ULaDS
URBAN LOGISTICS AS AN ON-DEMAND SERVICE

City of Milan

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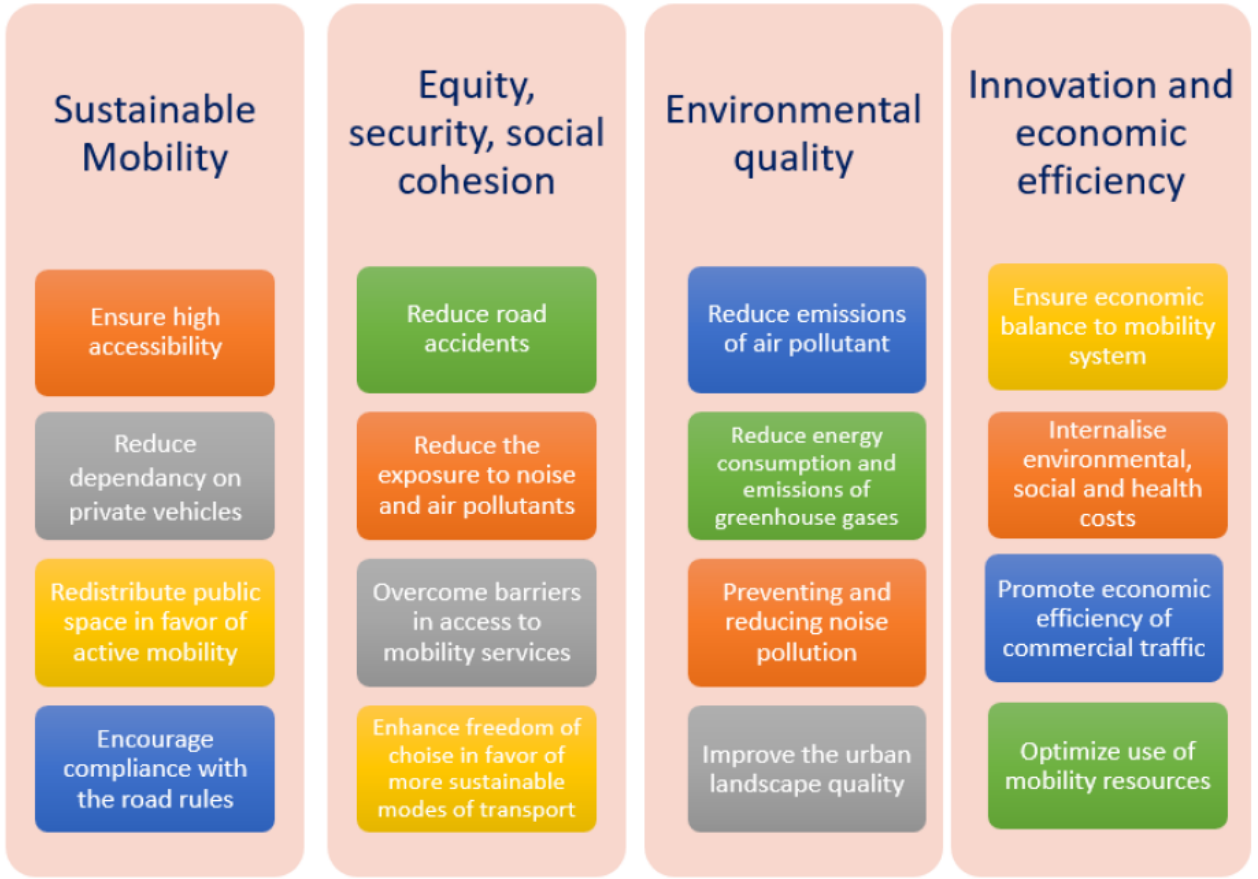
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 861833

Local Context

Milan – SUMP approved in 2018

Specific and general objectives



Milan – SUMP approved in 2018

Strategies and lines of action

- Establishment of a freight LTZ with an accreditation system for access to specific functions (eg loading / unloading areas), verifying efficiency standards, through reward mechanisms (eg by incentivising zero-impact vehicles);
- Control and management of loading and unloading areas in order to rationalize their use and reduce the resulting impacts
- Promotion of private initiatives for the creation and management of UCC, through the definition of specific rules

→ *Area C*
Area B
PGTU update in progress

→ *Smart Parking*
PGTU update in progress

→ *Wholesale food market center*
PTM update in progress

Cognitive framework
Freight distribution

Milan – Success stories and good practices

2017 - Green and Healthy Streets Declaration

March 2021 – **Zero Emission Urban Goods Transportation Programme**

Cognitive framework Freight distribution

- Stakeholder engagement
- Urban Goods Transportation Survey
- Goods flows estimation

