International Transport Forum

ITF **Transport Outlook** 2015

IEA Networking Event

Forum Fribourg, 25 September 2015

OECD

Strategic tool

- A scenario tool to examine development of global transport volumes and related CO_2 emissions, health impacts
- Strategic tool to support policy-makers in shaping the future of transport policies
- Allows us to analyse how world could change if we choose different policies and development paths

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Population growth generates rising mobility needs

8.8 billion

The world population by 2050

Source: ITF Transport Outlook 2015 based on UN Urbanisation Prospects (2011 Revision)

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Cities shaping future transport flows

2.7 billion

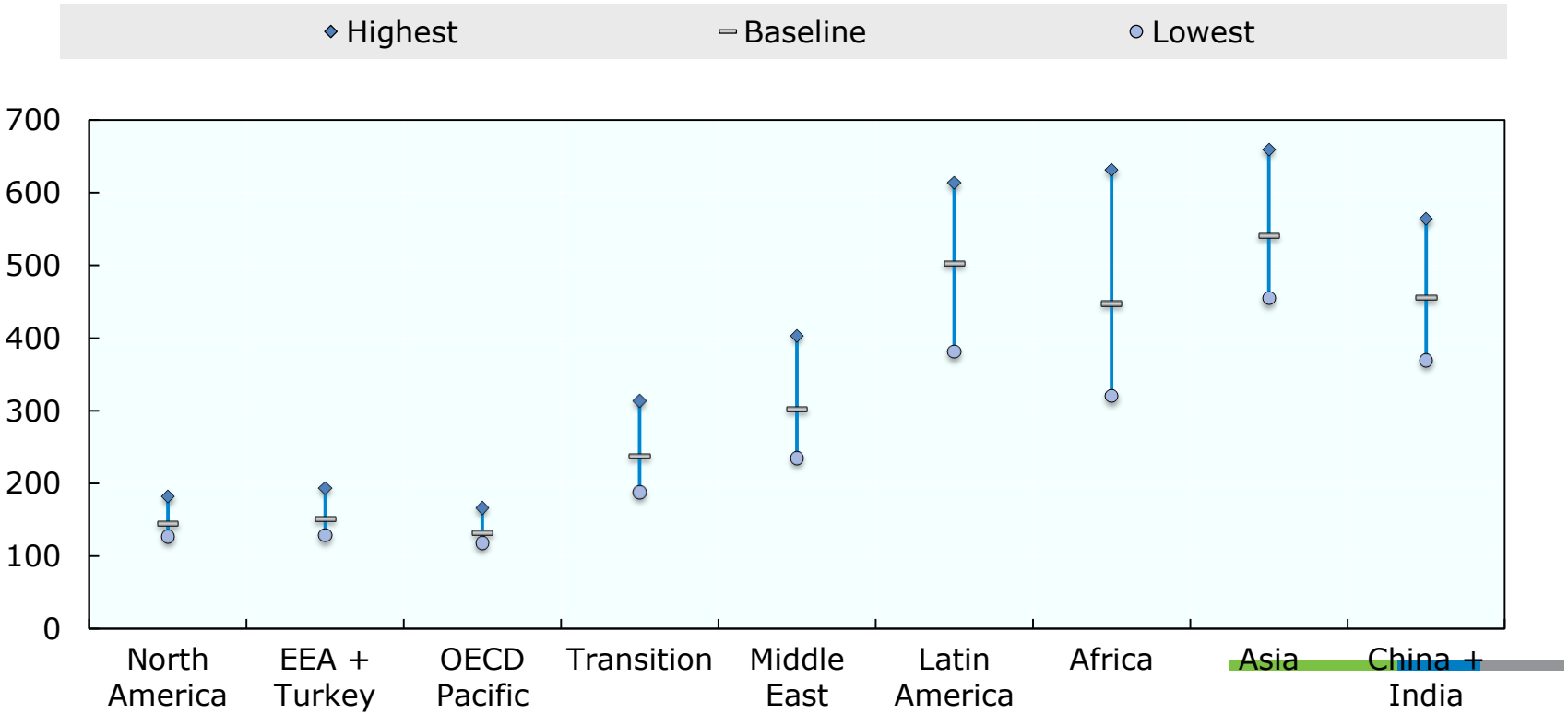
Additional urban dwellers in 2050, 94% will live in developing countries

