



SINGAPORE 2019

26th ITS World Congress
21-25 October



Smart Mobility, Empowering Cities

www.itsworldcongress2019.com | #ITSWC19

Organised by



Co-hosted by





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

Marcel Huschebeck

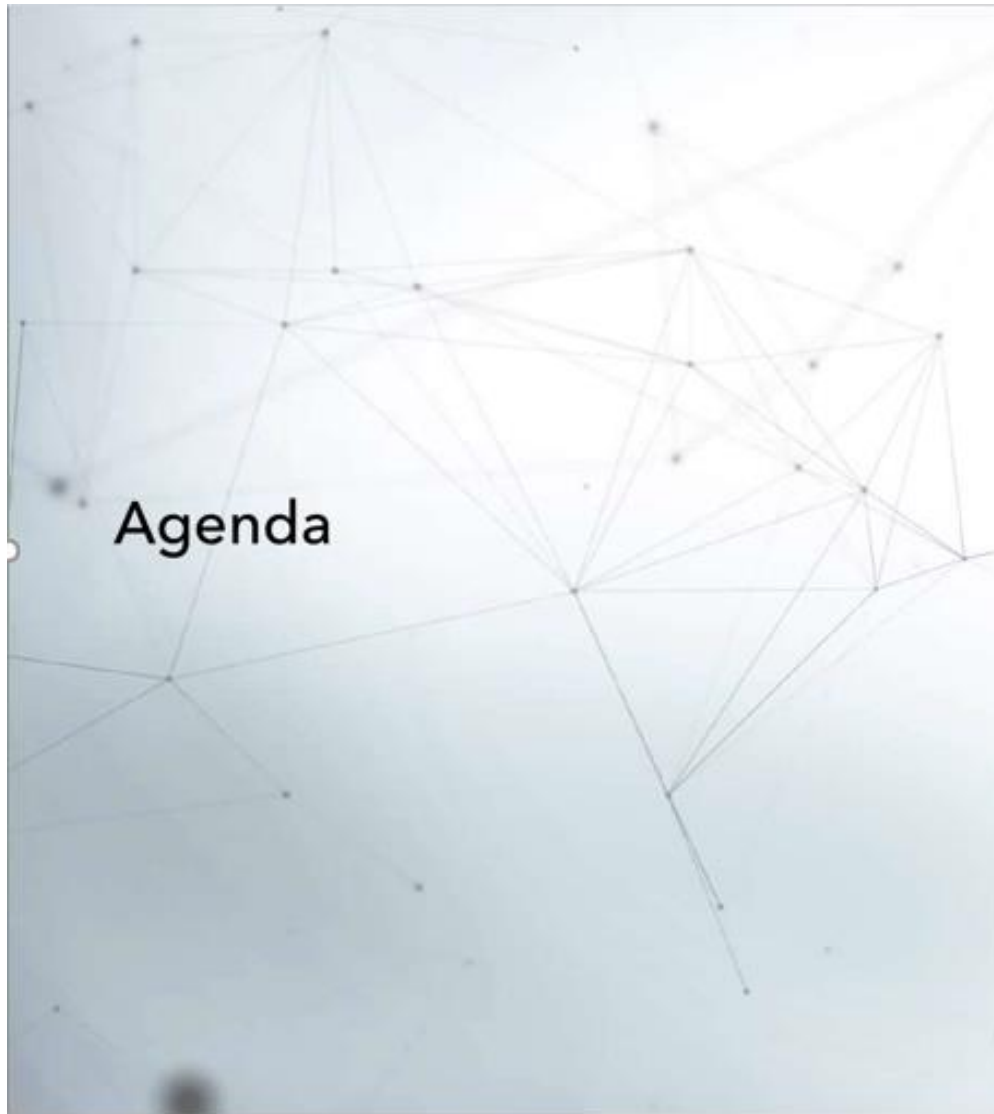
PTV Group, Germany

**Transforming Freight Movements
through ITS – Part III (SIS35)**

PTV Group

- Customers >120 Countries
- Cities using PTV Software >2,500
- 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

