



## Ideas from the community

### How to unlock the transition to zero-emission trucks

The European Clean Trucking Alliance asked the road freight community to share their best ideas on how the EU can boost the transition to zero-emission trucks.

Participants from across the EU (Germany, Sweden, Spain, Hungary, France, Poland, Italy, Belgium) submitted more than 70 ideas between August and October 2022.

The suggestions were presented to top speakers from the political leadership of the EU and the road freight sector in a live debate organised by the Alliance in October 2022.

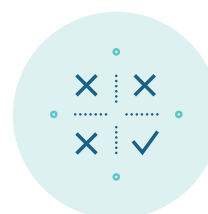
#### Main hurdles to deploying more e-trucks in Europe



High upfront cost  
of e-trucks



Insufficient charging  
infrastructure



Limited availability  
of e-trucks





## TOPIC 1

### Improve the availability of batteries and e-trucks in Europe

**Stricter CO<sub>2</sub> standards for HDVs** will encourage manufacturers to increase the supply of vehicles and give them with the certainty needed to make investment in the production of e-trucks.

**Boost the European battery industry with research, investment & permitting:**

- Boost research on battery recycling and new battery technologies, for example on solid-state batteries.
- Promote investment (tax incentives, direct funding) in battery R&D and recycling.
- Invest in and backshore the e-truck supply chain, including battery factories and raw materials refining.
- Increase investments in the European battery industry to develop innovative batteries for trucks with autonomy.
- Unlock public funding and a fast-track permit process for new gigafactories.
- Sign unilateral agreements with supplier countries outside EU (e.g. Canada).

#### **Cross border pilots.**

Enable cross-border pilot projects to test available and high-efficient solutions for trucks at fleet scale on most frequented motorways.

#### **Develop charging infrastructure.**

E-trucks availability is also connected to available infrastructure to recharge. Without the infrastructure, e-trucks users cannot recharge.

#### **Truck manufacturers to support all fleet sizes to transition.**

Truck manufacturers need to accelerate their plans to roll-out e-trucks and not only work with large fleet owners but also owners of smaller fleets which are as progressive.

#### **A zero-emission trucks' mandate**

- For transport companies to buy x% of their vehicles as zero-emission trucks.
- For truck makers to sell x% of their vehicles as zero-emission trucks.



## TOPIC 2

### Adapt the regulation that governs CO<sub>2</sub> emissions from heavy duty vehicles

#### **Expand the scope to all types of vehicles.**

Light and medium trucks, buses and vocational trucks have been exempted until now from CO<sub>2</sub> reduction targets. These categories of vehicles should be regulated to ensure all vehicles' emissions are covered.

#### **CO<sub>2</sub> footprint of batteries.**

Include CO<sub>2</sub> emissions embedded in batteries of e-trucks to create incentives for smaller batteries and the deployment of e-highways.

#### **Set higher targets for CO<sub>2</sub> emission reductions**

and include new intermediary targets to accelerate the supply of e-trucks and drive the prices down:

- From a 30% to a 60% CO<sub>2</sub> target for 2030.
- A new 90% CO<sub>2</sub> target for 2035.
- A new 100% target for 2040, equivalent to setting an end date for the sale of trucks with combustion engines.

**Align the CO<sub>2</sub> target for 2030 with truck manufacturers' commitments** for zero-emission deployment, including a full phase-out of ICE sales by 2040.

#### **Revise the rules offering compliance flexibilities for truck manufacturers.**

Allow manufacturers to pool their credits and extend the banking and borrowing scheme beyond 2030.

**Revise the incentive mechanism for zero- and low-emission vehicles** to account for the weight and range of vehicles.

#### **Leave-out an e-fuels crediting system.**

Trucks running on e-fuels should not count towards CO<sub>2</sub> reduction targets.

#### **Economies of scale.**

Stricter CO<sub>2</sub> standards for HDVs will drive the supply of trucks and unlock economies of scale. Trucks will become more affordable upfront.





### TOPIC 3

## Improve the deployment of charging infrastructure

### Charging standards and Megawatt charging.

Accelerate the development of charging standards, especially for megawatt charging.

Launch pilots of megawatt charging systems as soon as possible – without waiting to the publication of all related standards

Under the **Alternative Fuels Infrastructure Regulation**, mandate :

- Minimum levels of public infrastructure roll-out in all EU countries.
- Minimum charging requirements should be based on an optimistic projection of zero-emission trucks
- Mandatory charging stations and standards on major rest stations.
- Incentives for more public charging point on highway.

### Combine stationary charging with dynamic charging

Develop electric road systems (ERS or e-highways) to complement existing infrastructure, balance the grid, allow mass fleet charging and intelligent distribution of energy by:

- Launching targeted studies and pilot projects to assess the merits of the system
- Integrating the technology in the EU planning for TEN-T networks
- Setting a standard for the system.

### Early planning of infrastructure:

- Plan and launch infrastructure projects today to account for potential delays or long lead times e.g. it can take up to 10 years to achieve a project.
- Work with utilities at national levels to anticipate the areas where the grid will need to be updated e.g. truck depot areas and busiest truck rest areas along the TEN-T network.

### Targeted roll-out of public charging points:

- Achieve a complete coverage of the TEN-T Core and Comprehensive Networks.
- Mandate charging points across borders to enable transborder freight.
- Prioritise deployment in areas with the highest freight traffic flows, including core highways, and at intermodal nodes.

### Support private charging deployment.

- Subsidise the early build-out of private depot charging/refueling infrastructure.
- Update building codes for logistics centers (depots, warehouses, supermarkets, etc) to accommodate for e-truck charging (grid connections of several megawatts).
- Mandate petrol station to install charging points.



### TOPIC 4

## Readiness of European countries

- Increase political will – Belgium.
- Increased financial support to help businesses purchase electric trucks – Germany.
- Purchase subsidies to bring the cost of e-trucks down – Belgium.
- Favorable and tax regime for e-trucks to level the playing field with diesel trucks – France.
- Get e-trucks in the hands of fleet operators, so that they can be convinced of their technical feasibility.
- Alternative business models and flexible financing options that enable fleets to overcome the additional upfront costs of e-trucks and benefit from their reduced Total Cost of Ownership.
- Road toll exemptions for zero-emission trucks and higher taxes and road tolls for fossil fuel trucks.
- Significant subsidies on hydrogen fuel prices to develop fuel cell heavy-duty trucks.
- Support open-silo innovation between alternative charging developers, in detail electric road systems, and the OEMs, for better integration into the vehicles.

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## TOPIC 4

### READINESS OF EUROPEAN COUNTRIES

- Funding for innovation pilots and commercial demonstrators opening the market for innovative products that will enable smarter and more sustainable charging compared to what we are seeing now.
- Improve awareness and knowledge about the real-world performance of e-truck technologies, including knowledge on battery degradation.
- Zero-emission trucks should be exempt from paying road tolls and from driving restrictions during certain times (sunday, bank holiday) or in certain areas – Transit zones in Austria and Switzerland.
- Set up a zero-emission trucks fleet mandate.