

# Environmental and social challenges associated with urban mobility

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# Current challenges of urban transportation planning

- Urban planning has become a challenge
- Developers are often faced with conflicting demands
- What are the best strategies for responding to economic, social, environmental needs?
- How can cities and regions develop coherent long-term strategies while coping with the daily needs of residents?



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# Transportation in urban planning

- Detroit, USA

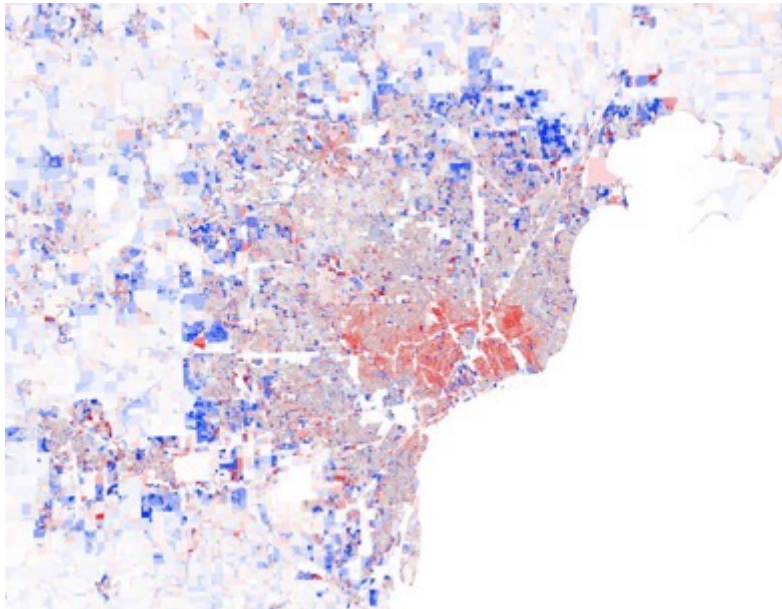


Figure 8: Detroit population historical evolution 1850–2010.  
Author's elaboration, data from US Census Bureau 2015.



This project is implemented by the consortium led by Stantec, with ELLE (Estonian, Latvian & Lithuanian Environment), ACTED, and Kommunal Kredit Public Consulting as the consortium partners.

Source:  
<https://www.wired.com/2013/09/detroit-growth-rings/>,  
<https://www.youtube.com/watch?v=u5InsZLila8>  
 , IGLUS, EPFL Management of Urban Infrastructures

