

prog*trans*

Basel
May 7th, 2010

Stephan Kritzing
Natalia Anders
Nicola Sulke

in co-operation with

Prof. Dr. Werner Rothengatter

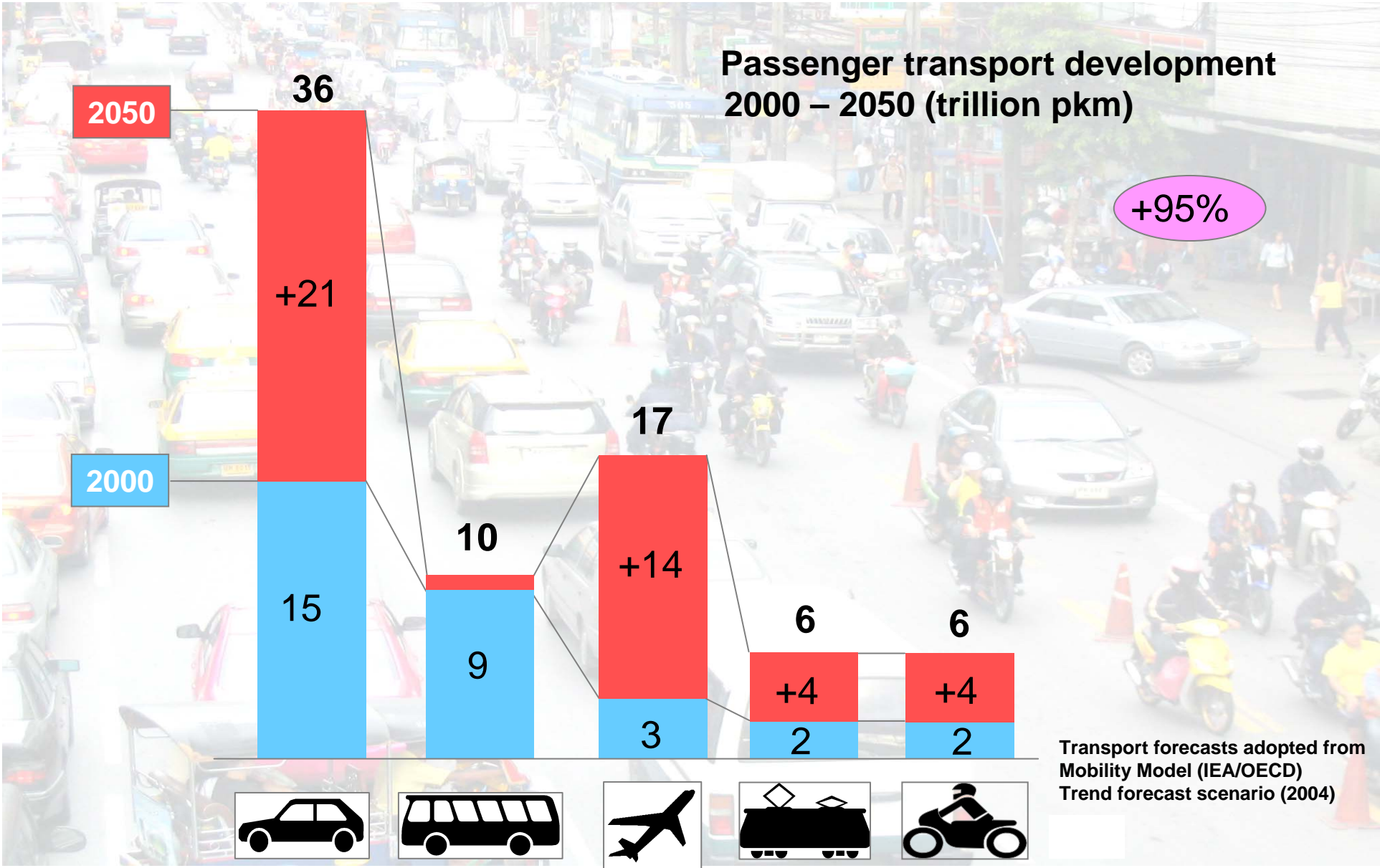
Global Development of Transport Trends, Drivers, Problems and Solutions

