

COMBATTING GLOBAL WARMING AND AIR POLLUTION

# KICK-OFF SESSION

## Getting zero-emission vans and trucks on the road



PARTNERS



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**MOVIN'ON**

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TALSOM

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The background features a dark blue field with several overlapping geometric shapes in a lighter, medium blue. These shapes include a large circle on the left, a wide diagonal band, and various angular polygons, creating a dynamic, layered composition.

# **BACKGROUND AND MOTIVATION**

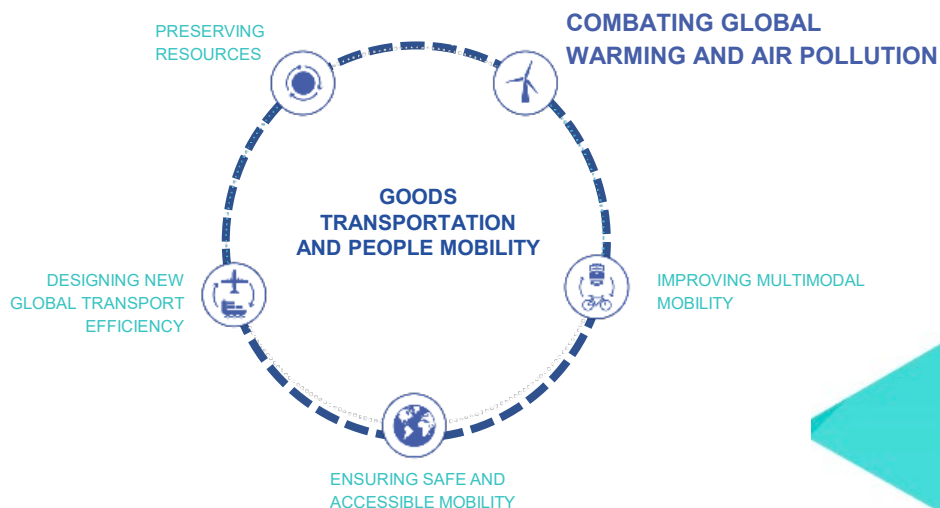
## Why is getting zero-emission vans and trucks on the road important? Background and motivation

The entire transport sector needs to fully decarbonize by 2050 to meet the Paris Agreement climate targets. Most discussions of zero-emission vehicles focus on automobiles and mass transit, and their market is developing rapidly.

Yet there is one segment that is often overlooked. Freight trucks—urban delivery vans, regional trucks, long-haul tractor-trailers, and other commercial vehicles – represent an enormous and timely opportunity for transport decarbonization.

Unless current trends change radically, emissions from road freight vehicles, which represent over 60% of freight transport emissions, could double by 2050 compared to 2015—making Paris Agreement targets all the harder to meet. Precisely because freight vehicles are relatively small in number and large in carbon contributions and other emissions, getting zero-emission freight vehicles (ZEFVs) on the road will produce an outsize impact on CO2 reduction

And still, while the demand for ZEFV seems to be there, as testifying by the action campaign jointly led by TDA, The Climate Group/EV100 and CALSTART /Drive to Zero , their availability is still lacking or at least lagging in terms of broad range. So, based on a market economy logic, the challenge is to explore what is needed to match supply and demand on that particular field. With this in mind, the identification of a burning question was quite easy: How do we get more zero-emission vans and trucks on the road?





# **KICK-OFF WORKING SESSION**

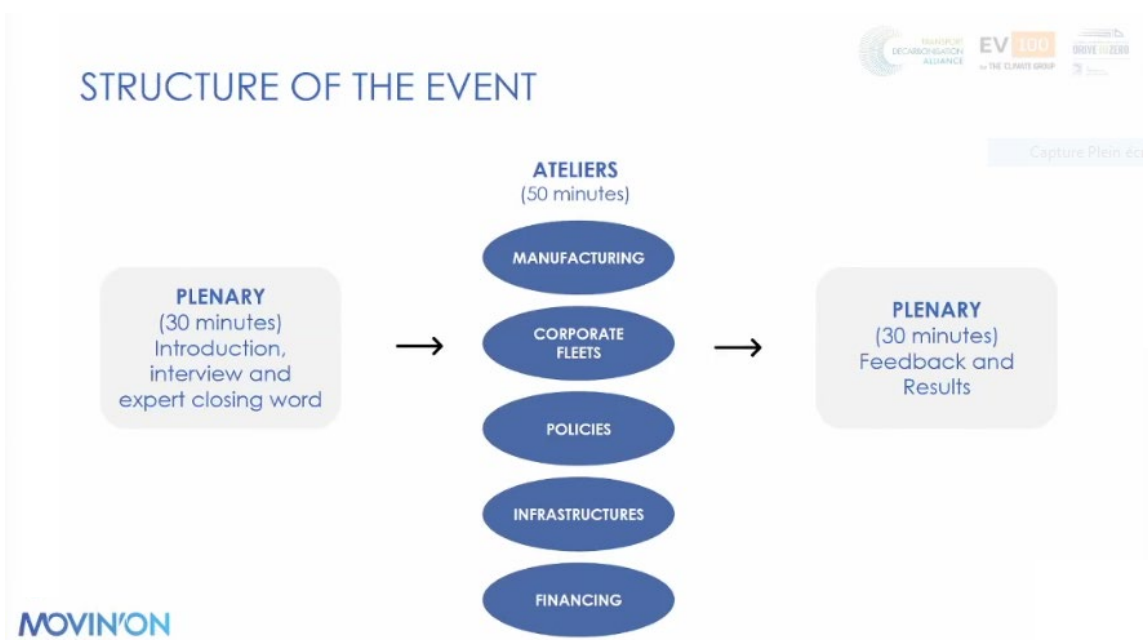
## Kick-off working session

This Kick-off Working Session was the first in a series initiated by the [Transport Decarbonisation Alliance \(TDA\)](#), [The Climate Group/EV100](#), and [CALSTART/Drive to Zero](#).

