



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

Transferability of urban logistics management in a medium-sized city: the approach of Zadar



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



Città di Lucca



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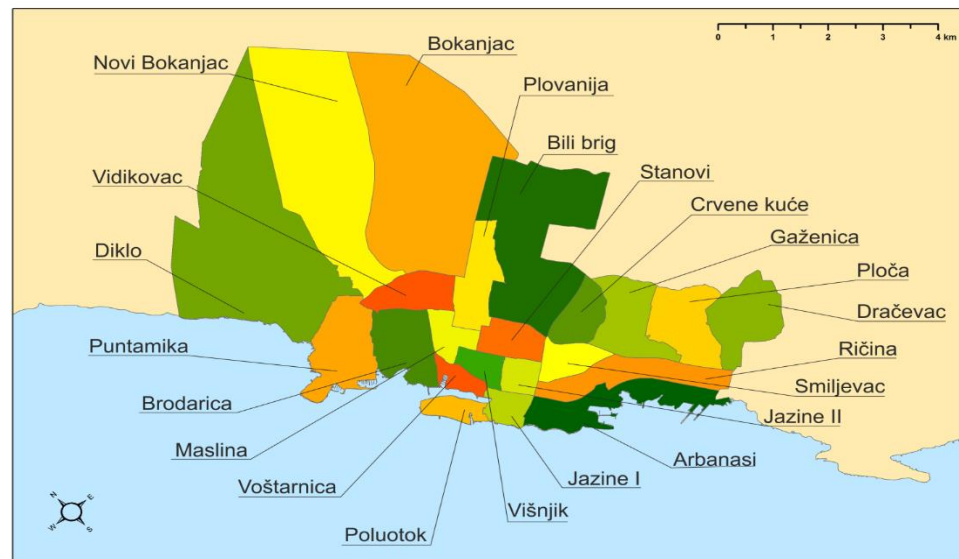
GRAD ZADAR

