

Can we transport passengers and freight together? The cargo-hitching approach: state-of-the-art and main challenges

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ALICE - POLIS Urban Logistics Thematic Group Workshop: Benefits and Challenges of Combination of Freight and Passenger Transport



Why cargo hitching?

- Traditional approach to urban mobility planning: passenger and freight as independent systems (deregulation vs regulation)
- Green Paper on Urban Mobility (2007): moving towards a single integrated urban system – horizontally & vertically integrated
 - more holistic vision of the city
 - integrated approach addressing unused capacity
 - unleashing business opportunities + innovative policies (socio-economic, environmental benefits)
- Existing business models on long-haul transportation (air, ferries), short-haul being a challenge (urban and peri-urban areas)

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- Cargo hitching being part of the «share economy»: business models and solutions to exploit existing urban transport capacity (sustainability) – smart city
 - Major goal: «combining» existing resources and urban asset (infrastructures, vehicles, etc.)
 - Effective both in dense areas (less congestion) and in weak-demand districts (consolidation)
 - «What» can be «shared»:
 - vehicles (trams, busses, subways, etc.) – scheduling
 - linear infrastructures (e.g., road space)
 - nodal infrastructures (delivery bays, lockers, parking areas, bus stops, etc.)

Benefits

- Consolidation being the major driving force triggering financial, socio-economic and environmental benefits

- Main financial, socio-economical and environmental benefits:

- less congestion (number of circulating vehicles, freeing urban space)
- less emissions and casualties
- less energy consumption and operational costs
- less travelled distances (routing optimization)
- optimizing existing urban transport capacity through consolidation (saturation rate, load factor), while reducing existing inefficiencies and waste
- revenues increase and less reliance on public subsidies

Good/best practices

- Barcelona: shared road spaces - parking spaces are used as loading/unloading bays during night hours
- Paris:
 - shared delivery bays - parking spaces used as DCs
 - Amazon and RATP sharing public transport depots
- London: trials of an innovative freight-passenger vehicle called Freight*bus
- Dresden (CarGo Tram) Amsterdam (Cargo Tram) , Zurich, Saint-Etienne (TRAMFRET) : shared trams - using trams for freight transport
- Masdar City: the Freight Rapid Transit project

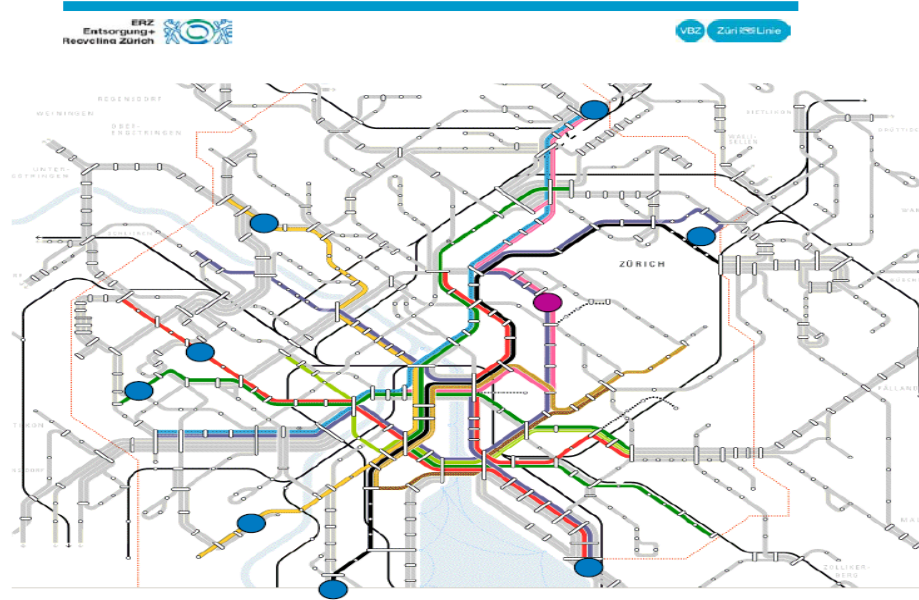
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- Brandenburg: the KombiBus service carrying passengers and delivering goods in peri-urban areas
 - Groningen: integrated urban services for passengers and small parcels (books, magazines, medicines)
 - District of Heisenberg: the «MultiBus» project within the MULI Buslorry project , in which the small cities of Gangelt, Selfkant, Waldfeucht are involved
 - Sweden: the Bussgods service;
 - India: the Dabbawala system

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- Transport for London, Department of City Planning - implementation of cargo hitching solutions along the Thames





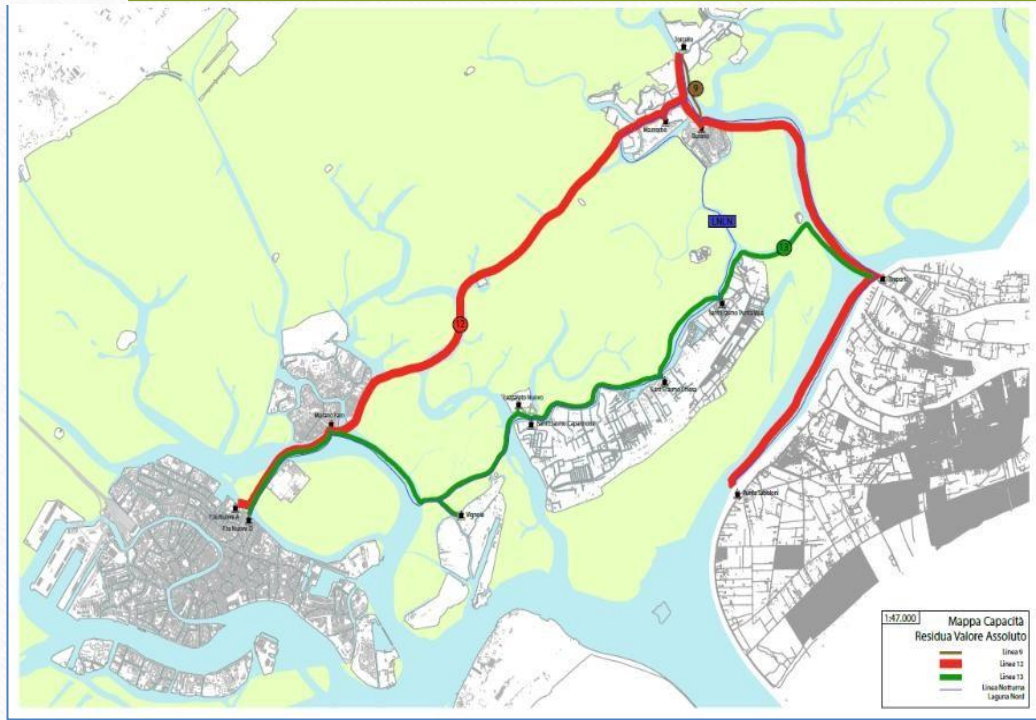
Tramlines in the city of Zurich



Studies showed the possibility of 9 collecting points

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Points for delivering bulky items to be disposed by Cargo Tram

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New stop operating since the beginning of 2005





- Main challenges:

- moving from trials to regular services
- regulatory framework at strategic (planning) and tactical levels (tendering procedures)

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