







Promoting Green Urban Freight in Germany

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Agenda

- Which challenges have to be tackled in urban freight transport in Germany?
- What are the strategies and trends for green freight transport in German cities?
- How do the German government promotes green urban freight?





Emissions and noise caused by urban transport are not sustainable

High levels of particulate pollution in Germany cause approx. 66,000 premature deaths annually (EEA 2017).

In 2017 **65 cities lie over** the yearly **EU limit value of nitrogen dioxide (40 μg NO₂/m3)** (UBA 2017).

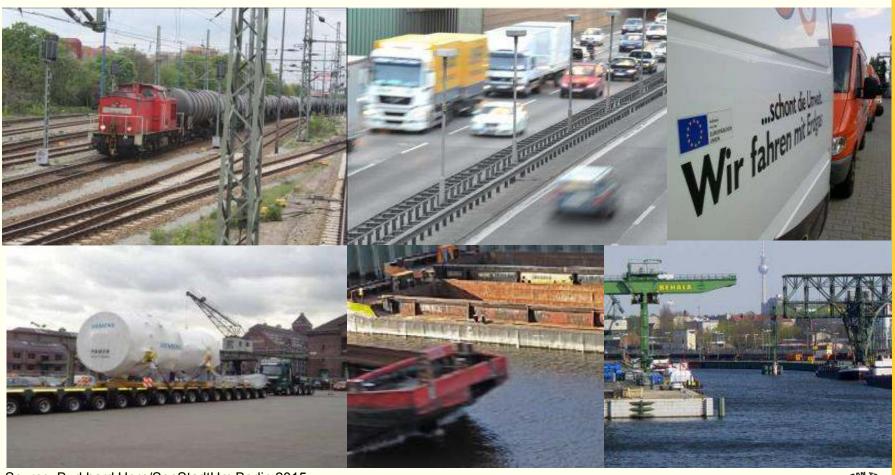
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Areas for transport (e.g. for roads, parking spaces) are increased by 1,600 km² between 1992 and 2016 (+10%) (UBA 2018)

76 % of Germans feel disturbed or harassed by **traffic noise** (UBA 2016)

⇒ Compared to number of vehicles and mileages urban freight transport is disproportionately responsible for environmental burdens.

Urban freight transport is diverse and causes different requirements for green solutions

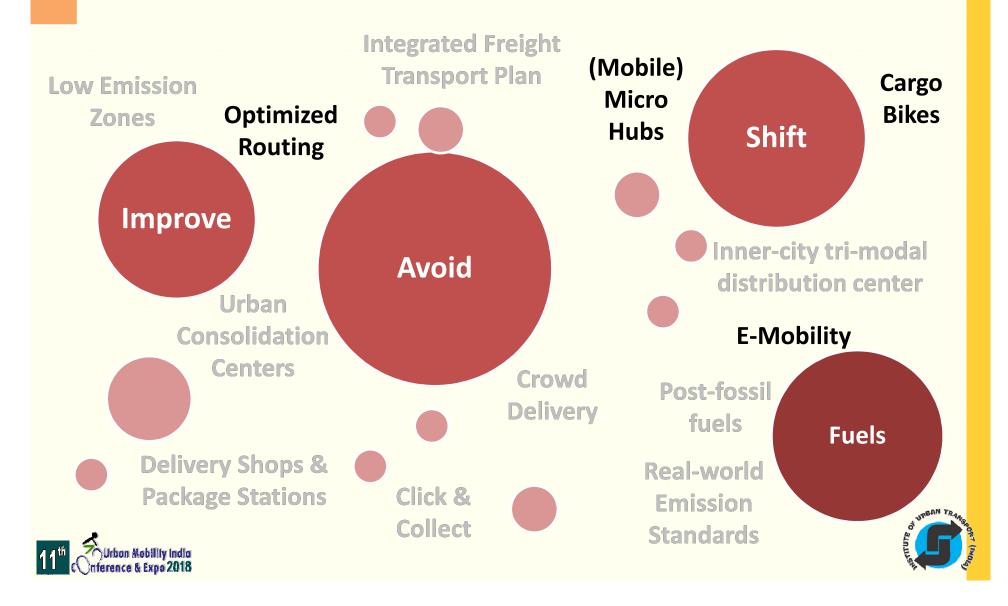


Source: Burkhard Horn/SenStadtUm Berlin 2015.



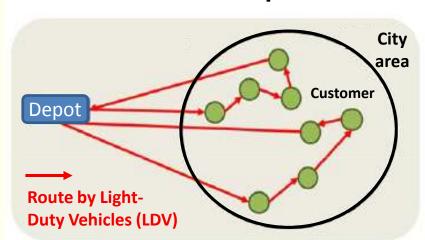


General approaches for green transport and examples for urban freight (selection)

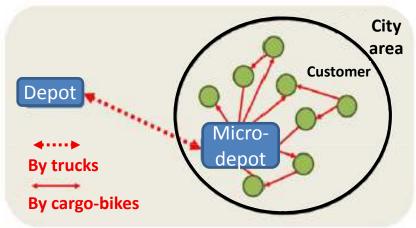


Best practice example "Micro-hubs combined with cargo-bikes": The principle

Conventional concept:



Concept with micro-hubs:



- Establishment of micro-depots inside of the city-center
- Distribution of consignment is carried out by cargo-bikes
- Diesel-fueled trucks for pre-carriage can be replaced by e-trucks





Best practice example "Micro-hubs combined with cargo-bikes": Different solutions (1)

Example: Container used as micro-hub in Hamburg







Best practice example "Micro-hubs combined with cargo-bikes": Different solutions (2)

Example: User-independent micro-depot in Berlin (BentoBox)









Best practice example "Smart routing in combination with electromobility"

Example: Project "Smartfusion in Berlin"



- Smart use of hybrid technology within residential areas with high environmental loads by use of geofencing
- No significant adjustment of processes necessary

Source: based on @ OpenStreetMap





How do the German government promotes sustainable urban freight?

Implementation of the **German**Freight Transport and Logistics

Action Plan

Support of research and development for electric mobility and innovative urban transport pilot projects

Financial support scheme for alternative-fueled commercial vehicles (CNG, LNG, fuel cell, and battery electric vehicles)

Financial support
scheme for heavy-duty
cargo bikes

Policy-oriented research by ministries and agencies (incl. UBA) to improve regulations and regulatory measures

Promotion of sustainability in urban freight through a National Sustainable Urban Logistics
Competition

- + support schemes for e-trucks, cargo bikes, and micro-hubs by federal states
- + research and development projects financed by European Union





National Sustainable Urban Logistics Competition: Examples of submissions





Thank you for your attention!

German Environment Agency / Umweltbundesamt

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