

AVENUE ELECTRON



TEMSA
Smart Mobility



NEXT GENERATION IN ELECTRO-MOBILITY

THE FUTURE OF TRANSPORTATION IS IN OUR HANDS

“Throughout our journey since 1968, we have always depended on our ‘raison d’être,’ moving forward with an innovative and enterprising spirit.”

With more than 50 years of experience, we constantly seek to go above and beyond existing offerings and deliver an innovative understanding in how we do transportation. Today, at our 137-acre plant, we produce 4,000 buses and midibuses and 6,000 light-duty trucks - a total of 10,000 vehicles per year - on a single-shift basis. In 66 countries around the globe, our products continue to stand out as representatives of the transformation we initiated.

Armed with the “Smart Mobility” vision, we are proud to lead the way in digitizing mass transit operations. Each year we allocate approximately 5% of our turnover to R&D to design next-gen mobility solutions for tomorrow, based on our wide range of products that cover all segments of bus transportation, and proceed with substantial pace towards a better future based on our Smart Mobility vision to shape the future.

**WE DERIVE OUR
STRENGTH FROM
TECHNOLOGY**



TEMSA'S BUSINESS PERSPECTIVE: TEMSA TECH

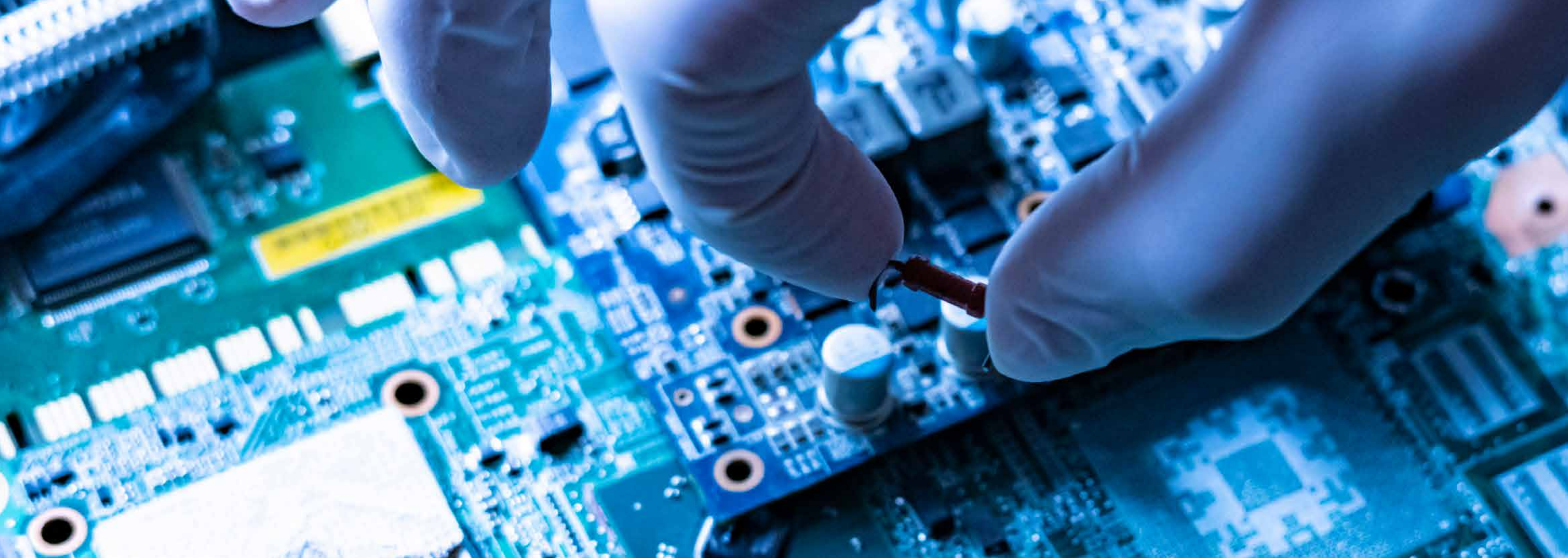
“We are determined to develop smart and sustainable mobility solutions in line with future trends, in order to offer pleasant journeys to passengers.

The importance we place on R&D allows us to offer a wide variety of high-tech products to our customers.

Our mission is to become a “tech firm” in addition to being a transportation firm.

