

The experience of Milan AreaC

LEZ Workshop December 2014

Mexico City

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Milan

Milan – few key indicators



Milan – few key indicators

Area: 181.76 km²

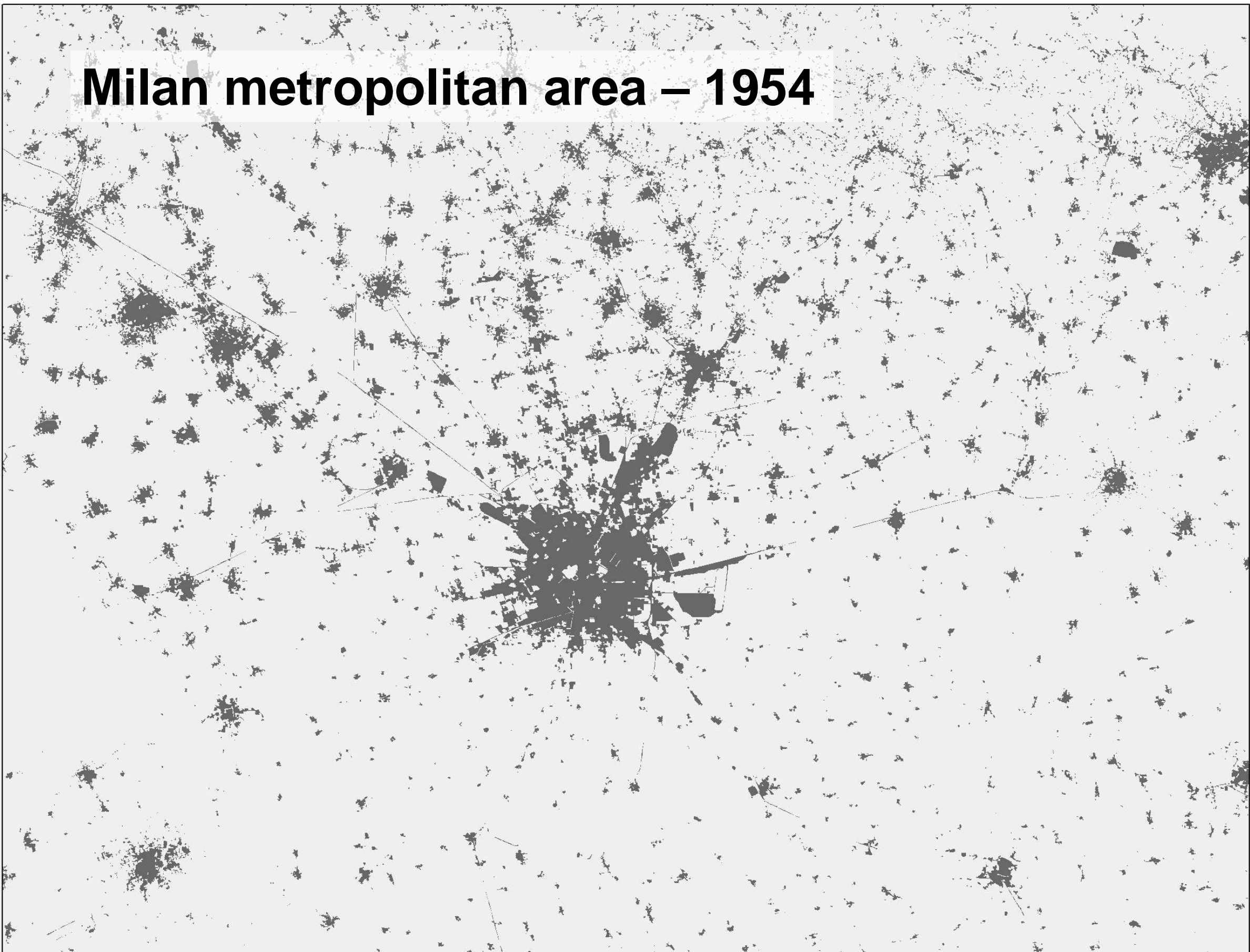
Inhabitants: 1.345.890

Population density: 7.404 people/km²

GDP per capita 37.000 €
about 50% higher than
the national average



Milan metropolitan area – 1954



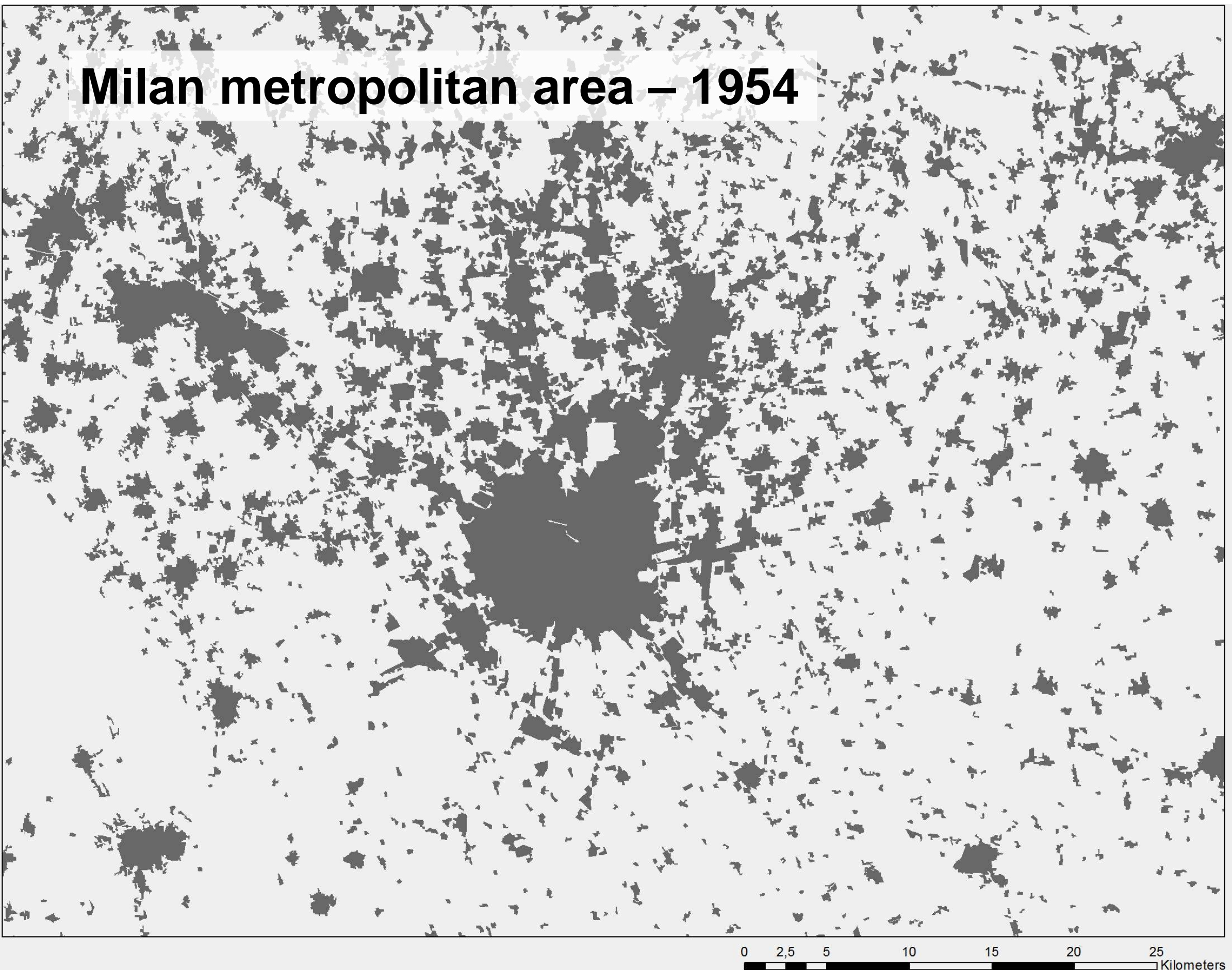
Legend

1954 DESCRIZION

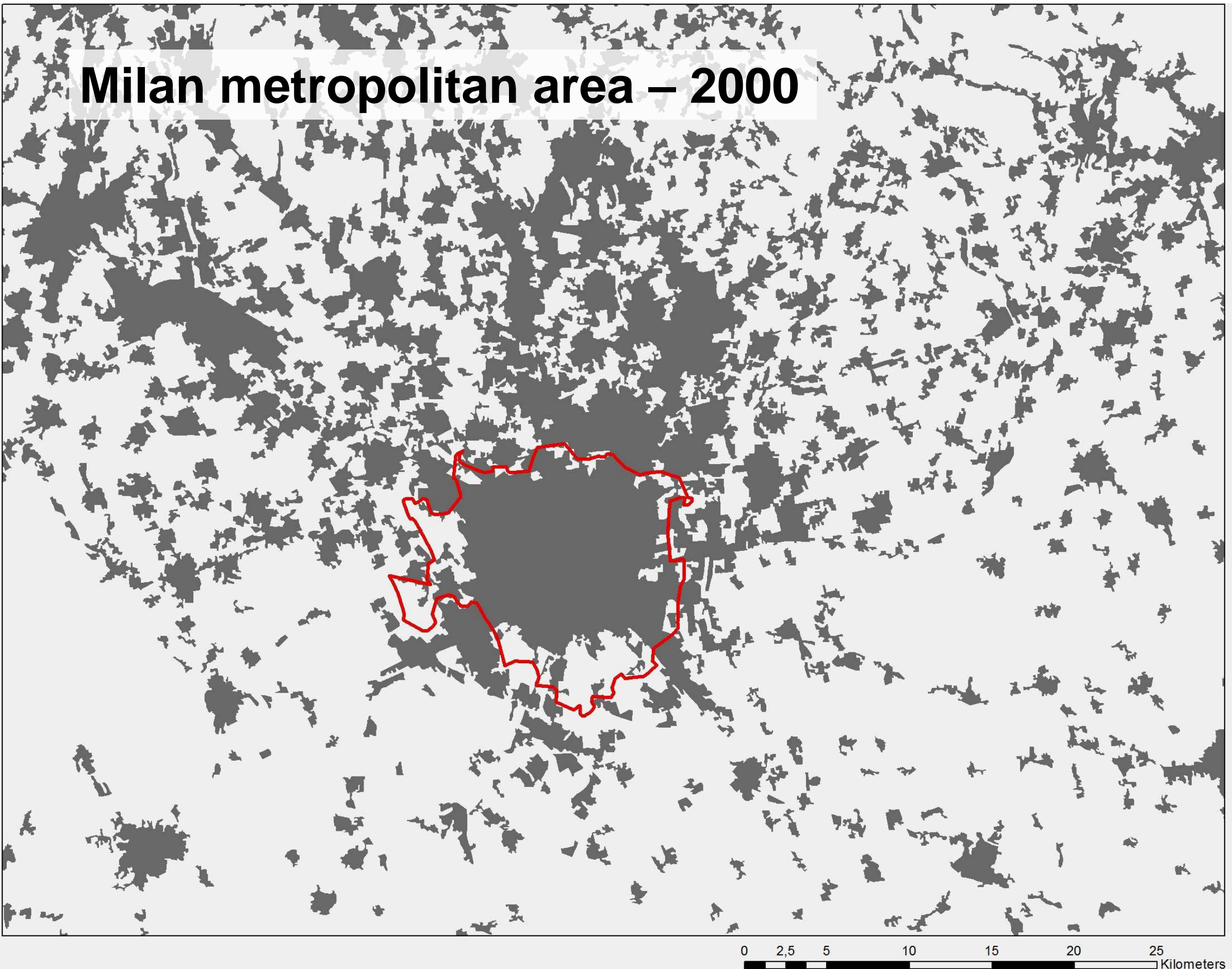
- Inselementi industriali, artigianali, commerciali e agricoli con spazi
- Impianti tecnologici
- Reti stradali e spazi accessori
- Reti ferroviarie e spazi accessori
- Reti stradali, ferroviarie e spazi
- Cimiteri
- Aree degradate non utilizzate e non vegetate
- Aree militari o litate
- Inselementi di grandi impianti di servizi pubblici e privati
- Aeroporti ed elporti
- Inselementi industriali, artigianali, commerciali
- Impianti di servizi pubblici e privati
- Tessuto residenziale continuo medio-densamente denso
- Tessuto residenziale denso
- Tessuto residenziale discontinuo
- Tessuto residenziale rado e nucleiforme
- Tessuto residenziale sparso

