

# Cycling and traffic calming

*in Reggio Emilia urban area*



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Municipality of Reggio Emilia  
*mobility department manager*

## Background

In the middle of “Padana Plane”  
 1h.30 from Milan, 40 min. from Bologna

**Inhabitants** (31/12/2012): 170.086

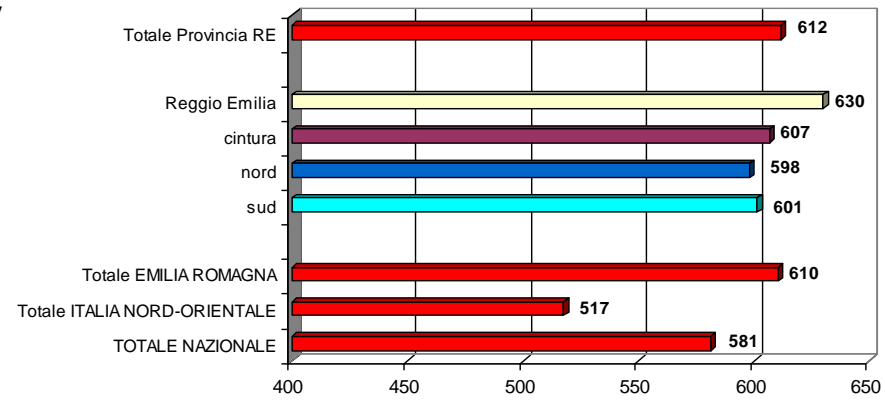
**Motorization rate:** 660 cars/1000 inh.

**Km of cycling network:** 187(34,48m/100inh,  
 1st city in Italy)

Big number of **small-medium manufactory enterprises**

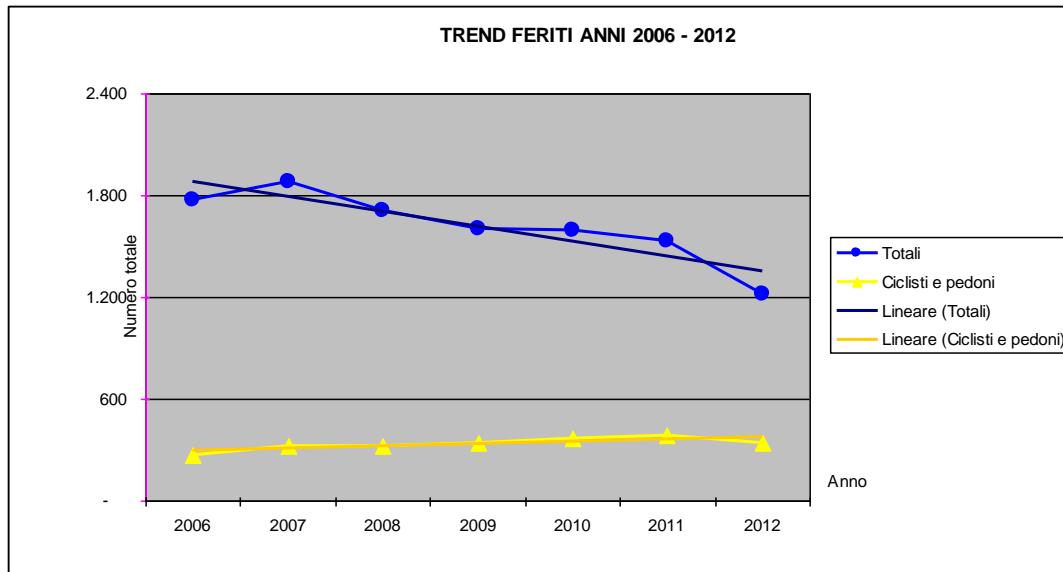
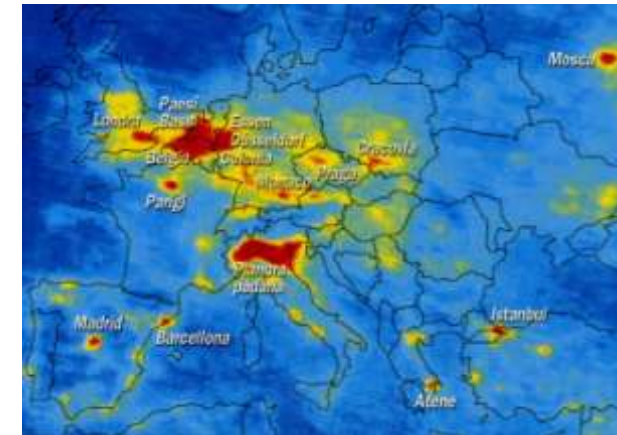
Strong attitude for **export**

