

Stockholm transport – an overview



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The Capital of Scandinavia

Sweden

9.8 million people
410,335 sq kms
22 persons per sq km



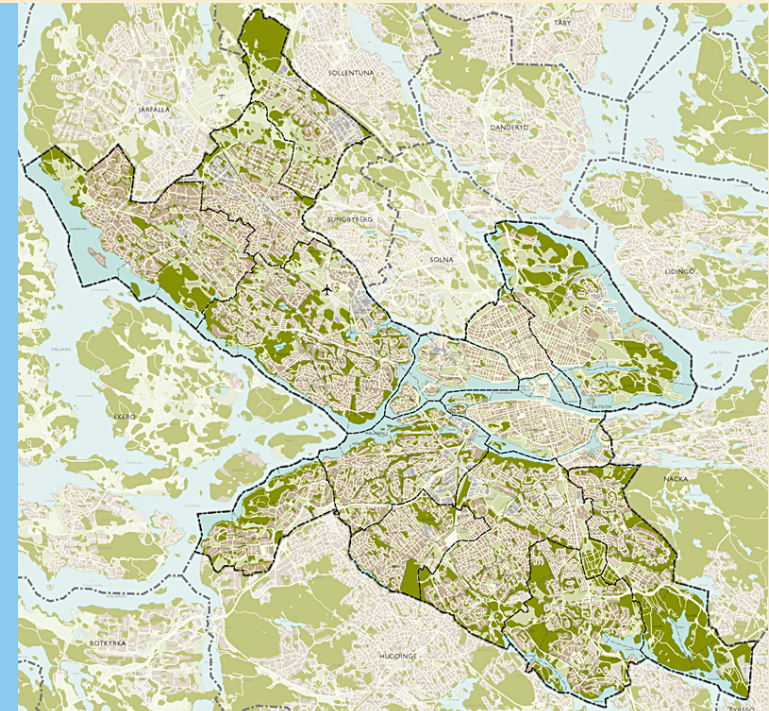
County of Stockholm

2.2 million people
6,519 sq kms
299 persons per sq km



City of Stockholm

920,000 people
188 sq kms
4,300 persons per sq km



South district - 68 sq kms, 3,000 pers per sq km
West district - 83 sq kms, 3,600 pers per sq km
Inner City - 36 sq kms, 8,500 pers per sq km

Transport & infrastructure responsibilities

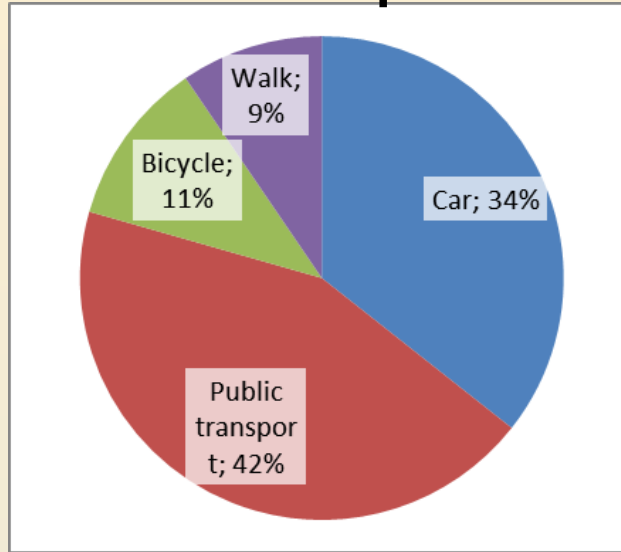
- National government
 - National roads and railways
 - Vehicle tax, fuel tax
 - Income tax and sales tax main revenue sources
- Counties
 - Public transport
 - Income tax
- Cities/municipalities
 - Streets, bicycle lanes, bus lanes, signals, sidewalks...
 - Land use planning, public spaces, parks etc.
 - Parking – charges, supply
 - Income tax

High public transport shares

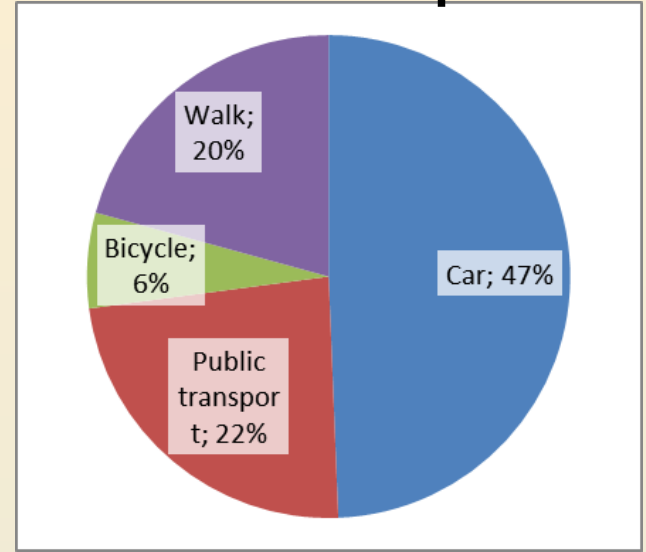
>75% of motorized trips in peak hours to/from inner city

**Stockholm
county**

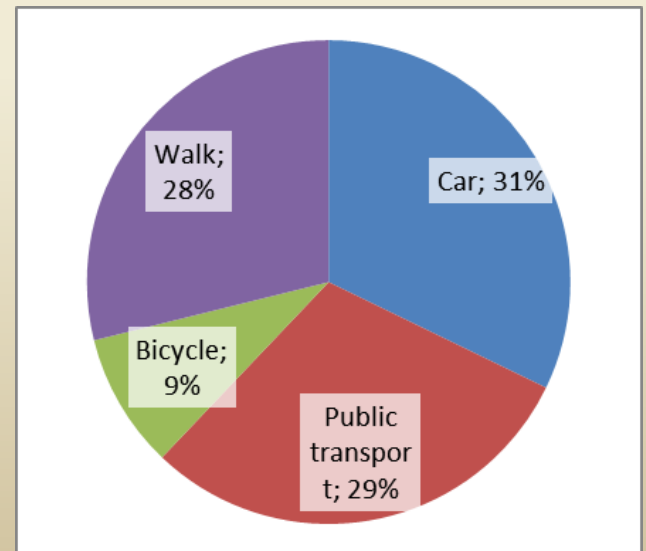
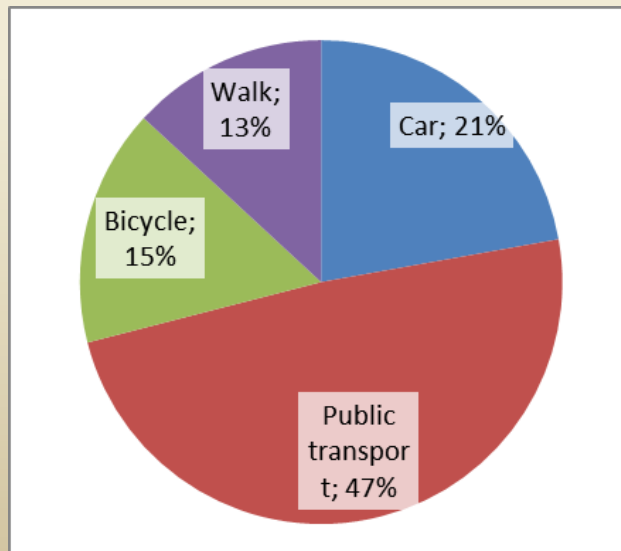
Work trips



