



## A future for sustainable transport? The challenge of upscaling

Holger Dalkmann





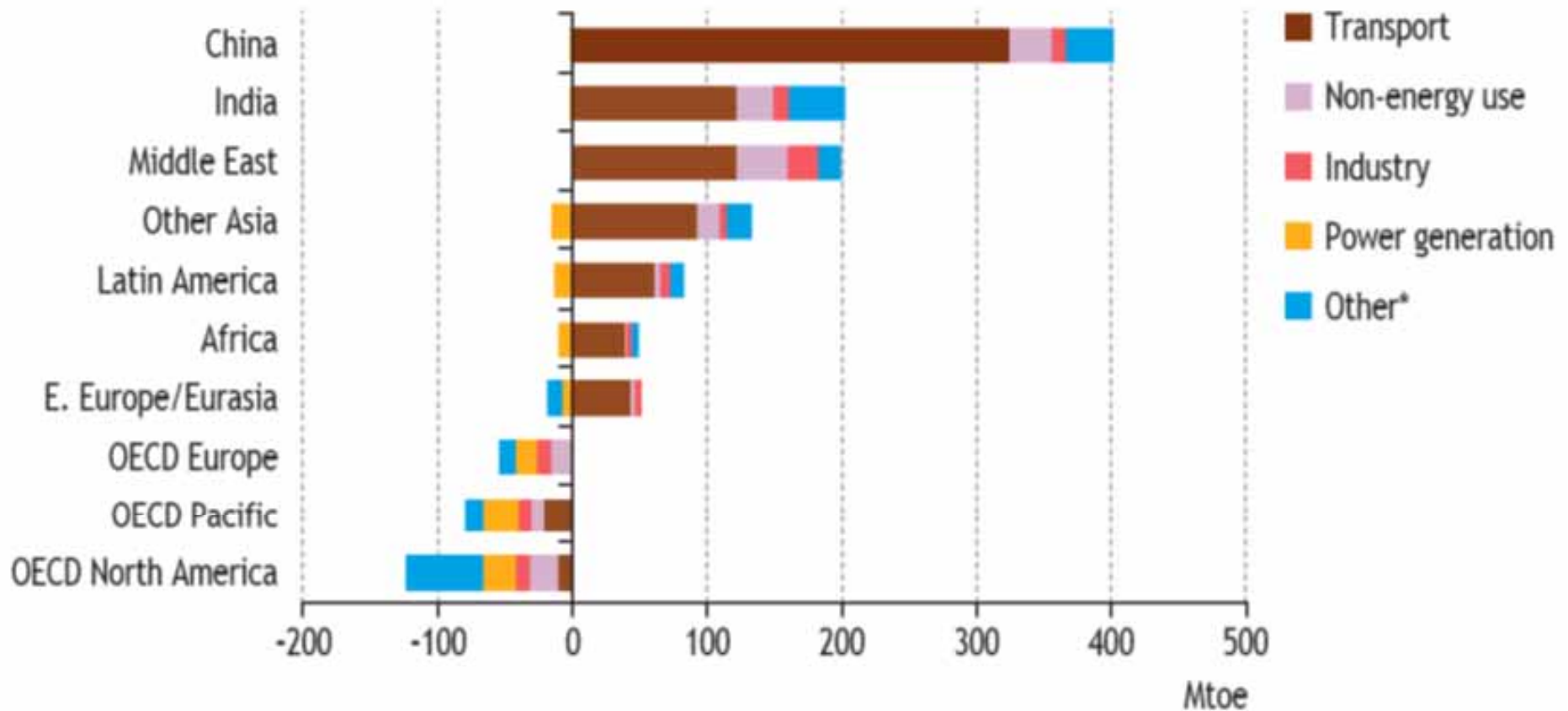






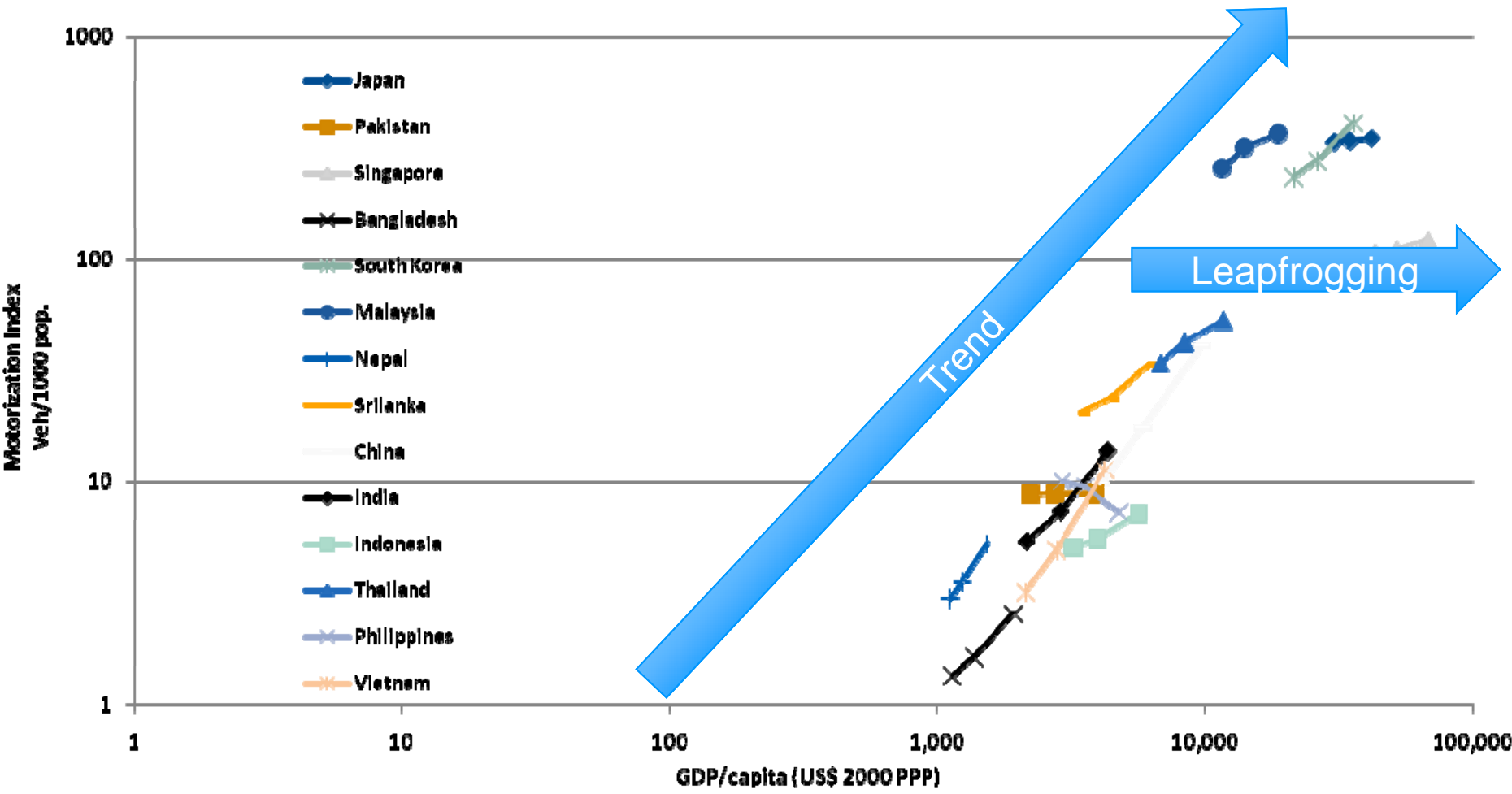
# The challenge: Transport

## An increasingly energy-hungry sector



Changes to energy consumption by sector  
and region between 2007 and 2050  
(Source: IEA WEO, 2009)

