ASPIRE

ADVANCED LOGISTICS PLATFORM WITH ROAD PRICING AND ACCESS CRITERIA TO IMPROVE URBAN ENVIRONMENT AND MOBILITY OF GOODS

THE ENHANCED AND MULTISECTORAL ROLE OF LOCAL AUTHORITIES IN SUSTAINABLE MOBILITY AND URBAN SPACE MANAGEMENT

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LIFE ASPIRE WEBINAR – 4TH MARCH 2021

LIFE ASPIRE Rewarding system: incentivising sustainable urban logistics in times of Covid-19

With the contribution of the LIFE financial instrument of the European Commission

LIFE16 ENV/IT/000004

MemEx is a independent engineering company supporting Public Authorities and Transport Operators in the design and implementation of **Sustainable Urban Mobility** and **Public Transport, Intelligent Transport Systems** (ITS), **Urban** and **Port Logistics, Smart Cities** and **Smart/Shared Mobility**

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Contents

Urban Mobility Governance: main axes of intervention

- **Sustainable Urban Mobility Plan - SUMP**
- Qualification and diversification of PT services *(BRT-BHLS, Flexible transport, Feeder etc.)*
- ITS and ICT infrastructures, data aggregation, crowdsourced data, Process monitoring
- **Urban Freight Transport/City Logistics** *(last mile, UCC, Access Control, Cargo bike, etc.)*
- Integration of different modalities, services interoperability
- Active mode and complementary measures *(bike, sharing-station, vans sharing, car sharing, etc.)*
- Coordination/Cooperation among different service actors mainly for the space management/competition

MIXED SOLUTIONS by TECHNOLOGIES and INFRASTRUCTURES …
but also ORGANIZATION/OPERATION and NORMATIVE

City Logistics in Urban Areas

- Cause of more than a **quarter of overall urban transport CO2 emissions** (and 30-50% PM and NOx)[1]
- **Impacts on the urban environment, noise,** urban public space, and living conditions
- Relevant **traffic component in the city** (15% of circulating vehicles)
- **Low load factors** for delivery vehicles (less than 50%)
- Regulated/influenced by **public authorities**
- Operated by **private companies, in general of small dimension** (85% with less than 5 employers subcontracted for urban trucks)
- Frequent/instant deliveries due e-commerce, click/collect, food on demand, home delivering, store downsizing, etc

1. ALICE. Urban Freight Research Roadmap; European Road Transport Research Advisory Council: Brussels, Belgium, 2015

The EU vision

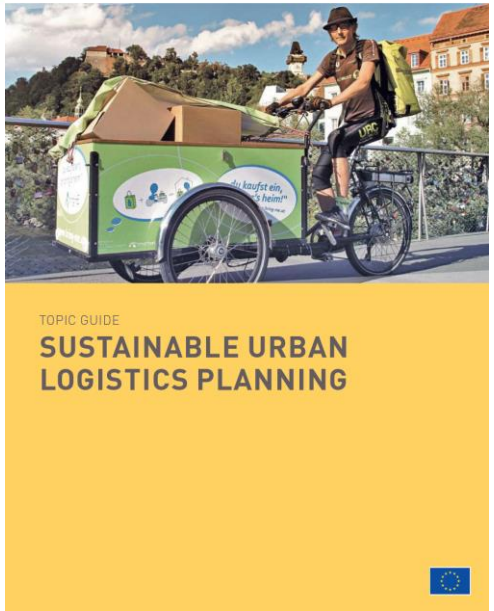
Actions: Best Practice exchange, R&D, Funding, Guidelines

"Achieve essentially CO2-free city logistics by 2030"

European Commission, White Paper on Transport, 2011

- optimizing urban logistics efficiency *(economic, environment, …)*
- improving the **links between long-distance** and urban freight transport distribution…
- **incorporating freight transport** in local mobility policy by the development of "**Sustainable Urban Mobility Plans**"

… in any case, solutions are mostly based on the experience of big towns and often refer to one model!



Freight distribution in Small and Medium (Historic) Towns

More complex due to:

- City features (*old road infrastructure, narrow streets, etc.)*
- more strict access regulations
- presence of heritage and historic assets
- higher risks for pedestrian safety