0 2,5 5 10 15 20 25 Kilometers

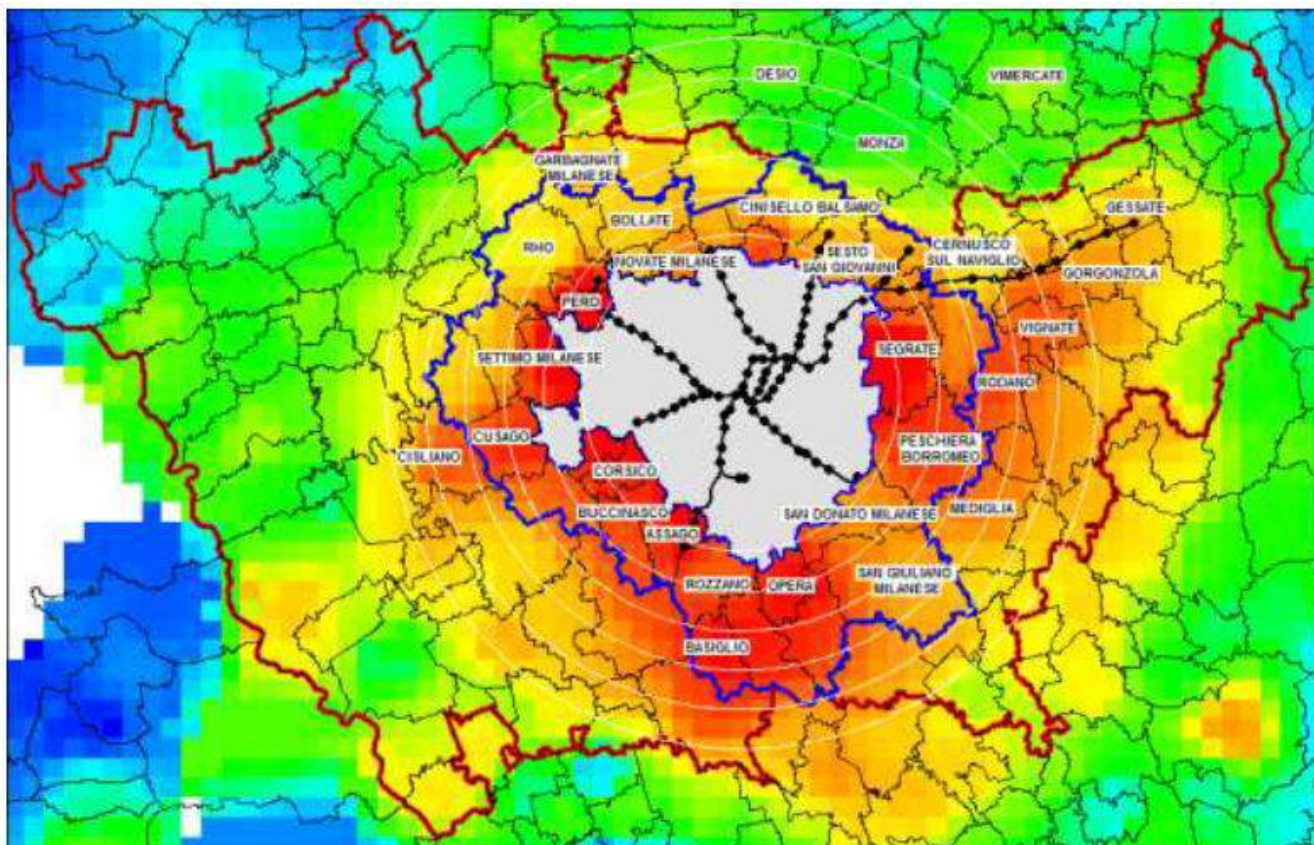
Milan metropolitan area – 1954



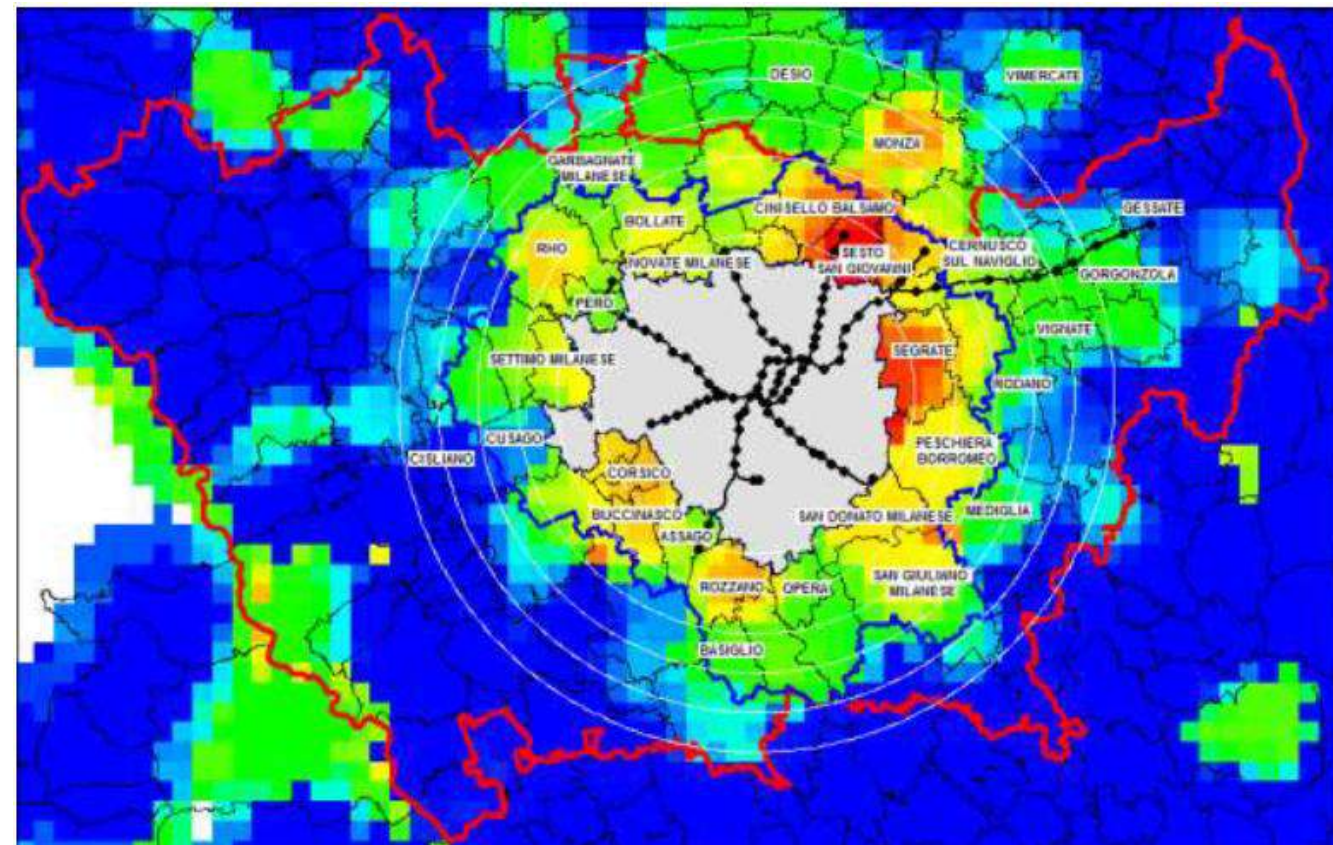
Milan metropolitan area – 2000



Milan trip structure



Milan metropolitan area attraction



Milan metropolitan area generation

Milan trip structure

Overall Milan mobility (Trips per day)
5,279,000

3,044,000
58%

2,235,000
42%

Legend
2000
CODE_00

	111
	112
	121
	122
	124
	131
	132
	133
	141
	142

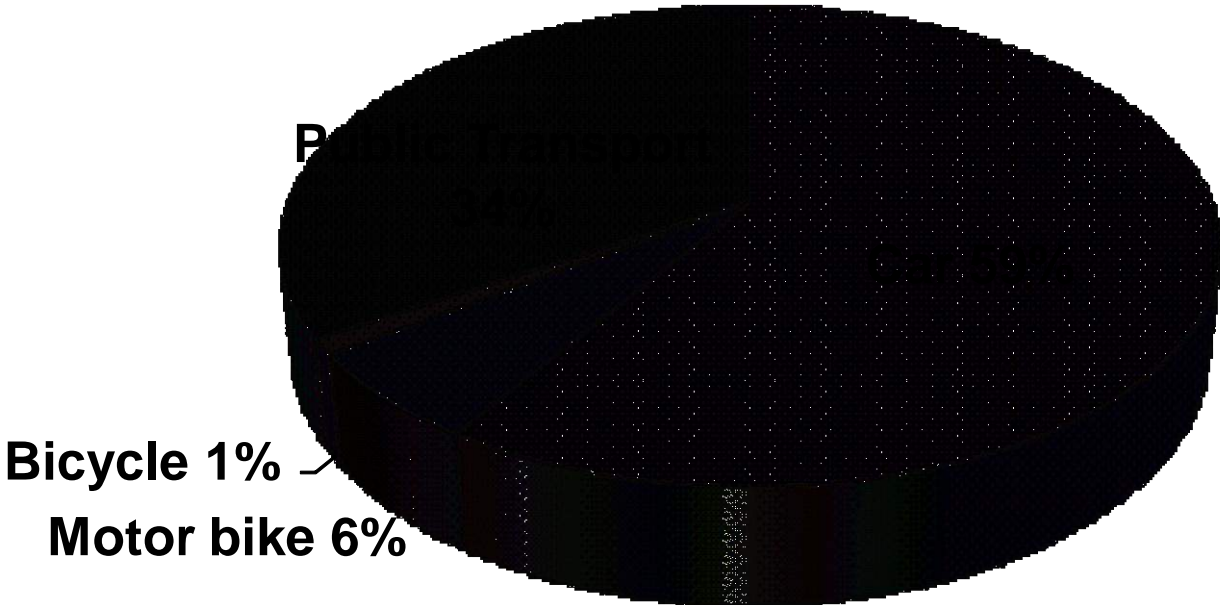
0 2,5 5 10 15 20 25 Kilometers

Milan public transport network

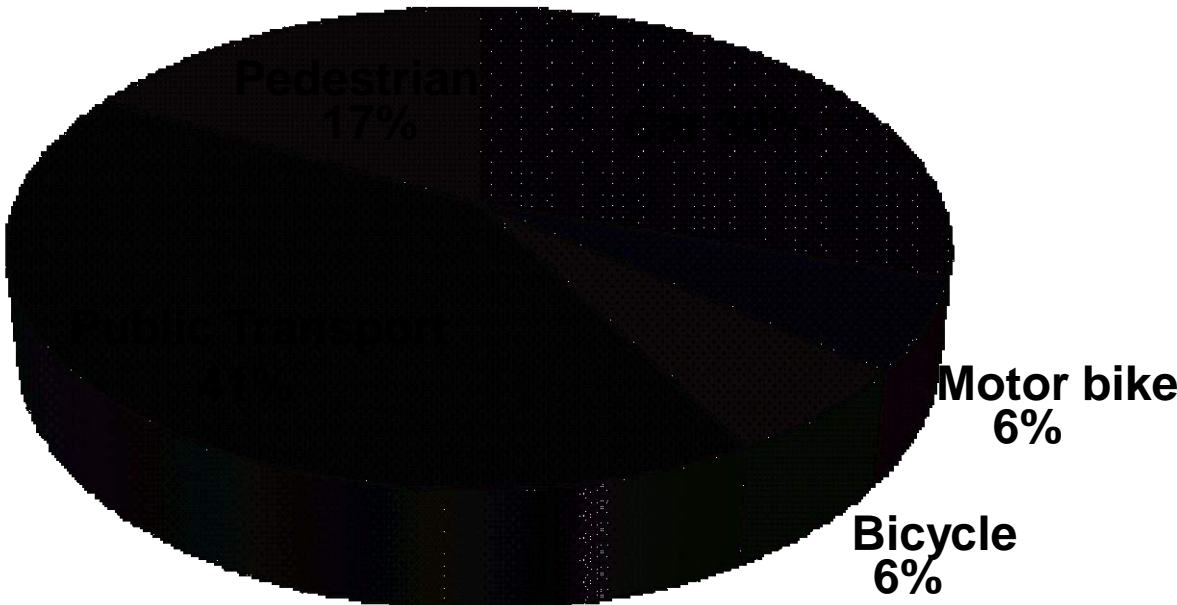


Milan modal share

Travel between Milan and the metropolitan area



Internal Milan boundary trips



Milan is one of city with the highest car concentration in the world, a high level of car dependence that as curbed - though pollution and congestion – the quality of living in the past decades

Within the city boundary the car ownership equal to **550 cars per 1000 inhabitants** whereas on the metropolitan area it grows to **650 cars per 1000 inhabitants**

With new Milan Mayor the city has begun to deploy a strong and consistent set of policies towards sustainable mobility

from Ecopass to AreaC

From ECOPass to AreaC



From ECOpass to AreaC*

Pollution emergency

2001 – 2006	Albertini (right party)	Discussion about the road pricing ticket to access the city centre
2006 - 2008	Moratti (right party)	Ecopass in the making
1/2008		Ecopass Implemented
2009-2011		Ecopass in question

5-6/2011	Pisapia (left party)	Mayor election and <u>referendum</u>
1/2012 present		AreaC implemented

Sustainable mobility

*

Milan Pollution charge – Sustainable transport and the politics of evidence

Mario Boffi, Matteo Colleoni e Giulio Mattioli

Universita di Sociologia La Bicocca Milano

Decreasing vehicular access to the Area C:

- Decreasing traffic congestion
- Improving public transport speed
- Decreasing the occupation of on-street parking
- Reducing road accidents
- **Reducing pollutant emissions caused by traffic**
- Reducing health risks related to air pollution
- Increasing the share of sustainable modes of travel
- Improving urban center quality and attractiveness
- Raising funds for sustainable mobility services and infrastructures

*

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Referendum - the reason for the acceptance*

- Part of 5 questions all about sustainable mobility
- The referendum was imbedded in a national consultation
- At the peak of political change with the arrival of a left wing council
- A small area compared to Stockholm and London
- The main issue appeared to be once again the pollution “emergency”

Once the policy was applied the measure has disappeared from the political debate

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Milan Pollution charge – Sustainable transport and the politics of evidence

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AreaC

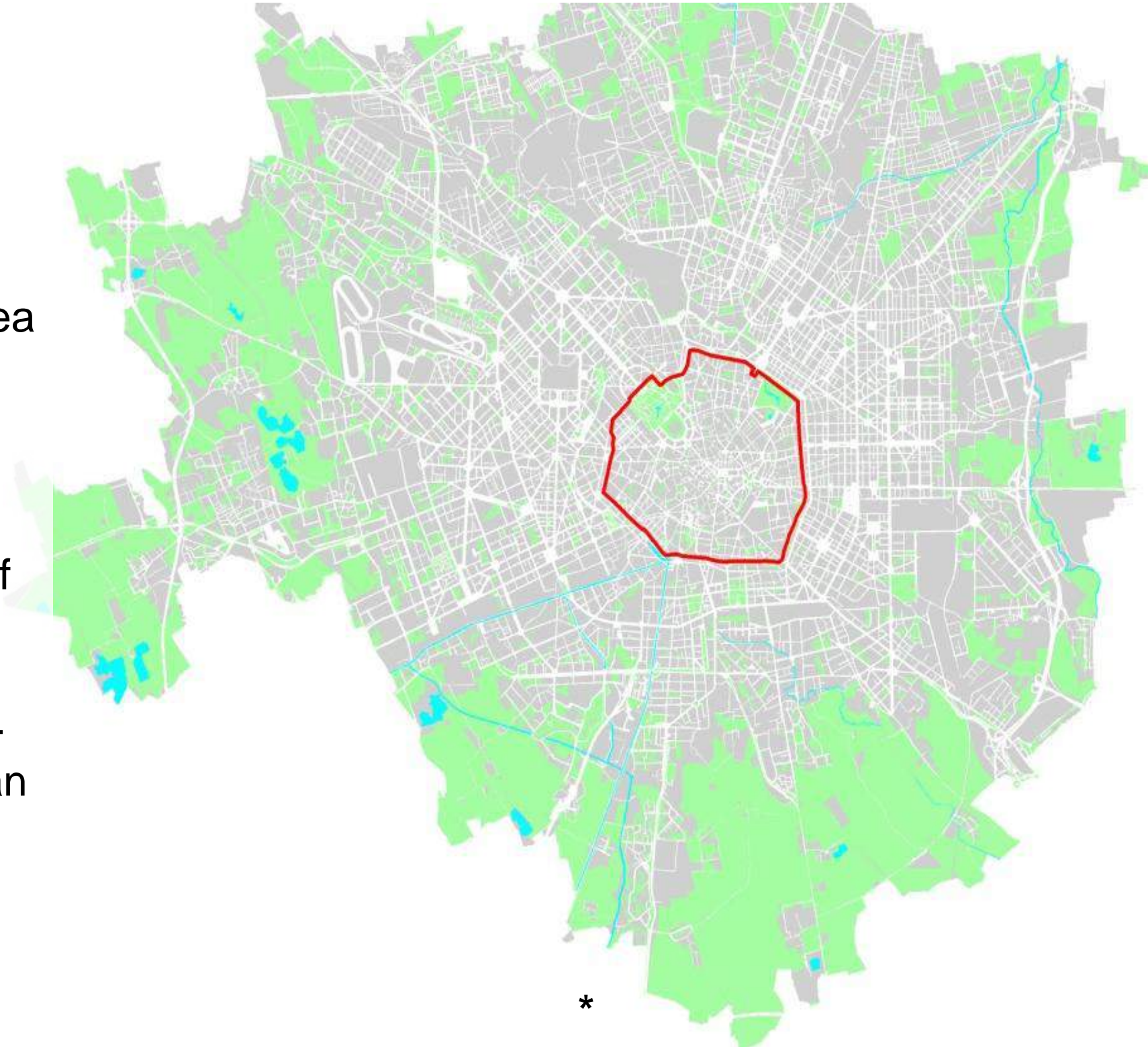
The congestion charge area*

The area is of about 8.2 km
4.5% of the whole Milan
extension

The population living in the area
is 77.950 about 6% of the
overall population

About number of employees
equal to 295.704 about 37% of
the whole Milan workforce

The outstanding commercial -
approx 30% of the overall Milan
supply generates very high
density of city users



*

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Milano Agency for Mobility, Environment and Territory

Modal share in the congestion charge area*

Although the modal share of the congestion charge area was already low compared to the city average the great attractiveness generated an overall 120.000 car access per day.

