

Impacts of Urban Transport on Climate Change

How mitigation policies could help setting-up sustainable mobility in cities ?



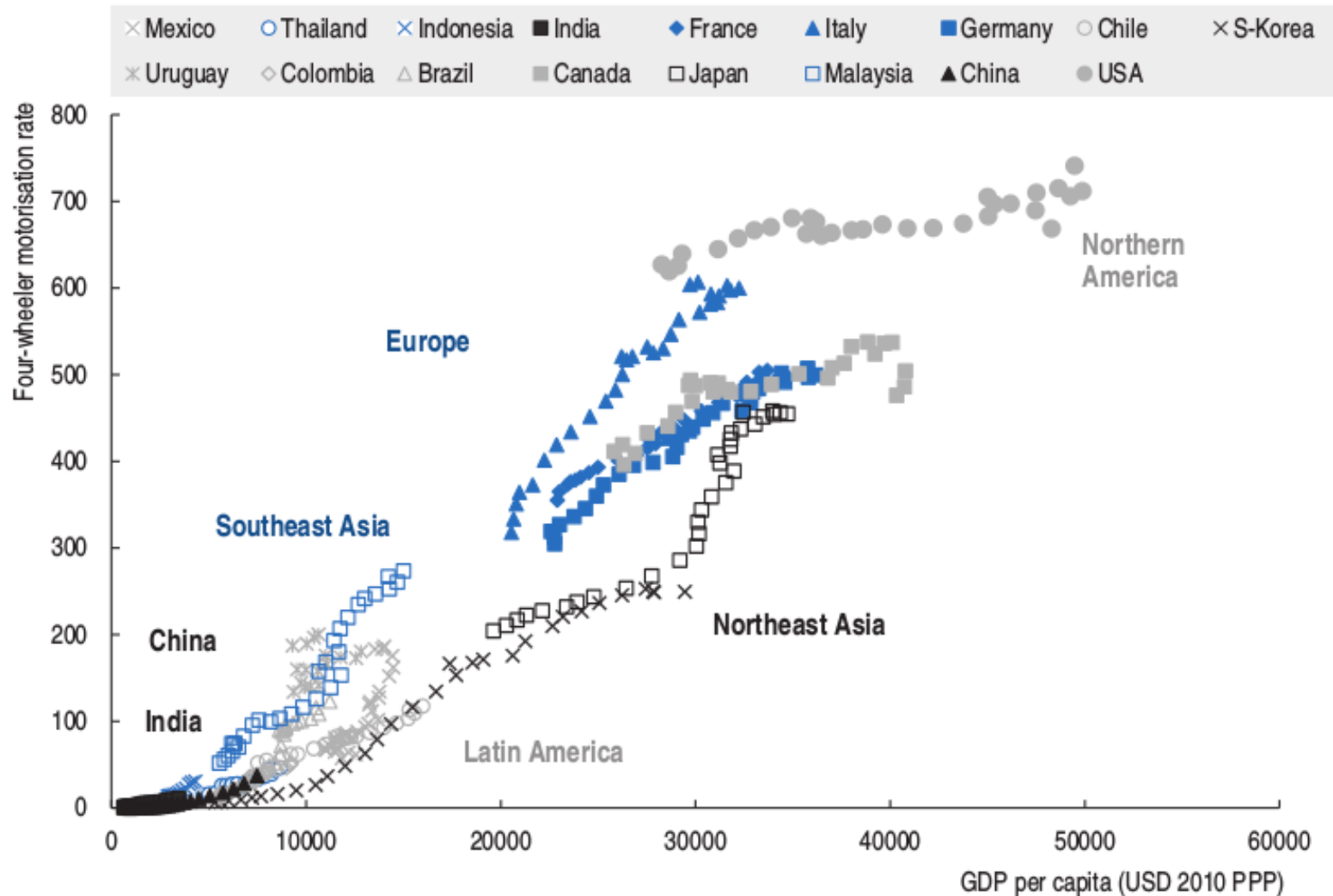
Marion Hoyez



CODATU

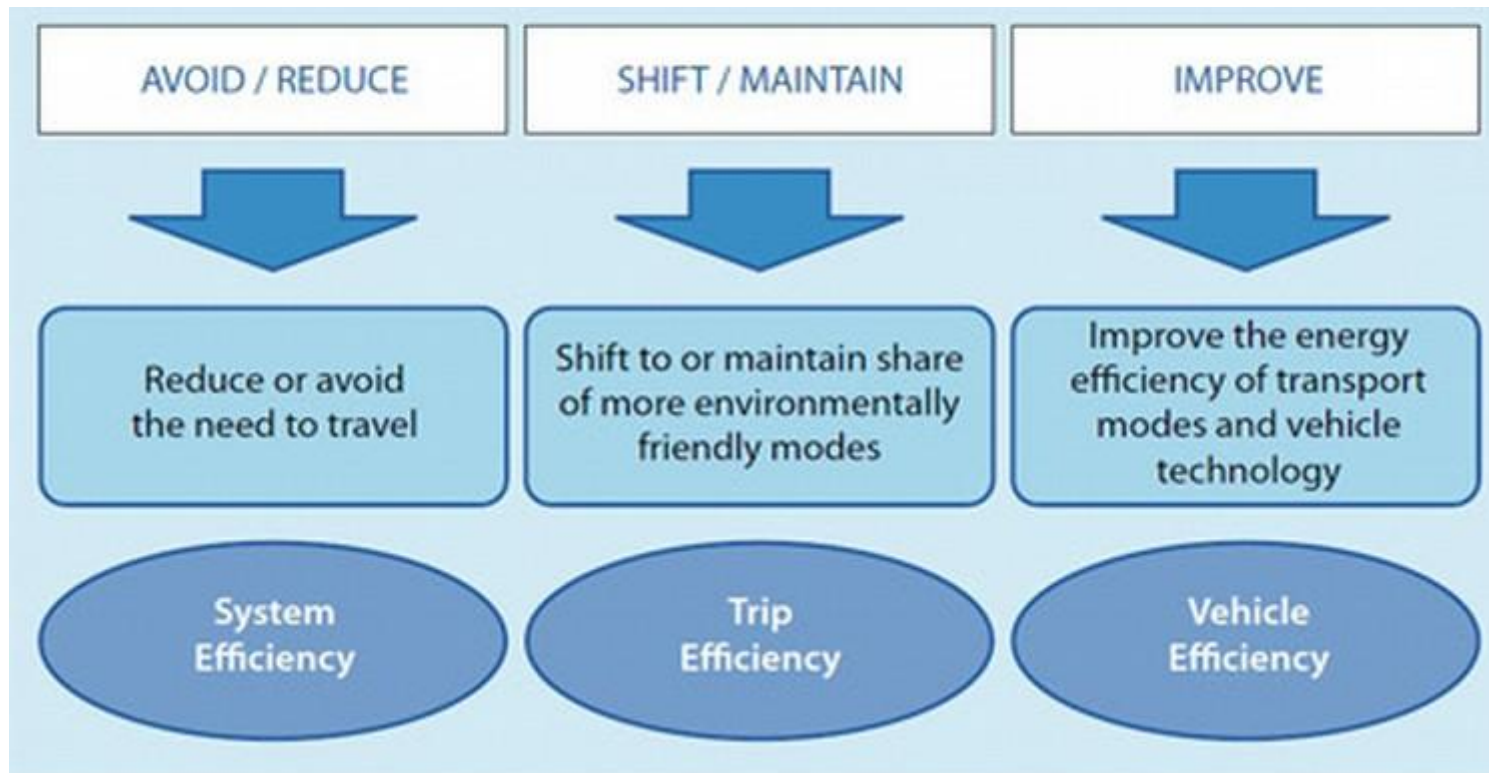
Four-wheeler ownership compared to per capita income : different paths

Figure 4.2. **Four-wheeler motorisation relative to per capita income, selected countries**



