

Transformative Urban Mobility

INITIATIVE



Federal Ministry
for Economic Cooperation
and Development

giz



Transformative
Urban Mobility
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Transport Resilience-Proofing

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28% of global carbon emissions
[energy-related]

61% of global oil demand

Doubling of emissions till 2050
[under BAU Scenarios]

More than 10 billion trips per day
[urban share rapidly increasing]

An aerial, high-angle photograph of a busy city street. The street is filled with pedestrians, cyclists, and cars. The scene is captured from a high vantage point, showing the layout of the road, including crosswalks and lane markings. The overall color palette is somewhat muted, with a blueish tint. The text is overlaid on the top portion of the image.

80% of global carbon emissions
are urban

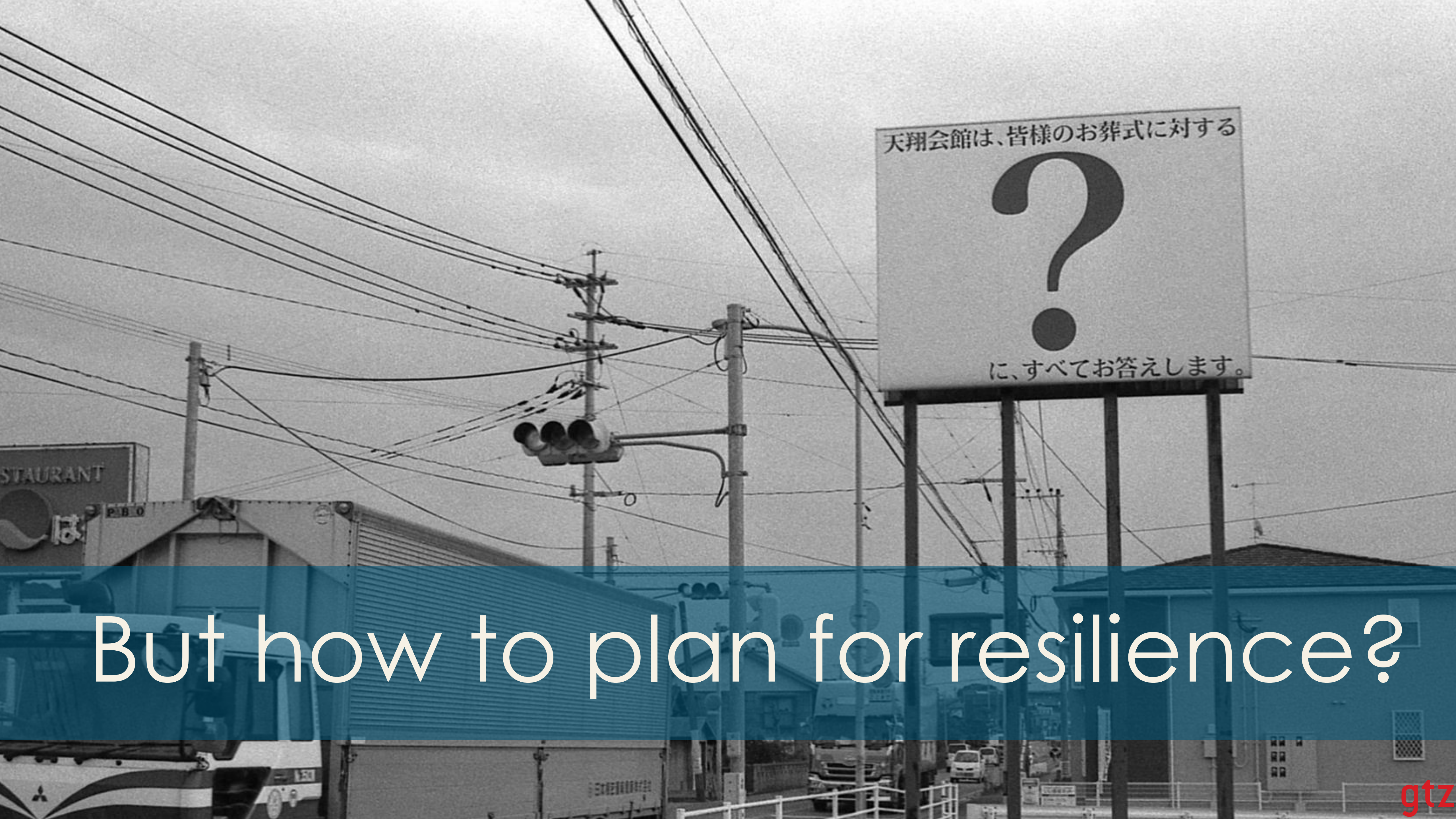
13% of world urban population
affected by rising sea levels