Presence of **many small industrial settlements**

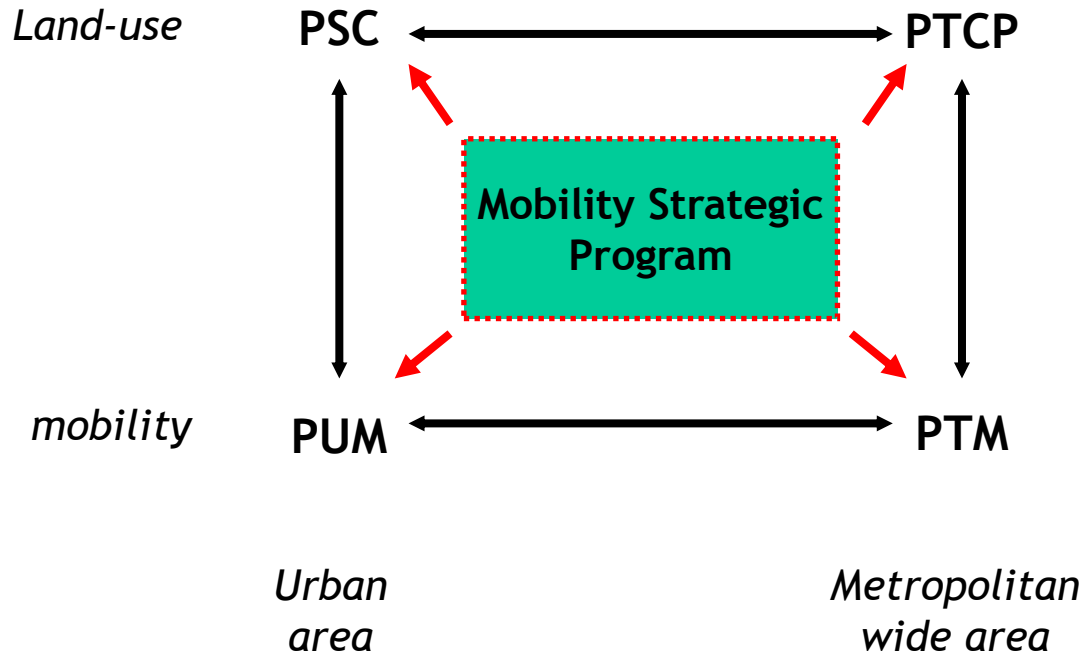


## Criticalities

- **Air pollution** and **low urban quality** due to traffic
- **Congestion** and need of big investments to improve transport supply
- **High social cost** due to a big amount of **road fatalities** and accidents



## Reggio Emilia SUMP (2008)



### AN INTEGRATED PROCESS:

- between mobility and land-use
- in more land scales

### ...BUILDING A SHARED SCENARIO

**AIM:** reducing negative impacts related to the prevailing use of cars

### SCENARIOS ASSESSMENT

- on transport system
- on air quality
- on land use effects

## SUMP strategies:

- **Road infrastructures:**  
 solving bottlenecks  
 enforcing main axes
- **Urban public transport (road)**  
 more hierarchy between lines increasing frequencies on main lines
- **Regional public transport (rail)**  
 enforcing service on regional network  
 tram-train on north-south axes
- **Traffic regulation**  
 completing limited traffic zone  
 enlarging park-price area  
 priority lanes for PT