Source: IMF (2014); International Energy Agency. Momo ETP 2014 (2014); INEGI (2013); INE (2013); DANE (2013); data provided by Dr. Hua Zhang.

Avoid-Shift-Improve Approach



Reducing emissions through technologies and low carbon fuel

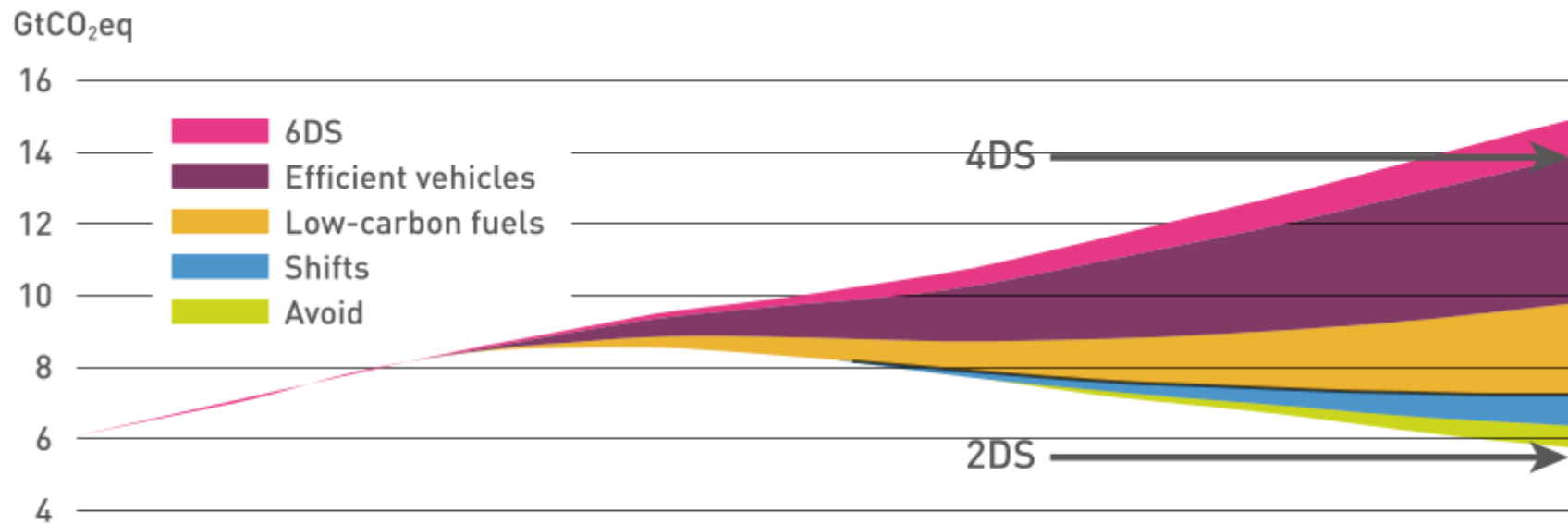


Figure 17: The IEA's scenario to switch from the 4°C scenario to the 2°C scenario⁴⁵

Is there any option to do mitigation through « avoid » and « shift » ?

