

# The Citaro NGT.

The benchmark.

Mercedes-Benz

The standard for buses.







# Introducing the new climate protection officer.

The best investment for the future of your company. Since Carl Benz invented the first bus in 1895, we have led the way in developing it into a high-performance, safe and environmentally friendly mode of transport. To this day, Carl Benz's pioneering spirit can be found in every one of our vehicles. A decision for Mercedes-Benz doesn't just mean you get a powerful bus; above all you can rest assured that you are doing the best for your company.

Environmental friendliness with a proven design. With more than 45,000 manufactured vehicles, the Citaro is the backbone of public transport throughout Europe. And for good reason, because the low-floor bus is a groundbreaking combination of economy, comfort, flexibility and design. It goes without saying that the new bus with the alternative drive technology also meets these standards. Based on the tried-and-tested components of the Citaro modular system, it unites high economic efficiency with environmental friendliness. Its natural gas technology forms the basis for truly sustainable mobility, because high-quality, compressed natural gas contains practically no polluting components. Moreover, the Citaro NGT is approved without restriction for the use of bio natural gas in accordance with DIN 51624. It then burns virtually CO<sub>2</sub> neutral and has no net impact on the environment. The Citaro NGT was developed specially to meet public transport requirements and with its alternative drive concept, it is the epitome of forward-looking mobility in urban centres.

## Safe. Safer. Mercedes-Benz.

The bus is considered to be one of the safest forms of transport in the world. Innovations from Mercedes-Benz help to achieve this. Unlike hardly any other manufacturer, we have assumed responsibility for the safety of buses. Many of the new features that are standard today were launched in a vehicle with the Star. For example, the Anti-lock Braking System (ABS) or the Electronic Stability Program (ESP®):

Responsibility is a serious matter. Mercedes-Benz pursues the objective of accident free driving. Our integrated safety concept covers all phases of automotive safety: from driver safety, and safety in hazardous situations, protection in the event of an accident through to minimising the consequences of accidents.

**Safe in every seat.** In the Citaro NGT safety is integrated as standard. We have continuously endeavoured to make the Citaro body more stable and safer. For example, the robust frame provides protection for passengers in the event of a side impact. In a head-on collision the reinforced front section minimises the consequences of accidents, and offers the driver better protection.

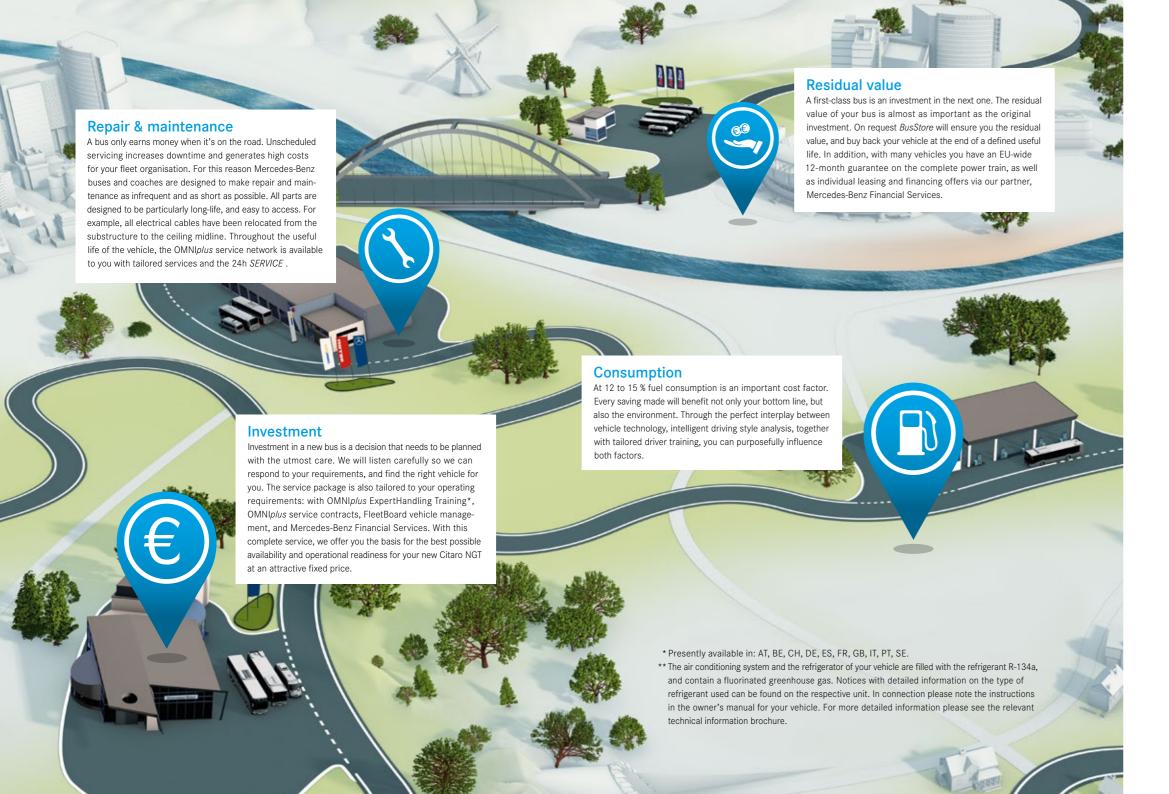
**See and be seen.** A new option is the fitting of long-life LED head lamps. The light beam can be defined very accurately. The colour of the light is approximately the same as daylight, and so causes the driver'Ps eyes to tire less quickly. More brightness and longer range provide additional safety. LED lamps are about two to three times more efficient than conventional filament bulbs.

