

EIB Jaspers

CAPACITY BUILDING FOR SUSTAINABLE URBAN MOBILITY PLANS



FREIGHT IN SWEDEN

- The National Freight Strategy in place.
- Stockholm Freight Plan with an Action plan organized into 6 key areas with the aim to be adaptable and respond to changing conditions:
 - Regulations & Instruments
 - Freight Transport Expertise
 - Strategic land use
 - Space-efficient urban logistics
 - Freight by rail and water
 - Innovation & technology



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Freight transport in cities: a simple definition

“All movements of goods

- in to, out from, through or within the urban area
- made by **light or heavy vehicles**,
- including **service transport** and **demolition traffic** as well as **waste and reverse logistics**”

Source: CIVITAS Policy Note: Making urban freight logistics more sustainable, page 9. Based on Alice, 2014; Lindholm, 2013



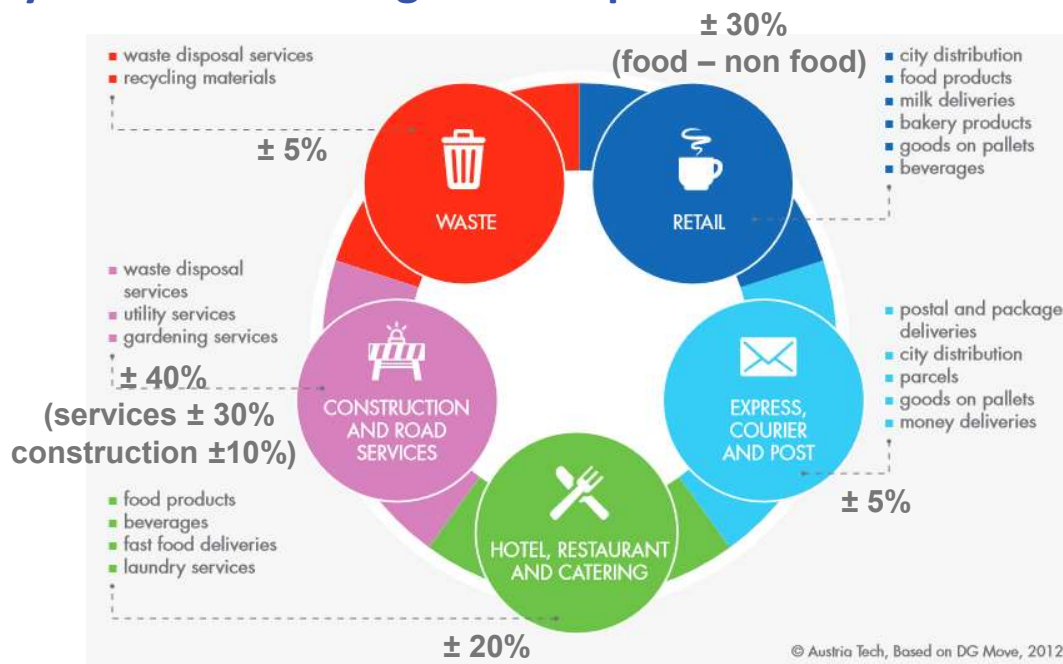
Images: Lecce © Cosimo Chiffi

There is no common definition of urban logistics - In literature various terms are used to refer to the general concept of the transportation of goods and waste in urban areas; “urban goods movement”, “city logistics”, “urban freight transport”- The exact definitions of these terms differ slightly as to what is included and what is not.

A simple definition of freight transport in cities is (*read the definition*)

Household purchasing trips are not considered to be part of urban freight transport as these are passenger transport trips

Diversity of sectors and logistical requisites



Although the definition is simple, it includes a **huge variety of very different transport operations and logistics activities and requirements**. The only common factor is that they **take place in an urban area** (geographical aspect) and **concern the movement of goods** (transportation aspect) and **service-related trips by commercial entities** (commodity aspect; i.e. transport of things as distinct from people).

Urban freight logistics can “be classified by **transport mode, type of operator, and origin of goods** (the goods can come via a long-distance supply chain, or be part of a very local exchange between a shipper and a receiver)”, or by **sector served** (i.e., the market sector of urban freight transport).

Concerning the latter, **Five sectors** can be distinguished: i) retail (including e-commerce), ii) express, courier and post, iii) hotel, restaurant and catering (HoReCa), iv) construction and v) waste. Examples from each sector are included in the picture.

Some background data



Image: Cambridge © Cosimo Chiffi

In a city ...

Urban freight traffic accounts for about

10-15%	2-5%	6%
of km travelled	of the total work force employed in urban areas	of all transport-related GHG emissions

Goods generation by an urban context

0.1	1	300-400	30-50
delivery/pick-up per person per day	delivery/pick-up per economic activity per week	freight vehicles trips per 100 people per day	tons per person per year

Source: Macário R., Innovation policy as a driver for the development of urban logistics, ITF 2012; Dabanc L., Freight transport for development toolkit: Urban Freight - Freight Transport, a Key for the New Urban Economy, 2009



Image: Pesaro © Cosimo Chiffi



Capacity Building for Sustainable Urban Mobility Plans – Freight and Logistics

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Understanding the background data on urban logistics is essential for grasping the scale and scope of the challenges and opportunities we face.

Freight vehicles account for 2% of the total urban fleet, determine 15% of urban road accidents in EU and about 20%/30% of urban transport emissions (air pollutants, 1/4 determined by return empty runs: urban freight vehicles are often underutilised, with many trips being made with only partially loaded or even empty vehicles).

The **rise of e-commerce** has dramatically increased the number of deliveries in urban areas. In Europe, online sales have grown steadily, with a notable surge during the COVID-19 pandemic. This trend has led to a higher frequency of deliveries, often in smaller quantities, adding to the complexity of urban logistics.