# Motorization: Forecast in Asia



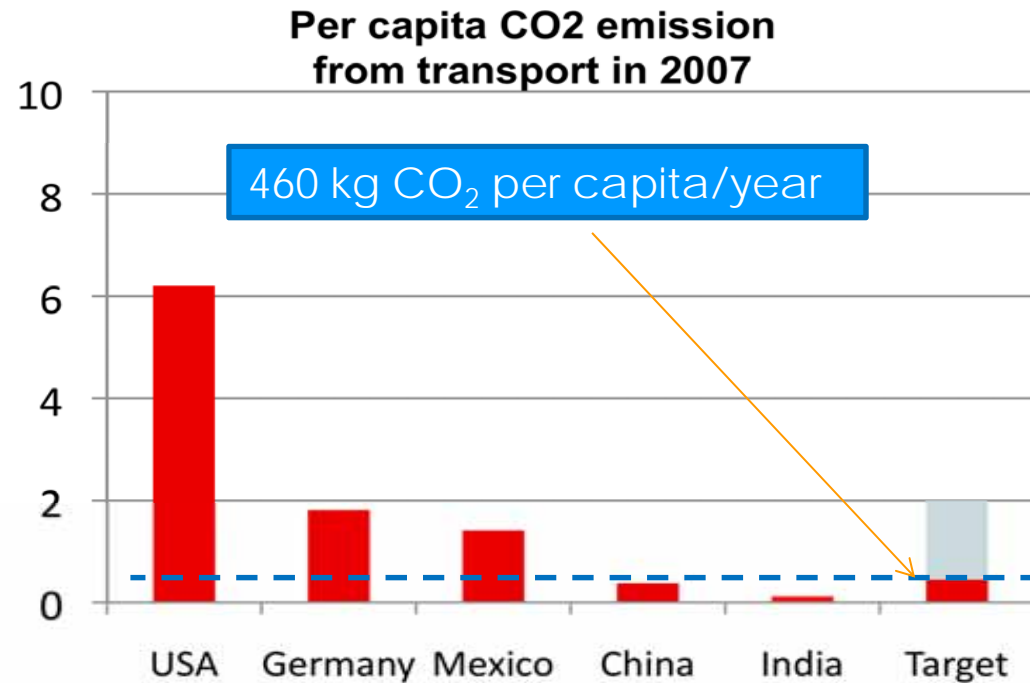
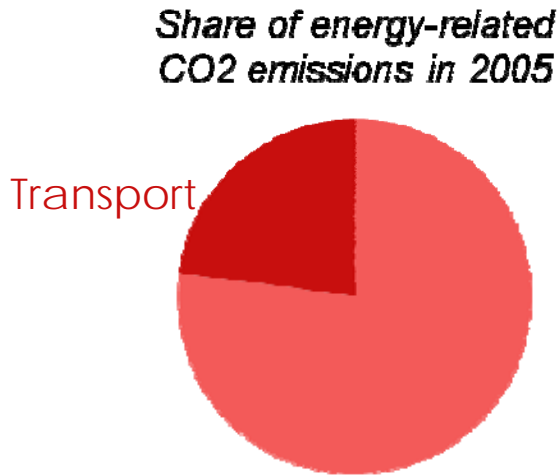
ADB estimates 2005, 2008, 2015



# The Carbon Challenge

If we want to achieve the 2 degree target ...

... we need to limit per capita emission to 2t CO<sub>2</sub> eqv. (IPCC 2007).

