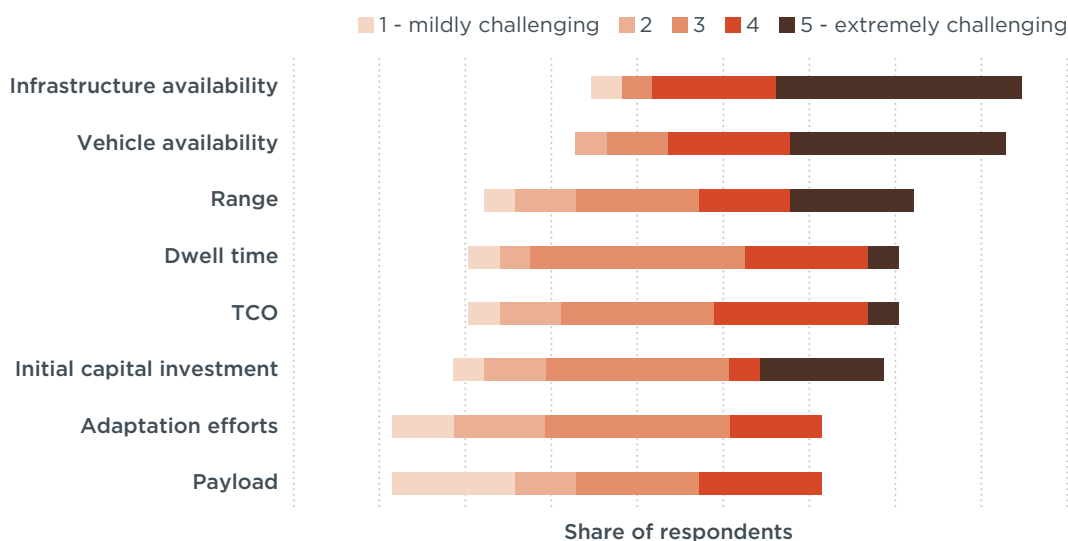


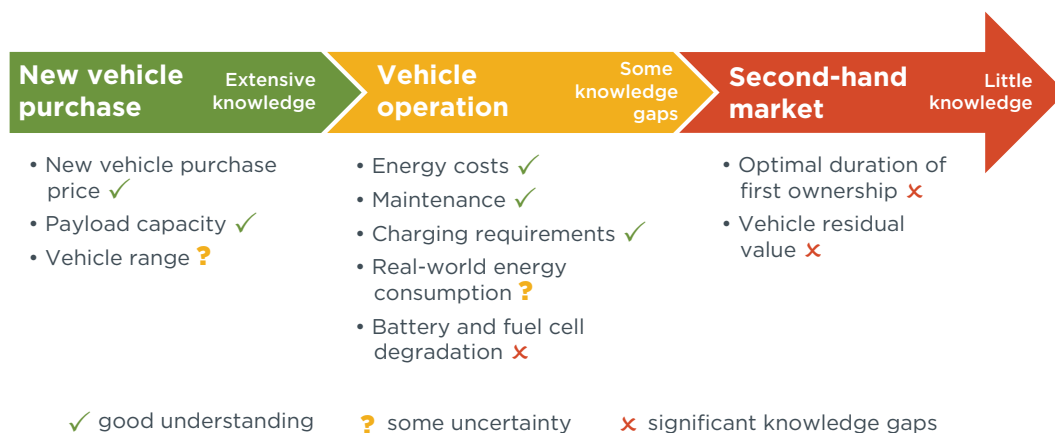
Accelerating the deployment of zero-emission trucks in Europe

In Europe, the significant contribution of road freight to overall greenhouse gas emissions means there is a growing appeal to transition to fleets of zero-emission trucks. However, due to a number of perceived barriers, ambitions have not yet crystalized into a strong deployment of such vehicles. These perceived barriers include concerns about model availability and technical, financial, and operational impediments. However, there are a number of actions that can be taken to address these concerns and hasten the transition to zero-emission trucking.



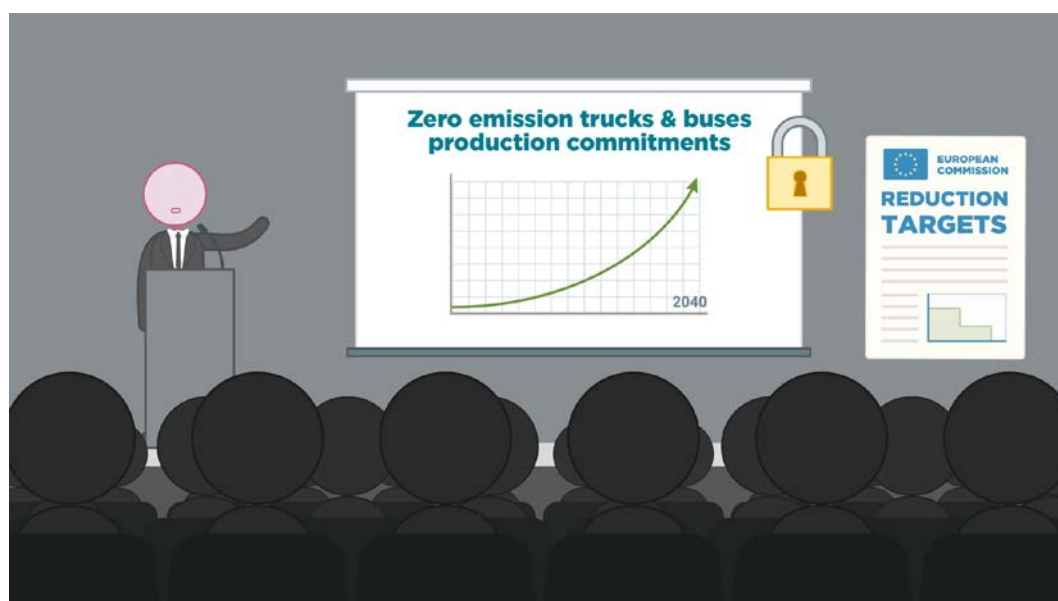
Based on our consultation with members of the European Clean Trucking Alliance (ECTA), we recommend the following to accelerate the deployment of zero-emission trucks in Europe:

» **Continue to build knowledge on zero-emission trucking technology** by addressing knowledge gaps remaining in several stages of the vehicles' life cycle.







» **Increase access to charging and refueling infrastructure** via increased collaboration between fleet owners, truck manufacturers, utilities, and infrastructure providers. Charging at the depot can cover a large portion of fleets' energy needs.

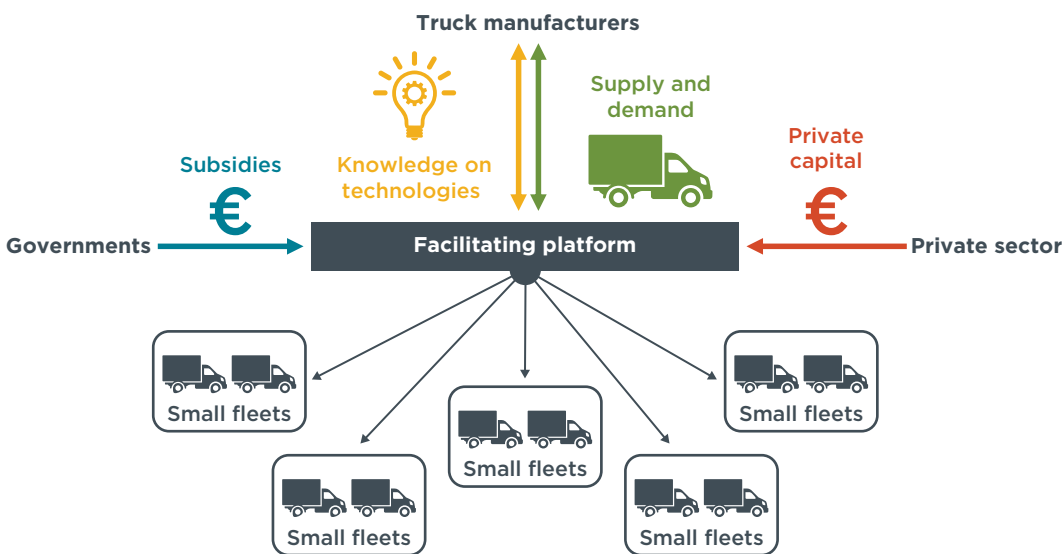
» **Increase vehicle supply and model diversity through binding CO₂ regulation.** The revision of the heavy-duty CO₂ emission standards planned for November 2022 is an opportunity for the EU to enshrine the ambitions of manufacturers for zero-emission trucks into binding regulation.



» **Support diverse business models to help overcome financial challenges.** Solutions such as trucking-as-a-service and charging-as-a-service can facilitate the transition to zero-emission trucking.

	 Truck ownership	 Infrastructure ownership	 Operational expenses	 Payment
Traditional ownership	Carrier	Carrier	Carrier	One-off upfront payment
Leasing	Carrier/manufacturer	Carrier	Carrier	Fixed monthly payment
Trucking-as-a-service (TaaS)	Service provider	Service provider	Carrier	Fixed monthly payment
Pay as you drive	Service provider	Service provider	Carrier	Monthly fee based on usage
Charging-as-a-service (CaaS)	Carrier	Service provider	Carrier	Fixed monthly payment

» **Facilitate the access of small fleets to the zero-emission truck market.** Third-party organizations can provide a platform to give those companies access to the zero-emission truck market, which can also boost the market and reduce risk for OEMs.



» **Develop best practices through enhanced collaboration between stakeholders.** Strategic partnerships between shippers, logistics providers, and their transport partners provide a collaborative environment, particularly as sustainability criteria for shipping contracts become common practice. In addition, knowledge gaps can be closed by sharing feedback from early adopters of zero-emission trucks to other transport partners.

www.theicct.org

communications@theicct.org

[twitter @theicct](https://twitter.com/theicct)

PUBLICATION DETAILS

Title: Road freight decarbonization in Europe: Readiness of the European fleets for zero-emission trucking

Authors: Pierre-Louis Ragon and Felipe Rodríguez

Download: <https://theicct.org/publication/road-freight-decarbonization-europe-sep22/>

Contact: Pierre-Louis Ragon, p.ragon@theicct.org

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