



Quiet through the night: More liveable cities through transport when everyone is asleep?

Annual POLIS Conference 2025
Utrecht 26.11.2025

Daniela Kirsch, Fraunhofer IML



Source: AdobeStock_44909308, AdobeStock_378060149, AdobeStock_802691087, AdobeStock_821819037





Urban delivery traffics are stuck in congestions during the day – like all of us!



Loss of time



Bad Plannability



Noise emissions



Environmental impact



Why don't we just deliver in the night time?

✓ Hardly any loss of time

✓ Less tours in total

✓ Empty roads

✗ High noise pollution



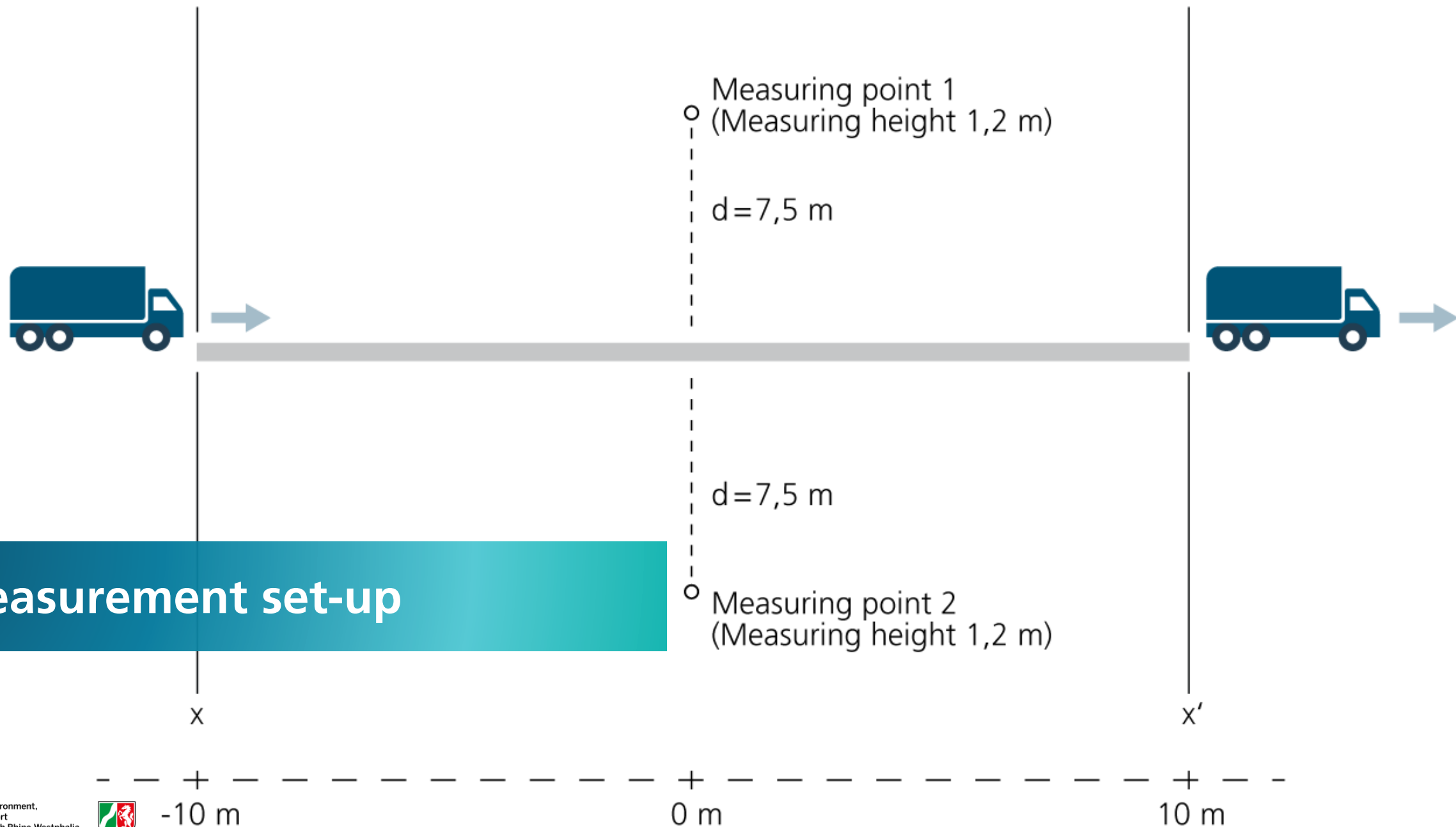
Low-noise delivery is possible in certain areas – but how loud are electric trucks?



