

SUSTAINABLE DEVELOPMENT

SUSTAINABLE TRANSPORT

2017-2018

Juan A Ferriz-Papi





What do we need to transport?

What different means of transport can we have?

What is efficient transport?

What do you understand as sustainable transport?



DEFINITION

Sustainable transport system is one that:

- Allows the **basic access and development needs of individuals, companies and society** to be met **safely** and in a manner consistent with human and ecosystem **health**, and promotes **equity** within and between successive generations.
- Is **Affordable**, operates **fairly and efficiently**, offers a **choice** of transport mode, and supports a **competitive economy**, as well as balanced **regional development**.
- **Limits emissions and waste** within the planet's ability to absorb them, uses **renewable resources** at or below their rates of generation, and uses non-renewable resources at or below the rates of development of renewable substitutes, while **minimizing the impact on the use of land** and the generation of **noise**.

EU Council of Ministers of Transport



ENVIRONMENTAL IMPACT

Responsible of 23% of world energy-related GHG emissions (2004)

- $\frac{3}{4}$ from road vehicles
- 95% of transport energy comes from petroleum

Energy consumed in:

- Manufacturing
- Use of vehicles
- Transport infrastructures

What other impacts can be considered?



ENVIRONMENTAL IMPACT

Some proposals to reduce environmental impact:

- Encouraging other types of energy
- Reduce weight of vehicles
- Sustainable styles of driving
- Reducing tyres friction
- Better traffic management
- Improving walking and cycling facilities
- Reducing private vehicle use
- Improving public transport
- ...



SOCIAL SUSTAINABILITY

Some proposals to improve social sustainability:

- Access to public space and public services
- Improvement of healthy lifestyles (walking, cycling)
- Appropriate traffic management
- Different options
- Reduction of travelling time
- Green spaces, green routes
- ...



ECONOMIC DEVELOPMENT

Some proposals to improve economic development:

- Balanced development of territories
- Affordable for users
- Efficiency
- Profitable
- ...

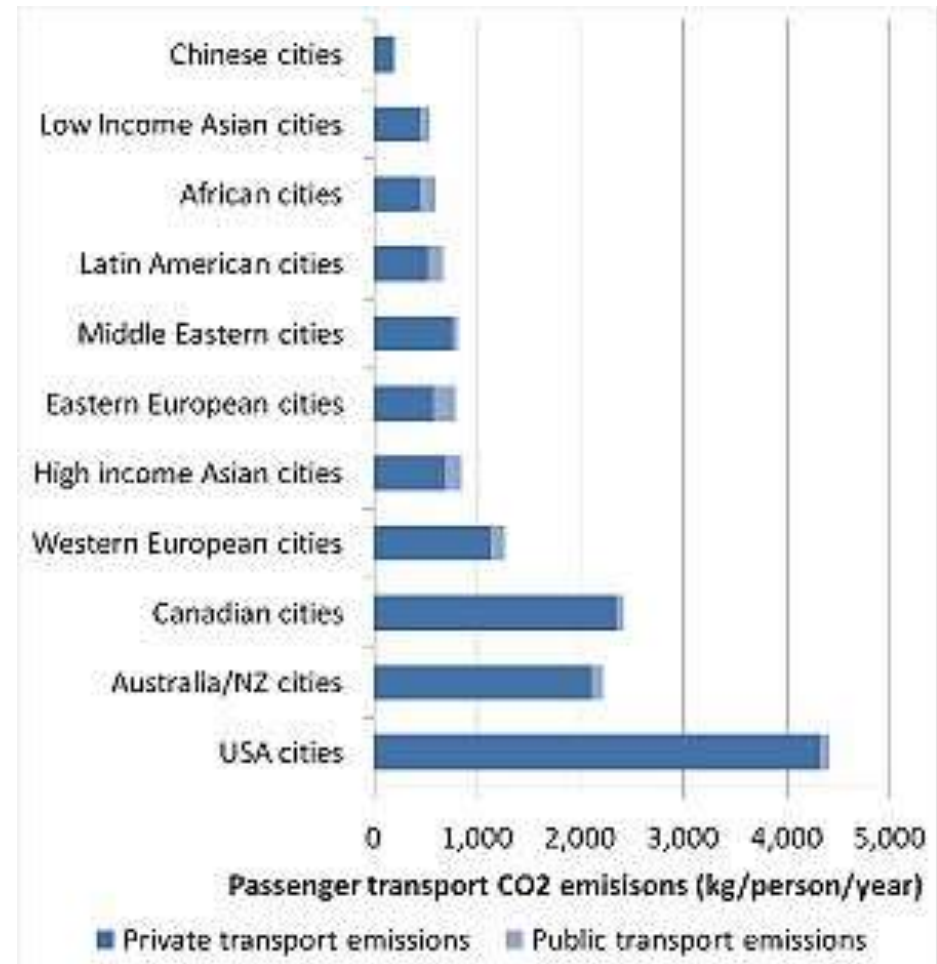


CITY TRANSPORT

Since 1940s the economic development has made the city be adapted to private car

Transport policies in each country have influenced drastically in the transport model they have nowadays

EUROBAROMETER ON URBAN MOBILITY (UK)





ACTION PLAN FOR URBAN MOBILITY (EU)

Adopted in 2009

Proposes 20 measures to encourage and help local, regional and national authorities in achieving their goals for sustainable urban mobility

https://ec.europa.eu/transport/themes/urban/urban_mobility/action_plan_en



URBAN MOBILITY PACKAGE (EU)

2013. The Commission reinforces its supporting measures in the area of urban transport by:

- Sharing experiences, show-casing best practices, and fostering cooperation
- Providing targeted financial support,
- Focusing research and innovation on delivering solutions for urban mobility challenges,
- Involving the Member States and enhance international cooperation.

https://ec.europa.eu/transport/themes/urban/urban_mobility/ump_en



EXERCISE

Read the article and report given.

Imagine you are part of the expert panel in sustainable transport and you are working on urban mobility improvement in London. In this meeting, we are going to assess the present situation of urban mobility so that new improvements can be developed.

With the PESTLE technique you have to develop this assessment finding pros and cons.



EXERCISE

PESTLE Analysis

Political

- Services
- Infrastructure
- Tax Policy
- Regulation

Economic

- Growth Rate
- Inflation
- Labor Costs
- Business Cycle

Social/Cultural

- Demography
- Education
- Cultural Norms
- Income Distribution

Technological

- Emerging Tech
- Tech Transfer
- R&D Efforts
- Communication

Legal

- Regional Laws
- Law Enforcement
- Court System

Ecological

- Resource Management
- Energy Availability
- Workforce Health
- Climate Change