Based on its proven ecosystemic approach and collaborative work on actionable solutions, [Movin'On](#) provided TDA, The Climate Group/EV100 and CALSTART/Drive to Zero a virtual interactive Kick-off Session entitled "Where are the Zero-Emission Freight Vehicles? Challenges and opportunities to speed vehicle availability" on May 27, 2020.

This digital meeting was developed on 3 successive parts:

- **An opening Plenary Forum** accessible to a wide audience, featuring high level speakers to set the stage.
- **An interactive Working Session of 5 Ateliers** running in parallel, hosted in virtual breakout rooms for selected experts from both public and private sectors alongside the whole value chain to deep dive into focused topics: Manufacturing, Innovative Business Models, Policies, Infrastructure, and Financing.
- **A closing Plenary Forum** open again to all attendees to share with a wider audience main discussion points and key findings from the 5 Ateliers and to provide visibility on opportunities to seize.



# Opening Plenary Forum



**Sita Holtslag led this introductory part.**

She is Chair of the Zero-Emission Freight Vehicle ACTION Group on behalf of the TDA - Transport Decarbonisation Alliance. She introduced three inspiring high-level speakers to set up the stage and give perspective.

## ‘Freight at a glance’ - an expert’s insight

Bill van Amburg, CALSTART Executive Vice-President, shared a short facts and figures pitch to introduce the topic, outlining that scaling up the production of ZE freight trucks—long-haul tractor-trailers, regional trucks, urban delivery vans, and other commercial vehicles - represent an enormous and timely opportunity for transport decarbonization because of their relatively high share of transport emissions.



Bill Van Amburg  
Executive Vice-President,  
CALSTART

« This is really a critical time to get these vehicles to market much faster, and reap on the environmental, economic and social benefits they will bring. »

Zero-emission vehicles are coming in waves – but we must prepare our policy and investment “eco-system” to support them



## Opening Plenary Forum



### **‘Don’t be afraid to start with freight!’- a Minister’s call for joint action**

These topical insights were followed by an interview of Stientje van Veldhoven, the Dutch Minister for Environment and incumbent TDA Chair, with Mary Crass, Head of Institutional Relations and Summit at ITF-International Transport Forum as a moderator.

Minister Van Veldhoven provided high level perspective in a post-Covid context, explaining her ambition to put the topic of freight vehicle availability higher on the political agenda, so as to concretely and efficiently address climate change and sustainable development. “Don’t be afraid of freight!”: with this motto, she outlined the importance of collaborative innovation between key actors and highlighted how public-private partnerships can be instrumental for actionable results within the next 5 years.

**« It’s efficient and cost effective to start with zero-emission freight vehicles. I’d like to see how the post-Covid-19 recovery can help us galvanize commitments and scale up action to accelerate zero-emission freight vehicles to market. »**

STIENTJE VAN VELDHOVEN Minister for the Environment, The Netherlands - TDA Chair



## Opening Plenary Forum

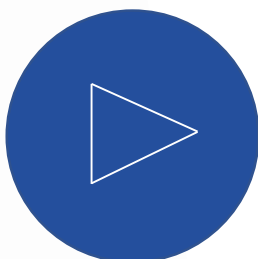


### **‘Race to Zero’ to COP 26 - UK High Level Champion welcomes freight on board**

Building on this inspirational call for action, Nigel Topping, High Level Climate Champion for COP 26, welcomed this TDA, The Climate Group/EV100 and CALSTART/Drive to Zero Kick-off Session as it fits in the “Race To Zero campaign” launched by both Chile and UK HLCs on the way to Glasgow November 2021. He called it “a competitive but winnable race” with respect to freight vehicles and that is important to already be in the race because once this takes off it will be impossible to catch up with the frontrunners of this transition.

**« This is a competitive race and inevitable transition towards zero-emissions. Those who lead will win and those lagging will lose - market shares, jobs, etc. So, whether you are a mayor who wants to be re-elected, a minister wanting to see the economy thrive, a CEO seeking higher share prices, the incentives are all here to join and win the race to zero. »**

NIGEL TOPPING High Level Climate Action Champion COP26



You can watch the full plenary opening session here  
**[Kick-off Plenary](#)**

## Interactive working session

This collaborative part of the Kick-off Session brought together about 50 participants from Europe, America and Asia: industry and policy experts from both public and private sectors, including decision makers from the entire value chain: fleet owners, fleet operators, OEMs, outfitters, cities/regions and finance decision-makers, NGOs, academics etc. (participant list attached in annex).

The Working Session encompassed 5 different virtual Ateliers running in parallel, each of them gathering up to 8 selected participants around an expert leader, with technical support of a dedicated facilitator for all virtual interactions required.

Each break-out group was oriented towards a specific question, related to the main topic.

- 1. Manufacturing:** How to get global vehicle makers to more swiftly offer a wider ZEFV portfolio?
- 2. Corporate Fleets:** How can progressive companies incorporate ZEFVs into their fleets?
- 3. Policies:** How to raise the ambition of cities and governments in supporting wider ZEFV adoption?
- 4. Infrastructure:** How to scale up infrastructure to support large-scale ZEFV deployment?
- 5. Financing:** How to develop new and leverage existing funding streams to accelerate ZEFV adoption?

Important to point out that all participants were requested to reflect on actionable solutions in a 5 years timeline so as to keep it pragmatic and operational. For the sake of efficiency and coherence in sharing outcomes at the end of the Ateliers, a three-step sequence of activities was preliminary defined:

- Identifying the 3 most significant challenges related to the central question.
- Identifying the 3 most valuable opportunities/actionable solutions to overcome the identified challenges.
- Listing the key stakeholders who will play a crucial role in the opportunities presented.

To stimulate an interactive experience, participants were asked to fill post-its, vote and build on other's ideas, using Miro, an online collaborative platform. To leverage interactions between participants during the collaborative Working Session, the experts leaders pre-filled a matrix-like board to feed in their ideas for each of the three items (challenges, opportunities, stakeholders).