**Driving support.** Acceleration skid control (ASR) prevents spinning of the driven wheels. As regards safety, additional support is also provided by the Electropneumatic-Braking-System (EBS). It significantly reduces the stopping distance, because the brakes react more quickly and accurately.

If you wish, you can have your Citaro NGT equipped with the Electronic Stability Program (ESP®). This detects dynamic driving situations such as evasive manoeuvres, and supports the driver in maintaining control of the vehicle by braking individual wheels, while at the same time adjusting the engine power.

The Articulation Turntable Controller (ATC) recently developed by Mercedes-Benz is a sophisticated anti-jackknife system for articulated buses. This articulation joint and its control system is one of the core elements of the Citaro G NGT: hydraulic damping of the articulation joint is rapid according to demand. The effect is as follows: if the otherwise normally high basic damping of the joint leads to a strong tendency to understeer in turns and increased tyre wear on the front axle, then under normal stable driving conditions the joint of the vehicle runs almost freely, and is damped solely through the friction of the elements.





## Every bus costs money. The Citaro NGT saves it.

Many factors generate costs when operating a bus. Even if you cannot control all the costs, there is a great deal you can still do to run your Mercedes-Benz Citaro NGT more economically: over a third of the costs arising can be actively influenced. We will show you where the overall economical advantages of our buses and services lie in relation to investment, consumption, maintenance, and residual value.

High efficiency and fewer CO<sub>2</sub> emissions. That is what the Citaro NGT stands for. Thanks to high-quality components from the Citaro modular system, which have been proven time and again, as well as the particularly maintenance-friendly technology and sustainable vehicle concept, you can expect ideal overall economy. In addition, the newly developed gas technology provides reduced fuel consumption at high performance.

**Performance up—costs down.** In the case of the Citaro NGT this is due in part to the recuperation module. It supplies the vehicle electrical system with stored energy – generated free when decelerating. This lightens the load on the engine, and reduces fuel consumption by up to 3.6 per cent.

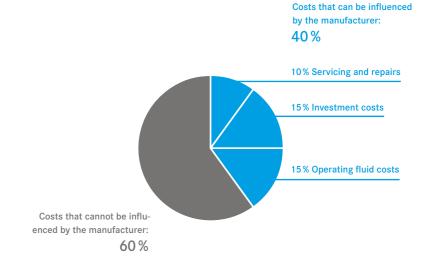
Thinking one step ahead right from the start. Quality and a long useful life make the Citaro NGT a solid investment right from the outset. Our OMNI*plus* service contracts also help to keep your accounts running as scheduled. The regular maintenance guarantees transparent costs at all times, and helps you to calculate the residual value.

