SINGAPORE 2019

26th ITS World Congress
21–25 October

Smart Mobility, Empowering Cities

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Data sharing, Co-operation and Connectivity among Stakeholders, recent Developments in Europe

Transforming Freight Movements through ITS – Part III (SIS35)

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PTV Group, Germany

PTV GROUP

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- Customers >b120 Countries
- Cities using PTV Software >b2,500
- Community Truck Parking > 1 Million Downloads
- Commercial vehicles planned > 1 Million/day
- Installed Base Traffic Software > 40,000 Licences
- Installed Base Logistics Software > 50,000 Licences
- Major events Olympic Games/FIFA World Championship

1. New forms of IT Architectures in Urban Freight
2. Findings from recent research projects
3. ALICE/POLIS initiative to stimulate urban freight

New forms of IT Architectures

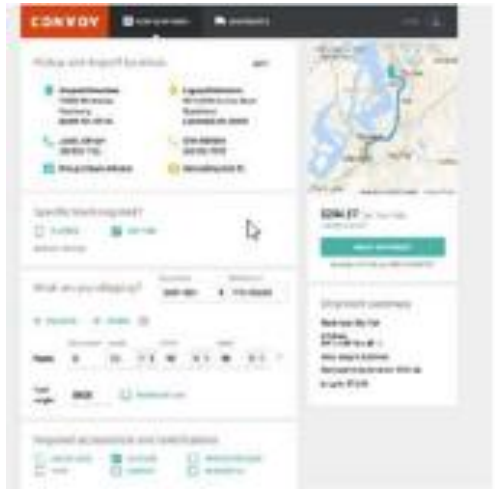
Sharing economy: Online platforms for sellers and buyers (e.g. AirBnB, Booking.com)

Digitalisation: Providing connectivity, data exchange and added value services to facilitate logistics and transport operations in the city

Autonomous vehicles for new business models and service schemes based on driverless delivery schemes

So far business Models out of these offering on B2C are much more valuable than B2B.

Electric vehicles, customer driven delivery models (DaaS) and restrictive urban access policy require for connected IT solutions for planning and execution urban transport



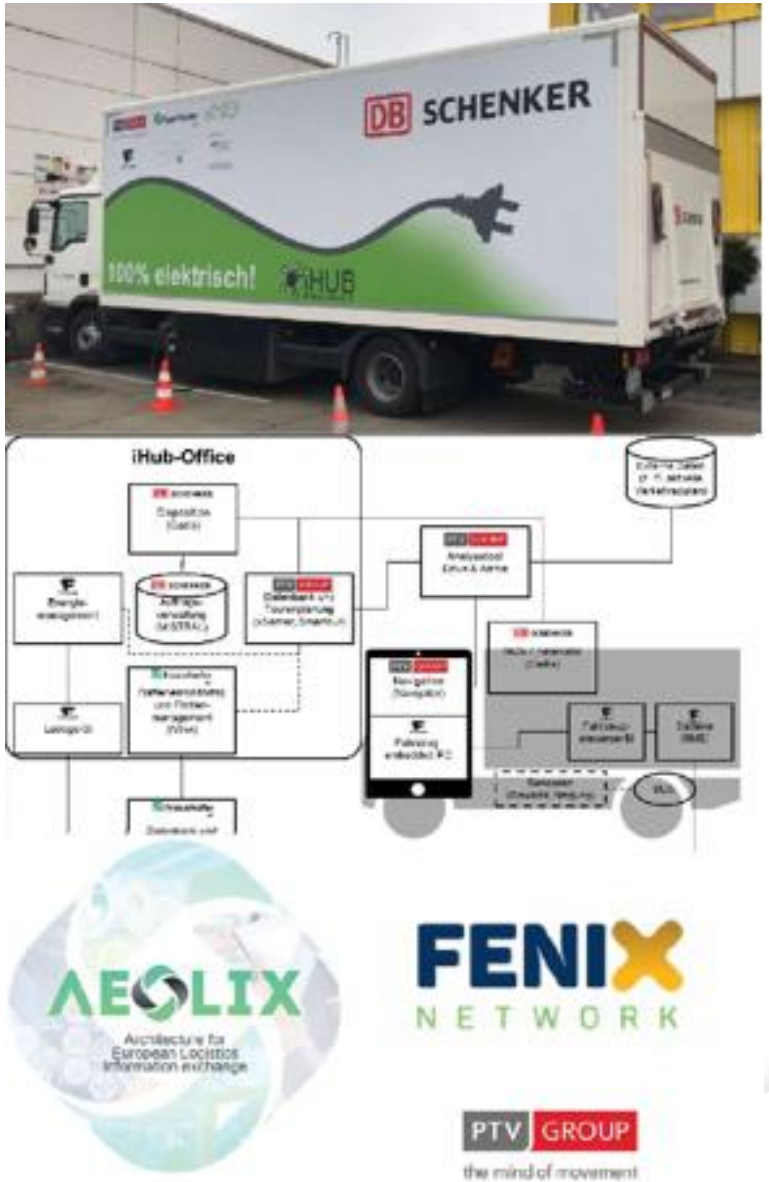
- Transparent, upfront pricing
- Real-time shipment tracking
- Alerts on shipment picked up and delivery
- Online dashboard to manage shipments
- Data that helps on supply chain decisions

New forms of IT Architectures

Recent initiatives in EU addresses data sharing, co-operation and connectivity among different stakeholders in urban freight.