Carbon emissions from urban transport still a significant part of the whole

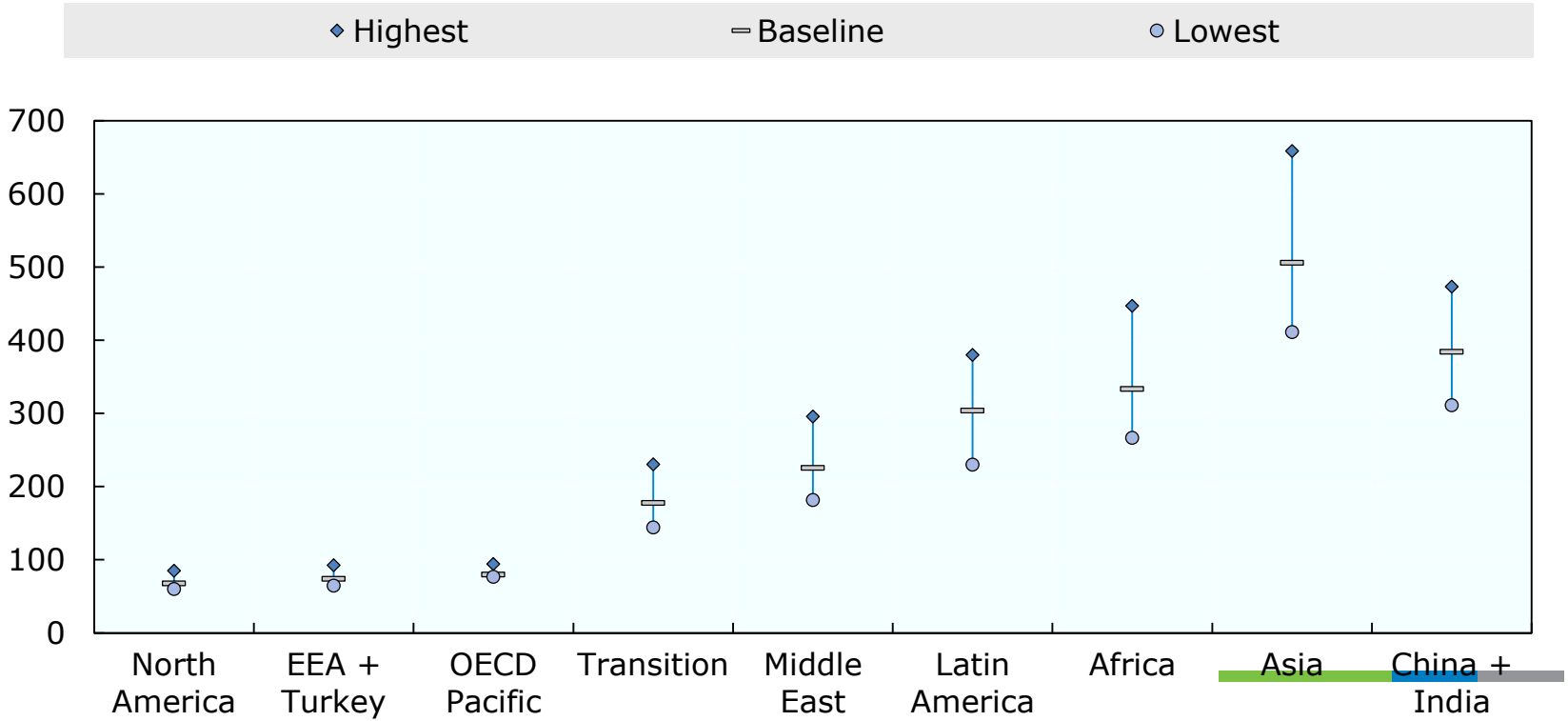
- **In spite of progress towards cleaner vehicles**
- **Considerable lifespan of vehicles limits emission reductions from new technologies**

Source: ITF Transport Outlook 2015 based on UN Urbanisation Prospects (2011 Revision)

Vehicle-kilometres for passenger transport by world region, 2050 (2010=100)



CO2 emissions for passenger transport by world region, 2050 (2010=100)



Urban mobility in emerging economies

38%

Big cities in China, India and Latin America will generate more than one third emissions growth from passenger transport by 2050