… with higher impacts *(pollution, noise, etc.)*

and higher costs of logistics operation

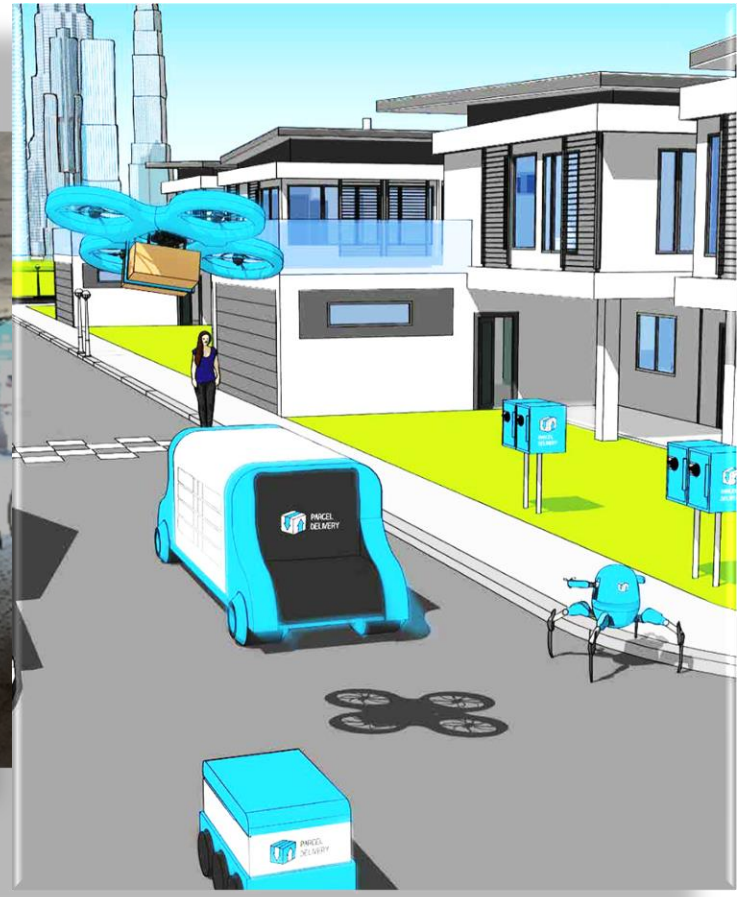
Despite there is a strong (and fair) attention on logistics operations within the inner city, with the e-commerce logistics issues have been extended to the whole urban area

21 cities with more than 1 million inhabitants
180 cities with more than 200.000 inhabitants and less 1 Ml
1364 cities between 40.000 and 200.000 inhabitants

Approaches, solutions, and practices are quite vary

Amazon locker in an Italian Supermarket

Mumbai Delivery Dabbawala, India, 2018



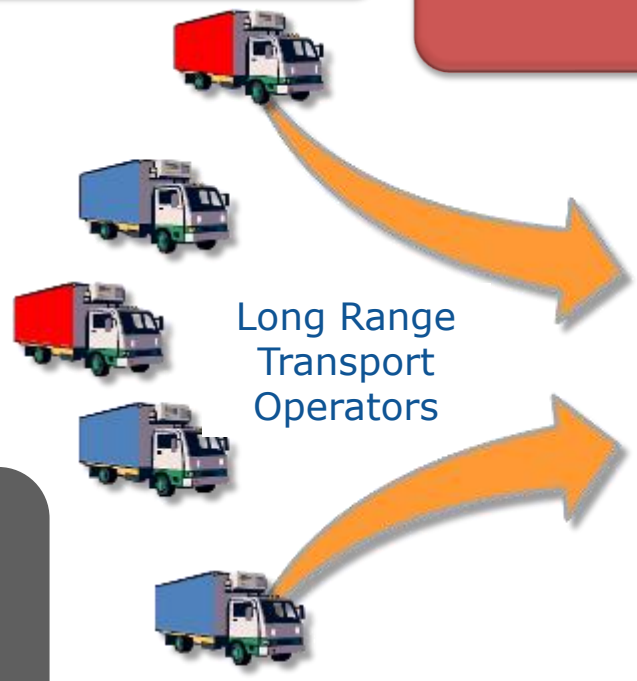
@McKinsey & Company, 2018

Urban Consolidation Centres

Municipality Initiative:
Top-Down approach

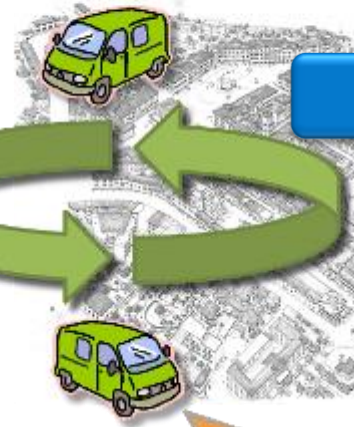
UCC as Final destination of retailers and/or shops
…