Urban freight planning is moving from company centric distribution in which the information flow is ahead of the physical delivery towards a service oriented delivery in which bi-directional communication is defining the way how the delivery is made

LSP centric IT Systems develop towards smart delivery platforms in which LSPs, vehicles, receivers and cities are communicating and planning



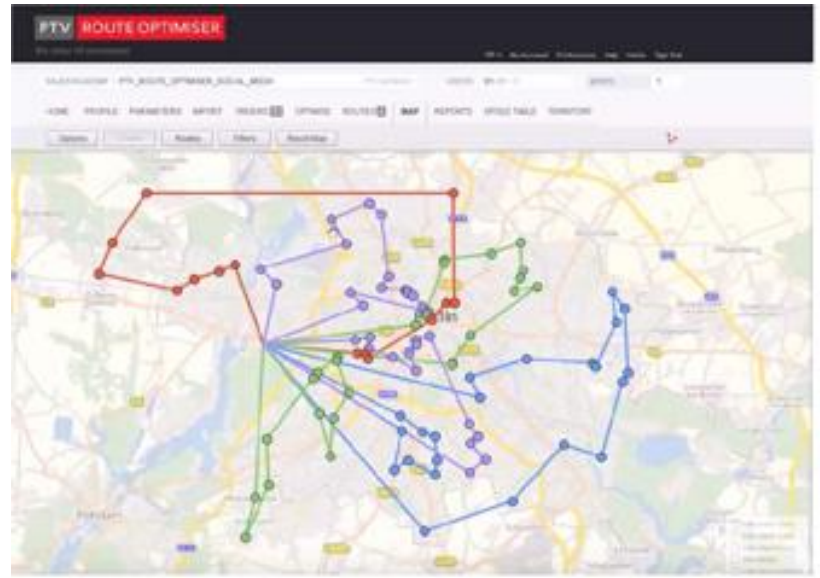
Recent IT Research Initiatives

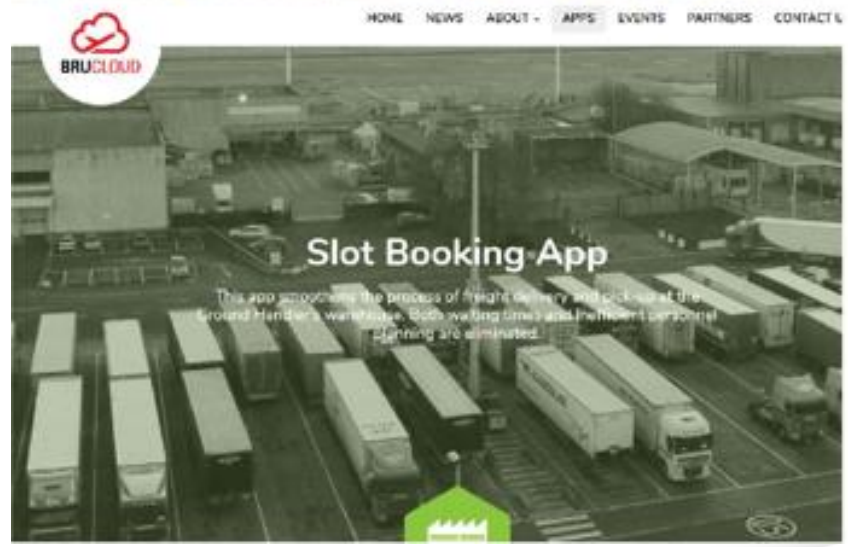
iHUB: Deployment of 16 t truck for LTL distribution

- Heavy electric truck technically feasible, due to higher purchasing costs not competitive!
- Connected IT platform is needed to monitor and predict trip and battery performance

CUSLTERS2.0: Collaborative planning and modularization within community context

- Community driven platform concepts to enable and stimulate collaborative freight planning for freight pooling and capacity optimization
- Apps, e.g. for slot booking at warehouses and terminals to co-ordinate and inbound freight flows, less waiting time of up to 1 hour
- Modular loading units provide new possibilities for urban distribution, potentially reducing cross docking costs up to 50%