**Efficiency through financial services.** You profit not only from the technical advantages of the Citaro NGT. Attractive financing offers and insurance solutions with benefits calculated exactly to your individual requirements ensure you a competitive edge.

**Service, wherever you need it.** Mercedes buses are running on virtually all roads in Europe – reason enough for also offering the densest bus-specific service network. That guarantees rapid assistance and short downtimes should the worst come to the worst. Round the clock service with our reliable 24h *SERVICE*.

Investments that pay off. Our OMNI*plus* EcoTraining shows that saving fuel and keeping to the schedule are not necessarily in conflict. Together with Daimler FleetBoard Bus it contributes to achieving a sustainable improvement in the efficient management of the fleet. On request *BusStore* will ensure you the residual value, and buy back your vehicle at the end of the defined useful life.

### Total Cost of Ownership\*\*\*



9

TCO at a glance: find out more about the cost factors involved when operating your bus. http://overall-economy.bus.mercedes-benz.com

<sup>\*\*\*</sup>Example calculation using average values from the German market. TCO cost blocks taking the example of the Citaro city bus Euro VI. Assumptions: 10 years at 60,000 km per year, German market. Status: June 2015.

# Recuperation module uses the energy of the route

Compact, intelligent, powerful. With the 24-V recuperation module the Citaro gets an intelligent energy manager. And its economy another nudge in the direction of less fuel consumption.

**Energy regeneration the intelligent way.** In a bus, the lighting, ventilation, destination indicators, vehicle electrical systems etc. constantly require electrical power. Driving the alternators required for this purpose inevitably consumes fuel. But there is also another way: The innovative recuperation module stores the power that is generated without consuming

additional fuel. Double layer capacitors called ultracaps act as energy storage devices. These are extremely efficient and work continuously at a low 24 volts. The advantage is that after 20 seconds the capacitors are already charged, and the energy can be delivered again. This power is used when full engine power is needed for the vehicle drive, for example when moving off. That pays off. Decelerating from 40 km/h to a standstill stores enough energy to supply the entire vehicle electrical system under a consumer load rating of 1.000 W\* for 60 seconds.

\*Typical figures



Save fuel the clever way. The 24-V recuperation module supplies the vehicle electrical system with stored energy—generated free during deceleration. The most important features of this innovative technology are:

- Extremely efficient double layer capacitors
- Intelligent distribution of the stored energy
- Lightens the load on the engine when moving off

- Relieves vehicle batteries and alternators, thus prolonging their service life
- Lowers fuel consumption and CO<sub>2</sub> emissions of the Citaro by up to 3.6 per cent (depending on the route and loading of the vehicle electrical system by auxiliary consumers)
- Operates continuously at a low voltage
- 31 Wh storage capacity with a weight of only 22 kg
- On "Ignition Off" delivers the stored electrical charge to the on-board battery



### Without recuperation module:

- · Auxiliary units continuously require power
- · Alternators supply power to the electrical system
- The alternators place an extra load on the diesel engine, which means more consumption and less performance

### With recuperation module:

- · Auxiliary units continuously require power
- The recuperation module delivers power to the vehicle electrical system until it is empty
- · The alternators do not need to work
- · The load on the diesel engine is lightened

- · Auxiliary units continuously require power
- · Diesel engine drives the alternators without consuming fuel
- Alternators supply power to the electrical system



### Without recuperation module:

- Diesel engine drives the alternators without consuming fuel
  - · Auxiliary units continuously require power

With recuperation module:

- Alternators supply vehicle electrical system and recupera-
- The recuperation module charges up and stores electrical







## For a clean environment. And a spotless balance.

The Citaro NGT has a particularly positive economic track record in an analysis of costs across the entire life cycle.