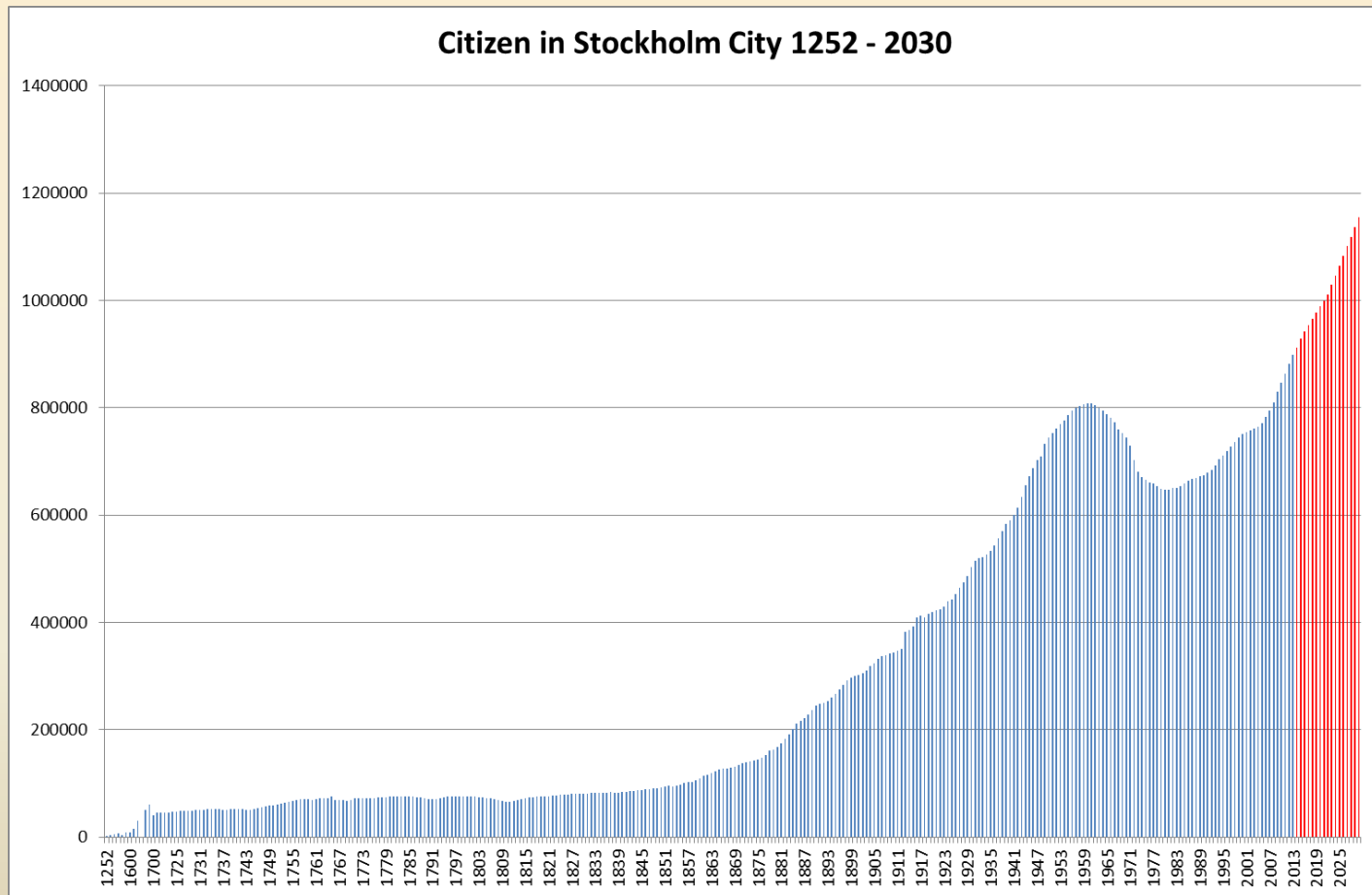
Leisure trips



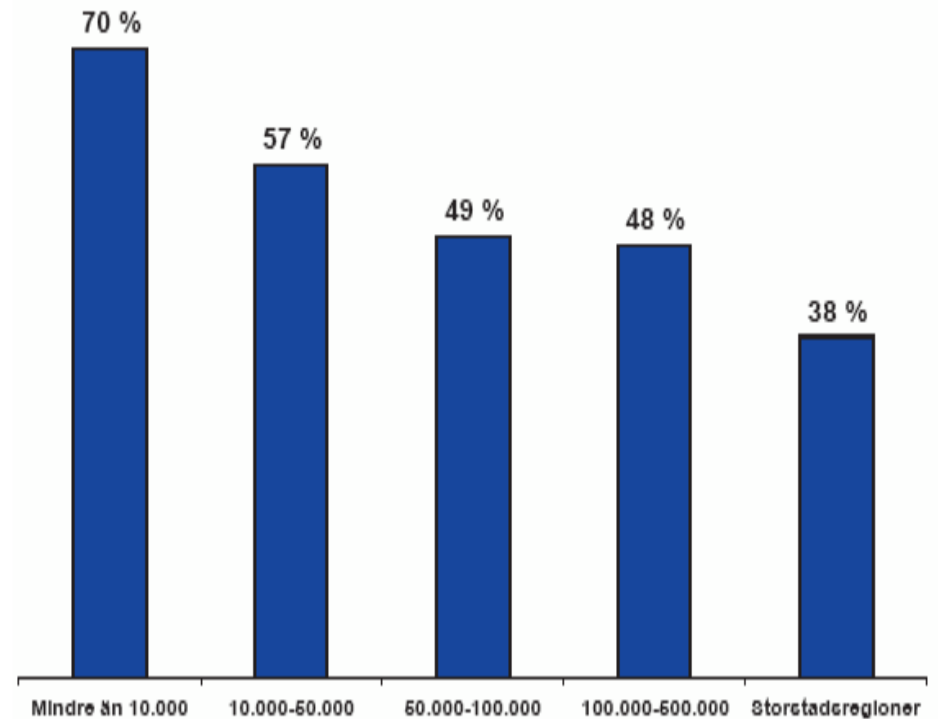
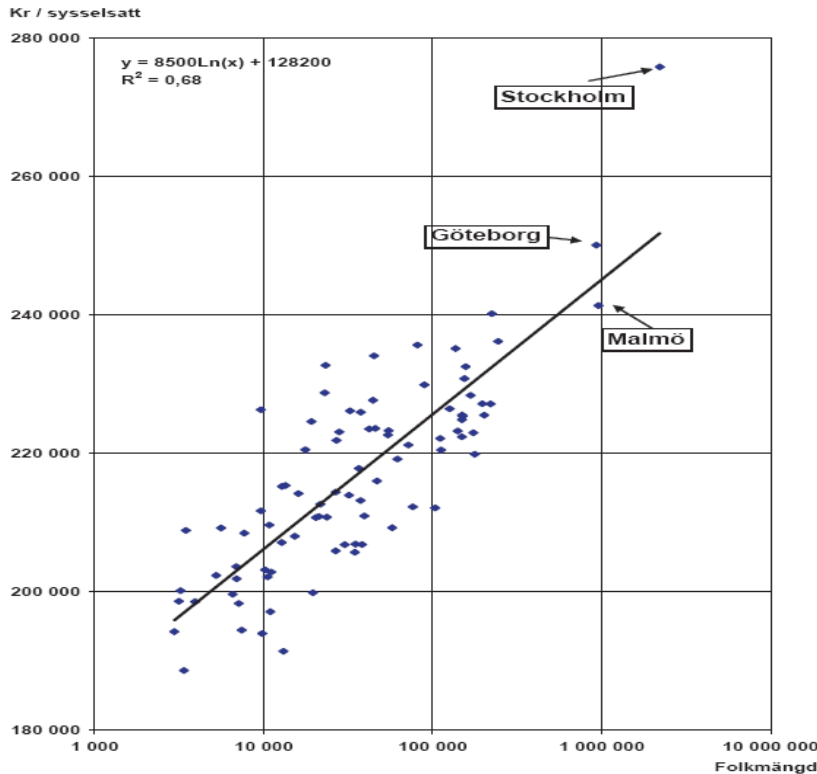
**Stockholm
city**



High population growth



Economics and quality of life drivers of urbanization



Productivity

Transfers/wages ratio

A challenging geography...



Congestion is inevitable

Attractive
public
transport

Restrain car
traffic

4 necessary
principles

Walkability

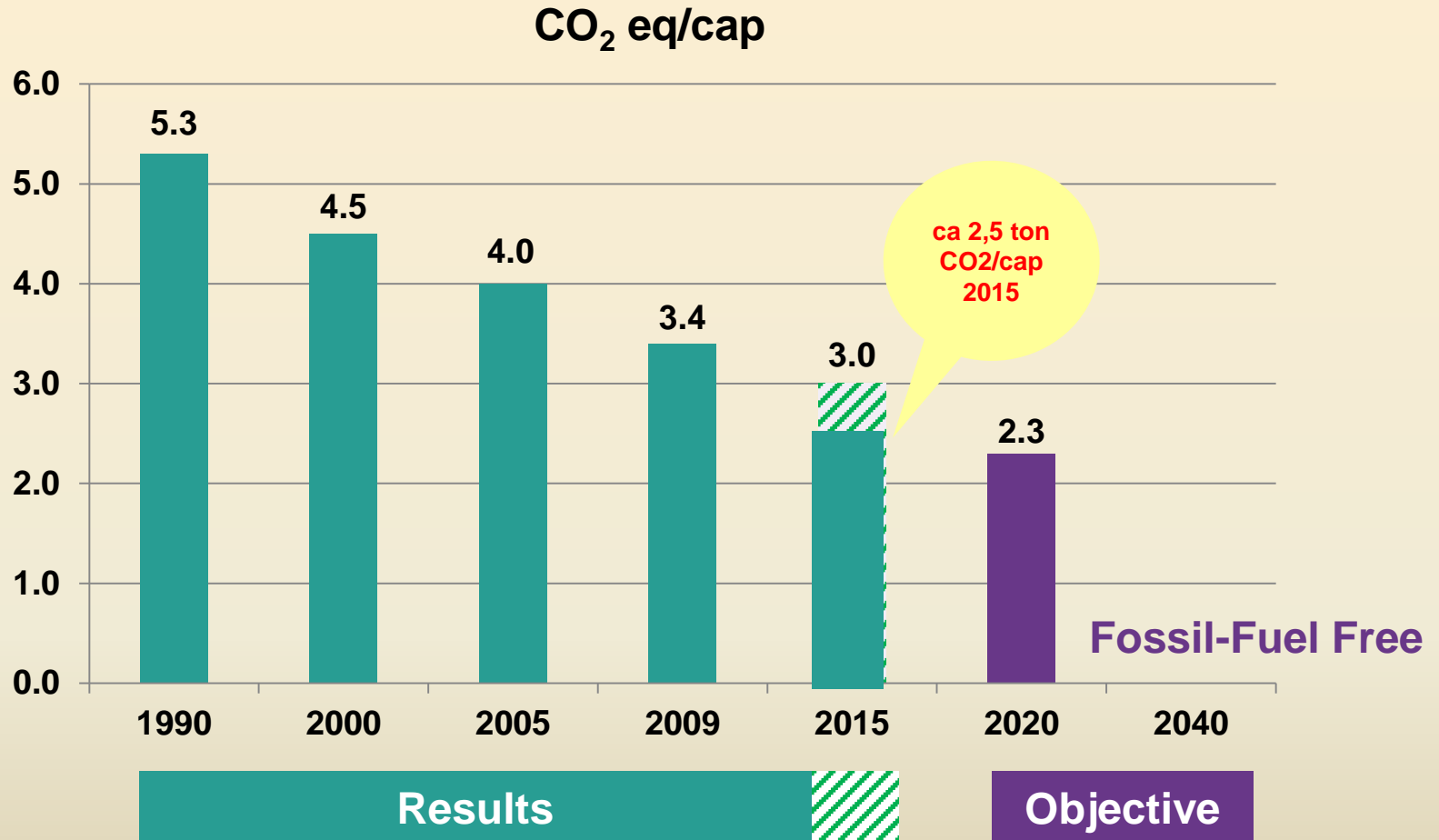
Compact
planning

Urbanization – an effective climate policy: private car km's/person-day

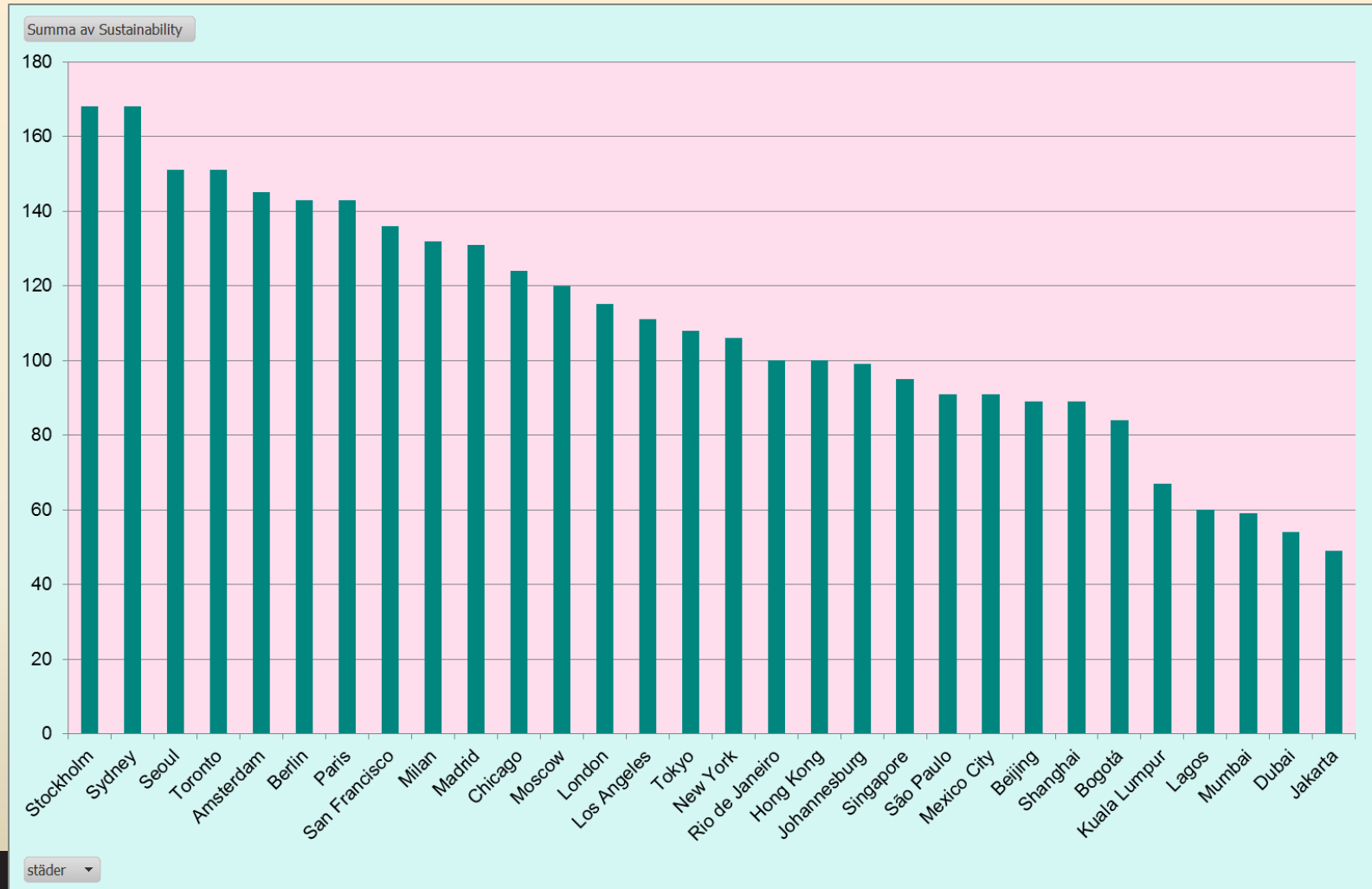
Type of municipality	City area	Rural area
Metropolitan	19	47
Large cities	27	48
"Central" cities > 25 000 inh.	30	48
Suburbs	31	50
"Central" cities 12 000 - 25 000 inh.	33	46
"Central" cities < 12 000 inh.	33	46
Rural	34	44
Satellites	36	50

*Stockholm's most effective way to reduce
Swedish carbon emissions is to
make room for more inhabitants*

