

# MAIO AMARELO 2021

*Webinar: Ruas mais seguras e acessíveis: os novos rumos da Mobilidade*





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# ACTIVE MOBILITY

## Benefits and Impact – São Paulo

May 11 2021

CLAUDIA ADRIAZOLA-STEIL INTERIM DIRECTOR - URBAN MOBILITY





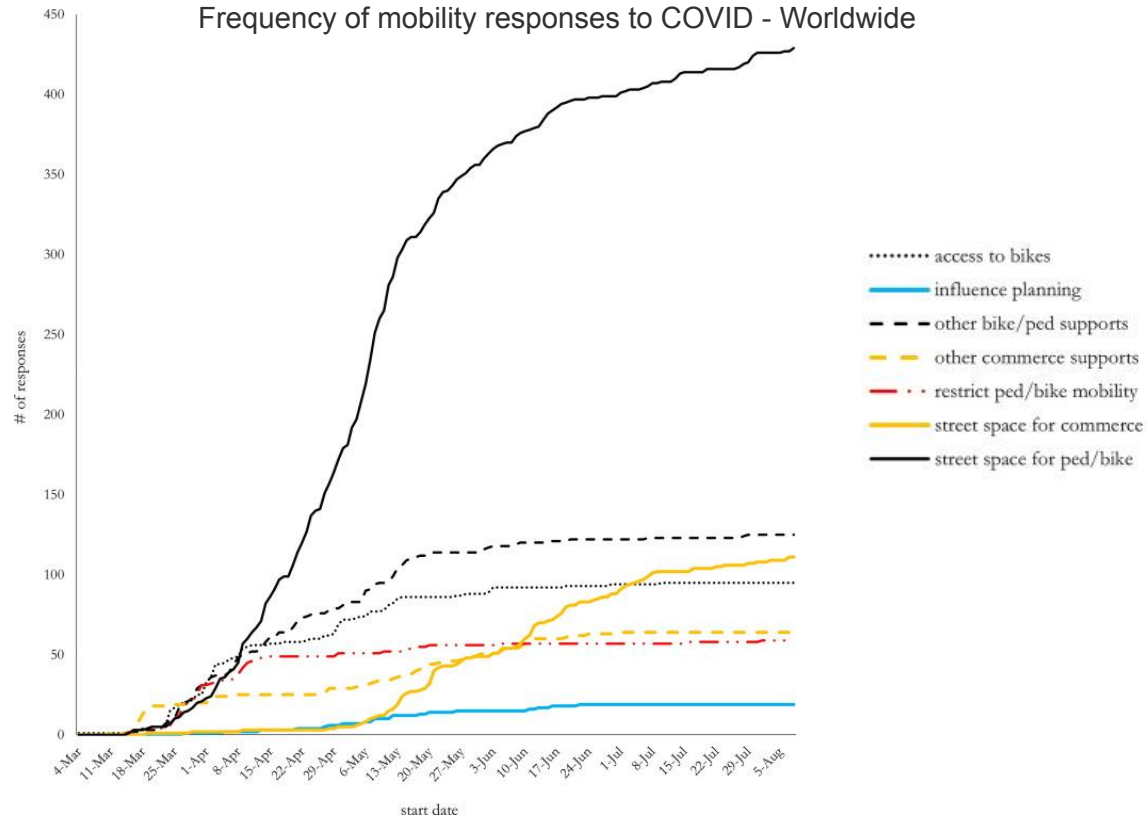
SOURCE:  
[HTTPS://ABCNEWS.GO.COM/INTERNATIONAL/WIRESTORY/BUSY-SHOPS-PACKED-BUSES-SAO-PAULO-REOPENS-AMID-71181415](https://abcnews.go.com/international/wirestory/busy-shops-packed-buses-sao-paulo-reopens-amid-71181415)