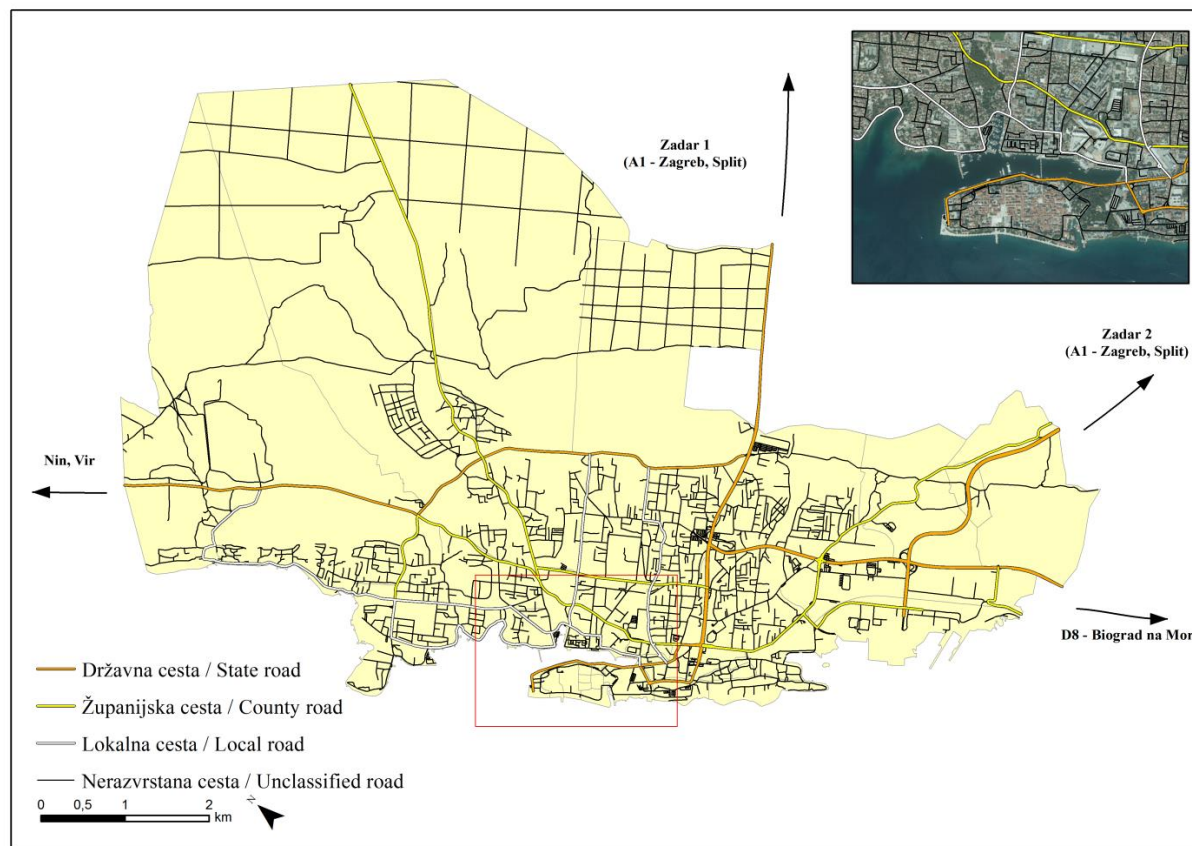


- A number of parameters impact the competitiveness of urban areas.
- City competitiveness is reduced when the quality of life deteriorates, when the environment is damaged, when delays occur in transport, and when expenses increase.
- Therefore, the LIFE program deals with a number of policies of the European Union regarding sustainable freight traffic in urban areas; the quality of ambient air and cleaner air for Europe, noise reduction and improvement of air quality in cities (LIFE program, Croatia, 2021).



- The city center – Peninsula represents one of 22 district councils in the area of Zadar, and a traffic area that demands a series of traffic and technological solutions that can satisfy the demands of all the users, in particular those of the local population.





Transport System of the City of Zadar

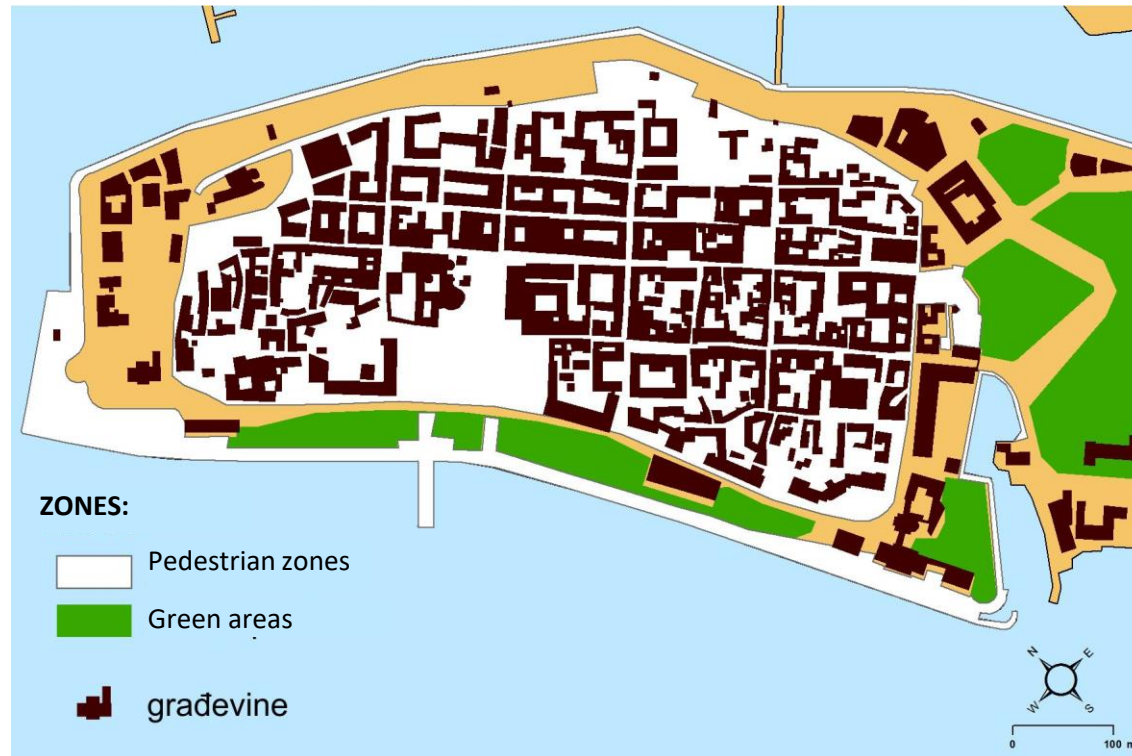


- Of the total population of the City of Zadar, in 2011, 95.2% of residents lived within the administrative borders of the town of Zadar,
- average population density of the City of Zadar was 387.5 people/km²
- In the Peninsula area, mature population prevails, with more old than young residents.
- Of the total number of households in the City of Zadar, 6.5% are located on the Peninsula, whereas the share of residents living there is only 5.5% of total Zadar population.



