

How can municipalities contribute to the promotion of Urban Consolidation Centres?

Maria Savall-Mañó and Imma Ribas



UNIVERSITAT POLITÈCNICA DE CATALUNYA
BARCELONATECH

Departament d'Organització d'Empreses



Escola Tècnica Superior
d'Enginyeria Industrial de Barcelona

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Problem statement



Freight traffic congestion in EU cities costs goods vehicle drivers 58.9 billion euros annually



Freight traffic congestion in EU cities costs 68.1 billion euros annually for other road users, such as passenger cars or buses.



For city development, a well-functioning and sustainable urban freight distribution model is essential.



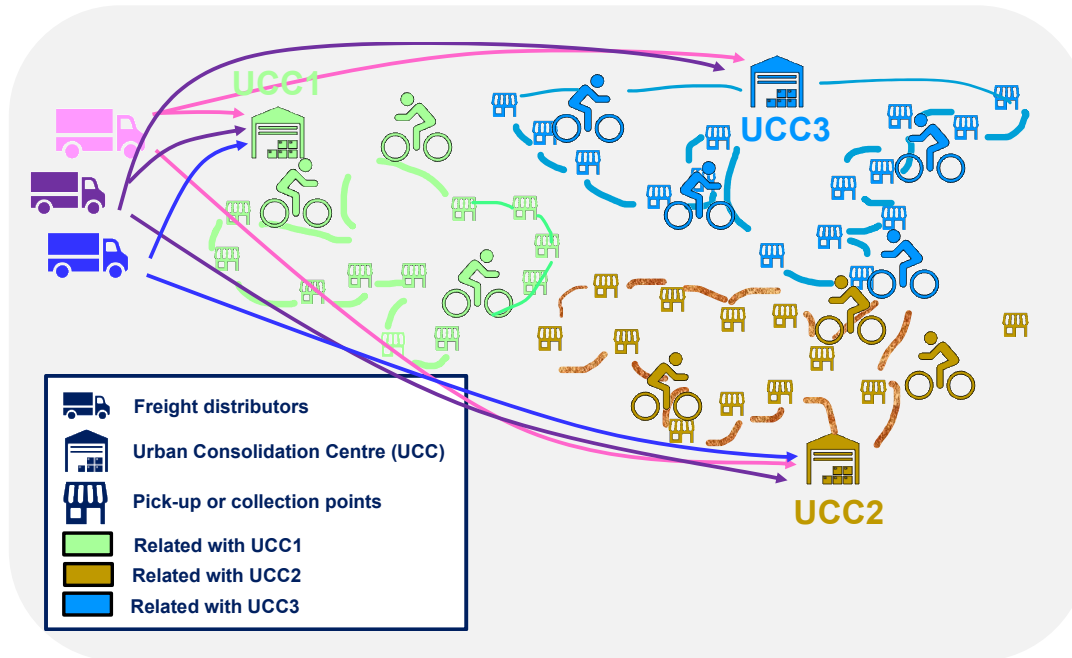
The European Commission is committed to reducing emissions by 90% by 2050 through its "Greening Freight Transport" initiative



Urban Consolidation Centres (UCCs) are widely adopted strategies in municipalities and are incorporated into numerous Sustainable Urban Logistics Plans (SUMP)

Research objective

- What is an urban consolidation centre (UCC)?



RESEARCH OBJECTIVE: Analyse the role that municipalities should play in promoting the use of UCCs to mitigate the externalities caused by last-mile delivery

