CIVITY
TRAINS

ADAPTABILITY in Motion

TRANSPORT SYSTEMS
TRAINS
BUSES
SIGNALLING
COMPONENTS
SERVICES

Your Way
to Future Mobility

www.caf.net

CIVITY, BESPOKE TRAIN SOLUTION

COMMUTER AND REGIONAL TRAINS

The search for efficient and environmentally-friendly mobility systems is a major challenge for cities in the 21st century. Growing mobility between cities and greater levels of air pollution make it increasingly necessary to seek out sustainable public transport that provides a comfortable, safe and reliable service for citizens.

To meet the requirements of transport authorities, CAF's state-of-the-art Civity solution features a range of modular low-floor trains for regional and commuter services. The modular design enables the trains to be precisely adapted for individual customers in terms of configuration, interior layout and performance. The trains combine a modern design with a high level of passenger comfort.

At the same time, they offer operators optimal capacity at an optimised cost and ensure exceptional reliability throughout the vehicle's entire life cycle.

In addition to supplying rolling stock, CAF provides comprehensive solutions including systems design and civil engineering, electrification, signalling systems, maintenance and operation.

CAF guarantees the integration and compatibility of all subsystems to provide a unique global solution for clients.

COMMITTED TO **SUSTAINABILITY**

The Civity family of trains is CAF's solution to the pressing challenge of creating sustainable and environmentally-friendly public transit systems. Incorporating eco-design methodologies in the engineering processes mitigates Civity's environmental impact throughout the vehicle's life cycle.

RECYCLABILITY AND RECOVERABILITY

Civity manufacturing materials are specifically selected for functionality and technical requirements, as well as ease of end-of-life vehicle dismantling and recyclability. The verified EPD® (Environmental Product Declaration) developed by CAF demonstrates the train's high recyclability rate of almost 94%.

ENERGY EFFICIENCY

Advanced aerodynamic design, weight reduction techniques, efficient electrodynamic braking system, maximising the number of seats per unit and Driver Advisory and Energy Management Systems are all key to optimising energy consumption.

REDUCING ENVIRONMENTAL IMPACT

The use of modular and standardised solutions ensures the Civity family achieves high levels of component reliability and durability, resulting in a lower cost and consumption of maintenance materials.

The Civity's vibration and noise emissions are minimised to avoid negative impact on the ecosystem. CO2 emissions comply with the latest environmental standards.

PRIORITISING
HEALTH & SAFETY

Passenger health and safety is of paramount importance and the starting point of the Civity design.

Stringent homologation processes applied by CAF, comprising mandatory approval requirements, allow for rapid introduction of Civity rolling stock into passenger service.

The Civity family's extensive equipment and systems include:

- Air purification systems.
- LeadMind: real-time data monitoring (early warning of incident risk and capacity control).
- Command and control system: self-diagnostic, featuring failure registration.
- Passenger information: PA system, intercom system between cabs and emergency cab intercom system and video information via TFT monitors/ LED displays.
- CCTV.
- Event recorder.
- Systems adapted to extreme weather conditions.
- Crash energy absorption integrated in cab ends.
- Driver fatigue detection.
- Overspeed protection.

BUILT-IN
FLEXIBILITY

Civity is the perfect solution for customers seeking a train fleet with high passenger capacity. The modular design allows operators to quickly and simply adapt the configuration by adding intermediate cars, from 2 to a maximum of 10.

Depending on the service to be provided, regional and commuter trains can be equipped with a variety of features. For example, the amount of doors can be adapted to enable rapid and easy boarding and alighting for all passengers, including those with reduced mobility.