# **OVERVIEW OF THE FIVE VIRTUAL ATELIERS**

# 1. MANUFACTURING

## How to get global vehicle makers to more swiftly offer a wider ZEFV portfolio?



**Led by Cristiano Façanha**  
Global Director,  
CALSTART/Drive To Zero

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**A major market transformation towards ZEFVs is starting.** Technology is advancing rapidly, the number of vehicle models is increasing exponentially, and our knowledge of supportive policies, regulations, financial incentives, infrastructure investments and pilot projects improves. However, ZEFVs still get less attention and incentives than passenger vehicles.

**ZEFV deployment should be focused on those applications for which ZE technology is most ready.** This is typically the case for urban applications since urban deliveries are conducted over relatively short distances, predictable routes with vehicles returning to depots for charging overnight. As ZE technologies can be transferred across vehicle platforms, the technologies used in urban delivery vehicles can be transferred to other vehicle platforms carrying heavier loads over longer and less predictable routes.

**There is a need for coordinated policies and incentives.** Not only are there insufficient supportive ZEFV policies and incentives for manufacturers, but there is a lack of coordination amongst them. One challenge is the need for coordination across multiple agencies involved, adding complexity to comply with multiple requirements and priorities. To avoid compliance with multiple requirements, regional policies should be harmonized at the national level.

**Charging/fueling infrastructure is a major challenge to faster ZEFV adoption.** The most important opportunity is to standardize infrastructure requirements, and ease local planning restrictions to enable renewable and on-site power supply. It is also important to improve coordination across local agencies and raise the discussion nationally to avoid dealing with different utility requirements.

**ZEFVs need to achieve better cost parity for wide adoption.** Higher up-front capital costs, lack of readily available infrastructure, and concerns about ZE technology not being ready to meet all operational requirements add uncertainty to the near-term ZEFV economics.

**Working together across leading regions will be key.** ZEFV will only achieve cost parity with internal combustion engine technologies when global manufacturing reaches economies of scale. Because truck manufacturing is a global market, economies of scale will be achieved faster if leading regions are targeting ZEFV deployment and policies consistently.

# 1. MANUFACTURING

## How to get global vehicle makers to more swiftly offer a wider ZEFV portfolio?



Led by **Cristiano Façanha**  
Global Director,  
CALSTART/Drive To Zero

### In summary:

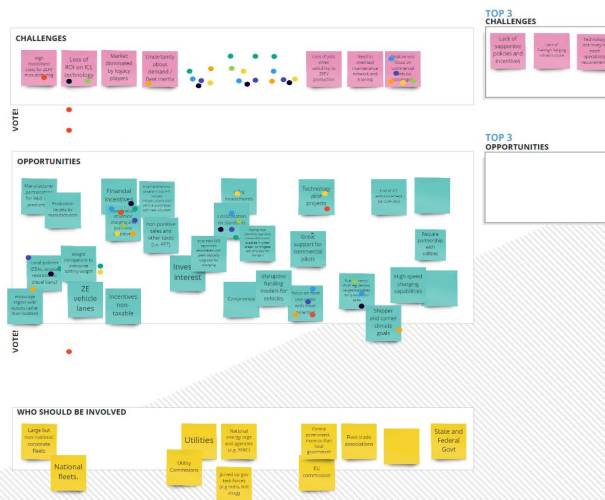
- A major market transformation towards ZEFVs is starting.
- ZEFV deployment should be focused on those applications for which ZE technology is most ready.
- There is a need for coordinated policies and incentives.
- Charging/fuelling infrastructure is a major challenge to faster ZEFV adoption.
- ZEFVs need to achieve better cost parity for wide adoption.
- Working together across leading regions will be key.



### Participants:



### Manufacturing How to get global vehicle makers to more swiftly offer a wider ZEFV portfolio?



# 2. CORPORATE FLEETS

## How can progressive companies incorporate ZEFVs into their fleets?



Led by Sandra Roling  
Head of EV100,  
The Climate Group

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**A ZEFV market expansion is expected over the coming years.** Early demand is crucial to building up the electric commercial vehicle market. A range of companies have already started to incorporate electric models into their fleets, and we can see today a growing number of models available on the market.

**There is opportunity for fleet users and manufacturers to co-create models to fit specific needs.** Fleet owners aren't always able to find vehicles that meet their specifications in terms of payload, for examples, or dimensions to fit with the existing logistical systems in their distribution hubs. Retrofitting can be a temporary work-around in some cases, but ultimately a broader range of solutions is needed. While the current limitation of models presents an obstacle, companies already engaging on electrifying their commercial fleets (and being publicly known to do so) also perceive opportunities as they are approached by manufacturers to share their needs or comment on new vehicle concepts. Increased dialogue between fleet owners and manufacturers can ensure development efforts are focused on the vehicles companies most need.

**Joint investment and planning are needed.** Charging infrastructure is likewise an important challenge, especially as the capacity required for larger vehicles and fleets means a stronger need for grid balancing and grid reinforcement. Close partnerships between stakeholders are important here to enable joint investment and planning. Supportive programs from utilities can be important enablers, as are regulatory solutions that allow for the fair sharing of cost burdens, e.g. for grid reinforcement.

**There is opportunity to jointly push for sustainable solutions.** More R&D into battery technology is needed as well as the development of responsible sourcing practices and robust reuse and recycling programs. Open dialogue in the industry is important, with manufacturers and vehicle users jointly pushing for sustainable solutions.

# 2. CORPORATE FLEETS

## How can progressive companies incorporate ZEFVs into their fleets?



Led by Sandra Roling  
Head of EV100,  
The Climate Group

### In summary:

- ZEFV market expansion is expected over the coming years.
- There is opportunity for fleet users and manufacturers to co-create models to fit specific needs.
- Joint investment and planning are needed.
- There is opportunity to jointly push for sustainable solutions.

