MOBILITY	419A
MASATS	507	SAFRA	955	TRIBUS GROUP	944
MATTEI GROUP	535	SAINT GOBAIN	760B	TRONTEQ	853
MAYSER GMBH & CO. KG	742	SAINT JEAN INDUSTRIES	1137A	TRUST FOR ENGINEERING INDUSTRIES	1189
MCF SAFETY BELTS SRL	739	SAND PROFILE	788	TSL-ESCHA	530
MCV	601	SANEL AUTO ELECTRONIC	442	TWILINER AG	227
MCY TECHNOLOGY LIMITED	733	SANZ CLIMA	516	UEG TEKSTIL	445
MEKRA LANG	533	SAR TEKNIK OTO YAN SANAYI	798	UGURLU GLASS	768
MELLOR	505A	SBRS - A MEMBER OF THE SHELL GROUP	605D	UNICLA INTERNATIONAL LIMITED	769
MERCUS	708	SCALABROS	911	UNIVERSALS	701B
METATRONIX	410	SCANIA	404	UNVI	470
MEYIS AUTOMOTIVE	828	SCHNIELE SEATING SYSTEMS	509	UPIC SA	7104B
MINGSHANG TECHNOLOGY CO., LTD.	1139C	SCHUNK TRANSIT SYSTEMS	686	UYGUNER	429
MITS AUTOMOTIVE	649	SEFAC	913	V. S.E. VEHICLE SYSTEMS ENGINEERING B.V.	755
MMI SP. Z O.O.	759A	SEGE SEAT	444	VA-Q-TEC AG	1167A
MOBILE CONTROL SYSTEMS	623	SEREM OTOMOTIV	925	VAGBUS ROMANIA	954
MOLPIR	688,691	SETCOM	746	VALEO THERMAL COMMERCIAL VEHICLES	609
MOVON	690	SEVIM AUTO GLASS CO.LTD.	529	VAN DAMME	892
MRS ELECTRONIC	1188	SFB OTOMOTIV	979	VAN HOOL	504
NAILI CO., LTD	1166	SGUINZI PIETRO	947B	VANSTAR	736
NANJING AE SYSTEM TECHNOLOGY	1161C	SHANGHAI HIGHLY NEW ENERGY TECHNOLOGY CO., LTD.	1103D	VDL BUS & COACH	605
NAVAHO TECHNOLOGIES	689	SHEKONIC COMPOSITES	1148	VEHICLE SECURITY SYSTEMS EUROPE LTD.	812
NET FLOOR COVERINGS	1191	SHENZHEN INDUSTRIAL MAN PRODUCT RP& M CO.,LTD	1163C	VEHTEC	839
NINGBO MEIXING AUTOSHADOW CO., LTD	963	SHENZHEN SINEXCEL ELECTRIC CO.,LTD.	891	VELDO	7102
NINKASI	776B	SHENZHEN VIEWTECH ELECTRONIC TECHNOLOGY CO., LTD.	1180	VENTURA SYSTEMS	628
NISO TECH AB	924	SHIP-CAR SRL	929	VIDURGLASS	654
NPT SRL	7105	SIEMENS AG	760A	VIGNAL SESALY	616
NSS NEW SIGN SOLUTIONS	818	SINALSUL	622	VISCOUNT VEHICLE & SPORTING GOODS (KUNSHAN) CO., LTD	1170
OCTILLION POWER SYSTEMS, INC	1164C	SINO-SYNERGY HYDROGEN ENERGY TECHNOLOGY (JIAXING) CO., LTD	702	VKM PLASTIK	732
OE INDUSTRY	981	SISTEM ALUMINUM	842	VOGELSITZE	517
OES-LINE (OMNIBUS ELEKTRONIKS & SERVICE GMBH)	838B	ŠKODA GROUP	802	VOITH	520
OFFICINE MARIO DORIN SPA	536	SKYAUTONET	1184C	WAVECOM	1181
OFOLUX	838A	SMART EYE AB	1149B	WEBASTO	7113
OLIMPIA AUTO GLASS	653A	SOLARBUS.PRO - PART OF GREEN ENERGY / MIPV.PRO	425	WENZHO NO. 2 AUTOMOBILE ACCESSORIES FACTORY	1129
OMR OMNIBUSHANDEL MARIO RÖTTGEN GMBH	761	SOLARIS BUS & COACH SP. Z O.O.	502	WIDENSENSE	1184A
ONWAY AG	418	SONGZ	741	WIEJELO EQUIPMENT	978
OPTIBUS	816B	SONO MOTORS GMBH	1163D	WIGAM SPA	914