Our brand’s guiding vision is to never settle for what is available and to always seek more; to never give up on production, improvement, development, and experimentation, all the while contributing to humanity and the world.

For we are well aware that those who do not settle for less are the ones that lead.



THE FUTURE OF MOBILITY: THE AVENUE ELECTRON

The Avenue Electron is a TEMSA Tech product designed to take transportation to the next level. With a travelling range up to 350 km, this silent and ultra-comfortable coach is ready to hit the road.

Order your Avenue Electron now and get ready for the mobility of the future.





A HUMAN-CENTRED APPROACH

For TEMSA, 'Connectivity' is not just about technology. The Avenue Electron is designed with the smart city vision of the future in mind and with a human-centred approach.

Its 360-degree wide windows make sure that passengers can take in their surroundings for a comfortable journey.

The Avenue Electron's environmentally friendly performance ensures zero noise and zero emissions, so it meets the environmental needs of smart

cities. Its 'Driving Pedal' single pedal drive increases the coach's range by 15% while saving electricity, while brake energy recovery up to a rate of 44% ensures a higher level of efficiency.

Batteries with 240 kW, 300 kW and 360 kW options, and the Battery Management System – designed by TEMSA Tech – offer a travelling range up to 350 km. All of these features help you achieve your desired travelling distance, and also ensure that the Avenue Electron performs in an energy-saving way.

As well as being high-performing, the Avenue Electron is also easy to maintain, as well as having a reasonable total purchase cost. Thanks to the direct transmission of engine power to the axle shaft and a structure that doesn't require a separate transmission, the Avenue Electron has significantly lower maintenance costs than its competitors.



BEAUTY IN THE DETAILS

The Avenue Electron is designed to be the vehicle of choice in smart cities. Its impressive design includes LED headlights framed in black on the front mask, and bold, powerful lines going all the way down to the bumper. The lines running along

either side of the coach separate the living space of the Avenue Electron, and the wider windows give passengers a great view of the city.

The striking piano black sections surrounding the vehicle contribute to

its captivating 360 overview. At the rear, the lines create a V shape, giving the brake lights and bumper a harmonious look, for the perfect finishing touch.





THE PLACE WHERE UNIQUE EXPERIENCES BEGIN

The Avenue Electron is designed with advanced technologies in order to offer unique experiences.

Its 'Driving Pedal' single pedal drive technology saves energy to increase the travelling distance by up to 15% and also makes the driving experience easier.

Drivers can customize the content of the multifunctional digital dashboard for their convenience. They can also use it to keep track of all details about the journey and the condition of the vehicle.

The dashboard is designed to offer a variety of crucial information during the journey, including speed and engine rpm, kilometres, battery voltage, external temperature and time needed to fully recharge the battery.

With its enhanced design, the Avenue Electron's electro hydraulic steering wheel provides greater user comfort. It offers maximum softness when the vehicle is stationary or manoeuvring and gets harder as the speed of the vehicle increases, for a

more comfortable and safe driving experience. Unlike conventional hydraulic steering wheels, the electro hydraulic steering wheel is not powered from the engine of the vehicle and the oil pump functions with electricity, so they only operate during steering, in order to save on power.



Driving Pedal



Cockpit



Air Conditioner Settings



Electro Hydraulic Steering Wheel and Digital Dashboard

TIME TO ENJOY NEW EXPERIENCES.

The Avenue Electron's interior design features also ensure new experiences for passengers.

