

BOOSTLOG

MONITORING AND IMPLEMENTING EFFICIENT AND ZERO-EMISSION FREIGHT TRANSPORT

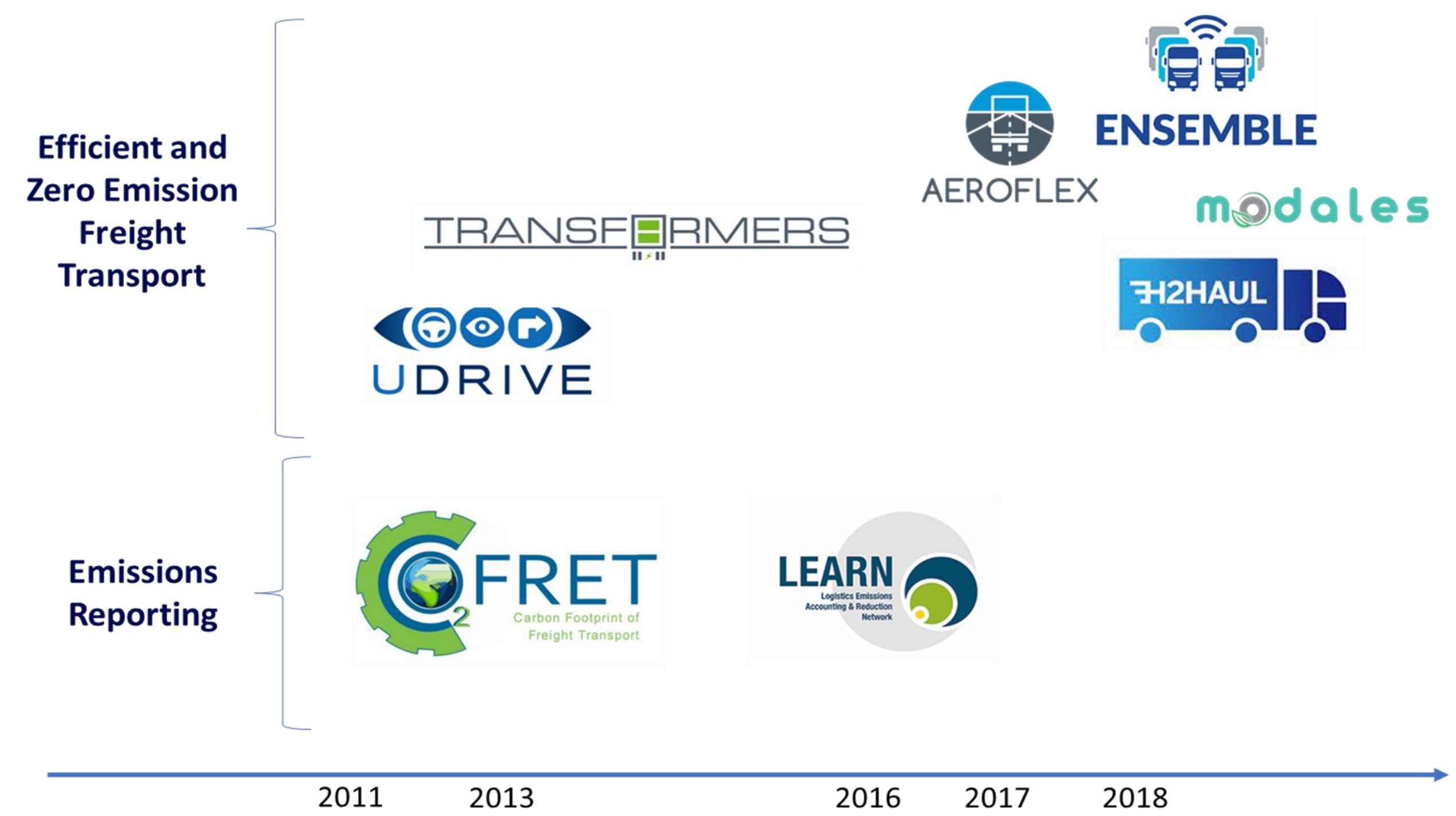


SCOPE

1. Monitoring and reporting on GHG emissions in freight transport
2. Developing and implementing energy-efficient solutions for freight transport
3. Developing and implementing zero-emission freight transport solutions

Within scope	Out of scope
<ul style="list-style-type: none"> Monitoring and reporting GHG emissions Efficient solutions in HDV e.g., <ul style="list-style-type: none"> High-capacity Vehicles Duo-trailers Road fleet operations Human behaviour (eco-driving) Aerodynamics Electric HDV and infrastructure Hydrogen HDV and infrastructure 	<ul style="list-style-type: none"> Light commercial vehicles, N1 (Urban Logistics Cloud) CCAM (Digitalization Cloud) Refuse trucks (different operation) Hybrids (not zero-emission) Biofuels (not zero-emission)

PROJECTS INCLUDED IN THE CLOUD REPORT



MAIN OUTCOMES

The projects led to 23 main outcomes and below we show for 4 implementation cases.