CO2 emissions from transport in different cities

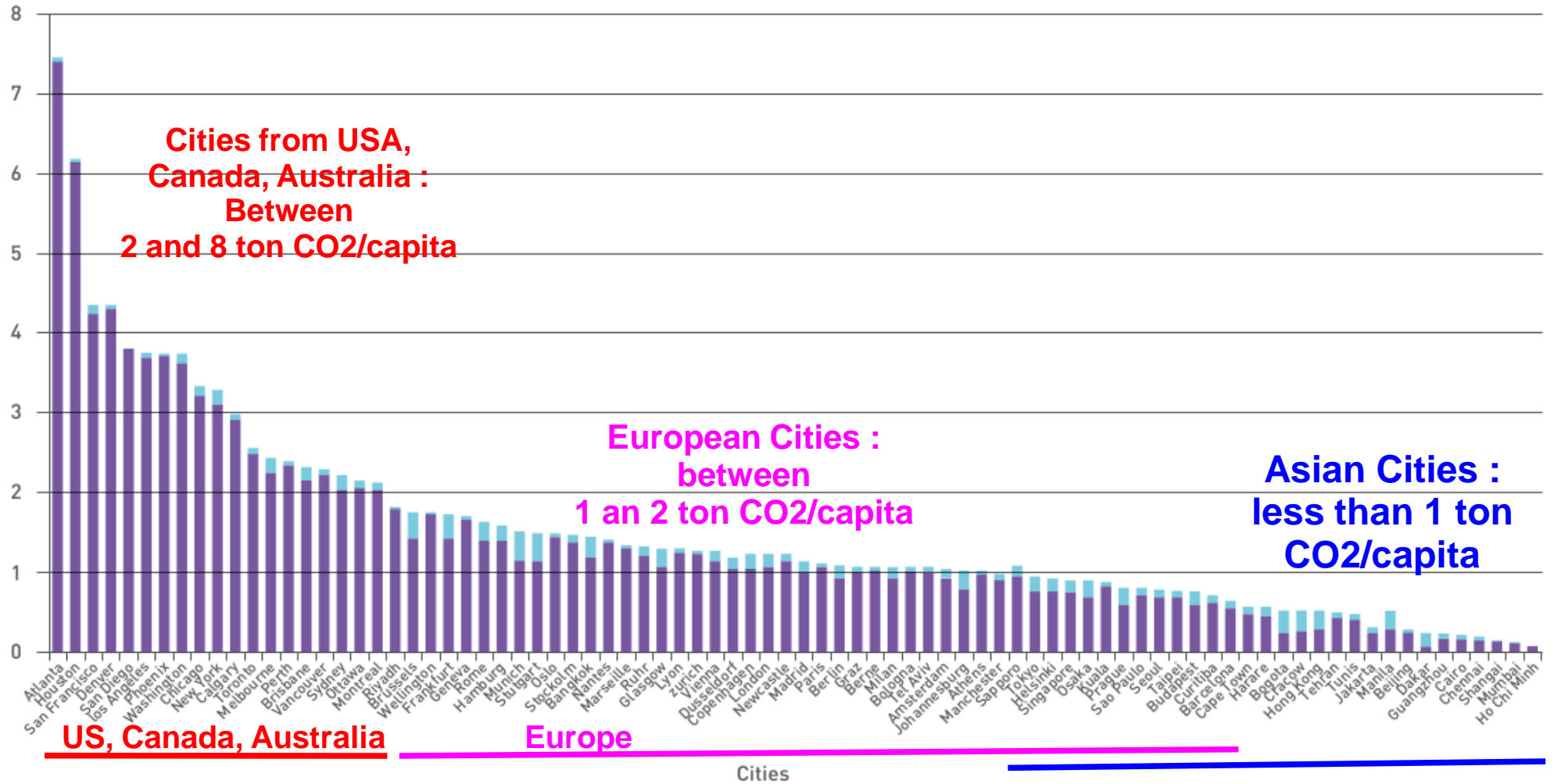
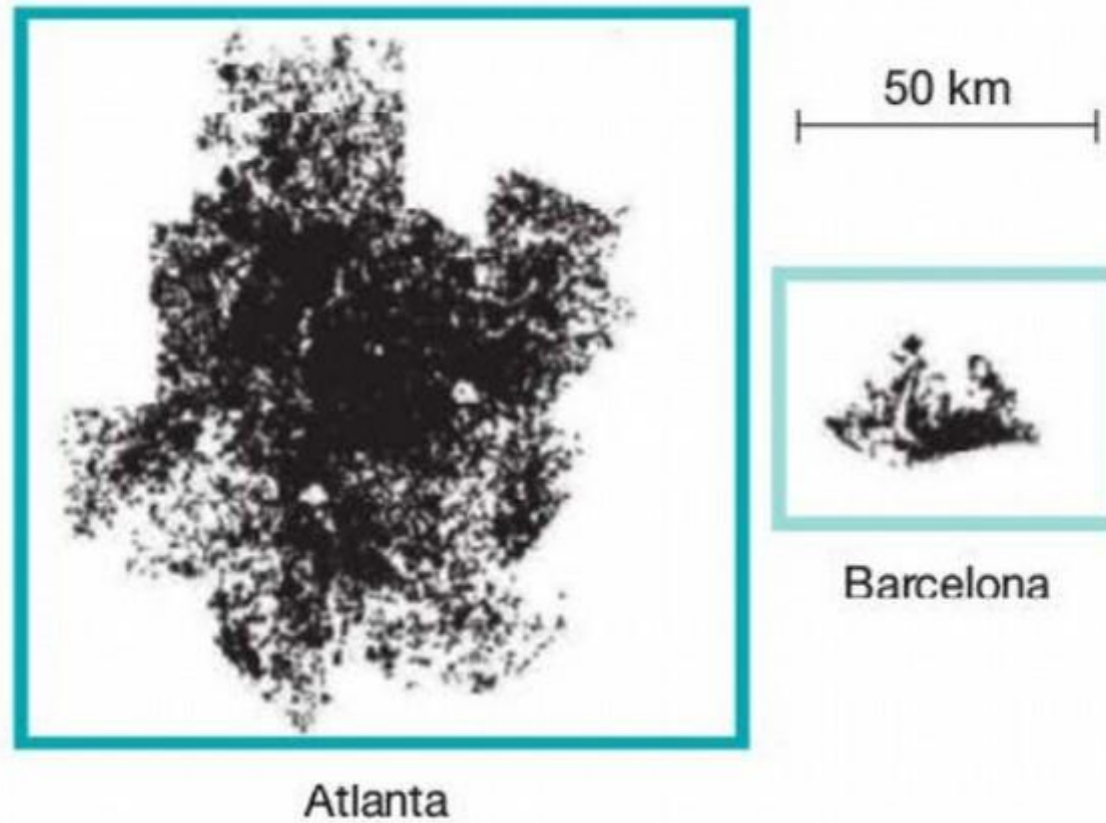