**Participants:**

- Sandra Roling (The Climate Group)
- Dany Ajmal (Kohler Foundation)
- Virginia Covo (Anheuser-Busch InBev)
- Elke Lindner (DB Schenker)
- Bill Cawein (FedEx Express)
- Chris Jackson (Centrica Mobility Ventures)
- Angela Hultberg (Ingka Group (IKEA))
- Felix Vorwerk (DPDHL)

**CHALLENGES**

- Vehicle availability
- Vehicle cost
- Vehicle charging infrastructure
- Vehicle maintenance
- Vehicle safety
- Vehicle security
- Vehicle reliability
- Vehicle performance
- Vehicle emissions
- Vehicle noise
- Vehicle aesthetics
- Vehicle ergonomics
- Vehicle safety features
- Vehicle security features
- Vehicle reliability features
- Vehicle performance features
- Vehicle emissions features
- Vehicle noise features
- Vehicle aesthetics features
- Vehicle ergonomics features

**TOP 3 CHALLENGES**

- Vehicle availability
- Vehicle cost
- Vehicle charging infrastructure

**OPPORTUNITIES**

- Vehicle sharing
- Vehicle leasing
- Vehicle pooling
- Vehicle subscription
- Vehicle financing
- Vehicle insurance
- Vehicle maintenance services
- Vehicle charging services
- Vehicle safety services
- Vehicle security services
- Vehicle reliability services
- Vehicle performance services
- Vehicle emissions services
- Vehicle noise services
- Vehicle aesthetics services
- Vehicle ergonomics services
- Vehicle safety features services
- Vehicle security features services
- Vehicle reliability features services
- Vehicle performance features services
- Vehicle emissions features services
- Vehicle noise features services
- Vehicle aesthetics features services
- Vehicle ergonomics features services

**TOP 3 OPPORTUNITIES**

- Vehicle sharing
- Vehicle leasing
- Vehicle pooling

**WHO SHOULD BE INVOLVED**

EVERYONE!

- Community
- Vehicle designer
- Fleet manager
- Regulator
- Energy company
- Insurance provider
- ...

# 3. POLICIES

## How to raise the ambition of cities and governments in supporting wider ZEFV adoption?



**Led by Ben Sharpe**  
Senior Researcher, ICCT  
International Council on  
Clean Transportation

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**Public announcements for a long-term zero-emission vision are key.** We see many countries are making announcements on 100% sales of zero-emission passenger, especially in Europe with targets like all new cars sold in 2030 will be zero-emission (The Netherlands), and last year Canada did so as well (2040 target). These announcements are critically important for sending a strong signal about the direction of the on-road transport sector and are equally important for vans and trucks.

**There is a need to bring down the high capital costs of zero-emission trucks and infrastructure.** In order to do so, getting the volumes up as quickly as possible is key and the public sector has a role to play by leveraging their incredible purchasing power. Governments alone are at the heart of an impressive amount of operations requiring vehicles and transportation. Whether in terms of the fleets they own, or the contracts they grant to subcontractors, they must lead by example by transitioning to electric drive. Not only is this very important symbolically by sharing a clear vision on what the future looks like, but it would help boost early sales volumes, thus directly driving down the costs.

**COVID recovery packages need to be earmarked to promote zero-emission options.** We've seen the EU release a very ambitious stimulus package for economic recovery that includes several important measures for promoting clean energy and zero-emission transport. Governments at all levels (i.e., federal, state/provincial, city) can be using this recovery opportunity to turbocharge the transition to low-carbon mobility. This is a time to recover greener. Once again, this is a way for the public sector to walk the talk and make things happen.

**Successful policies around the world should be deployed in other key markets.** We've seen low emission zones (LEZs) be very effective in getting rapid deployment of zero-emission vehicles in cities. With some cities now announcing zero-emission zones, specifically for freight. The momentum to push for freight to be included in urban transport planning is now, many cities have announced a zero-emission zone for 2030, it is crucial freight is part of that. Furthermore, other successful non monetary benefits include the use of taxi and bus lanes, wider access hours, the stimulation of city hubs.

**Successful policies around the world should be deployed in other key markets.** We've seen low emission zones (LEZs) be very effective in getting rapid deployment of zero-emission vehicles in cities. With some cities now announcing zero-emission zones, specifically for freight. The momentum to push for freight to be included in urban transport planning is now, many cities have announced a zero-emission zone for 2030, it is crucial freight is part of that. Furthermore, other successful non monetary benefits include the use of taxi and bus lanes, wider access hours, the stimulation of city hubs.



# 3. POLICIES

## How to raise the ambition of cities and governments in supporting wider ZEFV adoption?



**Led by Ben Sharpe**  
Senior Researcher, ICCT  
International Council on  
Clean Transportation

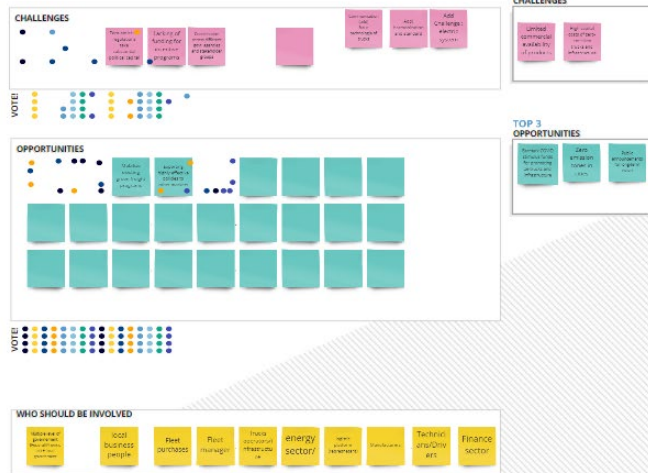
### In summary:

- Public announcements for a long-term zero-emission vision are key.
- There is a need to bring down the high capital costs of zero-emission trucks and infrastructure.
- COVID recovery packages need to be earmarked to promote zero-emission option.
- Successful policies around the world should be deployed in other key markets.



### Policies

How to raise the ambition of cities and governments in supporting wider ZEFV adoption?



