

BOOSTLOG

alice | Alliance for
Logistics Innovation
through Collaboration
in Europe

Cloud report VII

“Monitoring and Implementing Efficient and Zero-Emission freight transport”



Activities performed in the frame of the project BOOSTLOG “*Boosting impact generation from research and innovation on integrated freight transport and Logistics system*”. BOOSTLOG has received funding from the European Union’s Horizon 2020 research and innovation Programme under grant No 101006902.

Recommendations for
Horizon Europe 2023-2024 &
2025-2026 programmes

Looking to the past
and learning for the
future

160-200 projects
1000M € invested

**Enlarge the logistics
innovation ecosystem at scale**

Making R&I
results,
outcomes and
implementation
cases visible

30+
Implementation
cases

Identifying high
priority & potential
R&I gaps

New trends,
challenges and
opportunities

Creating
Innovation
ecosystem for the
logistics sector

Industry reports - logistics clouds

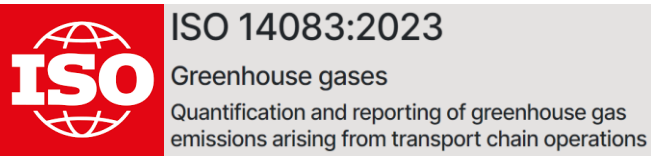
- Urban logistics
- Logistics nodes
- Multimodal freight corridors and transport networks
- Freight and logistics data sharing
- **Logistics coordination and collaboration**
- Physical Internet: Modularization and transshipment developments
- Digitalization and technology applications
- **Monitoring and Implementing Efficient and Zero-Emission freight transport**

Activities performed in the frame of the project BOOSTLOG "Boosting impact generation from research and innovation" has received funding from the European Union's Horizon 2020 research and innovation Programme under grant No 101019150

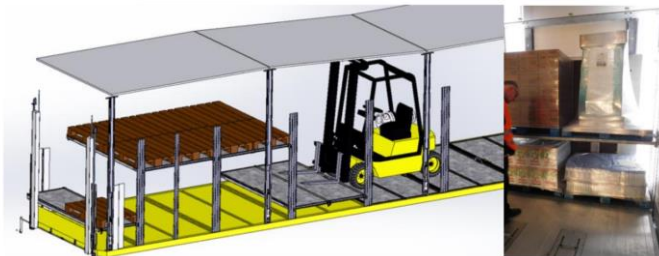


Monitoring and Implementing Efficient and Zero-Emission freight transport

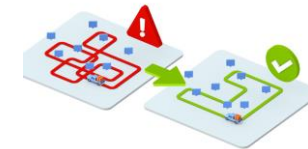
Emission reporting



Efficient transport



Zero emission transport



Main 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

- Monitoring and reporting on GHG emissions
- Efficient solutions in HDV e.g.,
 - High-capacity Vehicles
 - Duo-trailers
 - Road fleet operations
 - Human behaviour (eco-driving) etc.
 - Aerodynamics
- Electric HDV and infrastructure
- Hydrogen HDV and infrastructure

Out of scope

- Light commercial vehicles (Urban Logistics Cloud)
- CCAM (Digitalization Cloud)
- Refuse trucks (different operation)
- Hybrids (not zero-emission)
- Biofuels (not zero-emission, similar to ICE)



Identified and relevant projects

Efficient and Zero Emission Freight Transport



OUT of SCOPE
Newly started project

Next ERUCK

ZEFES

ESCALATE

EMPOWER

H2ACCELERATE

OUT of SCOPE
Hybrids project

IECOCHAMPS

ORCA
FURTHER GREENER BETTER

ASSURED

2011 2013 2016 2017 2018 2023



Emissions
Reporting



OUT of SCOPE

Newly started project



2011

2013

2016

2017

2018

2023



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Implementation Cases are concrete examples in which causal links between public R&i funding and technology, organizational or process innovation in a specific logistics area can be established.

Implementation Cases are research result that have been further developed and have been deployed as **commercial solution**, or that have generated a **new market**, or have contributed to **new policies**. They have impacted the specific logistics area.

They differ from:

- demonstrations
- project outcomes

are ended after the project, if they continue it is a implementation case data, insights, deliverables... that did not lead to concrete commercial solutions, new markets or policies as such, but were important in the project “the steps in between”



Implementation case

Demonstration Temporary implementation

Outcome without implementation



Naturalistic driving
behaviour study
Parameter insights
ecodriving



Homologated trailer
Load capacity
Aerodynamics

E-dolly
Pulling (regulation and
homologation ongoing)

Key insights European
transport market
-60% palletized
-60% <300 km missions



AEROFLEX

E-dolly
Regenerative braking




Remote controlled yard
operations with e-dolly

PUZZLE
<https://demo.mypuzzle.de/aeroflex/>

E-trailer (trailer with battery
pack)