Cities up to 12°C hotter than
surroundings

Floods May Cost South Asia \$215
Billion a Year by 2030

Climate resilient Transport is critical for all sectors before & after Disasters





But how to plan for resilience?

Sustainable Mobility

Quality of Life

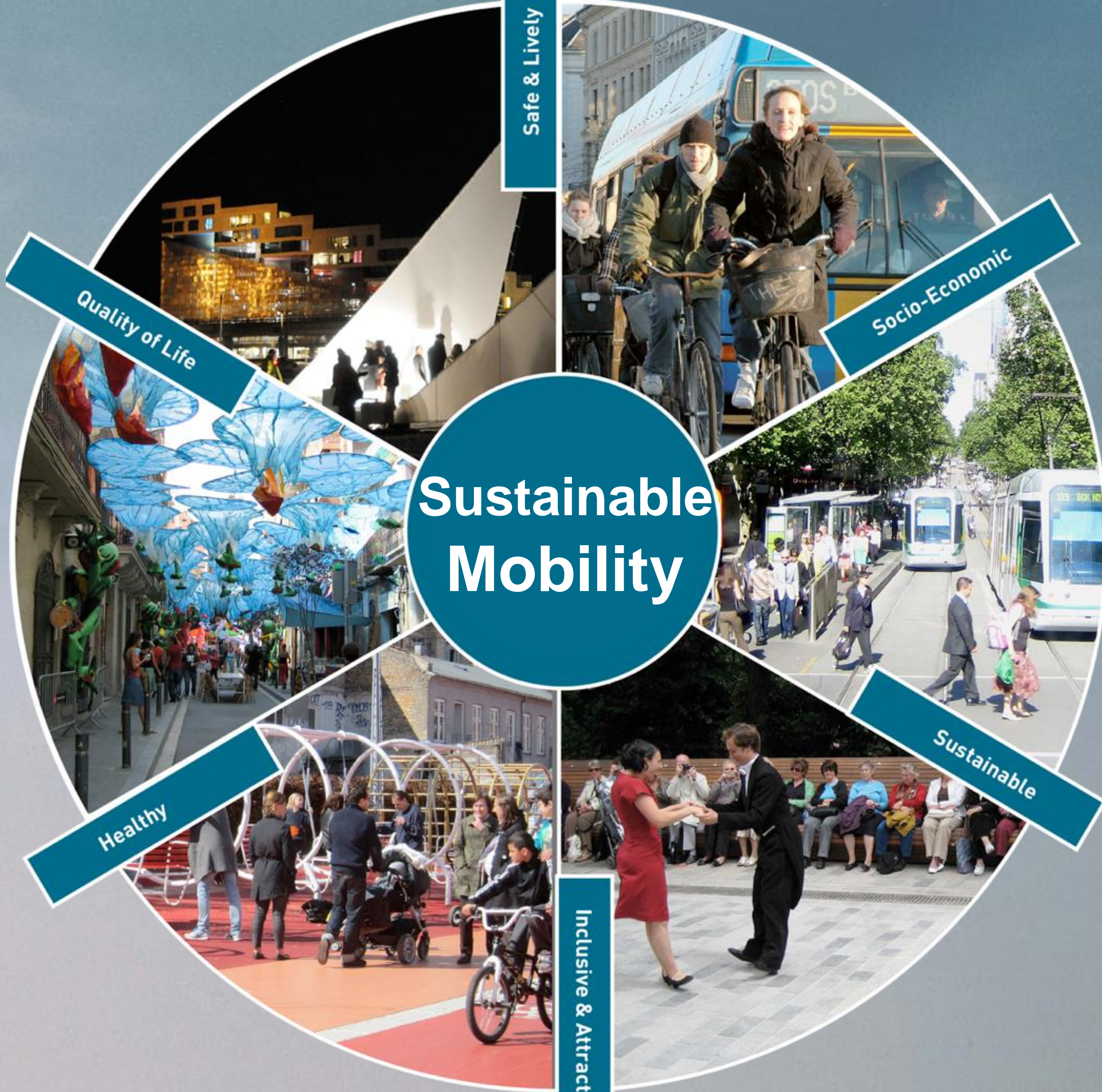
Safe & Lively

Socio-Economic

Healthy

Sustainable

Inclusive & Attractive