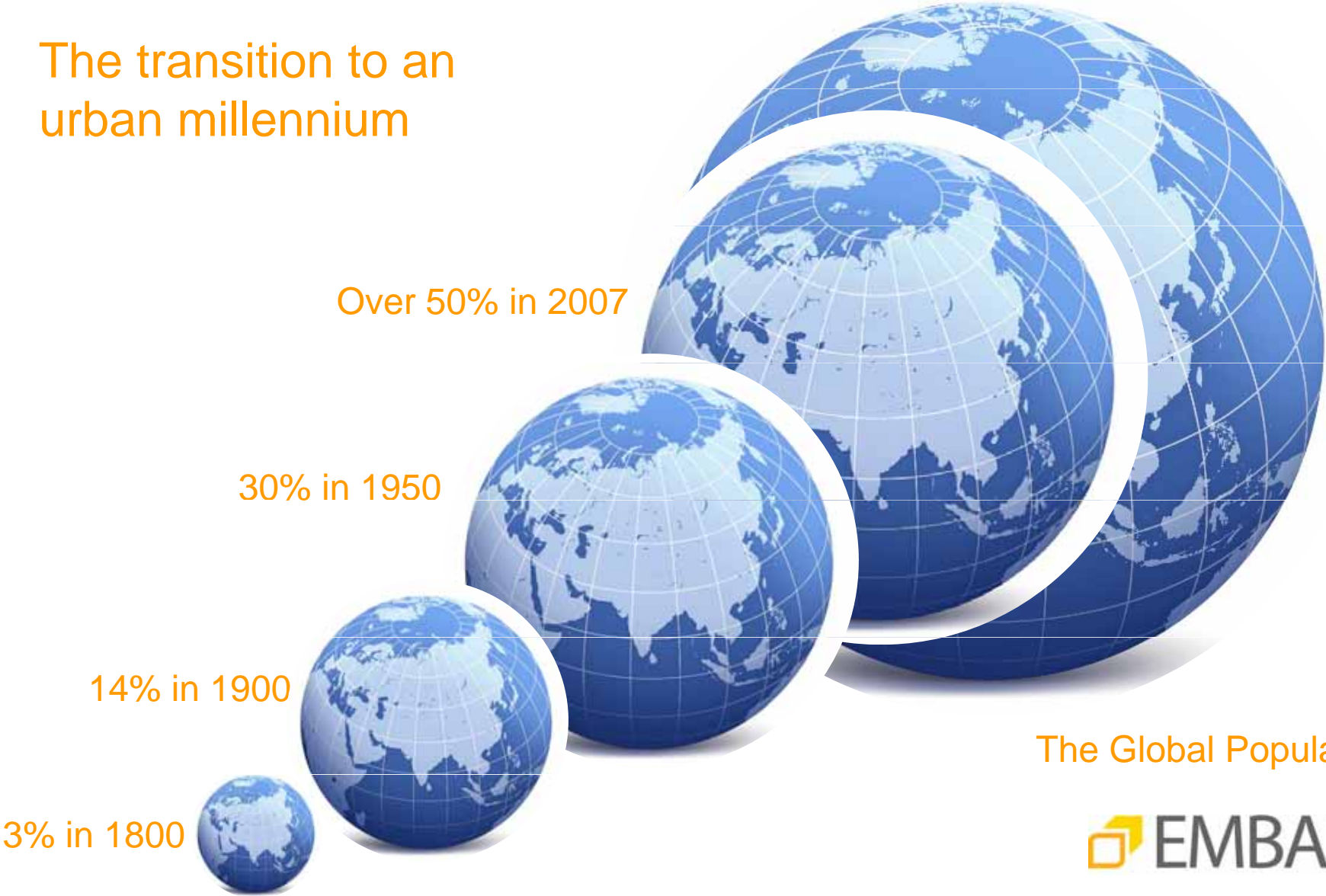


Source: ITF 2008, Bongardt 2010



# Meta-Trends affecting sustainable cities

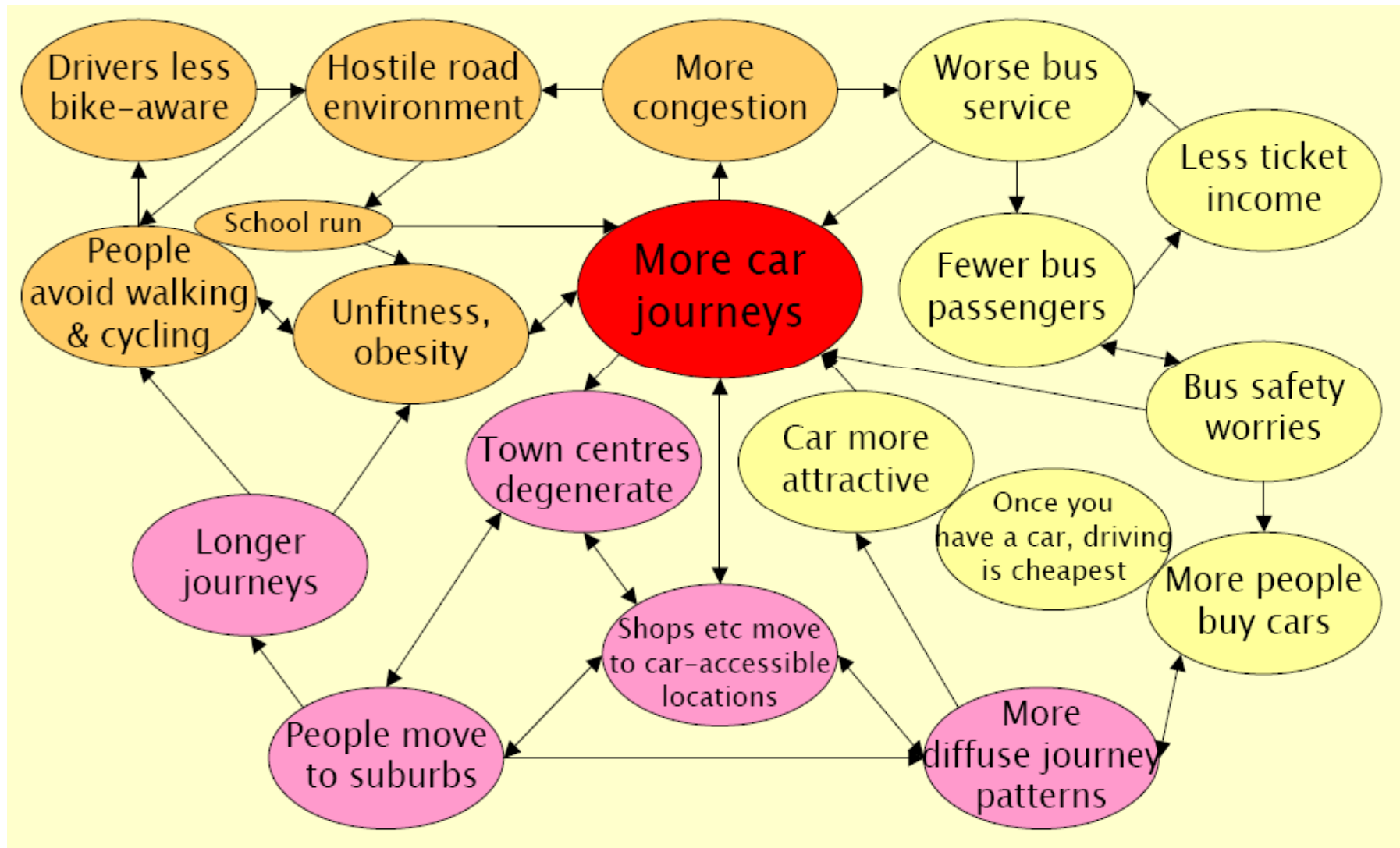
The transition to an urban millennium



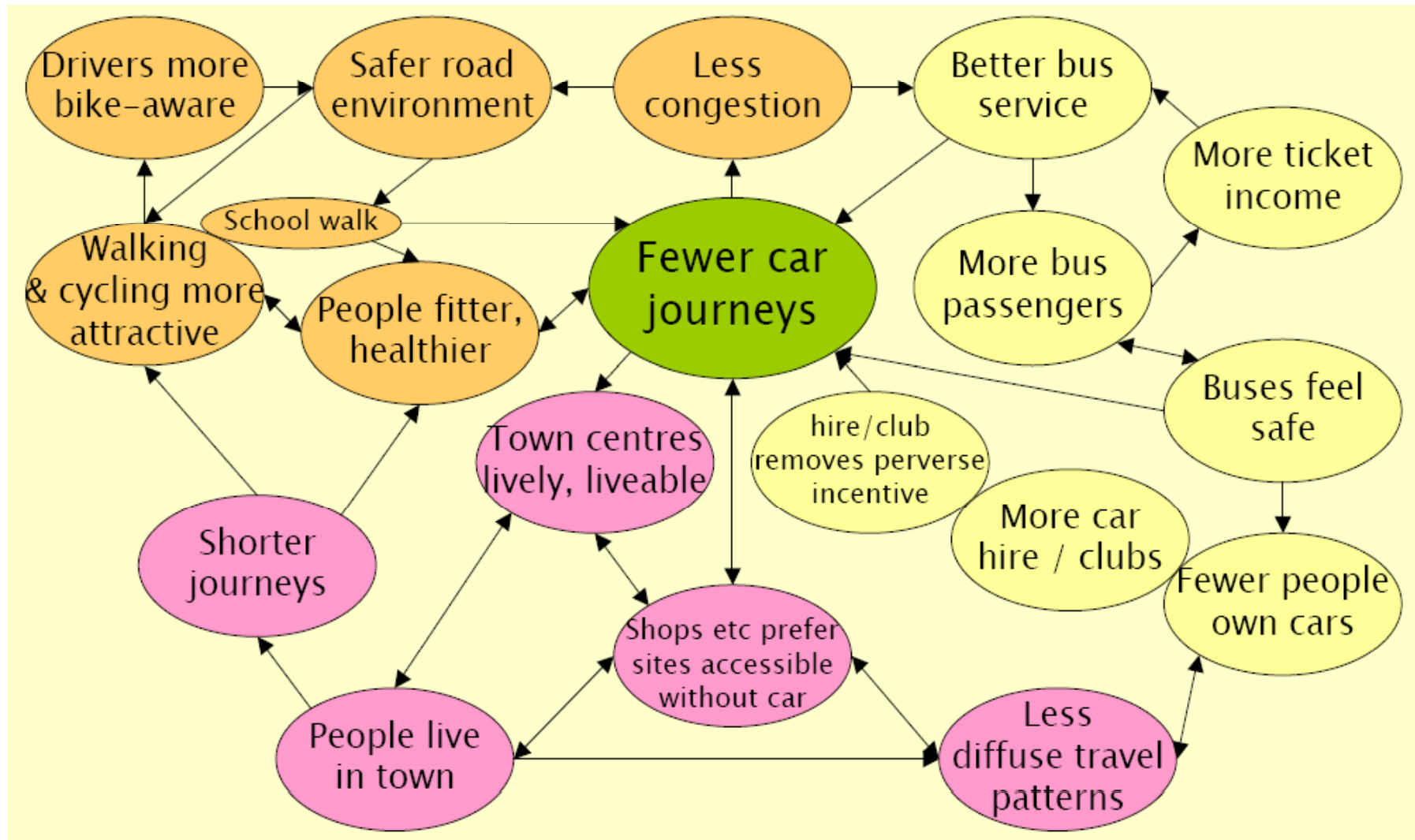
The Global Population



# Transport – locked in a vicious circle



# Transport – possible virtuous circle



Levett Therivel 2007 (<http://www.lga.gov.uk/lga/aio/35744>)