Figure 2: CO₂ emissions per inhabitant for urban transport in 84 cities worldwide (2003)⁵



ATLANTA

Population
5.25 million

Urban area
4280 km²

CO₂ emissions
7.5 tonnes per habitant
per year
(public+private transport)

BARCELONE

Population
5.33 million

Urban area
162 km²

CO₂ emissions
0.7 tonnes per habitant
per year
(public+private transport)

**Same
population**

**25 times less
sprawled**

**10 times
less CO₂
emissions**

Figure 7: Comparison of the urban forms of Atlanta and Barcelona²⁶

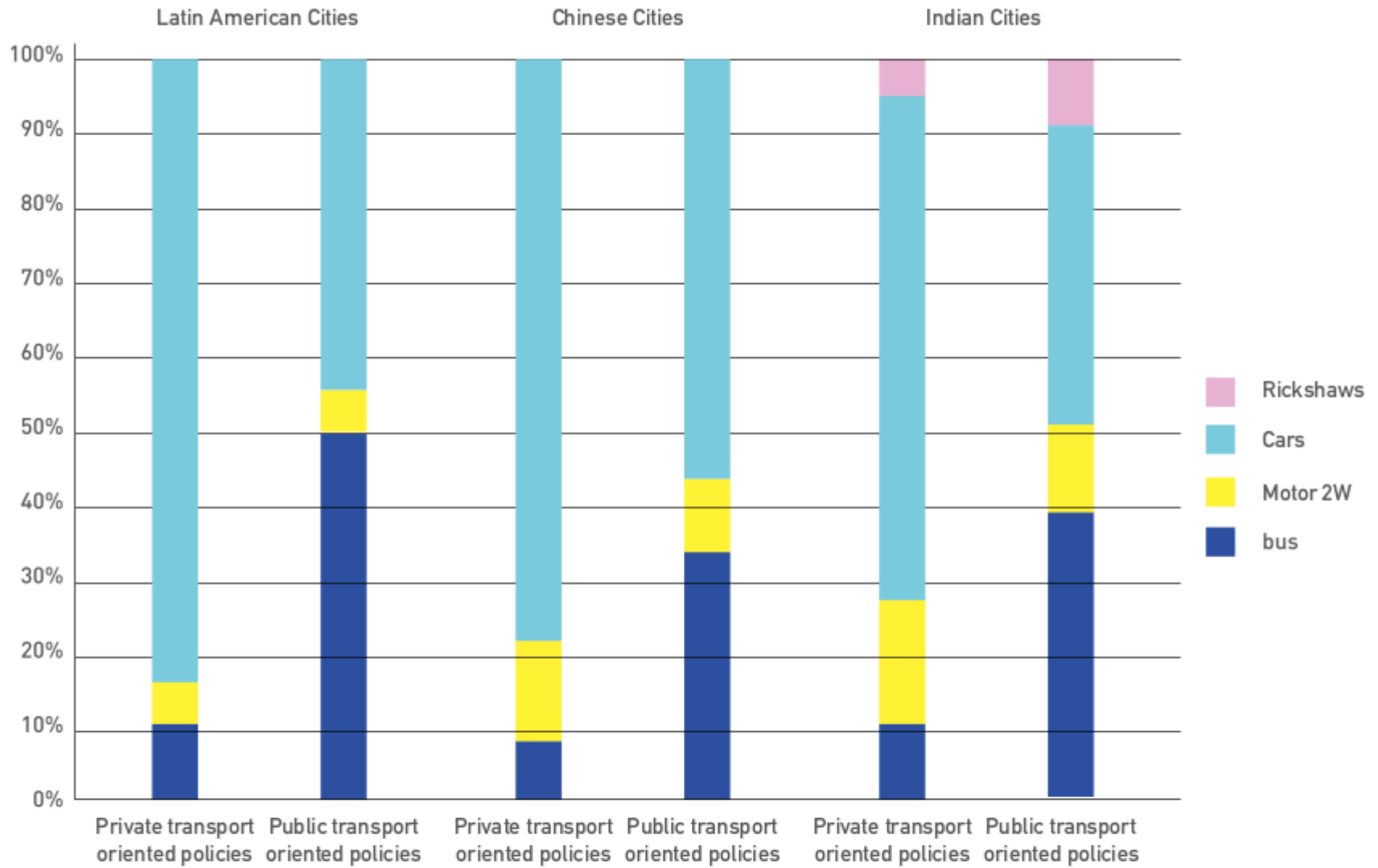
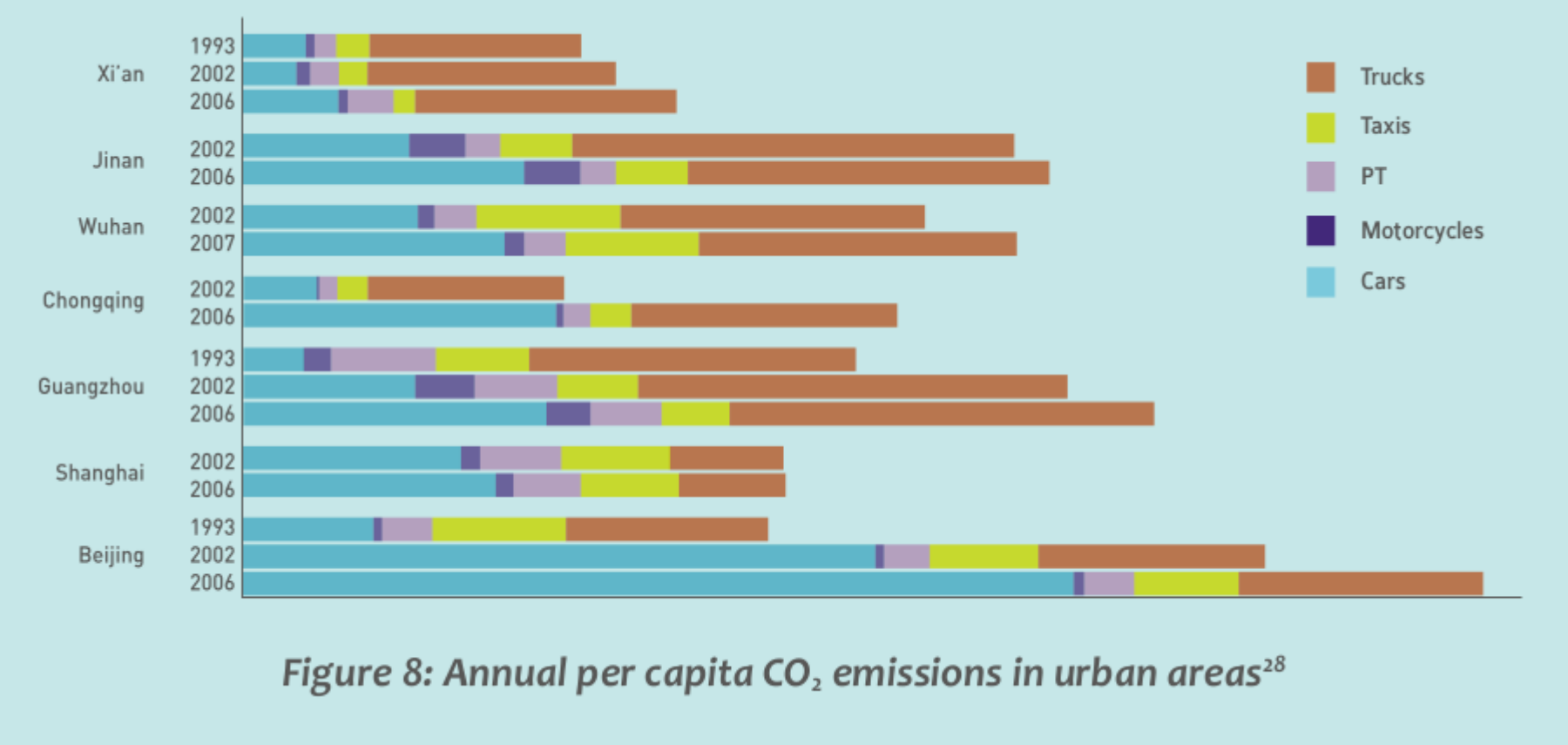


Figure 5: Modal shares (in passenger-km) depending on urban development scenarios¹² 2050