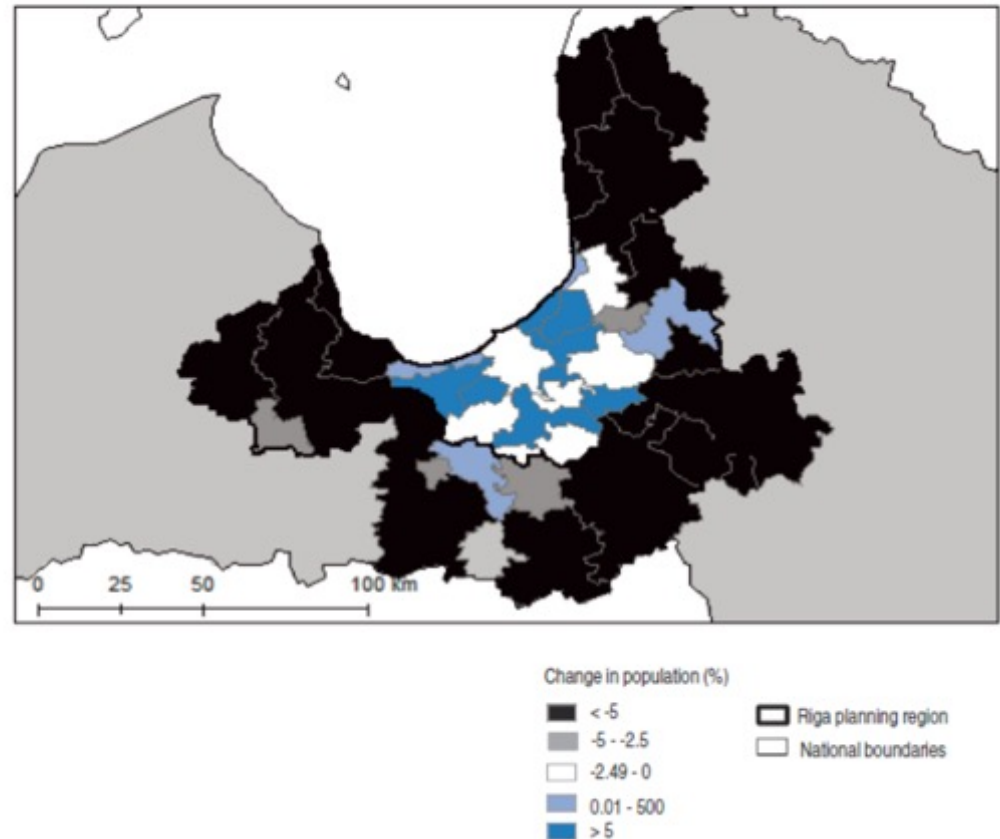


# Transportation in urban planning

- Riga, Latvia



Figure 2.8. Population has declined in many municipalities but has grown in municipalities surrounding Riga  
Population growth, 2010-15



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Источник: lsm.lv, LETA, OECD, Latvia.travel



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# Transportation in urban planning

- Amsterdam, Netherlands in 1900, 1971, and 2013



Source: <https://exploring-and-observing-cities.org/2016/01/11/amsterdam-historic-images-depicting-the-transition-from-cars-to-bikes/>



# Transportation in urban planning

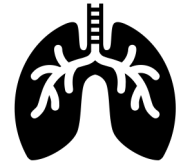
- Seoul, Korea in the 2000s and 2013



Источник: IGLUS, EPFL Management of Urban Infrastructures

# Transportation: what is the price?

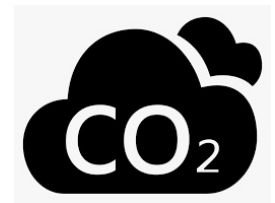
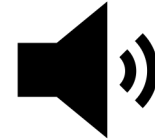
- Every year in Europe, 477,000 premature deaths happen due to air pollution (more than 7 million a year worldwide, WHO)
- According to a study conducted in the UK, people who regularly commute to work by bicycle have a 45% lower risk of cancer
- In 2017, 9600 people were killed in urban traffic accidents in the EU (38% of all cases)



Источник: <https://www.eea.europa.eu/publications/air-quality-in-europe-2020-report>, <https://www.who.int/news/item/22-09-2021-new-who-global-air-quality-guidelines-aim-to-save-millions-of-lives-from-air-pollution>, <https://www.eltis.org/mobility-plans/12-what-are-benefits-sustainable-urban-mobility-planning>, <https://www.eea.europa.eu/themes/human/noise>,

# Transportation: what is the price?

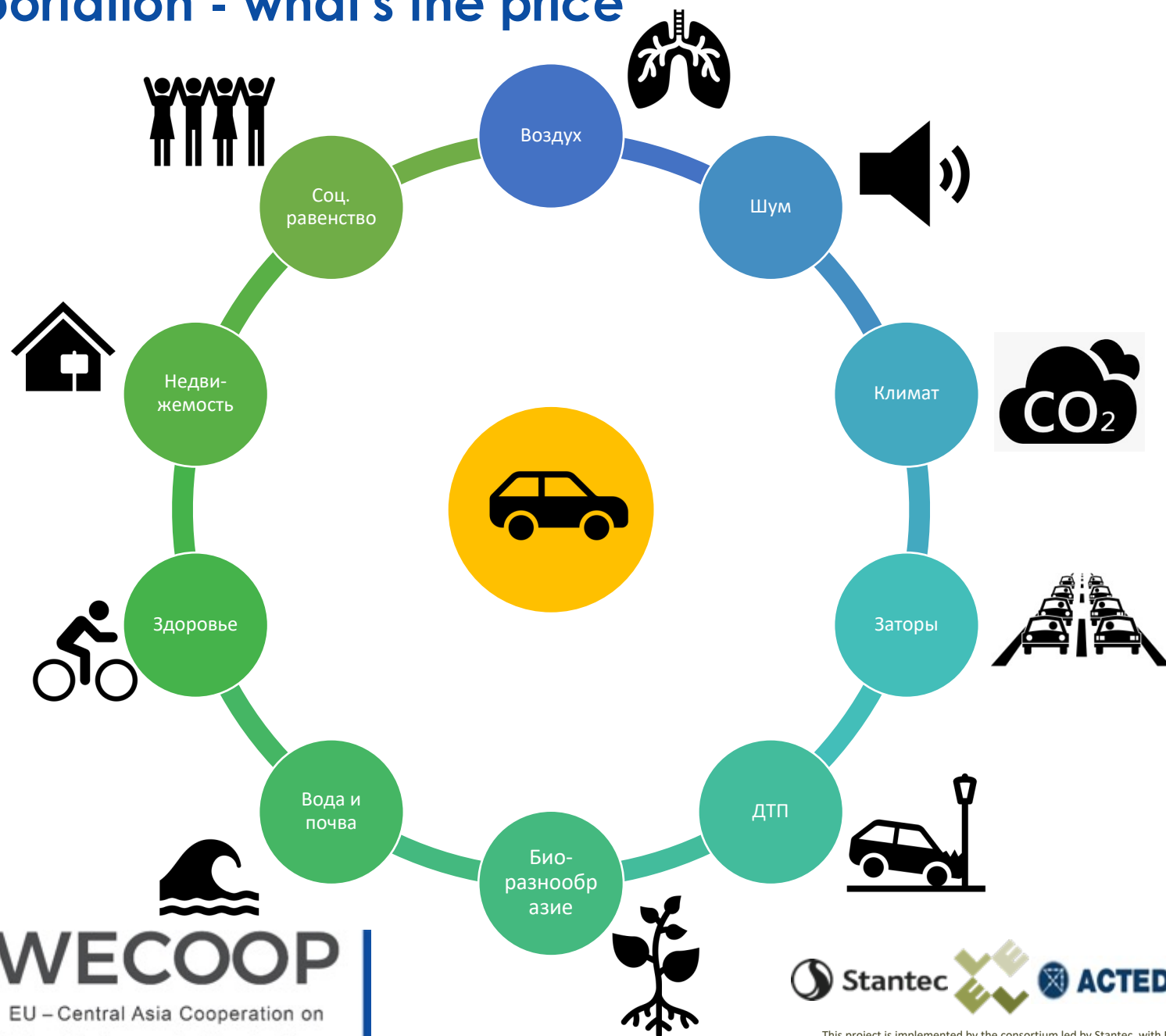
- The World Health Organization (WHO) ranks traffic noise, including road, rail and air traffic, as the second leading cause of poor health in Western Europe, second only to air pollution caused by very fine particulate matter
- Congestion costs EU member states **€100 billion** a year and is projected to rise to €150 billion by 2050
- Transportation accounts for nearly a quarter of Europe's greenhouse gas emissions