Modal split	Non Residents mobility in the LTZ Cerchia dei Bastioni
	%
Pedestrian	5,4%
Bycicle	3,4%
Public Transport	64,6%
Taxi	0,7%
Motorcycle	6,4%
Car	19,5%

*

*

Milano Agency for Mobility, Environment and Territory





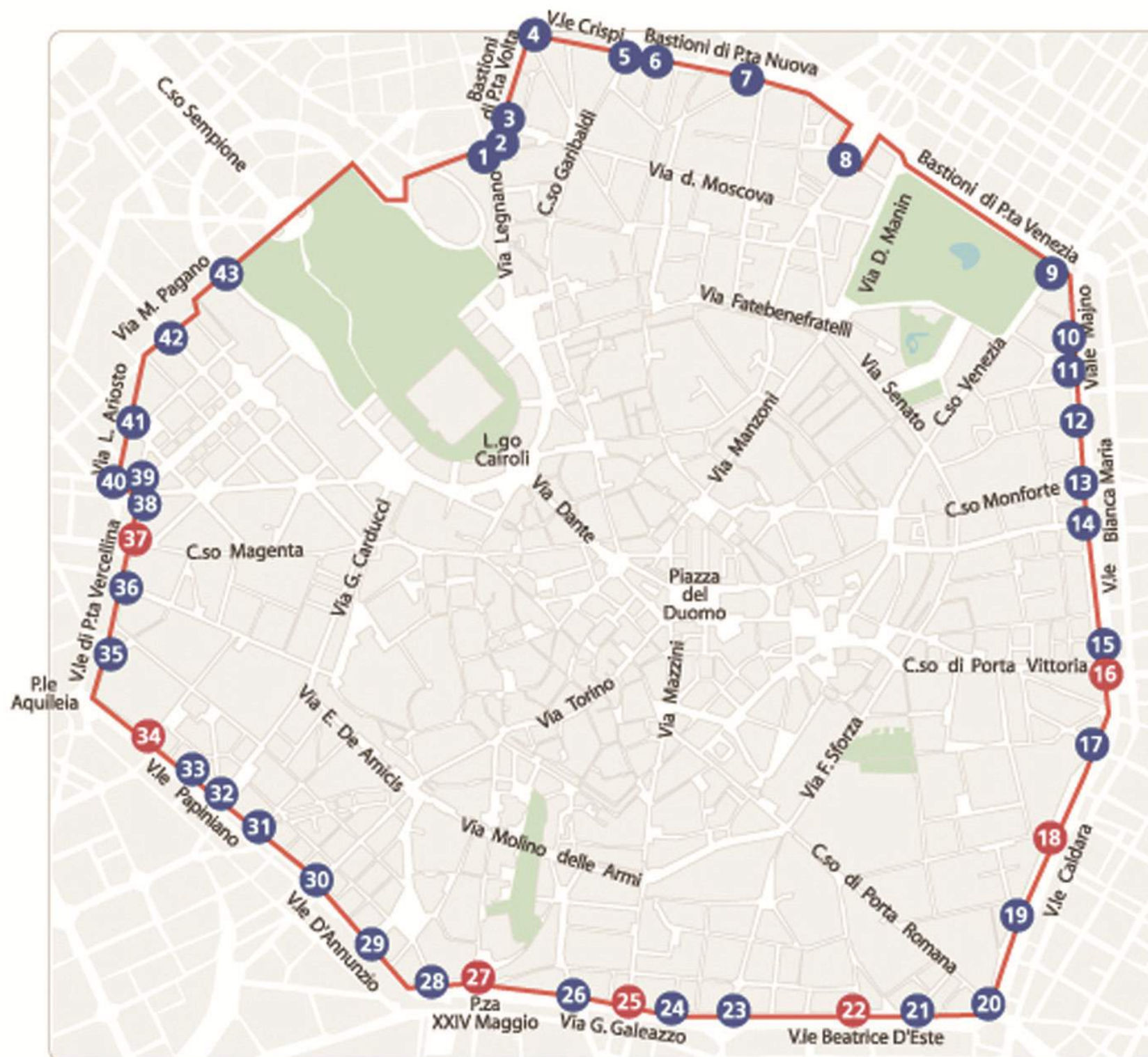
I varchi della Cerchia dei Bastioni



Integrated IR illuminator



Context (CTX) camera

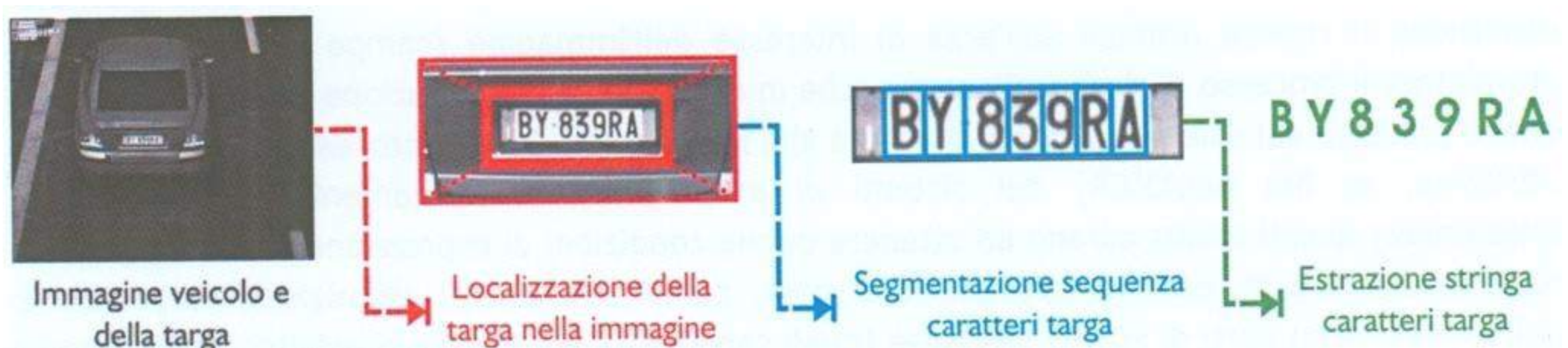


Legenda

● varchi riservati ai mezzi pubblici

Area C non consente

l'uso delle corsie riservate



IR camera
with OCR

Context (CTX)
camera

LAZMS WEB SYSTEM - Windows Internet Explorer

http://172.25.1.14/LAZMS_WEB2/modules/ZTL/frnTransitiVisualizzaFrame.aspx

LAZMS WEB SYSTEM

S.R.I. WEB SYSTEM

venerdì 7 marzo 2008

Project Automation

(MI) PZONE

Visualizza Transiti

Operatore: Marco Didoni (zz)