# 4. INFRASTRUCTURE

## How to scale up infrastructure to support large-scale ZEFV deployment?



**Led by Dave Mullaney**  
Principal – Industry and  
Heavy transport, RMI Rocky  
Mountain Institute

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**We need to make it less expensive and enable revenue.** It is no surprise that speaking about infrastructures rapidly lead to the financial aspect. The initial cost and the ability to recover costs of charging infrastructure (both hydrogen and battery electric driven) are without any doubt main challenges. Capital exists if it can generate a return. So, it is important to tackle the cost side, especially soft costs such as permitting delays, excessive paperwork, etc. AND tackle the revenue side – enabling the asset to generate revenue to recover costs. Fleet (e.g. rideshare, taxis, final mile delivery) use is key to generating that utilization and revenue.

These two barriers of high costs and low/unknown revenue can be overcome by good policies supported by subsidies and taxation and through growing fleets.

**We need a vision with a concrete phased approach.** We need synergy between the stakeholders involved to accelerate and scale up infrastructure deployment. It is especially important when we start talking about solution such as a phased approach.

The common understanding is that the phased approach starts with urban delivery and niche market, like waste trucks, where vehicle travel patterns are more limited. This would make it much easier to provide the required infrastructure and create small “islands” that could be linked altogether through corridors and, ultimately, make long haul possible as well. Yet, creating such a reality entails a shared vision among all stakeholders and involving them in the planning process.

**Infrastructure is where worlds collide.** Electricity, land use, transportation are all tangible examples where we need to acknowledge the collective benefits that can be created if they all work together. In particular, three worlds must come together for this:

1. The policy world on all levels: national, regional, and municipal
2. The private sector world: OEMs, depot owners, shippers, haulers, charging infrastructure companies, etc.
3. The energy world: energy companies, utilities, and grid operators

If we can manage to better coordinate this multitude of stakeholders, the rest will be much easier to put in place.

# 4. INFRASTRUCTURE

## How to scale up infrastructure to support large-scale ZEFV deployment?



Led by Dave Mullaney  
Principal – Industry and Heavy transport, RMI Rocky Mountain Institute

**In summary:**

- **We need to make it less expensive!** Improve the TCO for charging infrastructure by aligned policies and growing fleets and usage
- **We need a vision with a concrete phased approach** on where to start (urban areas) and what comes next (niches + corridors)
- **Infrastructure is where worlds collide.** Connecting the worlds of policy, private sector and energy is crucial

**Infrastructures**  
How to scale up infrastructure (investments) to support large-scale ZEFV deployment?

**Participants:**

- DAVE MULLANEY (Rocky Mountain Institute)
- CAMILLE LAJONCHIE (International Consultant)
- BJÖRN UTGÅRD (EVBox)
- KOEN VAN HAPEREN (Heliox)
- ALYCIA GILDE (CALSTART)
- TULA EKENGREN (Västra Götaland)
- FRANÇOIS DETROUX (Engie)
- MIKE ROETH (NACFE)
- MARIE JOSÉ BAARTMANS (Breytner)
- AUKE HOEKSTRA (Eindhoven University of Technology)

**CHALLENGES:** Grid capacity, Operational reliability, Failure proofing, Lack of shared assets, Hidden TCO, etc.

**TOP 5 CHALLENGES:** Operational TCO, Hidden TCO, etc.

**TOP 3 OPPORTUNITIES:** (Empty box)

**WHO SHOULD BE INVOLVED:** Shippers, Fuel retailers, EU approach, etc.

Logos: TRANSPORT DECARBONISATION ALLIANCE, EV 100 BY THE CLIMATE GROUP, DRIVE TO ZERO

# 5. FINANCING

## How to develop new and leverage existing funding streams to accelerate ZEFV adoption?



Led by Bill Van Amburg  
Executive Vice President,  
CALSTART/Drive To Zero

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**Our core need at the moment is to reduce risk.** Whether it's for the user, the provider, the infrastructure or for those investing, how can we spread that risk across the lifecycle of the vehicles and infrastructure and turn it into a positive business case? The answer lies in new financial approaches, based on our learning with the wind and solar industries.

**Innovative business models need to be explored** (e.g., full-service leasing vs private ownership, transport as a service). We need to find a way to transition from this paradigm where transport is only accessible through purchasing vehicles towards it being available as a service. This idea's potential has already been proven viable through plethora of commercial ventures specialized in transport as a service. So why not "ZEFV as a service"?

Carbon off setting and in setting should also be explored in new ways. Rather than thinking about planting trees, cap and trade or other funds should be targeted to pay for ZE transport deployment. By putting those vehicles in our urban region, there would be immediate benefits on air quality as well as a carbon footprint reduction.

**This transformation requires entirely new financial approaches.** To make this work we will need this system approach. Once again, it goes back to the same culprit – the lack of coordination and of a shared vision. There are still too many silos between the manufacturer, the fleet manager, the utilities, etc. All stakeholders need to start agreeing on the timelines, the platforms, and the toolset in order to reduce risk for the investment market.

# 5. FINANCING

## How to develop new and leverage existing funding streams to accelerate ZEFV adoption?



Led by Bill Van Amburg  
Executive Vice President,  
CALSTART/Drive To Zero

### In summary

- Our core need at the moment is to reduce risk.
- Innovative business models need to be explored (e.g., full-service leasing vs private ownership, transport as a service).
- Carbon off setting and in setting should also be explored in new ways.
- This transformation requires entirely new financial approaches.