A woman with long blonde hair is riding a white bicycle from left to right. The background features a building facade with large, stylized blue bicycle silhouettes. A sign on the building reads "Flere cykler er forbeholdt cykler og kø". The overall image has a blue and red color scheme.

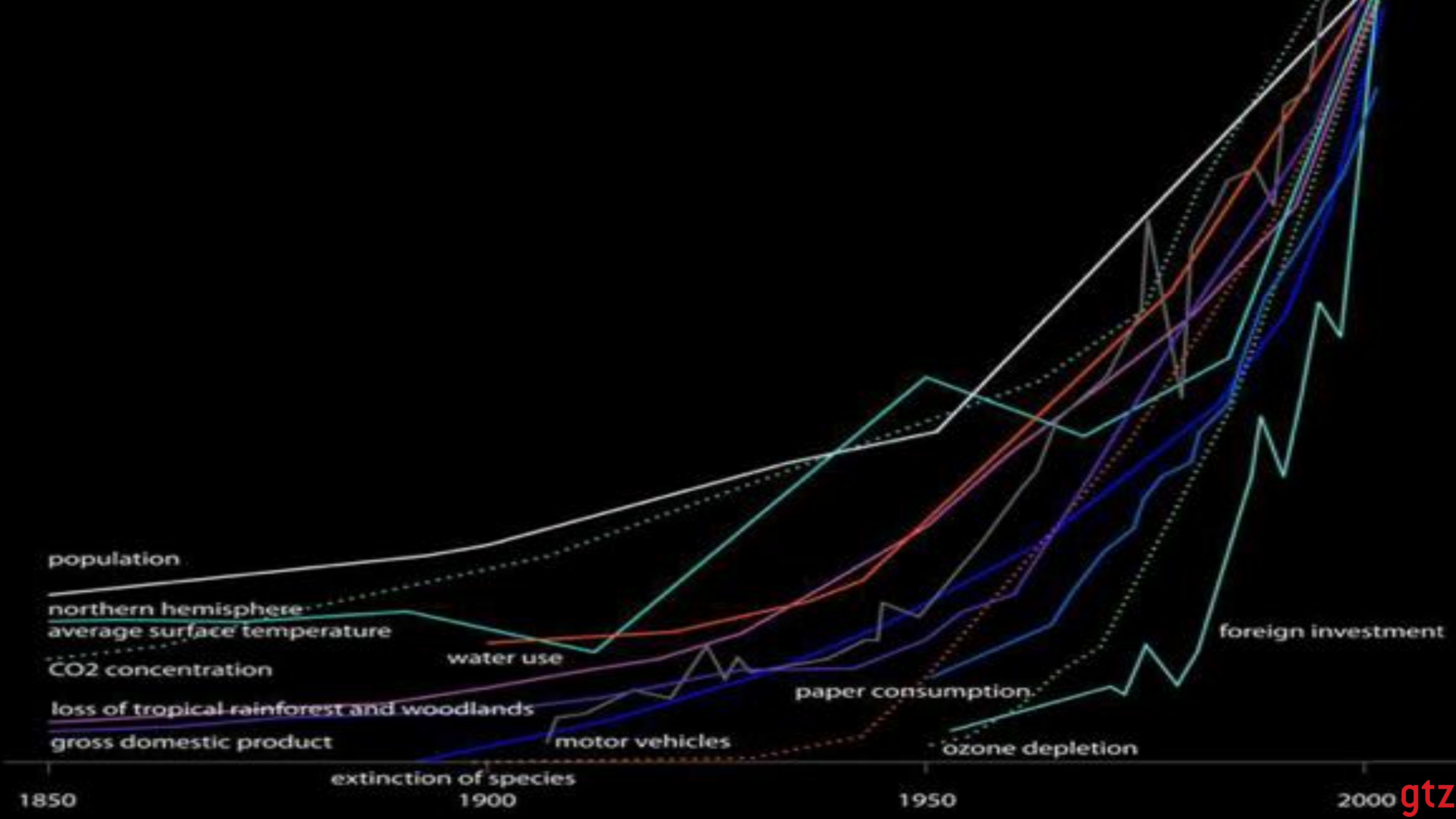
Integrate Resilience-Proofing in your planning and you will **avoid most of the costs.**



