

IVECO Z TRUCK: the Zero-impact concept truck that anticipates the shift to green energy and autonomous driving in long-distance haulage

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Iveco presents its world premiere **IVECO Z TRUCK**, the long-haul concept truck that breaks away from every constraint to be a zero-**impact** vehicle for a totally sustainable transport system.

IVECO Z TRUCK delivers:

Zero CO₂ emissions through optimized Liquefied Natural Gas technology and the use of Bio-methane. The concept is based on a heavy truck running on Bio-LNG with conformable tanks, enhanced aerodynamics and a waste heat recovery system, to deliver long-haul transport with autonomy of 2,200 km and virtually zero CO₂ emissions.

Zero accidents through the advanced use of automated driving technologies. It defines how new technologies and autonomous driving will change the role of the driver, who will become an on-board logistics operator.

Zero stress and Zero waste of time with the **driver-centred** design: the cab is freed from traditional constraints to be reconfigured according to the different uses (driving, automated driving, office work, resting) and the HMI (Human Machine Interface) to adapt the way it provides information as needed – the right information, at the right time, in the right place.

IVECO Z TRUCK takes a step into the future anticipating the way alternative energy, new technologies and automated driving will change the driver's life. Its pioneering approach has resulted this concept being protected by **29 patents**.

Pierre Lahutte, Iveco Brand President comments: *"We are facing a revolution triggered by the concern for the environment, the economy, and safety on and around vehicles. With our focus on our values of sustainability, TCO, technology and business partnership with our customers, at Iveco we have been working to constantly reduce the impact of our vehicles with alternative fuels such as bio-LNG, and putting the driver and the customer at the centre of our technological and design development. With IVECO Z TRUCK and its 29 patents, we are defining where our efforts could lead us in the future: a vehicle with a human dimension, designed to accommodate comfortably and safely the work and leisure activities of the driver, adapting each time to his needs. We are defining a future of long-haul freight transport that is totally sustainable – a vehicle that has zero impact on its environment, with zero emissions and zero accidents."*

In 2014, Iveco unveiled at the IAA its Iveco Vision, a Van concept, which conceived the vehicle as a business platform designed to facilitate every aspect of the driver's workday. Many of the ideas introduced in the Vision concept have since become reality in the New Daily. Today, **IVECO Z TRUCK** takes the next step into the future and anticipates the way new technologies and automated driving could change the role of the drivers, their activities and their workday in the long distance haulage business.

Next generation LNG Truck uses up to 33% less fuel and dramatically cuts CO₂ emissions

IVECO Z TRUCK features a new generation LNG engine running on Bio-methane, which is derived from refined biogas. This fuel, which plays a key role in CNH Industrial's quest to develop sustainable transport modes on its path to Zero emissions, ensures low CO₂ and ultra low PM emission.

This LNG-fuelled engine develops 460 hp and 2,000 Nm torque, and features a 16-gear automated transmission with Powershift in the upper gears.

Iveco's commitment to innovation and constant evolution in the area of the LNG technology is also embraced by **PETRONAS Lubricants International**, which supported the development of IVECO Z TRUCK. In fact, LNG used in conjunction with **PETRONAS Urania low viscosity engine oils**, contributes to reaching the Zero emissions target, further improving fuel efficiency.

IVECO Z TRUCK features MICHELIN X[®] LINE™ ENERGY™, the first range to be awarded the AAA grading in rolling resistance, which saves long-haul convoys up to one litre of fuel per 100 km. The tyres feature RFID embedded tags, which can track each tyre throughout its life cycle, providing information such as type, size, model name, wear, performance or temperature. Used with Tyre Pressure Monitoring System sensors on the rims, they can also provide pressure data.

IVECO Z TRUCK adopts a new concept tank developed with SAG. It is made of aluminium insulated with a new system called MLI (Multi Layer Insulation), a reflective foil that protects from heat radiation. It features a technology that allows for a squared shape, which makes it possible to optimise the use of space and accommodate two tanks with a single recharge. The two tanks have a total capacity of 1200 litres, resulting in autonomy of 2,200 km – 60% more than the current Stralis NP, and even more than a diesel vehicle.

An on-board Rankine Cycle Waste Heat Recovery system exploits exhaust gas as a heat source to recover energy, with the result of a further fuel economy gain while driving.

IVECO Z TRUCK's approach to achieving the Zero accidents goal is based on active and preventive safety systems as the most effective approach for road safety. A full set of sensors around the vehicle enables the evolution towards automated driving, making the technological advance in full safety.

From functional enhancement to the creation of a unique design for a living/working space

IVECO Z TRUCK, designed by CNH Industrial Design Centre, makes a statement on how the future could be for truck drivers. It is shaped by its enhanced aerodynamics, by the improved safety and by the aim of creating a new-living cab space.

It imagines how automated driving will change the role of the driver, who will spend less time driving and more time doing office work. The concept enables the driver to reconfigure the cab layout according to the use he/she wishes to make of the truck at the time: driving in an urban context, highway or autonomous driving on motorways, taking care of office work, relaxing or sleeping overnight.

When the vehicle is parked, the driver can reconfigure the interior of the cab to fully exploit the living and sharing aspect. The **sliding wall** at the rear slides back automatically, adding 500 mm interior length and increasing the living space. This makes it possible to use all the features and amenities the driver may need, such as a foldable bed, shower, kitchen, fridge, sink and entertainment wall.

The HMI is designed to ensure the driver has full, all-round visibility and to provide **adaptive information**: this means exactly the right information, in the right place, at the right time. The information on the truck's functions is projected on the smart windshield as it becomes necessary and changes according to what the driver needs at the time. This includes active connectivity with Michelin's tyres, which provides real time data on tyre pressure, temperature and usage – information that can significantly improve the driver's safety.

The seat, steering wheel system, pedals and controls console form a self-contained unit that is suspended independently from the cab for the smoothest ride. The air conditioning system provides ideal conditions around the driver's seat, creating a **Climatic Bubble** that encloses the driving platform, so that the driver enjoys ideal temperature conditions with no disturbance from air flows.

IVECO Z TRUCK breaks away from current constraints with completely new thinking and ideas on energy efficiency and waste heat recovery, on ergonomics, on the way the vehicle and driver interact and communicate – new ideas that are protected by 29 patents.

Iveco

Iveco is a brand of CNH Industrial N.V., a World leader in Capital Goods listed on the New York Stock Exchange (NYSE: CNHI) and on the Mercato Telematico Azionario of the Borsa Italiana (MI: CNHI). Iveco designs, manufactures and markets a wide range of light, medium and heavy commercial vehicles, off-road trucks, and vehicles for applications such as off-road missions.

The brand's wide range of products include the Daily, a vehicle that covers the 3 – 7 ton vehicle weight segment, the Eurocargo from 6 – 19 tons, the Trakker (dedicated to off-road missions) and the Stralis, both over 16 tons. In addition, the Iveco Astra brand builds off-road trucks, rigid and articulated dumpers as well as special vehicles.

Iveco employs close to 21,000 individuals globally. It manages production sites in 7 countries throughout Europe, Asia, Africa, Oceania and Latin America where it produces vehicles featuring the latest advanced technologies. 4,200 sales and service outlets in over 160 countries guarantee technical support wherever an Iveco vehicle is at work.

For further information about Iveco: www.iveco.com

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