A crucial role for freight transport in our cities

- The **demand for logistics will continue to increase** in the future
- The logistics and distribution system can be **one of the major factors of success and competitiveness** for the city system as a whole
- **Increasing attention will have to be paid to the urban environment** to
 - ensure an efficient goods distribution system
 - minimise the negative impacts of freight transport



Source: CIVITAS Policy Note: Making urban freight logistics more sustainable

Freight transport plays a crucial role in the functioning of our cities, largely influencing also its success and competitiveness. It ensures the continuous supply of goods necessary for daily life, as we said from food and medicines to construction materials and consumer products.

Sometimes cities are highly characterised by the economic activities in its urban area. Think at tourism & leisure or craftsmen/artisans but also local retailers and the needed mix that should be ensured to achieve, for example, the 15 min city concept.

As urban populations grow and customer behaviours change, the demand for efficient and reliable freight transport also increases. However, this comes with challenges, which can adversely affect urban life. It is therefore crucial to find a balance between efficient freight transport and maintaining a high quality of urban life.

Cities need to implement new and smart logistics solutions to minimise negative impacts. Policies should encourage the use of sustainable transport modes and technologies, keeping in mind that the efficiency of the good distribution system must be pursued as well.

Negative impacts in multiple dimensions

ECONOMIC IMPACTS	ENVIRONMENTAL IMPACTS	SOCIAL IMPACTS
road congestion	pollutant emissions	physical consequences of pollutant emissions on public health
inefficiency	use of non-renewable fossil-fuel	traffic accidents
waste of resources	land and aggregates	noise
	waste production	visual intrusion
		other quality of life issues

Source: CIVITAS Policy
 Note: Making urban freight logistics more sustainable, page 11
 © Austria Tech

Generally speaking, urban logistics significantly impacts environmental, economic, and social dimensions.

Environmentally, freight vehicles contribute substantially to air pollution with higher CO₂, NO_x, and particulate emissions compared to passenger vehicles. They also increase noise pollution and exacerbate traffic congestion.

Economically, traffic congestion leads to higher operational costs and inefficiency, with delays in deliveries affecting the bottom line.

Socially, the constant flow of delivery vehicles reduces urban quality of life through increased noise, pollution, and safety risks, particularly for pedestrians and cyclists. Freight vehicles often double-park for loading and unloading, blocking traffic and creating hazards.

Even on a per trip basis, their impacts are often higher than for passenger trips. On the other hand, our cities are not fully prepared and organised to accommodate such a growing number of logistics operations.

Solutions must be found that allow their efficiency while limiting their impact on urban quality of life.

Trends and macrorends

- Ambitions for city-scale logistic distribution centres
- **"Downsizing" of large-scale retail** >> return to city centres/ liveable neighbourhoods
- Competition between physical and virtual shops with **"instant" or "same-day" delivery**
- Frequent deliveries in different product sectors and more independent flows (e.g. speciality stores)
- Growing role of the **tourism and leisure** sectors



Image: Stockholm © Cosimo Chiffi



<https://picmart.se/>





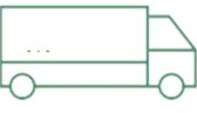
Looking at the trends (and macrorends or megatrends that are more independent on how urban freight transport is organised/regulated in a city) we can say that classical or traditional policies focused on Urban Delivery Centres (or Urban Consolidation Centres) in the outskirts of cities are no longer so relevant. Micro-depots came later and are more in the spotlight now. Their demand comes from the operators and the «battle» for more centrally located but especially medium-sized spaces is increasing.

Thus, retailers are no longer the ones asking for such spaces but also retail is changing: there's a return to city centres and more liveable neighbourhoods are the areas where the downsizing of large-scale retails is happening (e.g., traditional outskirts shopping mall vs. downsizing and relocation of big retailers)

There's also a competition in place on deliveries between physical and virtual shops, mostly driven by consumer patterns through e-commerce: deliveries are fast and furious, of course just in time thus becoming more frequent but also more independent (think at some speciality stores or groceries or other local shops that can now offer home delivery as an IT/smartphone experience) and the role/demand and logistics needs of the tourism and leisure sectors (e.g. ho.re.ca.)

Comparing vehicles' characteristics and potentials

■ Expanded range of options

					
	Cargo bike	e-Cargo bike	e-Cargo trike/ quadracycle	Micro e-van	Diesel/LPG small van
Veh. Weight	20 – 25 kg	35 – 40 kg	90 – 200 kg	995 kg	1,6 – 2,0 †
Length	1,9 – 2,5 m	1,9 – 2,5 m	2,5 – 4,0 m	3,5 – 4,0 m	4,4 – 4,7 m
Volume	0,1 – 0,2 m³	0,1 – 0,3 m³	1,5 – 3,0 m³	2,5 m³	3,4 – 5,4 m³
Payload	60 – 80 Kg	80 – 120 Kg	200 – 350 kg	500 Kg	700 – 1000 Kg
Price	2.000 - € 4.000	€ 4.000 - € 7.000	€ 7.000 - € 15.000	€ 10.000 - 15.000	€ 14.000 - € 20.000

* Values extracted by comparing around 40 cargo bike models and LDVs from various sources

Source: TRT

As we can see from this table, replacing traditional fossil fuelled vans with smaller/micro and agile zero emission vehicles is possible from several points of view. First, more environmentally friendly solutions have similar or lower CAPEX costs and largely smaller OPEX costs (a human-powered or pedelec cargo bike runs at much lower operational costs). The capacity has to be put in combination with speed and frequency and despite lower volume or payload you can have faster operations (thus better efficiency with the same fleet).