18th SESSION
OF THE COMMISSION ON SUSTAINABLE DEVELOPMENT
New York, May 12th, 2010



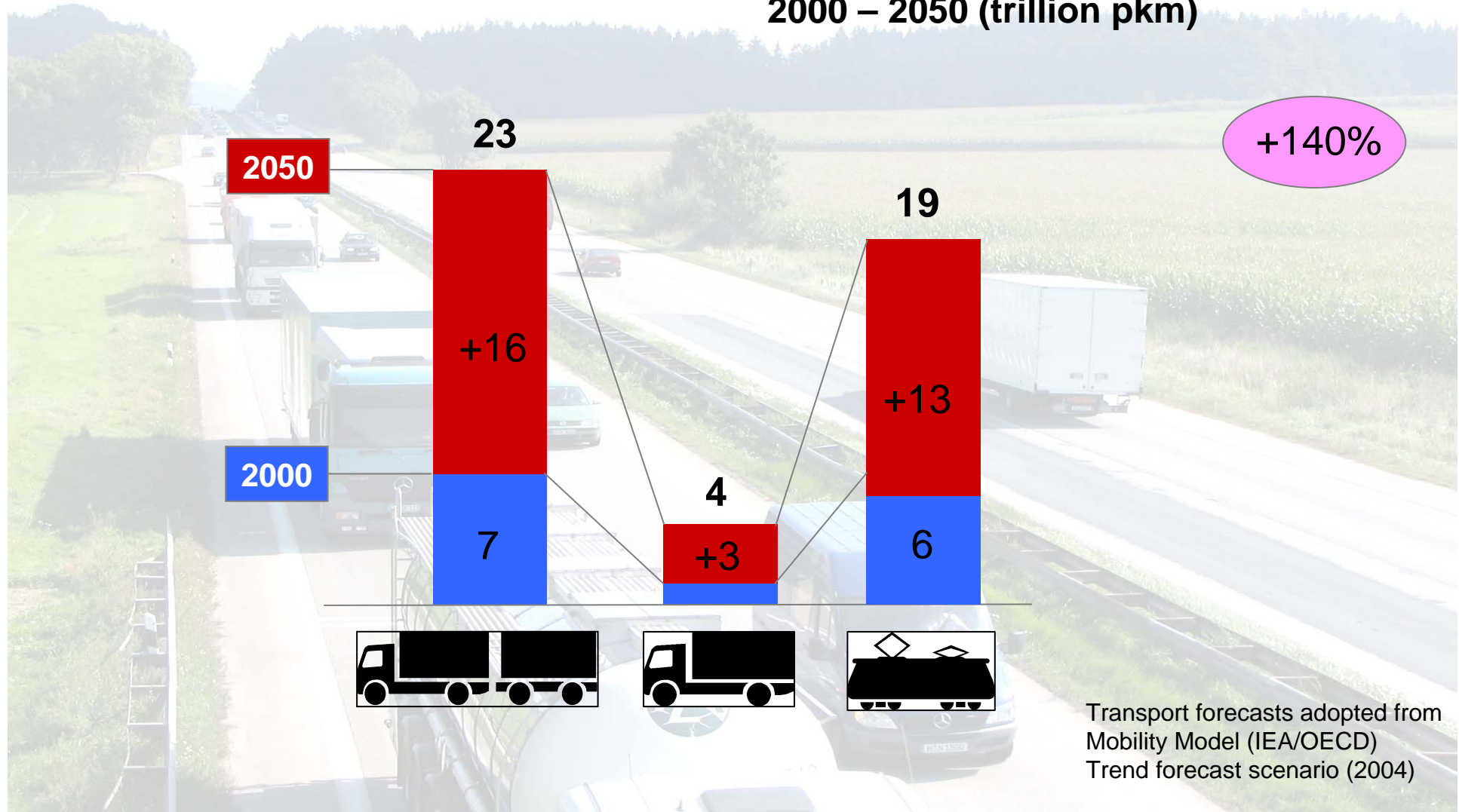
**Bundesministerium
für Umwelt, Naturschutz
und Reaktorsicherheit**

Where is global passenger traffic going?