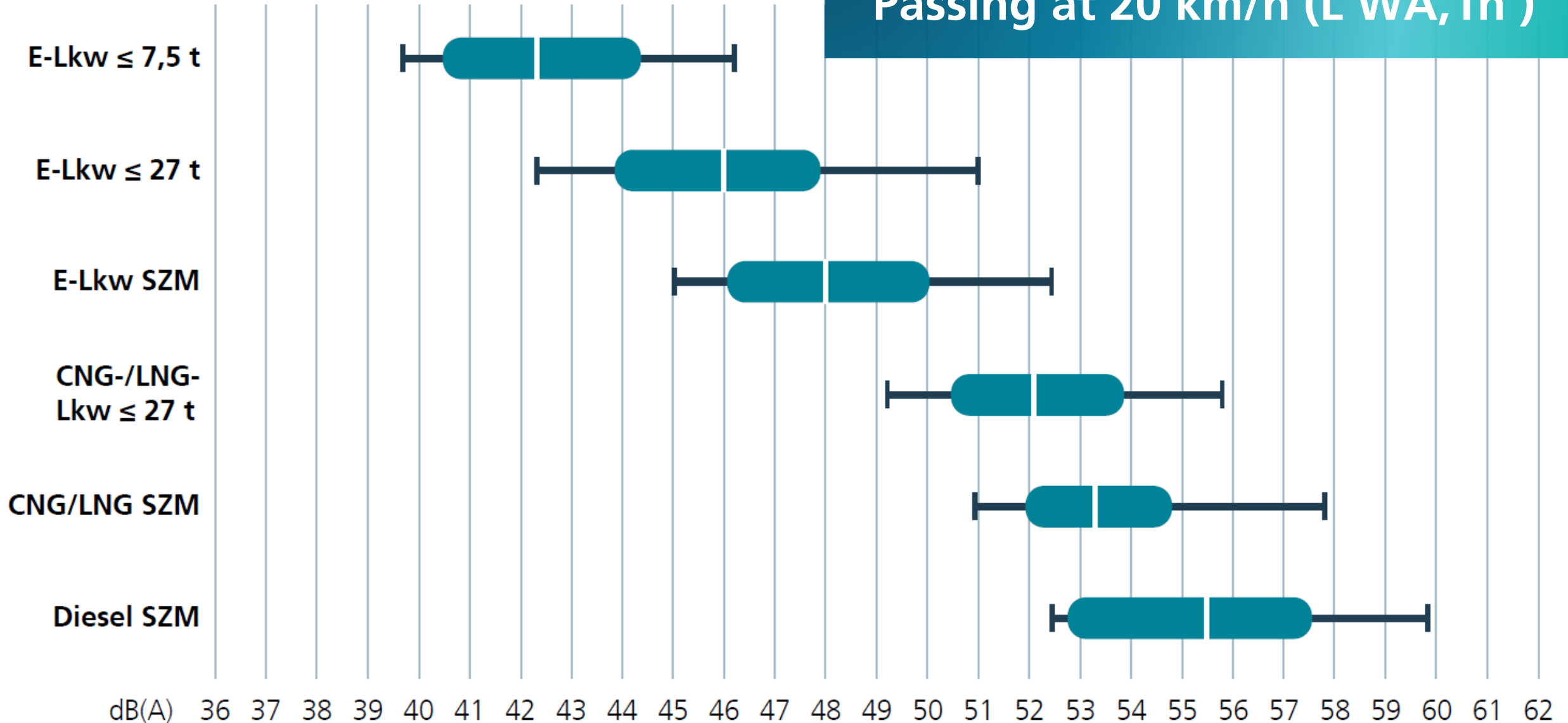
An aerial photograph of a white truck on a multi-lane asphalt road. The truck is oriented horizontally, moving from left to right. A long, dark shadow is cast by the truck onto the road surface to its left. Several orange traffic cones are placed along the road edges and in the lanes. In the upper and lower center of the image, there are small, white, cross-shaped measurement devices. A teal-colored text box is overlaid on the bottom right of the image.