A recent study by the UK's University of Westminster (August 2021) used GPS data to **compare routes taken by cargo bikes in London with routes that vans** would have to take to deliver the same parcels. Results show that services provided by cargo bikes in London are 1.61 times faster than that performed by van, which in a year saves over 14,500 kg of CO2 and over 20 kg of NOx.

In Central London, cargo bikes also had a higher average speed than vans, delivering nearly **seven parcels an hour compared to four for vans**. These bikes also cut carbon emissions by 90% compared with diesel vans, and 33% compared with electric vans. As a result, cargo bikes can serve customers more effectively than vans without generating many of the negative effects on climate produced by urban freight.

University of Westminster study:

<https://static1.squarespace.com/static/5d30896202a18c0001b49180/t/61091edc3acfd42f4af7d97f/1627987694676/The+Promise+of+Low-Carbon+Freight.pdf>

University of Amsterdam study:

<https://www.hva.nl/binaries/content/assets/subsites/kc-techniek/publicaties/lefv-logic.english.pdf>

Examples of heavy load zero emission UFT vehicles

Micro e-van with trailers



Image: Gothenburg © Cosimo Chiffi

Quadracycles



Image: Gothenburg © Cosimo Chiffi



Image: Milan © Cosimo Chiffi

These are two concrete examples of both vehicles/fleet and operations: the **Stadsleverhansen** in Gothenburg group numerous retailers located in the city centre (pedestrianised or traffic limited zones); operations are made daily with a micro e-van with very compact width and up to two trailers to increase flexibility and payload capacity. Quadracycles can of course do the same. Pling is an operator running also in Gothenburg whereas «Corrieri della Madonnina» is a cycle-based company in Milan, one of the many cyclelogistics operators already present in the northern Italian city.

Of course the shifting potential varies a lot depending on local characteristics but remains quite huge according to numerous studies: EU research and demonstrative project series Cyclelogistics (as from their initial estimates in 2013) indicated that that **51% of all motorized private and commercial trips related to goods transport in EU cities can be shifted to cargo bikes or bicycles with trailers**; another study from DLR came in 2016 to the conclusion of a shift potential of **8% to 22.6% for trips carrying up to 50kg in Germany** whereas a more in-depth study from the Amsterdam University of Applied Sciences (AUAS) in 2018 assessed **the potential of light electric freight vehicles for city logistics (e-cargo bikes, cargo mopeds and small electric distribution vehicles) estimating 10 to 15% shifting potential in the urban freight sector**.

Background info:

Cargo bikes replace scooters, cars, vans and light weight vehicles (LWVs) in a wide range of distribution services. According to the first EU study from project series Cyclelogistics – moving Europe forward (2013) >>> 25% of all trips in EU cities; 42%

trips related to goods transport in EU cities can be shifted to cargo bikes or bicycles with trailers.

These are trips that do not exceed 5 km for bike or 7 km for e-bike, 200kg or 1m³ of load and are relatively simple since trip chains have been partly excluded. Among these, 69% are private and 31% are commercial trips.

In 2016, another study on the potential of cargo bikes was conducted in Germany by the Institute for Transport Research of German Aerospace Center (DLR) on behalf of the German Federal Ministry of Transport. The investigation of the use of bicycles in commercial transport comes to a **shift potential of 8% to 22.6% for trips carrying up to 50kg in Germany**. The study has led to the major pilot carried on so far, *Ich entlaste städte* (I relieve cities). The test for companies and public institutions has displayed 152 cargo bikes, 26 months of operations, 800 participants, 300,000 km e 30,000 rides recorded by app/GPS.

Micro-hubs and pick-up spots in the city of tomorrow (today?)



Icons created by James Fenton, Pavel N., Alo Ta La, Nathalie Dumont, Michael Thomson, Ralf Smithzer, We all design and Simple icons from Noun Project (CC BY 3.0) <https://thenounproject.com/>

As we said there are no longer complex policy-led Urban Delivery Centres forcing for shifts and last mile delivery by one sole “contracted” operator (even if we have positive exceptions such as the Stadsleverhansen in Gothenburg) but more a network of micro-hubs and pick up spots that should favour collaborative logistics among private operators. The vary last mile is done by zero emission micro/pedal duty vehicles.

So, in the city of today urban freight operations are using of course small and medium-sized warehouses but increasingly small depots are proliferating in former car/motorbike repairer workshop/woodworker etc.

Garages and parking areas, especially underground ones with no height limit (or with sufficient space al level 0, also external), containers (mostly adapted/purpose-built ones) and other commercial spaces (particularly those with background and manoeuvring space)

But we (might) have also numerous pick-up spots such as (former newspaper) kiosk, packstations (that are widespread now mostly using private spaces in petrol stations or supermarkets – and so without the burdens of asking for permissions for public space occupation) and of course pickup points in existing local shops.

Reaching the right balance is not easy

As UFTL takes place in the city,
it is characterised by the
presence of **many players**



*... to foster a real change in
attitude and behaviour the
involvement of all actors and
stakeholders is needed*



Supply chain actors
(shippers, transport
operators, receivers)



Public
authorities



"Impactees"
(other traffic participants,
residents, visitors)



Providers of vehicles
and IT equipment
and devices

Source: CIVITAS Policy Note: Making urban freight logistics more sustainable

UFTL needs strong attention and efforts in proactively involving all actors and stakeholders. But who are such players?