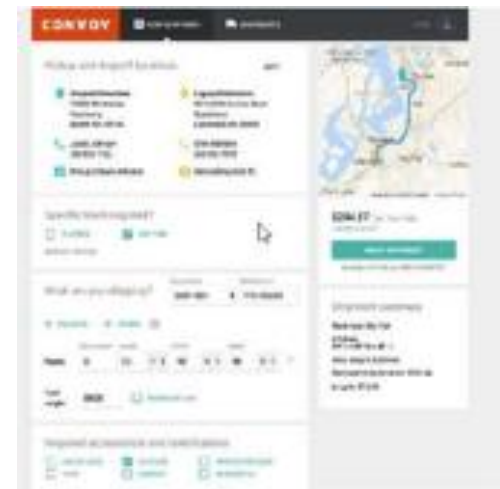
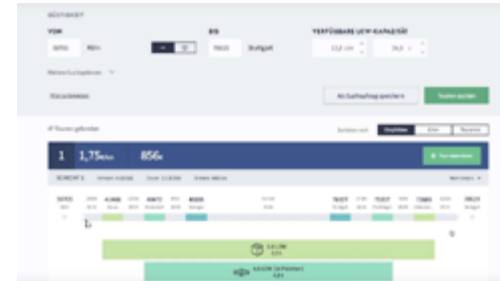
Sharing economy: Online platforms for sellers and buyers (e.g. AirBnB, Booking.com)