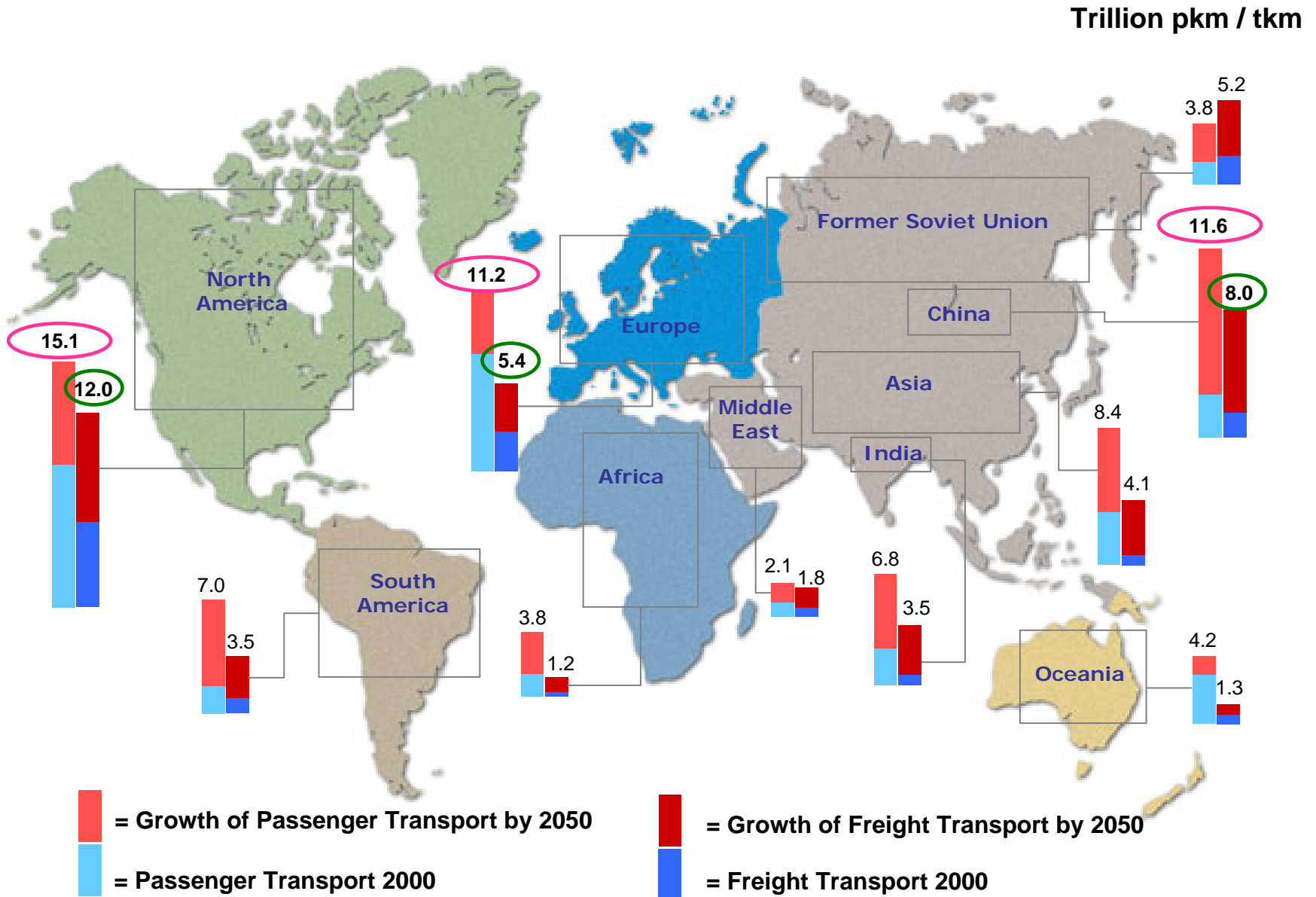


...and what about freight transport?

Freight transport development 2000 – 2050 (trillion pkm)



Which continents will face the traffic growth?



What are the drivers causing more traffic?

1 Population

+ 50% (2000-50) = 9.2 bn inh. in 2050

2 GDP

+ 300% (2000-50) = GDP/cap + 160%

3 Transport infrastructure

Key enabler in developing countries

4 Transport policy

„Mobility for all people at low prices“

5 Technology

Efficiency gains, quality, reliability,
easy access

What are the negative impacts?