Источник: <https://internationalfleetworld.com/the-true-cost-of-congestion/> , [https://ec.europa.eu/clima/eu-action/transport-emissions\\_en](https://ec.europa.eu/clima/eu-action/transport-emissions_en) ,



# Transportation - what's the price



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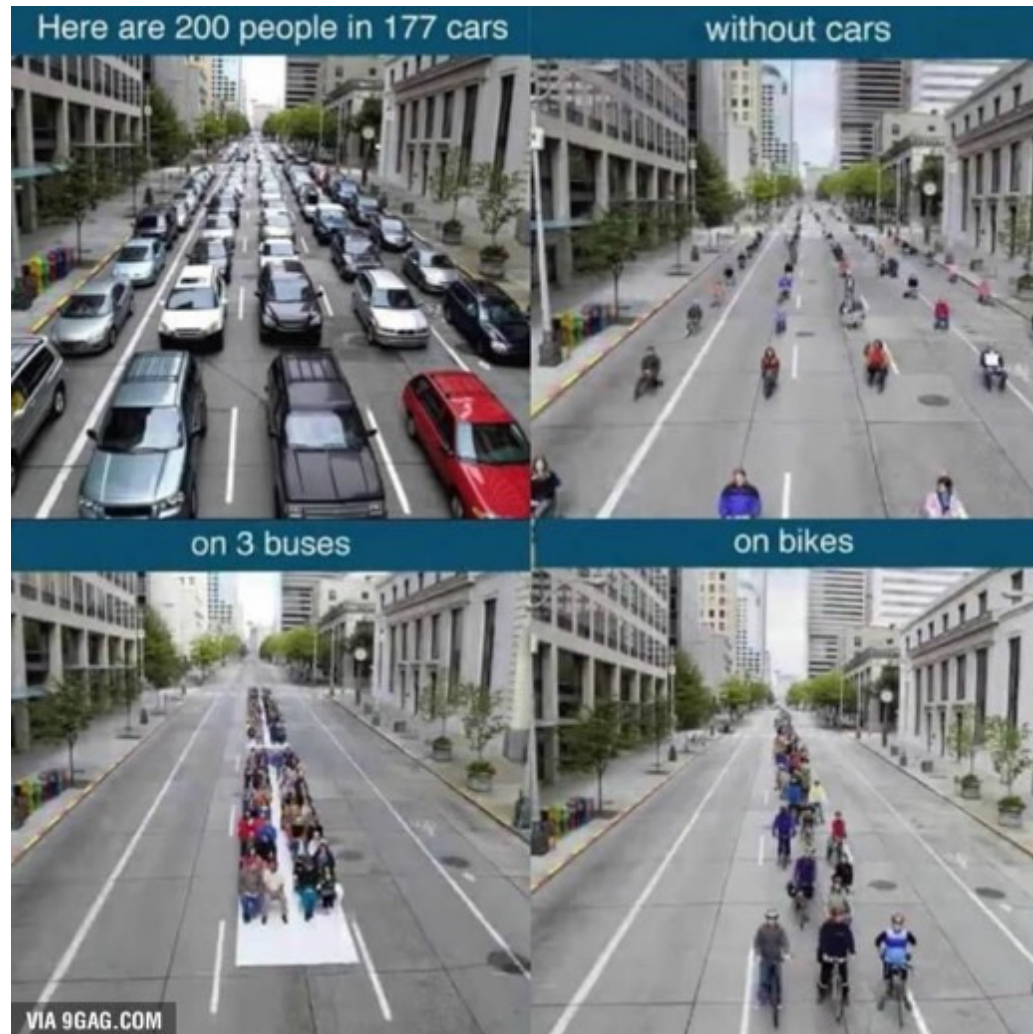
# Current challenges of urban transportation planning