E' stato selezionato il Varco con nome: "Varco - PORTA VENEZIA" Periodo dal: 07/03/2008 ora: 09:00:00, al: 08/03/2008 ora: 00:00:00

Varco	Data	Ora	OBUE	Targa	Verificata	ADI	Categoria
PORTA VENEZIA	07/03/2008	09.00.00	N/A	DC367PT	<input checked="" type="checkbox"/>	0	-
PORTA VENEZIA	07/03/2008	09.00.03	N/A	CZ337RC	<input type="checkbox"/>	0	-
PORTA VENEZIA	07/03/2008	09.00.06	N/A	DK619DE	<input type="checkbox"/>	0	-
PORTA VENEZIA	07/03/2008	09.00.08	N/A	CK407VD	<input type="checkbox"/>	0	-
PORTA VENEZIA	07/03/2008	09.00.09	N/A	DJ728JT	<input type="checkbox"/>	0	-
PORTA VENEZIA	07/03/2008	09.00.12	N/A	AE895GR	<input type="checkbox"/>	0	-
PORTA VENEZIA	07/03/2008	09.00.14	N/A	CV023LJ	<input type="checkbox"/>	0	-
PORTA VENEZIA	07/03/2008	09.00.17	N/A	DG124JB	<input type="checkbox"/>	0	-
PORTA VENEZIA	07/03/2008	09.00.17	N/A	BS856DC	<input type="checkbox"/>	0	-
PORTA VENEZIA	07/03/2008	09.00.18	N/A	CZ380DH	<input type="checkbox"/>	0	-

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 ...

Chiudi Esporta

Internet 100%

List of transits

Mobility results*

Traffic reduction, about 30% less vehicle accessing Area C (36.700 less vehicle access)

Reduction in car accident of 23.8%

Increase in public transport commercial speed during peak hour (+6,9 for buses and +4.1 for tram)

Increase in public transpor users +12% on surface PT +17% for underground

10% decrement in parking occupation

*

*

Milano Agency for Mobility, Environment and Territory

Mobility results*

Less pollutant vehicles – 49% (-2.400 pollutant vehicles entering every day the AreaC)

More cleaner vehicles +6,1% (from 9,6 to 16.6 of the total vehicles)

Low emission of pollutants:

Total PM10 -18%; Exhaust PM10 -10%; Ammonia -42C%; Nitrogen Oxides -18%; Carbon Dioxide -35%

Less Black Carbon (BC)

-52% (Sept) and -32% (Oct) of the BC concentration in Area C compared to the stations outside

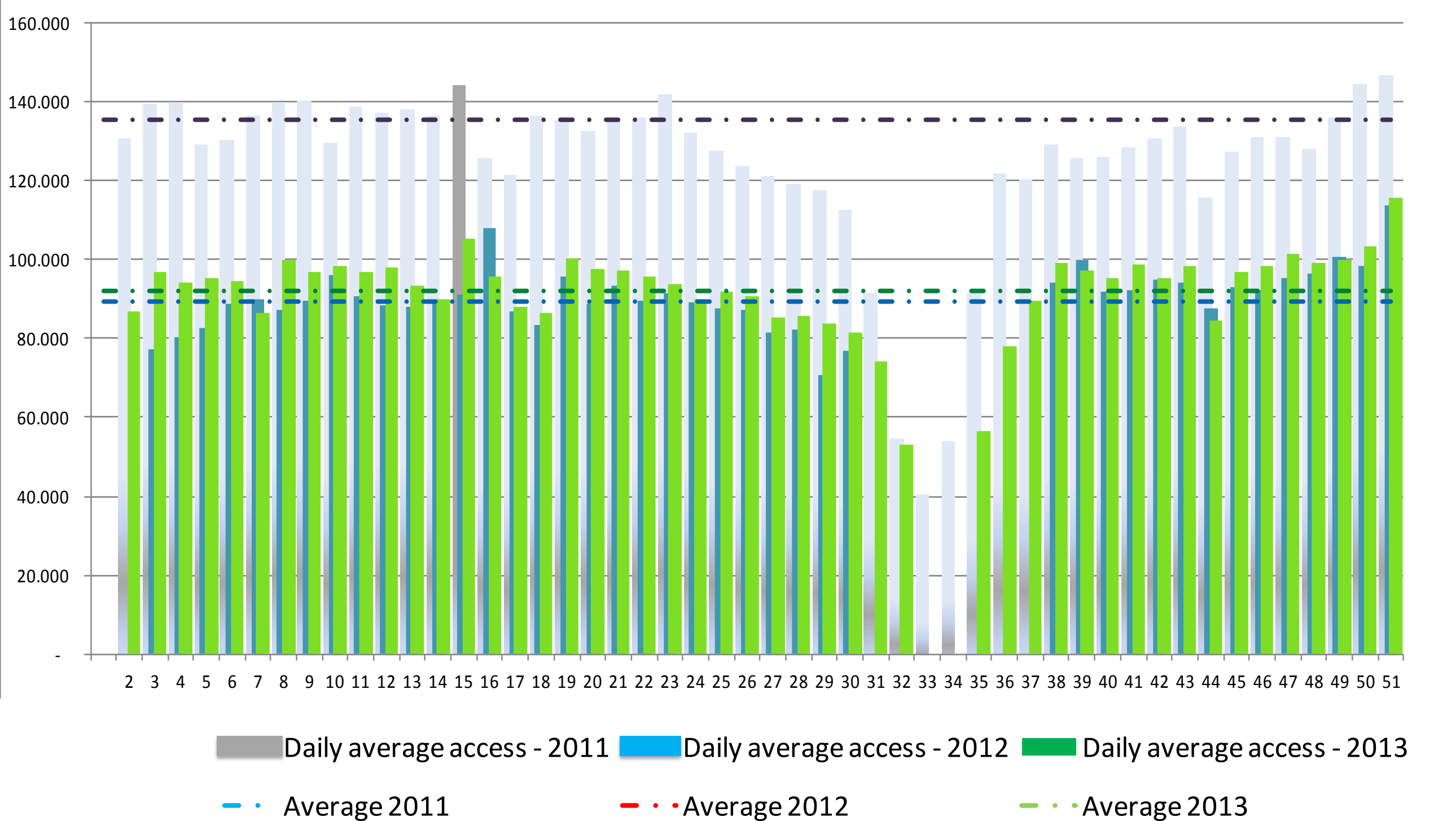
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Daily entrances, weekly average

(Area C compared to Ecopass, the previous pollution scheme)