1 Consumption of land

Megacities: OECD 25%; China still 7% for transport

2 Emissions and noise

Road and air traffic, partially rail

3 Fatalities

1.27 mn deaths
20-50 mn injured people (WHO 2009)

4 Social dimension

Benefits and costs of transport are not equally distributed

5 Supply disparities

Premium services ./ outdated or missing transport systems

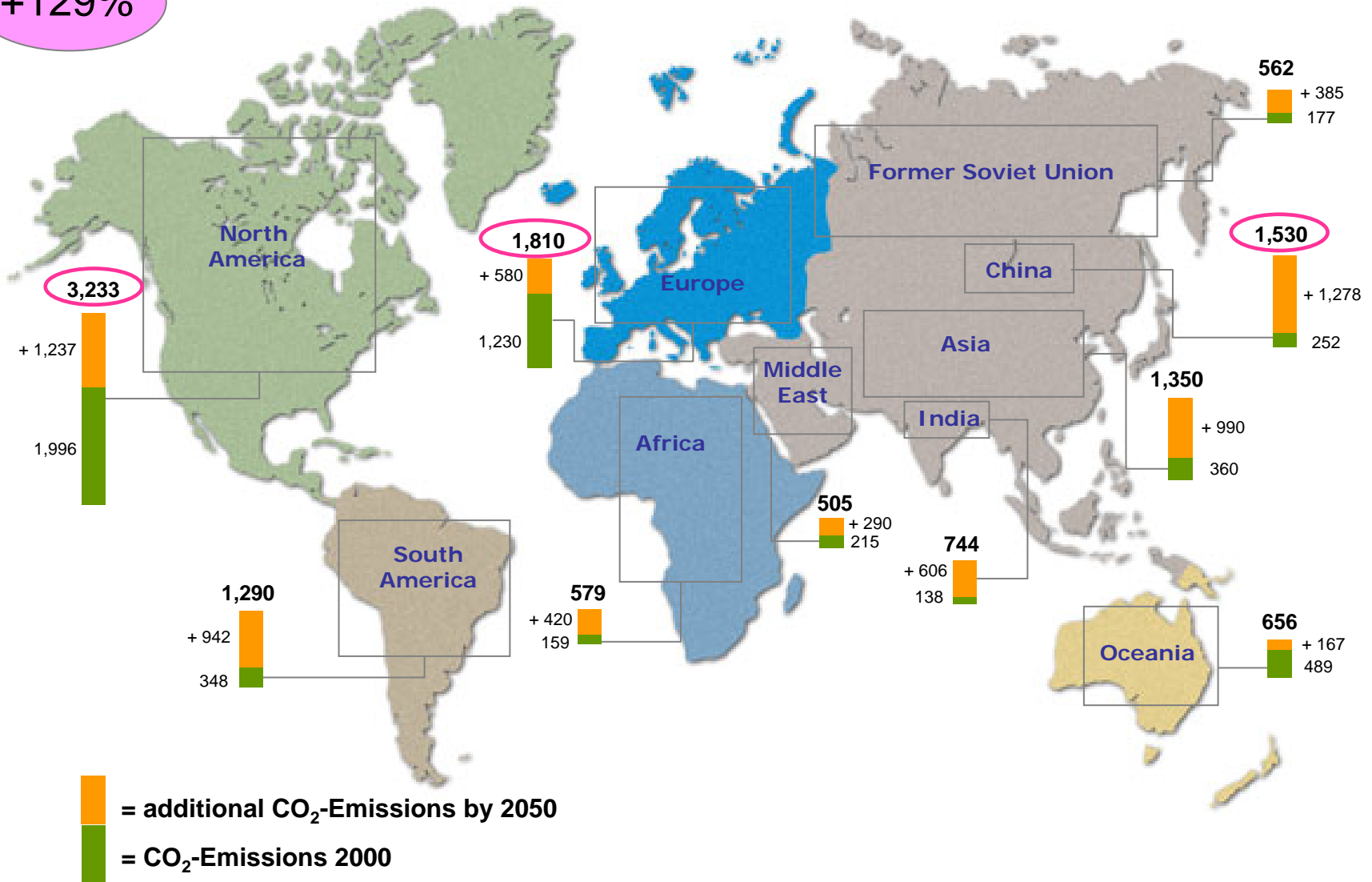
6 Climate change

GHG +129% (2000-50)

