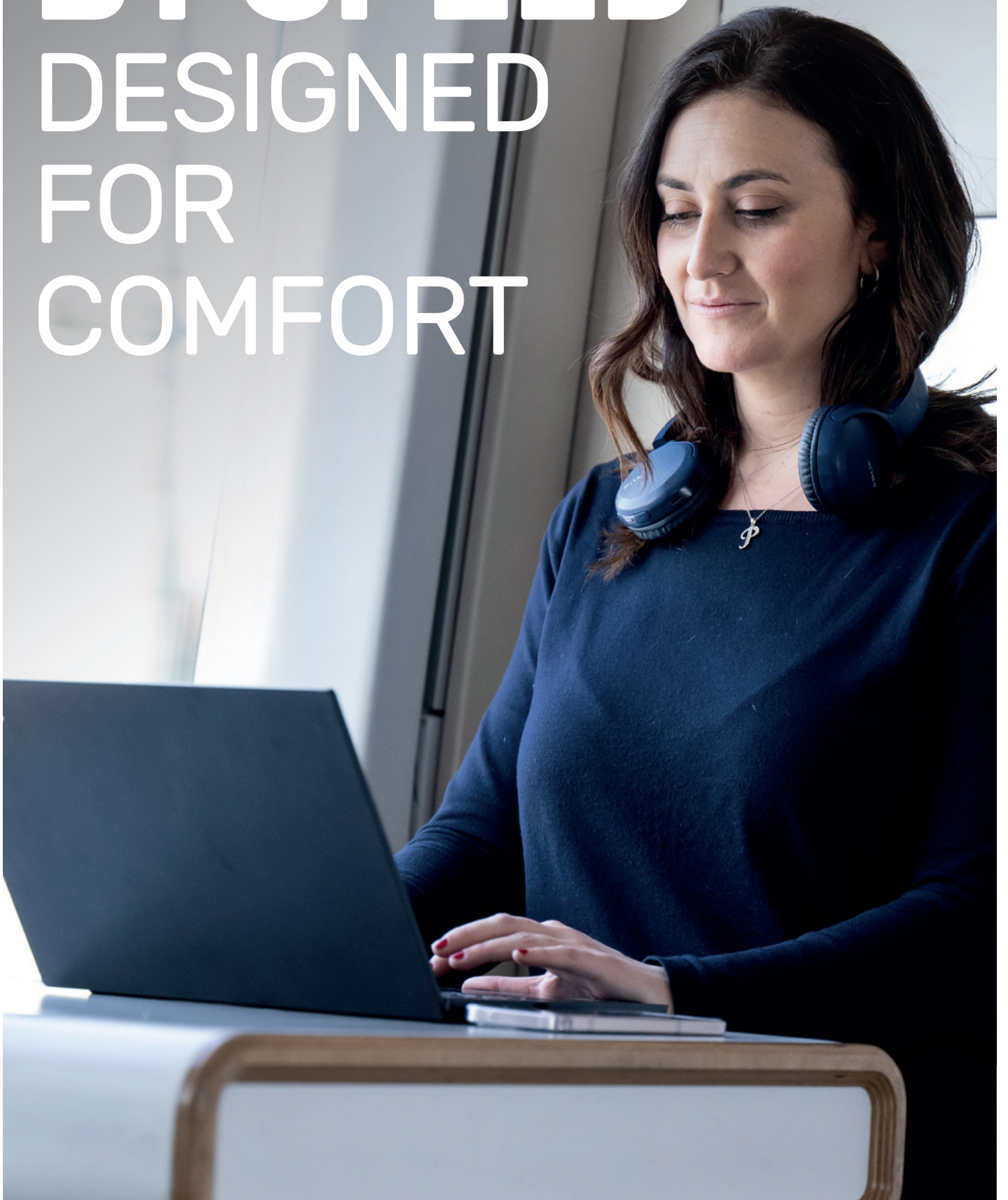




OARIS HIGH-SPEED

PERFORMANCE in Motion

**DRIVEN
BY SPEED
DESIGNED
FOR
COMFORT**



BUILT TO GO FURTHER

Connecting cities.
Connecting people. Driving the future.

High-speed rail is our smart alternative to air and road travel: fast, sustainable, and cost-effective. At CAF, we are driving this transformation with OARIS, our platform engineered for performance, reliability, and sustainability across global networks.

From 250 km/h to 350 km/h and beyond, we deliver the future of rail travel. High-speed networks are essential for competitiveness, offering rapid and affordable mobility compared to cars and planes.

With decades of experience, we have supplied and maintained several high speed fleets, such as Renfe's Series 120 and 121. Internationally, we have delivered high speed trains to Turkish State Railways (TCDD) and Flytoget for Norway's Airport Express connection.

Now, OARIS goes further with very high-speed capability beyond 350 km/h, setting new standards in performance and efficiency.



ADVANTAGES OF OARIS

- High passenger capacity for maximum efficiency.
- Outstanding energy performance, with reduced traction demand at high speeds.
- Flexible configurations tailored to every customer's needs.
- Maximum comfort for all travellers.
- Proven reliability and safety, with lower operating and maintenance costs.
- Full accessibility from different platform heights.

PURE PERFORMANCE

BEYOND 350 KM/H

Driven by innovation, shaping the next generation of high-speed trains

We combine advanced aerodynamics, distributed traction, and world-class engineering to achieve remarkable speed, safety and efficiency. OARIS is cross-border ready and fully compliant with international standards.

Born from extensive R&D investment, OARIS represents our very high-speed train family, capable of exceeding 350 km/h. Built with CAF's proven reliability technology, it brings together cutting-edge design, modularity, safety and passenger comfort.