Examples of Chinese cities : different paths in the same country



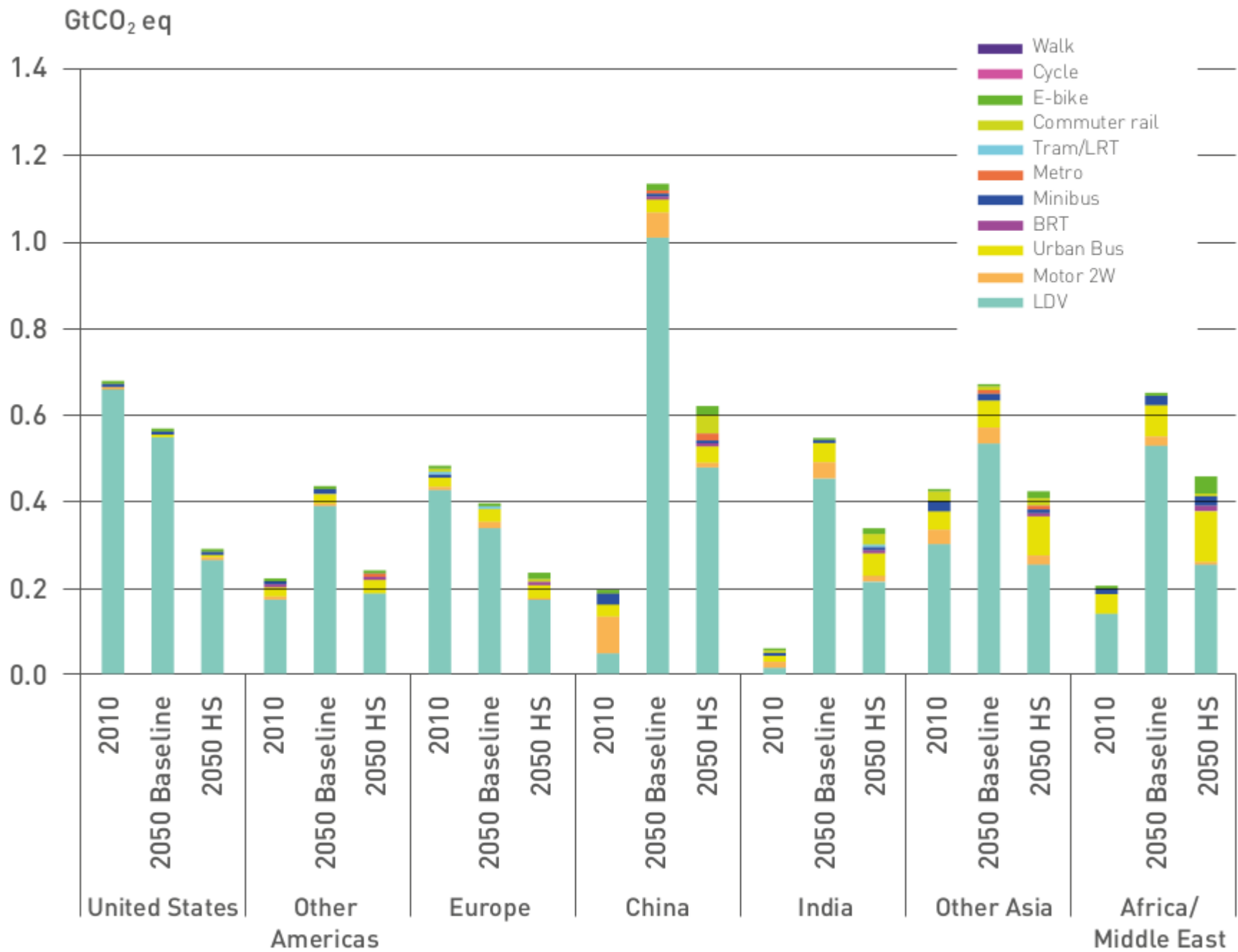


Figure 4: Emissions outlook in the High Shift Scenario¹¹

Urban Mobility is not only about Climate

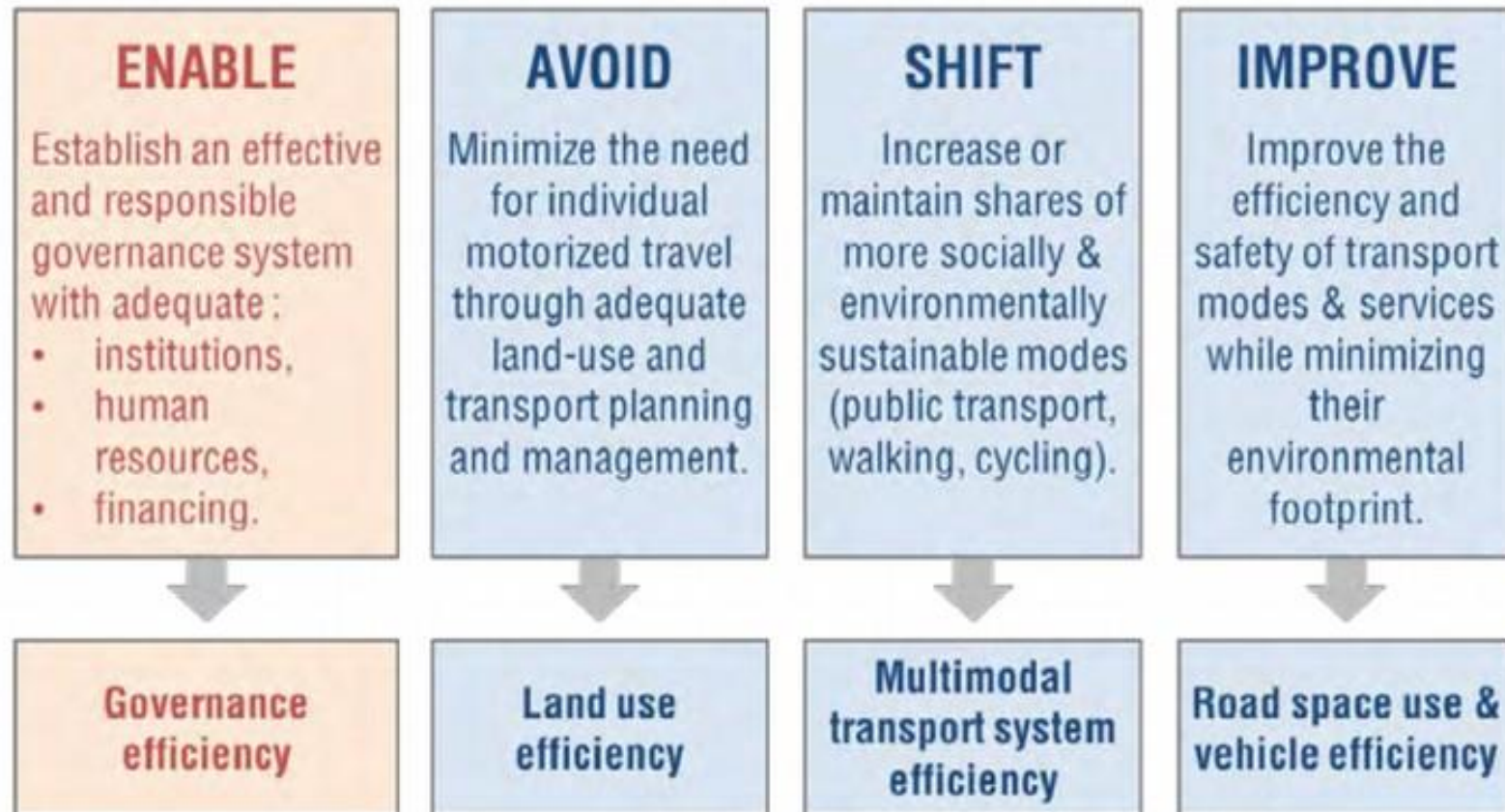
Many other reasons to act :

- **1st : Accessibility**
- **Reducing local externalities**