Carbon emissions: Objective and results



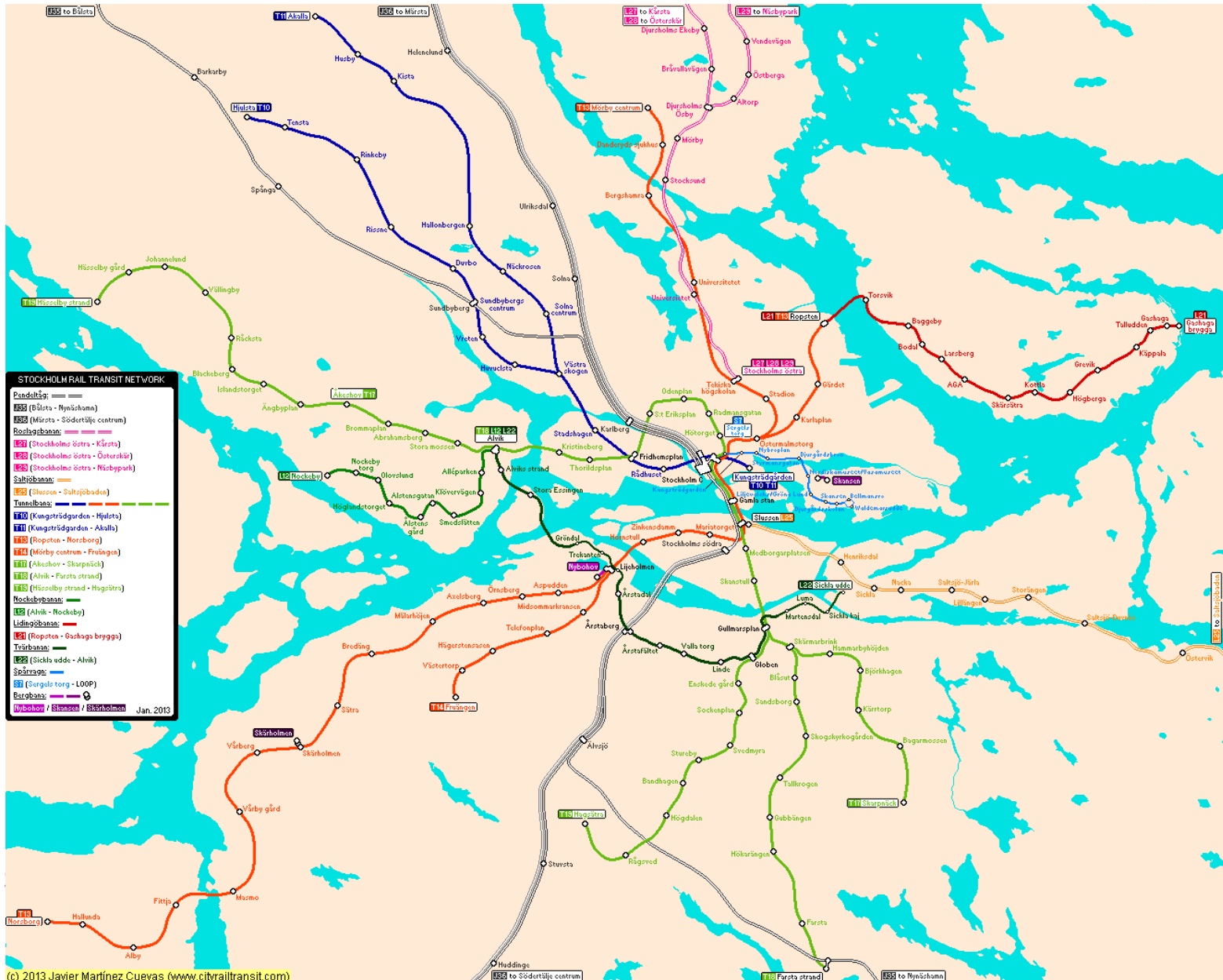
Sustainability ranking by PWC



städer ▾

stad

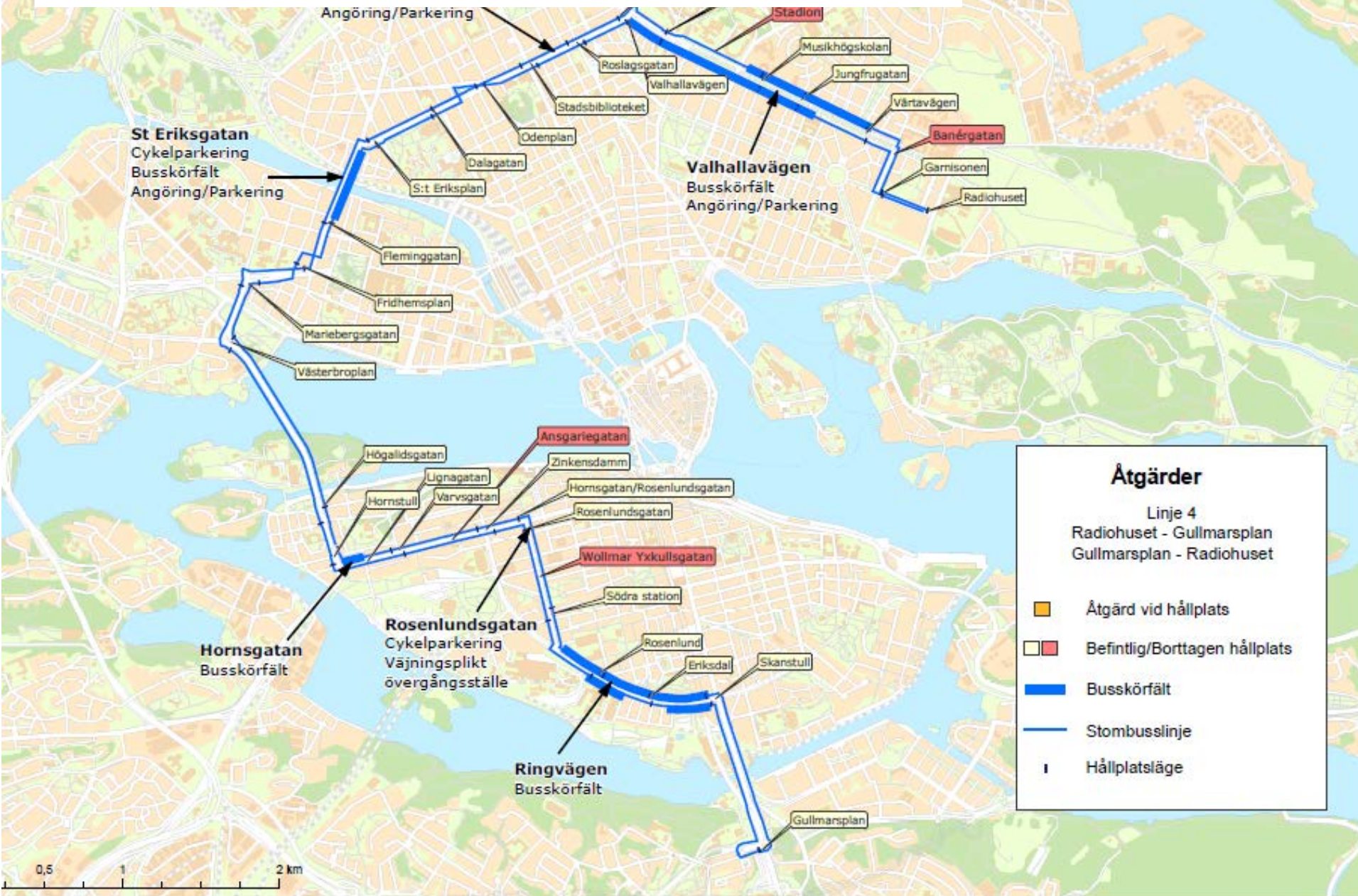
Rail & metro network



Bus speed improvement program

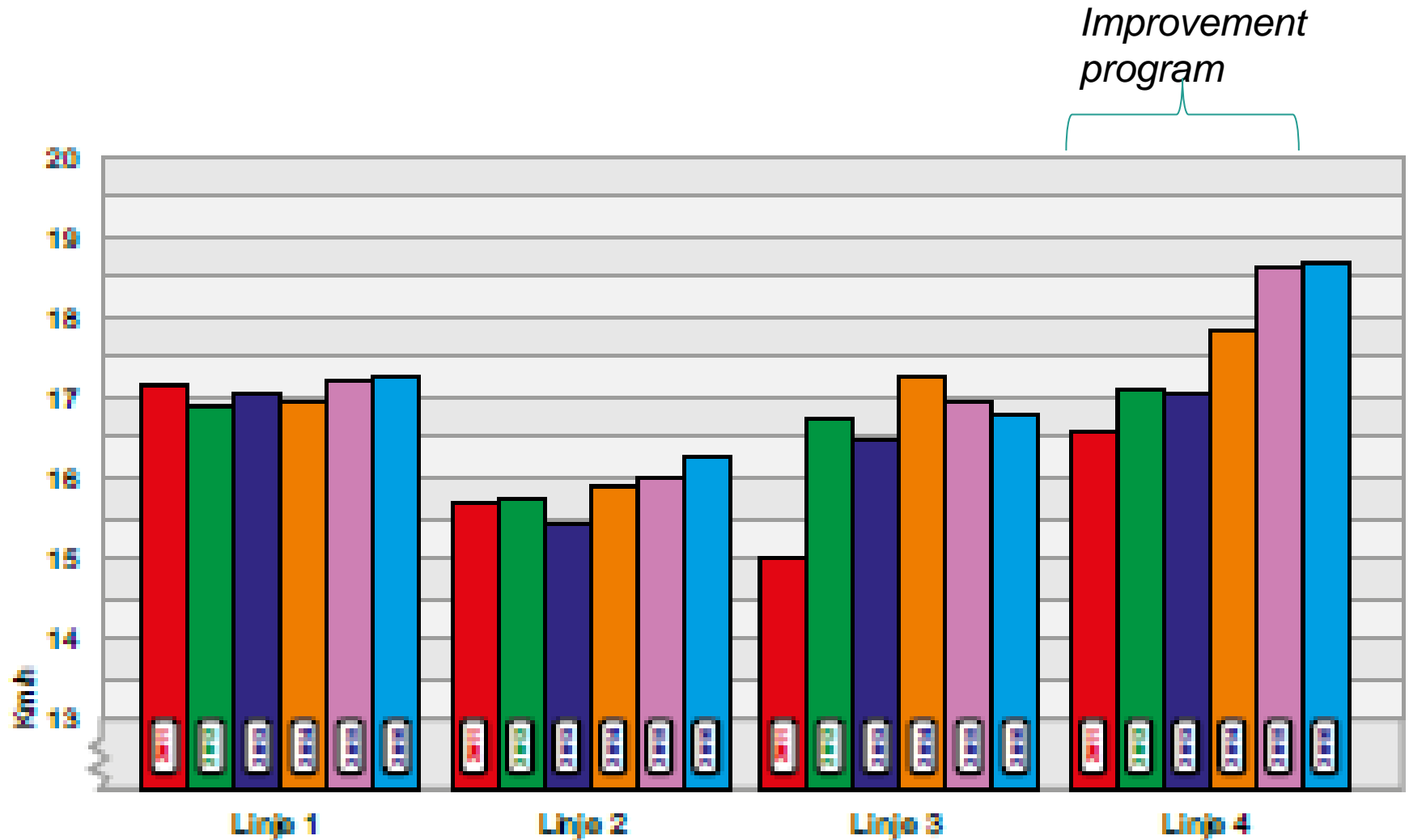


Line 4 – 60 000 passengers/day



Morning peak bus speeds 2011-2016

Excl. Access/egress times



Medelhastigheter för linje 1-4 i Stockholms innerstad under morgonens högtrafik: hösten 2011-2015 och våren 2016