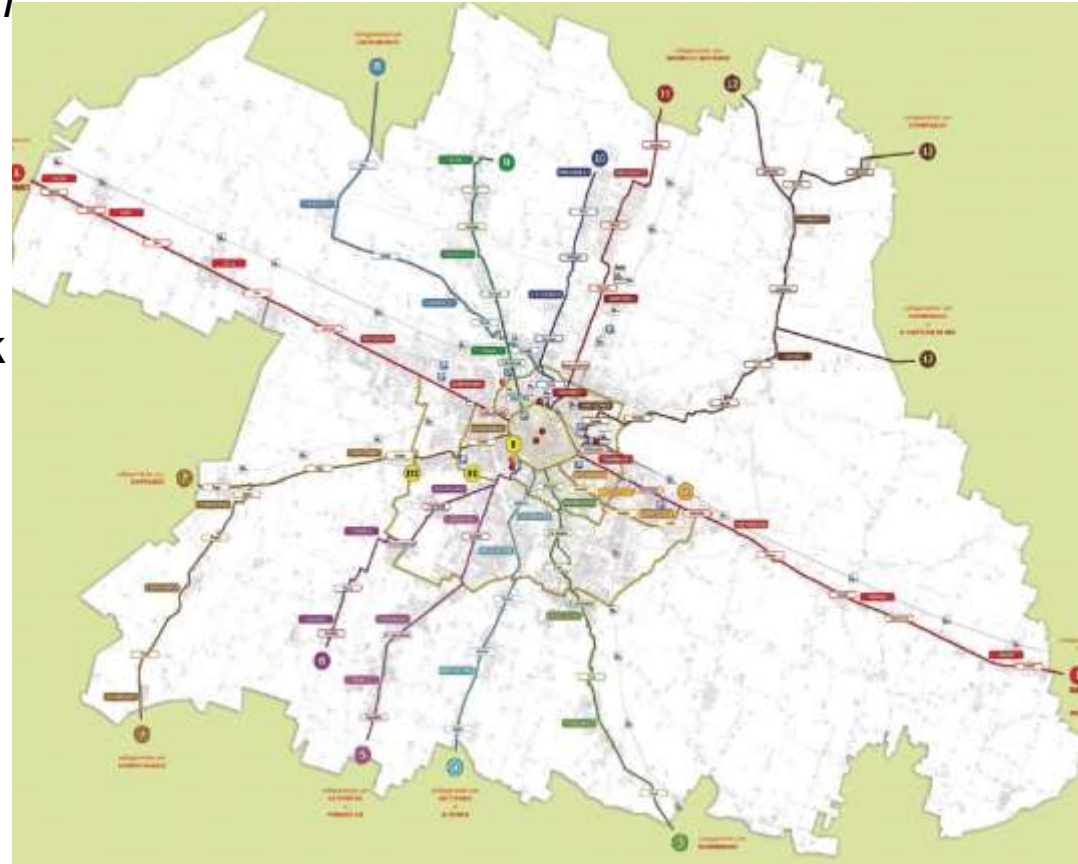


## SUMP strategies:

### THE CYCLING NETWORK PLAN

*Cycling must cover a relevant role in modal split*

- **12 main cycling paths** going to city center and 3 rings high performances and direct routes
- **A widespread secondary network** with traffic calming techniques sharing road spaces general speed reduction on 30 Km/h
- **8 greenways** outside urban area
- **Cycling services**  
16 bike sharing stations  
3 bike hiring and storages



## Why cycling:

- The **cycling paths stock is 196 Km**, - 1,15 m/procapita – 1 in Italy
- Bike covers **18% of trips**
- Reggio Emilia has the **right climate and orographic features:**
  - **Flat land**
  - **Average temperature from 9 to 20**
- **35% of trips distance below 3 Km**
- Bike is **greenest, cheapest and fastest....**
- Cycling needs **low investments**

it shouldn't just be simply a matter of having more bike paths....  
but **get more cycling**



## BICIPLAN strategies:

### ...building of a general "bicycle-friendly" environment ...

- developing **services and infrastructures** for cycling
- increasing **road safety** in urban area for cyclist and pedestrian
- promoting **changing in mobility behaviours and lifestyle**





## BICIPLAN strategies:

### MAIN CYCLING NETWORK FEATURES:

- **Connect relevant places** in the city, in particular for home to work travels
- **Same features** along the whole itinerary
- Itineraries are **clearly distinguishable**
- **direct routes**

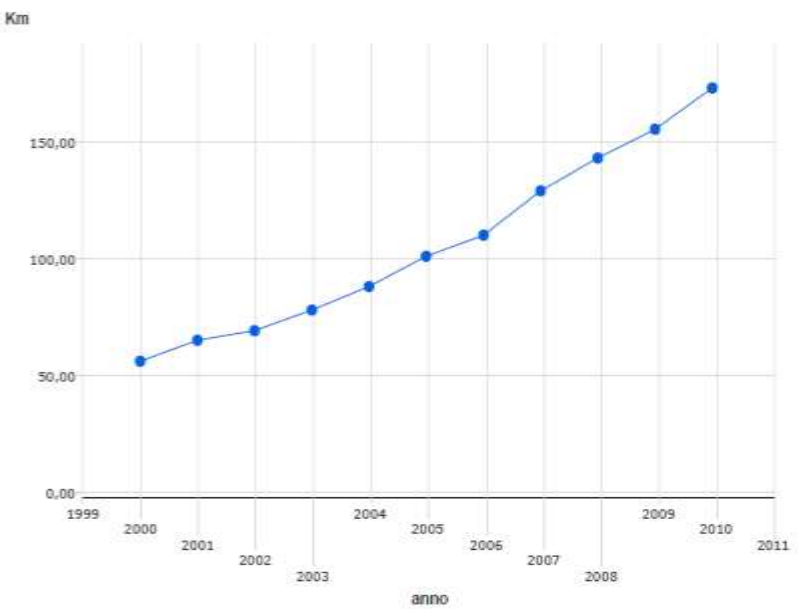
### IN THE SECONDARY NETWORK...

- **Sharing road space** by traffic calming techniques
- **30 Km/h speed limit**



# Improving infrastructures and services:

lunghezza piste ciclabili



anno	Km
2010	173.20
2009	155.50
2008	143.11
2007	129.00
2006	110.00
2005	101.00
2004	88.00
2003	78.00
2002	69.00
2001	65.00
2000	56.00