Source:  
ITDP Walking and Cycling in Covid Times

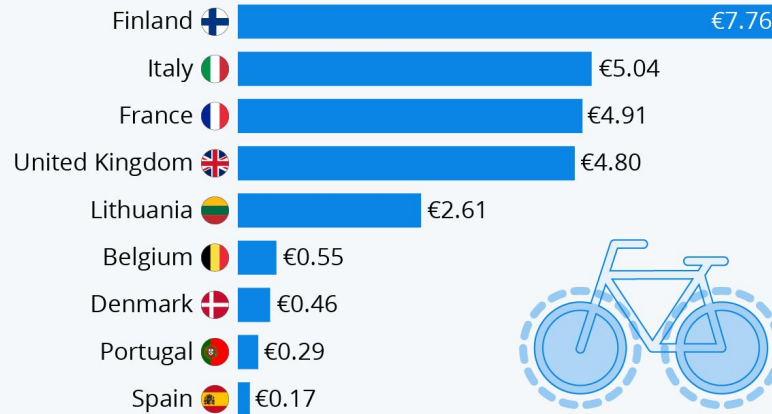
# ACTIVE MOBILITY INFRASTRUCTURE INVESTMENT IS KEY



# ACTIVE MOBILITY INFRASTRUCTURE INVESTMENT IS KEY

## How Covid-19 Boosted Cycling Investment In Europe

Additional funding allocated for cycling during the pandemic (euro per person)\*



\* As of September 17, 2020.  
Source: European Cyclists' Federation



statista

# ACTIVE MOBILITY INFRASTRUCTURE INVESTMENT IS KEY

Country/City	Investment Plan (\$)	Time Period (Years)
United Kingdom	2.8 B	5
Germany	2.4 B	10
France	350 M	7
New York City	1.7 B	10



## INRASTRCTURE INVESTMENT MAKES A DIFFERNECE FOR VULNERABLE AND RELUCTANT USERS

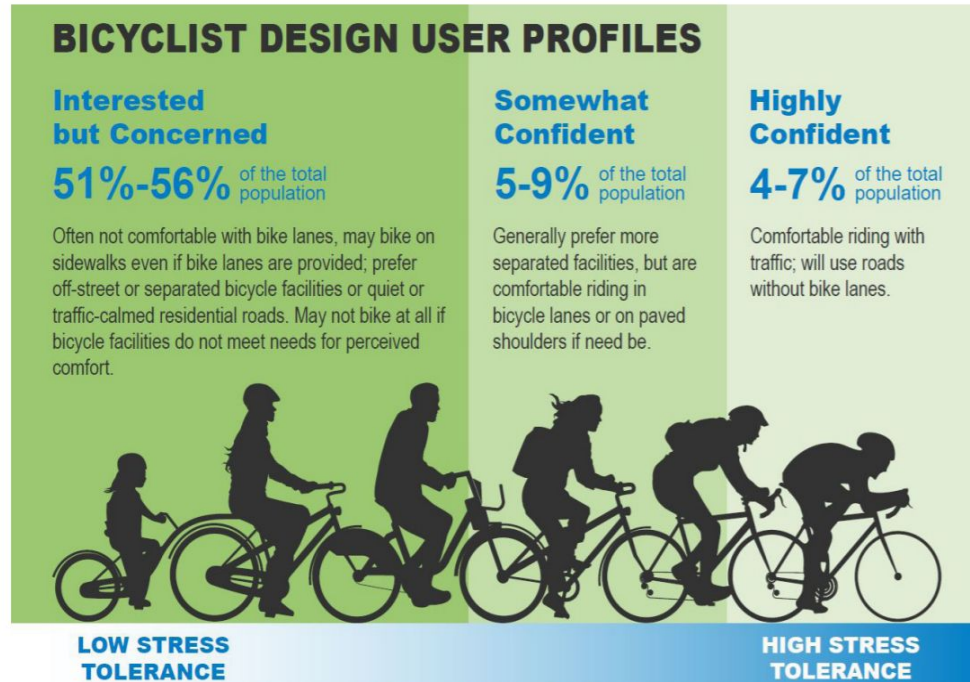
“Under the lockdown, about **300,000 trips a day** are being made by bicycle, **mostly by essential workers**, and nearly **70% of people riding bikes today used other forms of transport before the pandemic** started, according to Bogota’s secretary of mobility.” Thomson Reuters Foundation – May 28 2020

In New York City, **60 percent** of the new sign ups for bike share program **were women**, raising the number of female annual members from 32.8 percent to 38.9 percent. Next City February 12, 2021



# SAFE INFRASTRUCTURE IS A PRECONDITION FOR CYCLING

“Road safety is not a goal, it is a precondition for cycling!”