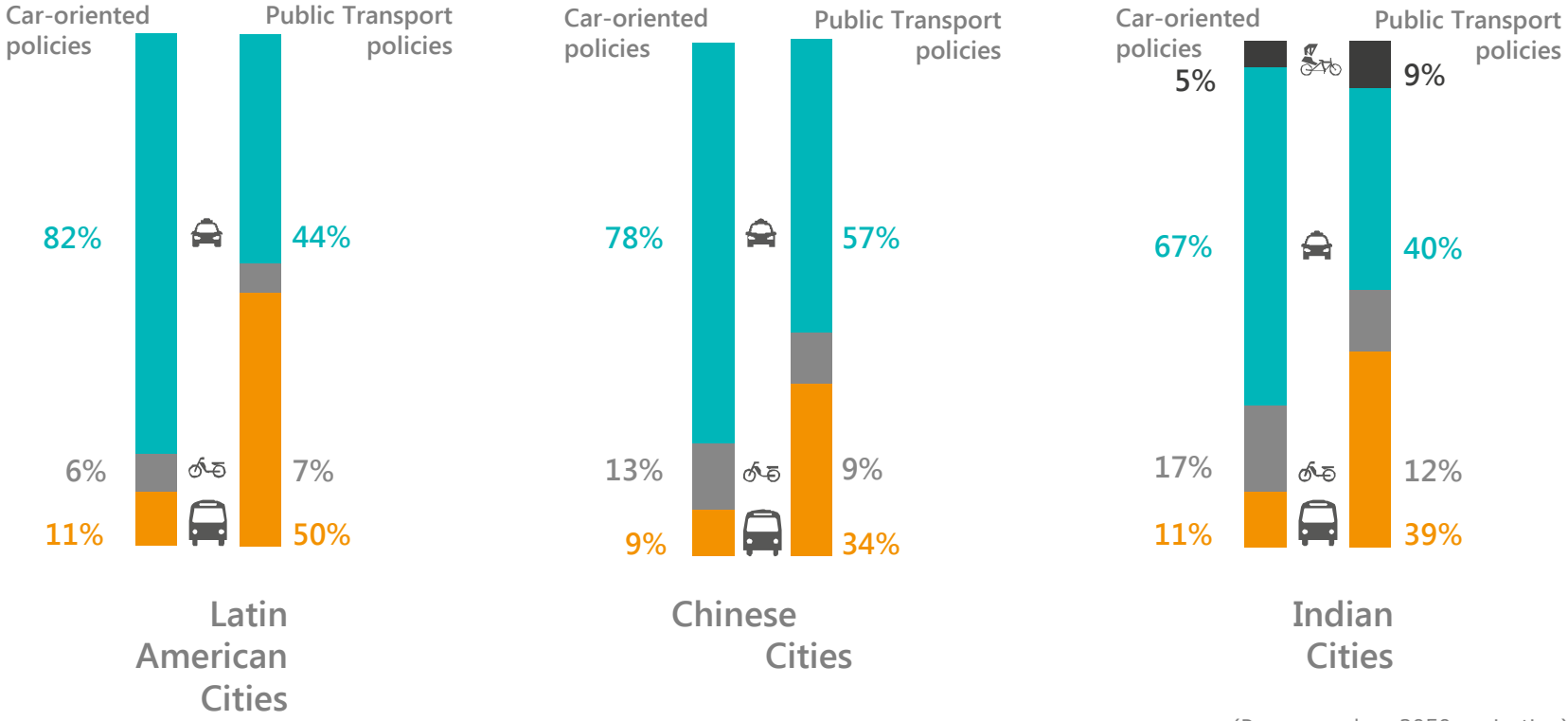
(baseline scenario)

Policies that:

- contain urban sprawl
- favour public transport
- set prices to reflect real costs

