



5th July 2022
European Logistics Innovation Day
BOOSTLOG project's event

6th July 2022
ALICE General Assembly

Boosting impact generation from research and innovation on integrated freight transport and Logistics system

 Activities performed in the frame of BOOSTLOG Project, that has received funding from the European Union's Horizon 2020 research and innovation Programme under grant No 101006902

Urban logistics cloud report presentation

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Activities performed have received funding from the European Union's Horizon 2020 research and innovation Programme under grant No 101006902 and are within the framework of ALICE.

The Cloud report on Urban Logistics

Executive summary

1. Introduction and methodology
2. Analysis of current practices
3. Project results and Outcomes
4. Implementation cases
5. Potential implementation paths
6. Annex I – Implementation case template
7. Annex II – Semi-structured interview guide



Over the years, Urban Logistics had several definitions:

“The **movement of things (as distinct from people)** to, from, within, and through urban areas.” (Ogden – 1992)

“A process for totally **optimizing** the logistics and transport activities **by private companies with the support of advanced information systems** in urban areas considering the traffic environment, the traffic congestion, the traffic safety and the energy savings **within the framework of a market economy**”. (Taniguchi – 2001)

“Coordination process of all the flows within urban areas—**freight and passengers**” ; “a set of practices related to the movements of things and people and **their management**, which plans, organizes, implements, and controls the efficient flows and related information **in order to meet ALL urban transport system stakeholders’** demands. Additionally, these practices aim to reduce or prevent commercial traffic and its adverse external effects” (Cherrett, Quak, Marcucci, Muñuzuri, Rose, Gammelgaard – from 2012 to 2017)

TODAY, the Urban Logistics definition takes its inspiration from the

EC’s New Urban Mobility Framework (Dec 2021), in which the active **engagement and collaboration between local authorities, companies and civil society is a turning point** to optimising urban logistics from **economic, social and environmental** perspectives.



Mapped EU R&I projects on Urban Logistics



UL projects expected impacts and KPIs (1/2)

| Expected Impact | KPIs | Projects |
|---|---|---|
| Decrease of environmental impact | CO2 emissions | CITYLAB, NEXTRUST, NOVELOG, SUCCESS, U-TURN, MOSCA, CITY MOVE, DELIVER, CIVITAS ECCENTRIC, FREVUE, FURBOT, OPTICITIES |
| | Local pollutants | CITYLAB, NEXTRUST, NOVELOG, SUCCESS, U-TURN, MOSCA, CITY MOVE, DELIVER, CITY FREIGHT, FREVUE, FIDEUS, FURBOT, SMARTFUSION, STRAIGHTSOL, V-FEATHER, VITALNODES |
| Increase transport and logistics efficiency | Increase load factors | CITYLAB, NEXTRUST, NOVELOG, SUCCESS, CITYLOG, DELIVER, FIDEUS, FURBOT, STRAIGHTSOL, , V-FEATHER |
| | Reduce empty trips/kms | NEXTRUST, FURBOT, eDRULS |
| | shorter delivery routes | CITYLAB, NOVELOG, SUCCESS, U-TURN, MOSCA, FURBOT, INSTANT MOBILITY, OPTICITIES |
| | Reduce failed deliveries | CITYLAB, U-TURN, CITYLOG, CITY FREIGHT, FIDEUS, INSTANT MOBILITY, eDRULS |
| Reduction of congestion on the road network | Reduced vehicles movements /Nr. of vehicles | CITYLAB, NEXTRUST, NOVELOG, SUCCESS, U-TURN, MOSCA, CITYLOG. CITY FREIGHT, FREVUE, FIDEUS, OPTICITIES, VITALNODES |
| | Reduction of average trip time | CITYLAB, MOSCA, FURBOT, OPTICITIES, eDRULS |
| | Increase in average travel speed | CITYLAB, DELIVER |