Last Mile and
Cross Docking Services



Long Range
Transport
Operators

ICT Platform



Track and Track

Links long-distance and urban freight distribution

Special transport operators

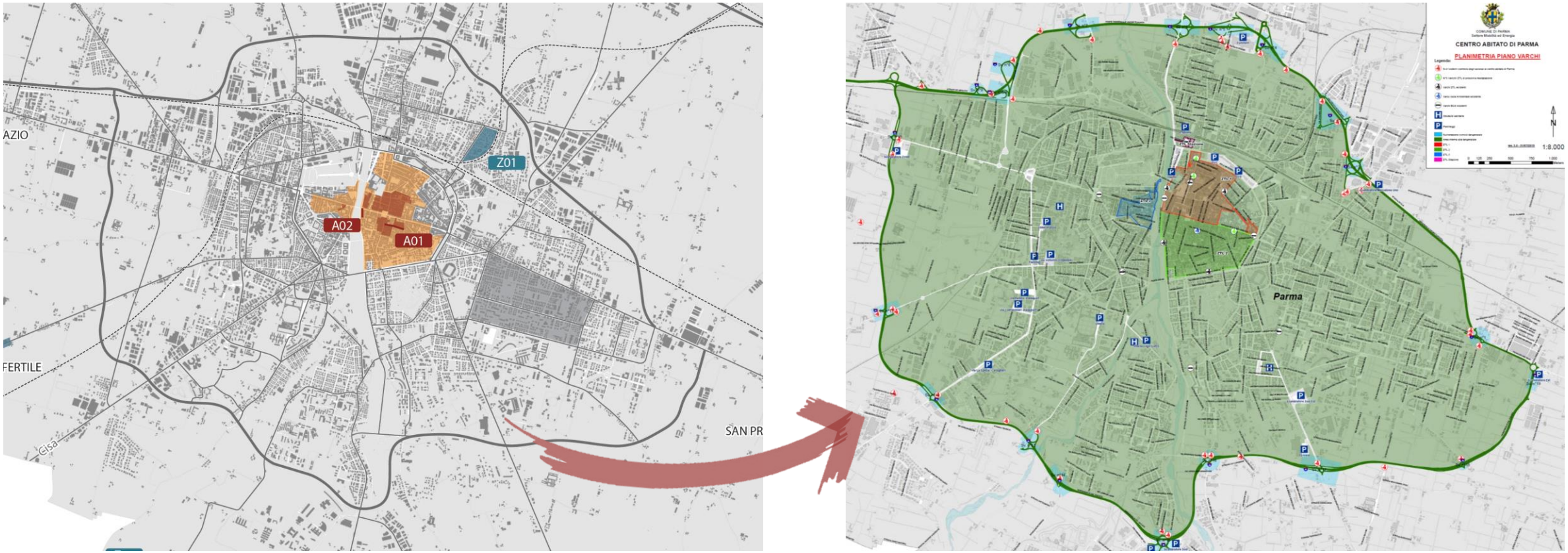
City Access Rules push the transhipment, consolidation, cooperation, etc.

UCC productivity

@KFI

UVAR & LEZ as tools for private and freight traffic

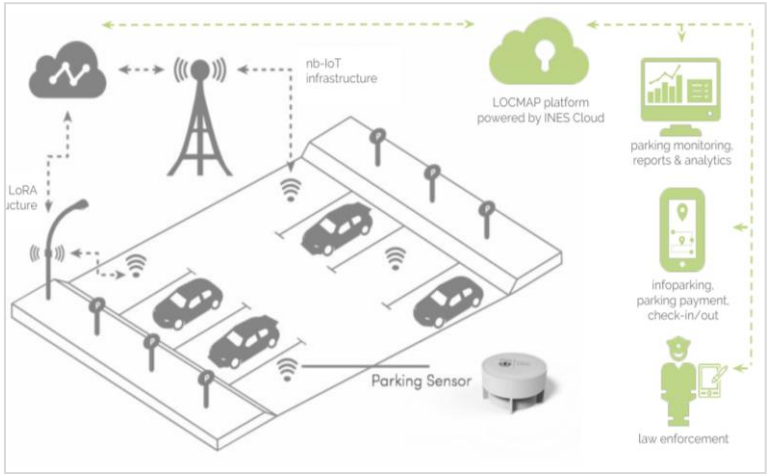
- Permissions, OCR, RFID, access/exit time, etc.
- From Access Regulation to Low-Emission Zones



- Parma Municipality approach. Source: Parma Mobility Masterplan, 2020

Parking management

- Dynamic control of load/unload parking lots
- Dynamic reservation schemes
- Permanence time control
- Violation detection, enforcement



Public Authority overall responsibilities

Policy, Rules, Measures

- Specific objectives in relation to urban and mobility plan
- Setting urban freight regulation scenario (time/space)
- Access in relation to the goods-vehicle typology
- Enforcement schemes and control activities
- Make existing infrastructure available (ICT included)
- Incentives for “green vehicles” (shopkeepers, operators)

Scenario

- Less resources for investment and management
- “Facilitator” role wrt the different involved actors and stakeholders
- Role upper level Authority (Regional, National, .)

Capability/skills to planning/evaluating solutions is necessary

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THANKS FOR YOUR ATTENTION

The enhanced and multisectoral role of local authorities in sustainable mobility and urban space management

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