ORIONDERI LTD	621	SPAL AUTOMOTIVE	511	WOLF OIL CORPORATION	801A
ORTAKCI GLASS	642	STALATUBE	837	WOLFTANK GROUP	841
ORTEM ELEKTRONIK A.Ş.	710	STARGLASS	822	WORTHINGTON INDUSTRIES	1141B
OTM PLASTIK	835	STER GROUP	1143	WUXI HONGYU AUTO-PARTS MANUFACTURING CO., LTD.	808B
OTO NUMUNE OTOMOTIV	910	STILLA PASSENGER SEAT	819	XIAMEN HARINE TECHNOLOGY CORPORATION LIMITED	1153A
OTOKAR	505B	STONERIDGE ORLACO	644	XIAMEN LENZ COMMUNICATION CO., LTD.	829D
OTOTRIM OTOMOTIV	454	STONKAM CO., LTD	632	YEŞİLOVA HOLDING	1147
OTTOMOTIVE	710	STRABAG INFRASTRUCTURE & SAFETY SOLUTIONS GMBH	737	YILKAR KLIMA	615B
OZGUR KABLO A.S	684	STREAMAX EUROPE	471	YUANHUA AUTO PARTS	1149A
OZLIDER A.S.	7101	STYL'MONDE	1137A	YUTONG	901
OZTEKNIK	731C	STYLEBUS & GURSOZLER AUTOMOTIVE	943	ZENITH GRAPHICS	417
PACIFIC TUR	800	SUAT OTOCAM	731B	ZENOBE	908
PAILTON ENGINEERING LTD	936	SUPERLEE CORPORATION	958	ZEROVA EUROPE BV	692
PALAZ SAFETY BELTS	1150	SUSTAINABLE BUS / VADO E TORNO EDIZIONI	1105F	ZF FRIEDRICHSHAFEN AG	537
PALMIYE DESIGN	1140C	SYMBIO	965	ZHEJIANG KELI VEHICLE CONTROL SYSTEM CO.,LTD	1153B
PAS	808B	SYSTEMY AUTOBUSOWE GROUP	754C	ZHEJIANG CHUANGLI AUTOMOTIVE AIR CONDITIONER CO.,LTD	1184B
PASSENGER LIFT SOLUTIONS	858	TAIPALE AUTOMOTIVE LTD	813	ZHEJIANG GROUPSTAR AUTOMOTIVE LAMP CO., LTD.	1134A
PAYEPLAST	922	TAM EUROPE	701A	ZHEJIANG LEILI AUTO PARTS CO., LTD	7104C
PEI MOBILITY BRAND OF P.E.I. SRL	676	TAMWARE	829C	ZHEJIANG LINRUI AUTO ELECTRIC CO., LTD	1130
PEI TEL COMMUNICATIONS	747	TARKETT	7107	ZHEJIANG PANGOOD POWER TECHNOLOGY CO., LTD.	1105E
PERINFO	436	TEKAYDINLAR MINIBUS DESIGN	951	ZHENGZHOU JINGYIDA AUTO PARTS CO., LTD	905
PHATHA	1164	TEKNIK MAKINA & TEKNIK GLASS	793	ZHENGZHOU KELIN MOTOR VEHICLE AIR CONDITIONING CO., LTD.	770
PHOENIX CONTACT E-MOBILITY GMBH	718	TEKNOWARE	832	ZHONGTONG BUS HOLDING CO., LTD.	1103A
PI LABS GMBH	1132B	TELD	1163		
PILKINGTON AUTOMOTIVE FINLAND	836				
PILOT SEATING	450				
PINET INDUSTRIE	1177				
PLASTEN OTOMOTIV	1178				
PLASTIC OMNIUM	952				
PLASTOFORM D.O.O.	1140B				
POLARIS ELEKTRONIK	671				
POLITECNICA 80	1139A				
POLITECNICA SEAT TECHNOLOGY	524				
PRETTL ELECTRONICS HUNGARY KFT.	808B				
PRIMA INDUSTRIES	515				
PROTECFIRE / A-EX	1161D				
PURPLAST OTOMOTIV	670				
PVI	949				
PYSAE	1189E				
QUANXING MACHINING GROUP CO., LTD.	1161B				
RAAL	782				
RAIFOGULLARI	776A				
RAMPINI CARLO SPA	606A				
RAUWERS	716				
REFIRE EUROPE	1163E				
REFU DRIVE GMBH	808B				