can reduce this growth by 30-40%

Impact of alternative policies on urban modal split

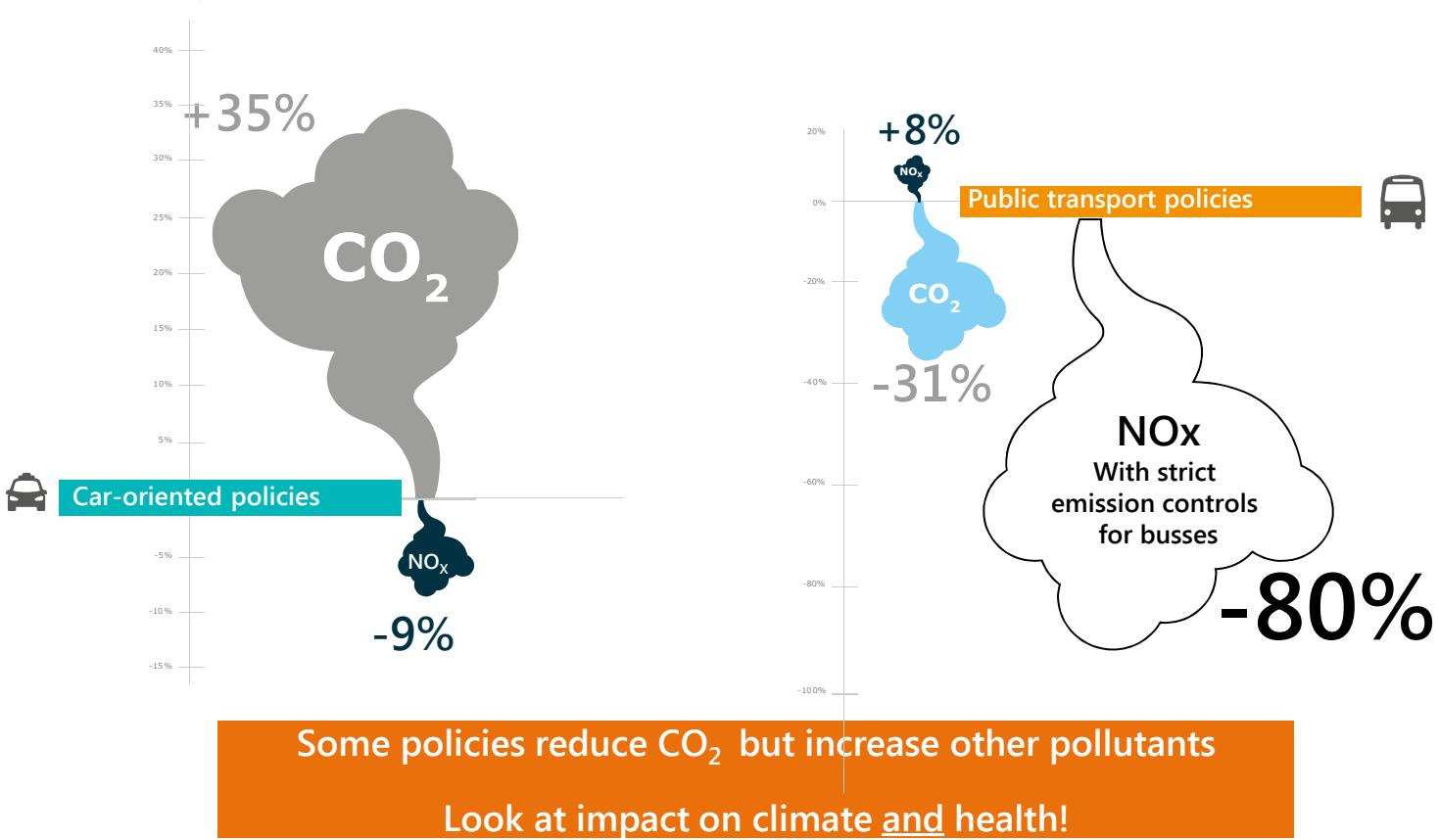


(Passenger-km, 2050 projection)

Future mobility and mode choices

- Not necessarily based on our approaches
- For example vehicles:
  - Not probably cars as we know them (family-owned, fuel-car…)
  - 665.000 electric cars today; 230 million electric vehicles
  - Almost every single is a 2-wheeler in Chinese cities
- Flexible, alternative fuel vehicle suited to constraints of urban regions > opportunity for new innovations

CO_2 and NO_x emissions in alternative policy scenarios (Latin America)



Some policies reduce CO_2 but increase other pollutants

Look at impact on climate and health!