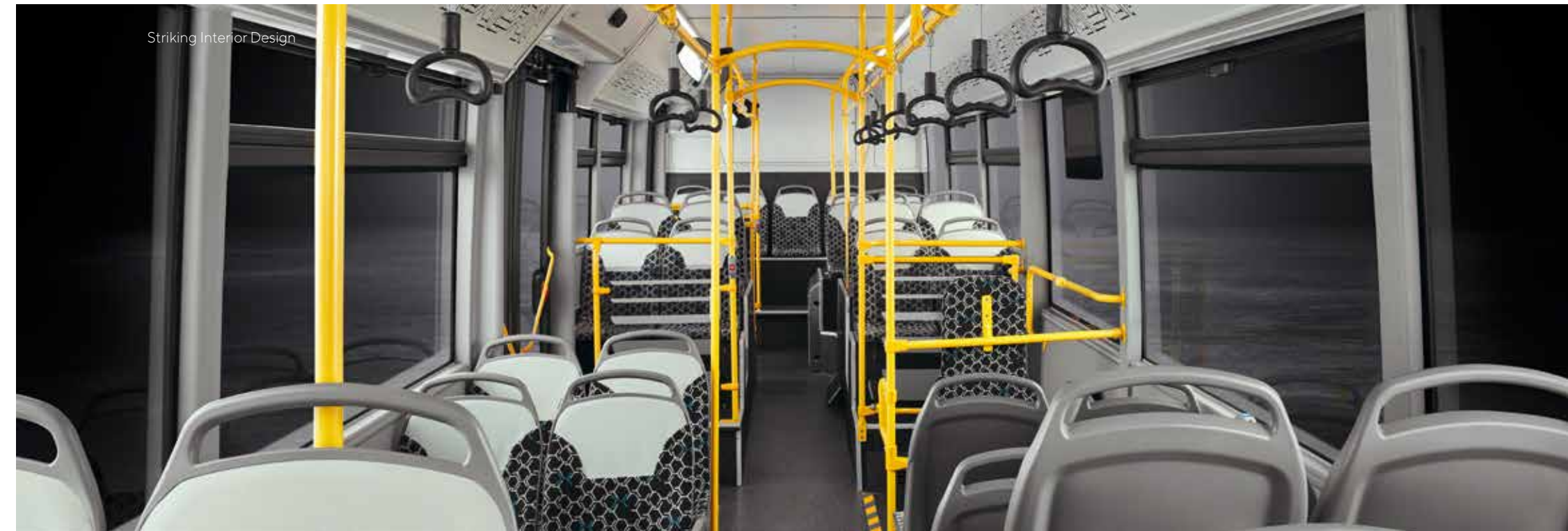
Users can access all relevant information easily on the multifunctional information displays. The fact that the information displays can be customized shows the importance we attach to users.

Depending on the number of seats (ranging between 31 and 35), the number of standing passengers

can be adjusted in line with your requirements.

The 37 kW air conditioner keeps the interior of the vehicle cool and fresh even in the hottest weather conditions. A 30 kW air conditioner is available as an option, as is a 22 kW one for cooler weather conditions. Additional heater options keep the vehicle at the desired temperature even in the coolest weather conditions

A Video Recording System and IP Cameras ensure maximum safety for the driver and passengers. Cameras placed at the front, rear and middle sections of the Avenue Electron make sure that images can be monitored by the driver instantly, or at a later stage, as they are recorded.



MAXIMUM EFFICIENCY, MAXIMUM PERFORMANCE

The silent and environmentally friendly Avenue Electron is now ready to hit the road.

Thanks to its 3-phase x 3 efficient permanent magnet and electrical

engine and emission values, it performs in an environmentally friendly way by consuming less power. Its 2,700 Nm @ 200 rpm engine generates 250 kW of power for a truly maximized driving experience.

Its lower engine noise helps to reduce noise levels in the city while offering passengers a comfortable and peaceful journey.



MEET AVENUE ELECTRON WITH ITS ENHANCED SAFETY SYSTEMS

The most comfortable journeys begin with a safe driving experience.

The Avenue Electron incorporates a number of safety systems to provide the highest level of support.

Anti-Slip Regulation (ASR) is developed to prevent loss of traction on the wheels. The ASR system helps the driver to prevent skidding, thereby allowing the vehicle to start moving even in difficult driving conditions. It also enhances driving

safety on slippery surfaces, and prevents excessive wear of the tyres.

The Electronic Braking System (EBS) provides an optimized level of control when braking. It is integrated into an electronic system that combines the brake control system, ABS and ASR. It produces better results in shorter braking distances, and leads to lower levels of disc wear.

The Electronic Stability System (ESP) helps to protect your vehicle from the negative effects of difficult road conditions. It manages the engine's operating system, and provides a different level of traction on each wheel. Combined with different braking power for individual wheels, this provides the optimum level of traction with the road and prevents loss of control in the event of sudden steering interventions and sharp cornering.



THE AVENUE ELECTRON OFFERS YOU A RANGE OF OPTIONS

The Avenue Electron is ready and waiting with various seating capacities.