# Paradigm Shift: Trend vs. Leapfrogging

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Before

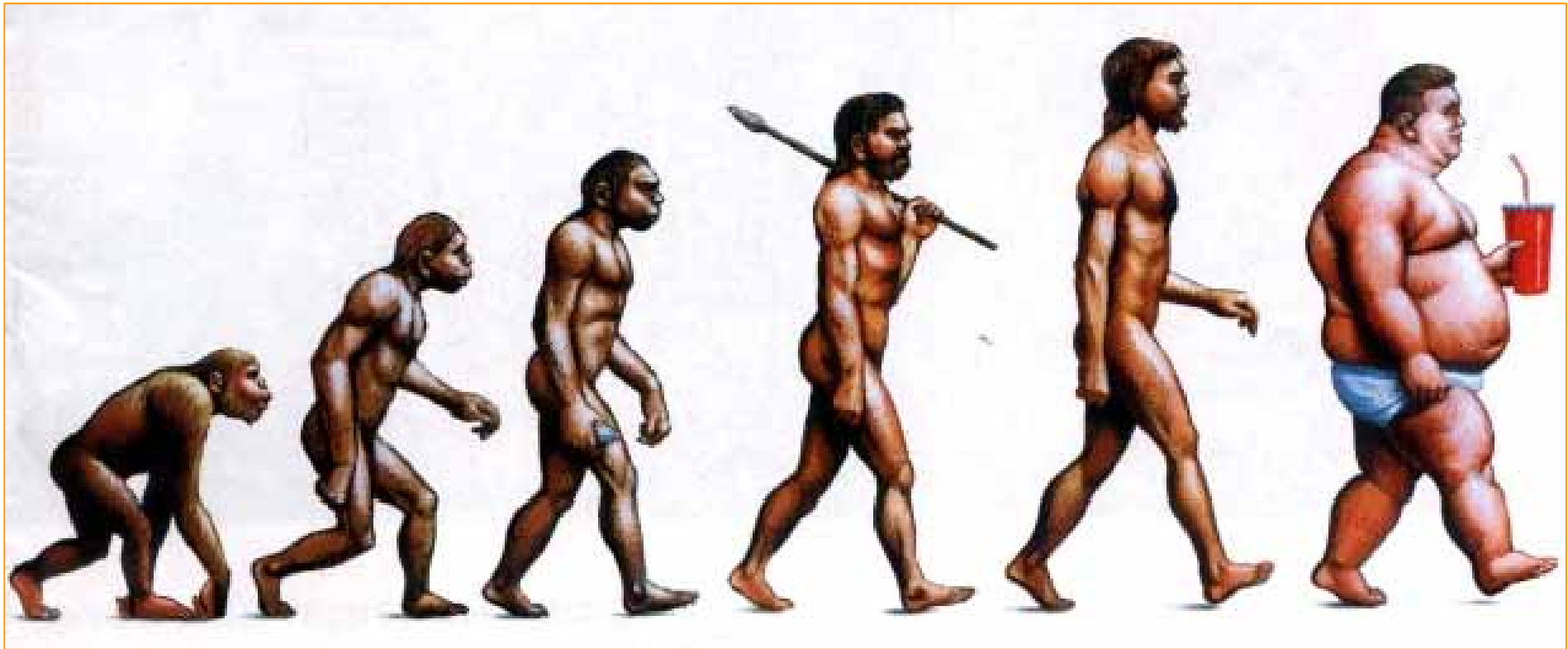


After



Cheonggyecheon, Seoul, South Korea

# Paradigm Shift: Life style

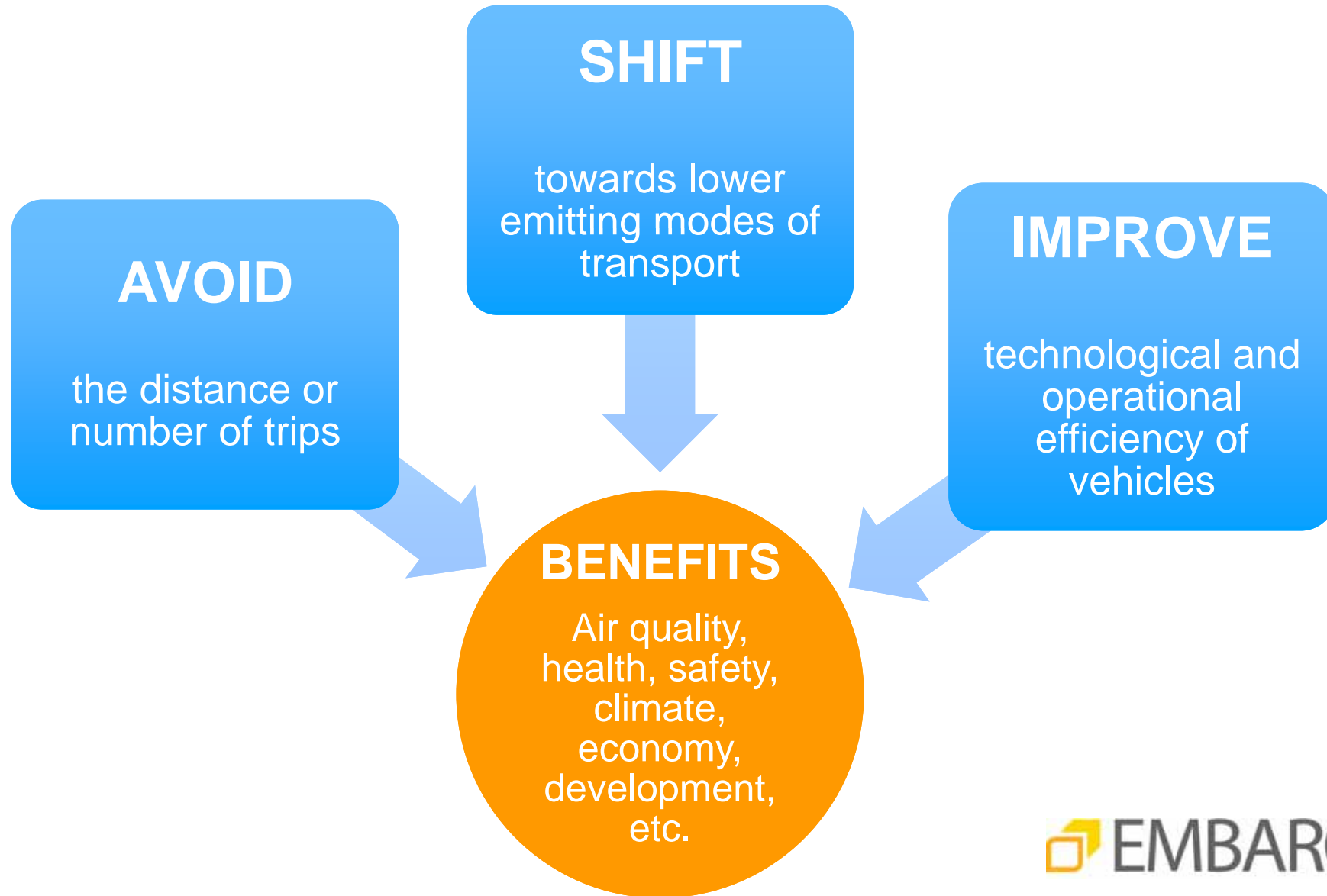


3.2 million people

Source: WHO

# The “Avoid-Shift-Improve” Strategy

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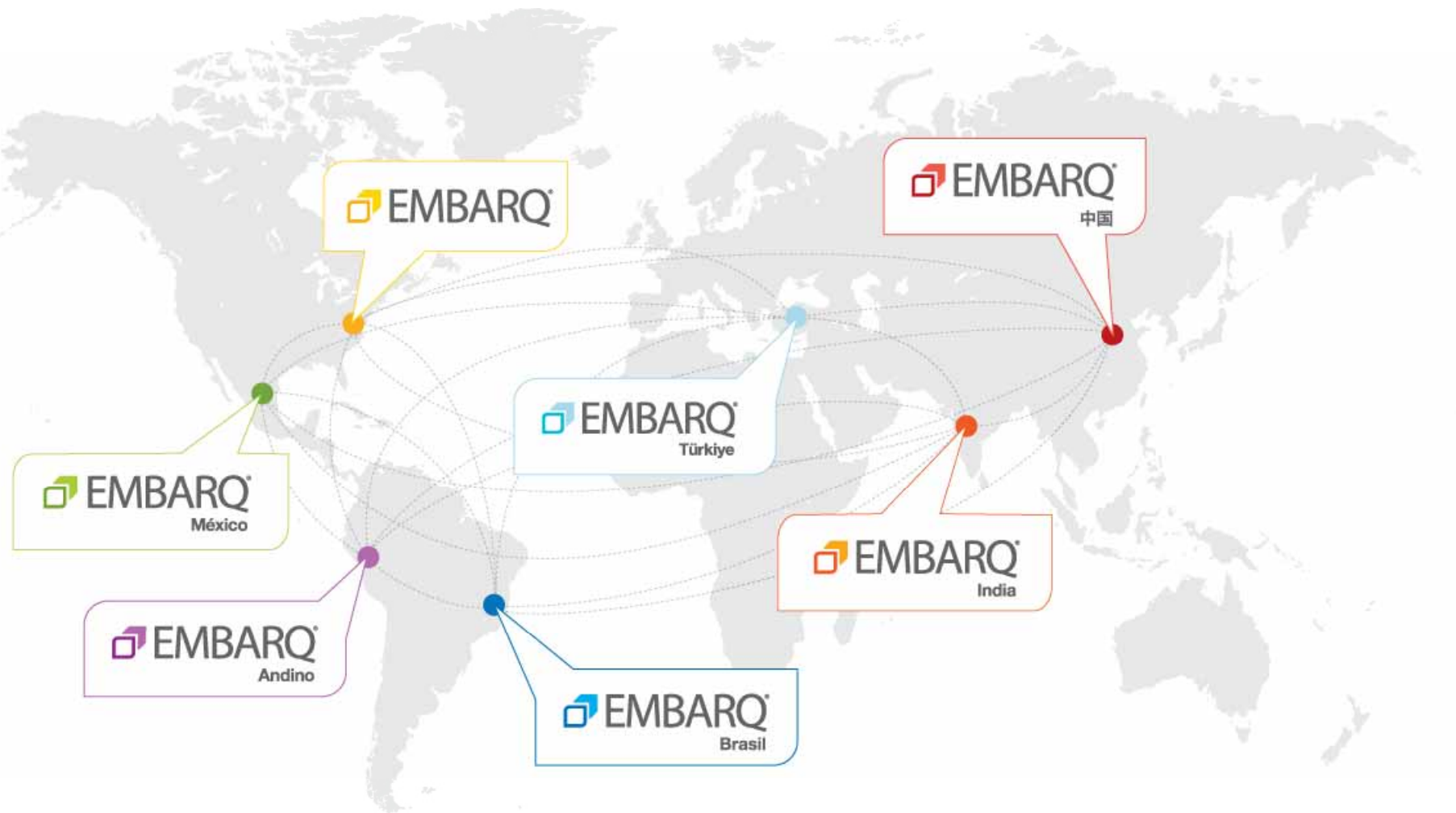