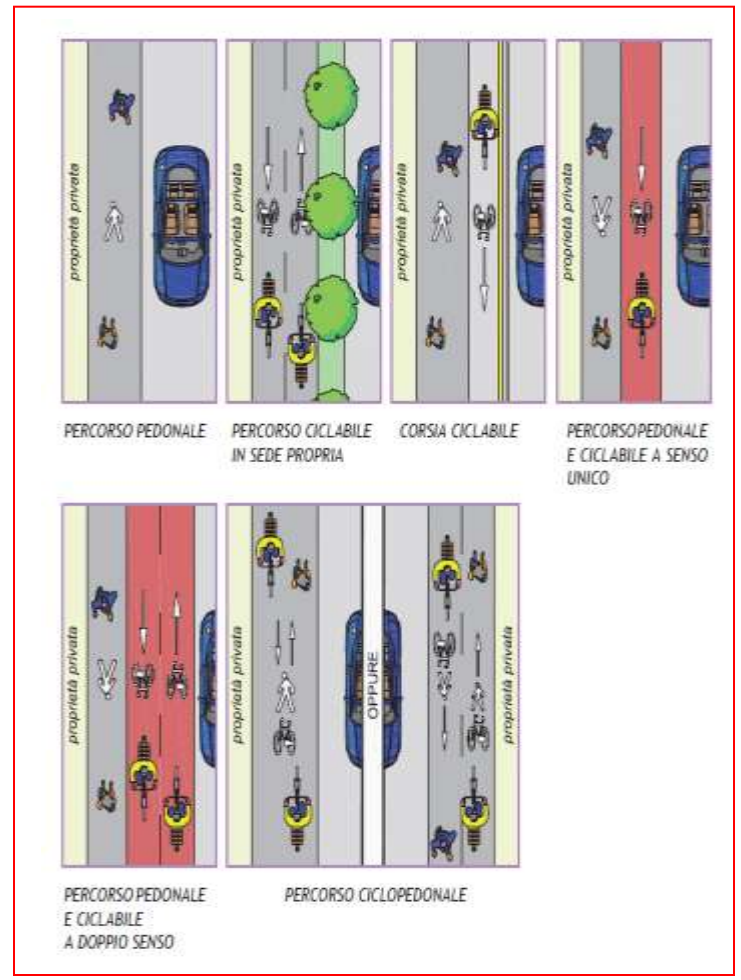


- 4 safeguarded hiring and storage points
- 15 bike sharing stations
- Bike sharing ticket is the same of PT one