Improvements

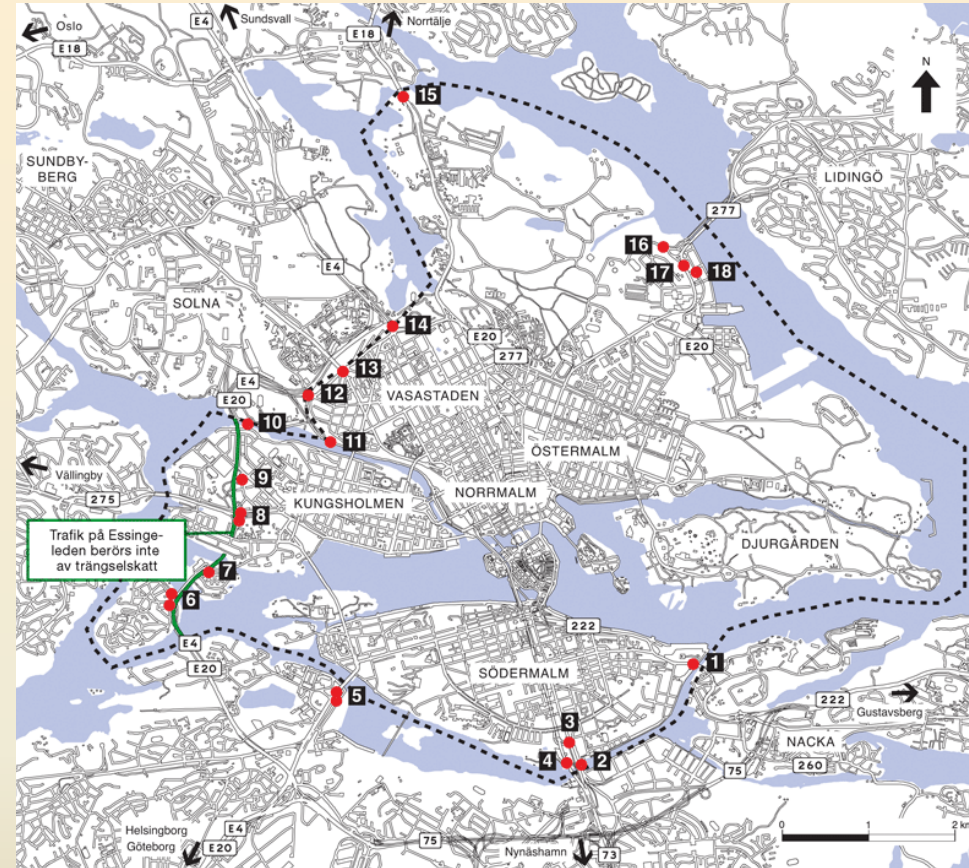
Measures

- Signal priority
- Bus lanes
- Access through multiple doors
- New traffic control system (reduced bunching)
- "Yield"/"right of way" policies
- Prohibited left turns at junctions
- Parking enforcement

Results

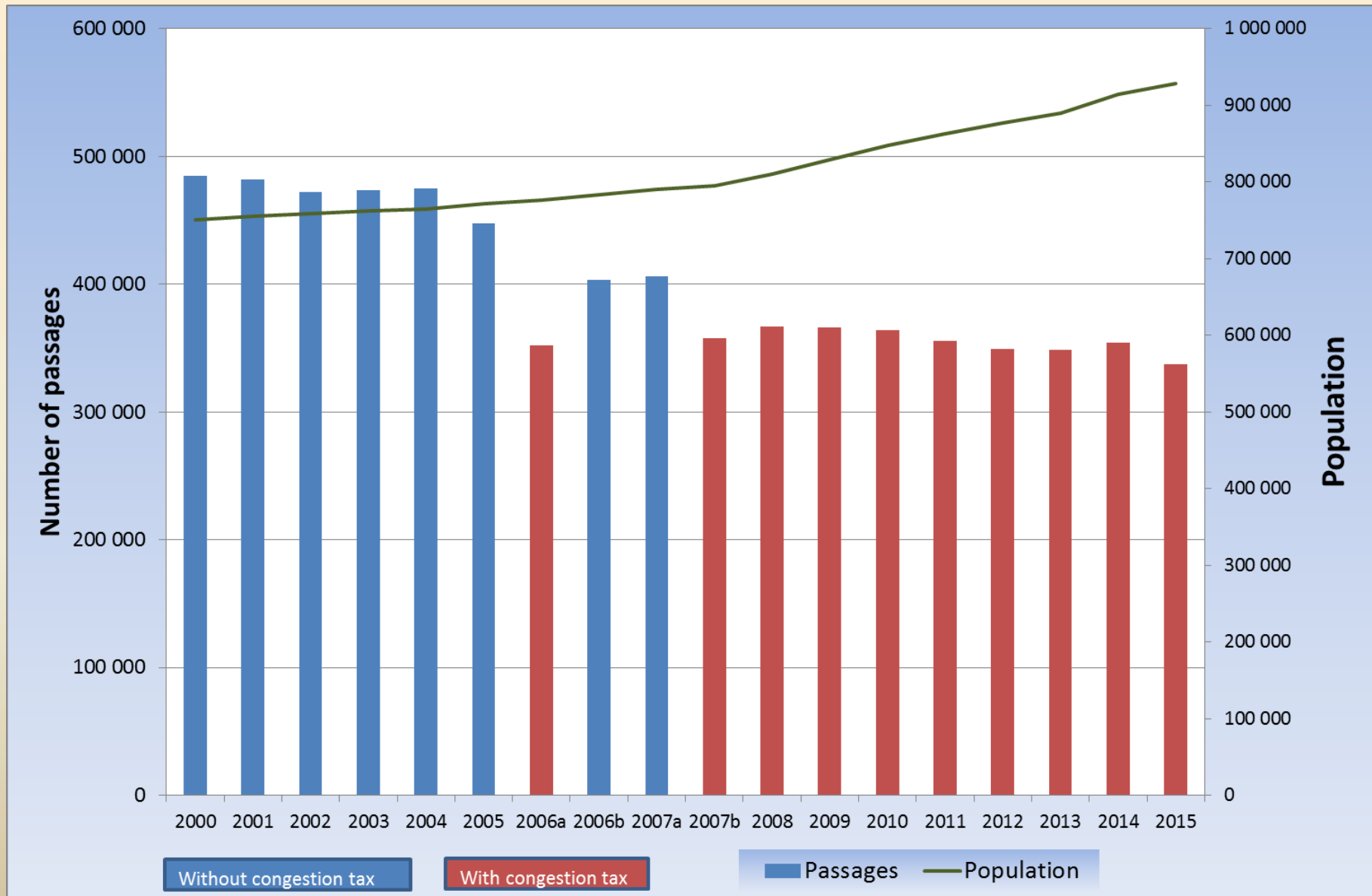
- Shorter travel times
- Improved regularity
- Less crowding
- Lower travel time variability

Congestion charges since 2006



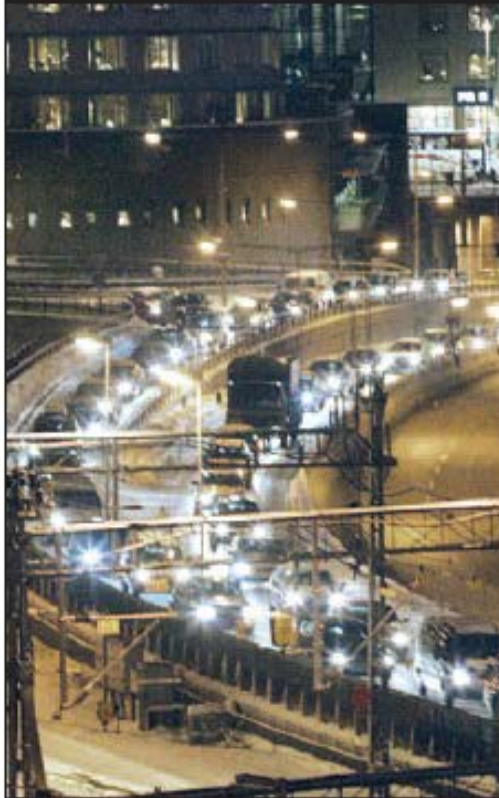
- 10-20 SEK (1-2 €) per cordon crossing, depending on time of day
- No charge evenings or weekends
- Revised 2016 – max. charge now 3.50€

Persistent traffic decrease: $\approx 20\%$ across cordon

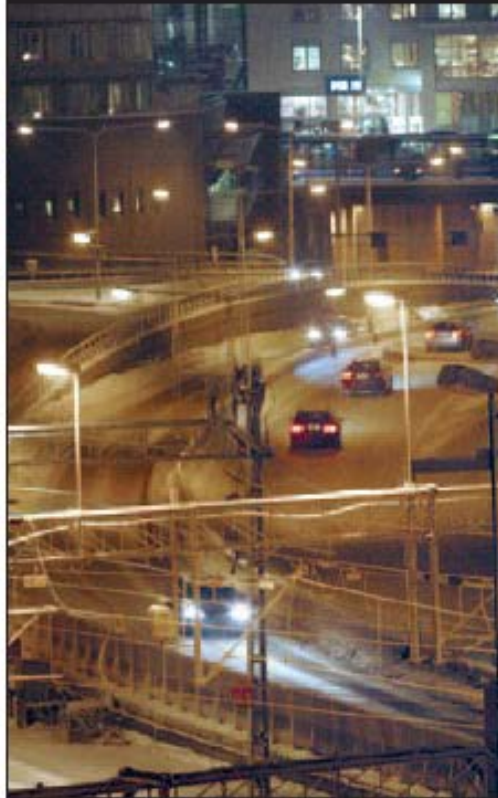


It works.

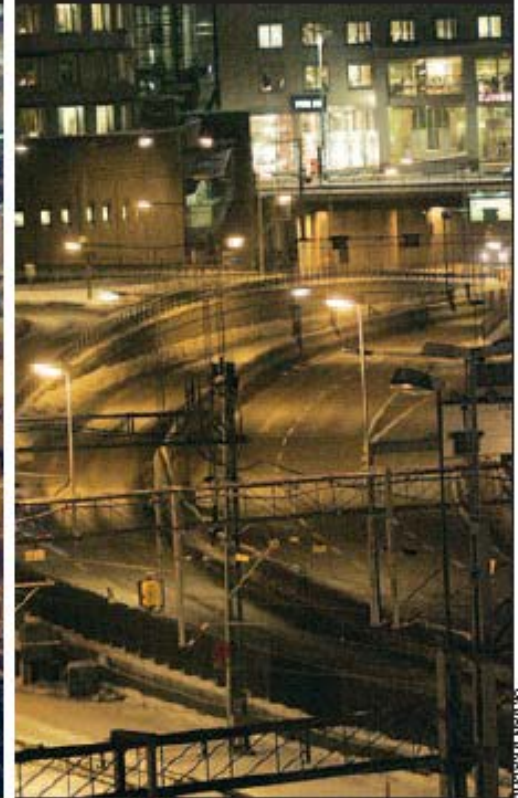
KLARASTRANDSLEDEN 16.30
MÅNDAG 2 JANUARI



KLARASTRANDSLEDEN 16.30
TISDAG 3 JANUARI



KLARASTRANDSLEDEN 16.30
MÅNDAG 9 JANUARI



LUGNT PÅ KLARASTRANDSLEDEN. Lugnt på Essingeleden. Lugnt i kollektivtrafiken. Ingen visste i går med säkerhet vart stockholmarna tagit vägen.

Stockholmarna, vart tog ni vägen?

”Stockholmers, where did you go?

klockan 6.30, då skatten börjar tas ut.