## Higher capacity

with up to 96 passengers carried by the 12.135 m long Citaro NGT. In the articulated version with a length of 18.125 m, there's enough space for 153 people.

## New natural gas engine M 936 G 2

is a paragon of downsizing with clean combustion coupled with high performance and low pollutant emissions. Power is transmitted as standard by an automatic transmission torque converter from Voith.



Economically and ecologically sustainable. The Citaro NGT with natural gas drive is optimised twice over. The city bus not only helps to reduce the operational costs for the transport company, it also sets standards in terms of environmental friendliness. Compared to its predecessor it saves up to 20 % in fuel. It is also much quieter and emits less CO<sub>2</sub> compared to a diesel. Unlike diesel or petrol, the combustion of gas is particularly environmentally friendly. Soot, other particles and sulphur oxide are practically undetectable in the exhaust gas. The higher passenger capacity also makes the bus economically and ecologically attractive.

The Citaro G NGT articulated bus can now carry a maximum of 153 people, compared to the previous 149. With standard equipment, the Citaro NGT rigid bus can carry up to 96 passengers – three more than its predecessor. This means lower costs and lower emissions per passenger. The exemplary noise reduction of up to 4 dB(A) also helps this bus to ideally meet the city traffic requirements of today, and to relieve the burden on city centres.

Modified front axle 3

with a gross axle weight rating of 7.5 t.

4 Ergonomic driver's workstation Multifunction steering wheel, ideally arranged controls and clear display.

Citaro NGT



### **Distinctive bonnet**

Protects easily accessible, weightreduced natural gas tank made of veight means more passenger seats.



## **Optional: LED headlamps**

As pleasant as daylight, more rightness and longer range provide



# Regardless of the paintwork you choose, your bus will have a green engine.



Loaded with our best ideas. The Citaro NGT makes use of powerful, tried-and-tested technology that has been further improved. The heartof this technology is the innovative Euro VI gas engine M 936 G, which is based on the tried-and-tested OM 936. It has 6 cylinders and a torque of 1,200 newton metres and therefore achieves a power of 222 kilowatts. It has the characteristics of a diesel engine – with gas management technology and low consumption. Two automatic transmissions are available for power transmission: you can choose between the Voith DIWA.6 and the ZF Ecolife AP. Extremely long maintenance intervals of up to 60,000 kilometres keep operating costs low. The Citaro NGT therefore stays on the road for a particularly long time.

# The interior: a passenger's dream.

Attractive highlight for public transport. With its distinctive appearance, the Citaro NGT is a trendsetter in local public transport, and plays a role in shaping the visual identity of Europe's cities. Its fresh and modern design makes it an excellent vehicle for advertising and an effective means for your transport company to convey its image. It offers passengers a pleasant, airy feeling of space. This is achieved not least through the large interior areas, ample glass, and comfortable standing height. Depending on the equipment line, a powerful air conditioning\* system, integrated ceiling heating and sidewall heater can help impart a feeling of well-being in the bus. A modern lighting concept can make the high-quality passenger compartment very bright if required.

Functionality has never been so comfortable. Ergonomically formed seats offer comfort. The independent wheel suspension on the front axle and the excellent bus steering are further factors that contribute to a comfortable journey. A roll-pitch control system with electronically controlled shock absorbers is optionally available. This automatically stabilises the vehicle and therefore reduces the tilt in bends. With its low entry height and a low floor throughout, the Citaro NGT makes it easy for passengers to board and alight, thereby ensuring a speedy passenger flow. Equipment for disabled people has been installed in accordance with the relevant EU directive with an entry ramp and ample space inside for wheelchairs.

<sup>\*</sup>See comment \*\* on page 8

## Contact us today if you want to set standards for tomorrow.

ren Mercedes-Benzung.