Methodological approach

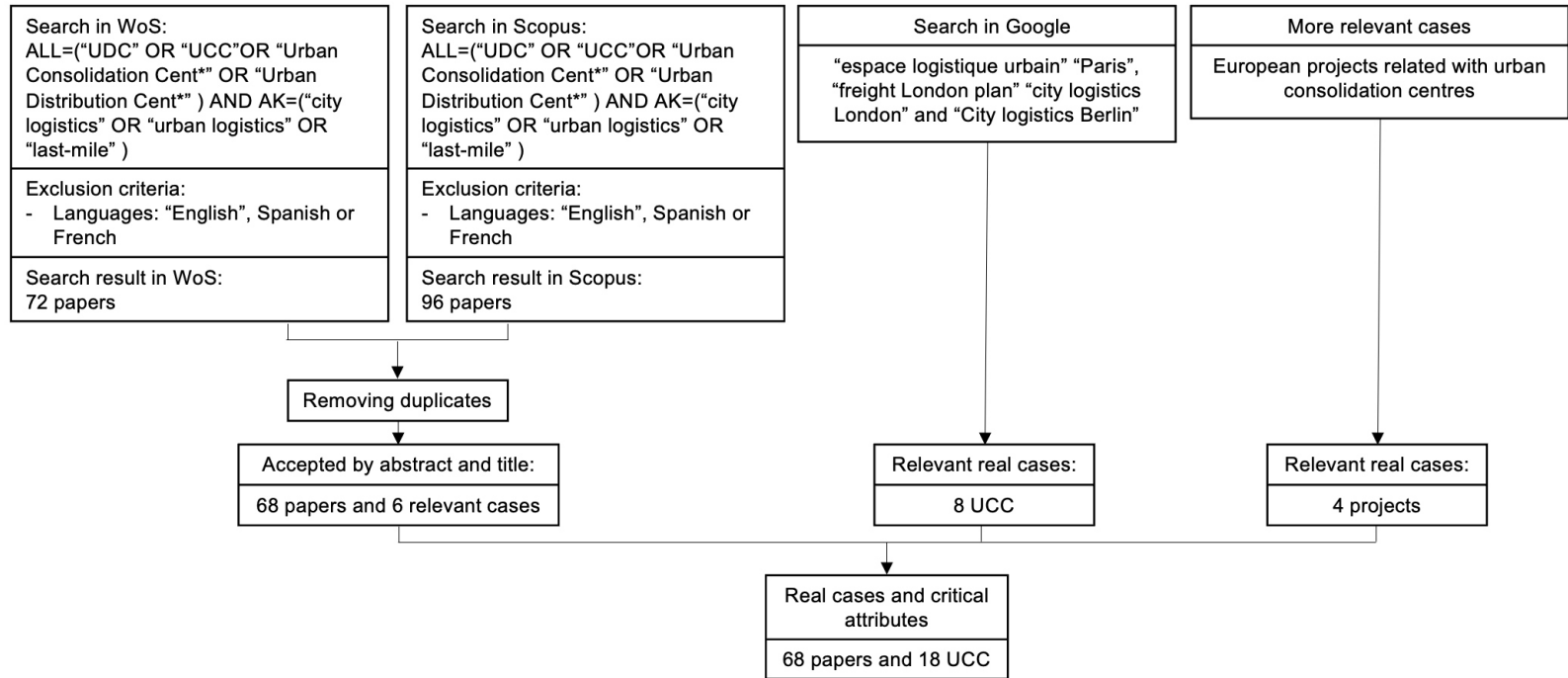


Figure 1. Methodology. Source: own elaboration

Methodological approach

UCC	City	Location	Size (m ²)	Volume (orders /day)	Freight	Delivery area (km ²)	Vehicle distribution	Role municipality
7 microhubs	Amsterdam	Centric	150	2200	B2C	-	Cargo bikes	Public
Beaugrenelle	Paris	Centric	2600	6500	B2C	22.0	Electric vehicles	Private
Chronocity	Paris	Centric	368	1000	B2C	-	Cargo bikes and electric vehicles	Private
Concorde	Paris	Centric	950	1800	B2C	9.5	By foot and electric vehicles	Public-private
Hyde Park	London	Centric	790	7000	B2C	8.9	Cargo bikes, small electric vehicles and vans	Private
Komodo	Berlin	Centric	100	700	B2C	28.0	Cargo bikes	Public-private
Nordstan	Gothenburg	Centric	-	-	B2C	-	Cargo bikes	Public
Shoreditch	London	Centric	325	5000	B2C	14.0	Cargo bikes, small electric vehicles and vans	Private
The Green Link	Paris	Centric	-	2500	B2C	-	Cargo bikes and electric vans	Public-private
Vanapedal	Barcelona	Centric	100	800	B2C	4.1	Cargo bikes	Public-private
Westminster	London	Centric	470	2000	B2C	7.6	Cargo bikes, small electric vehicles and vans	Private
Stadsleveransen	Gothenburg	Centric	500	500	B2C	0.3	Electric vehicles	Public-private
Bercy	Paris	Outside	4000	6000	Fresh	9.0	Cargo bikes, electric and refrigerated vans	Private
CityPorto	Padua	Outside	1000	1300	Fresh	6.4	Vans	Public-private
MoCC	Monaco	Outside	1320	500	All	2.0	Electric and non-electric vans	Public
BBFCC	Bath & Bristol	Outside	3500	-	-	-	Electric and non-electric vans	Public-private
Binnenstadservice	Nijmegen	Outside	-	-	B2B	23.0	Cargo bikes and one van	Private
Ecocity	Parma	Outside	5000	-	Fresh	-	Vans	Initially public

Figure 2: UCCs analysed. Source: own elaboration

Results



Successful environmental outcomes in initial implementations.

Concorde UCC → ↓74% CO₂
Monaco UCC → ↓38% congestion
Monaco UCC → ↓42% space used
Chronocity → ↓20% km travelled



Challenges in locating suitable infrastructure for UCCs



Challenges in attaining economic sustainability



UCCs established by private companies are more likely to achieve economic sustainability



Reluctance of companies to share UCCs.

Conclusions



Municipalities should generally refrain from considering UCCs as a direct action in their Sulp



By changing regulations, municipalities can influence the freight distribution strategies of logistics companies

{ Limited transit zones
Time windows
...



Distributing from the UCCs to end consumers via cargo bike significantly reduces costs for the logistics company.



Collaboration among stakeholders is key to finding a long-term solution for last-mile distribution.



Future research will involve analysing other municipal strategies aimed at reducing emissions in last-mile distribution

Thank you!
Any question?

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