GHG Emissions from Transport 2000-2050

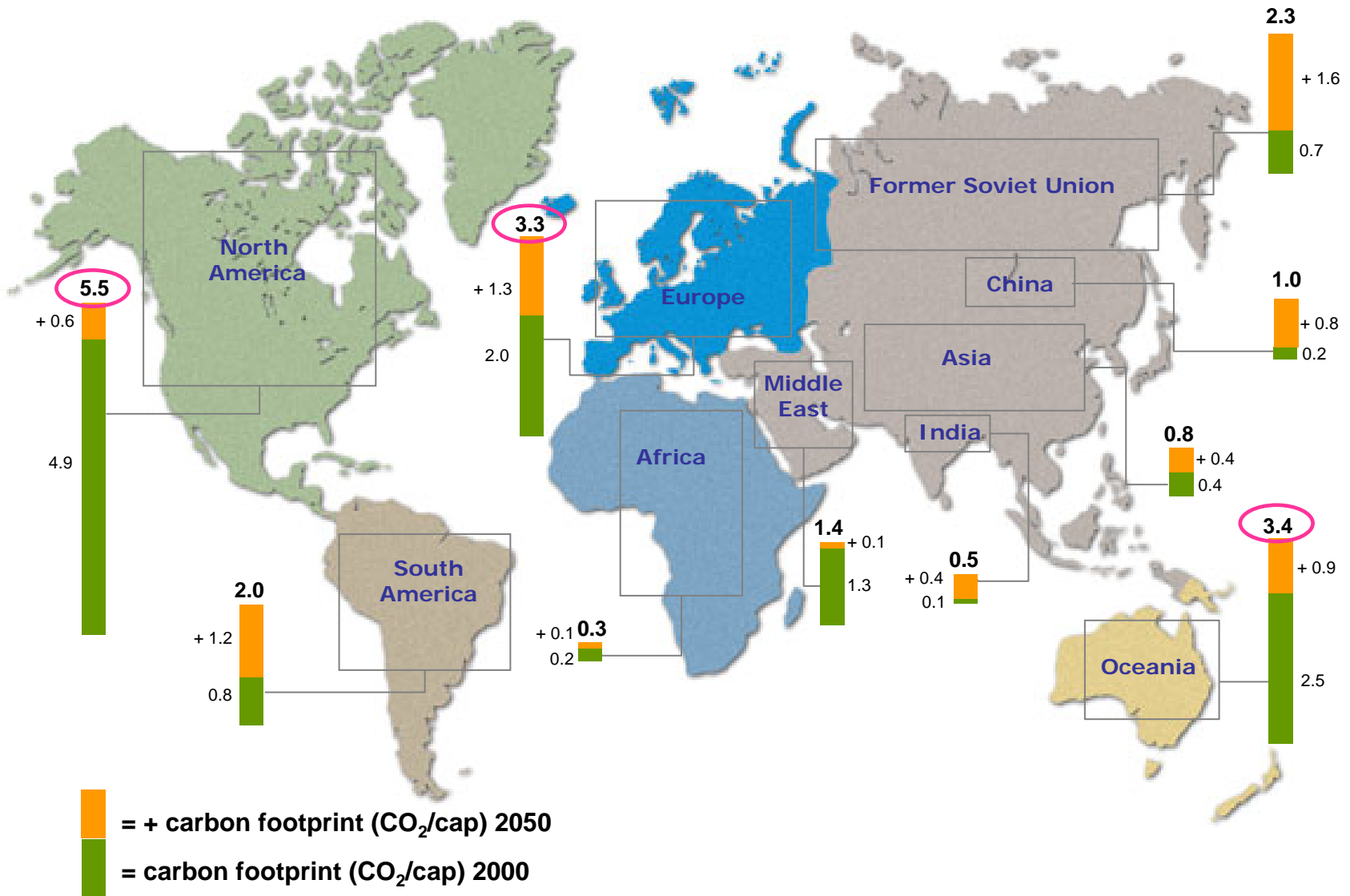
(Mt CO₂-Emissions from passenger and freight transport)

+129%



Transport carbon footprint 2000-2050 (CO₂/cap/a)

(t CO₂ emissions/cap/a)



Reduction of transport GHG emissions is possible:

Trend 2000-2050: **+129%**

Examples 2050	Reduction of 2050 trend CO ₂ emissions	Change 2000-2050
1. Reduction of average passenger car fuel consumption by 10%	- 510 mt	+ 119%
2. Shift of 10 % of air transport to railways	- 210 mt	+ 125%
3. Shift of 10 % of freight road transport to railways	- 160 mt	+ 126%
All	- 880 mt	+ 112%

Solutions: Avoid - Shift - Improve

Transport planning
and land use
planning

Sustainable
Transport
Systems

Regulation and
Pricing

Joint Technology
Implementation

- **Integration of land use and transport planning**
- **No new land use without sustainable transport system!**
- **Public transport for cities**
- **Flexible systems for rural areas**
- **Non motorized systems for all**
- **Priority to the most sustainable transport systems**
- **User cost principle**
- **More energy efficiency**
- **Less negative impacts**