# Single projects are vital, but it needs more



# The EMBARQ Network

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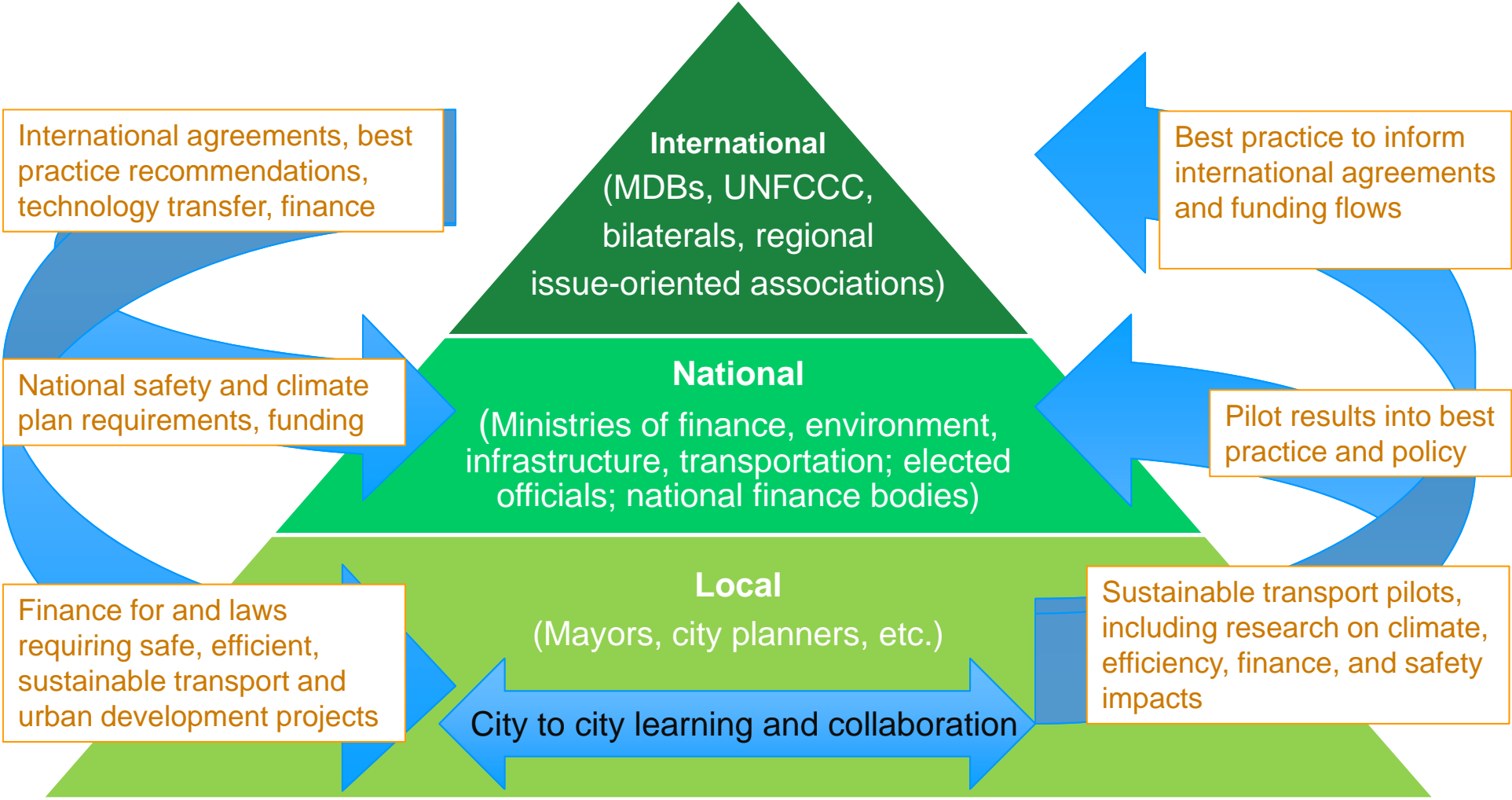
# Leading Expertise and Knowledge Access

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- **Establish four practice areas, to strengthen solution integration.**
  - Integrated Transport
  - Air Quality & Climate Change
  - Health & Road Safety
  - Urban Development & Accessibility



# How to upscale?



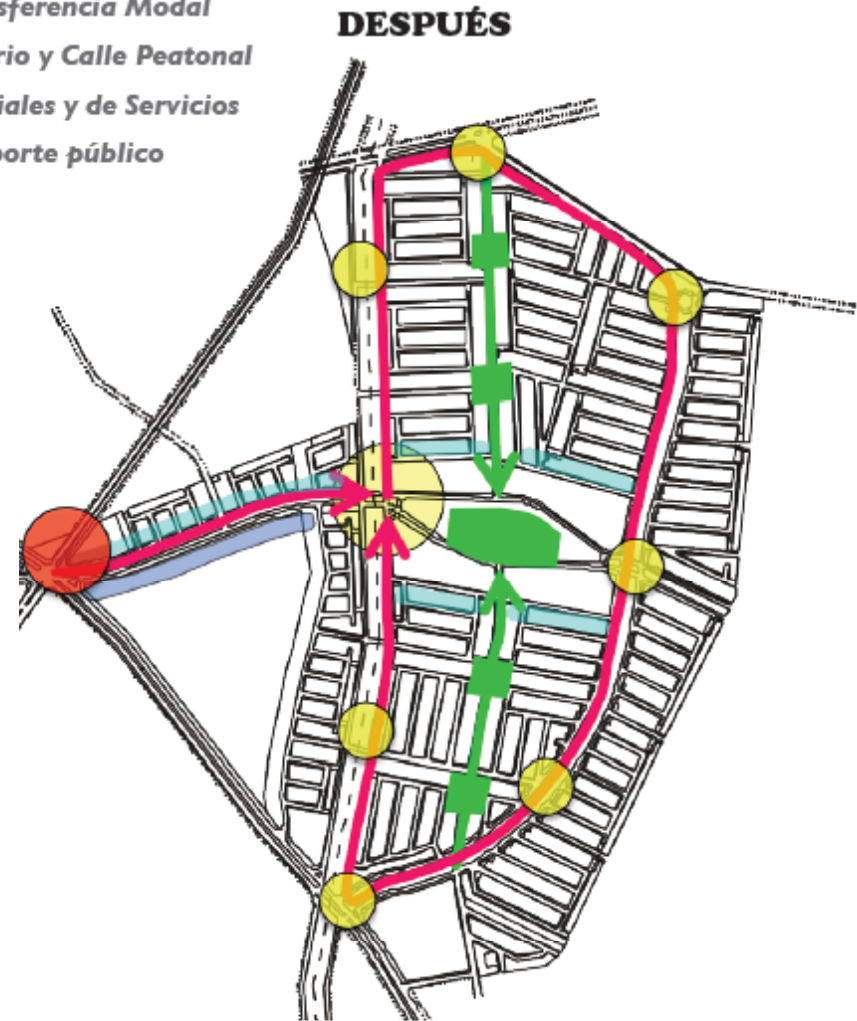
# New Land Use Paradigm: Aguasquialientes