More car infrastructure leads to transport system collapse

- More infrastructure for cars leads to transport system collapse

=> Unsustainable focus





Manage
travel demand
or your city
will be in chaos

You have the power to change transportation



Demand Side



Supply Side

Travel Demand

Management

Recognizes that travel demand is not given, but is a function of transportation policies, pricing and investments (supply) that lead to choices (demand).



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Is vital to creating high performance, cost-effective transportation systems



Natural complement to transportation supply management, land use planning, environmental / natural resource management





The Shift: Thinking Demand instead of Supply

Supply Side

New highways

HOV lanes

Adding lanes

Public transport improvements

HOT lanes

Toll roads

Demand side

Land Use

Area license or fee

Cordon tolls

Public transport priority

Parking control

Congestion charges

Taxation policy



Travel Demand Management: A Toolbox



Main Components of integrated & resilient urban transport



1000 Game- changer



- Ambitious Capacity Building Initiative
- Support Leaders in Transformation Processes
- Learn, Network, Reflect
- Support Partnerships

Innovation



- Supporting Pilot Projects
- Enabling Development Dynamics
- Making Innovations more senseable

Financing



- Mobilizing EUR 1bn annually to finance sustainable transport

All 3 pillars support each other and are linked..



On behalf of:

The German Federal Ministry of Economic
Cooperation and Development (BMZ)

www.bmz.de

Principle 8

Financing Sustainable Urban Transport

.....We ll talk about it in Module 4

Why Financing is important



The financing challenge

The Financing Challenge – Why financing is important

Gap between local needs and the available financial resources



Photos by Manfred Breithaupt, Santhosh Kodulka, Carlos F. Pardo, Santhosh Kodulka, Ko Sakamoto, Soul Development Institut



Photo by Manfred Breithaupt, Transmilenio

Major problem of transport financing



High cost of investments and operation vs. the lack of capital

Funds can and should be mobilised from within the transport sector (fuel and vehicle taxes, user fares & charges)

Therefore:

Polluters should pay more!