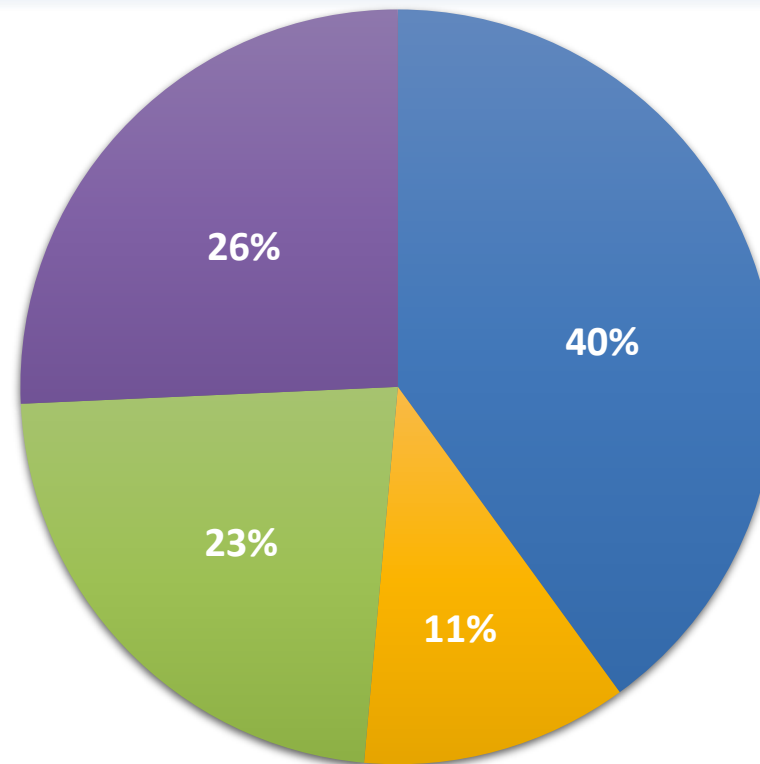
UL projects expected impacts and KPIs (2/2)

| Expected Impact | KPIs | Projects |
|---|--------------------------------------|---|
| Achieving and increase in modal shift to rail freight/waterways transport | Create new intermodal connections | NEXTRUST |
| Decrease of overall transportation and logistics cost | Cost/unit of transport | CITYLAB, NOVELOG, SUCCESS, U-TURN, NEXTRUST, CITY MOVE, FREVIEW, FURBOT, STRAIGHTSOL |
| Increased transport reliability and responsiveness | On time delivery | CITYLAB, MOSCA, CITYLOG, INSTANT MOBILITY |
| | Better customer service | CITYLAB, NEXTRUST, NOVELOG, MOSCA, CITY MOVE, CITYLOG, DELIVER, CIVITAS ECCENTRIC, FREVIEW, FURBOT, INSTANT MOBILITY, OPTICITIES, SMARTFUSION, STRAIGHTSOL, EDURBAN LOGISTICS |
| Decreased Travel Times | Reduced Travel time | CITYLAB, NEXTRUST, SUCCESS, MOSCA, CITY FREIGHT, CIVITAS ECCENTRIC, FURBOT, INSTANT MOBILITY, STRAIGHTSOL, V-FEATHER |
| Improve energy consumption | Energy consumption/unit of transport | CITY MOVE, CITYLOG, DELIVER, CIVITAS ECCENTRIC, FREVIEW, FURBOT, SMARTFUSION, V-FEATHER |
| Improve long distance-city distribution connectivity | % Decrease in operational handling | NEXTRUST, CIVITAS ECCENTRIC, SMARTFUSION, STRAIGHTSOL, VITALNODES |





Urban logistics R&I Projects Outcomes



■ Technology

■ Business model

■ Policy

■ Service / Product

From Project outcomes to Implementation cases

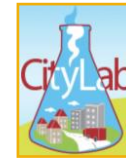
European R&I project:
MOSCA – FP5



European R&I project:
FREVUE – FP7



European R&I project:
CITYLAB – H2020



European R&I project:
NOVELOG – H2020



Interviews with experts and Implementation cases owners

Padova Cityporto

WISEVA-W –
PTV

SEUL - UPS

Declaration of Intent: Call for zero
emission freight vehicles

Rome Logistics Living
Lab

SULP Topic Guide

Emilia Romagna Permit
Portal



Main barriers to implementations and Potential implementation paths

Barriers

- Lack of relevant **data** for urban logistics and frequency of data collection
- Poor **involvement of the industry** and the market players

Implementation paths

- Some experts interviewed stressed the need to have a concrete **plan of data collection** to be done systematically for freight.
- Logistics operators need to see their **priorities reflected** in the initiatives and policies adopted by local authorities
- R&D projects to be more **market oriented** (this also enhances **transferability**) of the best practices tested in other cities

Success factor: collaboration between private & public stakeholders

- **Alignment on challenges in the city**
- **Industry priorities to be identified, supported and integrated into policy making**
- **Data sharing and collection with trust (on a regular basis)**

Thank you!



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