## Simbología

- Centro de Transferencia Modal
- Centros de Barrio y Calle Peatonal
- Bordes Comerciales y de Servicios
- Acceso a transporte público

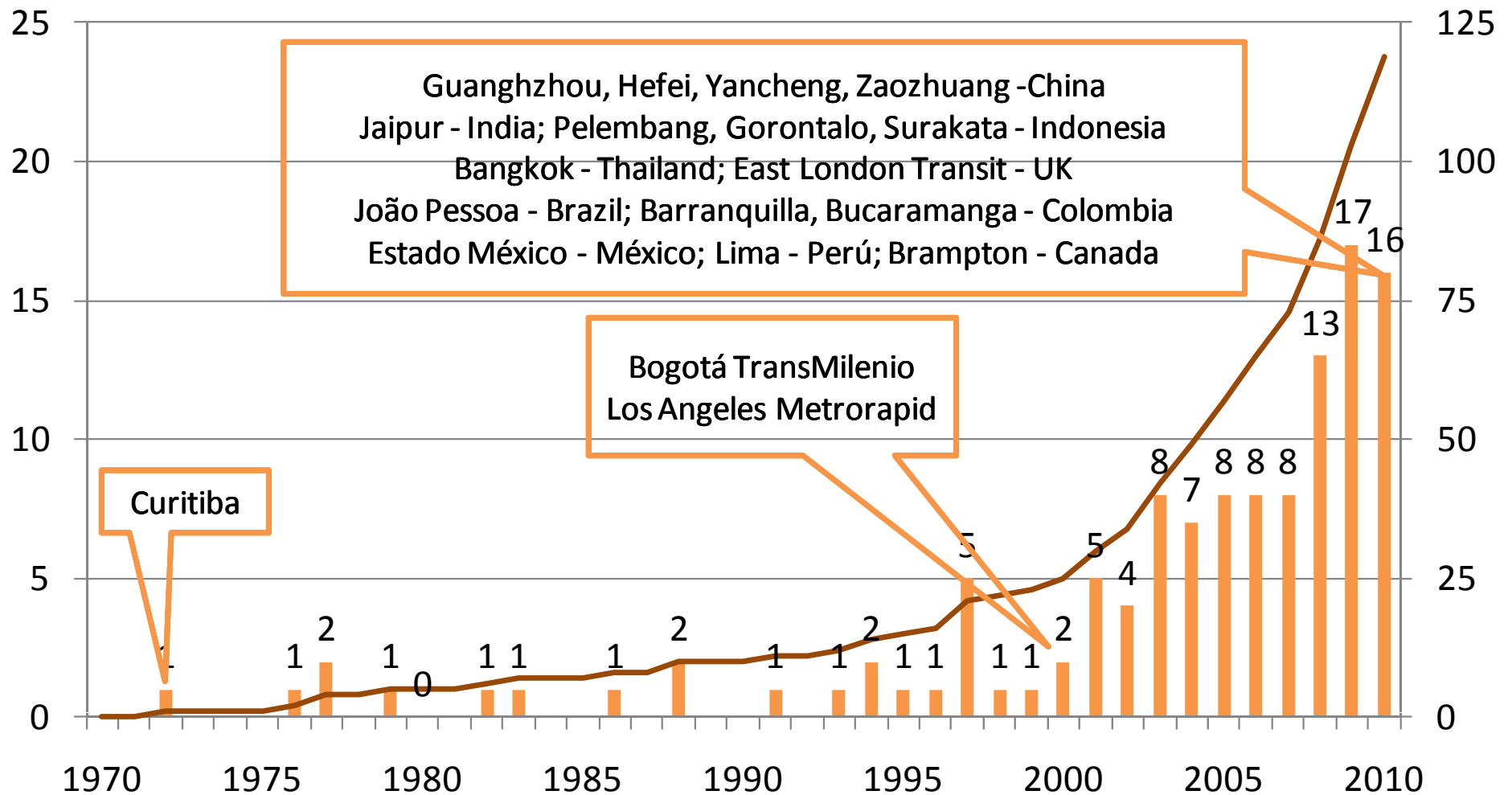
➤➤ Redesigned 40,000-person neighborhood plan – safer, more livable, eco-friendly

➤➤ How to upscale:  
Partnering with INFONAVIT to establish new national model



Esquema propuesto del fraccionamiento  
"Centenario de la Revolución"

## Cities with BRT/Bus Corridors



Source: EMBARQ BRT/Bus Corridors Database, January, 2011



# Enabling the change through champions?

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# Do not forget the invisible champions

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# Enabling national programs: PROTRAM