LOCAL Instruments

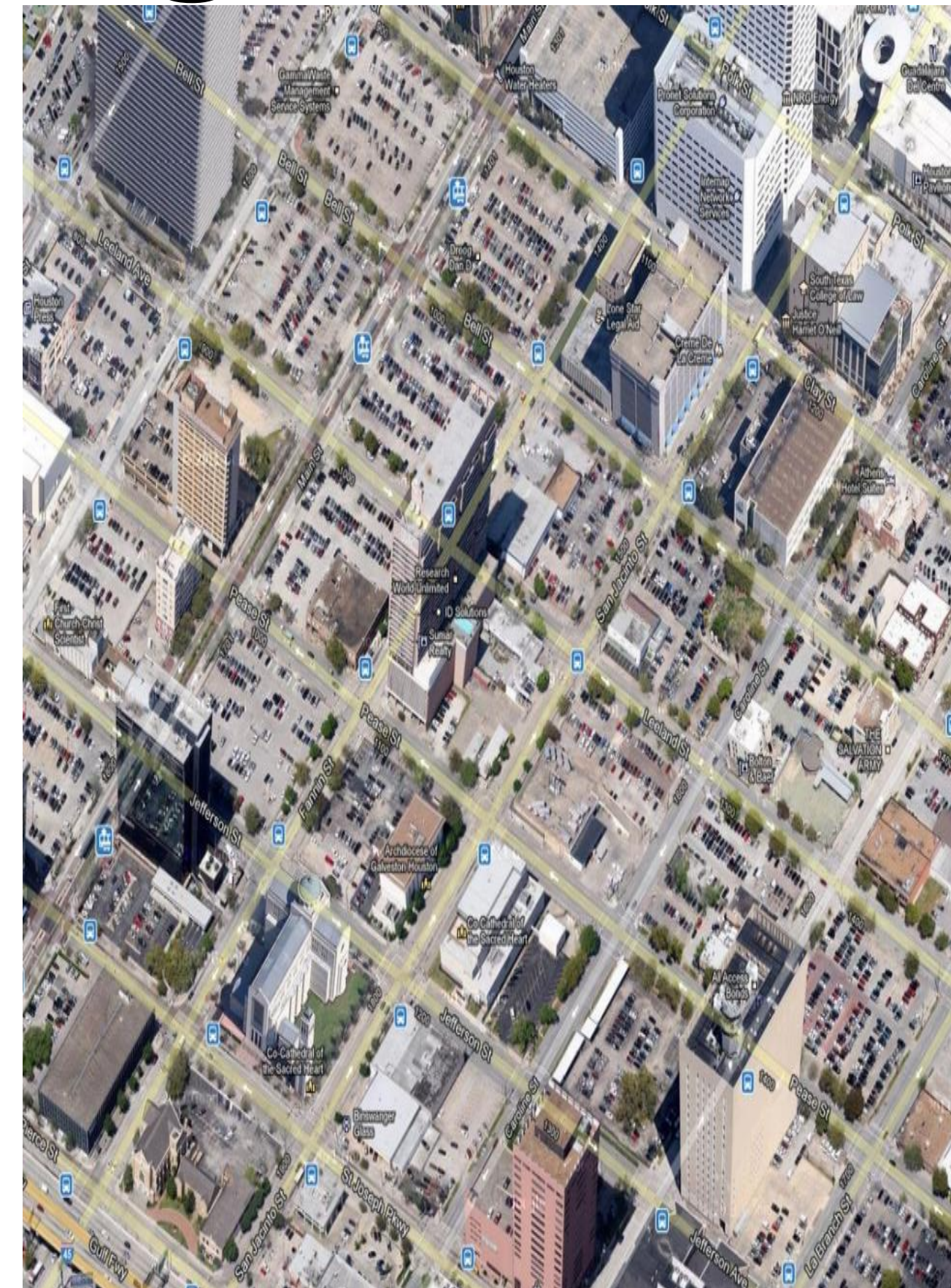
- Parking Charges
- License plate auction, vehicle quota
- Road Pricing/Congestion Charging
- Employer contributions
- Environmental Zones and related charging
- Land development / land value taxes
- Public Private Partnerships
- Advertising

Something is wrong with parking



Photo: Paul Barter

In the car-dependent suburbs of Auckland, New Zealand



Near the center of Houston, USA (via Google Maps)

/2017



Source: Brasilia, Manfred Breithaupt



Considerations:

- Off-street parking should be cheaper than on-street parking
- Parking fees per hour should be higher than a single bus fare
- Implementation of workplace parking levies



Photo by Manfred Breithaupt 2005 - Jakarta

Vehicle Quota



Case Study: “license plate auction” in Shanghai, Guangzhou, Singapore and...

- Only a given number of vehicles can be registered per month

Vehicle quotas in Singapore

- Each car registered requires a Certificate of Entitlement (valid 10 years, extendable), with the COE price determined by auction
- Available quota for new vehicles depends on the targeted growth rate in vehicle population
- **Growth rate target** was 3% (prior to 2009), 1% (from 2012) and finally **0.5% in Feb 2013**)



Photos by Manfred Breithaupt and Carlos F. Pardo

Particulate matter emission - Emission zones in Germany

- An emission zone:
 - is an area from which highly polluting motor vehicles are banned
 - these will be excluded from the city centre in three stages
 - to enter the Zone, vehicles must display a permit disc ('Vignette')
- As of January 2008: Berlin, Hannover, Cologne, meanwhile all major cities in Germany followed; **55 cities in Germany by now**

