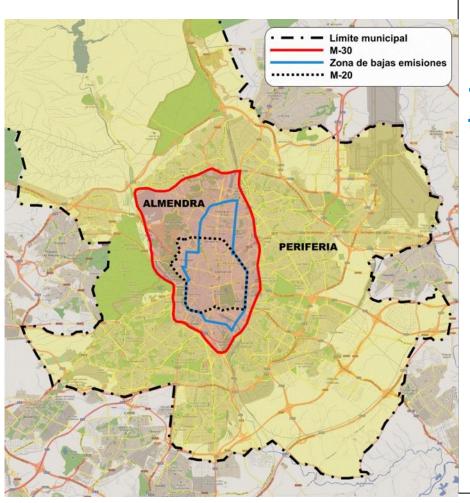


## MADRID URBAN FREIGHT OVERVIEW



### **BASIC DATA**





### **Population:**

-Municipality - 3.166.130

-More than 5 million people in the metropolitan area

-City centre - 1.006.086

**Surface: 604,31 (km2)** 

**Density: 5,239 (inh./km2)** 

**Car ownership rates:** 

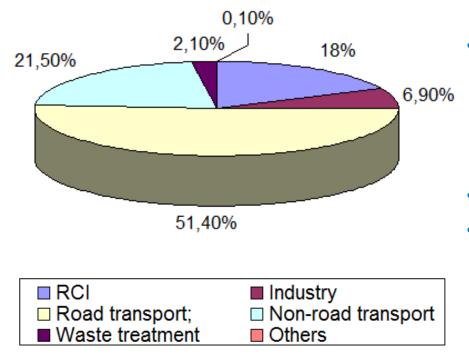
404 (cars/1.000 inh.)

[Reference year: 2014]



## MAJOR SOURCES OF POLLUTION

### NOx emissions by source

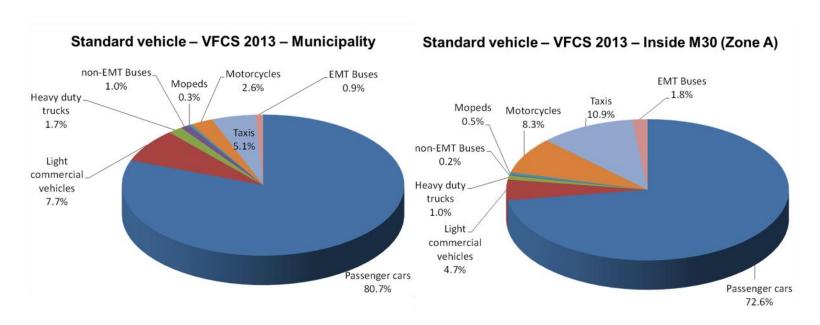


- •Road traffic is the main contributor of emissions in Madrid city (year 2014):
  - 51.4 % of NOX
    - 55.1 % of PM2.5 (exhaust)
    - 40.3 % of CO2
- •Followed by Non-road transport (21,5% of NOx)
- •And Non-industrial combustion (RCI) (18% of NOx)



## **URBAN FREIGTH CONTRIBUTION (ROAD TRAFIC)**

## DISTRIBUTION OF TRIPS ON A REGULAR DAY REGARDING VEHICLE TIPOLOGY



#### WHOLE CITY

1,7 % of the trips on a regular day are made by Heavy Trucks

7,7 % of the trips by Light Comercial Vehicles



## WITHIN FIRST RING ROAD (M - 30) CITY CENTRE

1 % of the trips on a regular day are made by Heavy Trucks

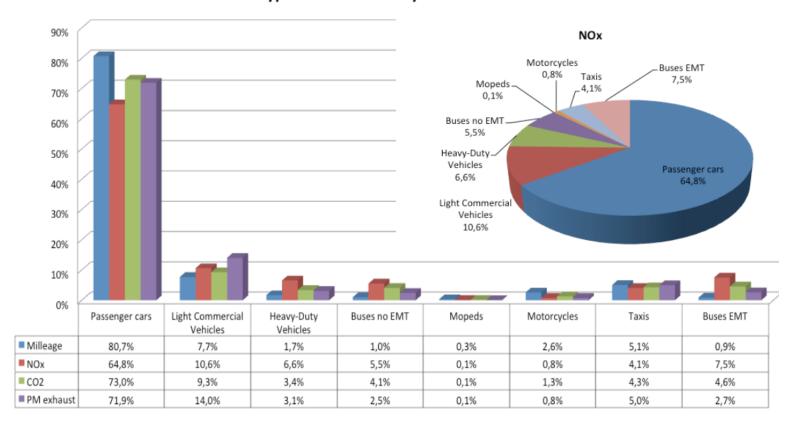
7,7 % of the trips by Light Commercial Vehicles