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Otokar featuring four new models

Otokar is growing steadily in Europe, their largest export market, and displays four new models and innovative services at Busworld.

Otokar also presents its telematics system BusMonitor and EV charging solutions.

When it comes to public transport buses, the new KENT C HYDROGEN steals the show. This 12-metre-long city bus seats up to 82 passengers. The newcomer stands out for its highly secure and lightweight Type-IV (carbon-reinforced structure) hydrogen storage tanks placed on the roof of the vehicle. With a hydrogen storage capacity of around 1,600 litres and 38 kg, refuelling is done in less than 10 minutes and it offers a driving range of over 500 km.

The Otokar Territo, which attracts carriers with its high passenger capacity (up to 63 passengers) and large luggage space, is now electrified. With a length of 13 metres, the e-TERRITO is designed to meet a wide range of applications and is distinguished by its optimal range, high performance, zero emissions, versatility and independent front suspension. Up to 15 battery packs can be provided for a combined 450 kWh. The central drive motor is a powerful 410 kW Voith. The energy supply is provided by lithium iron phosphate batteries. The battery modules are installed at the bottom of the bus to achieve a low centre of gravity, allowing for better road handling.

The smallest model is the 6.60 m e-CENTRO, which can also be equipped as a level 4 autonomous driving vehicle, i.e. without a driver. In car park C, demo rides with this car are offered. Thanks to its high-tech equipment, the vehicle can determine its position on the road in the most optimal way, taking into account current information on the road situ-

ation. The autonomous e-CENTRO offers an uninterrupted transport experience at any time of the day, regardless of whether the weather is sunny or rainy. The autonomous e-CENTRO promises a comfortable ride and can accurately stop at stops. This bus can also self-manage stop and travel times and navigates smoothly at intersections and roundabouts. It slows down at speed bumps and pedestrian crossings and also gives pedestrians priority. It comes with advanced hill performance. The autonomous e-CENTRO, can follow the vehicle ahead at the safe distance from other vehicles, can detect potential hazards while driving and quickly perform emergency braking or evasive manoeuvres. Meanwhile, as an all-electric van, it does not disturb passengers or the environment.

Otokar has traditionally been performing strongly in the small tourism vehicle market. Two of them are on the stand. The revamped Navigo T, with a length of 8,400 mm, accommodates up to 35 people. The Cummins ISBe 4.5 delivers 151 kW (210 hp) with 832 Nm of torque and is coupled to a 9-speed Allison automatic transmission. The NAVIGO has gained the attention of European operators and achieved great success in the market for compact coaches. The NAVIGO, which had its front end completely changed, now features more dynamic and sharp lines. The interior of the bus has also been redesigned. The new dashboard is now more user-friendly and aesthetically pleasing.

The brand new, larger Ulyso T is a completely redesigned touring car and ideal for one-day excursions and short trips. The 10.10-metre-long coach offers 5.5m³ of luggage space and can carry up to 43 passengers in comfort. Here, the Cummins ISBe 6.7 is the power source delivering up to 233 kW (320 hp). The six-speed ZF Ecolife automatic transmission trans-



Ulyso T.

fers torque of 1,182 Nm to the drive wheels. This vehicle guarantees low operating costs and versatility.

BUSMONITOR: OTOKAR'S TELEMATICS SYSTEM

Preventive maintenance is crucial for fleets to streamline their operations. Operators would greatly benefit from integrating predictive maintenance systems and technologies into their business processes. In order to meet the needs of operators, Otokar has developed its BusMonitor telematics system. Visitors to the Otokar stand at Busworld can receive detailed information and watch a demo of the system used in the BRT line in Istanbul.

BusMonitor enables real-time monitoring of fleet performance with a user-friendly interface. It detects anomalies of all vehicle types by defining alarm limits for the data obtained from the Canbus line, regardless of manufacturer.

While it communicates information about the vehicle's location, speed, range and engine performance, BusMonitor also provides route history and fault codes. Thanks to the flexibility of the system, customers can track the performance of both their assets and drivers through customisable reports. The Turkish company Otokar exhibits 7 buses from its range of city and regional buses at Busworld Europe. ■

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Pilot Seatings, the reference for seating furniture

Pilot Seatings is a company based in Turkey. Established in 1963, they produce interior parts for coaches and buses. In 1967, they produced driver seats for Mercedes.

Nowadays, they produce seats for all types of activities: driver seats for coaches, for construction vehicles, for agricultural machinery, passenger seats, seats for the navy and also for railways.

These seats stand out for their finish. They can be upholstered in leather or fabric, or a combination of both. The back of the seat features a newspaper basket and a table for the passenger. There is also a footrest.

The passenger seats are equipped with the latest safety features. They have a modern design and provide maximum safety and comfort for passengers.