Measuring setup: 20m distance, measuring distance 7.5m each
Measurement set-up based on Directive 70/157/EEC

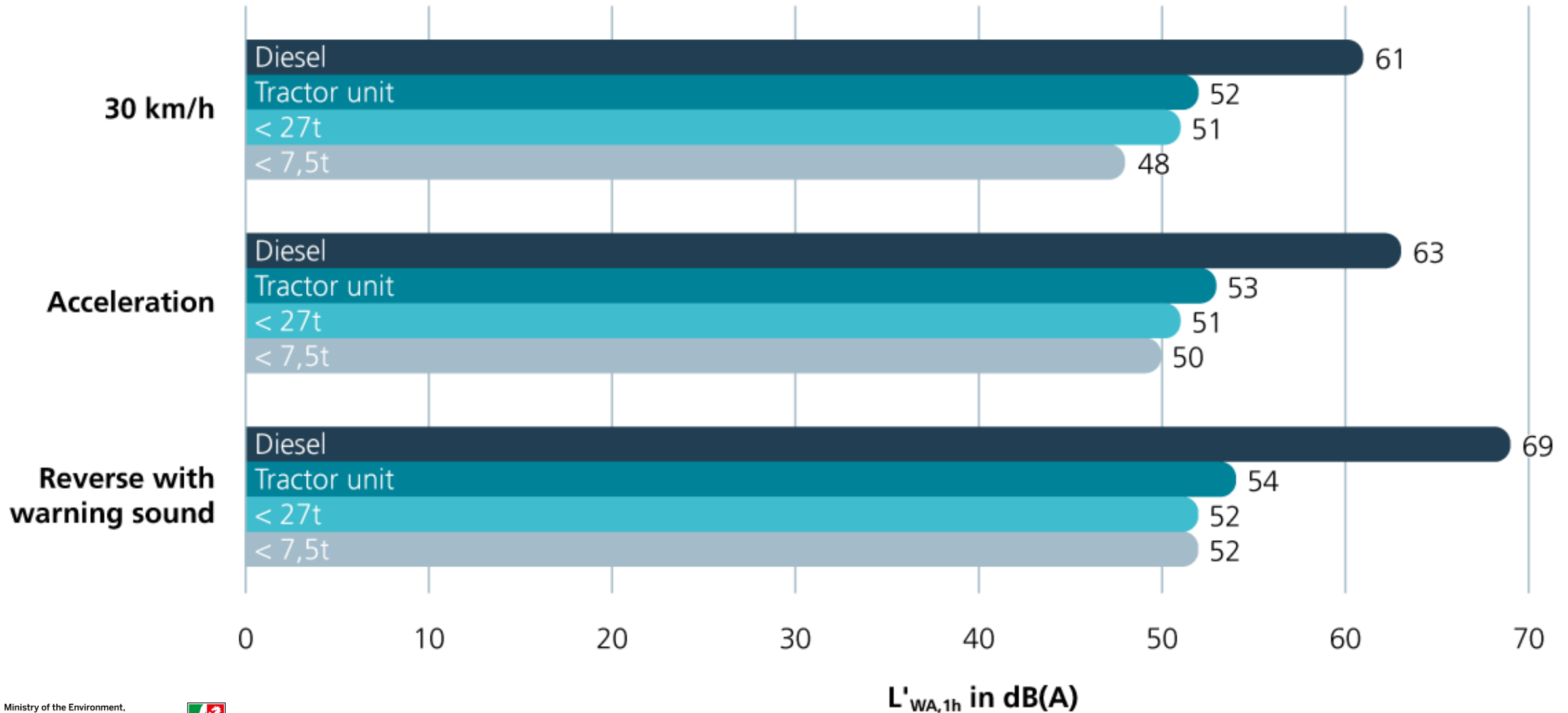
Measurement set-up