På SL märkte man inte heller av någon anstormning av nya rese-



Stock
stad

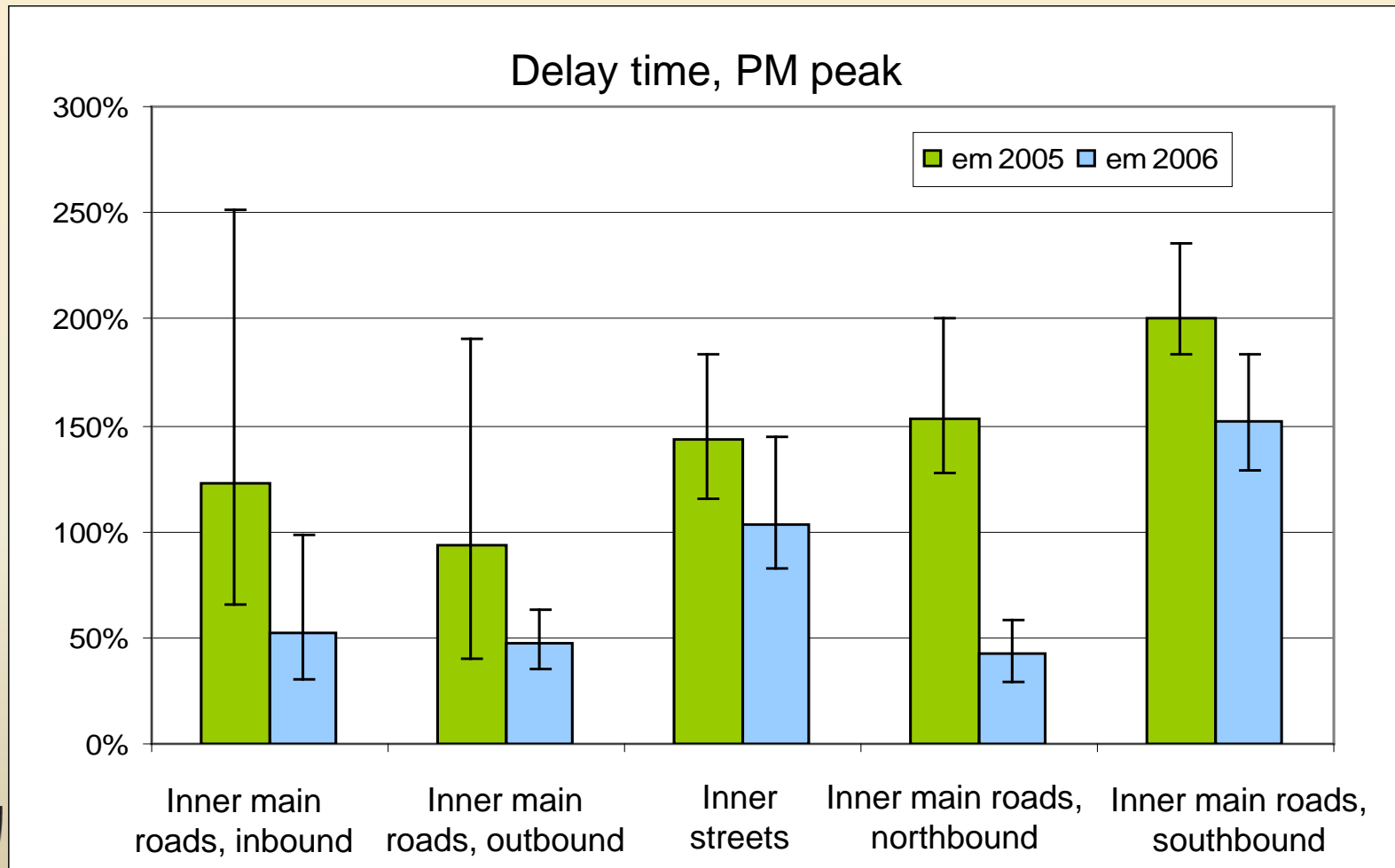
VA
i g
lektivtrafiken och på Essingeled
den

upp sin resa om de tänkt åka
och handla. Andra har kanske

betalstation, vilket är en trafik
minskning med ungefär 25 pro-

30-50% less time in queues, and less variability

April 2005/2006



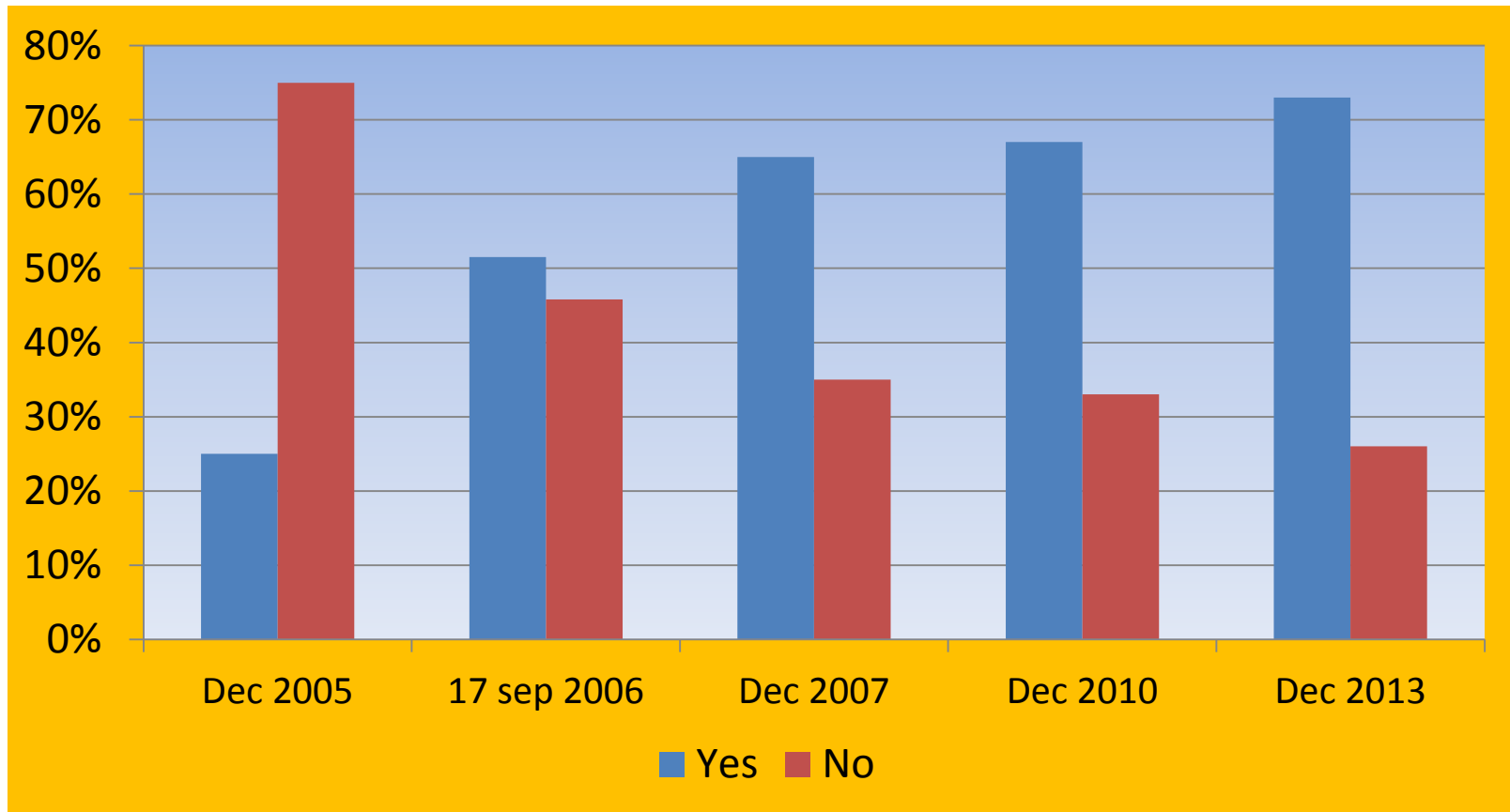
All kinds of fears

- 1000 appeals/day
- Stolen license plates
- No one will pay
- Everyone is going to cheat
- It will not work technically
- The authorities will monitor (spy on) every motorist
- The retailers would go bankrupt
- Companies will move from city center