**Financing**  
How to develop new and leverage existing funding streams to accelerate ZEV adoption?

**Participants:**

- BILL VAN AMBURG, CALSTART
- ERIC DUPONT, Innovations Consultant
- ROGER GORHAM, World Bank
- MARGI VAN GOGH, World Economic Forum
- SERGIO AVELLEDA, WRI
- JURG GRUTER, ADB
- SOPHIE FUNIE, Smart Freight Centre
- MARIÈME ROCCHI, BNF-Paribas

**CHALLENGES**

- Uncertainty about long-term roadblocks
- Poorly aligned to the business case
- Lack of incentives for ZEV fleets
- Limited ZEV fleet size
- No revenue from ZEV fleet
- Limited ZEV fleet size
- Limited ZEV fleet size

**OPPORTUNITIES**

- Leasing, financing and other models
- Carbon offsets
- Capex, trade-in, rebates
- Shared use
- Fleet management
- ZEV fleet size
- ZEV fleet size
- ZEV fleet size

**TOP 3 CHALLENGES**

- Carbon offsets
- Leasing, financing and other models
- Capex, trade-in, rebates

**TOP 3 OPPORTUNITIES**

- Leasing, financing and other models
- Carbon offsets
- Capex, trade-in, rebates

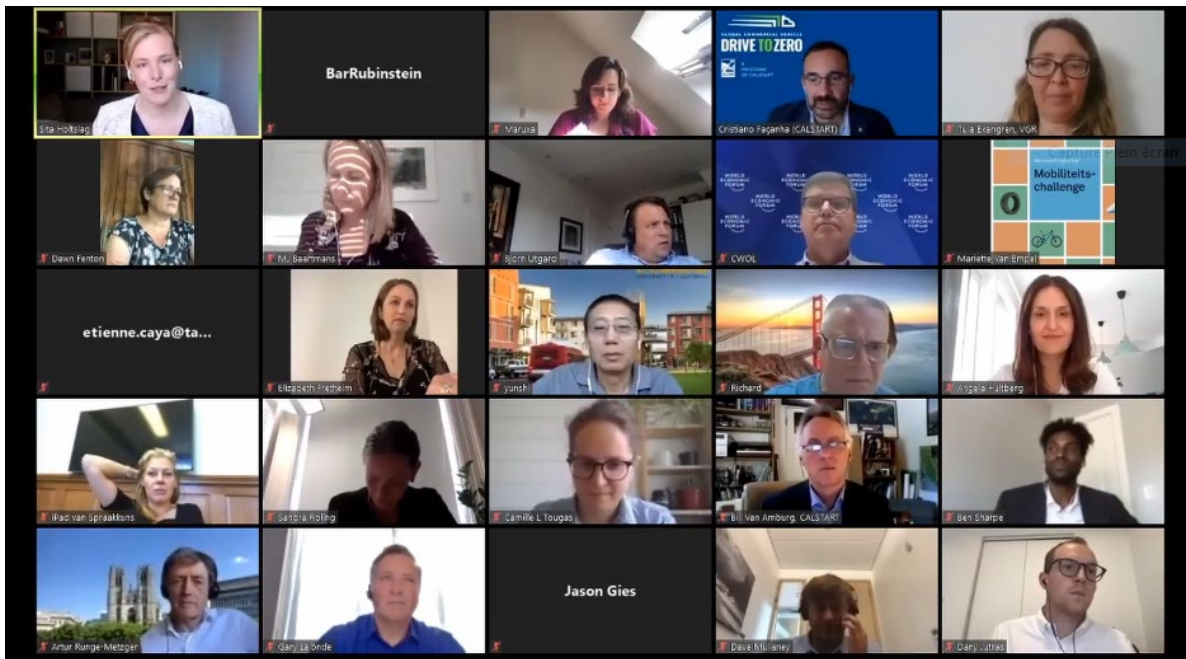
**WHO SHOULD BE INVOLVED**

- Utilities
- Fleet Providers
- Decision makers
- Companies
- Policy makers
- Financial Institutions
- Insurers
- Local governments
- Freight Companies



**CLOSING PLENARY FORUM  
WRAP-UP REFLECTIONS**

## Closing Plenary Forum - Wrap-up reflections



### A touch of humour

Introducing this wrap-up sequence, Sita Holtslag first noted that in a digital world it was just as difficult as in a physical meeting to get participants back from their break out sessions to the Plenary!

### Outcomes at a glance: what's needed to go from ambition to action?

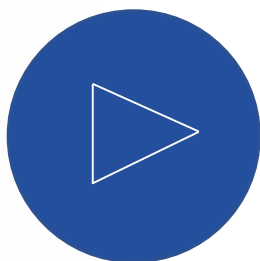
Every Expert Leader made a short report to the Plenary (section above), outlining intense discussions taking place in their respective Atelier and the collaborative spirit of committed participants. It may be hazardous to wrap-up all outcomes of such a rich and documented Working Session -but the Experts Leaders nevertheless took up the challenge and convened once more in the format of a Roundtable the day after the Kick-off Session to share their views on the main take-aways.

## Closing Plenary Forum - Wrap-up reflections

Getting ZE vans and trucks on the road requires accelerated global supply, demand, policies, infrastructure and financing.

### Lessons learned include:

- Vehicle financial incentives and infrastructure investments are needed to bring ZE technologies in cost parity with conventional ICE technologies.
- Vehicle regulations (emission/efficiency standards, sales mandates, fleet purchase rules) will send strong signals to OEMs and fleets. Ideally, they should provide more segmentation to leverage higher technology readiness in some segments and be supported by vehicle financial incentives and infrastructure investments.
- Local access and pricing policies can help incentivize ZE technologies (e.g., ZEAs, curbside management and road pricing).
- Coordination of measures (e.g., vehicle financial incentives, infrastructure investments, vehicle regulations, local access/pricing policies) is needed to create “ecosystems of support”. Manufacturers will deploy ZEVs first to those areas with the strongest ecosystems.
- De-risking investment for fleets will be needed and will include new business models and financing schemes ,vehicle leasing, battery financing.
- Scaling up targeted pilot schemes can help fleets evaluate impacts of new technologies on their operations and finances.



Watch the full wrap-up session here with [the results from the expert break-out groups](#) .



