

# SUGAR

***Joint Planning Exercise  
Implemented measures  
Municipality of Palma***



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 **Regione Emilia-Romagna**



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# 1. City logistics: legal issues, transport and distribution of goods

## 1.1 Local regulations

In this section we discuss issues related to loading and unloading of goods, reflected in the emerging municipal regulations.

- Regulations are divided into “groups” according to different restrictions of movement and parking in the city: “ACIRE”, “ZAR”, “ORA”, “Pedestrian Zone” and “Loading and Unloading Zone”.

- **ACIRE (Areas of Restricted Circulation).** Vehicle circulation is prohibited except for: traffic of goods or passenger for loading and unloading actions, two-wheeled vehicles, residents with ACIRE distinctive/label.

- **ZAR (Restricted Parking Areas).** Area with regulated parking, reserved for residents.

- **ORA (Parking Regulation Operation).** Parking areas are regulated, subject to previous payment of the fee set for such parking action. Residents of the area can park for free.

- **Pedestrian Zones.** Streets and areas with a total or partial prohibition of circulation and parking, or only one of the two things.

- **Loading and unloading Zones.** Areas where parking is prohibited during time windows, except for vehicles dedicated to freight traffic for loading and unloading actions, which have a time limits.

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## ACIRE (Areas of Restricted Circulation).

**Article 25**, paragraph 2. The following vehicles are excepted from the ban on movement:

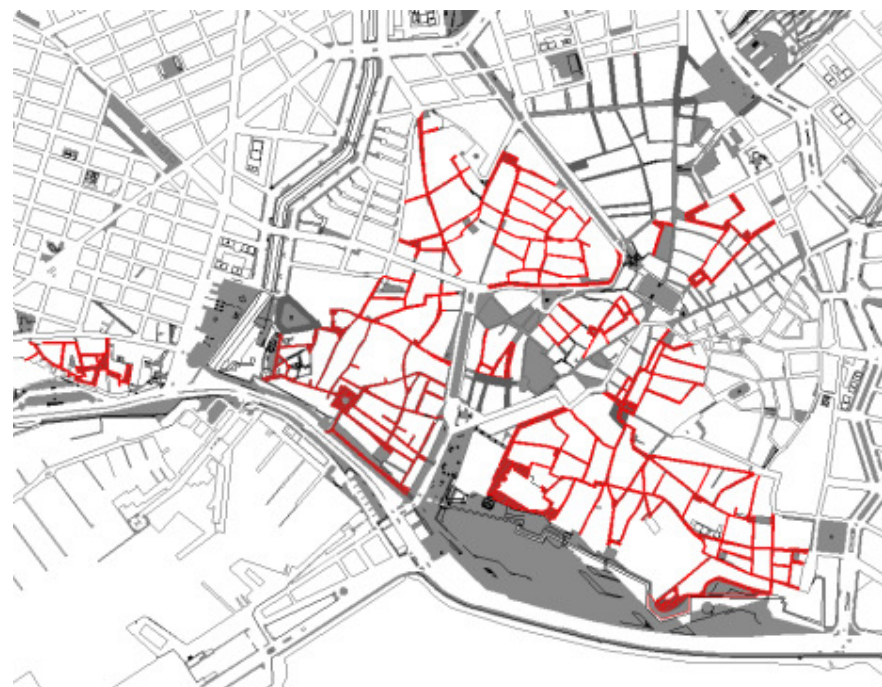
- paragraph a) of passenger service, which can be stopped just inside the ACIRE the time required to get on/drop off of passengers, and those for goods and services, which can be stopped inside the ACIRE only to make the loading and unloading operation. The Local Council can regulate time windows where the circulation of vehicles for the transport of goods and services is authorized.
- As well as: two-wheeled vehicles, vehicles with ACIRE distinctive, security services, health...



ACIRE access in Plaça de la Reina



ACIRE entrance signal



ACIRE areas in Palma



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## ZAR (Restricted Parking Areas).