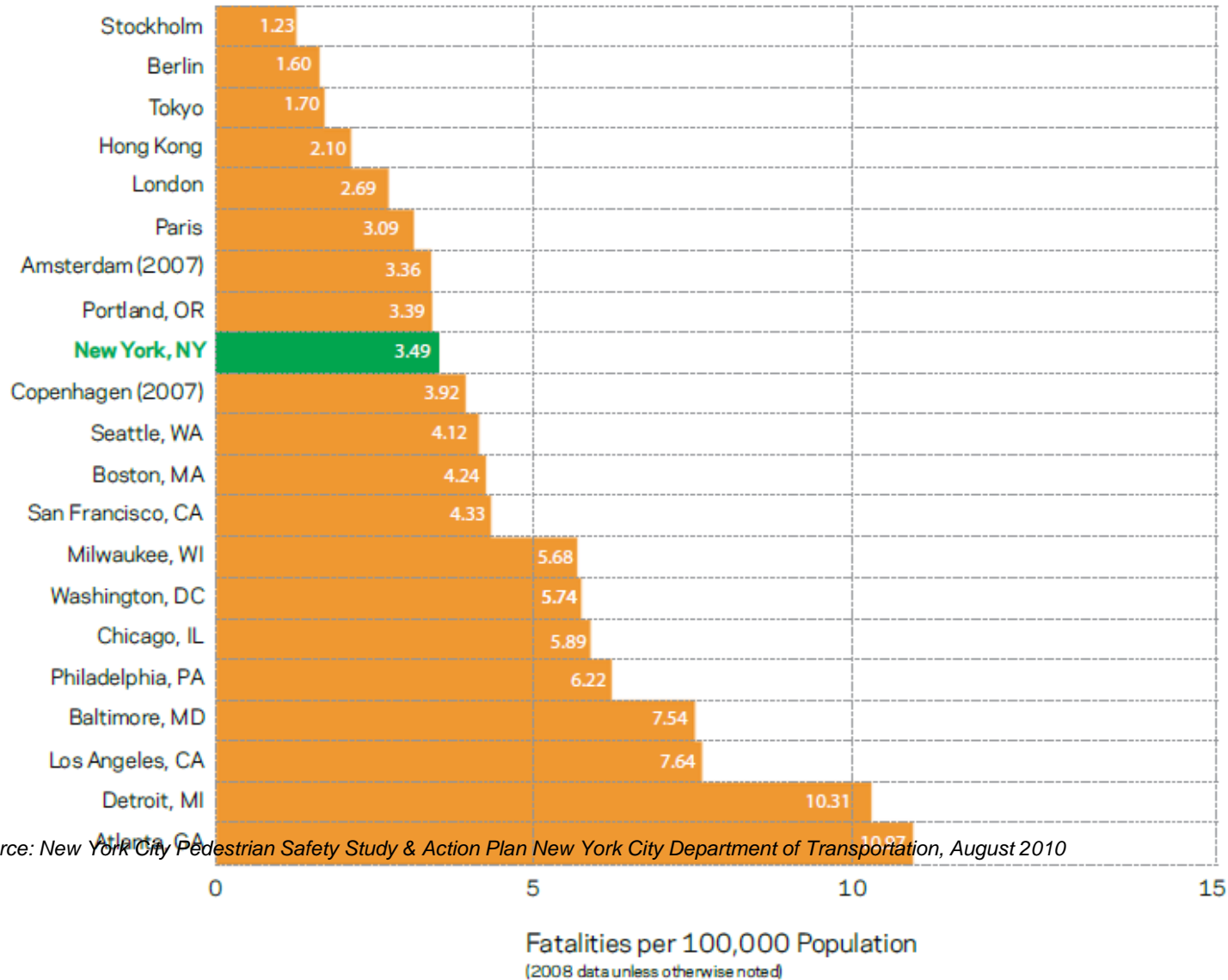


THE CITY OF STOCKHOLM

Public opinion 2005 – 2013



World-leading traffic safety

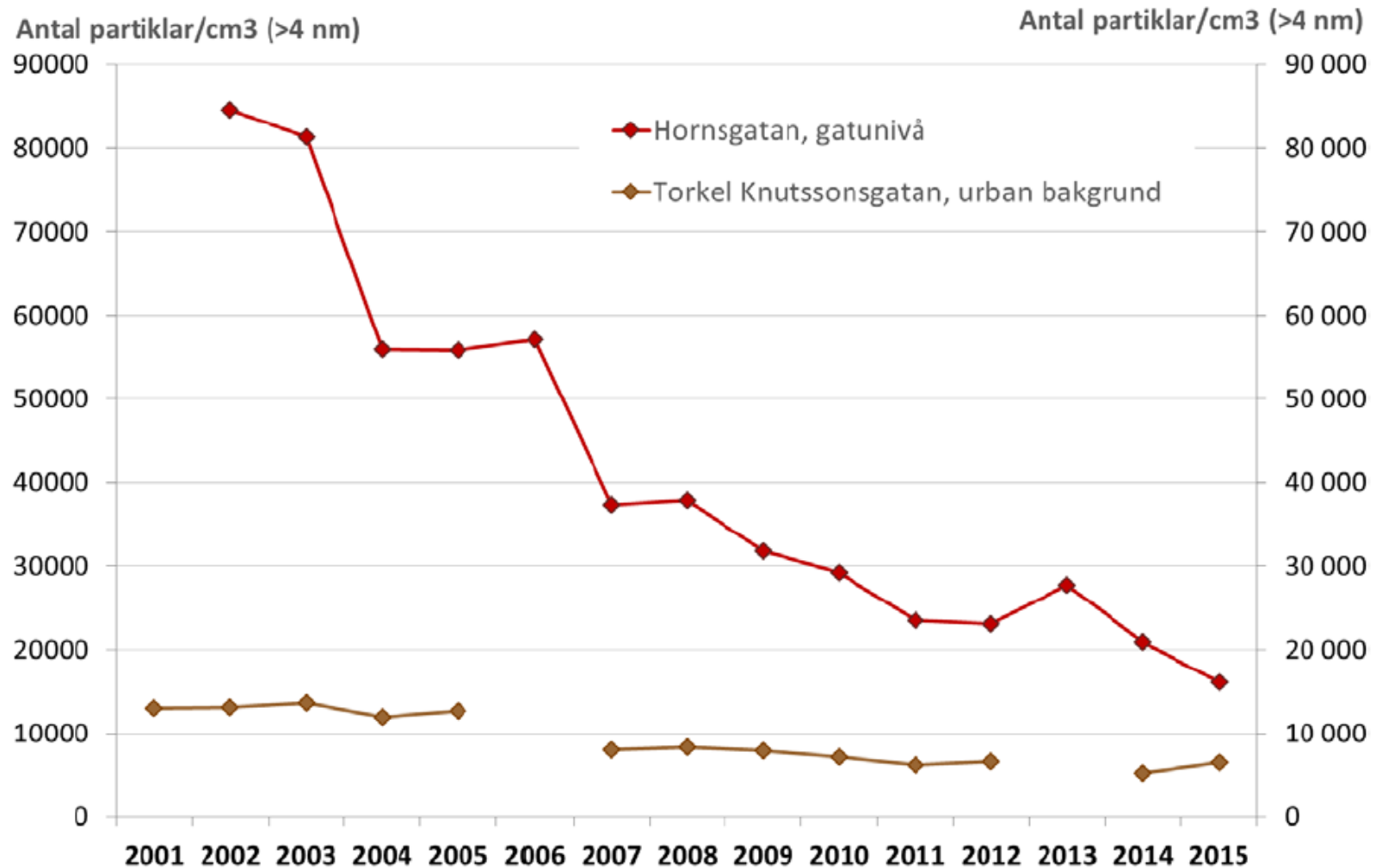


Source: New York City Pedestrian Safety Study & Action Plan New York City Department of Transportation, August 2010

Stockholm has 100 times better air quality today compared with 1965

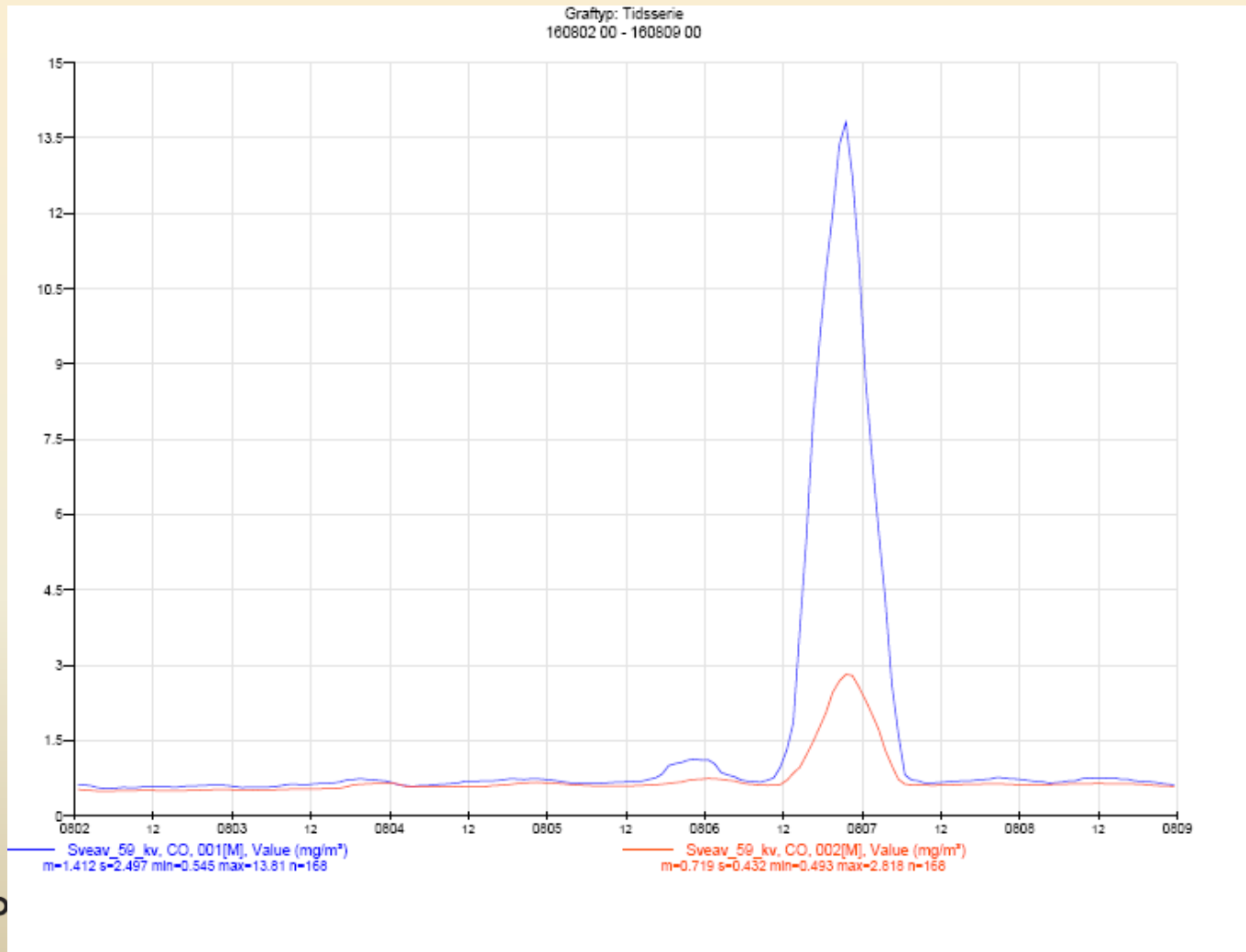


Trend ultra-fine particles

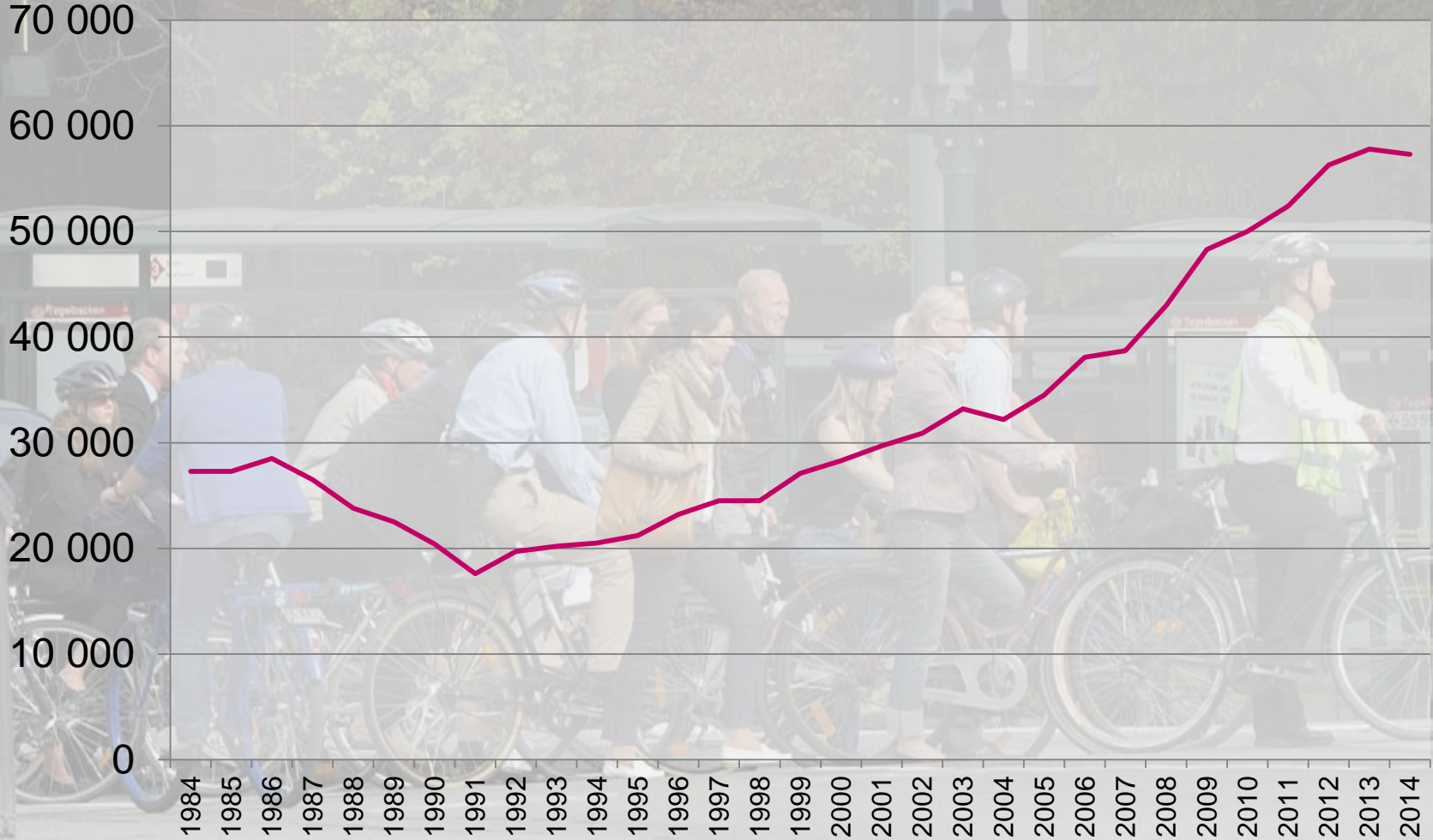


Figur 14. Trend för uppmätta halter av ultrafina partiklar (antal partiklar per cm³) åren 2001-2015 vid mätstationerna på Hornsgatan och Torkel Knutssonsgatan.