Air Pollution	> 5.4 trillion
Road traffic deaths	500 billion
Congestion ²²	850 billion
Spending (infrastructure, fuel) ²³	2 500 billion

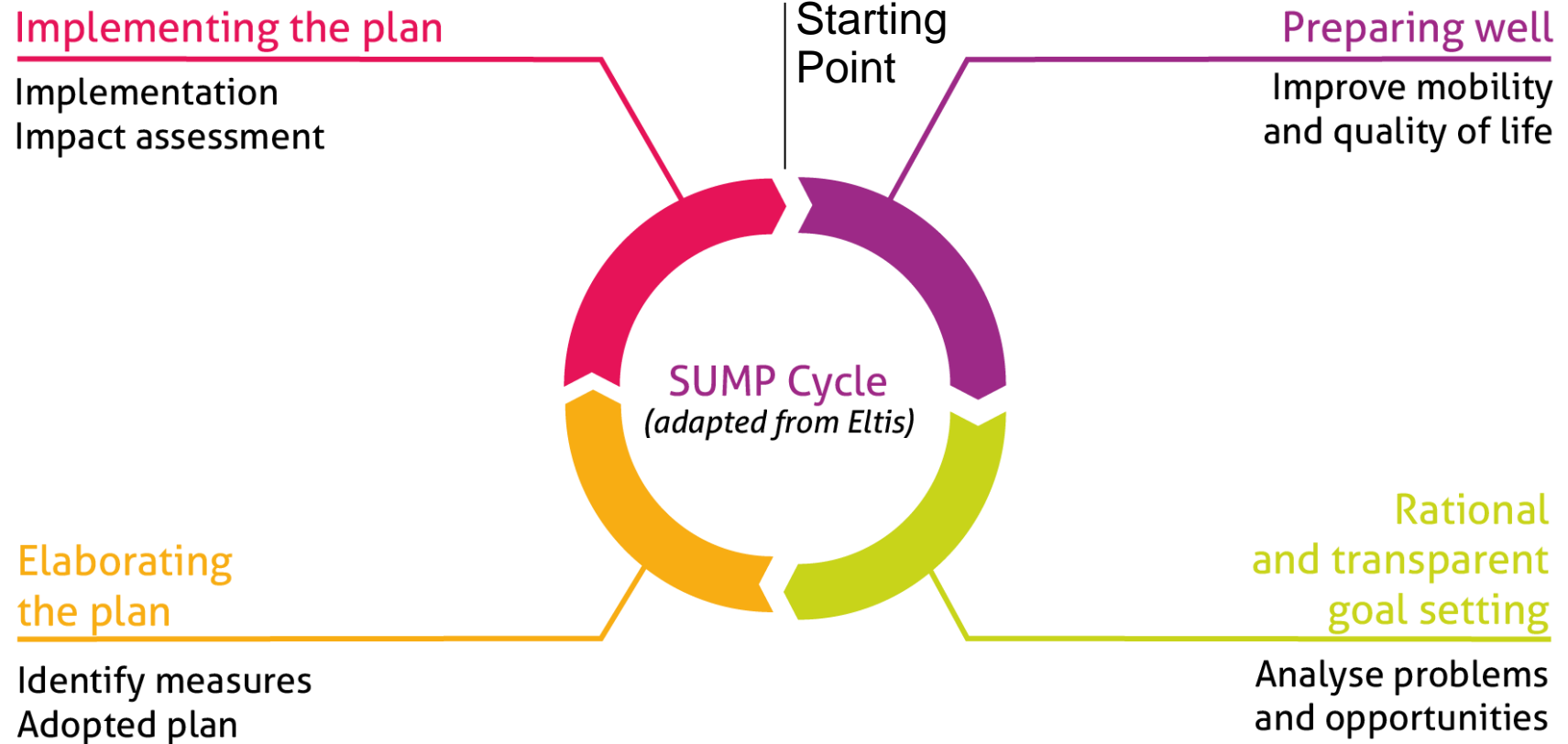
Table 2: Orders of magnitude of total costs associated with urban mobility based on motorised vehicle ownership (in US dollars per year)