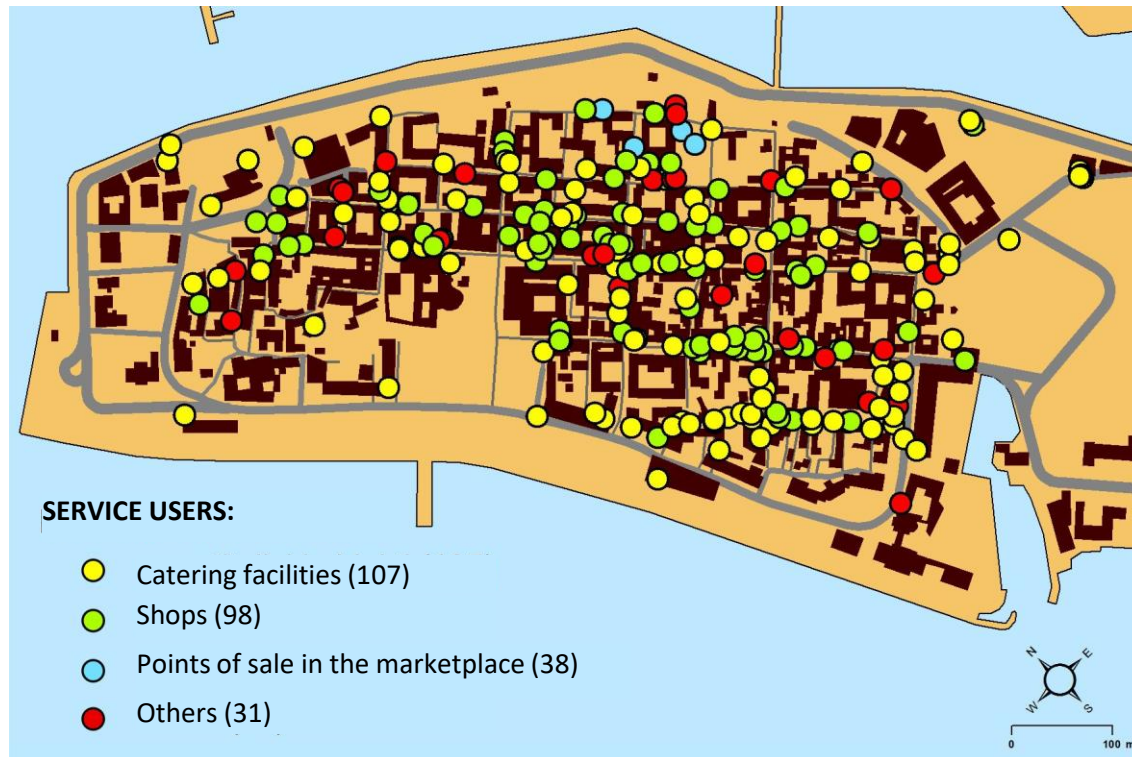


Delivery vehicle exiting the pedestrian zone in the morning

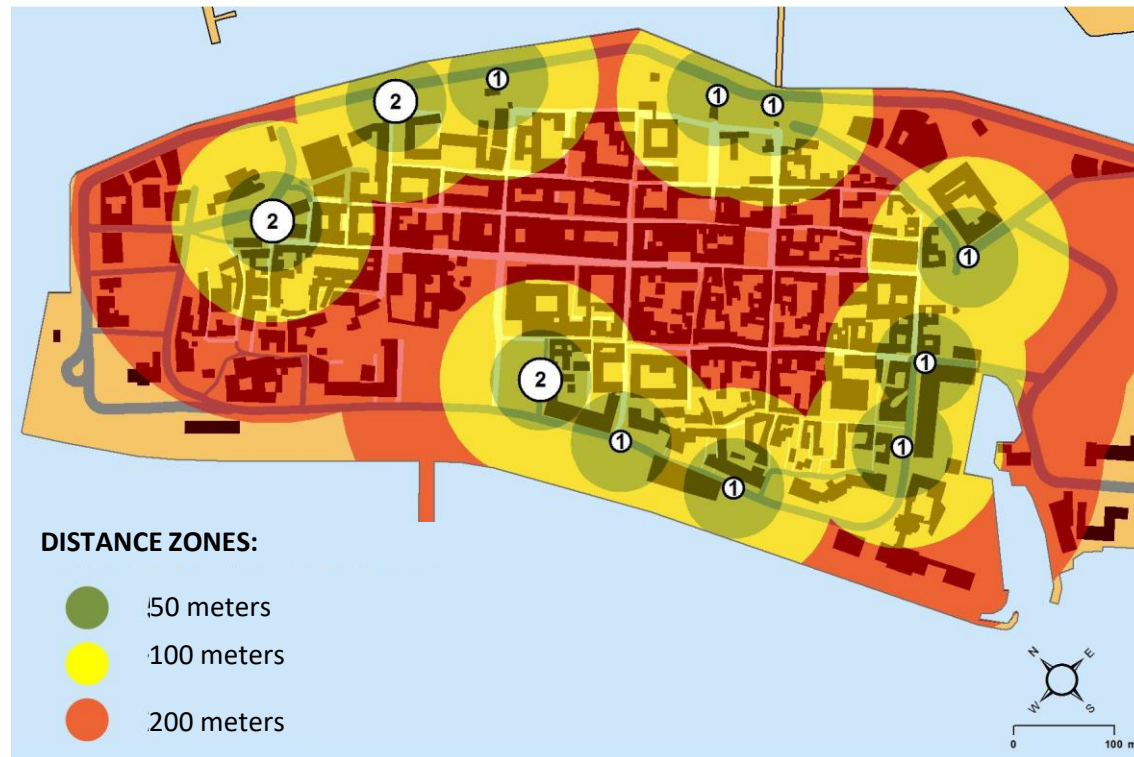


Pedestrian zone in the Peninsula





Delivery service users in the Peninsula



Distance of users within the pedestrian zone Peninsula from delivery points

Entrances and exits of vehicles in allowed and non-allowed periods in all observed locations

Allowed periods						
	Delivery vehicles		Passenger cars		Push carts	
	Entrance	Exit	Entrance	Exit	Entrance	Exit
2017	147	134	57	45	0	0
2018	174	148	28	34	22	19
Non-allowed periods						
	Delivery vehicles		Passenger cars		Push carts	
	Entrance	Exit	Entrance	Exit	Entrance	Exit