They are all equipped with 3-point safety belts. The seats can be adjusted backwards for a more relaxed position.

There is also a line of seats for buses. They are ergonomically designed especially for urban transport, with a very light specific weight. The seat covers can be easily taken off and refitted if necessary. They are also protected against vandalism (scratches, graffiti).

The driver's seat is equipped with the latest safety features. The seat comes with all possible adjustments for driver comfort: air suspension with weight adjustment, seat adjustment, backrest adjustment, lumbar support adjustment, three-point belt, etc.

The seat is also equipped with a microphone connected to the bus's entertainment system, which allows the driver to communicate with passengers.

In a nutshell, a manufacturer that will certainly be found in many passenger transport production facilities. ■



The 360-degree charging solution to electrify your bus fleet

ABB E-mobility knows the importance of flexibility to bus operators, especially as they attempt to navigate rapidly evolving fleet and infrastructure requirements. That's why our new HVC360 power cabinet offers not just best-in-class power density, but smart energy management too. Intuitive and robust, it ensures a seamless end-user experience and integrates hassle-free into existing infrastructure.

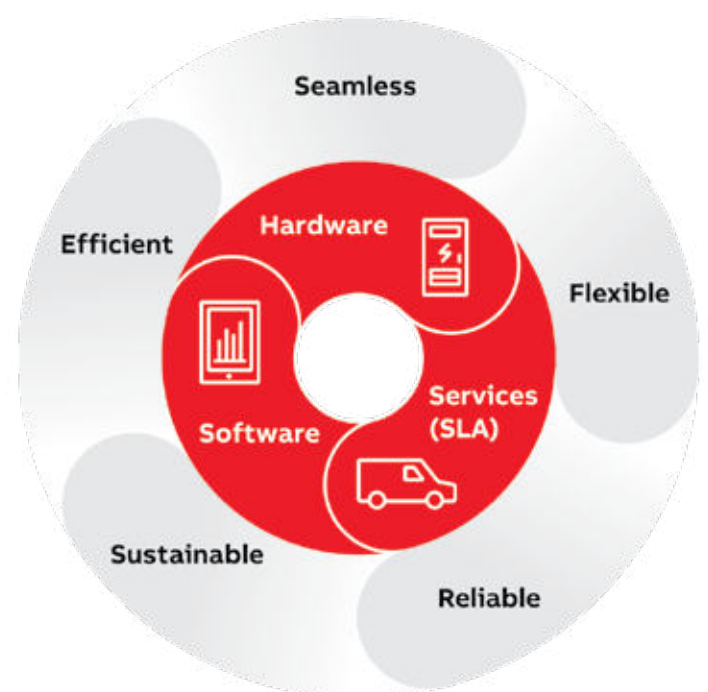
Compatible with both CCS and pantographs, HVC360's cutting-edge design allows the installation of dispensers up to 150m from the power cabinet itself and supports up to four outlets at once. The solution is configurable, scalable and upgradeable, perfectly meeting the individual challenges of fleet and depot electrification.

But ABB E-mobility's 360-degree solution is about more than just hardware. Backed up by a 97% up-time commitment with industry-leading service as well as smart software solutions, the HVC360 covers every element of the transition to electric mobility.

Simple integration with existing business tools, automated charge planning, and real-time monitoring all help to ensure a smooth transition to e-bus operation, while technology including real-time emissions reduction reporting and proactive service monitoring promotes sustainability and reliability.

Visit us on the ABB E-mobility stand in Hall 7, Booth 784 to learn more.

ABB



HALL 7 | BOOTH 784

Hispacold presents new innovative products

Hispacold is presenting at Busworld in hall 5, stand 509, a new CO2 HVAC unit, and a predictive maintenance system that is based on artificial intelligence. In 2022 Hispacold achieved €54 million in sales and says it is returning to pre-pandemic revenue levels.

The electric eBreeze HVAC consists of two systems which have a reversible heat pump for producing cold and heat and an air renewal system that allows them to work with 100% fresh air. Available in multiple configurations, the e-Breeze systems reduce weight by more than 20% compared to previous Hispacold electric ranges, and they require 40% less refrigerant gas charge than previous ranges, as the Spanish company announces. The B100 CO2 unit, a new design of the environmentally friendly CO2 HVAC system for buses uses this natural refrigerant. Also it presents its range of NetIOs control panels to the sector and the Thermion range of BTMS units (battery thermal man-

agement system) which allow the battery temperature to be maintained within the optimal operational range. On the Hispacold stand it will also be possible to see the new, smaller version of the air purifier, the mini eco3, which can treat up to 8 m3 of air, and is therefore particularly suitable for treating the volume of air around the driver of a bus, ambulance, or public service vehicle.