### OMNI*plus* Service for your pit stop.

OMNIplus ensures you save time and money. Increase the operational readiness of your fleet with the comprehensive BusDepot Management service, or take advantage of the flexible BasicPlus and Premium service contracts for repair and maintenance. Choose from the various annual mileages, and combine these with the service life that fits the requirements of your company. OMNIplus is also your point of contact for original parts and accessories, as well as reconditioned parts with certified quality. Whether you need a V-belt, blower or brake discs - OMNI*plus* has the right original part for your Mercedes-Benz bus or coach.

### OMNIplus Service for all routes.

As a professional, you need a partner that will make sure your Mercedes-Benz bus keeps moving: a partner like OMNIplus. It offers you the densest bus-specific service network in Europe, with more than 600 authorised service points, and the advantageous ServiceCard. The reliable 24h SERVICE is further optimised by telediagnostics. With TireService and BusPool\*, OMNI*plus* is also your reliable partner in the event of breakdowns.

### \*Applies for Germany only.

### It's safe to say you'll get the right training.

Our experienced OMNIplus training specialists offer practical solutions for current training, be this safety, environmental, vehicle or emergency training, the latest technical knowledge for repair and servicing work, or training for drivers or workshop staff. OMNI*plus* provides the right training for every

www.omniplus.com





### The partner for your used vehicle.

BusStore, the brand for pre-owned vehicles in Europe, is your reliable partner for the sale of your bus. If you decide to buy a new Mercedes-Benz bus, you can trade in your used vehicle at a price in line with market conditions.\*\* Your Mercedes-Benz contact person will handle the details and process the entire transaction with *BusStore*.

www.bus-store.com

### Efficiency and economy on the road with FleetBoard Bus.

Discover unexploited potential on your bus tours with the modular telematics system from Daimler FleetBoard. The bus-specific fleet management system encompasses numerous functions for optimising driving and procedures. FleetBoard thus contributes to a reduction in vehicle wear and fuel consumption as well as lower costs, while simultaneously enhancing your service quality. www.fleetboard.com

### Financial services for buses and coaches.

Mercedes-Benz Financial Services\*\* is the specialist for highperformance finance solutions for Mercedes-Benz coaches and buses. Because we know the industry and its requirements inside out, you can count on extremely competitive financing, leasing and insurance services. Our experts will advise you personally and develop highly attractive offers for you. For instance, over and above standard financing, we also offer seasonal rates or final instalment financing to enable you to remain financially flexible, or even a fully customised financing strategy to meet your individual needs.





### Important for you. Important for us. Technical data stored in the vehicle.

Electronic vehicle components (e.g. Airbag Control Unit, Engine Control Unit) contain data storage for vehicle technical data, including but not limited to Diagnostic Trouble Codes in the event of a malfunction; vehicle speed, braking force, or operating conditions of the Restraint System and Driver Assistance Systems in case of an accident (no audio and no video data recording). This data is either stored as a volatile e.g. Diagnostic Trouble Codes, over a short period of time (a few seconds only) e.g. in case of an accident or in aggregated form e.g. for component load evaluation. The data can be read using interfaces connected to the vehicle. Trained technicians can process and utilise the data to diagnose and repair possible malfunctions. The manufacturer can use the data to analyse and improve vehicle functions. When requested by the customer, technical data can form the basis of additional optional services. In general, data from the vehicle is transferred to the manufacturer or a third party only where legally allowed, or based on a contractual customer consent in accordance with data protection laws. Further information regarding storage of vehicle technical data is provided in the vehicle owner's manual. Mercedes-Benz Buses and Coaches naturally handles customer data confidentially.

### About the information in this brochure.

Information about the product is subject to change after this brochure went to press (09/17). The manufacturer reserves the right to make changes in the design or form, deviations in colour, and changes to the scope of supply during the delivery period, insofar as the changes or deviations are reasonable for the customer, having regard to the interests of the seller. The illustrations may also show accessories and special equipment optional extras that do not form part of the standard scope of supply. Colours may vary for typographical reasons.

This brochure may also contain models and support services that are not available in some countries. Statements about statutory, legal and tax regulations and their effects are only applicable in the Federal Republic of Germany at the time this brochure went to press. Therefore please contact your Mercedes-Benz sales representative for the latest binding version.

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