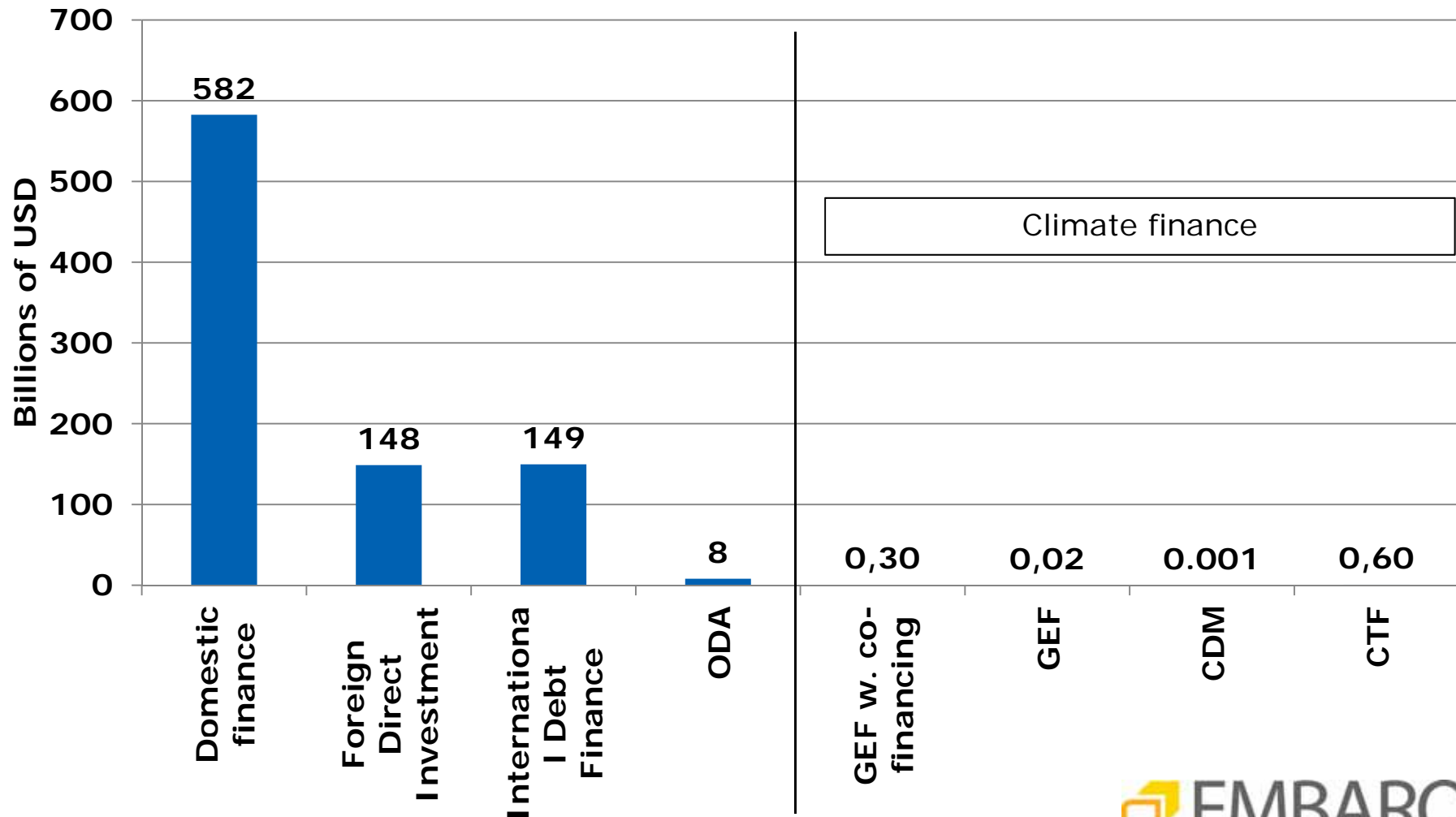
*PROGRAMA DE TRANSPORTE MASIVO DEL FONDO NACIONAL DE INFRAESTRUCTURA*

- Created 2009
- Part of the National Infrastructure Fund (FONADIN)
  - All road and rail transport, including urban transport: MX\$336 billion (US\$25.6 billion), 2007-12
- Funded by toll highway concessions (Fideicomiso de Apoyo al Rescate de Autopistas Concesionadas – FARAC)
- Provides grants and loans for studies and project infrastructure
  - Studies: up to 100 percent of cost as grant
  - Infrastructure: up to 50 percent of cost as grant or 66 percent as loan
- Goals: 800 km of new lines, 4 billion passengers