Reporting

- COFRET methodology
- Methodology applied in case studies
- ISO international workshop agreement
- GLEC Framework
- ISO 14083
- CountEmissionsEU

Fuel Efficiency

- Naturalistic driving behaviour study
- Training of eco-driving
- Homologated trailer with improved loading capacity & aerodynamics.
- Pulling e-dolly (regulation and homologation ongoing)

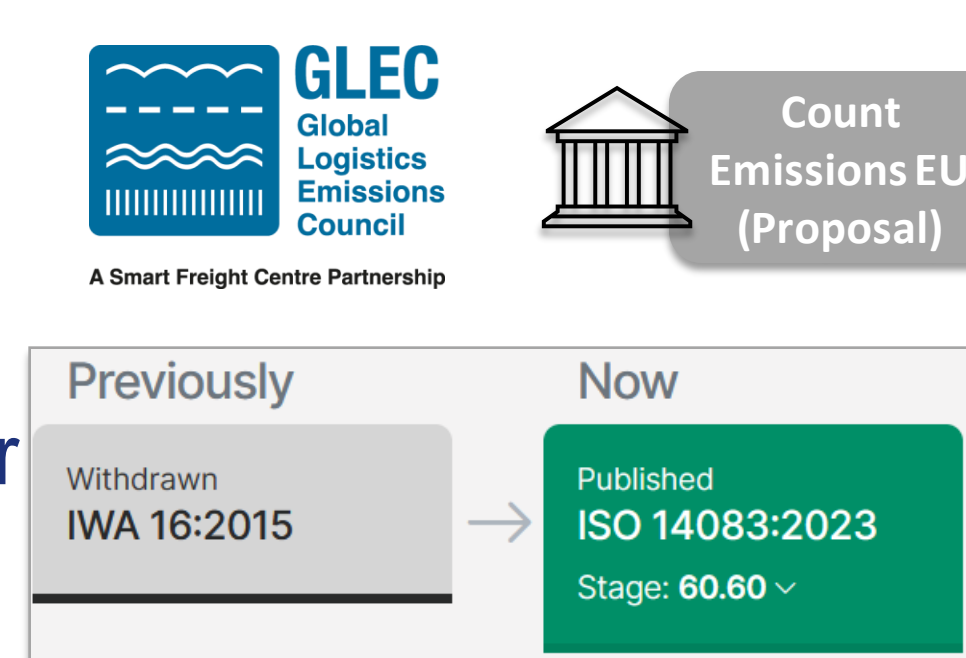
Zero Emission

- E-axle with regenerative braking.
- E-trailer demonstration
- Hydrogen refueling stations for trucks
- Demo of 16 fuel cell electric hydrogen trucks

IMPLEMENTATION CASES

The global impact of COFRET on logistics emission calculation

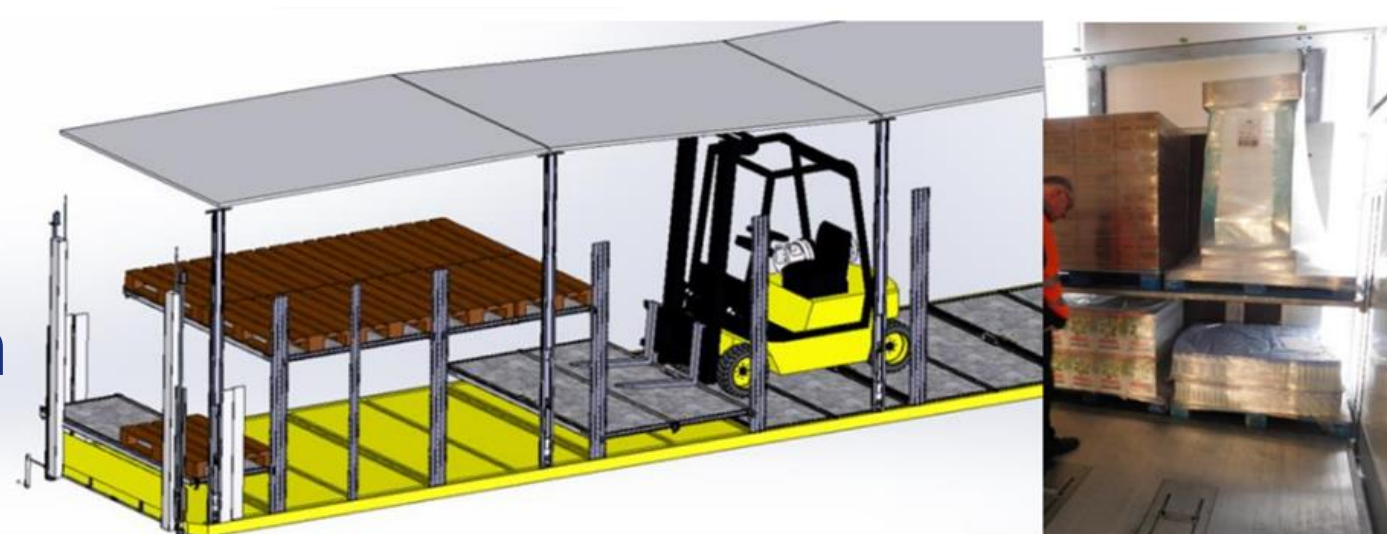
The COFRET methodology was converted into an ISO International Workshop Agreement, and also led to the first industry standard, the GLEC Framework, which became the basis for the ISO 14083 and its inclusion in the CountEmissions EU proposal.



AEROFLEX – Innovative trailer

Trailer with adaptable, double floor system in four sections that can be adapted per mission, increasing the load efficiency drastically. The inner floor length is increased, so one pallet extra will fit.

The trailer has a moveable roof that can be adjusted to increase the aerodynamics. All adjustments are aligned with regulations.



AEROFLEX – Electrified dolly with regenerative braking

When used for EMS, the trolley can move the 2nd trailer to an assigned location. The driver loses no time. It is proven that a regenerative e-axle lowers the fuel consumption.



H2Haul - Truck HRS 700 bar

The HRS of Air Liquide is a first of its kind in Europe, capable of fuelling heavy duty vehicles with hydrogen up to 700 bar.



IMPLEMENTATION PATHS

Future R&I projects should focus on 5 fields:

- Technical innovations
- Digitalisation
- Regulative framework
- Digital twin
- Emission reporting

