03.04.2023

FRANKFURT CARGO TRAM

Superior example for intermodal urban logistics

Urban Transport Conference March 28th, 2023



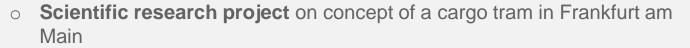
Current Situation

- Rapidly growing e-commerce shipment volume
- o Increasing customer expectations for on-time and quick deliveries
- Urban mobility challenges to reduce vans and general individual traffic
- In 2020 Frankfurt' limit for NO2 was exceeded
- Cities to harmonize social, infrastructural, economical, ecological and sustainable challenges



Project Progress to date





- Project partners Research Lab for Urban Transport, Hermes Germany, Klimabuendnis Frankfurt, Verkehrsgesellschaft Frankfurt
- **Hub research** resulted in list of suitable loading and unloading stations
- Pilot test showed technical feasibility of the concept
- **Comparison** of EUR/parcel and CO2-emission/parcel

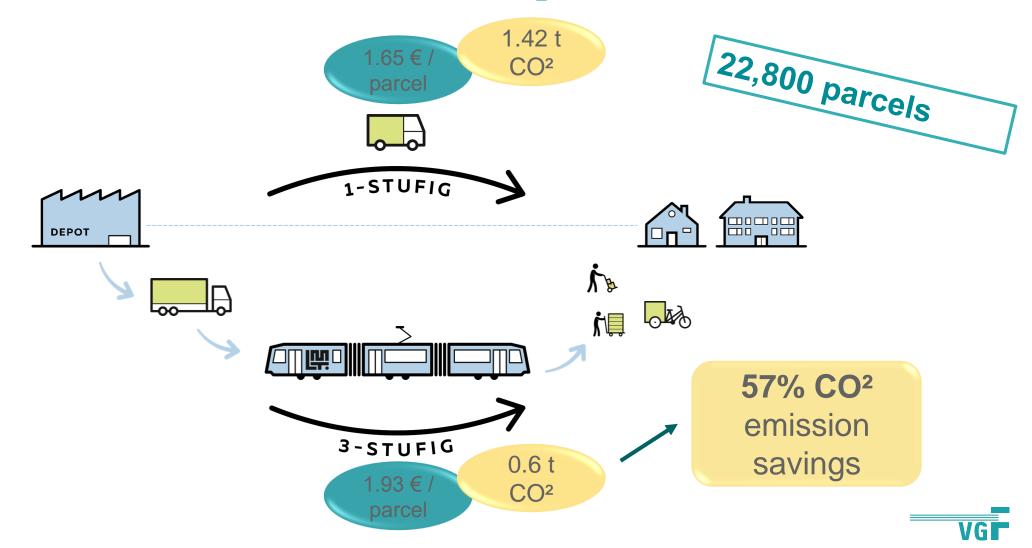


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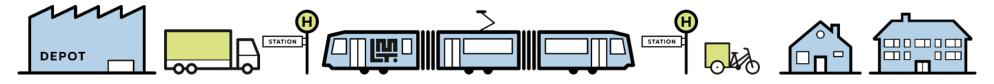


Quelle: ReLUT

Environmental- and cost consideration Total Emissions CO₂



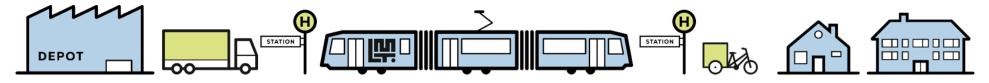
Cargo Tram – Intermodal concept for urban mobility



- Climate change, mobility (r)evolution, quality of life the cargo tram project offers concrete solutions. Less CO² emissions, less logistics traffic in city center, boost for quality of life
- Concrete contribution by VGF to the environmental challenges of our time.
- Cargo tram supports cooperative aspects between tram and (electric) cargo bicycles on the last mile