The **supply chain actors**, those who are responsible for sending, carrying and receiving goods, can be distinguished in :

shippers – manufacturers, wholesalers, retailers, etc. Shippers send goods to other companies or persons and are often not located in the city; as a result they usually do not feel responsible for urban freight transport issues. They tend to maximise their levels of service in terms of costs and reliability of transport. In many cases the shipper is the stakeholder responsible for hiring a carrier

transport operators – freight carriers, couriers, etc. Transport operators usually aim at minimising their costs by maximising the efficiency of their pick-up and delivery tours, and they are expected to provide a high level of service at low cost. Transport operators are the stakeholders carrying out urban freight transport, but in many cases they are restricted by boundaries set by others; for example, opening hours of stores or designated time windows to make the deliveries.

receivers – shopkeepers, offices, construction sites, residents, etc. Receivers are located in the urban areas and are mostly the endpoint of the logistics chain.

Receivers are often not responsible for urban freight transport since shipments are organised and paid for by the shipper.

On the one hand policy boundaries by **public authorities** determine the urban freight transport possibilities we distinguish the following public stakeholders: the local government, the national government, and for some issues even the European Commission (e.g. setting EURO-standards for truck engines)

Finally, there is a group of actors who are affected by urban freight transport, but who do not directly influence or affect it: **the impactees**

other traffic participants consists of vulnerable road users (cyclists and pedestrians) that share the same infrastructure as freight transport vehicles especially in the urban area, and of passenger vehicles that are (sometimes) hindered by double-parked trucks involved in loading and unloading at the kerbside or on the road

city residents and city users – the people who live, work, and shop in the city; residents can experience nuisance by urban freight transport (e.g. smell, noise nuisance, or vibration)

visitors/tourists – who are affected by urban freight transport only to a minor degree but especially in attractive cities (centres) where tourism is important there is an interest in minimising nuisance by urban freight transport

Different ways of action

- **Policy:** defines the conditions in which urban freight transport operations can take place
- **Technical:** determines
 - the available means involved in urban freight transport
 - the processes to plan trips and communicate
- **Logistics:** determines operational conditions for urban freight transport trips

The organization of UFL operations



Source: CIVITAS Policy Note: Making urban freight logistics more sustainable

Thus, we need to consider and act on three different dimensions.

The first dimension is related to **policy measures**. regulations (determining the urban conditions in which urban freight transport operations can take place: time, location, etc.) encourages logistics companies to adopt cleaner technologies and optimise their operations to comply with the rules.

Technology also plays a crucial role. Advanced routing and scheduling software optimise delivery routes, reducing travel time and fuel consumption. Real-time data and ICT devices provide valuable insights to both operators and public authorities into traffic patterns and vehicle availability/performance, enabling efficient logistics management.

Lastly, **logistics** determines the operational conditions for urban freight transport trips (e.g. exact location, delivery hours, delivery frequency, vehicles used, etc.).

Since the blend of the three dimensions of action determines how urban logistics operations are conducted, a recalibration of the specific elements of each of these actions could potentially reshape the impacts that the goods movement chain has on urban areas.

Groupwork!

- Exercise
- See separate handout sheet distributed to you by trainer



Source: <https://nypost.com/>

Groupwork!

- You will be divided into small groups and assigned one sustainable urban freight and logistics measure category:
 1. Stakeholders' Management
 2. Regulatory Measures (Rules)
 3. Market Based Measures (Price Mechanisms)
 4. Land Use Planning and Infrastructure (Physical Measures)
 5. New Technologies (Digital Measures)
 6. Eco Logistics Awareness (Education)
- In 5 minutes make a list of measure examples within assigned measure category
- Discuss for 4 minutes which measure(s) you think is the most effective in creating a sustainable urban freight and transport logistic system, and why.
- Prepare to report back.



The role of local authorities: the range of measures 1/6



Source: CIVITAS
Policy Note:
Making urban
freight logistics
more sustainable



Capacity Building for Sustainable Urban Mobility Plans – Freight and Logistics

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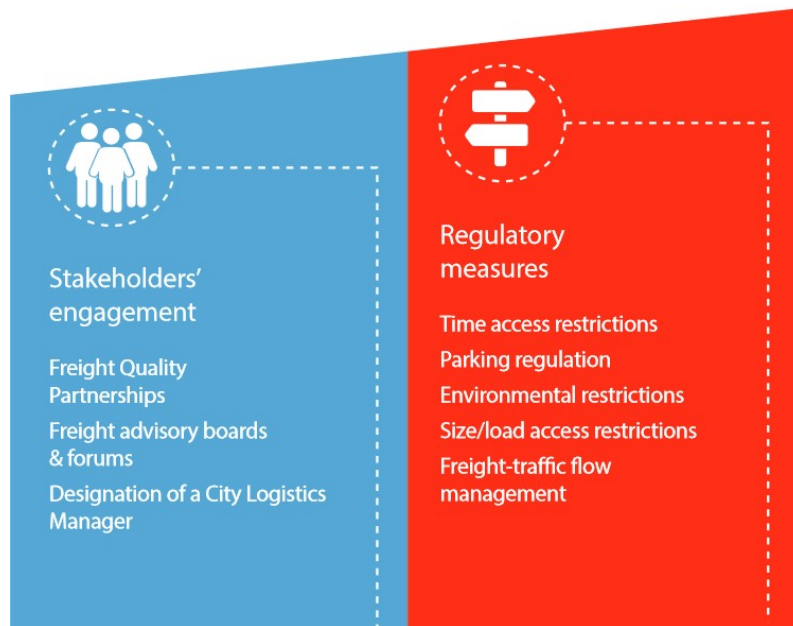
In the next two slides a complete list of policy measures for UFTL is presented. These are grouped in 6 main categories.

The first one is crucial, since it relies on the **engagement of all actors and stakeholders**. Experience shows that cities see encouraging results whenever constructive networking with retailers and couriers has been established in order to better design new freight schemes and agree on the governing rules. Successful collaborative partnerships between appropriate stakeholders can lead to the formulation of high impact freight strategies that consider logistical needs of the city, businesses, transport operators, and local residents. The most common tool for involving stakeholders are **freight quality partnerships** that are long-term partnerships between urban freight stakeholders that, on a formal or informal basis, meet regularly to discuss (and sometimes find solutions to) problems and issues that occur in the urban area.