## What's next?

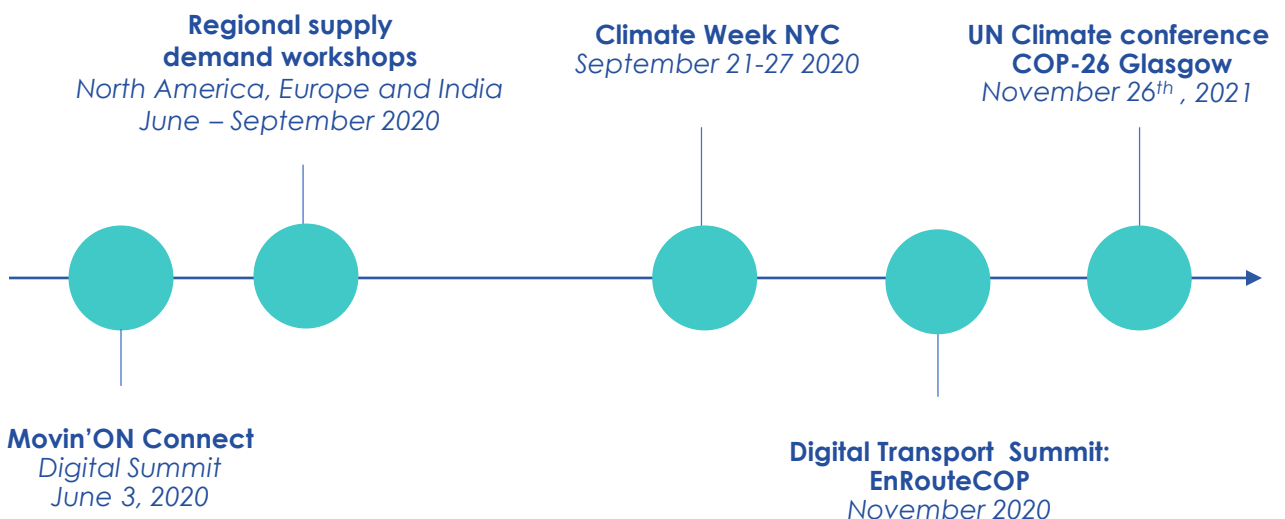
This Kick-off Session was hosted and facilitated by Movin'On and featured as part of [the Movin'On Digital Meetings](#) (3-4 June 2020). It was the first within the event series "Getting Zero-Emission Vans and Trucks on the Road!" initiated by the TDA, The Climate Group/EV100 and CALSTART/Drive to Zero to accelerate the development of the zero-emission commercial vehicle market and foster dialogues between suppliers and buyers.

### Next events include:

3 Regional workshops

- North America July/ Aug tbc
- Europe: Sept 1st 16:00 CEST
- India August/ September tbc
  
- Climate Week NYC September ("Stock Take" Workshop)
- Digital Transport Summit: En Route COP November 2020
- UN Climate Conference COP-26 November 2021

TDA, EV100 and Drive to Zero will be jointly organizing a series *Getting Zero-Emission Vans and Trucks on the Road!*



## What's next?

Results from the whole series will be conveyed to high-level decision makers and eventually to the COP-26 in November 2021. Learnings from these major events will be shared on the way to Glasgow to inspire more drivers of change to join the movement, as Minister van Veldhoven expressed in her interview.



« I challenge the industry to at least match the current demand for ZE vehicles and show you can do more. Ahead of COP-26 I'd like to see industry committing to more ambitious production, government presenting a clear roadmap of purchasing plans and policies whether it's quotas, targets, etc. We need to put this on paper – we need each other. We need you, you need us, and together we can move faster. »

### **STIENTJE VAN VELDHOVEN**

Minister for the Environment, The Netherlands  
- TDA Chair

**Sign up for the journey and  
we'll keep you updated**

# APPENDIX

# List of participants to the Kick-off Working Session

	Manufacturing	Corporate fleets	Policies	Infrastructure	Financing
Leader Experts	Cristiano Façanha CALSTART Global Director Drive To Zero	Sandra Roling The Climate Group Head of EV100 Initiative	Ben Sharpe ICCT International Council on Clean Transportation Senior Researcher and Canada Lead	Dave Mullaney RMI Rocky Mountain Institute Principal	Bill van Amburg CALSTART Executive Vice-President
Facilitators (Talsom)	Marie-Pier Chicoine	Dany Jutras	Arthus Guyard	Camille Lajeunesse	Eric Dupont
Participants Experts	Aaron Gilmore BYD		Richard Corey California Air Resources Board Executive Officer	Koen van Haperen Heliox Automotive CCO	Roger Gorham World Bank Senior Transport Specialist
	Dawn Fenton Volvo Group North America Vice President, Government Relations & Public Affairs	Elke Lindner DB Schenker Senior Manager	Artur Runge-Metzger European Commission, DG Climate Action	Bjørn Utgård EVBOX VP Global Industry Segments	Margi Van Gogh WEF World Economic Forum Head of Supply Chain and Transport Industries
	Giuliano Giovannini IVECO Head of Medium&Heavy Trucks Product Management	Bill Cawein FedEx Express Manager of Technology & Integration	Judith Bokhove City of Rotterdam Vice mayor for Mobility	Tula Ekengren Region Västra Götaland Regional developer	Sergio Avelleda WRI World Resource Institute Urban Mobility Director
	Gary Lalonde The Lion Electric Vice-President North America - Trucks	Chris Jackson Centrica Mobility Ventures Head of Fleet and Transportation	Paula Vieira Natural Resources Canada Director of Transportation and Alternative Fuels	François Detroux Engie Business Development Executive Green Mobility	Jurg Grutter Grutter Consulting Owner
	Jason Gies Navistar Inc. Director Of Business Development NEXT eMobility solutions	Angela Hultberg Ingka Group Head of sustainable mobility	Yunshi Wang China Center for Energy and Transportation, UC Davis Director	Mike Roeth NACFE Executive Director	Sophie Punte SFC Smart Freight Centre Executive Director
	David Thackray Tevva Motors Sales and Marketing Director		Pauline Fournols T&E Transport & Environment Clean Freight Policy Officer	Alycia Gilde CALSTART Senior Director, Fuels and Infrastructure	Marième Rocchi BNP Paribas Head of CIB Company Engagement Partnerships
	Nick Clay Arrival Ltd Head of Homologation and Regulatory Affairs		Karen Vancluysen POLIS Secretary general	Marie José Baartmans BREYTNER – Zero-Emission Transport Owner	Herman Sips Ministry Infrastructure and Water Management of Netherlands
	Elisabeth Fretheim Nikola Motors Head of Business Development and National Accounts		Guy Lentz Luxembourg Government Adviser	Auke Hoekstra Eindhoven University of Technology Researcher	

# MOVIN'ON ECOSYSTEM: A CATALYST FOR ACTION

Together we stand at a crossroads with respect to the future of the planet, and there is no denying the need for **immediate action**.