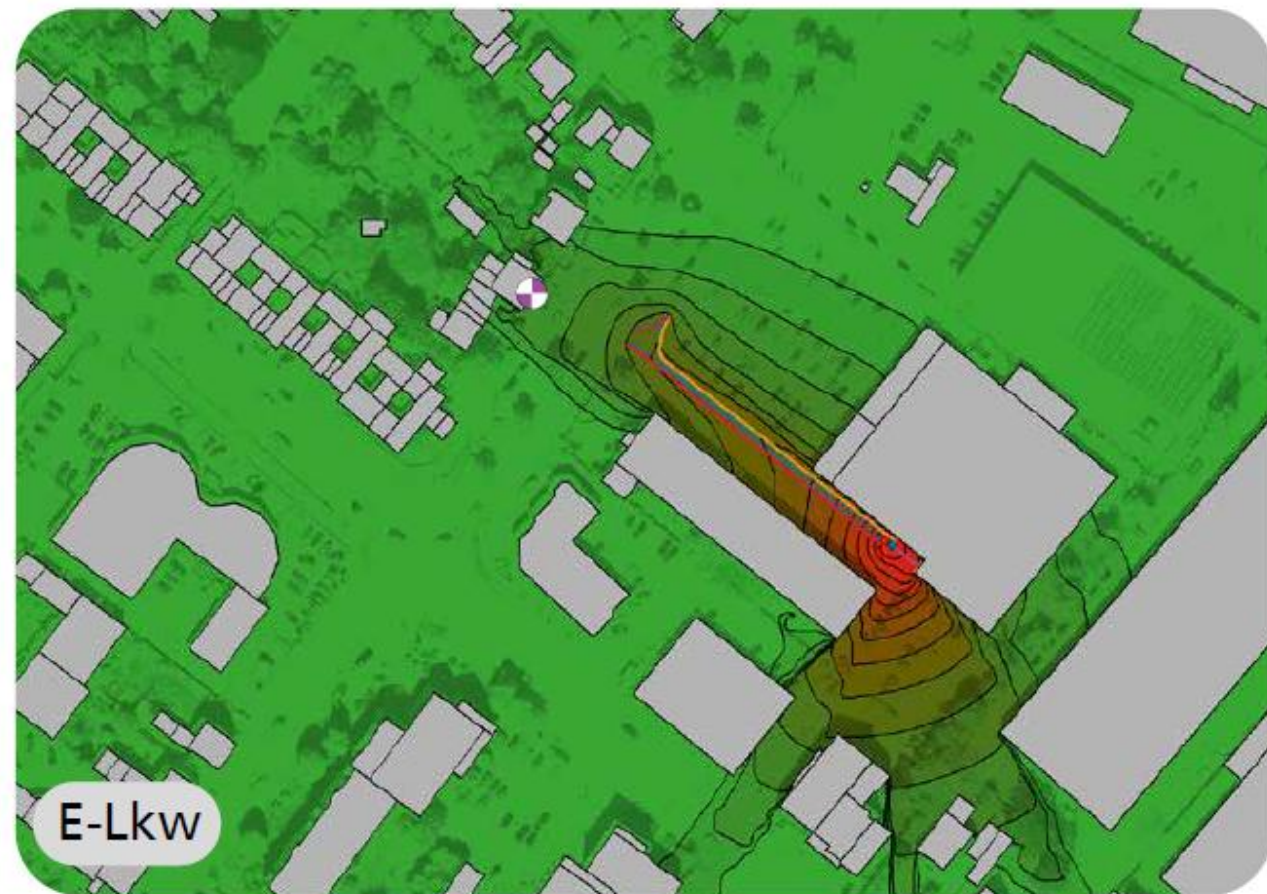
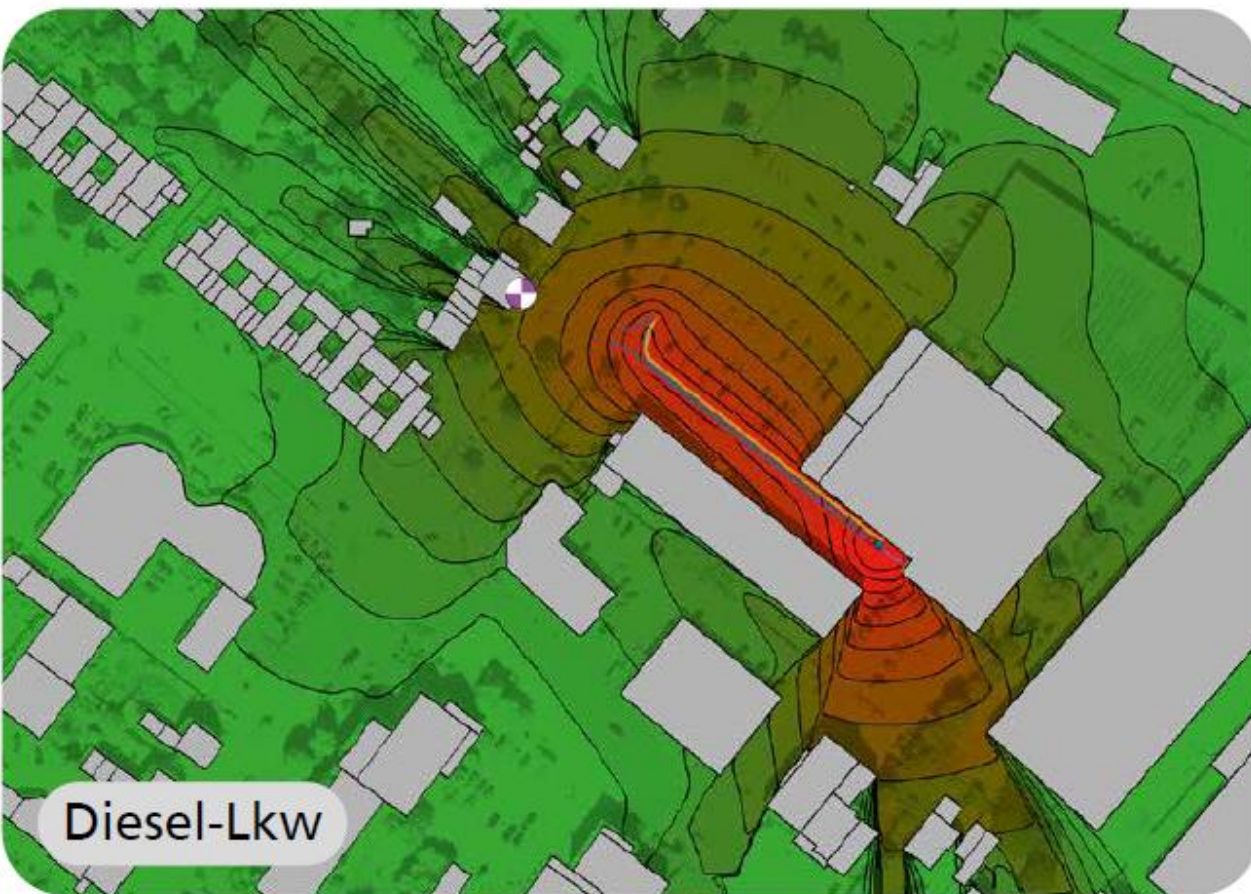