Establishing committees, boards and forums is the most direct way to engage all the actors but also the designation of a City Logistics Manager (as for the Mobility Manager for passenger transport) is a way to improve such engagement.

We will come back in a while on both regulatory and market-based measures.

The role of local authorities: the range of measures 2/6



Source: CIVITAS
Policy Note:
Making urban
freight logistics
more sustainable



Capacity Building for Sustainable Urban Mobility Plans – Freight and Logistics

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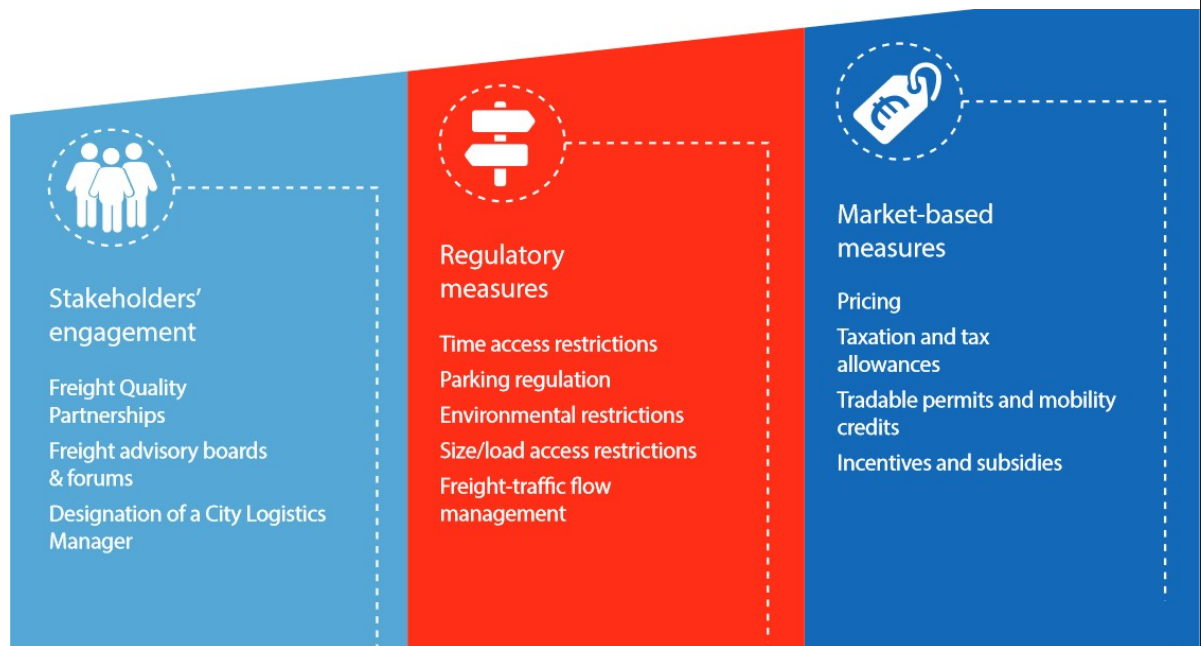
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The role of local authorities: the range of measures 3/6



Source: CIVITAS
Policy Note:
Making urban
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Urban vehicle access regulations (UVARs)

- Rules and restrictions largely differs by city and EU country
- Depending on the UVAR type, it is possible to manage access times, types of vehicles, emission standards and engine types, registration or permits, access fees, exemptions, etc., in order to create a tailored solution (signage and clarity of regulations are crucial!)



<https://urbanaccessregulations.eu/>

<https://uvarbox.eu/>



Capacity Building for Sustainable Urban Mobility Plans – Freight and Logistics

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Regulatory measures are rules and restrictions designed to control the activities of private freight operators in order to preserve the livability of the urban environment and to guarantee an adequate level of mobility.

We can distinguish 5 main typologies:

- Pedestrian Zone
- Limited Traffic Zone
- Low/Zero Emission Zone
- Congestion/Pollution Charge Zone
- Pedestrian Priority Zone

Time windows and size/weight related restrictions are widely known among UFTL actors. It's important to harmonise rules within a certain area (e.g. metropolitan area or region) and to address the various freight UVARs (restrictions or charging) with the political difficulties attached to their design and implementation.

Long term evaluation within CIVITAS demonstrated 2011Burgos' (ES) to pave the way for new local cyclelogistics companies integrating or substituting van deliveries. Same impact in many other cities across the EU as a consequence of presence or stricter UVAR schemes. Think that in...

: there are 425 Limited Traffic Zones (LTZ) enforced with cameras () plus 2 Congestion Charge Schemes (Milan, Palermo), Low Emission Zones (LEZ) already present in cities (Parma, Milan) and Northern Italian regions (as pollution emergency schemes); : over 100 LEZs already in place in cities/regions; : LEZ (Zonas de Bajas

mandatory as in the new Climate Law in cities over 50.000 inh/cities with poor air quality (to be introduced by 2023) – Cyclelogistics mentioned in ZBE ; : Zero Emission Zones for freight in dutch cities by 2025/2030.

: system of 27 pedestrian zones/LTZs, as full Paris centre LTZ, rapid growth of LEZ () in many French cities; : (Ultra) Low Emission/Clean Air Zone plus and

Market-based measures are also relevant and are quite often implemented in combination with UVARs (think at the LTZ permits that might have a tariff differentiated by vehicle type or number of entries/access per month)

Mentioning France the launched in 2021 included the ColisActiv scheme - 3yrs financial support to cargo bike delivery operations: up to €2 per parcel for the first 500,000 in year 1, up to €1.30 for 1.5 million parcels in year 2, and €0.6 for 3 million parcels in year 3. LEZ co-financing mechanism in 4 testing cities. Also, the “Ma cycloentreprise” programme for supporting the creation of cyclogistics businesses provides vehicle scrappage premium bonus for shifting to cargo bikes.