Carbon monoxide Sveavägen augusti environmental limit 10 $\mu\text{g}/\text{m}^3$



Bikers in Stockholm



”Sweep and salt” on major bike lanes and sidewalks

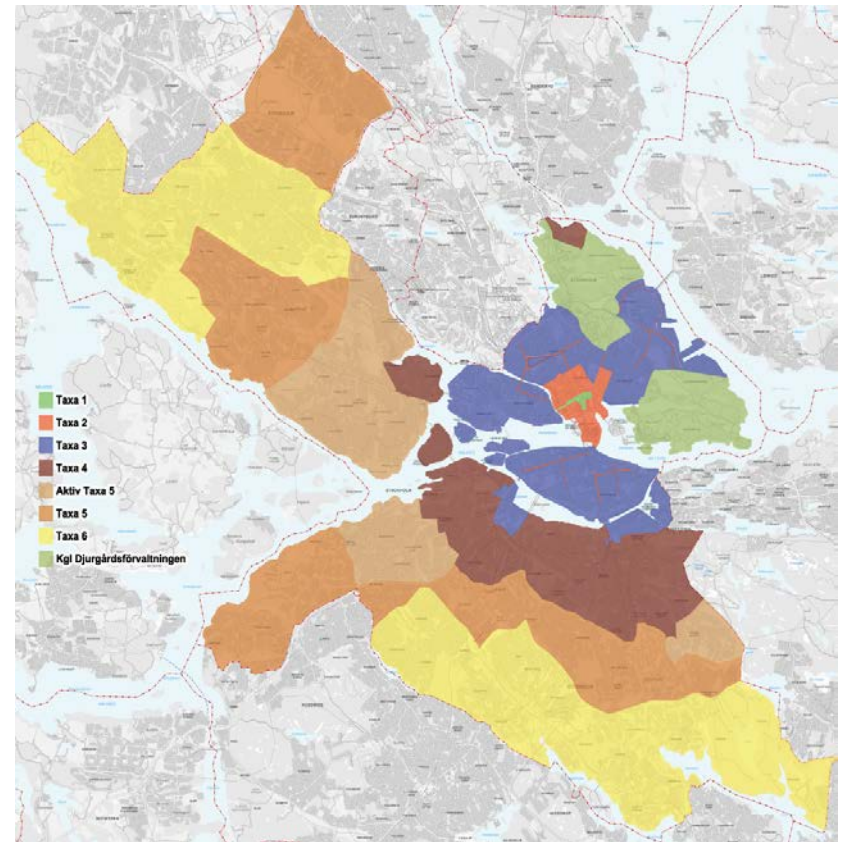
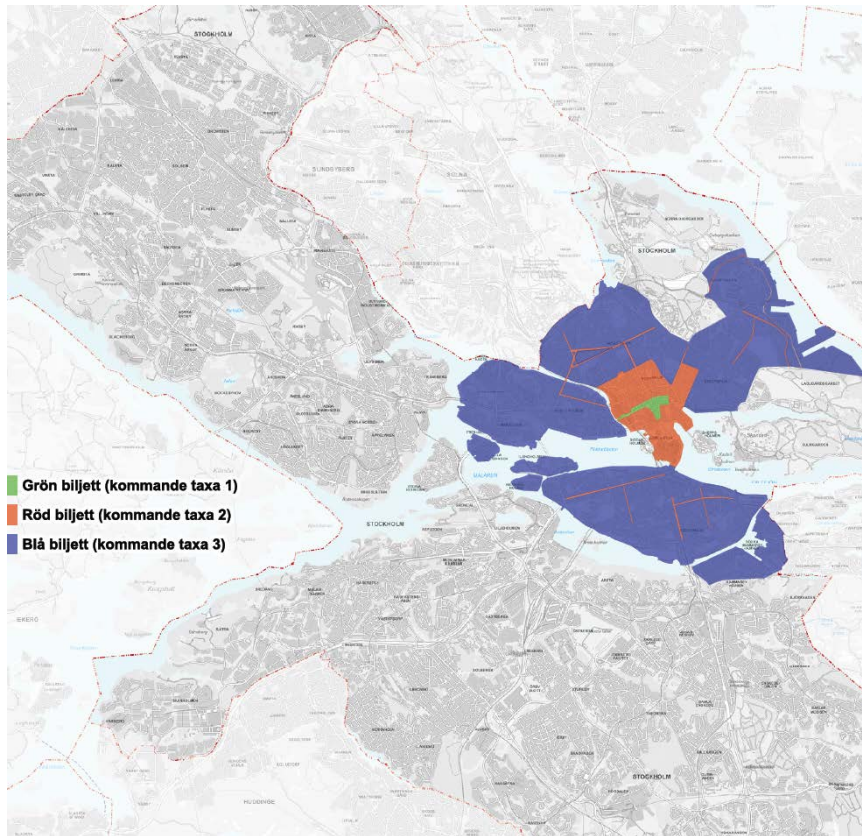


Night-time deliveries – pilot

- Permit for deliveries 22-06
- Silent electric/hybrid trucks
- Silent carriages & drivers
- Deliveries without receiving staff
- More efficient transports
- Improved working conditions for drivers
- Less unloading in peak hours: reduced congestion, improved traffic safety
- Receivers satisfied
- No noise complaints



Revised parking charges



Thank you!



Stockholms
stad

Extras

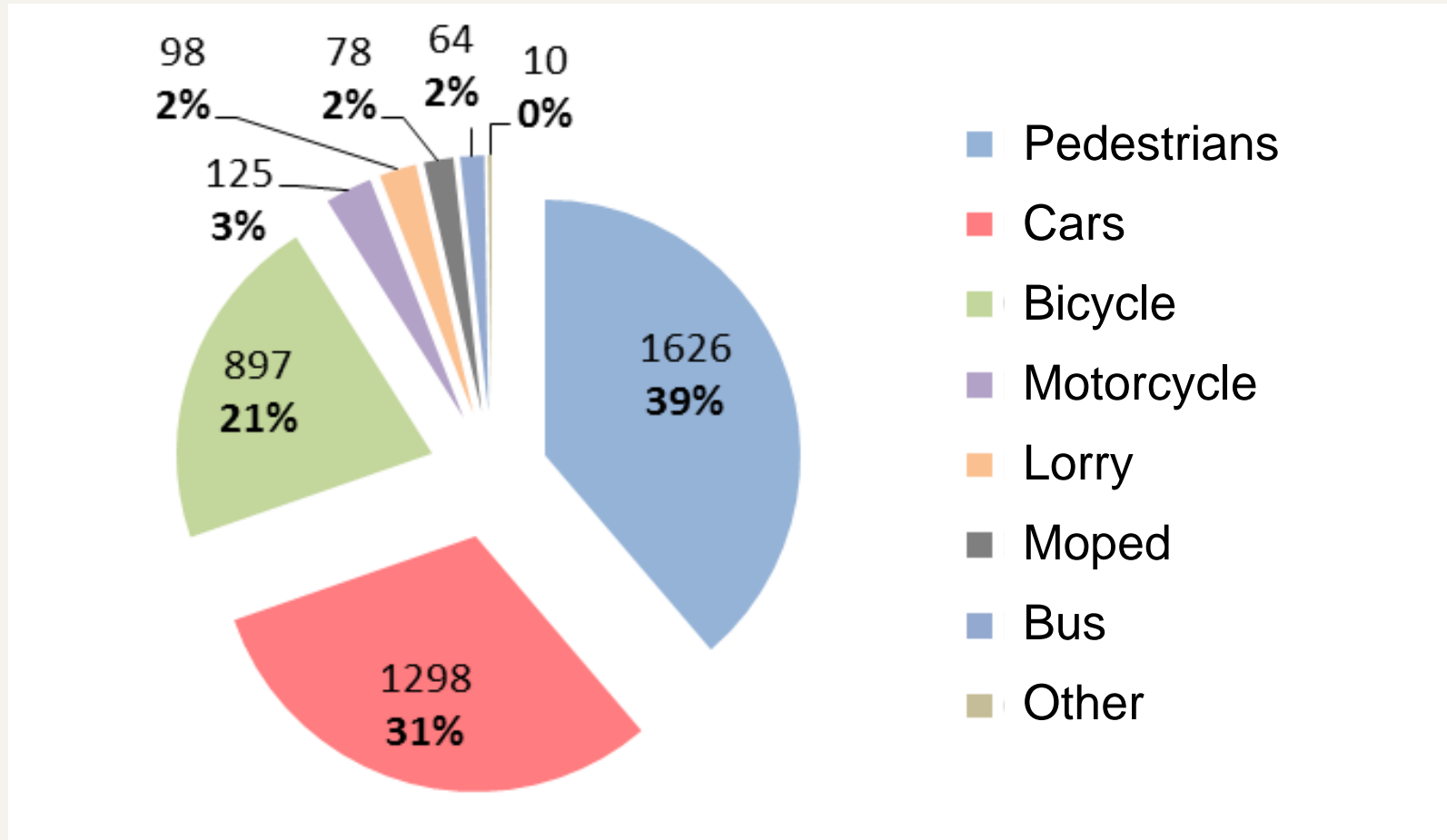


Traffic safety in Stockholm

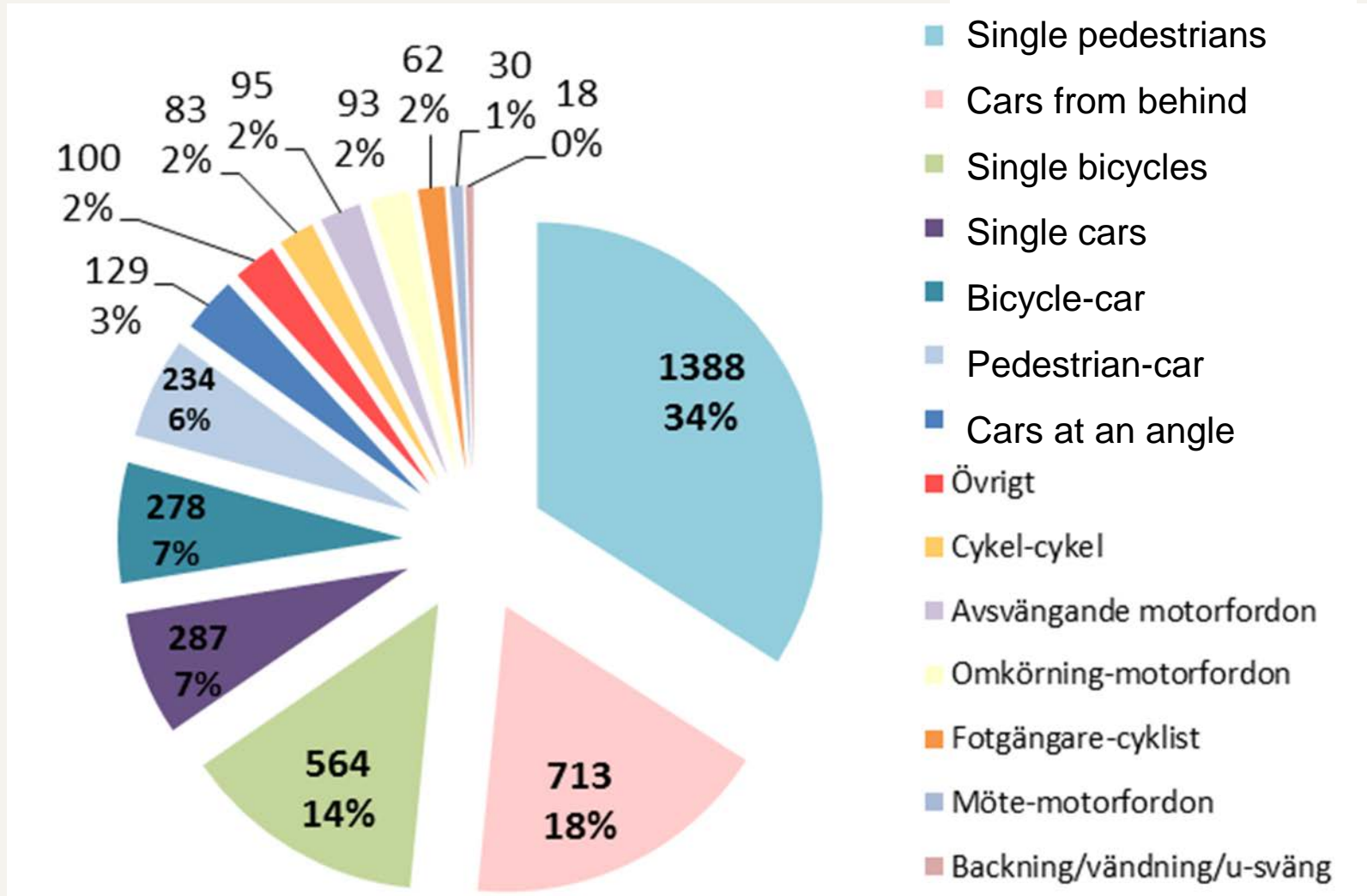


- **Vision Zero**
- **Tradition of cooperation**
- **Traffic safety programs in Stockholm for many years**
- **Focus is now on a livable city**
- **Walking and cycling increases**
- **Traffic safety projects**
- **New (lower) speed limits**