12 m

Seating capacity

31



12 m

Seating capacity

33



12 m

Seating capacity

35



TECHNICAL SPECIFICATIONS

DIMENSIONS AND WEIGHTS

Length.....	12.095mm
Width.....	2.550 mm
Height (incl. air conditioner).....	3.237 mm
Floor-To-Ceiling Height.....	Front: 2.424 mm / Rear: 2.389 mm
Wheelbase.....	5.805 mm
Front Overhang.....	2.757 mm
Rear Overhang.....	3.533 mm
Turning Diameter.....	20.950 mm
Approach Angle.....	7°

POWER

Type.....	TM4, 3 Phase x 3, High Efficient Permanent Magnet Motor
Motor Power.....	250kW
Torque.....	2700 Nm
Gradeability.....	18%

BATTERY

Type.....	Li-Ion NMC - 360 kWh
Charging System.....	CCS Type 2
Charging Time.....	3 hours with 150 kWh DC Charger
.....	4,5 hours with 90 kWh DC Charger
Range.....	Up to 350 km
Location.....	Roof

AXLES

Front Axle Type.....	Independent
Front Axle Capacity.....	8.200 kg
Rear Axle Type.....	Rigid
Rear Axle Capacity.....	13.000 kg
Differential Ratio.....	7.36

RIMS & TIRES

Rim.....	8,25 x 22,5
Tire.....	275/70 R22.5

ELECTRICAL SYSTEM

System Voltage.....	24 V
Battery.....	2 x 12 V 240 Ah

STEERING WHEEL

Electro Hydraulic Steering.....	Standard
Steering Wheel Tilt and Telescopic.....	Standard

BRAKES

Service Brake.....	Standard
Parking Brake.....	Standard
ASR (Anti-Slip Regulation).....	Standard
EBS (Electronic Braking System).....	Standard

INTERIOR

Handle, Dashboard.....	Standard
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EXTERIOR AND BODY

Body Lifting.....	Standard
Body Kneeling.....	Standard
Body Side Kneeling.....	Standard
Opaque-White Exterior Colour.....	Standard
Metallic Exterior Colour.....	Optional

DRIVER'S AREA

Sunvisor.....	Standard
Interior Mirror for Driver.....	Standard
Sliding Front Heated Driver Window.....	Standard
3 Point Safety Belt for Driver Seat.....	Standard
Left Armrest for Driver Seat.....	Optional
Right Armrest for Driver Seat.....	Optional

SECURITY

ESP (Electronic Stability Programme).....	Standard
Safety Hammers.....	Standard
Low Voltage Warning.....	Standard
Fire Extinguisher.....	Standard
Temporary Bus Stop.....	Standard
Circuit Separator on Battery.....	Standard

WINDOWS AND CLIMATIZATION

Double Glazed Side Windows.....	Standard
Air Conditioner.....	Standard
Preheater.....	Standard
Driver's Defroster.....	Standard

ELECTRONIC EQUIPMENTS

Monitor.....	Optional
Wifi.....	Optional
Reverse Gear Buzzer.....	Standard
Rear Parking Sensor.....	Optional
Electrically Adjustable Exterior Mirrors.....	Standard
Front Destination Plates.....	Standard
Video Record System.....	Optional

OTHER EQUIPMENTS

Fog Lights.....	Standard
Random Coded Lock.....	Standard
Electrical Horn.....	Standard
Ticket Machine Preparation.....	Standard
Manual Ramp.....	Standard



TOGETHER

TEMSA continues to partner with
you anytime and anywhere...

**FOR THE
ROAD AHEAD**



RAPID SERVICE APPOINTMENTS TO SAVE TIME

You won't have to waste time that should be dedicated to work, as your vehicle is designed to offer maximum performance to generate valuable income. Make your appointment before visiting TEMSA's Authorised Service Centres and save valuable time.



ALWAYS BRAND NEW, WITH WARRANTY COVERAGE AND REGULAR MAINTENANCE

Let us take care of your vehicle with the help of advanced technology and the highly qualified service technicians while you enjoy the vehicle's performance and warranty coverage.



UNINTERRUPTED SERVICE WITH GENUINE PARTS

Our logistics services provide you the high-quality parts you need, anywhere around the globe.

We provide you a wide range of genuine parts at 2 TEMSA Spare Parts logistic centres in Germany and USA with main warehouse in Turkey where we can deliver the right parts at the right price and right time. TEMSA Spare Parts team serves 32 different countries. Wherever you may be, the spare parts you need will be brought to you quickly.