The role of local authorities: the range of measures 4/6



Image: London © Cosimo Chiffi



Land use planning
& Infrastructure

Adapting on-street
loading zones

Using building code regulations
for off-street delivery areas

Nearby delivery areas

Upgrading central
off-street loading areas

Integrating logistics plans
into land use planning

Collect points

Urban consolidation centers

Source: CIVITAS Policy Note: Making
urban freight logistics more sustainable



Capacity Building for Sustainable Urban Mobility Plans – Freight and Logistics

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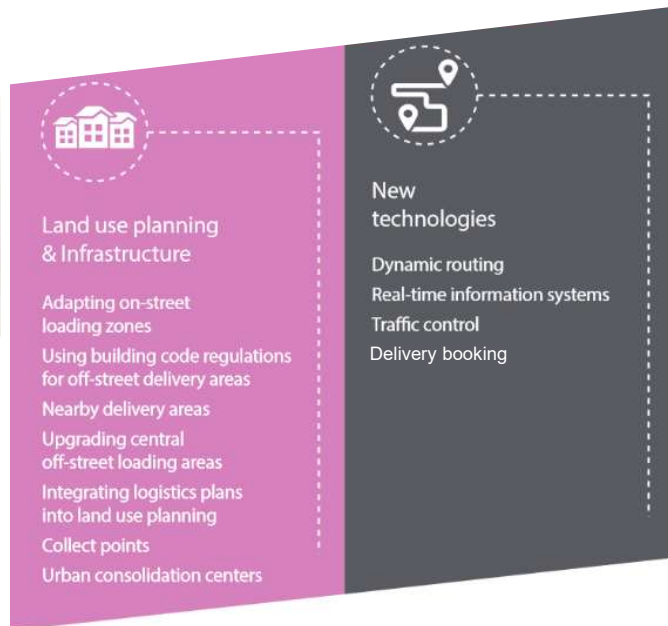
Then we have the categories of Land use planning & infrastructure, New technologies (we will come back to this in a while) and Ecologistics awareness raising that includes...

In the City of London, for example, off-street delivery areas are present in all new skyscrapers and operators have to book in advance their access to the building (the booking system is in this case private) whereas FORS is a voluntary accreditation scheme in the UK for safer and improved HGV/LGV operations (but the scheme includes also BUS fleets)

The role of local authorities: the range of measures 5/6



Image: London © Cosimo Chiffi



Source: CIVITAS Policy Note: Making urban freight logistics more sustainable

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Solutions for curbside management and booking systems

- Split-time functional allocation of parking bays (public parking at certain times, deliveries at others) or right lane in some streets (bus lane at peak hours, delivery lane off-peak)
- Deliveries subject to reservation / booking via an app
 - For places with significant double parking
 - Municipality defines locations and duration of each slot, carriers book their slots, vehicles are tracked to
- Requires: control of correct use of parking bays, tracking vehicles combat fake bookings



What do you want to see in the map?

- ☐ Green
- ☐ Resident's exclusive
- ☐ Blue
- ☒ DUM
- ☐ Parking meters
- ☐ All the Resident zones



Source: Barcelona Municipality - <https://areaverda.cat/en/map>



Capacity Building for Sustainable Urban Mobility Plans – Freight and Logistics

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Effective kerbside management technologies and booking systems are valuable for optimising urban logistics and minimising disruption. Kerbside space is a valuable and limited resource in urban areas, and its efficient use can significantly improve traffic flow and reduce congestion.

One solution is the implementation of **dynamic kerbside management** systems. For example, during peak delivery times, more space can be designated for loading and unloading, while during off-peak hours, the same space can be used for parking or pedestrian areas.

Booking systems can further enhance kerbside management. By allowing logistics companies to reserve kerbside space in advance, these systems can prevent conflicts and ensure smoother operations. Here we can find an example from Barcelona. Registered (professional) users to the DUM (Distribució Urbana de Mercaderies – Urban Goods Distribution) platform can easily see and book their Loading/Unloading bay. Barcelona also introduced Multi-use lanes on some road corridors as a result of CIVITAS demonstrations:

<https://www.barcelona.cat/mobilitat/en/services/urban-goods-distribution-ugd/ugd-practical-information>

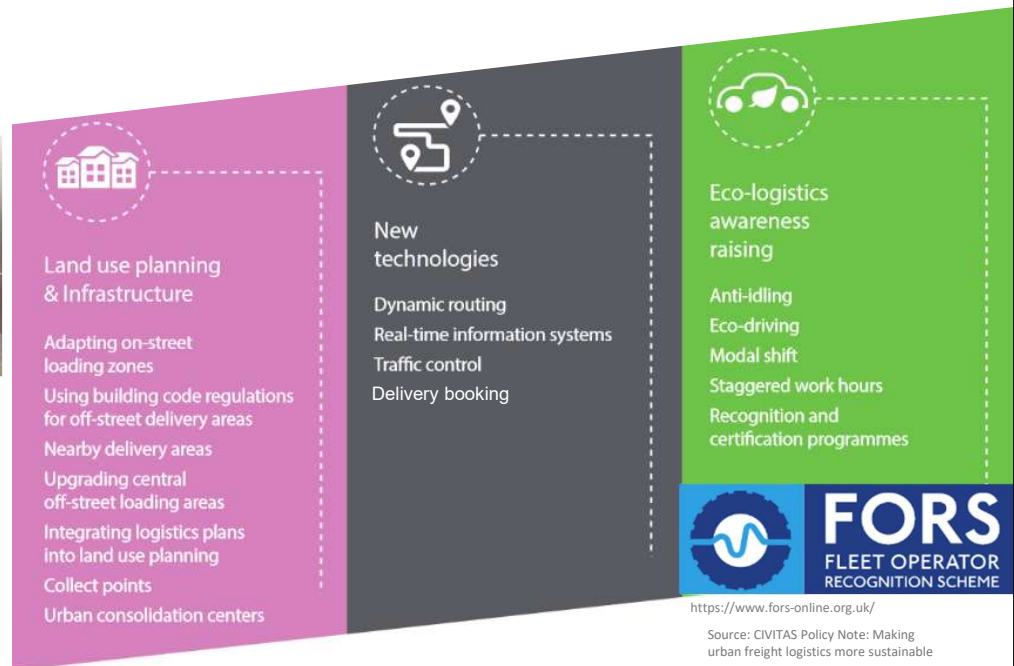
<https://civitas.eu/mobility-solutions/multi-use-lanes-and-night-time-delivery>