BENEFITS OF DISTRIBUTED TRACTION

- Maximum passenger capacity, with no dedicated power car and every vehicle available for passenger use
- Longer passenger saloons for improved comfort

- Better acceleration and braking, even on steep gradients
- Reduced axle load, lowering infrastructure maintenance cost
- Ability to power and brake more wheelsets for enhanced performance
- Increased safety thanks to shorter braking distances





MODULAR DESIGN FOR MAXIMUM CAPACITY

We adapt OARIS to
every operator's needs

Smart layouts ensure faster
boarding and smoother journeys.
Our modular design means
no shared bogies, reducing
gangway connections and
creating longer passenger
saloons for efficient use of
space.

Configurations of 4, 5, 6, 7 or 8 cars

1 or 2 doors per car

Option to couple multiple units for even greater capacity

4-car unit. Total length: 103m



5-car unit. Total length: 128m



6-car unit. Total length: 152m



7-car unit. Total length: 176m



8-car unit. Total length: 202m



EFFICIENCY THAT PAYS OFF

OARIS' high performance delivers maximum safety and reliability throughout its life cycle.

Its high availability ensures a safe, uninterrupted service, supporting continuous revenue generation. Standardised components simplify maintenance, and reduced axle loads minimise track wear, reducing operating and maintenance costs.



OPTIMISED LIFE-CYCLE COSTS

OARIS is designed to minimise costs over service life, providing two key benefits:

- Lower energy consumption through aerodynamic optimisation, high-performance traction, reduced weight, efficient driving strategies, and regenerative braking.
- Reduced maintenance costs thanks to a design focused on reliability and maintainability.

Combined, these features make OARIS a smart, sustainable choice for operators worldwide.

SAFETY WITHOUT BORDERS

TECHNOLOGY THAT PROTECTS

Equipped with ERTMS levels 1 & 2, OARIS guarantees seamless interoperability and the highest safety standards across Europe.

RAILWAY INTEROPERABILITY

Interoperability is built into every CAF solution. Our experience with Renfe's Series 120 and 121 trains proves it: these units operate on different voltages (3 kV DC to 25 kV AC) and signalling systems (ASFA, ERTMS, LZB) and both 1,435 mm and 1,668 mm Spanish networks.

With OARIS, we take this expertise further. We deliver a fleet based on cutting-edge technology and maximum reliability, ready for any high-speed network and cross-border transit. Combined with BRAVA variable gauge bogie technology (CAF in-house designed and patented), OARIS ensures operators can manage international services without compromise.



SUSTAINABILITY AT SPEED

OARIS is built for a cleaner, quieter future.

The transport sector faces a major challenge in delivering environmentally responsible solutions while meeting the growing global demand for modern, comfortable transport networks. High-speed rail stands as the leading alternative to cars and planes, and OARIS sets the benchmark.

LOW ENERGY CONSUMPTION

We reduce energy use through high-efficiency traction systems, lightweight construction and aerodynamic design that minimises air resistance. Regenerative braking recovers energy and returns it to the grid, while real-time driver assistance and intelligent stabling further reduce consumption.

NOISE REDUCTION

Advanced modelling, sound absorbing materials, and optimised wheel-rail interaction reduce wind and rolling noise for a quieter journey. OARIS meets all current TSIs, delivering a platform that sets new standards for performance and sustainability.





ACCESSIBILITY FOR ALL

PRM compliant interiors designed for inclusive, uncompromised travel.

OARIS is designed to meet the needs of passengers with reduced mobility. Accessible toilets are integrated and optional boarding lifts can be fitted. Inside, a fully step-free layout allows easy movement from one end of the train to the other, with no obstacles. Every detail is carefully designed to guarantee comfort and independence for travellers.

TAILORED TO YOUR SERVICE

Best possible on-board experience for passengers

OARIS is designed with passenger comfort at its core. Its modular architecture offers exceptional flexibility, enabling each train to be configured to meet specific operational requirements. From bar and restaurant cars to meeting spaces, vending areas, and dedicated luggage compartments, every element is conceived to enhance the travel experience.

Interior layouts can be customised to suit the service type, including key variables such as seat pitch and the number of toilets per car. Both Business and Standard-Class passengers benefit from a thoughtfully designed environment that prioritises convenience and relaxation. Seating options include reclining and swivel seats, available in a range of finishes such as flat weave, moquette or leather. For ultimate comfort, Business Class seats can even be converted into aircraft-style beds.

Additional features further elevate the on-board experience: automatically adjustable LED lighting, foldable tables, on-demand entertainment screens, Ethernet and Wi-Fi connectivity, power outlets, USB charging points and integrated public address systems. Every detail is designed to ensure a journey that is both comfortable and efficient for passengers.



CAB COMFORT

Driver comfort is a top priority. The cab complies with all international interoperability standards.

Every element, from the control panel and interior finishes to the windscreens and side windows, has been designed to reduce the risk of injury in the event of an accident, while enhancing the driving experience.

The driver's seat is ergonomically engineered to provide superior comfort and long-lasting durability.

Special attention has been given to anti-glare cab lighting, ensuring optimal visibility and reduced eye strain. The cab also features individually adjustable air-conditioning for a tailored climate. Furthermore, it can be configured for two-person operation to meet diverse service requirements.

DESIGNED FOR AN EXCEPTIONAL EXPERIENCE

Comfort, flexibility and accessibility
maximised on every journey.

HIGHLIGHTS

Comfort without compromise: Reclining and swivel seats, business-class beds, Wi-Fi, USB ports, entertainment screens and quiet interiors for a premium experience.

Tailored to your service: Flexible layouts for buffet cars, meeting areas, luggage spaces, and more.

Accessibility for all: PRM-compliant interiors and optional boarding lifts.

Quiet interiors featuring advanced noise insulation





HEADQUARTERS

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SCAN TO VISIT
OUR CHANNEL



CAF