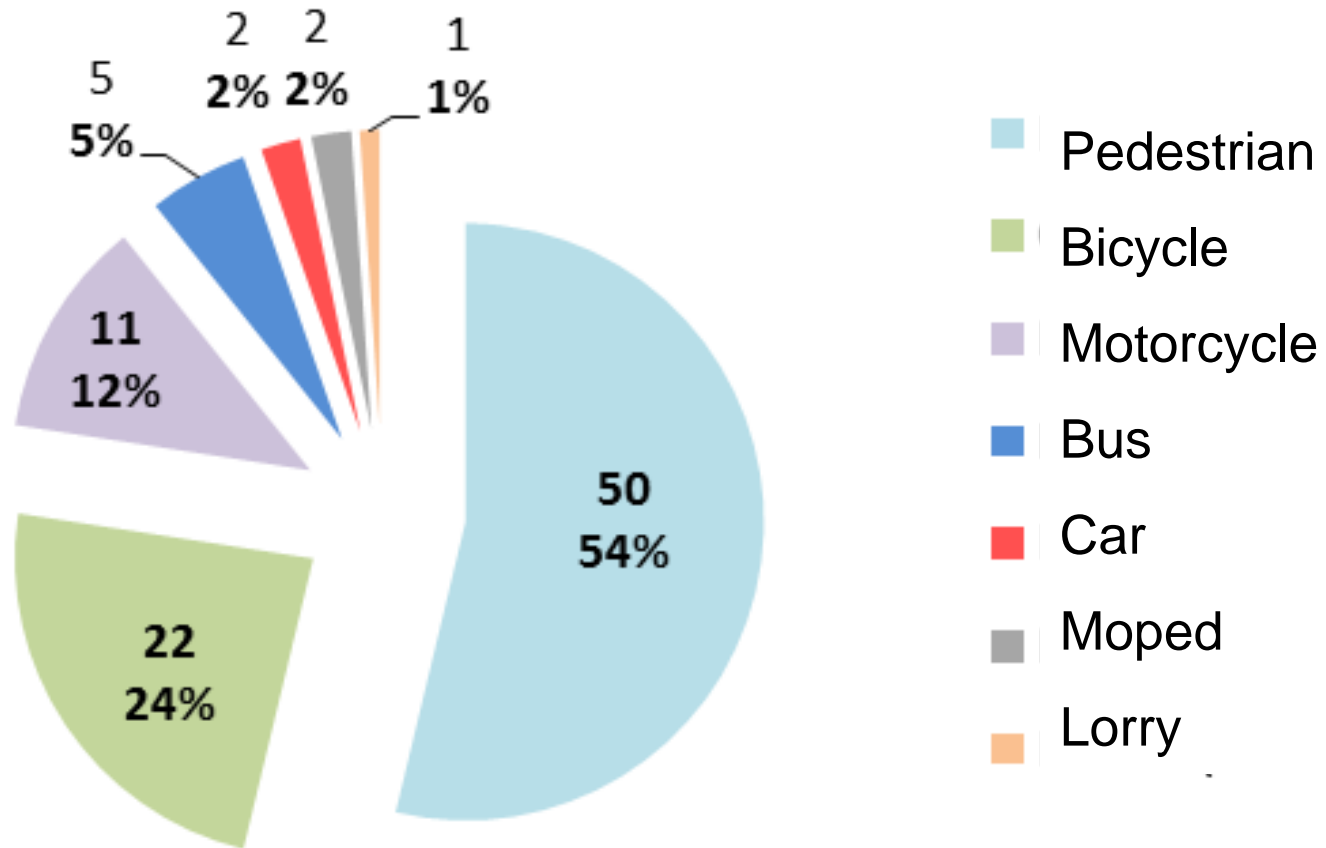
Total accidents (2015)



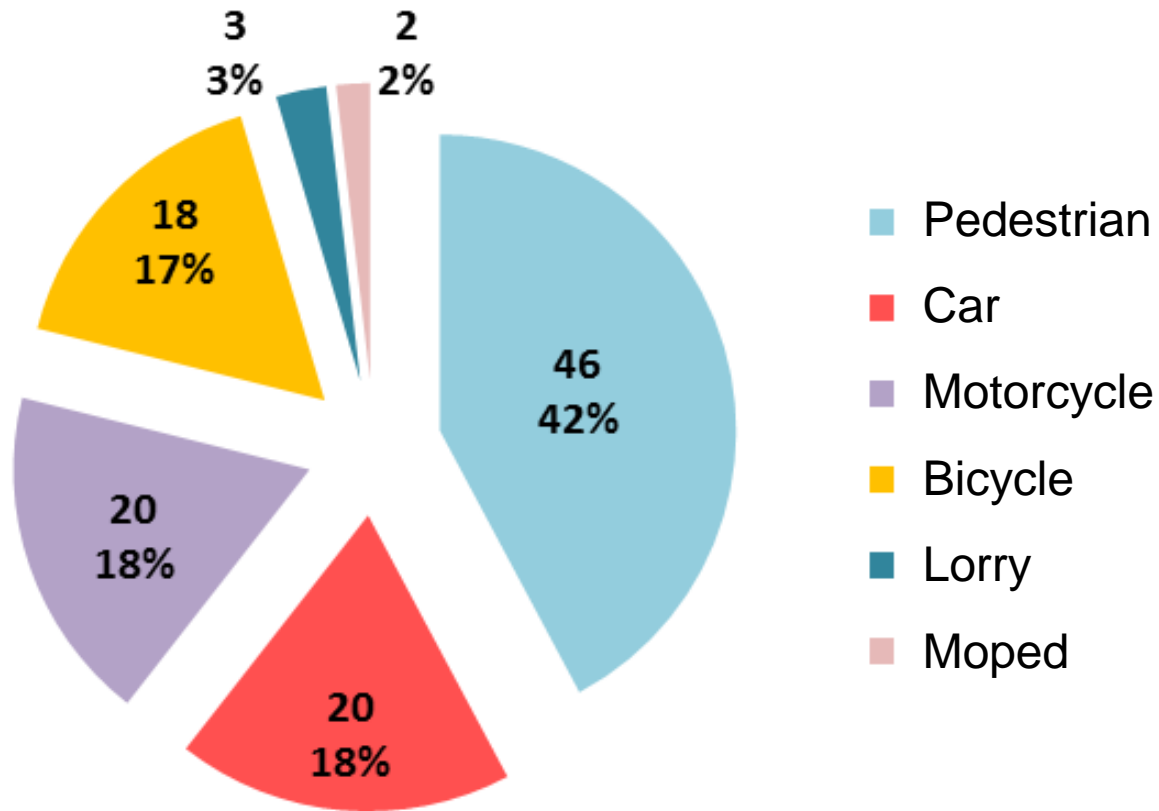
Types of accidents (2015)



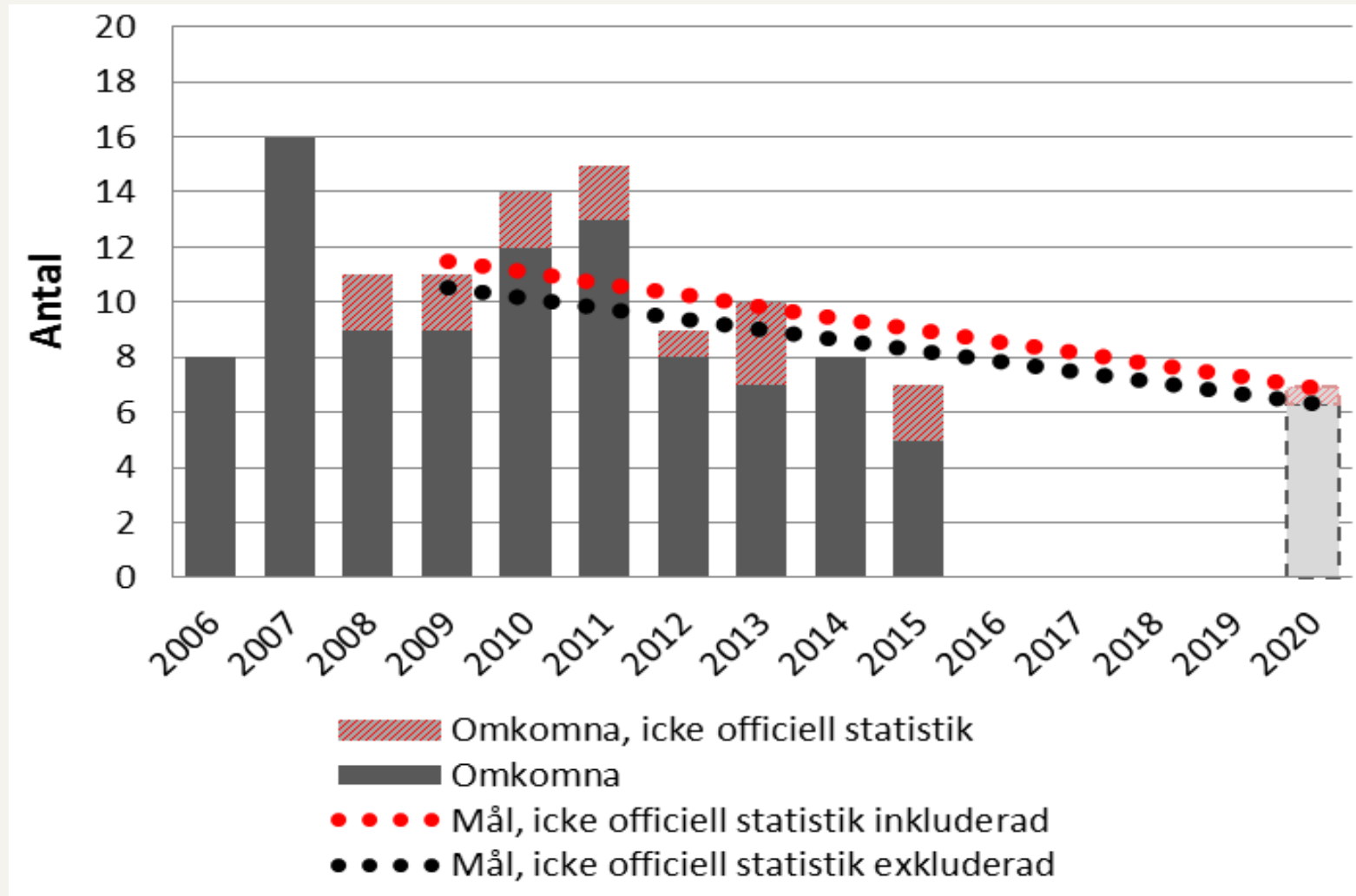
Serious injuries (2015)



Fatalities (2006-2015)



Trend – fatalities



Road safety program Stockholm



- Main goal of a 40% reduction of the annual numbers of killed or severely injured (KSI) road users in Stockholms stad (2010-2020)
- Status of the road safety indicators

Indicator	Status 2006-2009	Status in 2012	Expected2020	Target2020
Speed limit compliance	50%	74%	83%	98%*
Safe streets				
• Safe walk/cycle crossings	18%	19%	22%	80%*
• Safe junctions	51%	52%	62%	80%
Safe local streets	16,70%	17,10%	19%	75%*
Safety belts	90,10%	97,10%	98-99%	98%
Bicycle helmets	56%	71%	92%	80%
Sober drivers	99,75%	99,78%	99,82%	99,90%