# More safety for cyclist and pedestrian: *road space redesign*

## Choosing the right design pattern...





# More safety for cyclist and pedestrian: 30 Km/h speed limit

Speed is the main cause of fatalities in road accidents



Campo visivo del pedone



Campo visivo dell'automobilista a 30 Km/h



Campo visivo dell'automobilista a 50 km/h

SPEED COLLISION	PROBABILITY OF DEATH
80 Km/h	100%
60 Km/h	85%
40 Km/h	30%
20 Km/h	10%

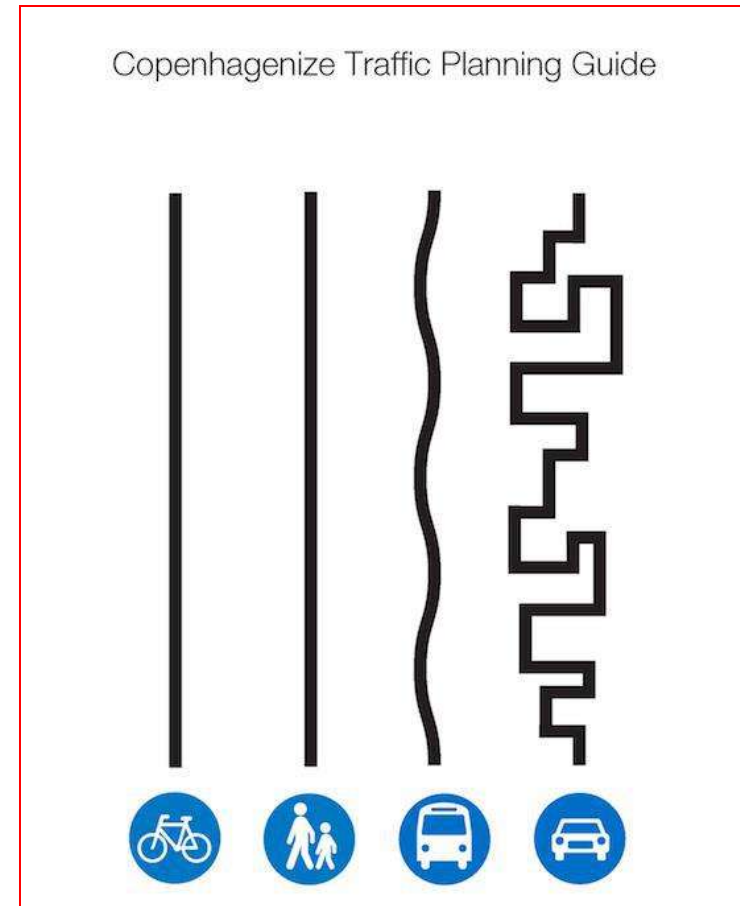
Moderare la velocità è segno di civiltà



# More safety for cyclist and pedestrian: 30 Km/h speed limit

## Target:

- 30 Km/h speed limit in all secondary roads in urban area





# More safety for cyclist and pedestrian: 30 Km/h speed limit

## ■ 30 Km/h speed limit planned areas

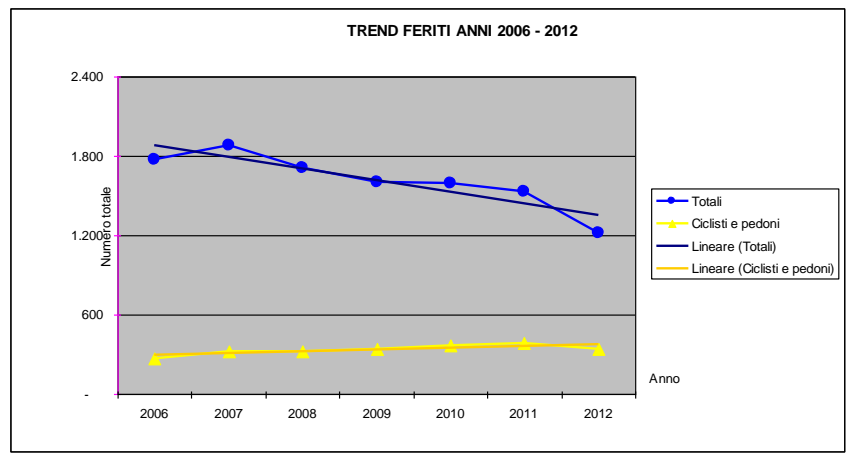
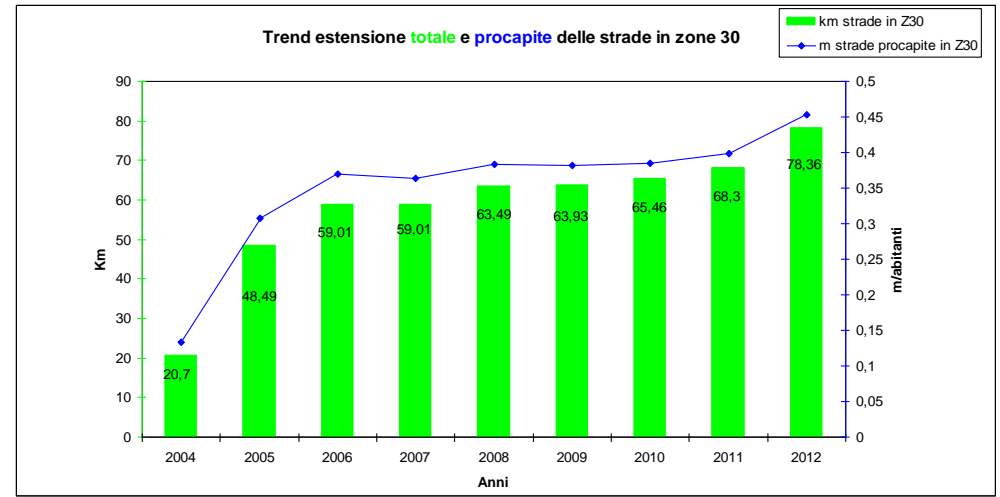






# More safety for cyclist and pedestrian: 30 Km/h speed limit

- **990 Km of road network**
  - 569 km into urban areas
  - **90.6 km with 30 Km/h speed limit (16%)**
- **172.833 inhabitants**
  - 161.936 into urban areas
  - **34.648 in 30 Km/h speed limit areas (21%)**



- **Results from 2009 to 2012**
  - +9,6% cycling
  - **-6,6% injured cyclists and pedestrians**

	biciclette in ingresso al C.S		feriti con ciclisti e pedoni	
	passaggi	var.% annua	n.	var.% annua
2009-10	1.388.687		256	
2010-11	1.499.491	8,0%	259	1,2%
2011-12	1.522.105	1,5%	239	-7,7%
		9,6%		-6,6%

# More safety for cyclist and pedestrian: *via Emilia ospizio*

## The Starting point:

- 2.000 vehicles in pick hours
- Presence of commercial buildings
- Many cars, many cyclists, many pedestrians... many accidents

## Needs:

- Keep the road capacity
- Ensure safety for cyclists and pedestrians

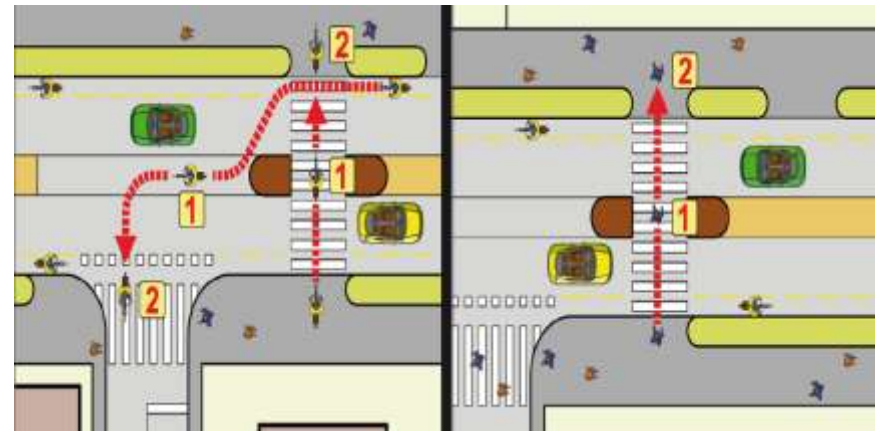
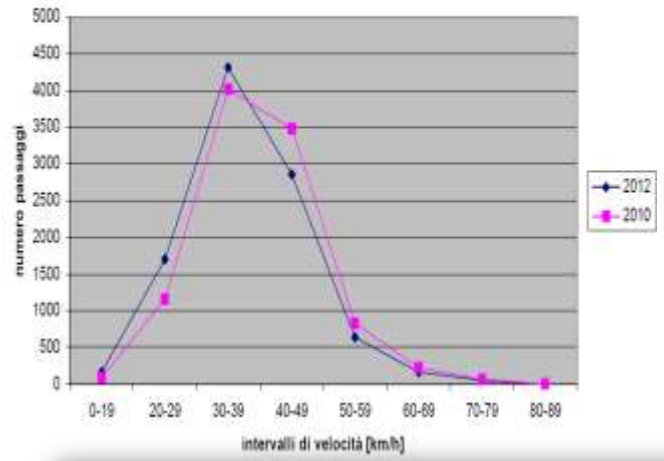
## Strategies

- Traffic calming with central multifunctional band;
- Protection of crossings,
- Bike lane for "hare" cyclists;
- Pavement as cycle-pedestrian lane for "turtle" cyclists.



