Recommendations on Infrastructure for ZE-HDVs

from the AEVETO Cluster White Paper

AEVETO
Zero-Emission Road Freight Transport

Advanced Electric Vehicles for Efficient and Economic Transport Operations

*Scale infrastructure as **one coordinated ecosystem**, where logistic operation, the energy system and digitalization intertwine.*

1 PRIORITISE FREIGHT NEEDS

Focus charging and hydrogen investments on TEN-T corridors with high logistic usage. Set AFIR targets as the minimum baseline.

2 MAKE ENERGY SUPPLY RELIABLE

Guarantee the power and energy supply demanded by the logistic operator. Provide real-time status, availability, price and access information on the infrastructure.

3 HARMONISE STANDARDS

Accelerate MCS and HRS standard development and adoption, ensure interoperability testing and protect backward compatibility. CCS will still be part of the ecosystem.

4 PLAN BY CORRIDOR, INCLUDING HUBS

Forecast freight energy demand per corridor, including hubs. Based on the needs of the electrified logistic operation, not the current diesel energy demand profile.

5 ADDRESS BARRIERS ON VIABILITY OF INFRASTRUCTURE SITES

Technically and economic viable locations for commercial charging and refueling stations are scarce. Barriers such as grid connection, safety perimeters, and economically viability should be addressed at ecosystem level.

6 STANDARDISE LIVE DATA INTERFACE INTEGRATION

Integrate dynamic infrastructure and vehicle data into routing and fleet management tools, so ZE-HDVs can be operated without additional effort compared to diesel trucks.

7 SHARE RISK & ASSETS

Support shared infrastructure, anchor users and public-private co-funding, including infrastructure at logistic depots and hubs.

8 DESIGN FOR ALL TRUCK-TRAILER COMBINATIONS

Provide drive-through access, safe maneuvering, trailer charging, secure parking, seamless and transparent payment, and driver amenities.

9 COORDINATED IMPLEMENTATION FRAMEWORKS

Align permitting, grid readiness, standards and funding mechanism at corridor levels to create the infrastructure network and the full ecosystem.

10 DEPLOY H2 STRATEGICALLY

A minimal hydrogen ecosystem should be developed, to assess its viability at scale and in the long term.

Read the full white paper

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