2017	223	253	157	151	0	0
2018	134	163	93	44	56	39

Proposal of Traffic Regulation and Surveillance System

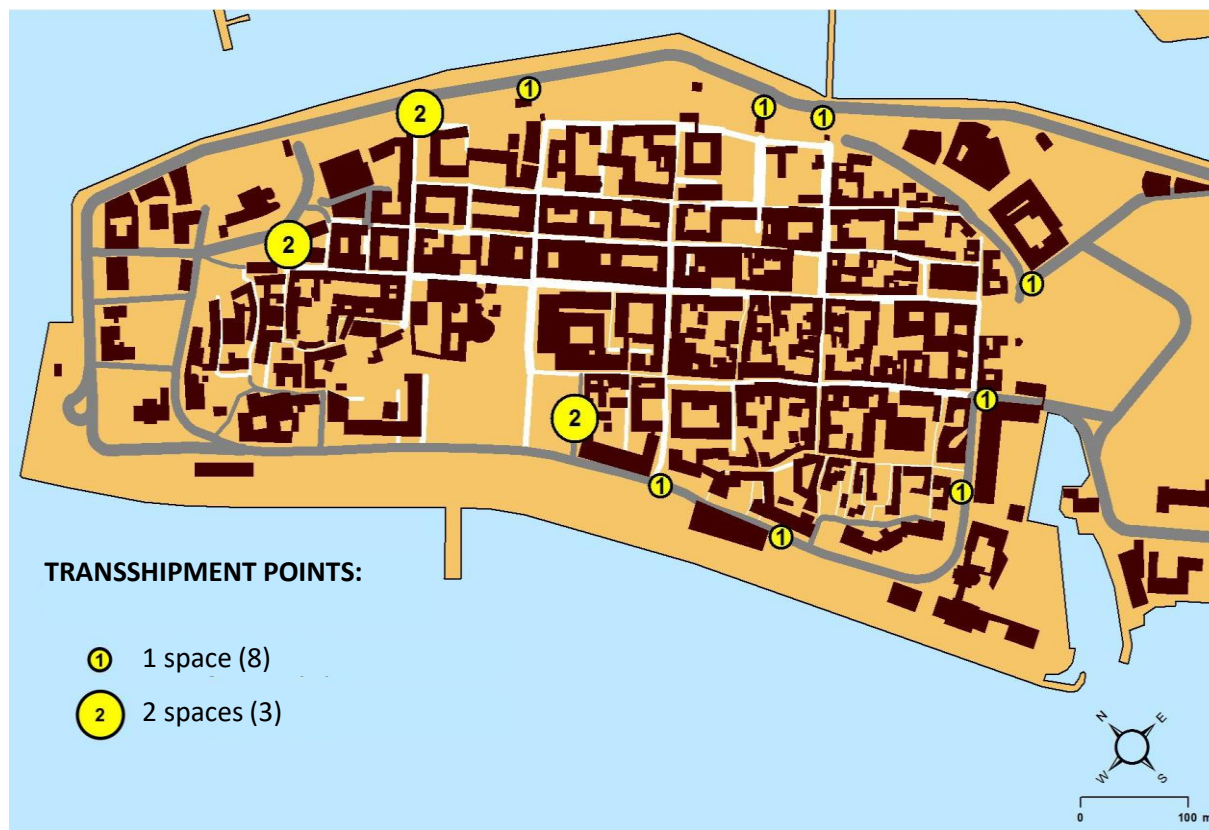
- Video cameras whose function is to control license plates are situated in 10 locations in the urban city center – Peninsula.
- All cameras are facing entrances/exits in the pedestrian zone in the following locations: New Gate, entrance to the Marketplace, at Poljana pape Aleksandra III., at Poljana Natka Nodila, in the Bishop Juraj Divnić Street/Dragutin Perčić passage, in Jakob Čedomil Čuka/Proconsul Grgur Street, in St. Leopold Bogdan Mandić Street, in Zora Dalmatinska Street, Špiro Brusina Street and Andrija Medulić Street.