**Article 28**, paragraph 3. Parking is prohibited in these areas, except for the following vehicles:

- paragraph a) intended to carry freights for loading and unloading in the authorized time windows.
- As well as: two-wheeled vehicles, vehicles with ZAR distinctive, security services, healthcare vehicles, ...

This restriction was applied to Velázquez street, although it has been removed due to the current civil works that are taking place in the zone. No more areas are regulated under this legal concept.

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## ORA (Parking Regulation Operation).

**Article 61.** The next type of vehicles are excluded from the limitation of time and without the obligation to obtain a ticket or proof:

-Item IX. The vehicles used exclusively to transport of goods, to develop loading and unloading operations, if the closest reserved area to such operations is employed and its parking lot occupation does not exceed fifteen minutes. In this case, there is a need to place a distinction, and to indicate the date and time of arrival with a badge or control disc .

-As well as: vehicles for healthcare, resident's cards (when the zone is not a "0/0 zone", where the resident's distinction does not have any effect).

**Article 65.** The roads included in the designation 0/0 and in the days and times when parking is subject to time limitations, only authorized vehicles can park by using the parking ticket (not possible with the resident's card).



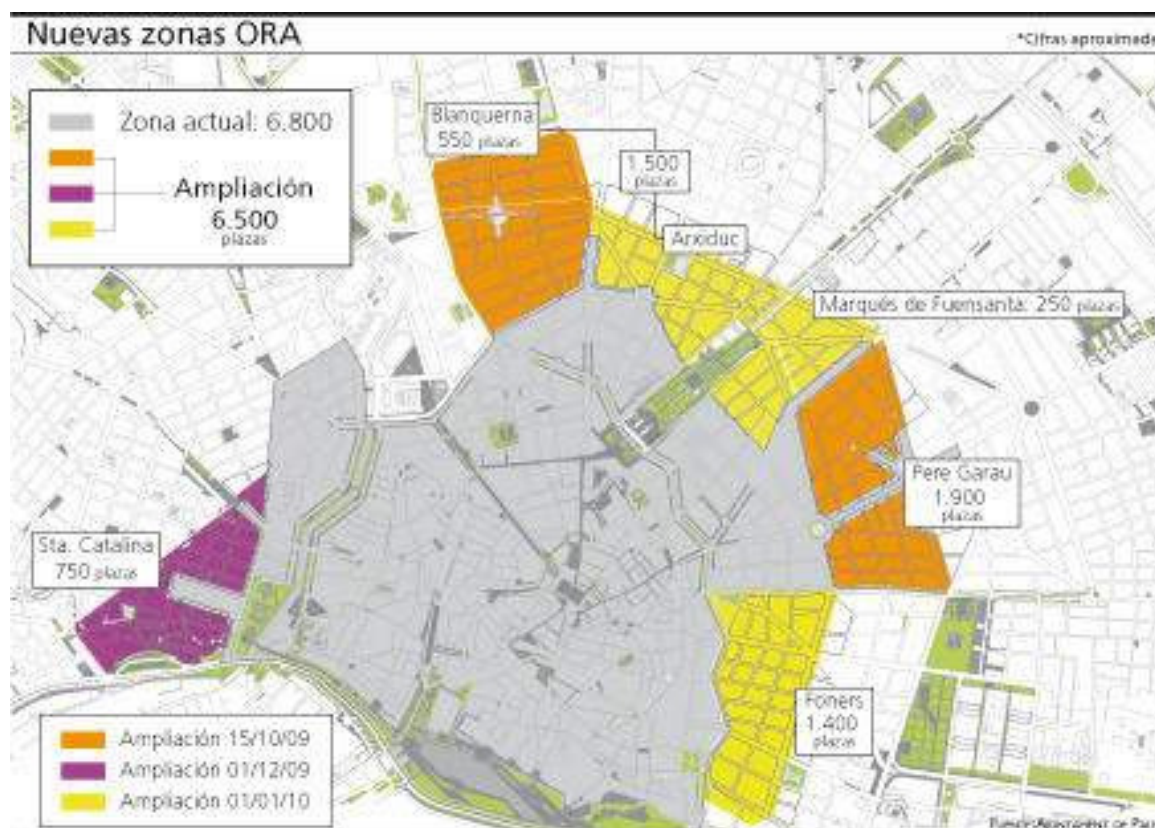
ORA zone in the street Lluís Martí



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## ORA (Parking Regulation Operation).