<http://www.zeit.de/online/2009/22/auto-avus-1989>



<http://www.flickr.com/photos/vitaminf/3558748791/>



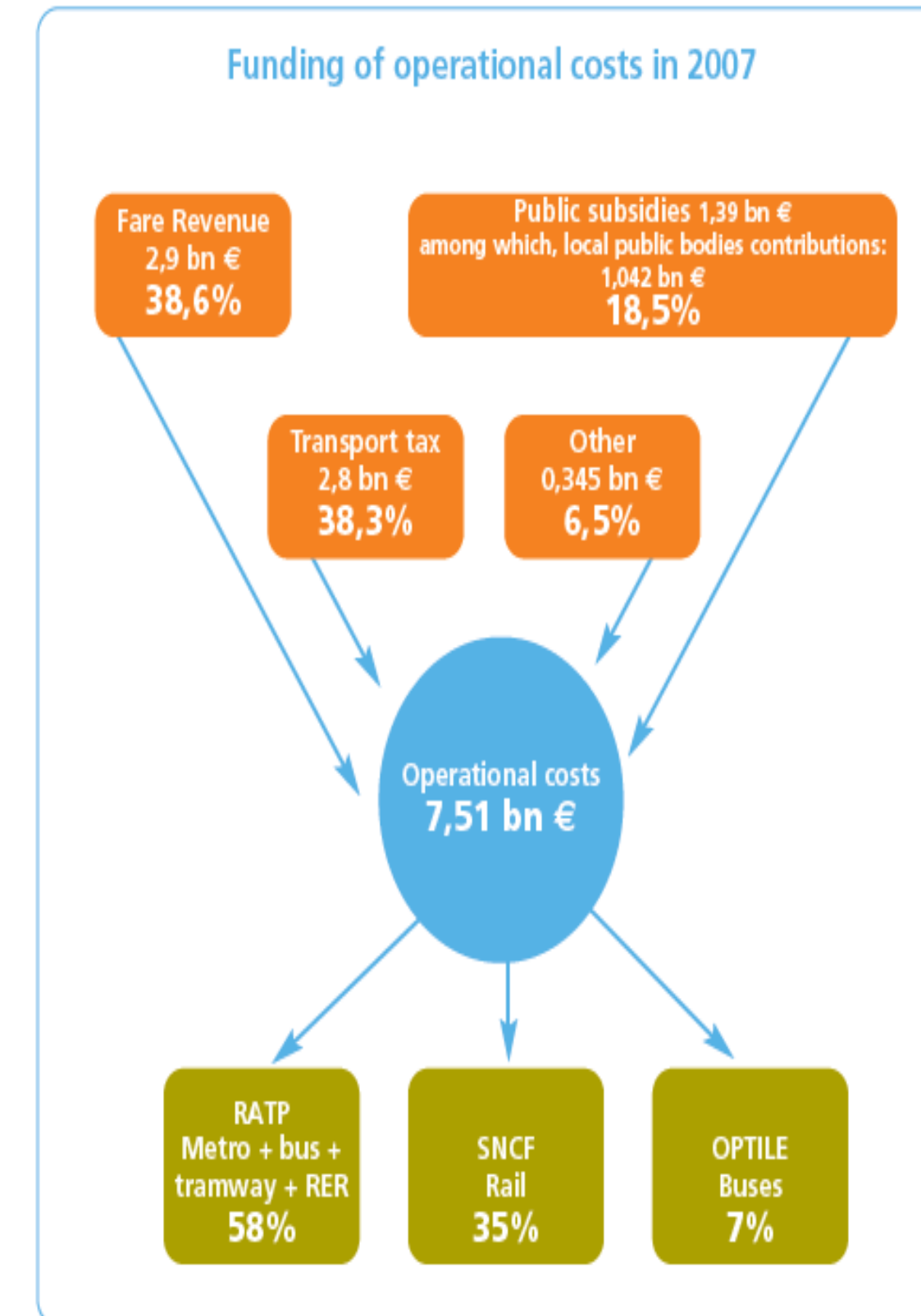


Public Transport in Ile-de-France

Case Study: Versement Transport in France

- The French Versement Transport (VT) is a tax levied on employees' salaries to pay for improvements in public transport in the local area. In return, employees receive subsidies or free travel on public transport
- Organisations with more than 9 employees in a district with more than 10,000 inhabitants are legally required to pay the VT
- The rate currently ranges from 0.55% to 1.72% of the total wages of each eligible company
- Revenues have been used to fund small- and large-scale infrastructure projects across France
- The VT has played a major part in funding the upgrading and expansion of the Paris Metro