Video surveillance and traffic regulation at the entrance into the pedestrian zone Peninsula.



Establishment of Transshipment Points

Transshipment points	Name	Number of transshipment spaces
1	New Gate (Bridge)	1
2	St. Krševan Gate	1
3	St. Rok Gate	1
4	Poljana Natka Nodila	2
5	Our Lady of Good Health Church	2
6	Vladimir Papafava	2
7	Zora Dalmatinska Street	1
8	Mihovil Pavlinović Street	1
9	Ruđer Bošković Street	1
10	Intersection of Brusina – Medulić – Bošković streets	1
11	Bartol Kašić Street	1

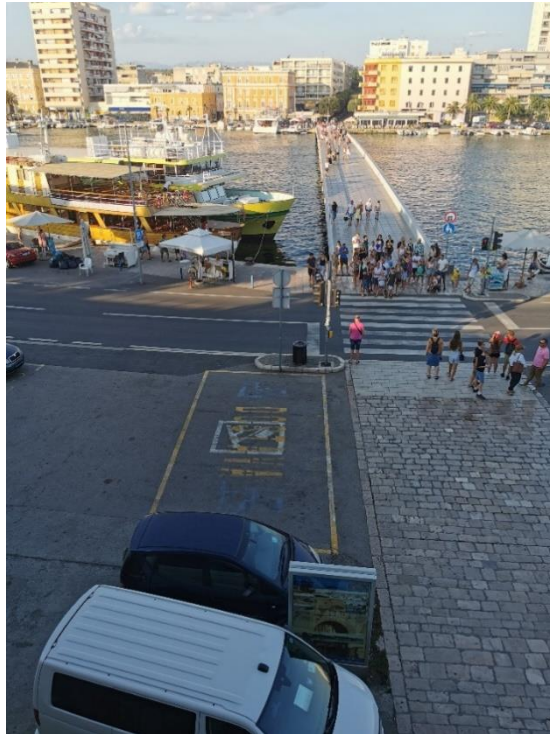


Transshipment points in the Peninsula





Delivery points within the pedestrian zone Peninsula



Transshipment points in the Peninsula



- Based on the analysis it was determined that after implementing new measures the number of entries/exits within non-allowed periods was reduced.
- On the average permanence time at all 11 transshipment points was 20 minutes, and in total 190 vehicles were recorded that used the transshipment point.
- There is still a large number of irregular stays and parking on transshipment points by local residents.



Impact of Measures Implementation on the Environment

- Limitation of the number and time of entrance into the pedestrian zone would result in reduction of greenhouse gas emissions.
- Implementation of measures of the surveillance system would reduce total CO₂ emissions by 7.7 % and energy consumption by approx. 7.6 %.

- The objective of the LIFE ASPIRE project is to implement a series of measures to enable faster, more efficient and more quality delivery service for the center of the City of Zadar – Peninsula.
- Following the example of the city of Lucca, a series of measures can be implemented in Zadar, as well.
- Transshipment has to take place in the foreseen places, keeping in mind allowed parameters, for instance, dimensions of delivery vehicles, delivery time, duration, frequency, etc.



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Thanks for your attention!



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