- New technologies - new challenges





# What city would we like to live in?



# PLANNING FOR THE SUSTAINABLE CITY

## EIGHT PRINCIPLES FOR SUSTAINABLE URBAN MOBILITY PLANNING



## Sustainable Urban Mobility Plan

**Sustainable Urban Mobility Plan (SUMP)**  
- It is a comprehensive planning concept that solves transportation-related issues in a more sustainable way.



# Examples: Ljubljana, Slovenia



Источник: <https://www.eltis.org/resources/photos/>



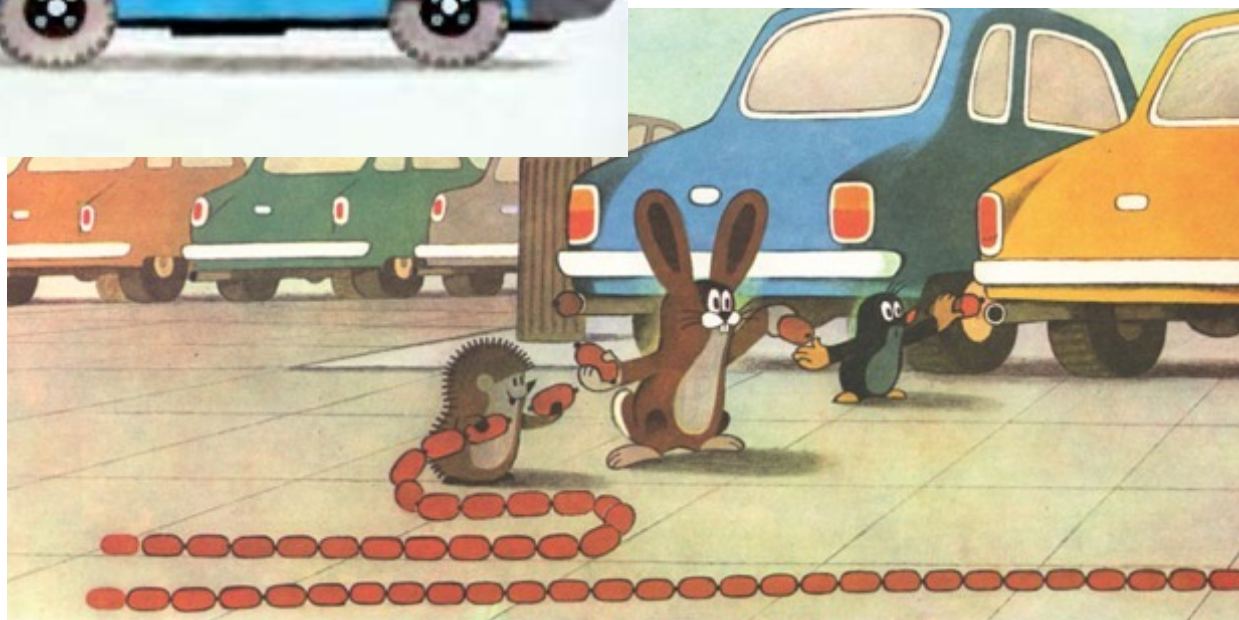
# Examples: Ljubljana, Slovenia



Источник: <https://www.eltis.org/resources/photos/ljubljana-and-after-sump-petkovskovo>



# What city do we want to live in?



Источник: [Зденеком Милером](#)

# Thank you!

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