# More safety for cyclist and pedestrian: *via Emilia ospizio*

Andamento delle velocità





# Changing behaviours and lifestyles



“C  MMINA E PEDALA  (A SCUOLA)”

 Reggio Emilia.  
Centro Internazionale “Loris Malaguzzi”  
**L’Italia cambia strada**  
*con l’adesione del Presidente della Repubblica*

## What is the Manifesto

**A new working method shared between all actors of the mobility sector, aiming to change behaviours in home-to-school mobility**

A common framework in which put everything about the policies of school mobility

- Concept:
- We can change mobility behaviours only if all the involved “city components” are committed to find a solution.**

*In other words...*

*Introducing mobility management in home-to-school mobility*

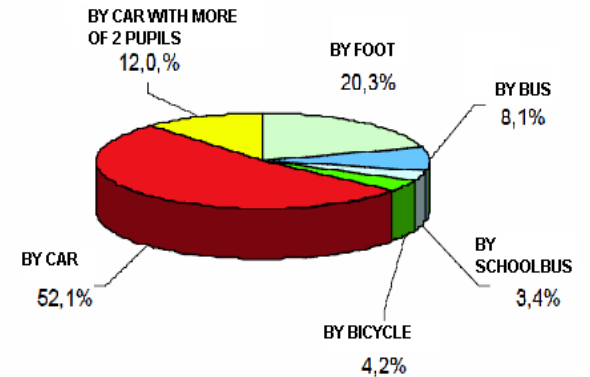


# Background

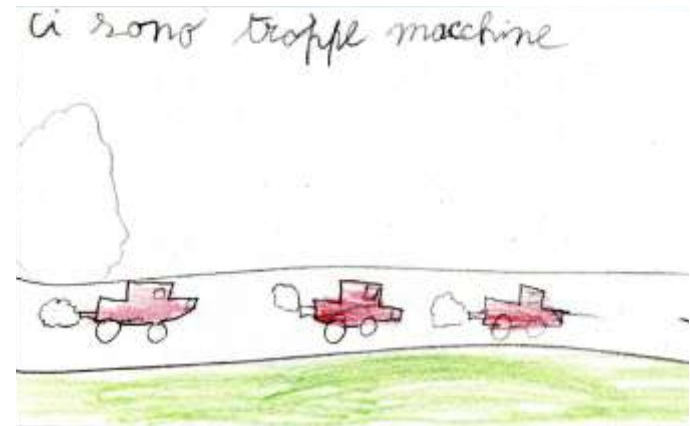


Children from 6-11 years old:	8.166
No. Primary Schools:	40
No. Secondary Schools (1st grade):	10

**- In 1971, 80% of children went to school by foot or bicycle**  
**- In 2008, over 2/3<sup>rd</sup> of children go to school by car every day**



## Criticalities

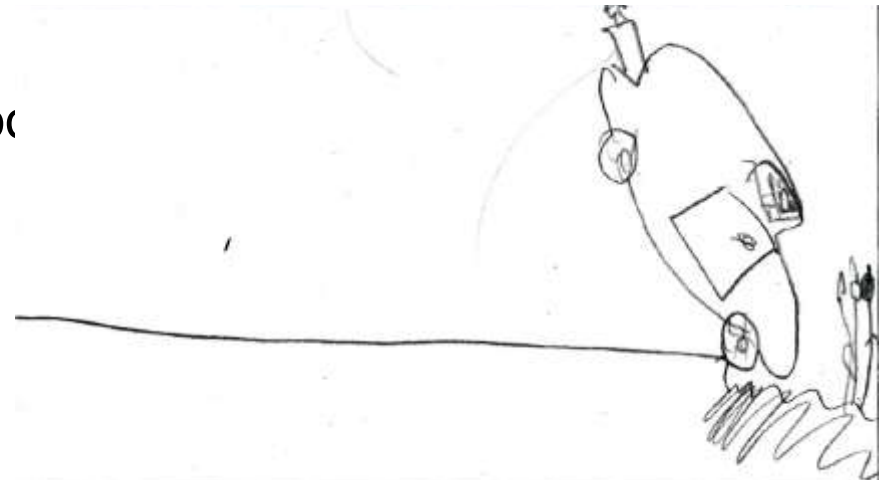


- Little **physical activity** and **social life** for children when they go to school by car
- Little **autonomy** for children
- **Chaos, pollution** and **road accidents** in schools areas



