# Success factors for the deployment of clean fuels and vehicles in cities

CIVITAS FORUM, Torres Vedras, Sept. 27th, 2017

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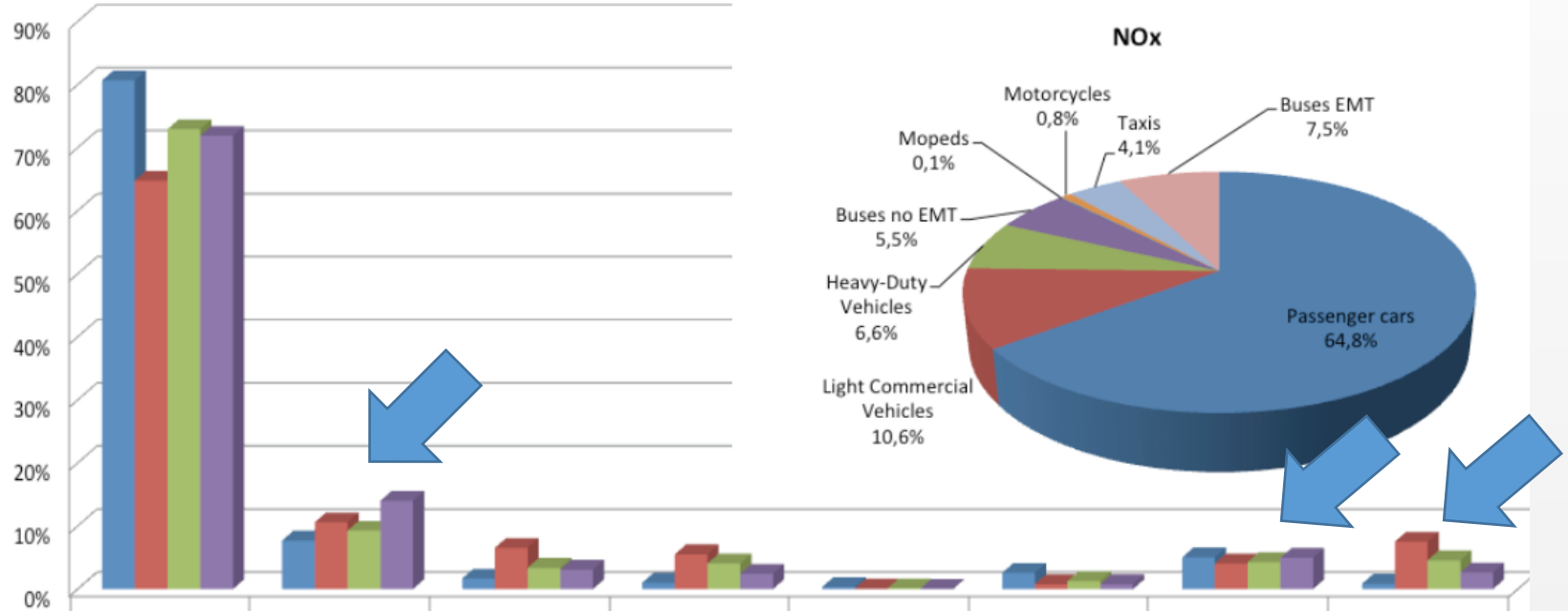
# AIR QUALITY: HEALTH

# Emissions by vehicle type

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







| | Passenger cars | Light Commercial Vehicles | Heavy-Duty Vehicles | Buses no EMT | Mopeds | Motorcycles | Taxis | Buses EMT |
|---|---|---|---|---|---|---|---|---|
| Milleage | 80,7% | 7,7% | 1,7% | 1,0% | 0,3% | 2,6% | 5,1% | 0,9% |
| NOx | 64,8% | 10,6% | 6,6% | 5,5% | 0,1% | 0,8% | 4,1% | 7,5% |
| CO2 | 73,0% | 9,3% | 3,4% | 4,1% | 0,1% | 1,3% | 4,3% | 4,6% |
| PM exhaust | 71,9% | 14,0% | 3,1% | 2,5% | 0,1% | 0,8% | 5,0% | 2,7% |

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# E-MOBILITY TREND

## 2016 sales

### At National level:

51,5%, increase in EV sales (4.746 units)

68% increase in HEV sales (31.019 units)

2,6% of the total vehicles sales

### At Regional level:

Madrid leading the ranking with 2.200 EV (64,4% growth) and 9.076 HEV (82,9% growth)

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# STILL SOME CHALLENGES AHEAD

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# E-MOBILITY…AN EASY WAY IN MADRID?