EASI conceptual framework



- From SSATP : “Policies for Sustainable Accessibility and Mobility in Urban Areas of Africa” – the result of a study conducted by Transitec, ODA, ACET, Urbaplan and CODATU –

Sustainable Urban Mobility Plans



« planning & implementation » process with a comprehensive view on mobility issues

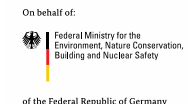


Mobilise Your City

**Target : 100 cities engaged in
sustainable urban mobility planning !**

You can fill the ambition statement :
contact@mobiliseyourcity.net

The initiative supports emerging and developing cities
and countries in their efforts to plan sustainable urban
mobility



Conclusion : Mitigation Policies for sustainable urban mobility

- Comprehensive approach on mobility issues
- Development of Public Transport oriented policies
- Implementation of action plans from CMP
- Measure of CO₂ emissions in transport (+ co-benefits) and assessment of mobility policies ... to give access to climate funds for urban mobility policies.

Thank you !

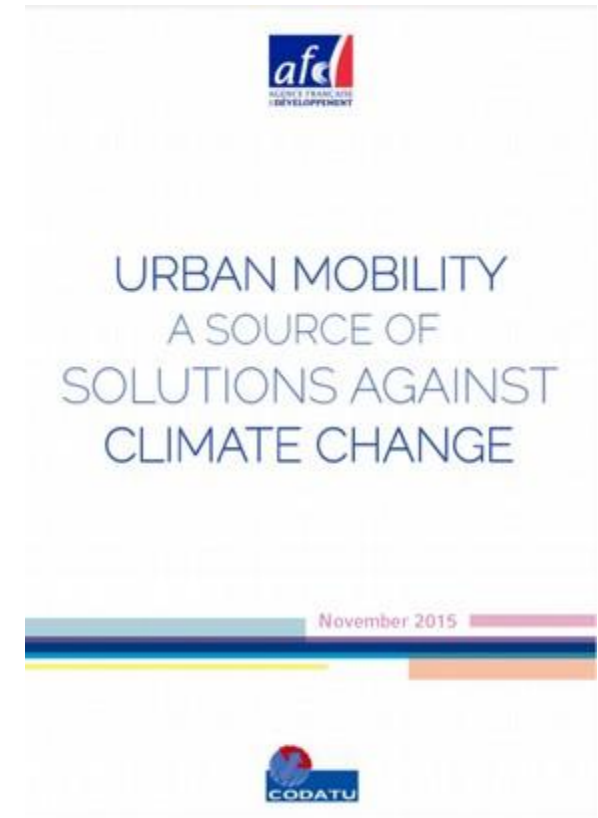
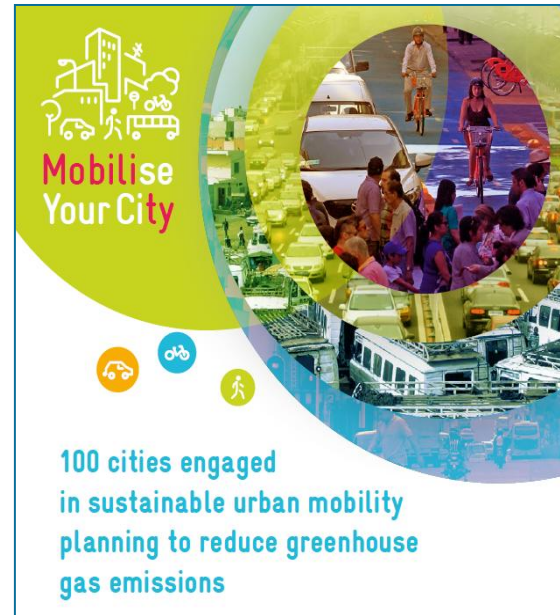
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