Recommendations for urban mobility in emerging economies

Focus on avoid-shift-improve

Contain urban sprawl to reduce need for mobility

Encourage shift to public transport,

Stimulate and deploy technological innovation

Charge real prices

Change investment priorities

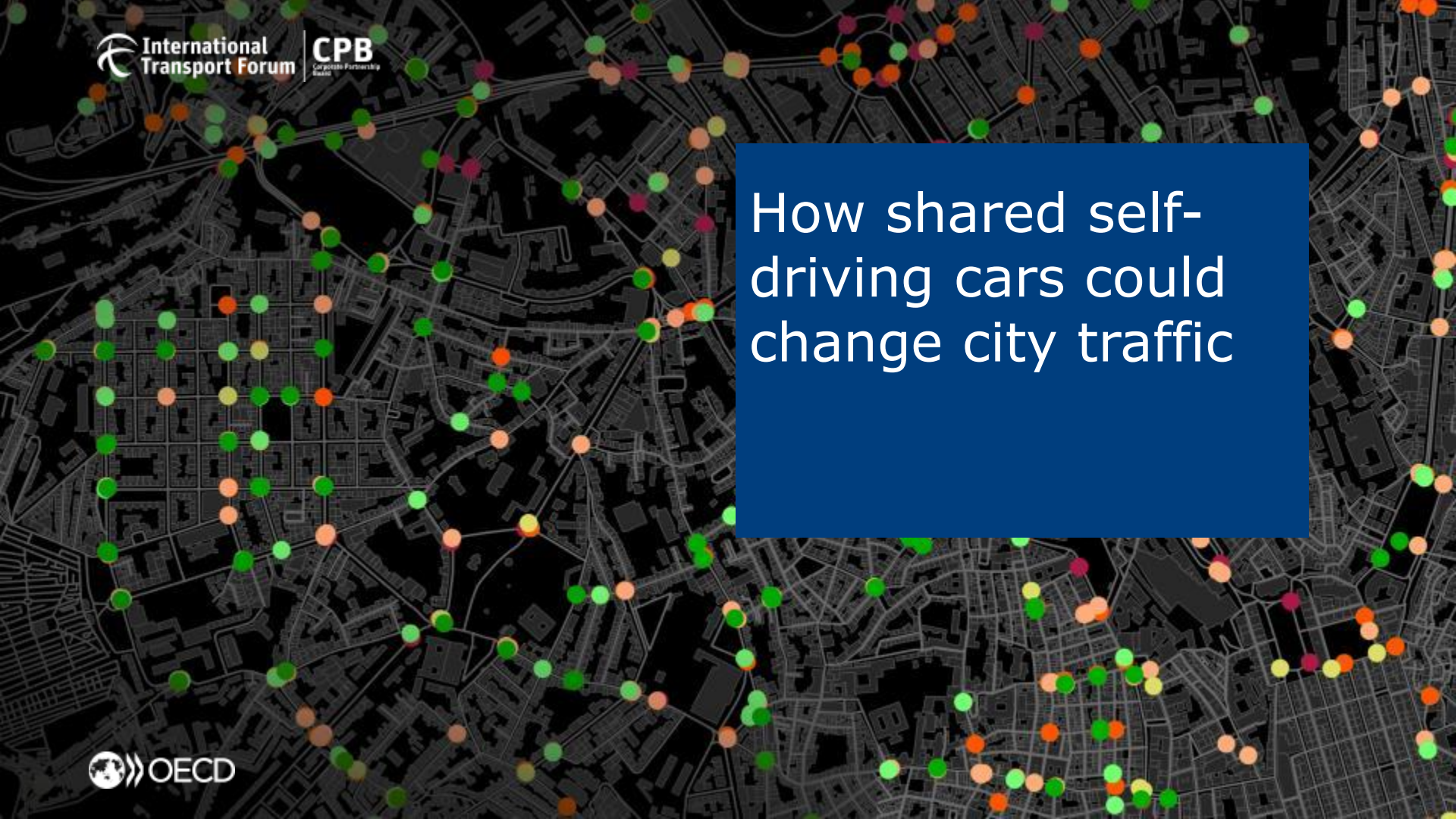
Spend more on public transport

Spend less on new city roads

Think climate and health

Avoid trade-offs by setting policies for all emission types

Tighten emission standards for buses and two-wheelers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CPB
How shared self-driving cars could change city traffic
OECD


50 min.