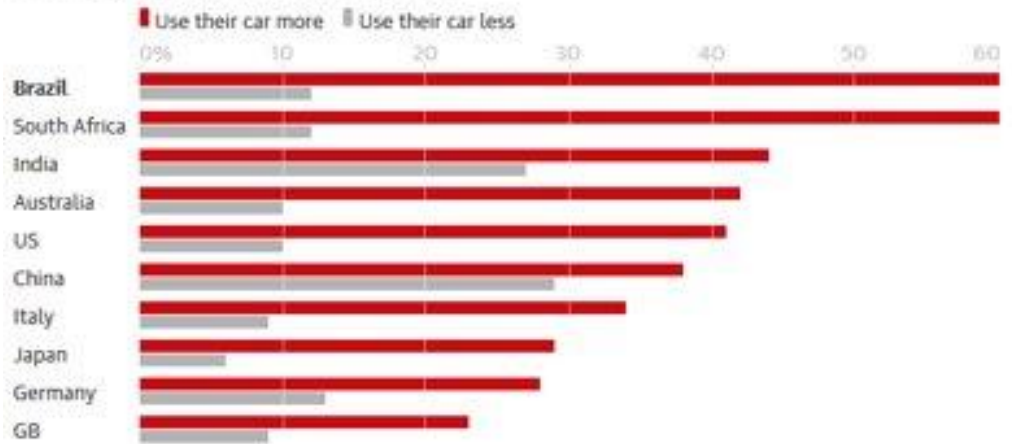
## BUT ALSO USE OF PRIVATE VEHICLES IS GROWING UNDER THE PANDEMIC

“In climate terms, the most alarming finding of the survey was the widespread intention to drive more after the pandemic than before, despite efforts in many countries to create more space in cities for safe and sustainable modes of transport.”

-The Guardian, 10 November 2020


### In Brazil, 60% said they would use their car more than before the pandemic, while only 12% said less

Percentage of people who said they will ...



Guardian graphic | Source: YouGov-Cambridge Globalism Project. Note: selected countries shown.

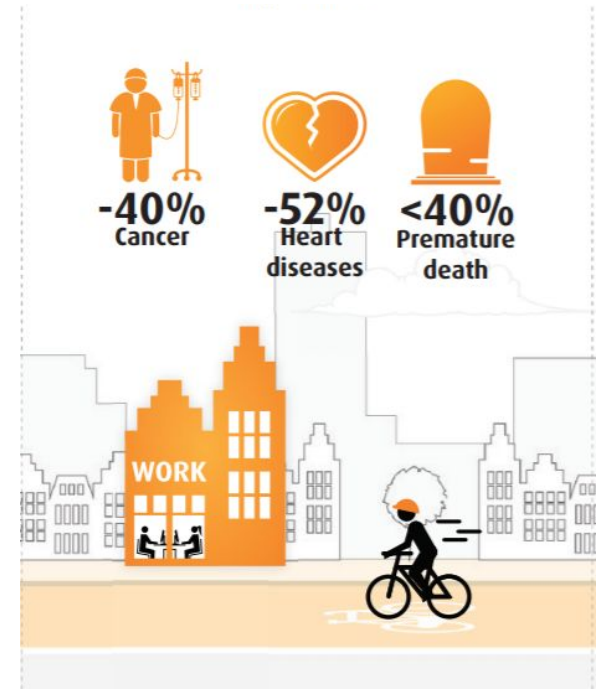
# BENEFITS OF ACTIVE MOBILITY



**HEALTH BENEFITS**

# IMPACT OF ACTIVE LIFESTYLE

- **Increased physical activity** reduces the risk of cardiovascular disease, depression, dementia, diabetes, breast cancer, and colon cancer.
- **Physical inactivity** contributes to 21.5% of ischemic heart disease, 11% of ischemic stroke, 14% of diabetes, 16% of colon cancer, and 10% of breast cancer
- **Obesity rates** are increasing in countries and settings in which active travel (primarily walking and cycling) is declining.



Sources:

Woodcock, J. et al. (2009). The Lancet.  
de Nazelle, A., et al. (2011). Environment International  
Saunders, L., et al. (2013). PLoS ONE

# IMPACT OF REDUCTION IN EMISSIONS

- **Reduction in carbon dioxide emissions** through an increase in active travel and a decrease in motor vehicles use has larger health benefits than from increased lower emission vehicles.
- **Urban air pollution** currently accounts for ~3% of mortality from cardio diseases and 1% of mortality from acute respiratory infections in children under 5 years old worldwide.