From September to December 2009 the amount of regulated parking area has been doubled, from the former 6.800 car spaces to the current 13.300.



ORA zones in Palma



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## Pedestrian Zones

**Article 34.** Regarding vehicles for loading and unloading operations, these operations should be carried out in designated areas, selected by the Local Council. However, if these operation can be carried out at any place (not necessarily a delivery bay), these should fulfil the following time period: from 8-10am, 2-4:30pm and 8-9:30pm.

...

Only can perform loading and unloading operations in pedestrian zones those vehicles whose owners have a special authorization.



Pedestrian zone in the street Oms

Ajuntament de Palma  
 Autorització especial per circular  
 per ZONA DE VIANANTS  
 CÀRREGA I DESCÀRREGA  
 Carrer:  
 Nòm.

Special authorization  
 for loading and unloading  
 in pedestrian zones

Pedestrian zones in Palma



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## Loading and Unloading Zones.

### Article 43.

1. When conditions do not allow commercial or industrial companies to load and unload inside their installations, these operations must be carried out in areas reserved for this purpose.

In such areas parking is prohibited, except for vehicles engaged in transporting goods and are properly authorized. They have a time limitation of 30 minutes for carrying out these operations, except for specific delivery bays with different signage indicating other time limitation (15 minutes is quite common).

2. The time available for parking is counted by a badge or control disc, stating the date and time of arrival. It is considered an administrative responsibility to show it in the specified conditions.

**Article 44.** A special card is provided for authorized vehicles to develop their activity (vehicles less than 2.000 kg). These vehicles have to present specific commercial and transport characteristics, allowing them to transport freights and to carry out their operations within the municipality boundaries.

It is interesting to note the existence of multifunction lanes in the maritime esplanade, where parking is allowed from 9pm to 8 am, making possible loading and unloading actions from 8 to 10:30am. The rest of the day, the lane works as a normal traffic lane.



loading and unloading zone in the street Joan Alcover



Multifunction lane in the maritime esplanade

Special card for vehicles  
of less than 2,000kg



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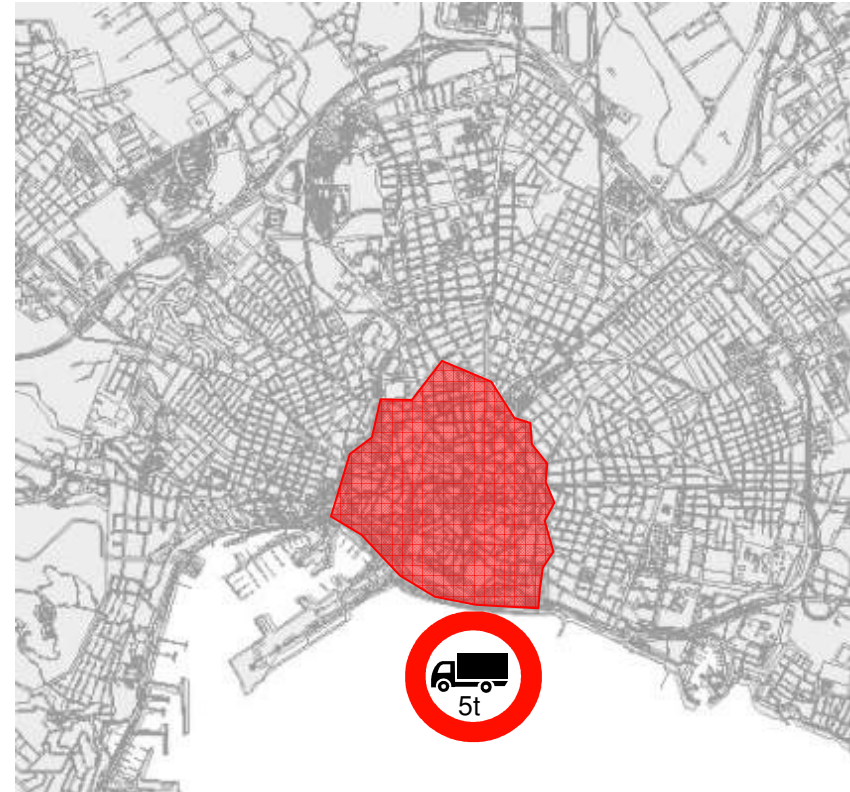
## Tonnage Limitations.