<https://civitas-reveal.eu/partners/presentations-of-kerbside-workshop-are-now-available/>

The role of local authorities: the range of measures 6/6



Image: London © Cosimo Chiffi



Capacity Building for Sustainable Urban Mobility Plans – Freight and Logistics

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Then we have the categories of Land use planning & infrastructure, New technologies (we will come back to this in a while) and Ecologistics awareness raising that includes...

In the City of London, for example, off-street delivery areas are present in all new skyscrapers and operators have to book in advance their access to the building (the booking system is in this case private) whereas FORS is a voluntary accreditation scheme in the UK for safer and improved HGV/LGV operations (but the scheme includes also BUS fleets)



There are also elements that come from the experience and lessons learnt of several EU projects in this field. As we can see from this infographic, the role of pilots, the relevancy of UFT specific data data and flexibility are essential to allow regular, systemic and lasting engagement of key stekeholders, actors of the private sector and communities

SUMP and Sulp integration

- SUMP focus on the overall mobility needs of urban areas, aiming to create sustainable and efficient transport systems. Sulp specifically address urban logistics, aiming to enhance the efficiency and sustainability of freight transport
- As of now, the integration between SUMP and Sulp is not fully established at the EU level
- Sulp, although crucial, are less prevalent and standardized across European cities

Benefits of integration	Challenges to integration
Holistic urban planning	Lack of standardization
Enhanced efficiency	Resource allocation
Better stakeholder engagement	Regulatory gaps

The integration of Sustainable Urban Mobility Plans (SUMP) and Sustainable Urban Logistics Plans (Sulp) is crucial for achieving a holistic and efficient urban transport system. SUMP focus on promoting sustainable modes of passenger transport, such as walking, cycling, and public transit, whereas Sulp concentrate on optimising freight logistics to reduce environmental impacts and improve efficiency. Integrating these plans ensures that both passenger and freight mobility needs are addressed comprehensively.

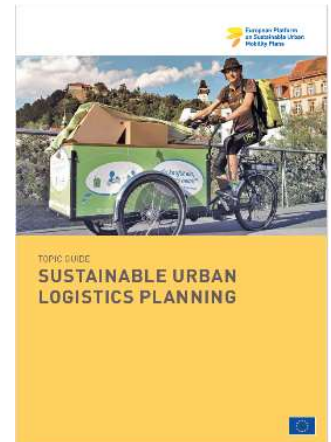
Successful integration requires a coordinated approach involving various stakeholders, including local authorities, logistics companies, and community groups. This collaboration helps identify common goals, such as reducing traffic congestion, lowering emissions, and enhancing urban liveability.

Additionally, integrating SUMP and Sulp can leverage smart technologies like real-time data analytics and traffic management systems to enhance decision-making and operational efficiency.

Although the integration between SUMP and Sulp is not yet fully established at the EU level, the European Commission's Urban Mobility Package highlights the importance of such integration, emphasising that cities adopting this approach are better positioned to achieve sustainability targets.

Balancing SUMP and Sulp development

- **EU guidelines** and recommendations:
 - Adoption of the Sulp guidelines, which include provisions for integrating logistics considerations
 - Encouragement of urban freight plans as part of broader mobility strategies under the Urban Mobility Package
- The **SUMP cycle** can also be applied for Sulp development
- Short vs. mid to long-term, context and city role
- Some activities might be merged but also expanded or priority of actions might change
- sustainable urban logistics planning as part of the SUMP (**examples:** EU – Stockholm, Barcelona, Milan; non EU - Singapore) or to draft and adopt a dedicated plan



City authorities may consider sustainable urban logistics planning as part of the SUMP development process **OR** may choose to differentiate the process for developing a dedicated plan for sustainable urban logistics, which, however, has to be in compliance with the policy principles and objectives of an already developed SUMP (so in principle it should follow or be developed in parallel with the SUMP).

The two approaches are equally valid when they are implemented in line with the SUMP principles and development phases.

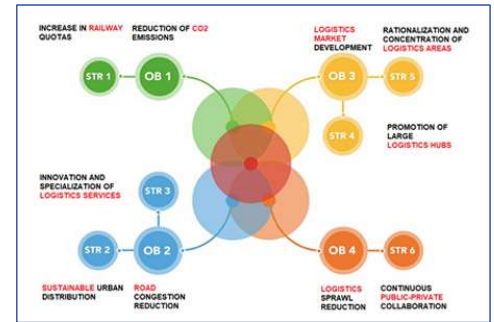
Small measures can build upon a successful SUMP and low-carbon mobility initiatives. In the short term, logistics chapters can be integrated into SUMP, but mid- to long-term, a dedicated Sulp is essential, with its own governance structures, closely linked to the SUMP.