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Sources:

Woodcock, J. et al. (2009). The Lancet.  
de Nazelle, A., et al. (2011). Environment International  
Saunders, L., et al. (2013). PLoS ONE

# IMPACT OF ACTIVE MOBILITY-FRIENDLY ENVIRONMENTS

- **Substantial increases in distances cycled** are associated with a decrease in the number of cyclists killed or seriously injured.
- **New walking and cycling infrastructure** could lead to an increase in walking and cycling in the general population in the medium term.
- For a shift from motor vehicles to active mobility to happen the **physical environment must be supportive** and inviting for pedestrians and cyclists of all ages and skills.



## Sources:

Woodcock, J. et al. (2009). The Lancet  
Neves, A. & Brand, C. (2019). Transport Research Part A: Policy and Practice.  
Song, Y., Preston, J., & Oglivie, D. (2017). Transportation Research Part A.



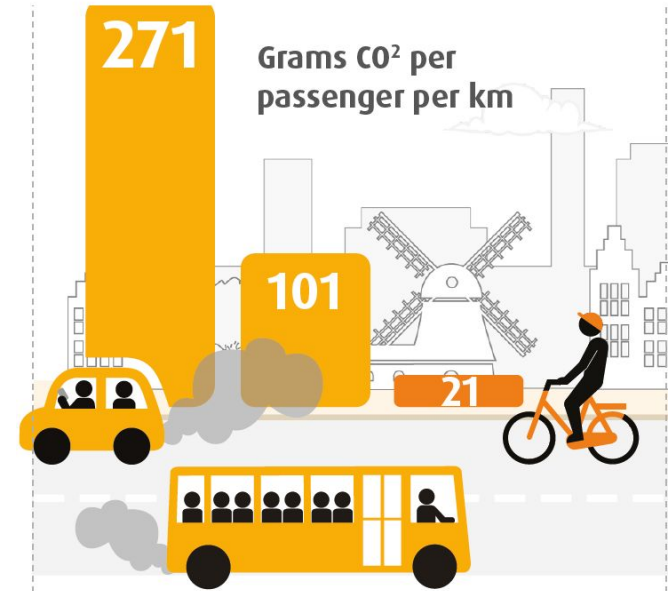
# ENVIRONMENTAL BENEFITS





# IMPACT OF REDUCTION IN EMISSIONS

- Cycling and walking significantly decreases daily mobility-related CO<sub>2</sub> emissions, meaning there is a direct **substitution effect** of active travel away from motorized travel.
- Each bike can contribute an average of 0.07 to 0.49 tons of **GHG emission reduction** especially over short distances (less than 8 Km).
- Switching from car to bicycle **reduces 65% NO<sub>x</sub> pollution** per km travelled.



Sources:

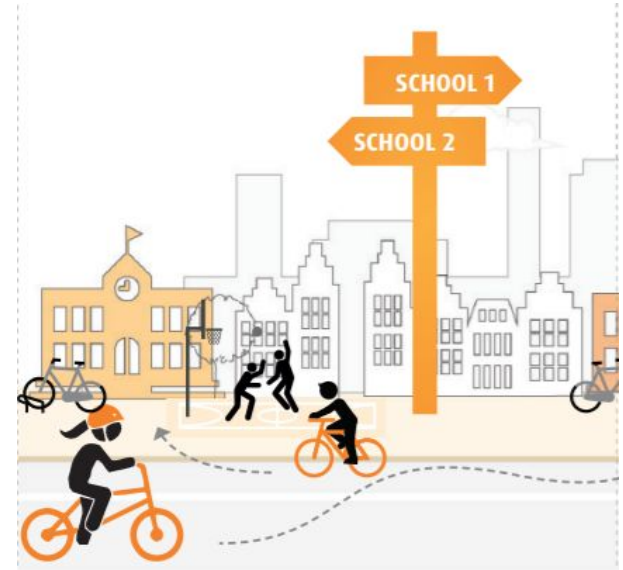
Brand, C. et al. (2021). Global Environment Change  
Kou, Z. et al. (2020). Resources, Conservation and Recycling  
Dutch Cycling Embassy



# EQUITY BENEFITS

# IMPACT OF ACCESS TO SAFE ACTIVE MOBILITY OPTIONS

- **Access to safe active mobility infrastructure** provides, cheaper alternatives to access to job opportunities and transit.
- Low-income groups are more likely to live in **less accessible, less walkable neighborhoods**, yet these groups are also more likely to walk for transport.
- Lower income neighborhoods tend to walk less due to **lower rates of leisure walking**.