First public charging infrastructure in the city → **MOVELE MADRID** 2009-2012

Dialogue and knowledge exchange →
- **E-MOBILITY FORUM, PROCLIMA FORUM** 2010…
- **NETWORKS** 2010…

Promotion and dissemination →
- **AGREEMENTS AND PARTNERSHIPS WITH OEMs AND STAKEHOLDERS** 2010…
- **EVENTS, WEB…**

Projects: Expansion and consolidation of electric mobility → **MADEV, EVUE, FREVUE**
2010-2013
2010-2012
2013-2016

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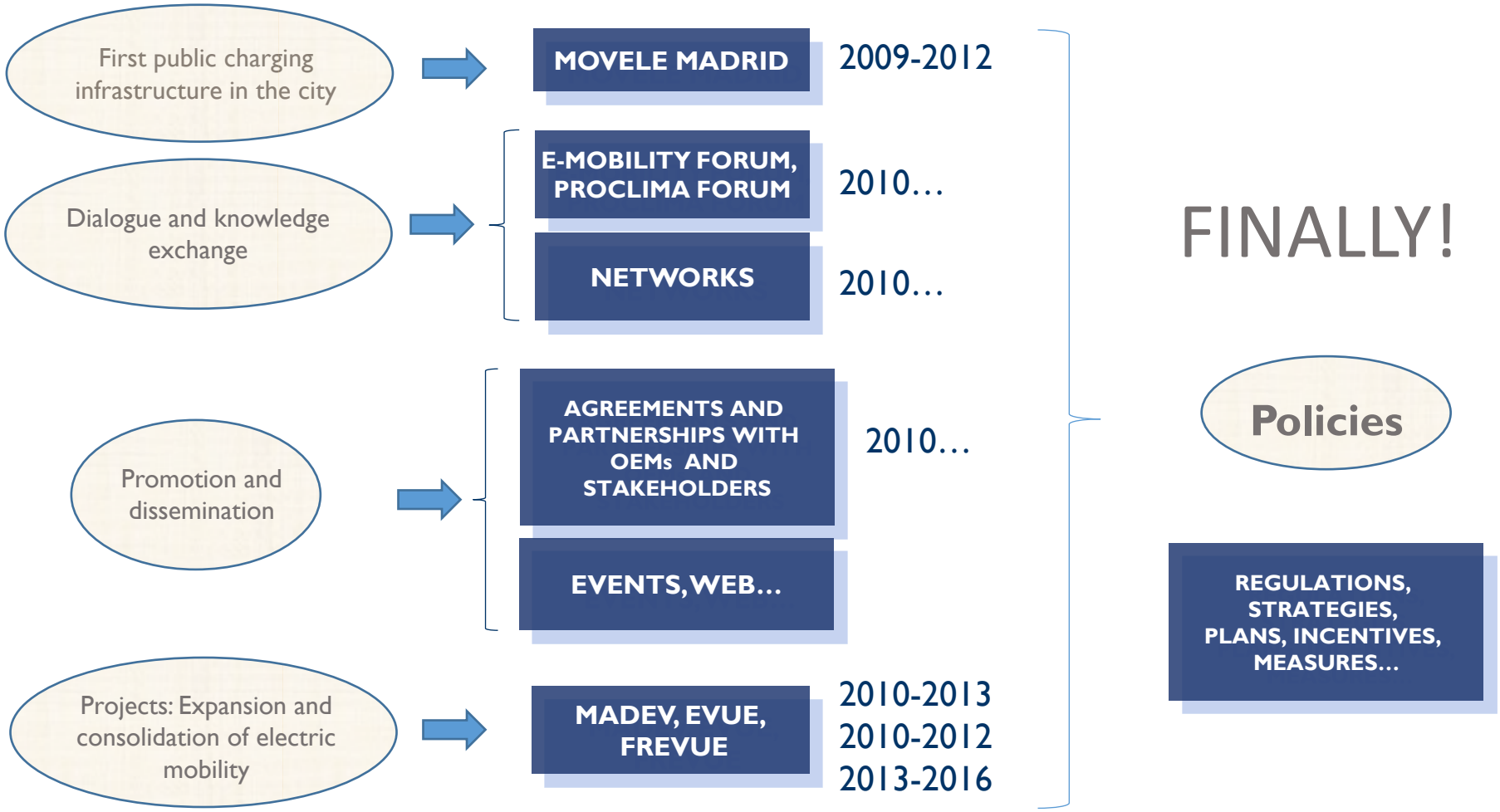
# BUT…WHAT IS MORE IMPORTANT?



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# PLAN "A"

Approved last Thursday September 21st, 2017!!!

Classic model:

**If you can pay, you can pollute (the "polluter pays" principle)**

Rising Parking prices
Rising Vehicles taxes
Lineal PT prices
Introducing alternatives modes without removing car espace

**Freedom of movement in relation to mobility price**

(Higher incomes can drive)

⇩

Fostering inequity

New trend:

**If you pollute, you cannot drive**

Parking option related to pollutant level
Social PT prices
Introducing alternatives modes removing car espace

**Freedom of movement in relation to the right to health**

(Higher environmental friendly can drive)