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



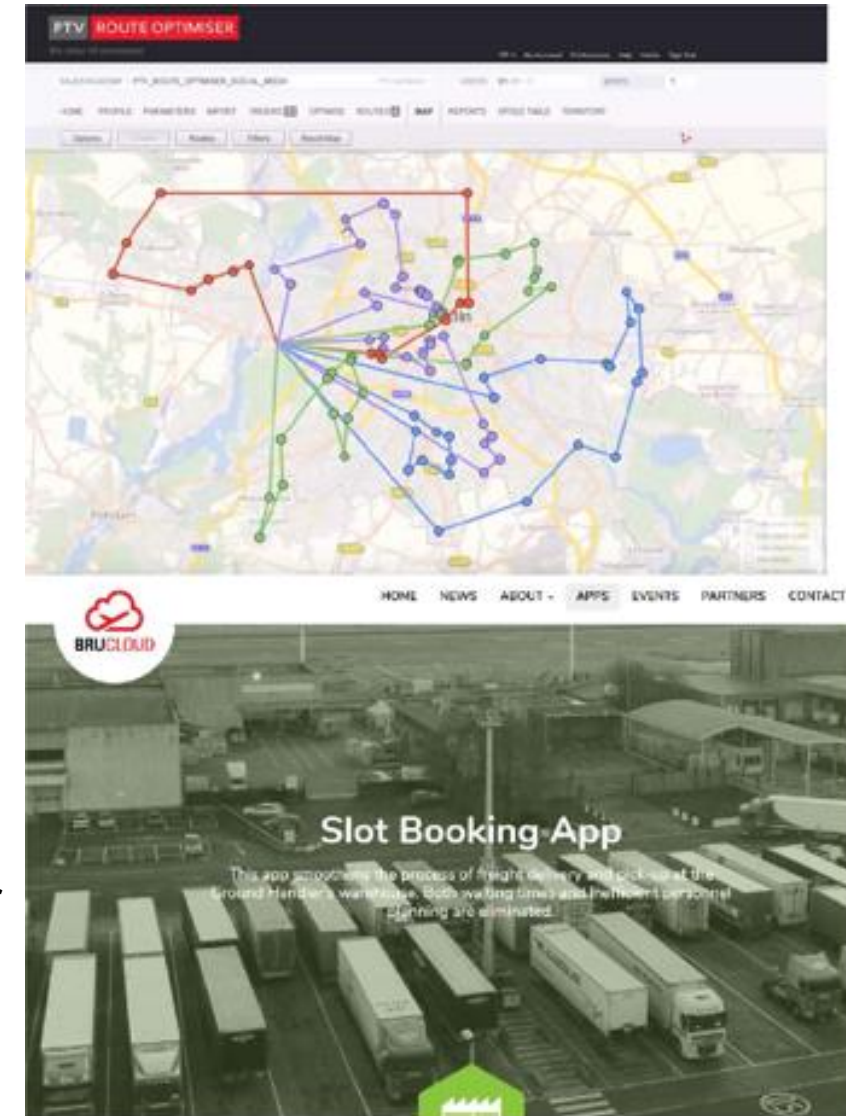
Recent IT Research Initiatives

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 coordinate 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

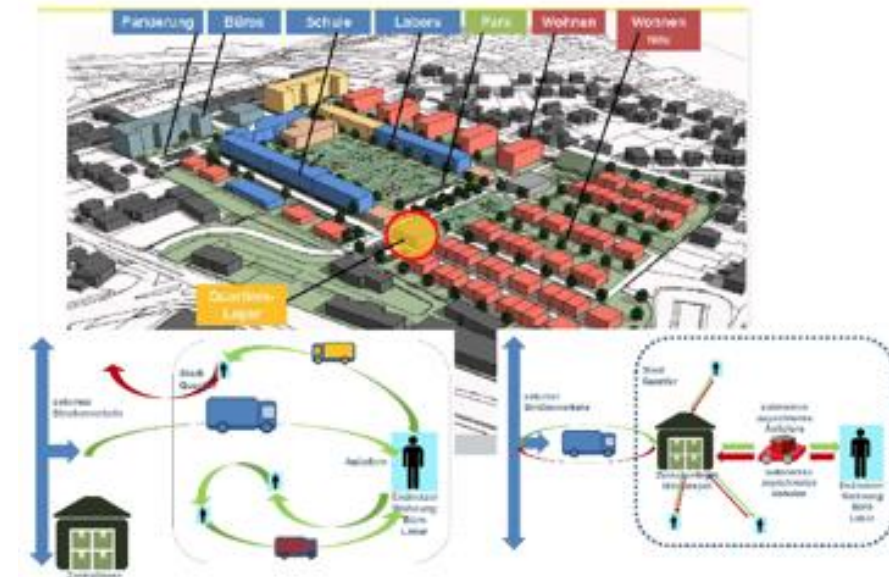
eFEU Campus: Last mile delivery using automated robots

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



The screenshot displays the AEROLIX IT platform interface. At the top, it shows 'Flow Industrial Ltd.' and 'Regional Hub DO' with a timestamp of '14:47'. Below this is a table with columns: 'Arrival', 'ETA', 'Status', 'Company Name', 'Project ID', 'Vehicle Number', and 'Location'. The table lists several transport entries with their respective arrival times and statuses. To the right of the table is a 'Drive&Arrive' widget showing a clock at '18:01' and a 'Send arrival, task' button. Below the widget are buttons for 'Schedule' and 'Execution'.

Arrival	ETA	Status	Company Name	Project ID	Vehicle Number	Location
14:15	14:15	arrived	City Logistics	400000	0000000000	AA 00
14:21	14:21	arrived	Logistics DE	400000	0000000000	AA 00
15:00	15:00	arrived	Transport Hub	400000	0000000000	AA 00
15:15	25 min		Best Transport	400000	0000000000	AA 00
15:40	1 h		Logistics DE	400000	0000000000	AA 00
15:50	1 h		Transport Hub	400000	0000000000	AA 00
16:00	unknown		Transport Hub	400000	0000000000	AA 00
17:00	2 h		Logistics DE	400000	0000000000	AA 00
17:40	3 h		Transport Hub	400000	0000000000	AA 00