Besides the parking restrictions previously described, it is key to take into account the limitations of movement of the vehicle according to their (Maximum Payload Capacity Authorized).

Basically Palma is divided into two zones, the inner perimeter of the Avenues and the rest of the city. The area inside the perimeter has a limitation for vehicles over 5 tons, while between 7am and 11 m this restriction is extended to vehicles of up to 16 tonnes.



Forced u-turn for vehicles of more than 16 tons, in the maritime esplanade



5 tons perimeter limitation

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## 1.2 Location of loading and unloading bays

The municipality currently has 742 loading and unloading zones, where, as mentioned before, the stop is permitted only for reasons of loading and unloading for authorized vehicles, with a maximum limit of time of 30 minutes.

The general time window of these service areas are:

Monday to Friday: from 8:30 to 1:30pm and 4 to 6:30pm

Saturdays: from 8:30 to 1:30pm

It is worth noting that there are 99 different time window variations, depending on the schedules of nearby shops and services in the street area.

These variations are generally implemented for increasing or restricting the time window for certain days of the week.

The areas set up for loading and unloading are indicated by the vertical signage shown below:



The length of these areas for loading and unloading operations is generally from 10 to 7,5 meters long, varying according to the way the cars are parked (parallel to the curb/ with the front/back end to the curb).

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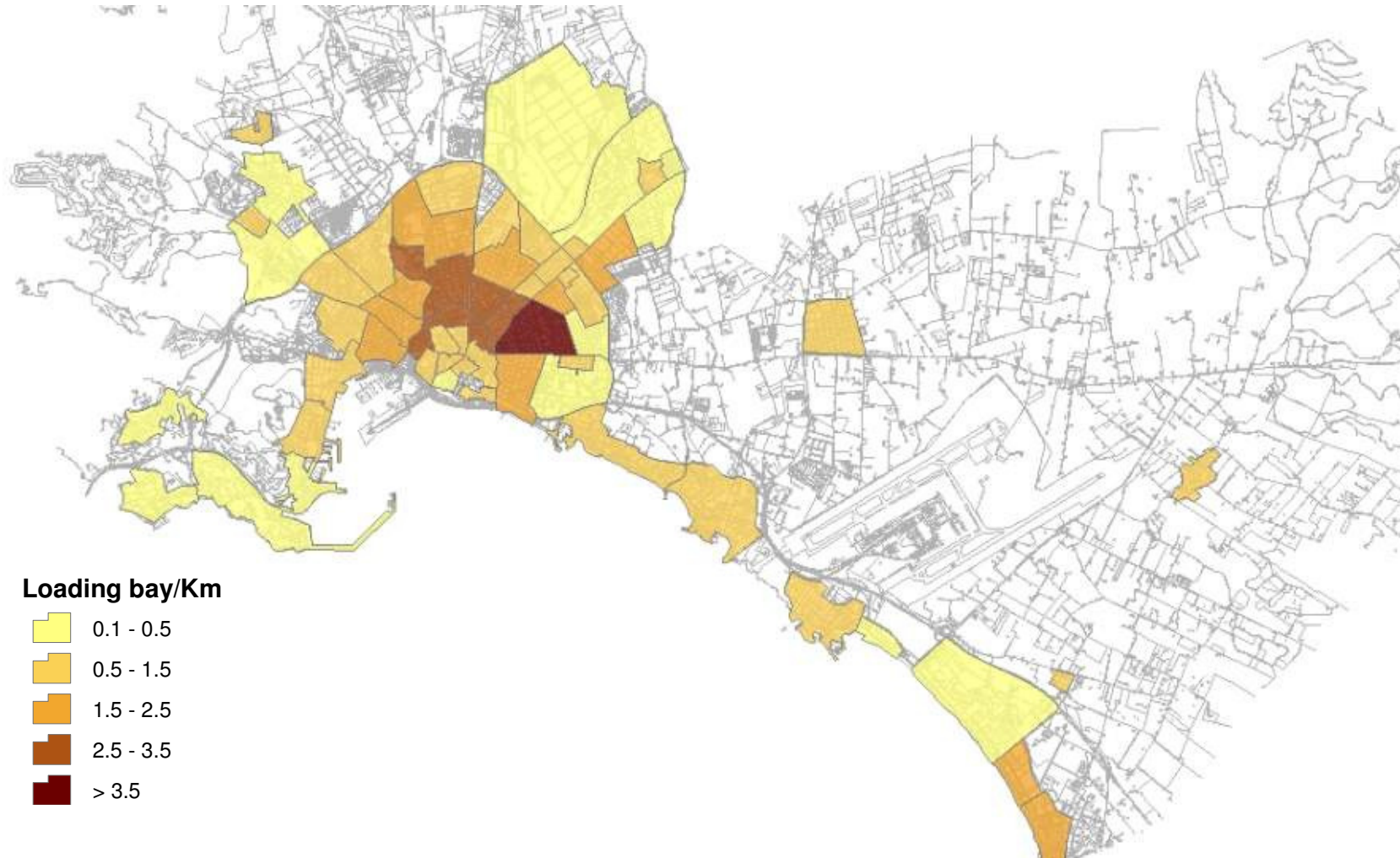
Location of loading and unloading areas in the municipality