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OZOcar

self-driving

real city


real* trips

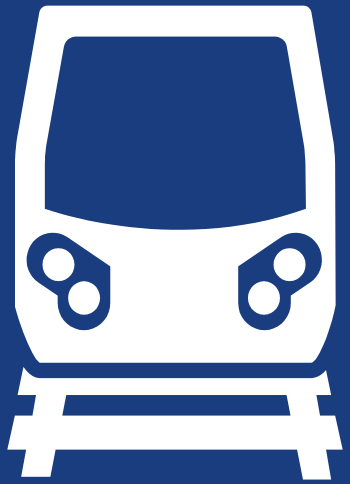

real* routes

TaxiBot

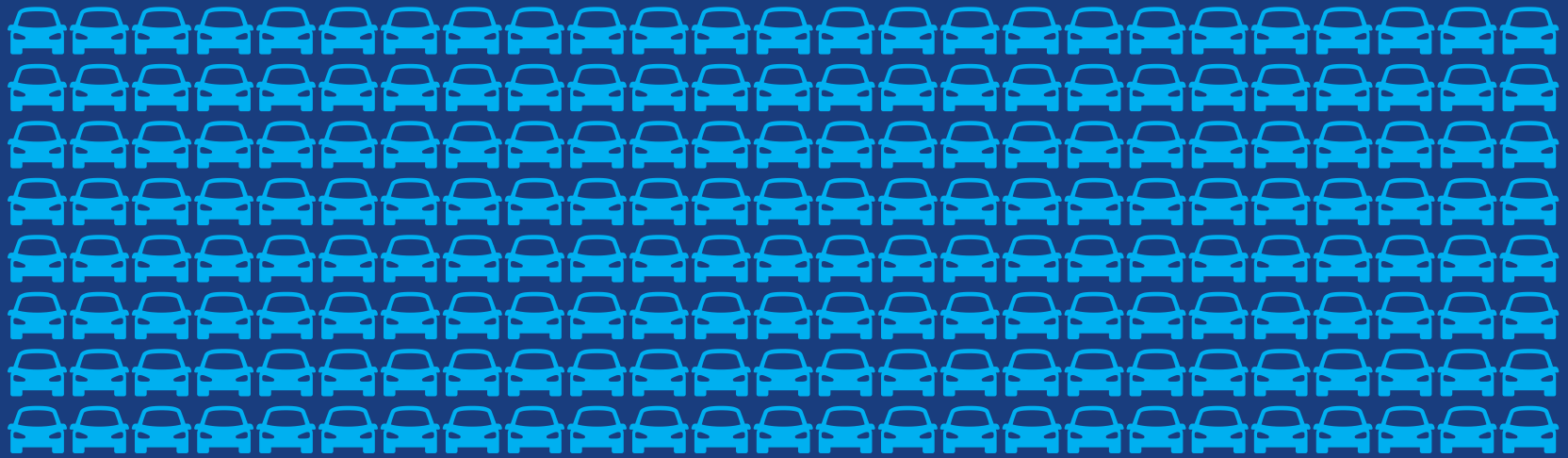
ride-sharing

AutoVot

car-sharing



high-capacity public transport



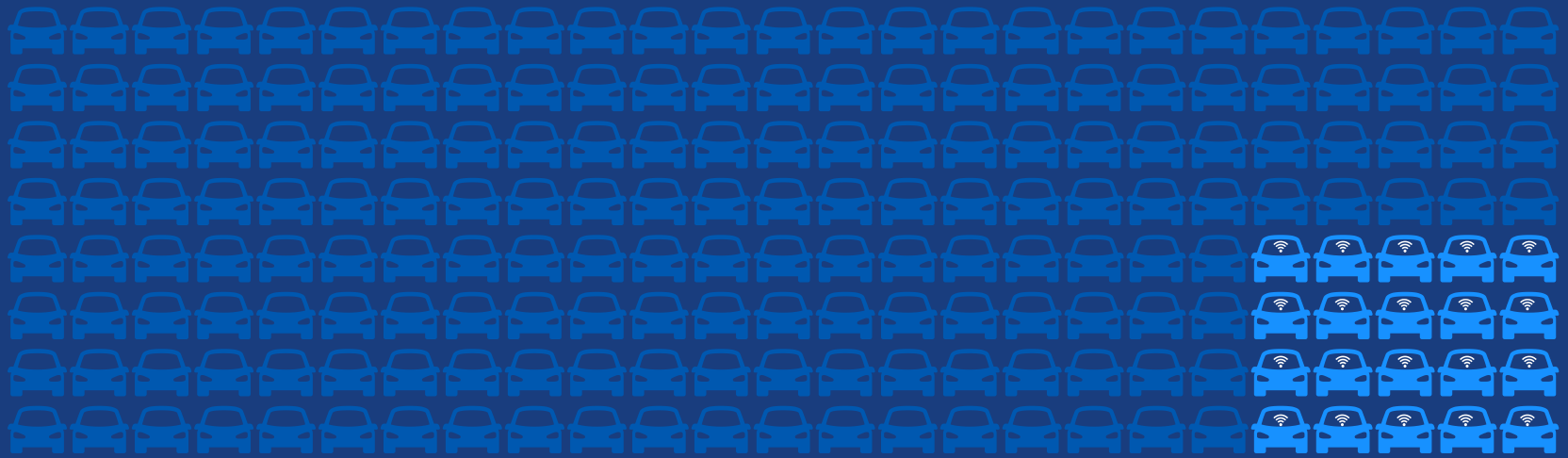
Scenario: 24 hours

TaxiBots
Ride-sharing

+

Public transport
(high capacity)

number of vehicles required to provide the same trips as before:



Scenario: 24 hours

TaxiBots
Ride-sharing

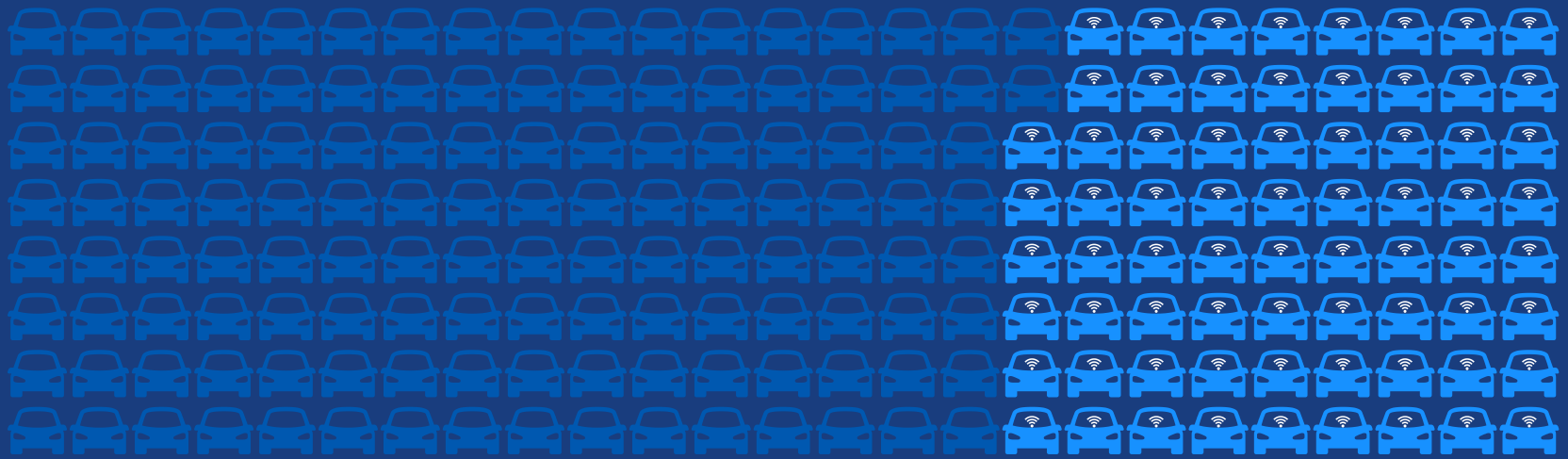
+

Public transport
(high capacity)

24hrs. peakhrs.

number of vehicles required to provide the same trips as before:

10%



Scenario: Peak hours

TaxiBots
Ride-sharing

+

Public transport
(high capacity)

number of vehicles required to provide the same trips as before:

35%


eliminate
all street parking


+20%
kerb-to-kerb street space


PARKING


PARKING


GEMCO
30%
delivery
time
Bavaria


-80%
off-street parking

CO_2 impacts

- In the best case scenarios -18 to -27%
- Because of rapid fleet turnover more efficient technologies penetrate faster
- Emissions could be reduced quite dramatically if clean energy sources are available

- Only 2% more cars would be necessary for handling EV recharging and range issues.

Your

Questions

Download the
ITF **Transport Outlook** 2015
from the OECD iLibrary:

www.oecd-ilibrary.org