Freight study 2040



	Implementation case	Demonstration Temporary implementation	Outcome without implementation
 ENSEMBLE		Multi-brand platoon	ISO/DIS 4272 Truck platooning systems (TPS) Collaborative AEBS
	Hydrogen refuelling stations for trucks (700 bar)	(16 FCE-HDV) <i>No plans to be deployed after the project</i>	
		Low-emission driving app	Methodology to optimise the driving of automated vehicles Training eco-driving



Implementation case

Demonstration Temporary implementation

Outcome without implementation



COFRET methodology

ISO International
Workshop
Agreement



GLEC Framework
ISO 14083
CountEmissionsEU

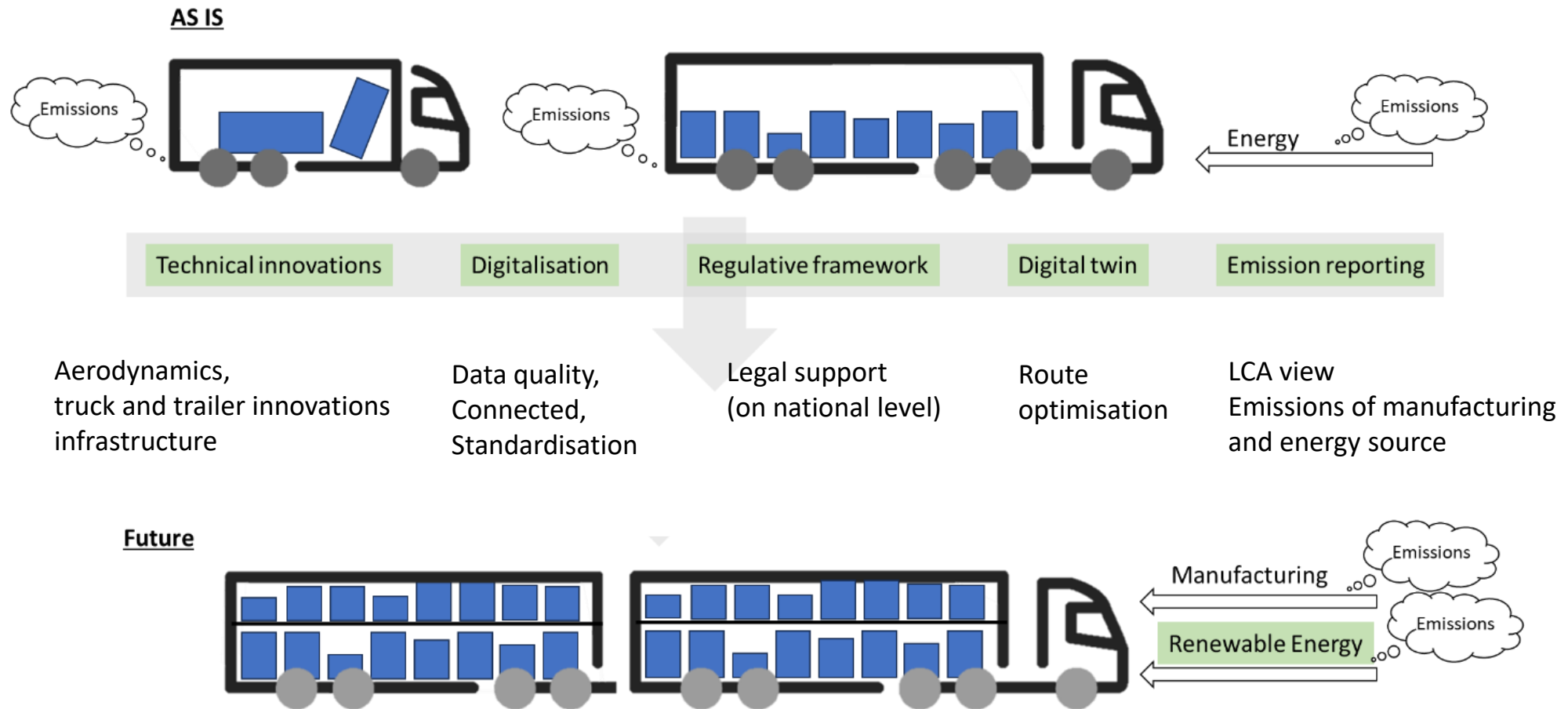
Methodology applied in
case studies.



General

- End users (shippers, carriers) should be active and empowered in the project (Advisory board → partner)
 - New projects: End users are now partner
- Ecosystem building – importance of stakeholder board. In logistics the full value chain is interlinked.
 - Not a topic for R&I projects, but work for associations
- Project Officer empowered and willing to align with evolving needs of sector.
 - New projects: Strong involvement from relevant EC departments with power to adjust grant agreement.





Cloud Report VII will be submitted to the Commission

7th ALICE Logistics Innovation Award for Implementation cases will be given at the final BOOSTLOG meeting

