

## Thematic sheet

Paris, 19 October 2021

## Road freight transport in the ecological transition, part 2

### THE 100% ELECTRIC TRUCK: AN OFFER IN THE MAKING

The European truck industry now complies with the new energy transition rules, which require a 15% reduction in CO<sub>2</sub> emissions for new vehicles by 2025 and 30% by 2030. All HGV manufacturers are working to develop compliant trucks. They are therefore demonstrating a wish to reduce their environmental impact and showing the strong dynamism in the industry in terms of innovation. They have committed themselves to ensuring that all new trucks sold from 2040 onwards will be fossil fuel free.

This challenge will be met in part by the electrification of vehicles, with many offers already available and many projects under development.

Conferences, debates, an exhibition of 100% electric vehicles, tests and more can be followed and discovered at SOLUTRANS, the only international event covering innovation and information in the heavy goods and urban vehicle sector (16 to 20 November 2021 - Lyon EUREXPO).



### SOLUTRANS 2021: a showcase for electric vehicles

As the global hub for heavy goods and urban vehicles, SOLUTRANS 2021 will focus on the challenges of energy transition in the industry.

The multiple issues relating to the development and future of electric commercial vehicles and HGVs will be widely discussed throughout the trade show, through:



- The presentation of the VIsion'AIR study on the future of the energy mix of heavy goods vehicles in Europe up to 2040. This global study, based on the TCO (Total Cost of Ownership) and carried out by BiPE and BDO Advisory at the request of the French Bodywork Federation (FFC), will produce for the first time in Europe an analysis of the engine mix from various angles (by country, by segment, by year, by major category of vehicle), as well as their carbon contribution. It will therefore enable all professionals in the industry to get a snapshot of the markets up to 2040 and to be in phase with their strategy and the objectives of the European Commission.
- Electrically powered vehicles presented by exhibitors and test drives in the outdoor vehicle test area. In partnership with TotalEnergies, this zone will allow visitors to experience first-hand the vehicles, equipment and solutions of the companies Frappa, Ford Trucks, Irizar Group, Iveco Jost, Kögel France, Knorr-Bremse, SA Libner (exhibitors registered to date, full programme can be found on [www.solutrans.fr](http://www.solutrans.fr)).

## Electric vehicles: a promising market

The European heavy goods vehicle market (commercial vehicles, HGVs, buses, etc.) has been undergoing major changes for several years. Although the market is still largely dominated by diesel models (98% of registrations in 2019 for medium-sized and heavy trucks, compared to 0.2% for electric), there is no shortage of initiatives in favour of alternative energy within the European Union. The electromobility of vehicles is already on a growth trajectory as a result of the constant decrease in the price of batteries and the development of charging infrastructures... The initial market will cover urban applications over short distances (100 to 300km), and progress will then be made towards regional applications.

The European Automobile Manufacturers' Association (ACEA) estimates that around 10,000 medium-duty electric trucks (3.5 to 16 tonnes) and 30,000 trucks with greater capacity (over 16 tonnes) will be on the road in Europe by 2025, provided that the required network of charging points is available. The ACEA goes on to say that then, in 2030, the fleet delivered would be 70,000 medium-duty units and 200,000 heavy-duty units, suggesting that these assumptions may even be on the low side.

## Considerable advantages

Electric vehicles have many advantages:

- zero local emissions of pollutants (HC2, CO, particles, NOx), thus allowing access to the growing number of low-emission zones (over 200 in Europe);
- zero CO<sub>2</sub> emissions in use;
- a contribution to national energy independence;
- lower operating costs than vehicles with combustion engines;
- low noise and vibrations contributing to the reduction of noise pollution in cities and allowing rounds at the end of the day and at dawn;
- more than 50% reduction in the use of the braking system thanks to energy recovery during deceleration;
- the end of oil changes and the removal of belts.

## Growth held back by lack of infrastructure

Today, the recharging infrastructure is still inadequate in Europe. According to the ACEA, 6,000 charging points with a power rating of more than 500kW and 20,000 charging points with a power rating of between 150kW and 500kW need to be installed by 2025-2030 to meet demand.