QUALITY IS OUR PRIORITY

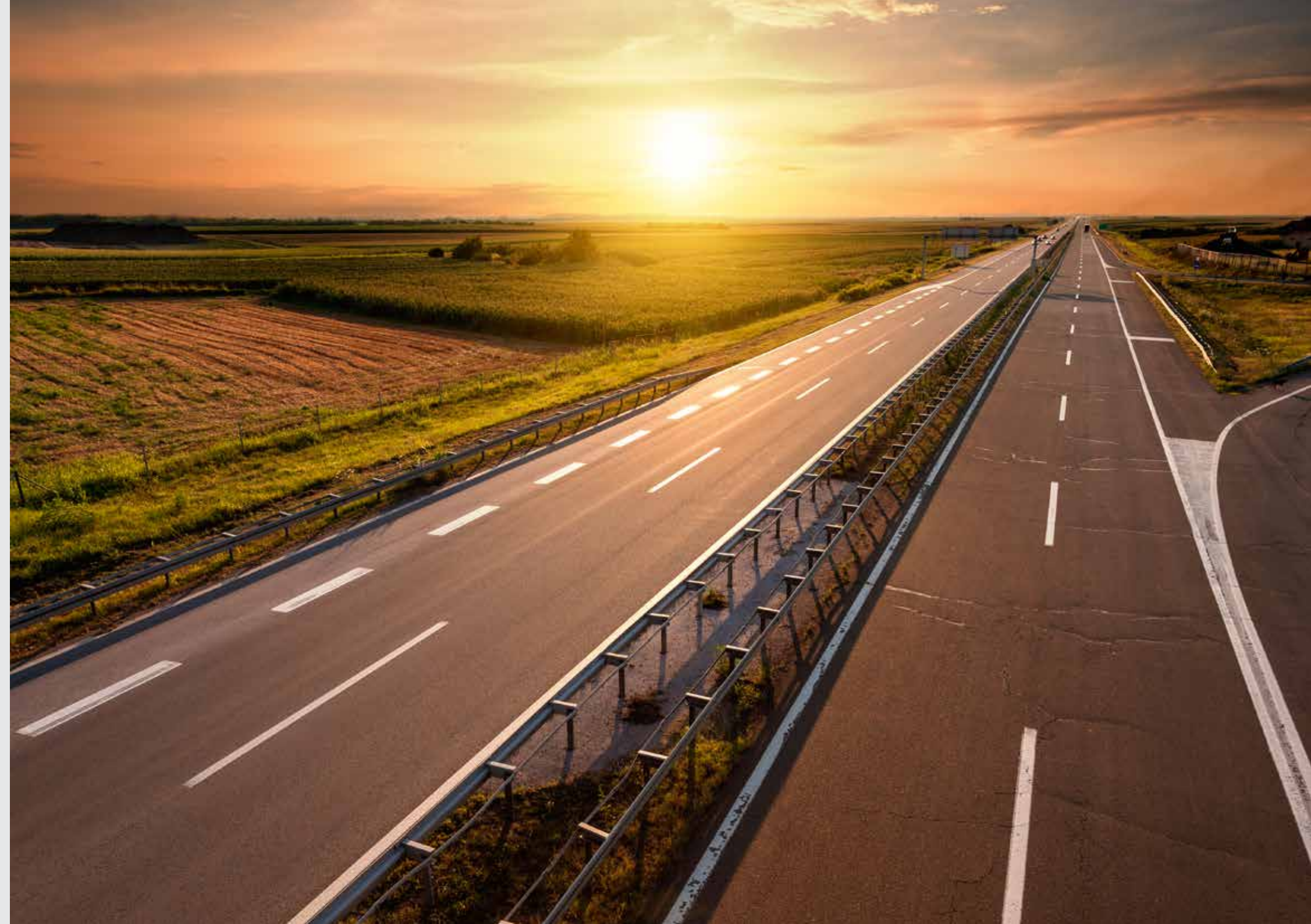
Quality and availability are crucial for us. TEMSA Spare Parts teams diligently apply quality control, classification and inventory management processes for 87,000 spare part items.



WE ARE THERE FOR YOU UNDER ANY CIRCUMSTANCES

With TEMSA's European Road Assistance Service,
we are there for you, anywhere, anytime.
Our professional assistance team accessible 7/24 is
ready to deliver quick and efficient solutions.

+31 546 543 295







TEMSA
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