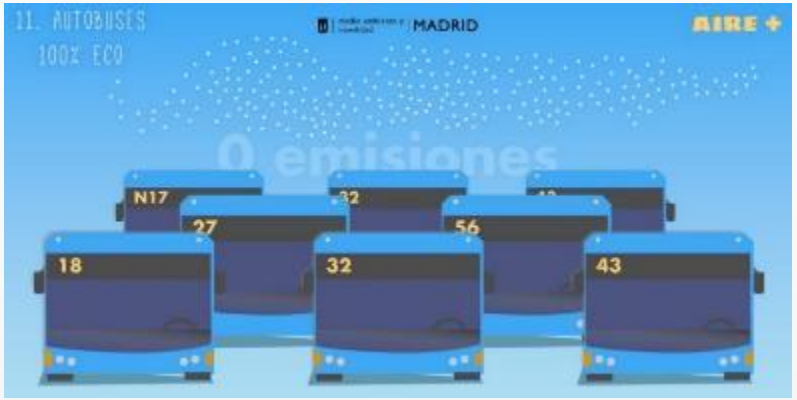
⇩

Raising equity

**Measures**

## Low emissions public transport: EMT and TAXI

2020 CiViTAS
Cleaner and better transport in cities



TAXI CITY FLEET:
15.668 vehicles
30 electric Cars (Nissan Leaf)
5375 ECO VEHICLES (LPG; HIBRID, GNC)

# A New approach for transport policy actions: Madrid's Air Quality Plan

## Measures

### Urban freight

- Incentives for clean technologies
- Restrictions to most pollutant vehicles

| Distintivo ambiental DGT | desde 2018 | desde 2019 | desde 2020 |
|---|---|---|---|
| CERO | Horario extendido de reparto | | |
| ECO | Horario extendido de reparto | | |
| C | Horario estándar | | |
| B | Horario estándar | | NO ACCESO |
| Sin distintivo | Horario estándar | NO ACCESO | NO ACCESO |

2020 CiViTAS Cleaner and better transport in cities

FRevue

## Promotion of alternative energies and fuels

-Cero emisiones:

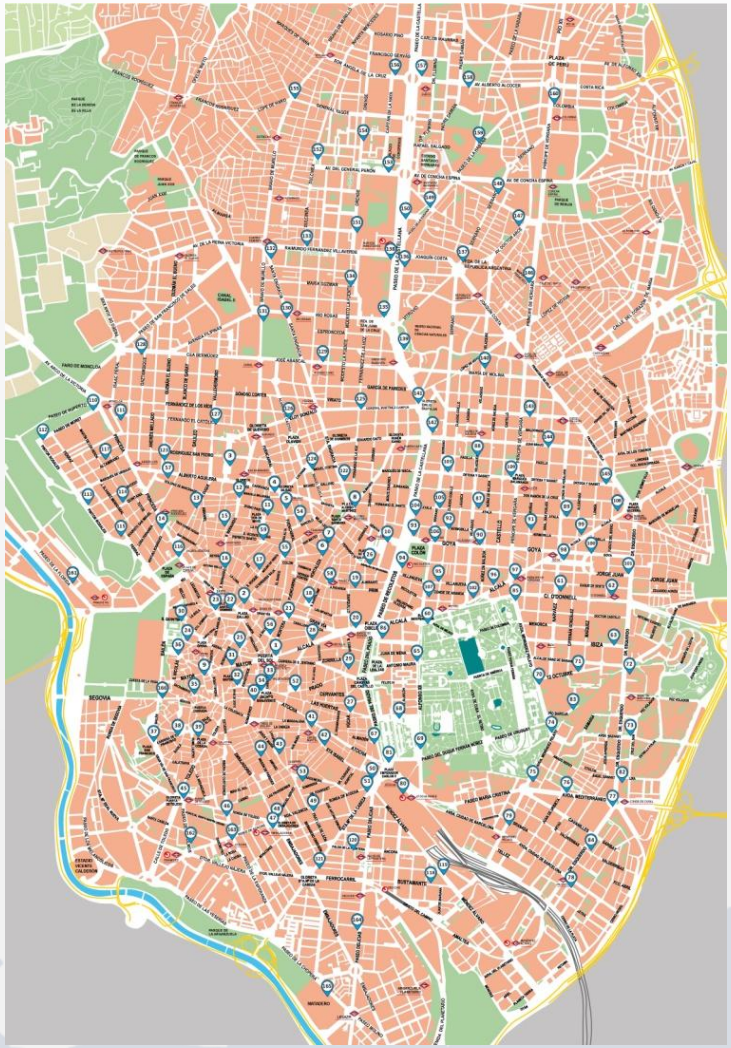
-ECO:

-C:

-B:

# Promotion of (e) shared mobility

- 2,028 e-bikes
- 62.108 subscribers
- 9.000 uses/working day (winter)
- 20.000 uses/working day (spring and summer)
- 5 daily uses/bike (working day)



# Promotion of (e) shared mobility

# SUCCESS FACTORS

(Among others)

- **Urban policies and strategies (political will)**
- Communication (clear priorities and messages)
- Cooperation among stakeholders (incl. Public administrations)
- Legal frameworks
- Stable financing schemes
- Awareness raising (again, communication)

Thank you very much!

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