# ECONOMIC BENEFITS

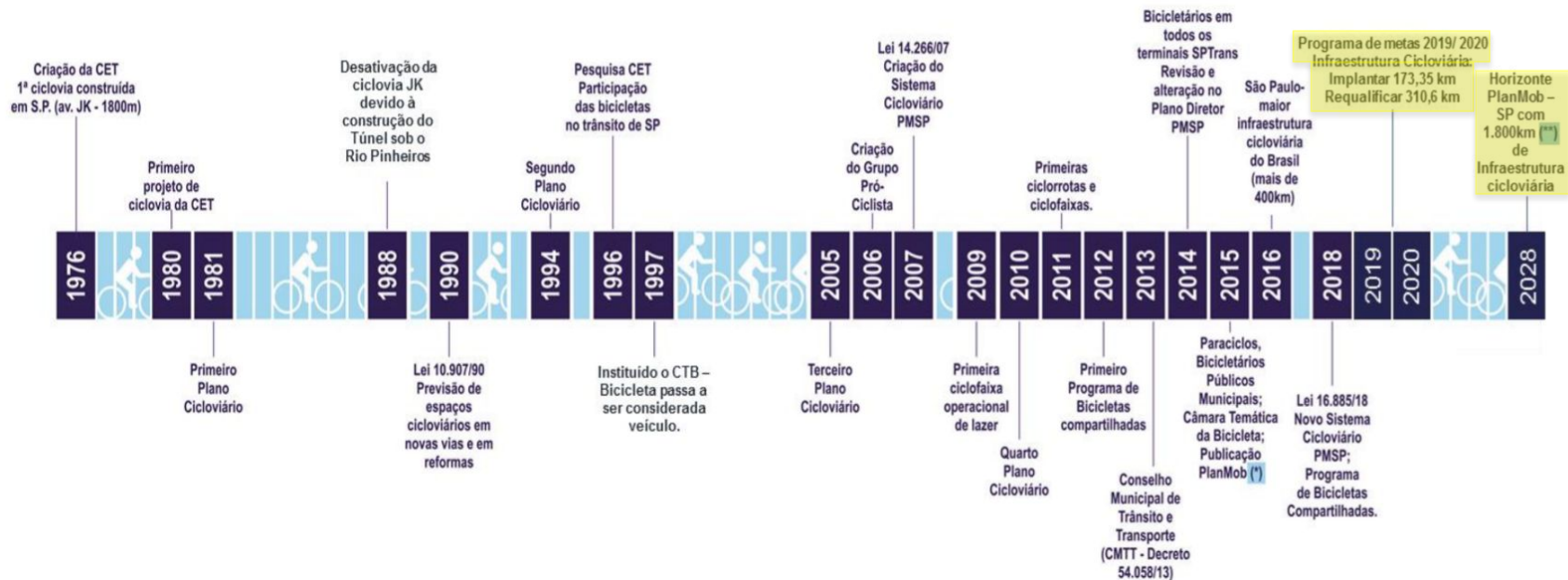
# IMPACT OF SWITCHING TO ACTIVE MOBILITY

- A kilometer covered by bike **yields a social benefit of 0.68 euro**, whereas cars and buses cost society 0.37 and 0.29 euros per km travelled, respectively.
- **Cycling is cheaper.** The annual cost of riding a bike is approx. 300 euros whereas the annual cost of driving a car is approx. 8500 euros.
- **Cyclists shop more locally**, more often and are more loyal compared to car drivers.