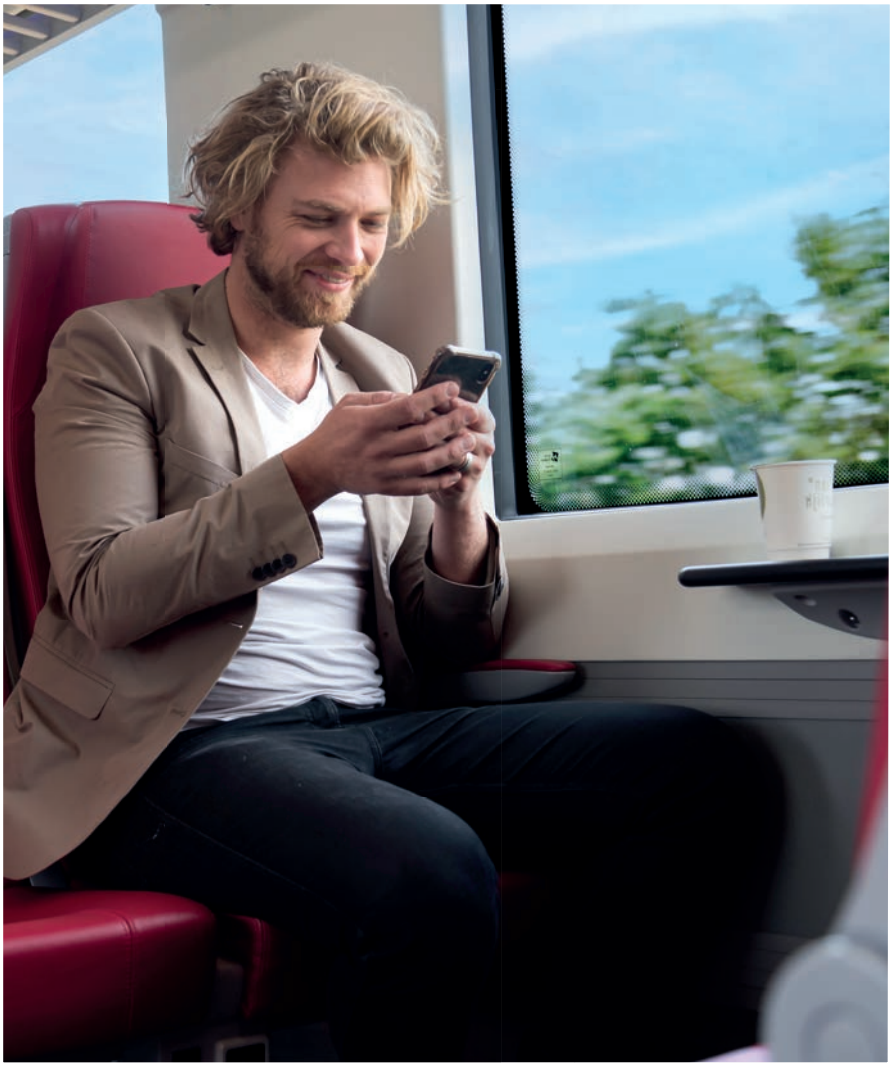
BUSINESS AND ECONOMY CLASS ZONES

Civity trains can include business and economy class cars. Alternatively, a single car can be configured into business and standard class zones, with sliding doors dividing the sections.

MULTI-PURPOSE AREA

The Civity's central module can be fitted with:

- Cafeteria / vending machines.
- Children's play areas.
- Modules for sports equipment: bicycle or ski racks.
- Standard or accessible toilet facilities.
- Wheelchair areas.
- Seating or standing areas.
- Designated areas with information points, etc.



THE ULTIMATE **ONBOARD EXPERIENCE**

Putting passengers at the heart of the Civity's design, CAF's modular and low-floor units offer exceptional space and see-through gangways for easy boarding, alighting and passenger movement.

Saloons are equipped with tables, reading lights, attendant call buttons, seat reservation systems, courtesy lights, blinds and luggage racks. Heating and air conditioning systems ensure maximum comfort.

Comfortable seats - with fold-down armrests, waste bins, magazine racks, power sockets, laptop table in the backrest, footrests and handholds - and large windows enable travellers to relax or work while enjoying their journey. The number of doors can be customised to facilitate rapid boarding and disembarking, guaranteeing a punctual service.

The Civity is equipped with interior TFT monitors and LED information displays to keep travellers informed about the route and other essential details such as arrival times, next stops and connections. A WiFi service is available for passengers to access the Internet on their devices while travelling.

Ergonomic, and with clear, all-round visibility, the driver's cab is fully-equipped to provide a comfortable working environment.

DESIGNED FOR EVERYONE

Civity trains comply with PRM Technical Specification for Interoperability, offering excellent accessibility for all passengers including those with visual or hearing impairments, reduced mobility and wheelchair users. The central area of each car can be configured to provide designated wheelchair areas and accessible toilets.

A CIVITY FOR **EVERY NEED**

The Civity family of trains are in operation around the globe, with more than 620 units currently in service.

CIVITY XL

Equipped with extended modules to provide an enhanced passenger capacity, the Civity XL achieves high levels of efficiency through optimising energy consumption per passenger.

CIVITY BEMU

Civity BEMUs are battery-powered vehicles designed to run on non-electrified track and able to recharge the batteries when operating under a catenary.

CIVITY DUO

Civity Duo is CAF's double-deck train fitted with seats across the two floors. The 2+2 or 2+3 seating configuration significantly increases passenger capacity, creating a lower operating cost per traveller. Users enjoy maximum levels of comfort with spacious seats and enhanced external views.

CIVITY NORDIC

The Civity Nordic is designed to withstand extreme cold weather conditions from -40ºC to +40ºC.

CIVITY UK

Civity UK is adapted to British requirements including UK-specific regulations, train gauge, floor height, low Variable Usage Charge, ARIN bogies and signalling and safety systems, while delivering the same user comfort.

CIVITY,
BESPOKE SOLUTION

The Civity platform features trains with different types of traction based on the single concept of a modular, low-floor vehicle.

Electric (EMU)
Diesel-mechanical, diesel-hydraulic or hybrid (DMU)
Diesel-electric, bi-mode or hybrid (DEMU)
Battery electric multiple unit (BEMU)
Hydrogen electric multiple unit (HEMU)

BATTERY AND HYDROGEN TECHNOLOGY

The drive for rail decarbonisation will see diesel trains gradually replaced with vehicles powered by hydrogen, battery, hybrid (pantograph and battery) and bimodal (catenary and hydrogen) solutions.

Committed to developing sustainable alternatives to diesel trains and zero emissions on non-electrified routes, CAF has added battery-powered trains to hydrogen models to provide an emissions-free alternative.

In addition to the environmental benefits, these trains create significant cost savings associated with line electrification and quieter vehicles enhance onboard passenger comfort.

HEADQUARTERS
J.M. Iturrioz 26
20200 Beasain
Spain

SCAN TO VISIT
OUR CHANNEL