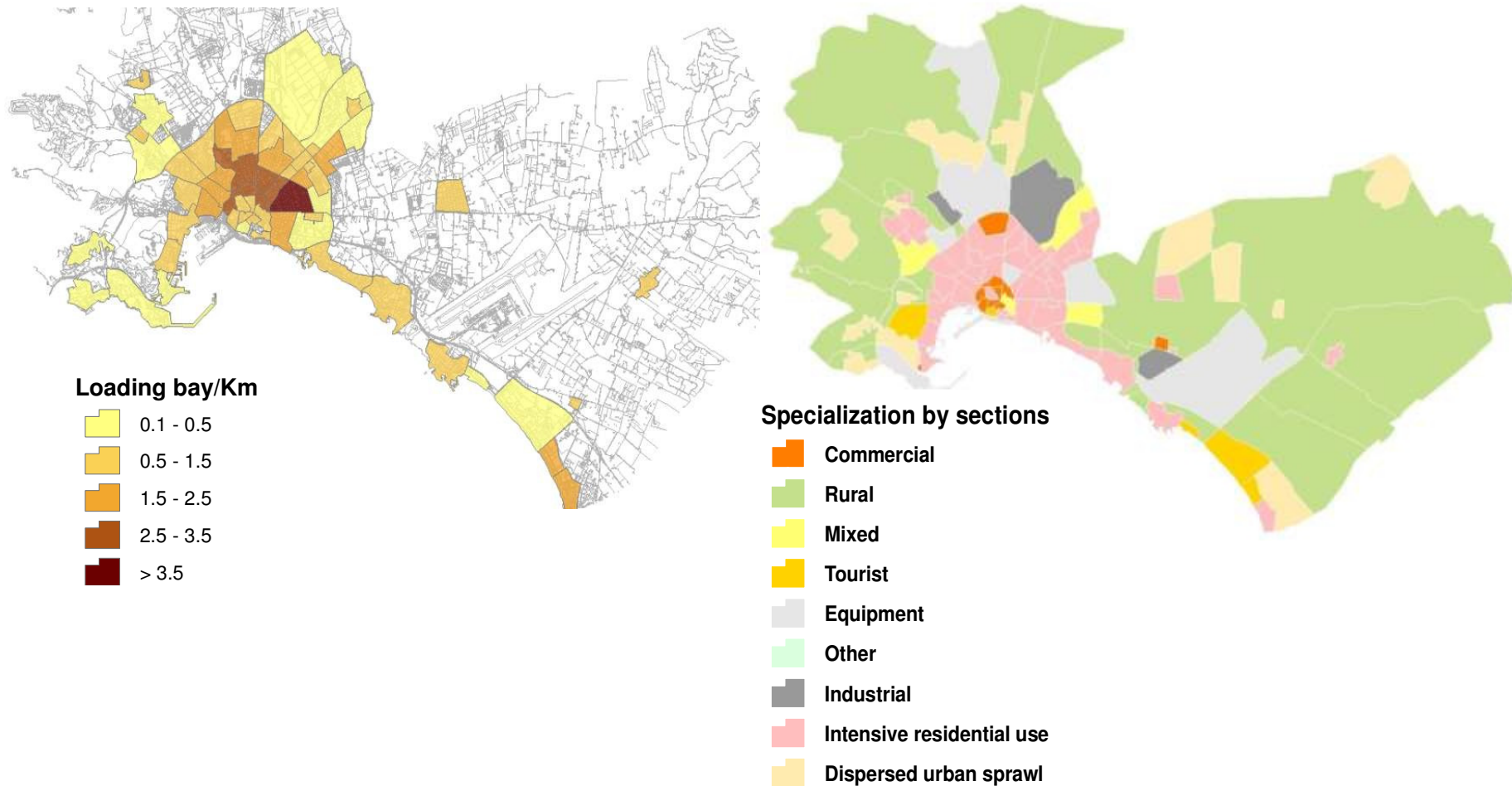
# 1. City logistics: legal issues, transport and distribution of goods