# What finance is available for transport activities?

Global annual transport investments by source of finance

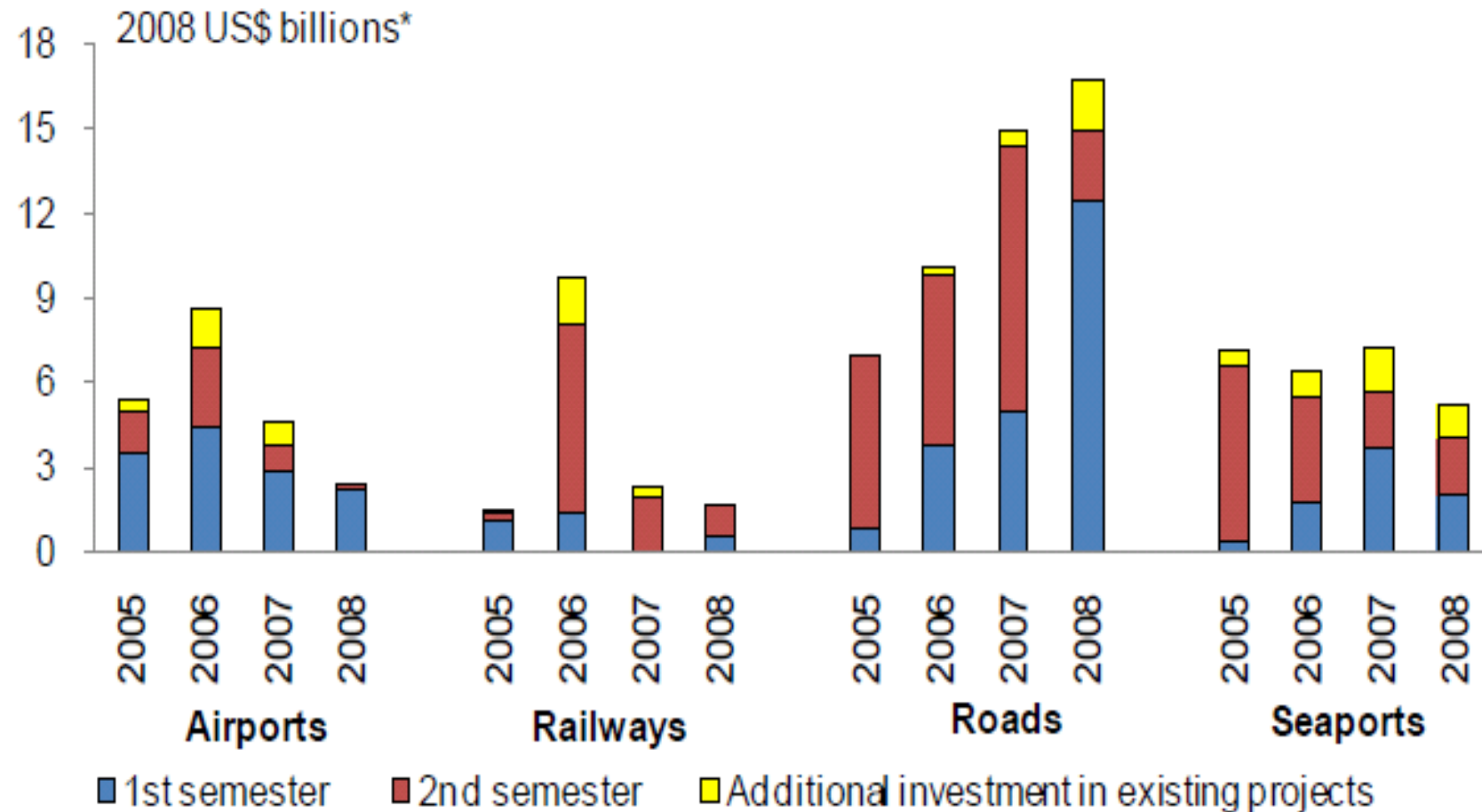


Sources: OECD, UNFCCC





# Private transport financing – the forgotten pillar

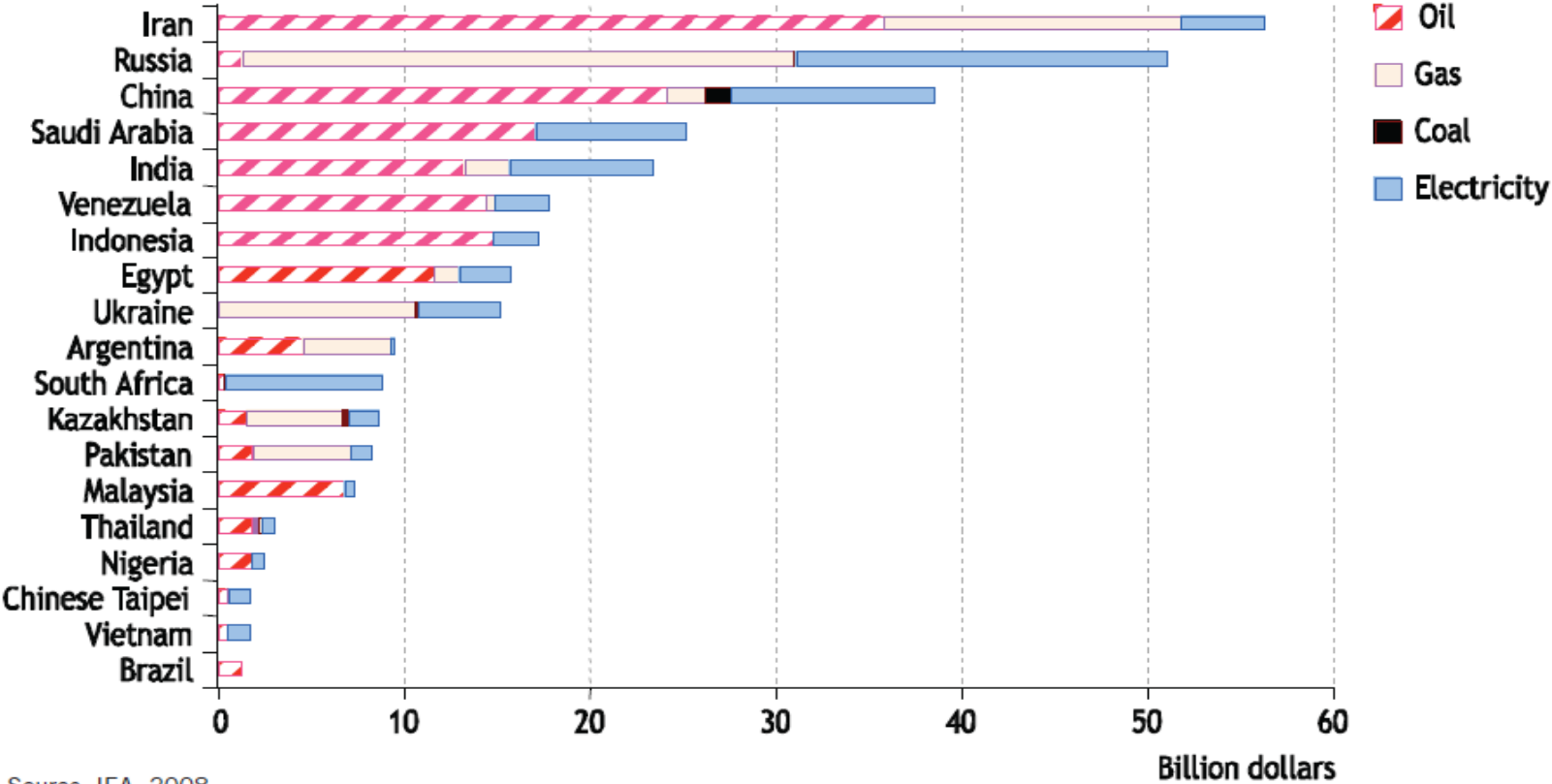


Source: World Bank and PPIAF, PPI Project Database.

\*Adjusted by US CPI.

# National level: Energy subsidies in 2008

300 billion US Dollar on fuel subsidies in 2008 (UNEP)  
 20 bn US Dollar on fuel subsidies in Mexico in 2008 (OECD)



Source: IEA, 2008



# Growing markets for sustainable transport: MDB

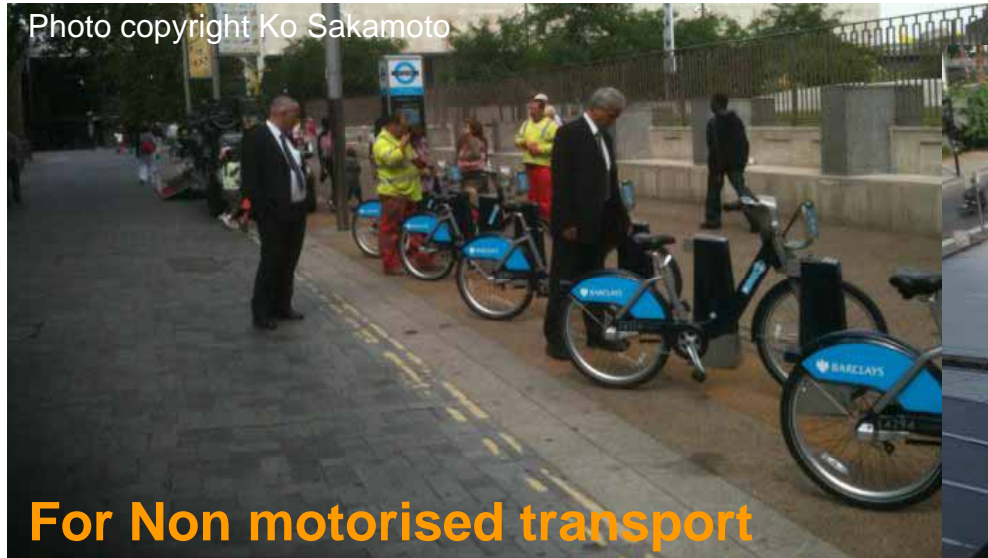
- **ADB:** Sustainable Transport Initiative: 30% urban transport by 2020
- **IDB:** 50% investments link to climate change



Subsector Shares of ADB Transport Lending –  
Actual, Pipeline and Target (%). Source: ADB, 2010



# Technology beyond fuel and vehicles

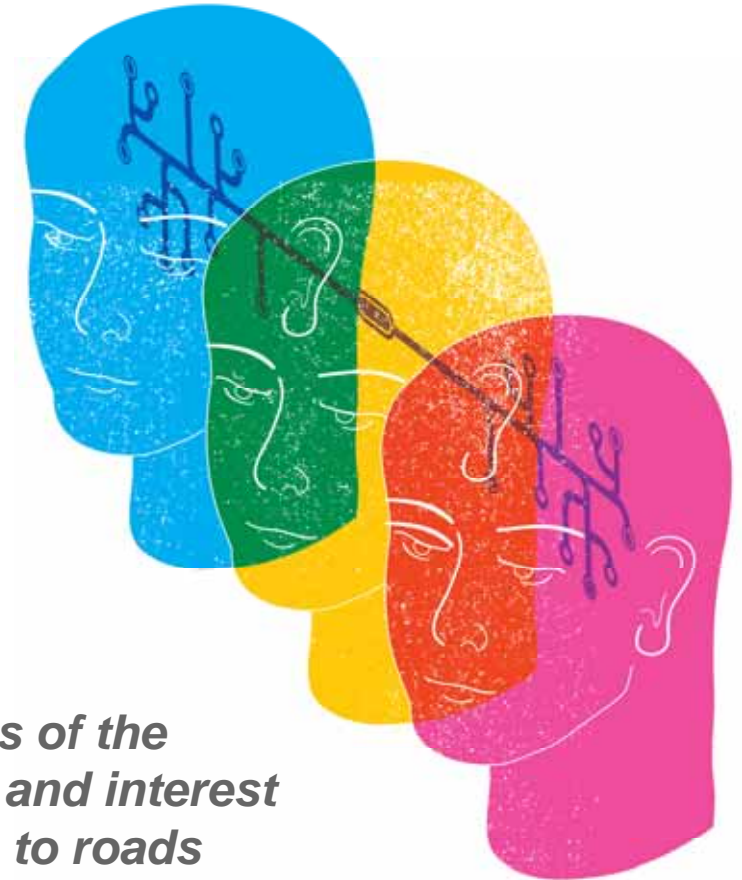


# Knowledge, education and capacity building

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- Mainstream sustainable transport knowledge
- Coordinate and upscale international capacity building
- School programs to raise awareness at an early age

*Want to be the driving force behind the creations of the modern world? Fancy using your creative skills and interest in science in a whole range of areas? From cars to roads and the sea, and from food to sound systems, a career in engineering provides you with the opportunity to change the way we live and the world around us.*



# Regional Networks as a multiplier

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- CIVITAS (Europe)
- SIBRT (LA)
- EST (Asia/LA)
- SLOCAT (Global)
- METROPOLIS/C40/ICLEI (GLOBAL)



# Conclusions: How to upscale?

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- **Cities** are the center piece of future (sustainable) development
- **Sustainable Development** (Accessibility, quality of life etc.) should be the main driver for transport
- No silver bullet – need to **avoid** – (**prevent a**) **shift** and **improve** – integrated solution needed
- **National regulations, standards, guidelines** to support cities
- **Decoupling** economic growth and motorisation could lead to green growth – leverage domestic and international funding
- **Involving private sector** as an important stakeholder leveraging more investment into sustainable transport infrastructure

# Conclusions: How to upscale?

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- **Domestic** (local and national) finance is key towards sustainable transport –wide range of finance tools are available
- **National governments** setting the right financial framework (reform subsidies and taxes)
- Continue dialogue shifting **MDB's** and governmental aid strategy supporting developing countries
- Strengthen **regional and global thematic clusters** enabling capacity building, knowledge transfer and political dialogue
- Technology solutions **beyond fuels and vehicles**





**Thank you for your attention!**

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**Thank you!**

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