## Challenges

- **Reduce road accidents** and **traffic** near schools
- Convince all involved actors to do their best to **change means of transport** for children
- Double the number of children going to school by “**bici-bus**”
- Take action with a **comprehensive approach** in sustainable home-to-school mobility





## aims

The Manifesto was written in April 2009 with the following aims:

- As a new **working method shared** between **all actors** of the mobility sector
- As a tool to **involve all of the schools** of the city in the mobility theme
- As a tool to **endorse schools and families** activities
- To **network experiences** and future projects and optimize the city's resources
- To take part in competitions submitting an overall project



# Contents

- **6 strategies...**
  - Education
  - Communication
  - Promotion
  - Safety
  - Services
  - Planning
  
- **... for 9 projects**
  - To school by “bici-bus” or “pedi-bus”
  - Safety in home-to-school routes
  - School buses and car pooling
  - Health and movement every day
  - Sharing rules to move safely
  - Educational leaflets on sustainable mobility
  - Let’s collect green miles
  - The School Mobility Manager
  - Conciliating



## Partnership

Who signed the Manifesto:

- + *Town districts*
- + *the Provincial School Office*
- + *the School Directors*
- + *the Road Safety Monitoring Office*
- + *the Mobility Agency of Reggio Emilia*
- + *FIAB (The Italian Federation of Urban Cyclists and Bicycle Tourism)*
- + *FIMP (Italian Pediatric Doctors Federation)*
- + *ARPA (Regional Agency for Environment)*
- + *AUSL (the Local Health Authority)*



## The School Mobility Manager



**... is the leading actor**

*Creating mobility experts into schools*

*“Talking to children to change parents’ behaviours”*





## The School Mobility Manager

... is a teacher, identified by each school, who is sensitive to the issues of sustainable mobility.

The School Mobility Manager is offered periodically specific training on mobility by the office of the Area Mobility Manager (of the Municipality)

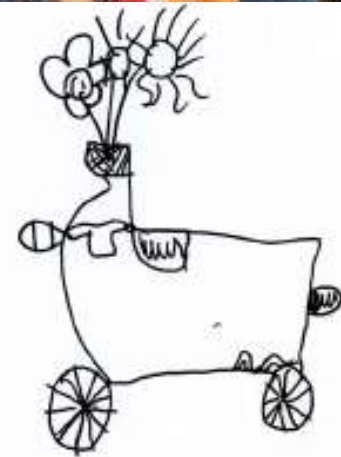




# The School Mobilty Manager



- is a **link** between several actors (Municipality, school, associations, ...) and different persons (teachers, parents, experts, children, ...)
- is an **expert** in mobility and sustainability
- is a **consultant** who suggests the best activities for the pupils



# Some projects and strategies...

## Bici-Bus – Pedi-Bus



## Some projects and strategies...

### Bici-Bus – Pedi-Bus

A free BiciBus/PediBus kit (helmet, waterproof tippet, fluo – color dickey, insurance against accidents) is given to each pupil

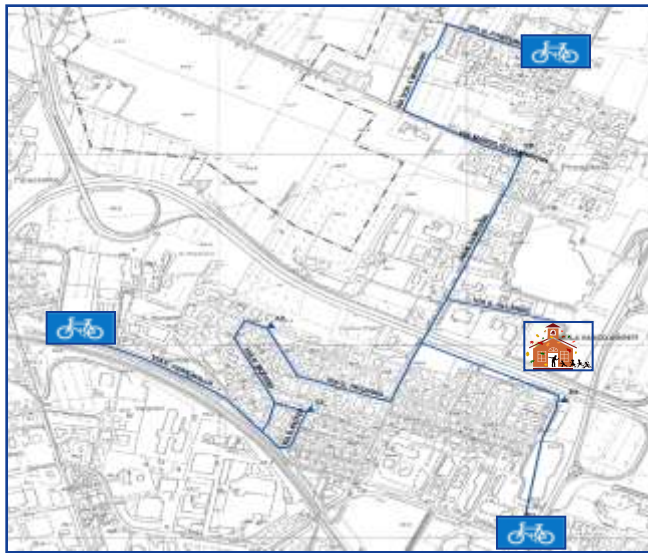
TOTAL SCHOOLS INVOLVED	16
PUPILS BY BICIBUS	510
PUPILS BY PEDIBUS	55
TOTAL PUPILS	565
BICIBUS ROUTES	35
PEDIBUS ROUTES	5
TOTAL 'HOME SCHOOL' ROUTES	40
KM COVERED BY BICIBUS	51,2
KM COVERED BY PEDIBUS	3,0
TOTAL KM	54,2





# Some projects and strategies...

## Traffic calming in home-to-school routes





# Some projects and strategies...

## Workshops with schools on cycling by Cycling Associations



## Some projects and strategies...

Workshops with schools on sustainable mobility



*tutta mia la città*

LABORATORI E ATTIVITÀ PER BAMBINI DELLE SCUOLE PRIMARIE  
sulla mobilità urbana e i temi ad essa collegata

## Some projects and strategies...

Learning about sustainable mobility:  
**get out of school... and let's color the neighbourhood!**





## Some projects and strategies...

Learning about sustainable mobility:  
**get out of school... and let's distance cars!**