Then, we can determine the number of delivery bays/ lineal km by city sectors.



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Density of delivery bays and land use specialization for each city section.





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## 1.3 Logistic models for good's distribution: case studies

This section analyzes four cases of logistics companies operating in the municipality of Palma. The logistics system followed by each company is significantly different, where each method show benefits and drawbacks.

- A) Consolidation and redistribution
- B) Breaking and distribution
- C) Integrated logistics management
- D) External consolidation and chain logistics management

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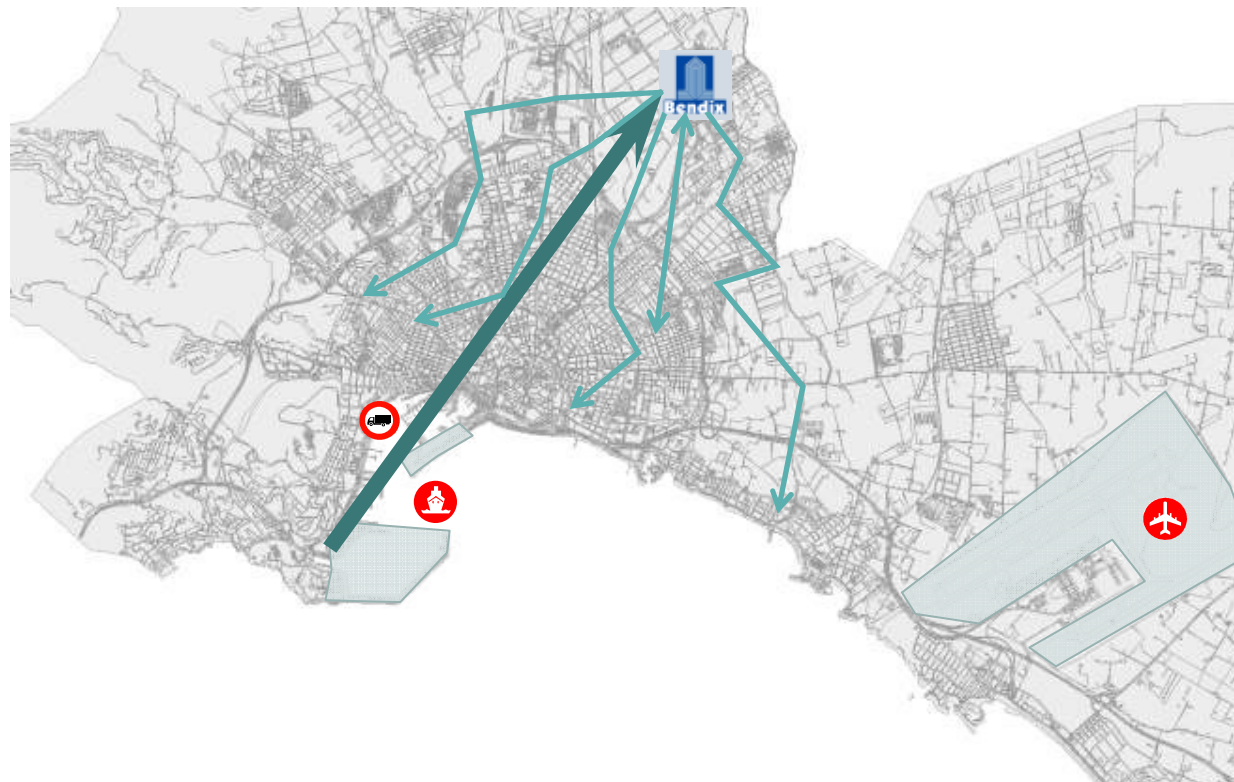
## A) Consolidation and redistribution