## **URBAN FREIGTH POLLUTANT EMISSION SHARE (ROAD TRAFIC)**

### **Emissions by vehicle type**

#### Vehicle type distribution- City of Madrid - VFCS 2013





### PLANA: AIR QUALITY AND CLIMATE CHANGE PLAN



# MADRID'S NEW AIR QUALITY STRATEGY 2017 - 2025 (NOW ON PUBLIC CONSULTATION PROCCESS)

#### MAIN GOAL ON URBAN MOBILITY

•Local commitment to get a 50% reduction of road traffic CO2 emissions in 2030 with respect to 1990

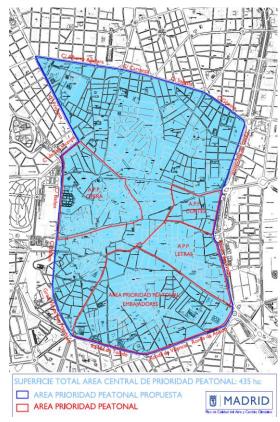
## PLAN A: MEASURES FOCUSED ON URBAN FREIGHT

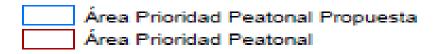


### NEW RESTRICTED RESIDENTIAL AREA (CENTRAL DISTRICT)

Enlarged management system that will cover the whole Central District, removing crossing traffic, recovering public space for citizens and public space quality.

- Continuous perimeter controlled by access cameras
- No free driving roads
- Public transport, bike and pedestrian mobility prioritization
- Not on road parking allowance for non residents
- Optimization of urban freight operations
- Fostering low emission technologies through access restrictions





#### **FOSTERING LOW EMISSIONS URBAN LOGISTICS**



## CENTRAL RESIDENTIAL AREA - ACCESS RESTRICTIONS FOR FREIGHT VEHICLES PROGRAM:

Distintivo ambiental DGT	desde 2018	desde 2019	desde 2020
CERO	Horario		
	extendido de reparto		
ECO	Horario		
	extendido		
	de reparto		
С	Horario		
	estándar		
В	Horario		NO
	estándar		ACCESO
Sin	Horario	NO	NO
distintivo	estándar	ACCESO	ACCESO

CERO EMISSION VEHICLES AND ECO (LPG, GNC and Hybrid) will enjoy of free access conditions and extended timetable

## **OPTIMIZATION OF FREIGHT OPERATIONS WITHING THE FIRST RING – Managing On Street Loading Zones**

- •Creation of a register of urban freight vehicles and operators. Mandatory for the use of on street loading zones
- Management of Loading zones through a Mobile Phone APP
- Controled by Madrid's REGULATED ON STREET PARKING AREA SISTEM
- Redesing and redistribution of street loading zones
   Currently 2.449 Loading Zones



## **MADRID**

# Innovation on Logistics- PPP / EU projects

## FREVUE Freight Electric Vehicles in Urban Europe

**CIVITAS ECCENTRIC** 

**UE Project 2016-2020** 





#### MAIN BARRIERS AND CHALLENGES



#### **BARRIERS**

- FREIGHT COMPANIES USUALLY USE SELF
  EMPLOYEES FOR LAST MILE DELIVERIES
  - LOW FINANCIAL CAPACITY
- LOW RENEWAL RATE OF THE FREIGHT FLEET:

MEDIUM AGE: OVER 10 YEARS (USUALLY FREIGHT VEHICLES ARE EXPECTED TO LAST MORE THAN 15 YEARS

LACK OF URBAN SPACE IN THE CITY
 CENTER FOR CONSOLIDATION CENTRES

#### **CHALLENGES**

- PROVIDING FINANCIAL SUPPORT FOR THE RENOVATION OF FLEETS
- OFFERING PUBLIC SPACE TO DEVELOP NEW PATTERNS IN URBAN LAST MILE LOGISTICS
- FOSTERING COOPERATION BETWEEN PUBLIC BODIES AND LOGISTIC OPERATORS
- UNDERSTANDING NEW MODELS: eCOMERCE





- SIZE OF THE CITY, BIGGER THAN MADRID BUT CLOSE IF WE INCLUDE MADRID'S METROPOLITAN AREA
- SIMILAR PROBLEMS REGARDING AIR QUALITY (NOX LEVELS)
  - CONSIDERING LONDON AS AND AVANCED CITY IN THE DEPLOYMENT OF TRAFFIC REDUCTION MEASURES: CONGESTION CHARGE, URBAN REDESING, ETC.
  - ONE OF THE FEW SUCCESFUL LAST MILE CONSOLIDATION
    PROJECTS USING ELECTRIC VEHICLES IS LOCATED IN LONDON
    - AMBITIOUS PLANS ON CITY FLEET RENEWAL



#### We are SEUR





Number of parcels we deliver every single day

Total revenue in 2016

€636 | 100 MM

**Employees** 

7.100

Delivers in

230

countries

We are DPDgroup





Number of parcels delivered in 2015

billion

Total revenue in 2015 (billion)

Hubs and depots

€5,7

37,000

Number of vehicles

**Delivery experts** 

830

50,000

**apd**group