## Some projects and strategies...

### Talking to parents

**easy reggio**  
fatemi strada. adesso tocca a me.

**LABORATORI "OPEN" PER TUTTI I CITTADINI**  
Vari luoghi della città

**DOMENICA 3 MARZO 2013, ORE 10**  
Centro Malaguzzi, Piazzale Europa  
**La moderazione del traffico. Principi, finalità ed esempi.**  
Servizio Politiche per la mobilità, Comune di Reggio Emilia

**Percezione della realtà a 30 e a 50 km/h**  
**Prova Pratica**


**DOMENICA 14 APRILE 2013, ORE 10.45**  
Biblioteca Panizzi  
**Il movimento quotidiano**  
Conversazione con la dott.ssa Claudia Spaggiari, Pediatra, sui temi della mobilità, dell'autonomia e della salute dei bambini.

**Carta di identità della bicicletta**  
Impariamo a conoscere il nostro mezzo di trasporto e costruiamo insieme il suo documento pop-up  
Laboratorio per bambini da 7 a 10 anni  
In collaborazione con Tuttinbici-Fiab

**DOMENICA 21 APRILE 2013, ORE 10**  
**Piazza San Prospero**

**Laboratori di manutenzione della bicicletta:**  
impariamo a tenere in ordine il nostro mezzo  
manutenzione per catena - freni - luci.  
Laboratorio da 0 a 99 anni.

In collaborazione con Tuttinbici-Fiab

 **DOMENICA 12 MAGGIO 2013, ORE 15**  
**Piazza Fontanesi**  
**BIMBIBICI.**  
Pedalata cittadina per bambini e famiglie.

Servizio Politiche per la Mobilità Istituto Comprensivo "Kennedy"  
In collaborazione con  
Consorzio Area Ovest

**Ciclo di incontri**

**"GENITORI SI DIVENTA"**

**martedì 16 marzo 2010 - ore 20.45**  
scuola primaria "Leopardi" - via Kennedy, 20

**"Muoviamoci bene"**  
Interverranno  
dott. Gianni Bartoli, pediatra FIMP - il movimento quotidiano: non solo palestra e piscina ma anche percorso casa-scuola  
Mila Davoli, pedagoga e Tiziana Manticelli, servizio Scuole del Comune di RE - Imparare con la bicicletta

**martedì 13 aprile 2010 - ore 20.45**  
scuola primaria "Leopardi" - via Kennedy, 20

**"Muoviamoci sicuri"**  
Interverranno  
arch. Alessandro Mezzato, dirigente servizio Politiche per la Mobilità del Comune di RE - La moderazione del traffico: caratteristiche e finalità  
Gianfranco Fantini, associazione "Tuttinbici-Fiab - il progetto Scuola"

PER INFORMAZIONI:  
Comune di Reggio Emilia - Servizio per la Mobilità  
tel. 0522 454 038 o 04 51 91  
Email: info@serviziocivili.comune.reggioemilia.it

# Some projects and strategies...

## Communication

### Manual for children



Availability of pediatricians to talk to parents

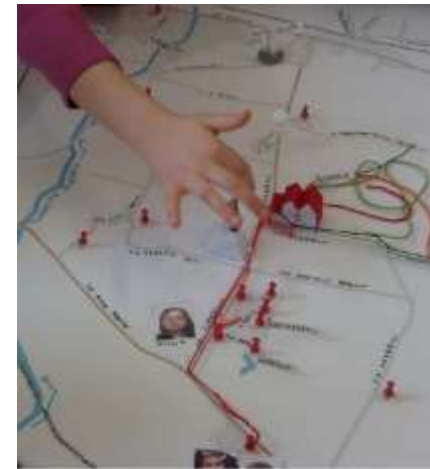
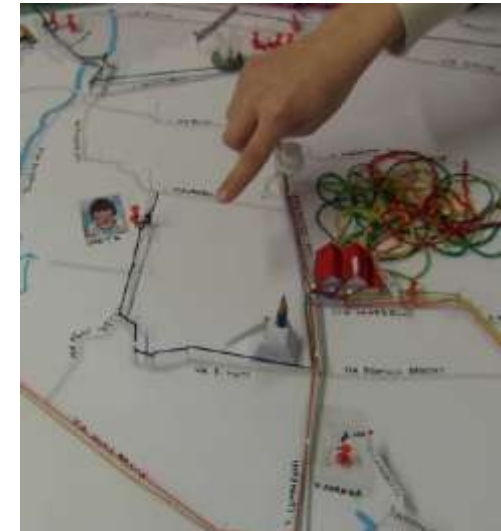
### Bici-bus guidelines

### Initiatives involving schools

## Results

### •The main results of the implementation of the Manifesto are:

- Over 500 children go to school by “**bici-bus**”
- 60% of children go to school in a **sustainable** way (*by foot, bicycle, public transport or car pooling*)
- Network of 51 **School Mobility Managers** for 54 schools
- “**Safe Home-to-School**” project: national government fundings for 10 projects of traffic calming in home-to-school routes and for the promotion of sustainable mobility in schools



# Thank you for attention!



**Alessandro Meggiato**

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