Block 4: Managing Urban Transport Infrastructures

1. Understanding the Urban Transportation System

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Block overview

This block you will be introduced to the management of urban transportation infrastructures, their challenges and what is being done to address them in the context of efficiency.

The block is structured into the following sessions:
1. Understanding the urban transportation system
2. Managing the urban transportation system
3. Challenges for urban transport managers
4. Challenges as seen from an operator (interview)
5. Broader challenges and new opportunities
1. Understanding the urban transportation system

In this session you will learn about the **basic features** of transportation in cities.

In particular you will learn about:

- The relationship between transport and the **structure of the city**
- The basic (physical) **infrastructures**
- The main **transportation modes**
- The main **interfaces**
Transport and the city

Transport is the most structuring infrastructure of a city:

- Transport is closely related to housing and the built environment:
  - the structure of the built environment conditions transport infrastructures and mobility
  - transport offerings condition urban housing, industrial and commercial development

- Transport also is a significant driver of urban energy consumption, as well as of pollution
The basic physical infrastructures

- Roads
  - Tram tracks, light metro tracks
  - Dedicated bicycle lanes
  - Dedicated bus lanes
  - Sidewalks

- Underground metro tracks

- Surface train tracks

- Underground train tracks
The main transportation modes

- Public bus, tram, metro
- Cycling
- Driving by car
- Taxi
- Walking
- Train, mass transit

- Train tracks, light metro tracks
- Dedicated bus lanes
- Surface train tracks
- Underground metro tracks
- Sidewalks
- Underground train tracks

- Dedicated bicycle lanes
- Roadways
The main interfaces

- Public bus, tram, metro
  - Bus stops
- Cycling
  - Bicycle stands
- Driving by car
  - Parking lots
- Taxi
  - Taxi stands
- Walking
  - Sidewalks
- Train, mass transit
  - Stations above and underground

- Roads
  - Train tracks, light metro tracks
  - Dedicated bicycle lanes
  - Dedicated bus lanes
  - Sidewalks
- Underground metro tracks
  - Underground train tracks
Conclusion

● In this session I have presented the main features of the urban transportation system

● In the next session we will see how all this is managed, or rather should be managed