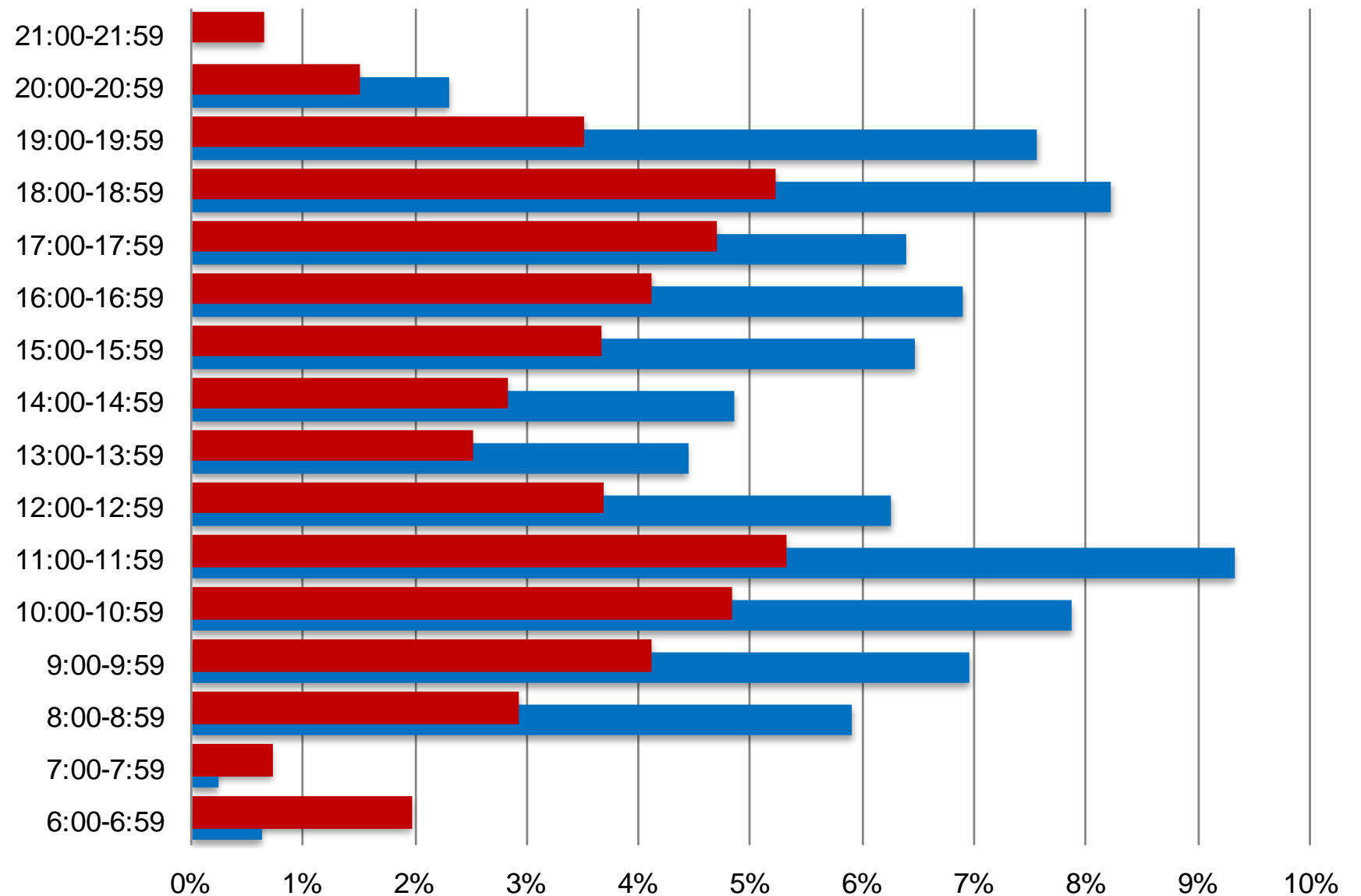


Milan – AREA C: Increase of public transport speed

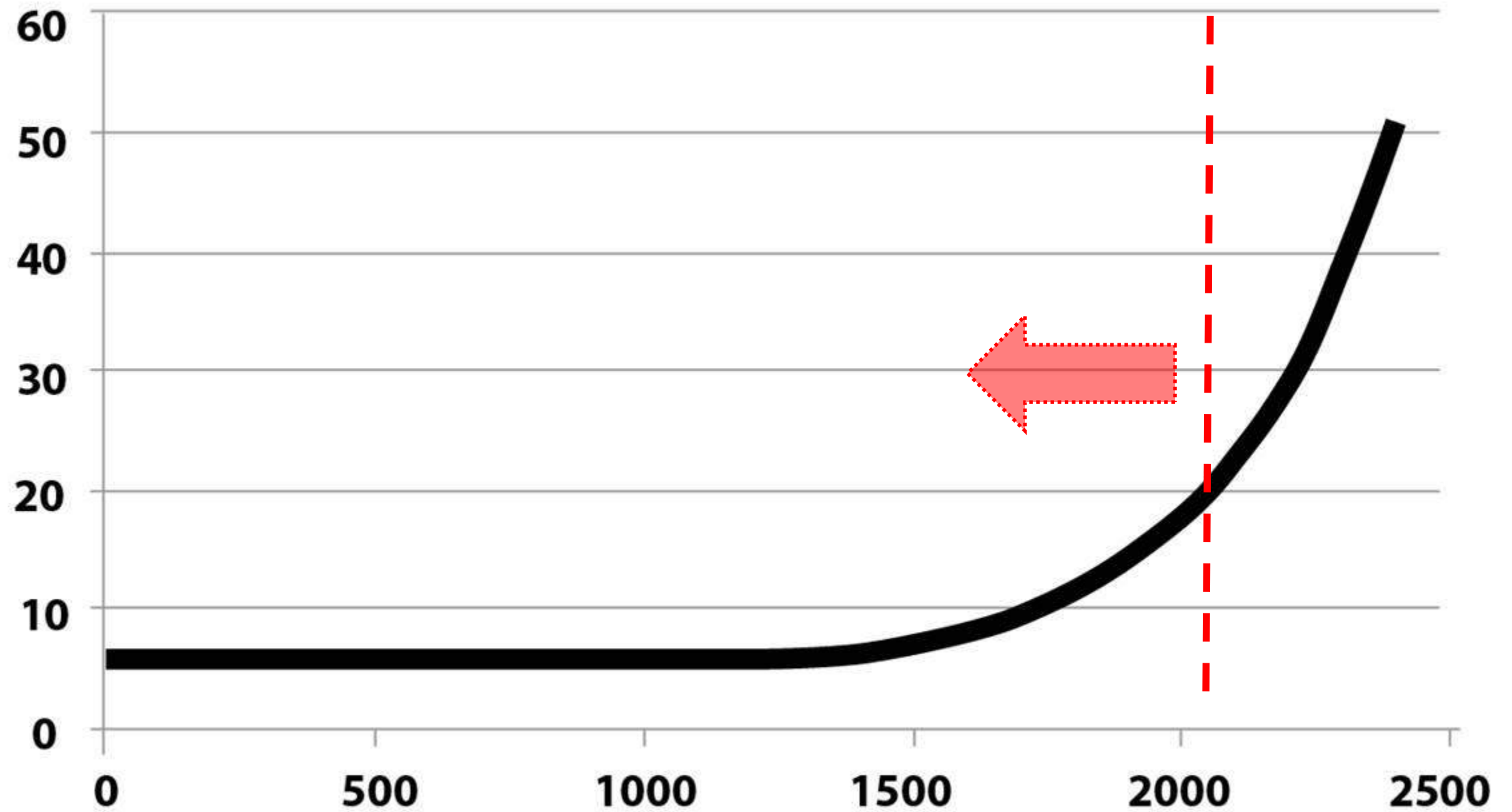
(during peak hours: +6,9% for buses and +4,1% for tram)

Hourly average
increase
commercial speed
of Local Public
Transport inside
Area C compared
with 2011