By making mobility **cleaner, safer, more accessible and more efficient**, we are working towards **sustainability**, and by doing so, leveraging the tremendous potential of the mobility ecosystem to improve its effect on climate.

Created and inspired by Michelin, Movin'On aims to become **the reference for sustainability** by uniting the greatest number of mobility actors around a shared goal: **better mobility with less environmental impact**.

But single entities cannot solve the issue on their own. It is crucial that we act **collectively** in order to achieve **maximum results**.

The Movin'On LABs, a Michelin initiative, are think-and-do tanks where members from 300+ partner organizations are committed to tackling current mobility challenges in the pursuit of greater sustainability.

**“CLIMATE CHANGE MUST BE AT THE CENTRE OF NATIONAL POLICIES AND NOT A PROBLEM FOR ENVIRONMENT MINISTRIES.”**

— Luis Alfonso de Alba,  
SECRETARY-GENERAL'S SPECIAL  
ENVOY FOR THE 2019 CLIMATE  
ACTION SUMMIT, UNITED NATIONS

## INTEGRAL TO THE MOBILITY ECOSYSTEM





The ACTIONgroup ZEFV led by TDA, The Climate Group/ EV100 and CALSTART/Drive to Zero are working together to jumpstart action in all needed areas. Our goal is that zero-emission freight vehicles (ZEFVs) be commercially viable by 2025 in urban and regional trips, and dominate all road freight segments by 2040. By 2050 we expect the transition to ZEFVs to be complete, with all energy being supplied from renewable sources. Getting to zero-emission freight requires supply, demand, policies, and infrastructure, and these strategies are designed to address the key barriers to faster ZEFV adoption.

### **Members of ACTIONgroup ZEFV include:**

#### **Chairs:**

TDA [CALSTART/ Drive to Zero](#) [EV100 / The Climate Group](#)

#### **Members:**

[ALICE C40](#) (European Clean Trucking Alliance) [ECTA](#) [ICCT](#) [ICLEI](#) [POLIS](#) [RMI](#)  
[Smart Freight Centre](#)  
[Transport and Environment](#)  
[WEF](#) [WRI](#)

### **Transport Decarbonisation Alliance - TDA**

The Transport Decarbonisation Alliance (TDA) brings together countries, cities/regions and companies, the “3 Cs”, as the major drivers in sustainable, low carbon mobility. The TDA has the following goal that they will aim to achieve in a collective effort:

1. Substantiated scaled-up ambition for the transport sector: designing a common vision for “front-runners”
2. Tangible action: setting up “3 Cs Communities of Interest”
3. Effective advocacy: influencing political decision-makers in key international fora on climate change (e.g. UNFCCC), sustainable development (e.g. UN High Level Political Forum – SDGs); international political processes (e.g. EU, G7, G20, B20) and through bilateral dialogues



## The Climate Group/ EV100

The Climate Group drives climate action. Fast. Our goal is a world of net zero carbon emissions by 2050, with greater prosperity for all. We focus on systems with the highest emissions and where our networks have the greatest opportunity to drive change. We do this by building large and influential networks and holding organisations accountable, turning their commitments into action. We share what we achieve together to show more organisations what they could do. We are an international non-profit organisation, founded in 2004, with offices in London, New Delhi and New York. We are proud to be part of the We Mean Business coalition. Follow us on Twitter [@ClimateGroup](https://twitter.com/ClimateGroup).

EV100 is a global initiative led by the Climate Group, which brings together companies committed to making electric transport the new normal by 2030. Over half of all new vehicles on the road go into company fleets, so it's crucial that businesses lead the shift to electric vehicles (EVs) through their investment decisions and influence on millions of staff and customers worldwide. Members are increasing demand, influencing policy, and driving mass roll-out -helping to make electric cars more rapidly affordable for everyone. #EV100

## CALSTART/Drive to Zero

CALSTART's Global Commercial Vehicle Drive to Zero program aims to enable and accelerate the growth of global zero-emission commercial vehicles (ZECVs), with the vision that ZE technology will be commercially viable and cost competitive by 2025 in first-success segments (referred to as "beachhead" segments) and leading regions and will dominate new vehicle sales across all segments by 2040. Our theory of change, which has deeply resonated with industry and policy makers (and informs the core of California's Advanced Clean Trucks rule), is to target ZECV deployment in beachhead segments where electrification works now; align deployment and build supporting "ecosystems" in leading regions made up of aligned policies, financial incentives, infrastructure investments, and pilot projects; and reach economies of scale faster and expand ZECV market as components mature, volumes grow, and costs decrease. Drive to Zero counts on 80+ pledge partners including government, industry and civil society, a portfolio of critical supporting tools, and a strong online presence. Follow us on Twitter [@TeamDrivetoZero](https://twitter.com/TeamDrivetoZero).

- A message from the Secretary of the UN: <https://youtu.be/qsd6Z0nQTOY>
- TDA's short intro video: <https://youtu.be/M4X0lqPO4bg>, and
- A message from the Dutch Minister of the Environment, Minister Stientje van Veldhoven, who currently chairs the TDA, <http://tda-mobility.org/>.

This report has been made possible  
thank to the great work of :

## **TDA**

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Senior Advisor Sustainable Mobility

## **The Climate Group**

**Sandra Roling**

Head of EV100

## **CALSTART**

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**EV 100**  
by THE CLIMATE GROUP



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TALSOM