Depending on each city's context particularities, i.e. magnitude of the problem, desired level of intervention (city holistic plan or area level action etc.) local authorities may find it useful or necessary to merge some SUMP cycle activities when developing a Sulp. In other cases, the priority in implementing the actions within a SUMP phase might change.

We have a topic guide providing clear instructions on this (that was also in your learning materials) that you can find on the SUMP section at DG Move website.

Case Study – Sustainable Urban Logistics Plan for Bologna, Italy

- 2019 – City approved PULS — the Urban Plan for Sustainable Logistics — as part of the City’s Sustainable Urban Mobility Plan.
- Key goals of reducing the environmental impact of freight distribution and improving the efficiency of the logistics system. Range of measures:
 - Logistics areas and hubs
 - Testing of Nearby Delivery Areas (NDAs)
 - Promoting shared use of public areas
 - Collaborative logistics approach
- EU URBANE project supports the City Sulp:
 - Optimising and ‘greening’ last mile of deliveries
 - Business model for sustainable micro-logistics hub network



https://green-living-areas.interreg-euro-med.eu/wp-content/uploads/sites/7/policy-brief_sulp_v02_2602-1.pdf



<https://urbane-horizoneurope.eu/news/launch-of-urbane-bologna-living-lab/>



Capacity Building for Sustainable Urban Mobility Plans – Freight and Logistics

Case Study – Development of Sustainable Urban Logistics Plan for Bologna, Italy

https://green-living-areas.interreg-euro-med.eu/wp-content/uploads/sites/7/policy-brief_sulp_v02_2602-1.pdf

[https://siti-](https://siti-tematici.comune.bologna.it/internationalrelations/notizie/160:50909/#:~:text=Funded%20by%20the%20Horizon%20Europe,%2DNeutral%20Cities%20by%202030.%22)

[tematici.comune.bologna.it/internationalrelations/notizie/160:50909/#:~:text=Funded%20by%20the%20Horizon%20Europe,%2DNeutral%20Cities%20by%202030.%22](https://siti-tematici.comune.bologna.it/internationalrelations/notizie/160:50909/#:~:text=Funded%20by%20the%20Horizon%20Europe,%2DNeutral%20Cities%20by%202030.%22)

<https://pumsbologna.it/Engine/RAServeFile.php/f/allegati/EN-DOC-SINTESI-PUMSBO.pdf>

https://youtu.be/KiOoC-PXb_E

EU URBANE Project:

<https://urbane-horizoneurope.eu/>

<https://urbane-horizoneurope.eu/demonstration-cities/lighthouse-living-labs/bologna-italy/>

Preconditions and challenges while preparing SULP

Preconditions

- Strong role for **governments** in UFL in municipal area
- Stakeholder **engagement** both supply and demand sides of UFL
- Commitment to **wide range** of UFL solutions
- Adoption of area-oriented approach, **tailorwork for different areas**



Challenges

- Absence of sufficient or constant **political support**
- Difficult to gain private stakeholder support and engagement
- **Scarcity of UFT data** (affect the opportunity for a dedicated plan)
- **Unrealistic** and not sufficiently ambitious goals and UFT measures



The most relevant question is: **in the framework of a SUMP, when the decision to develop a dedicated SULP vs. a FL module within the SUMP should be taken and on what basis?**

We can identify several “prerequisites” for preparing the Sustainable Urban Logistics Plan (SULP):

Enhanced role of the city: The city is increasingly assuming a multifaceted and crucial role in addressing sustainable urban logistics within its territory and jurisdiction. This includes not only managing logistics operations but also integrating sustainable practices into urban planning and development strategies.

Broad stakeholder engagement: The city is dedicated to engaging a wide array of stakeholders in addressing both the supply and demand sides of logistic flows. This approach ensures that diverse perspectives are considered, distinguishing between occasional and structural flows within the city. By fostering collaboration among stakeholders from various sectors, the city aims to develop comprehensive solutions that meet the needs of all parties involved.

Promotion of diverse logistic solutions: The city is committed to promoting a diverse range of logistical solutions within a broader ecosystem that encompasses industries, economic activities, and the overall logistics framework of the city. This ecosystem approach encourages innovation and efficiency in logistics operations while supporting economic growth and sustainability objectives.

Area-oriented approach: The city wants to adopt an area-oriented approach to sustainable urban logistics planning. This involves tailoring logistics solutions to

specific geographical areas within the city based on their unique characteristics and requirements. By customizing strategies and interventions at the local level, the city can optimize logistical efficiency and minimize environmental impact.

1. The Sulp needs to maintain political support during and after its development.
2. Private stakeholder support, especially from the logistics sector, could be an issue - the Sulp should take into account the economic reality and the variety of stakeholders involved.
3. There is a scarcity in urban logistics data and this is an issue that many cities face. It takes time and creative solutions to overcome and it means that the Sulp could be insufficiently based on available data, and as a result some analysis may not be possible (and this means the Sulp itself might be useless vs a)
4. Goals and measures should be from one hand realistic (for the affected/activated UFT stakeholders) and at the same time ambitious (for the city), otherwise it's just greenwashing and a way (for the stakeholders) to simply limits Sulp scope as fundamentally a collective and not a private one

Conclusion

- Urban freight transport and logistics are an essential part of the life of cities and citizens
 - Their **volume and diversity of stakeholders** create significant challenges and **complexity of solutions**
- Interaction between cities' policies and companies' strategies have created trends to address some of those challenges, but creating other challenges in the process
 - **ITS is already present and will support innovative solutions**
 - **Regular engagement with stakeholders** is essential for effectiveness
- In cities with more intense UFTL activity, a Sulp may be justified