→ *New policies*
New measures
Priority solutions

Pilots ideas

- **CityHub**(s) from where small e-vehicles and cargo bikes will transfer goods to end users
- Use of a **freight train** to bring goods into the city during off-peak hours combined with e-vehicles and cargo bikes for last mile deliveries

Milan – Stakeholder engagement

Mapping

Transport operators (logistics and cycle logistics)
Trade associations
Commercial businesses
Service providers

Objectives

Collecting data and information
Understanding their opinions on the z-e transition
Involving them in a dialogue – cooperation

Meetings

Lessons learnt:
Growing attention in sustainable transportation
High costs for sustainable vehicles
Lack of space in urban areas for logistics activities
Vehicle technology barriers

Milan – Urban Goods Transportation Survey

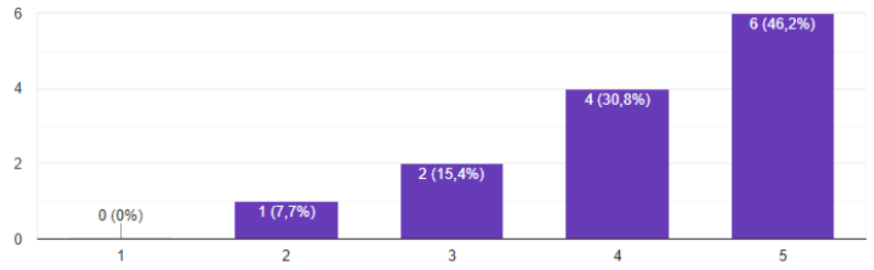
Objectives:

Gather quantitative and qualitative information
Gauge interest in z-e urban goods delivery
Understand obstacles, challenges and opportunities in z-e transition

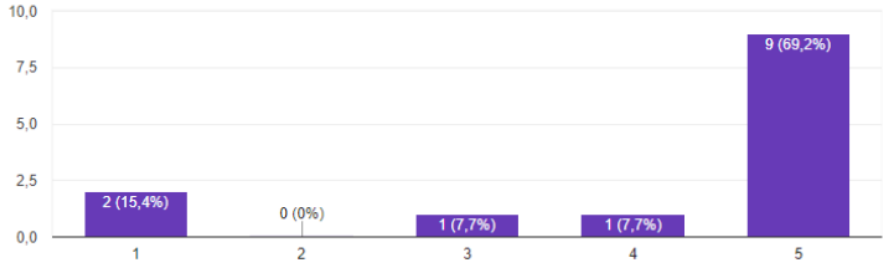
Lessons learnt:

Resistence in sharing data
Limited use of cargo bikes and electric vehicles but planned for the future
Negative impacts from lack of space for loading/unloading activities and traffic congestion
Positive assess about the introduction of Area C despite the additional costs
Asking for space for urban depots and more fast charging points

Effect of the level of congestion of the road network on the performance of activities (1 = non-impactful, 5= very impactful)



Effect of the level of availability of parking areas and loading / unloading areas in the performance of activities (1 = non-impactful, 5= very impactful)