Then there is Signum: a new predictive maintenance and efficiency system based on artificial intelligence. The Signum project aims to develop a smart system that is based on two complementary goals: to generate a maintenance system that can anticipate when a technical intervention is really necessary for a vehicle, before a breakdown occurs, in order to reduce costs and intervention times. On the other hand, the energy optimization of the operation of air conditioning equipment reduces operational costs. Besides at the new products Hispacold is celebrating this



Busworld a special jubilee. Purchasing Manager Maribel Ceballos is 45 years at Hispacold. Not only that, she also was the very first woman to be hired in the factory. She started working as management secretary, and after that in logistics, planning, sales and

for the last 20 years she has been in charge of purchasing. In those days it was uncommon to have women working in factories or in the bus sector. Besides this, she has been part of the Busworld history for 20 years. ■

Hall 4, stand 402b



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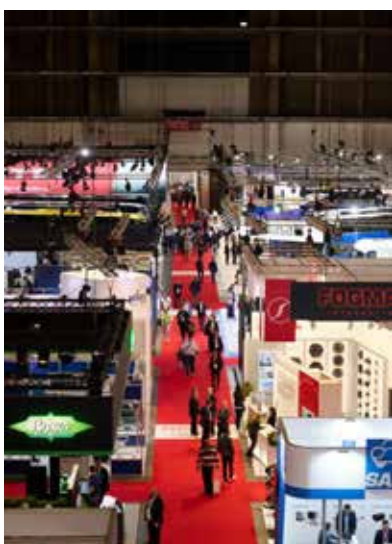
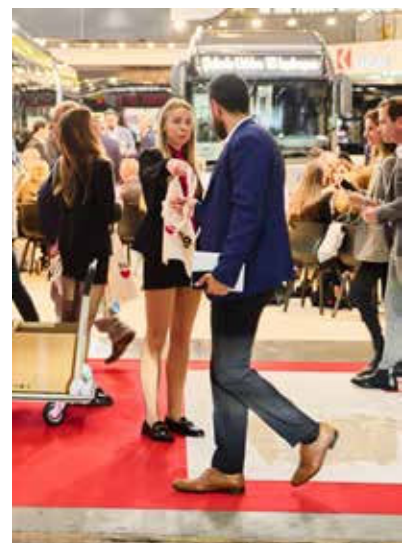


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Minister at Van Hool

Flemish Mobility Minister Lydia Peeters, ceo Filip Van Hool and Busworld and president Redgy Deschacht proudly pose in front of the Van Hool A12 BE, the electric city bus of which transport company De Lijn bought 36 units.

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Brazil present at BUSWORLD with Marcopolo

Marcopolo, Brazil's leading designer of mobility solutions and one of the largest in the world, is reinforcing its presence on the international market by participating in Busworld Europe.

On a 500 sq m stand, the brand, which is already present in a large part of the global market, will display two major projects: the Marcopolo G8, the company's new generation of road vehicles, and a model powered by a hydrogen fuel cell. The strategy is to emphasise the company's progress in the mobility segment and offer competitive advantages such as the combination of renowned Brazilian design and global technology, as well as the high level of quality and sophistication of its products, the result of expertise acquired in countries such as South Africa, Argentina, Australia, China, Colombia and Mexico, in addition to Brazil.

"The Audace fuel cell, produced at our factory in China, illustrates our expertise in developing zero- or low-

emission solutions. This design reinforces our global presence, with production units and development centres in different parts of the world," explains André Armaganijan, CEO of Marcopolo.

The stand showcased a bus powered by the Audace 1050 fuel cell. Manufactured in collaboration with Sinosynergy and Allenbus, this bus features the latest technologies in terms of pollutant emission reduction, safety, comfort and efficiency. The bus is capable of carrying 53 passengers over a distance of 600 km. The vehicle is equipped with a Danfoss permanent magnet synchronous motor with a rated power of 140 kW (222 kW peak) and a rated torque of 495/720 Nm. The bus is also equipped with two 160 kW Sinosynergy G80-001 fuel cells, four 350-bar Type 4 hydrogen tanks and a water-cooling system with four CATL, LiFeO (lithium-iron) storage batteries, as well as 423 kWh (600 km) lithium-ion batteries.

In addition to the marketing expertise accumulated over 74 years - more than 60 years of presence in the international market, with activities in more than 100 countries - Marcopolo is constantly investing in innovation, technology, production optimisation

and engineering management in all its plants. As a result, the company has become much more flexible and efficient, able to develop and produce road and city bus models to meet any requirement. ■



Marcopolo.