Sources: <http://www.stif.info/information-communication/documents-langues-etrangeres/english/documents-anglais-1241.html>
<http://www.indigoguide.com/france/paris-metro.htm>



Land Development and Land Value Taxes

- Financing mechanism where land owners, directly benefiting from new public infrastructure, have to pay
 - Tax payers are not penalised
- Businesses located near the new infrastructure can increase their trades and profits





Contraproductive counter measures, such as funding for private transport through cheap loans for buying vehicles, too low fuel taxes or even fuel subsidies, need to be avoided!

Fuel Taxes and Surcharges

Characteristics:

- Simple, cost-efficient and reliable way of charging
- Most appropriate way to focus on the user-pay-principle
- Political acceptability sometimes problematic

On a global level between 80 to 90% of all revenues derived from the transport sector are being raised from fuel taxes



Photo by Varano



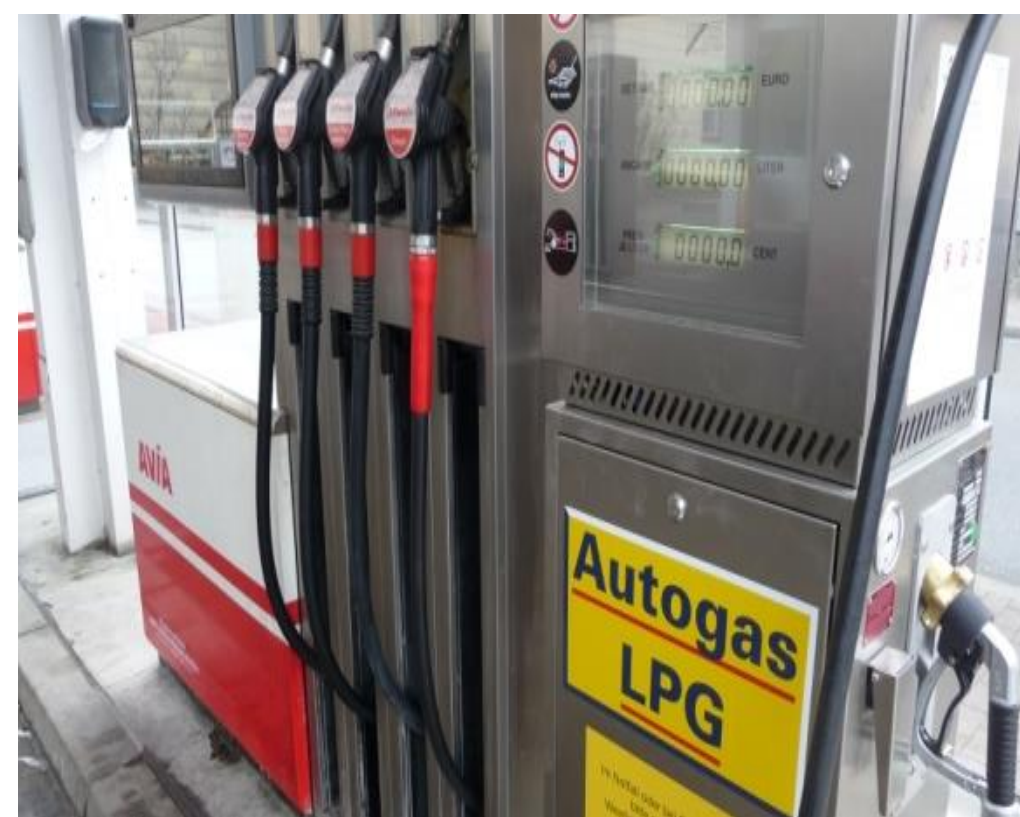
...Dense and transit oriented development



...Efficient operation of traffic



...Walking and use of busses, trams, bicycles



...Investment in high quality fuels



...Innovation in car industry

Some fuel taxes and surcharges are local!