Another major obstacle is the price of electric vehicles, which can be as high as 300,000 euros for a 19-tonne vehicle, compared with 80,000 euros for a 19-tonne diesel vehicle. Despite the increase in State aid, the purchase of a 100% electric heavy goods vehicle remains expensive. The sector is calling for additional aid for haulage contractors and manufacturers to develop this technology.

## New electric vehicles

Manufacturers are already offering many models of electric vehicles:

- Mercedes-Benz has introduced the eActros, the first 100% electric truck, which comes in two versions: three or four batteries. Its driving range can reach 400km. With a charging capacity of 160kW, it takes just over an hour to go from 20% to 80% (with three batteries) or an hour and a half (with four batteries).
- Renault Trucks offers a range of 100% electric vehicles with the D Wide Z.E., a 26-tonne vehicle dedicated to household waste collection with a driving range of 120km; the D.Z.E., a silent HGV for urban deliveries with a driving range of up to 300km; and the Master Z.E., a multi-purpose commercial vehicle for accessing low-emission areas.
- Volvo Trucks has a complete range of FM, FMX, FH, FE and FL Electric vehicles. With the addition of new products with higher load capacities, more powerful transmission systems and a driving range of up to 300km, Volvo Trucks' electric range can cover about 45% of all goods transported in Europe today.



- DAF offers the CF Electric for emission-free, quiet operation in urban areas. The CF Electric is available as a 4x2 tractor (GCW: 37 tonnes) and as a 6x2 forwarder with steering idler axle for optimum manoeuvrability (GCW: 28 tonnes). Thanks to improved battery capacity, with the size of the battery remaining the same, the CF Electric now offers a driving range of over 200 kilometres. The battery takes approximately 75 minutes to fully charge when using a 250 kilowatt capacity charging station.
- Irizar, the Spanish manufacturer, has started production of its range of electric ieTruck trucks to be used for waste collection. The Irizar ie urban truck meets the different needs of the market, including the reduction of pollutants and CO<sub>2</sub>, and low noise level. It consumes 50% less energy than a conventional vehicle.
- Man is offering eTGE, a commercial vehicle, and ETGM, a 26-tonne carrier, with a 360hp engine, a 185KWh battery and a driving range of 190km. Van, commercial vehicle, tipper, box body, flatbed... the MAN eTGE is versatile and offers a wide range of use. The charging unit is not limited to one charging system (AC, DC etc.). It can reach a realistic driving range of 120 to 130km.

Which ecosystem should be set up? What are the obstacles that need to be overcome (charging station, long journey, etc.)? What are the existing offers? What is the future of electric vehicles in the energy transition?

SOLUTRANS experts are at your disposal to answer all these questions.



#### About SOLUTRANS

*"SOLUTRANS, THE GLOBAL HUB FOR HEAVY GOODS AND URBAN VEHICLE SOLUTIONS"*  
SOLUTRANS, which brings together actors from throughout the heavy goods and urban vehicle industry, presents its 16th event from 16 to 20 November 2021 at Lyon Eurexpo. Accredited by OICA, the event draws together some 60,000 professionals and 1,000 exhibitors and brands from around the world in a 90,000m<sup>2</sup> space. The new promise for the 2021 event:

*"Sustainable, Connected Solutions for a Responsible Transport Industry".*

The SOLUTRANS trade show is the biennial meeting point of one of the most innovative of all industries. The global economic context makes SOLUTRANS 2021 a showcase for the exceptional performances of industrial vehicle manufacturers, bodywork manufacturers, conversion specialists, parts manufacturers, manufacturers of workshop equipment, tyre specialists, distribution networks, and more. The trade show will occupy a new hall named SOLUTRANS 4.0, dedicated to breakthrough innovations in the heavy goods and urban vehicle industry, offering insight to all professionals, from manufacturers, bodywork manufacturers, parts manufacturers, and those involved in maintenance, to haulage contractors and loaders. SOLUTRANS' aim is to support the industry and promote solutions to the challenges that lie ahead.

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