■ Bus ■ Tram

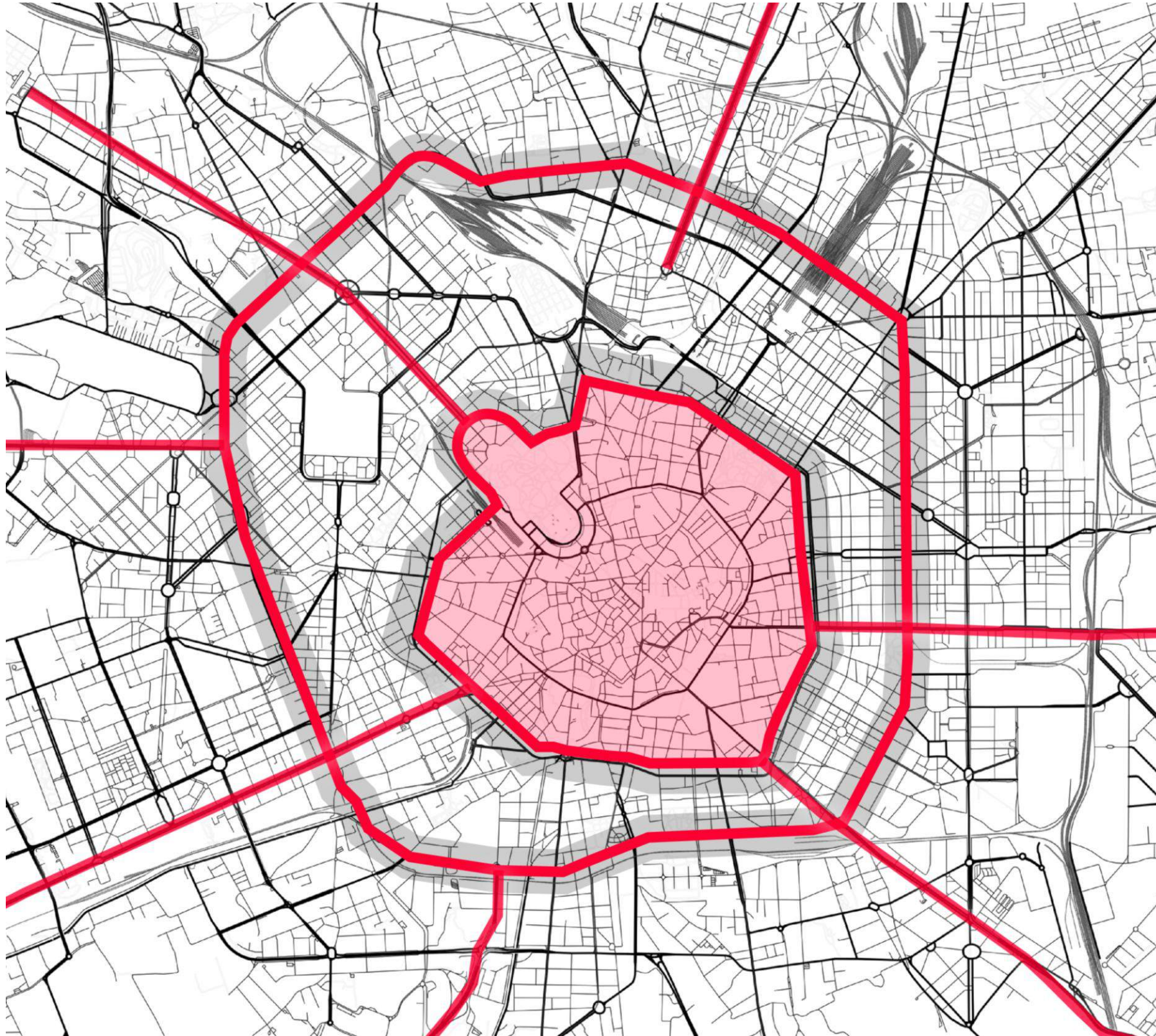


Travel time (*minutes*)

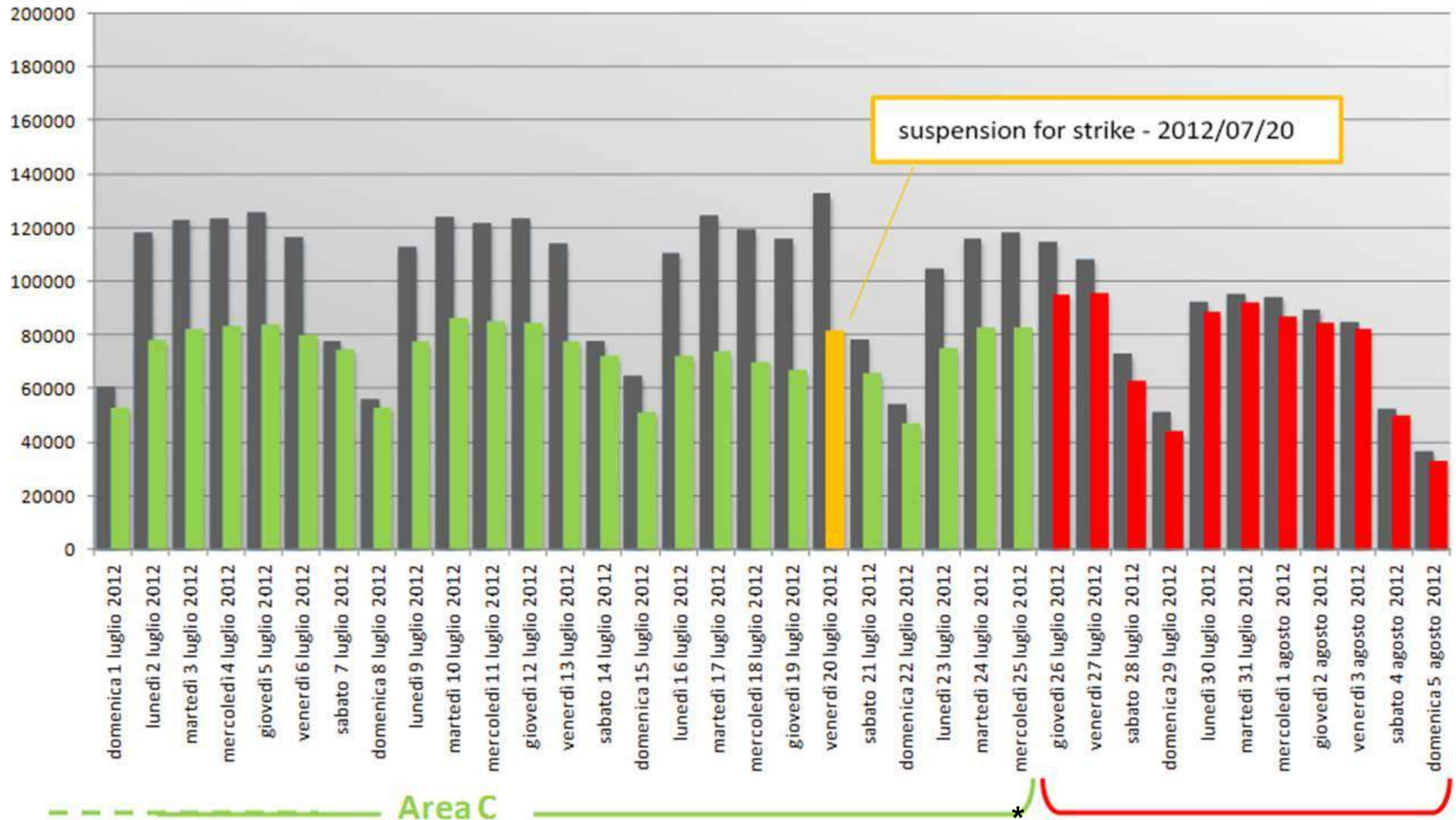


Traffic volume (*incoming veh/hr*)

No impact of travelling speed registered on the internal ring



AreaC suspended*



AREA C: revenues

In 2012 and 2013 all the incomes from Area C have been reinvested in projects for sustainable mobility:

- strengthening of public transport in order to improve its frequency**
- development of 2nd phase of bike-sharing system**

Maintenance costs of the IT management (access control –payment channels) : 6 million;

Ticket revenues 2013 : 23 million (Fines about 30 Milion)