Passing at 20 km/h (L'WA,1h)



Comparison of measured values for e-trucks with literature values for diesel trucks



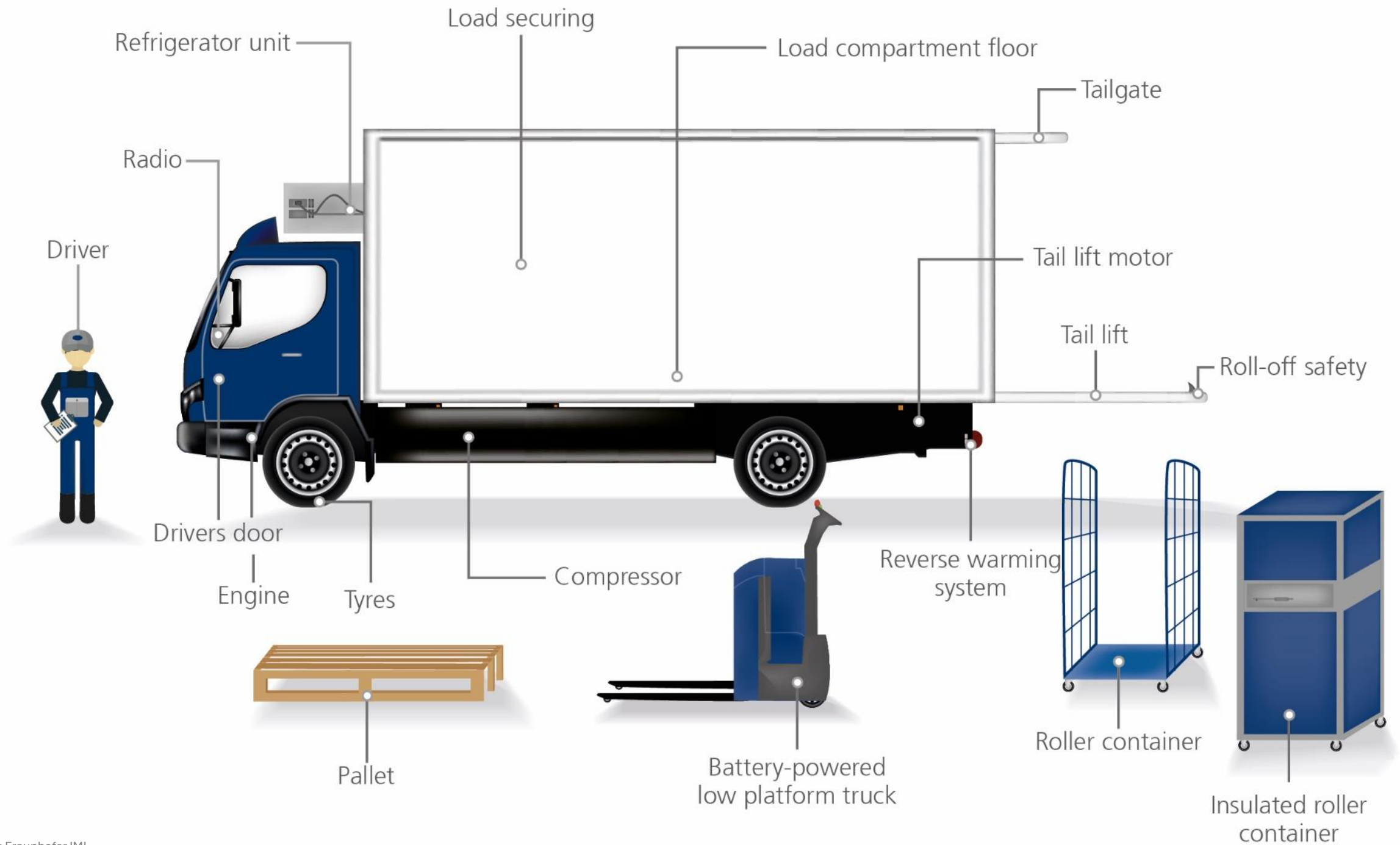


**Delivery to an open ramp
with cooling unit and loading activities**





**E-trucks make low-noise delivery possible –
but what about handling at the branches?**













Download:
s.fhg.de/Handbuch-GeraeuscharmeLogistik



Daniela Kirsch

Team leader „Urban Logistics an Electromobility“

Fraunhofer Institute for Material Flow and Logistics IML

Tel. +49 (0) 2 31 9743-345

Mail daniela.kirsch@iml.fraunhofer.de

WWW.IML.FRAUNHOFER.DE