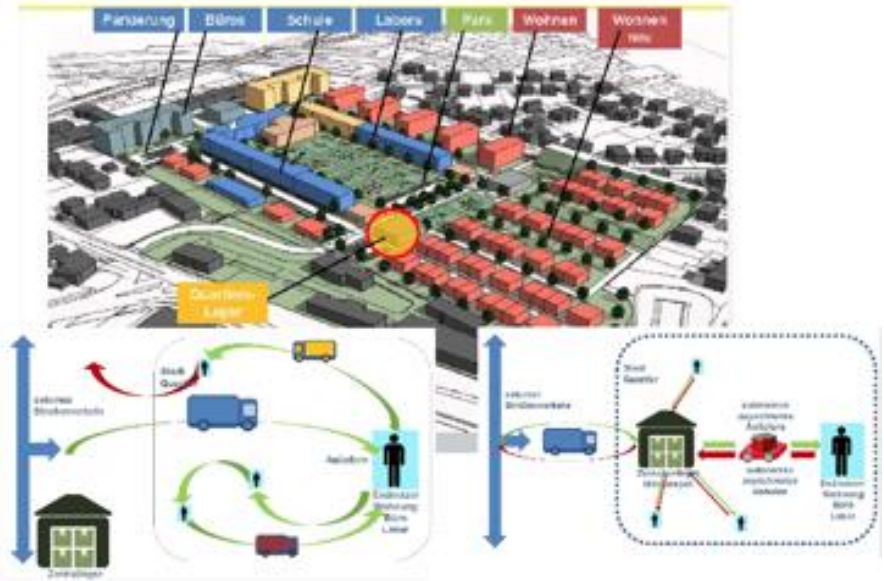
Recent IT Research Initiatives

AEROLIX: IT Platform for transport and logistics for data sharing and added values services

- Process visibility in combination with ETA calculation improves transport performance by 10% faster lead time
- Collaborative planning in urban freight suggests high potentials, but city platforms are not existing yet
- Added value services (ETA, city routing, freight pooling) could be for the benefit of all city users

eFEU Campus: Last mile delivery using automated robots

- Connected IT platform approach for transport planning, user communication and automated vehicle operations in one system



ALICE/POLIS Initiative

A group of cities and ALICE industry members is formed to develop solutions and stimulate co-operation at the gap of data sharing and urban best practices

- Discuss about best practices on clean vehicles, clean air, space management and data sharing
- Stimulate take up and up scaling of best practices
- Speed up innovations
- Give directions to new research program Horizon Europe

City ITS and collaborative planning might be one key topic to address

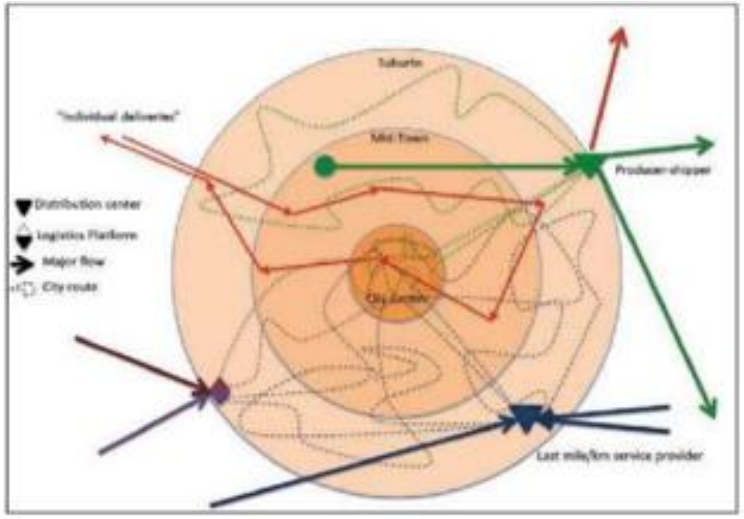
CITY Platform to New Business Model

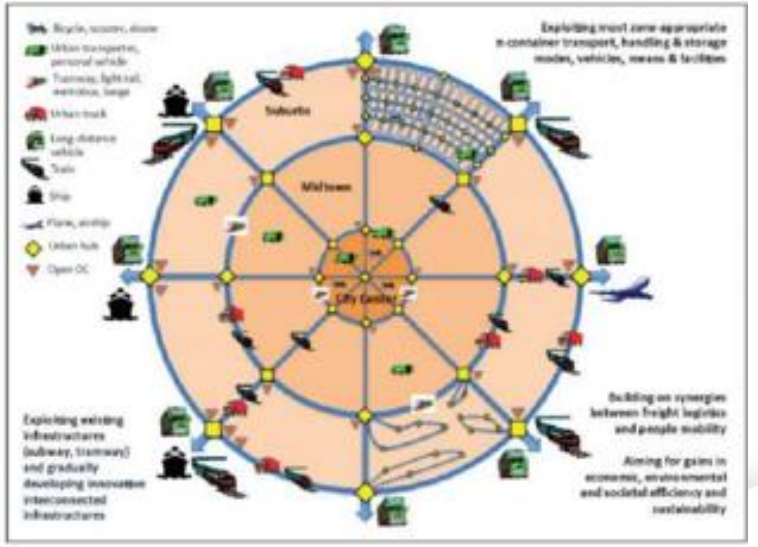
“Classical” delivery models might reach their limits: more cargo, more vehicles, more pollutions

For cities it is hard to argument why to stay “out of the game”

IT trends and possibilities to provide high potentials to improve urban mobility, in terms of:

- Societal and environmental goals of cities (each city individually)
- Shared use of transport system in terms of city infrastructure and transport modes
- Combining freight and mobility (trunk delivery, Amazon Flex)
- “Cleaned” traffic flows with hubs as well-accessible urban modes



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