Milan – Goods flows estimation

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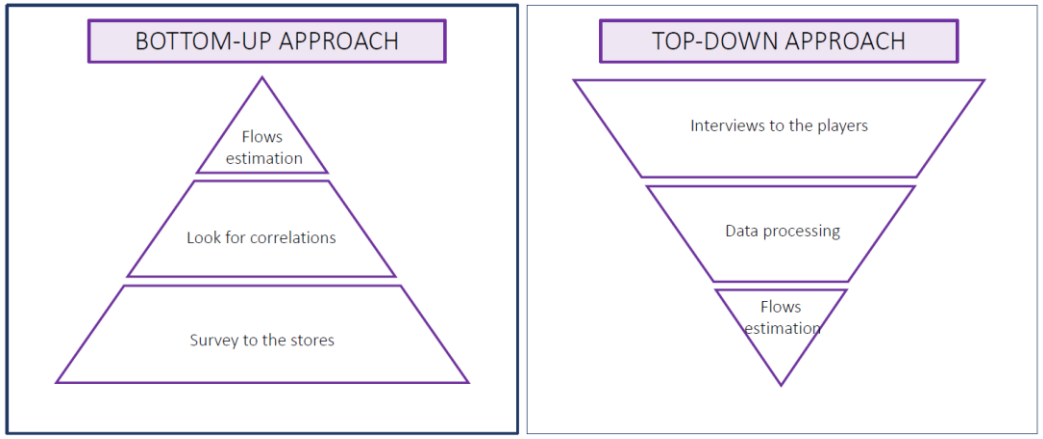
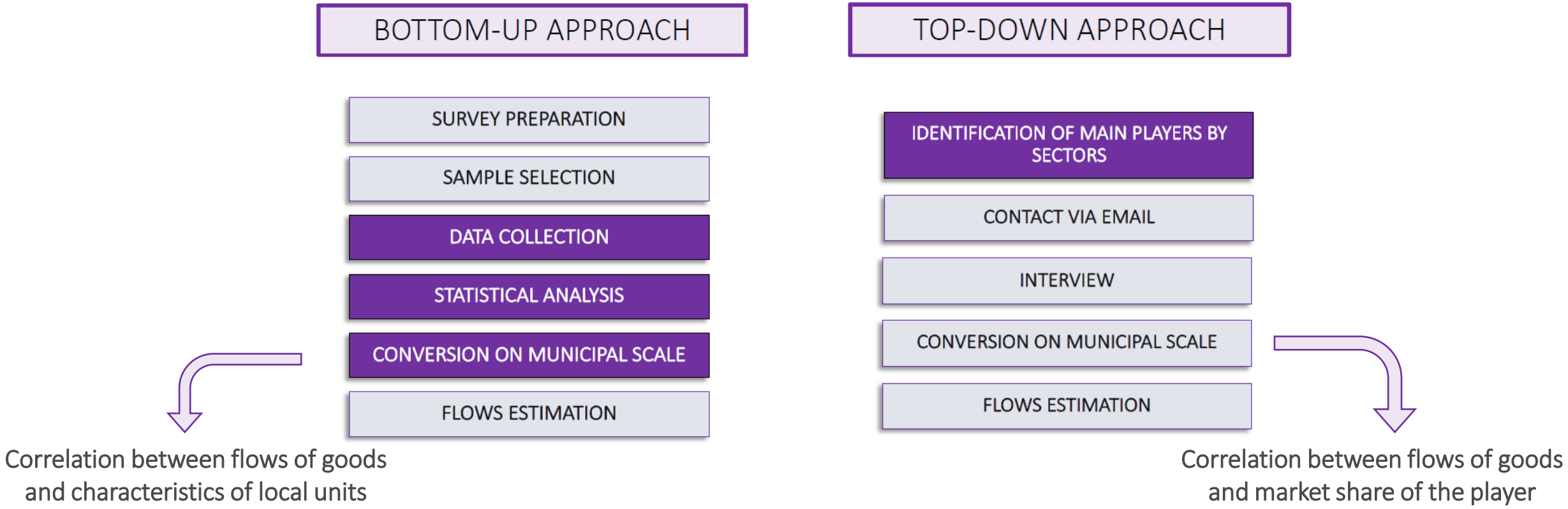
1 Preliminary research
- Literature
- Existing data

2 Classification of the goods flows
- Type of constumer
- Sector of activity
- Product categories

3 Quantification of the flows
- Bottom-up
- Top-down



Milan – Goods flows estimation



- The B2C e-commerce flows were estimated from B2c e-commerce Observatory data

Milan – Goods flows estimation

B2b/B2c	Sector	Product sector	Shop	Flows (ton/week)	Range		% weight	Methodology
					min	max		
B2b	Vendita al dettaglio	Alimentari	Supermercato	13.091	9.351	16.832	18%	Top-down
			Alimentari, panetteria, pasticceria, gelateria	1.807	1.626	1.987	2%	Bottom-up
		Abbigliamento	Abbigliamento, accessori, calzature, borse e valigie	671	604	1.221	0,9%	Bottom-up
		Elettronica	Dispositivi elettronici, elettrodomestici	359	323	395	0,5%	Penetration rate
		Casa	Mobili e arredamento	6.907	2.843	7.598	10%	Top-down
		Farmacia		110	99	122	0,2%	Top-down
		Ricreazione	Libri, riviste, cancelleria e giocattoli	628	149	691	0,9%	Bottom-up
		Cura animali e piante		-	-	-	-	
		Cura della persona		55	50	61	0,1%	Top-down
		Carburante		12.641	11.377	13.905	17%	Altro
		Commercio ambulante		7.874	7.087	8.662	11%	Top-down
		Veicoli	Veicoli e ricambistica	1.439	1.295	1.583	2%	Altro

Milan – Goods flows estimation

Lessons learnt and next steps:

- Bottom-up approach time consuming
- Difficulties in estimating certain categories (supermarkets, public excercises, production)
- Translate ton/week in orders/week

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