Case Study: Colombia URBAN fuel surcharge

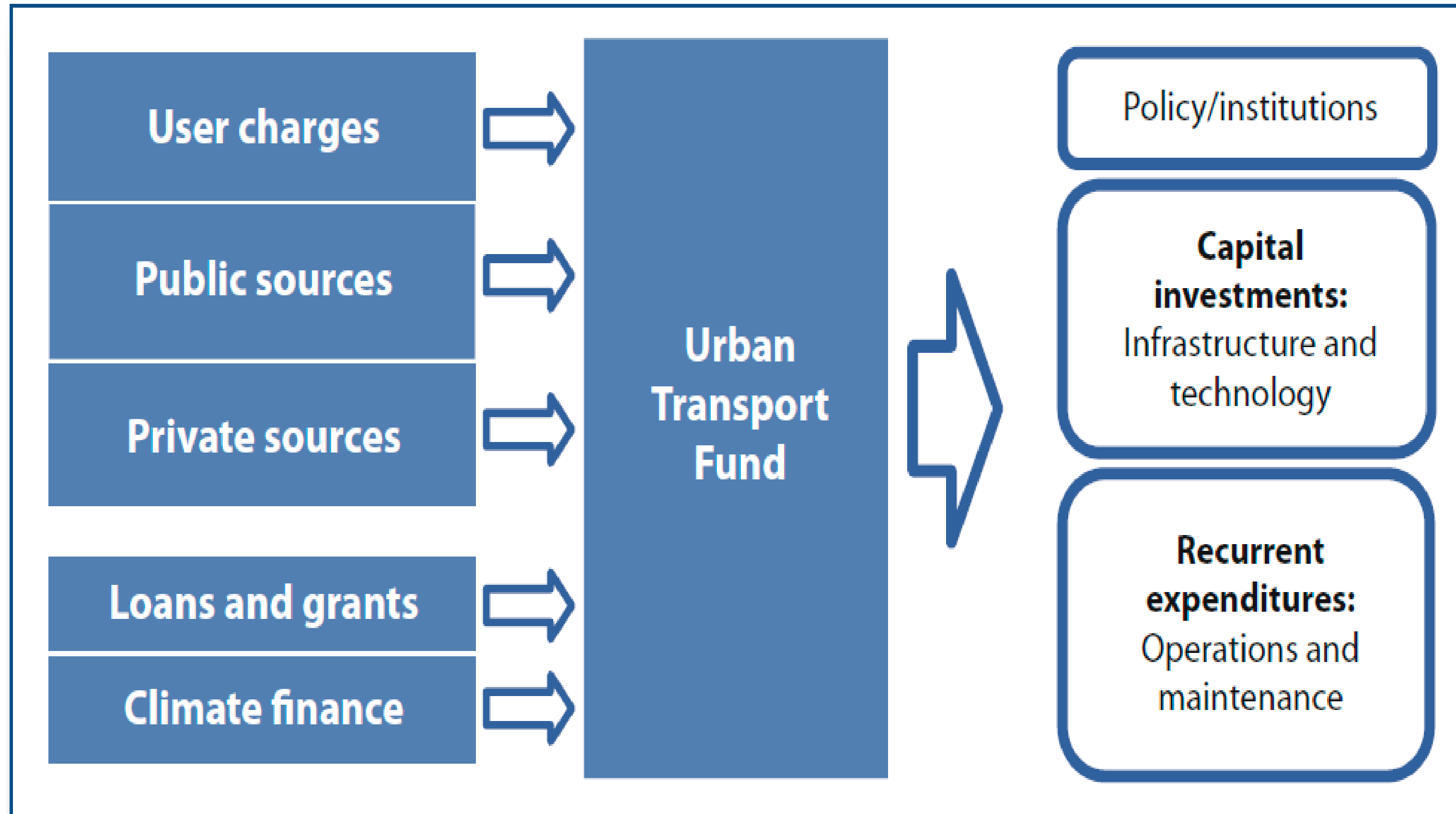
- Colombian cities have a 25% surcharge on gasoline sales
- Half of Bogotá's surcharge revenues are for Bogotá's TransMilenio System
- Private vehicle owners finance one third of mass transport system



Photos by TransMilenio and Varano



Concept of an Urban Transport Fund



“Earmarking certain revenues may help to improve political acceptability and the financial stability of urban transport funds.”

Combining the Financing Options