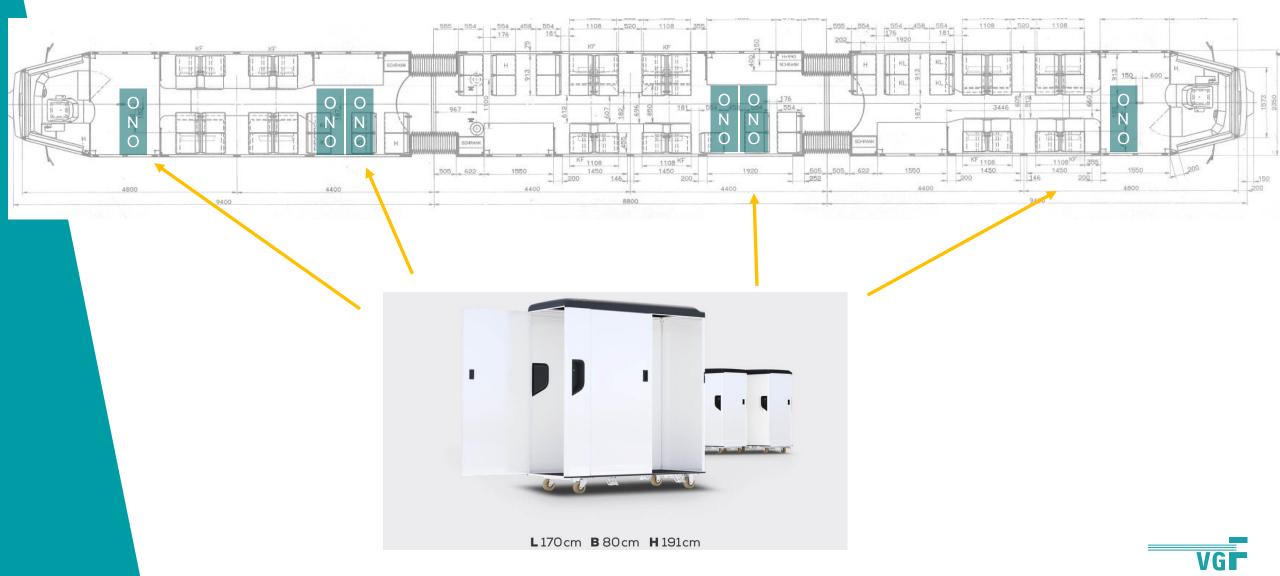


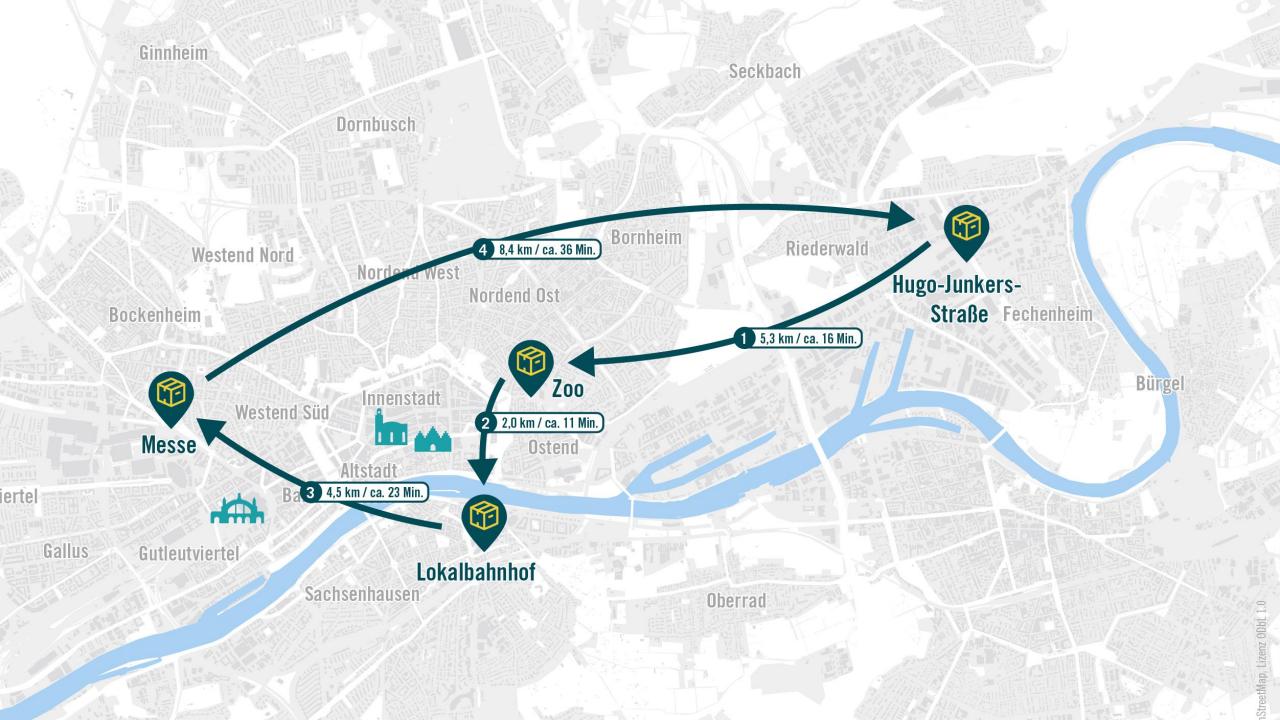
Cargo Tram – Basic setup



- Parcel service provider hands over bags/ containers at defined stops (e.g. Hugo-Junkers loop, ZWI, BB Ost).
- The cargo tram bridges way between depot and delivery at the front door with (electric) cargo bikes

ONO container module for R-Wagon





Logistics concept City of Frankfurt





"For the city of Frankfurt, the use of a freight streetcar lends itself to building on the experience of the already implemented VGF pilot project "Last-Mile-Tram" from 2019."



"As part of the freight streetcar concept, VGF can act as a "carrier", i.e. freight forwarders and parcel service providers can book loading space in the transport containers. VGF plans routes and transports or the rail transport schedule."

December 2021



Current Coalition Treaty City of Frankfurt





"We aim to completely eliminate fossil-fueled vehicles from the "last mile" of freight and goods distribution."

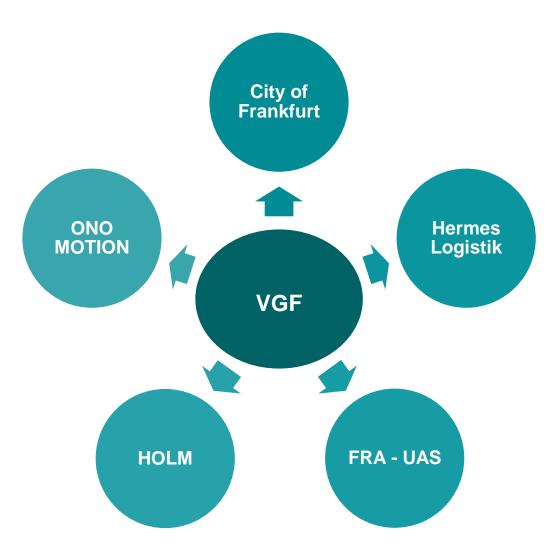


"Together with business and science, we are developing and testing concepts for a distribution point infrastructure that enables environmentally friendly goods distribution and replaces door-to-door trucks. This includes, in particular, the **cargo tram** pilot test."

September 2021



Organizational Chart





Time for your questions

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