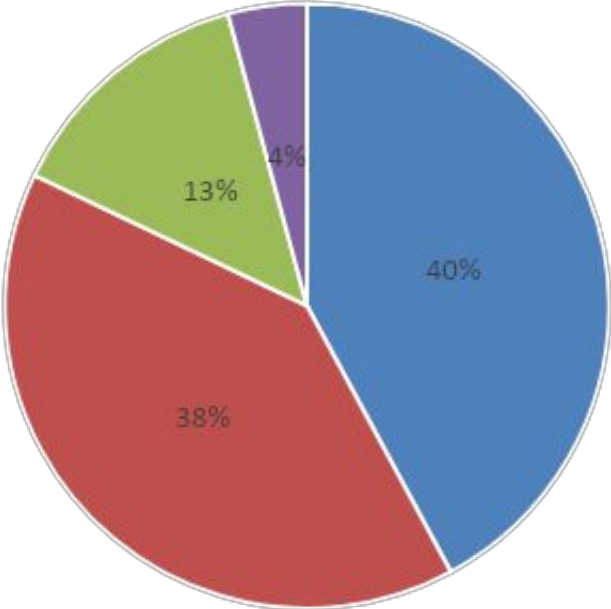
# CYCLE PLAN 1976 - 2028 - SÃO PAULO



Sources:

[http://www.cetsp.com.br/media/1100812/Plano-Ciclovia%CC%81rio\\_2020.pdf](http://www.cetsp.com.br/media/1100812/Plano-Ciclovia%CC%81rio_2020.pdf)

# CRASH VICTIMS BY USER TYPE – SÃO PAULO

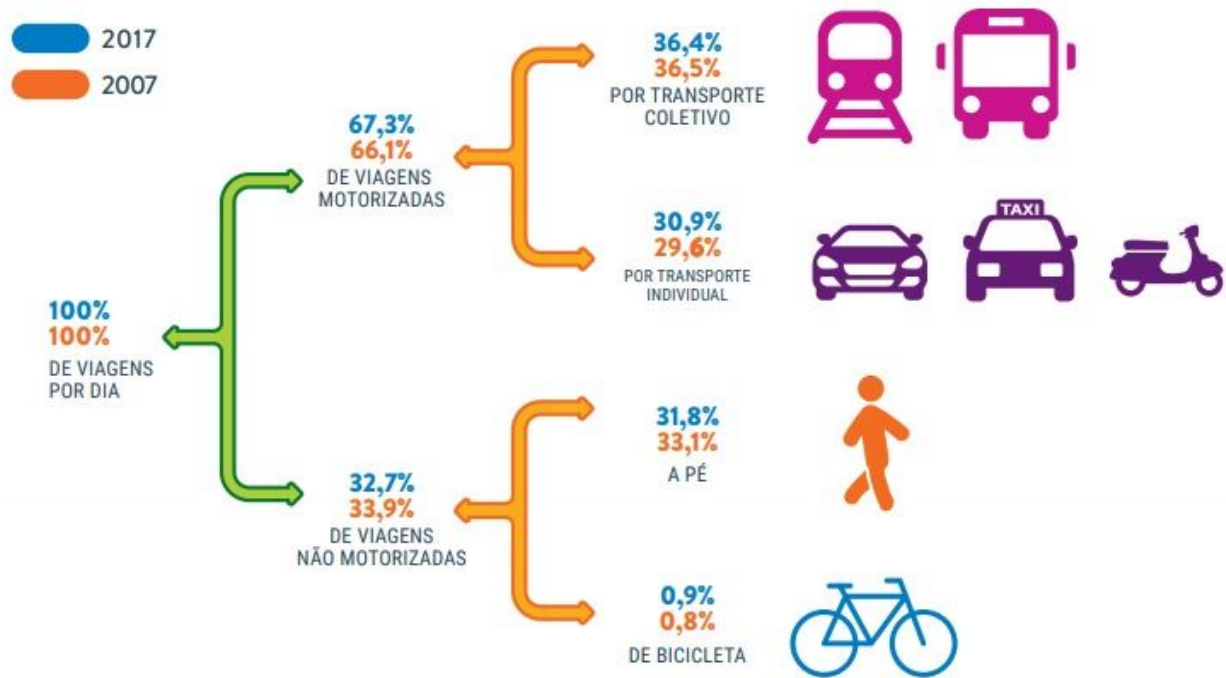


■ Pedestrians ■ Motorcyclists ■ Motorvehicle drivers/passengers ■ Cyclists

Sources:  
[http://www.cetsp.com.br/media/1100812/Plano-Ciclovias%CC%81rio\\_2020.pdf](http://www.cetsp.com.br/media/1100812/Plano-Ciclovias%CC%81rio_2020.pdf)



# SÃO PAULO – MODE SHARE



# MUITO OBRIGADA!

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**THANK YOU!**