Company: Bendix (Office and fine arts materials)

— Phase 1: Provision to Bendix by providers (own means)

— Phase 2: Redistribution by routes or retailer by own means or final customer at warehouse/shop

more common vehicles for each phase



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## B) Breaking and distribution

Company: Mercapalma (Perishable foods)

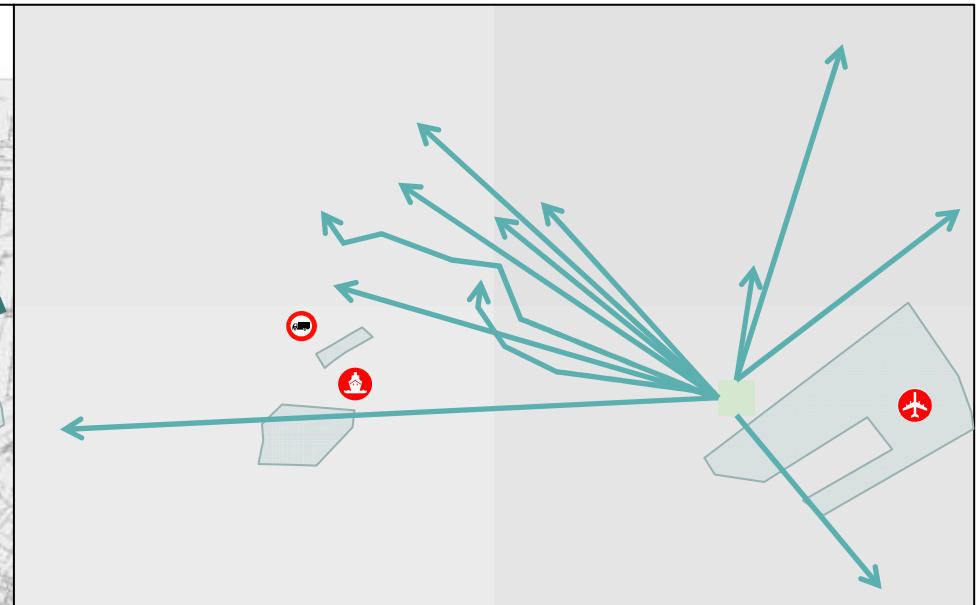
— Phase 1: Provision to Mercapalma by providers (own means)

— Phase 2: Retailer dispersion by own means

more common vehicles for each phase



Phase 1: Provision to Mercapalma by providers (own means)