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



Cities & Industry Dialogue Group presentation

Large Cities		Medium / Small Cities		Regions
1. Amsterdam	7. Lisbon	13. Bilbao	17. Liège	20. Arnhem Nijmegen City Region
2. Brussels Mobility	8. London (TfL)	14. Ghent	(Groupeement de Redeploiement Economique)	21. Flanders MOW
3. Budapest (BKK)	9. Madrid	15. La Rochelle	18. Helmond	22. Ile-de-France
4. Dresden	10. Paris	16. Leuven	19. Southampton	23. Manchester (TfGM)
5. Dublin	11. Rome			24. Province of Noord-Brabant
6. Gothenburg	12. Rotterdam			

Type of Company	Members
Shippers & Retail	   
Logistics Service Providers, Courier and Postal Operators & Freight Forwarders	   
Real Estate	
Vehicle Manufacturers	   
ICT & Technology	

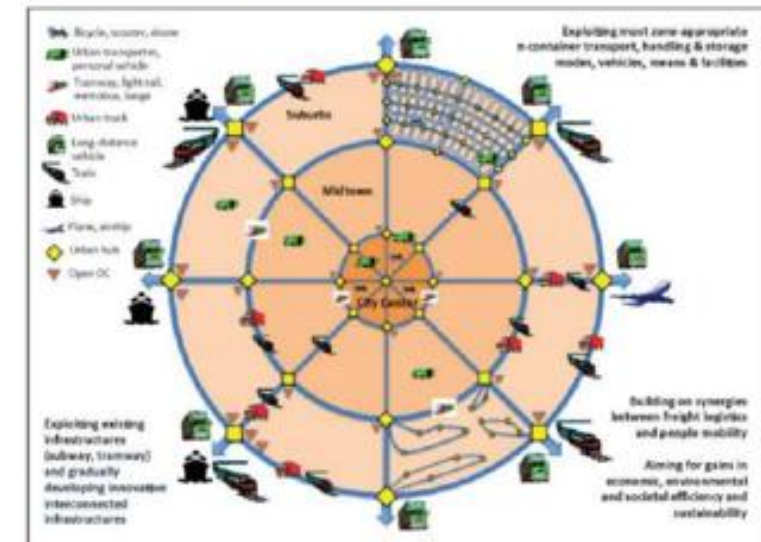
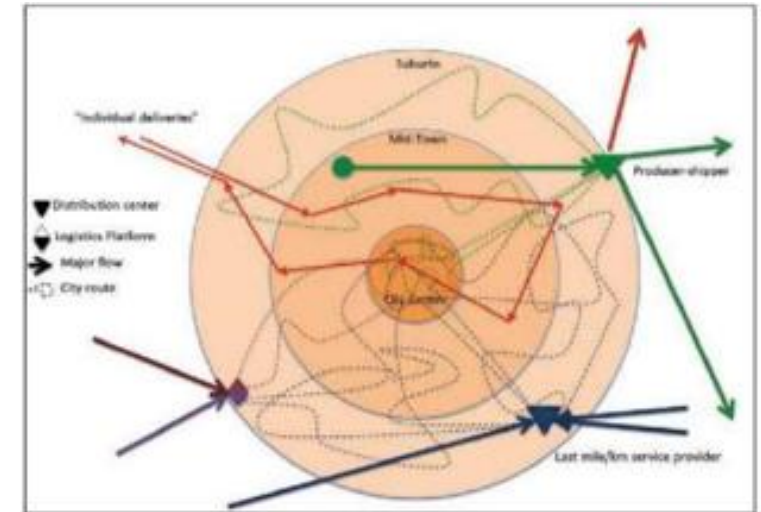
CITY Platform to New Business Model

“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





the mind of movement



The background features three stylized trees. The foliage is composed of a dense network of thin, white, branching lines that resemble a circuit board or a neural network. The trunks of the trees are solid, light-colored shapes. The overall color palette is a gradient of reds and oranges, with the text in white.

Smart Mobility, Empowering Cities