Phase 2: Retailer dispersion by own means

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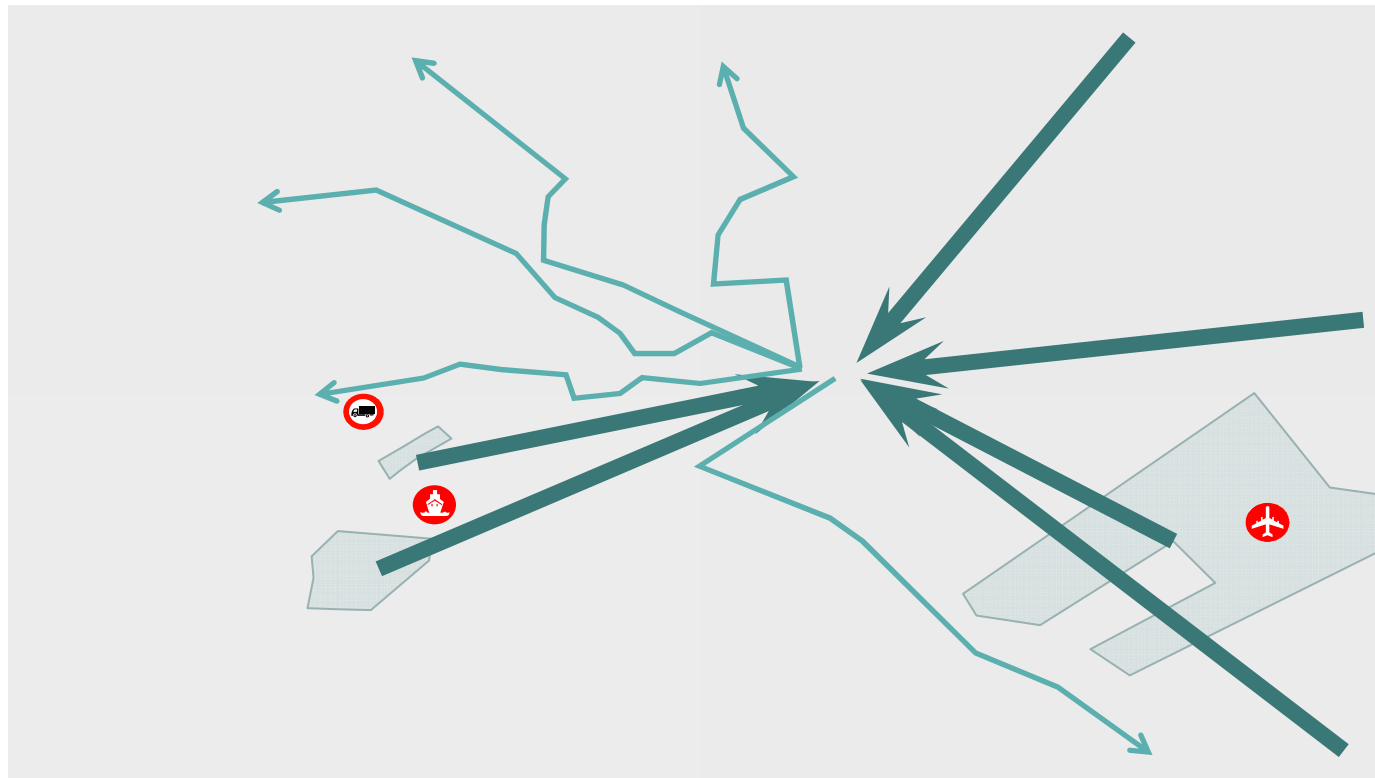
## C) Integrated logistics management

Company: Eroski (supermarkets)

— Phase 1: Provider – Consolidation central platform

— Phase 2: Consolidation central platform - Shops

Most common type of vehicle for each phase



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## D) External consolidation and chain logistics management

Company: Mercadona (supermarkets)

more common vehicles for each phase

— Phase 1: Logistics centre (mainland) or Large supermarket



— Phase 2: Supermarket (micro logistics centre) – Small supermarkets





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## Freight logistics models overview

