

# The Marco Polo programme – Developments in intermodal transport policies

## Group 1

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# Facts about European transport

**20%** of the railway network are classed as **bottlenecks**. Goods carried by rail: **EU 8 %**, **USA 40 %**.

**Transport** accounts for over **10% of the EU's gross domestic product**.

**Goods transport** **10% of the road network** is affected daily by traffic jams. Delays result in consumption of an **extra 1.9 billion litres of fuel**, which is some **6%** of annual consumption. **by ca. 2.8% per year** (1995-2005).

International goods **trains in**

**Europe struggling** along at an **average speed of 18 km/h**. **Road transport** accounts for **84%** of **CO<sub>2</sub> emissions** attributable to

The **transport services sector** **employs** about **8.2 million** persons in the EU-25

transport.

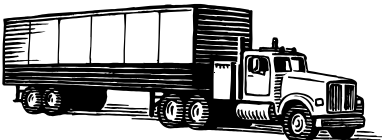
# Present EU transport policy

After years of main focusing on opening-up of the transport market in the EU policies have changed

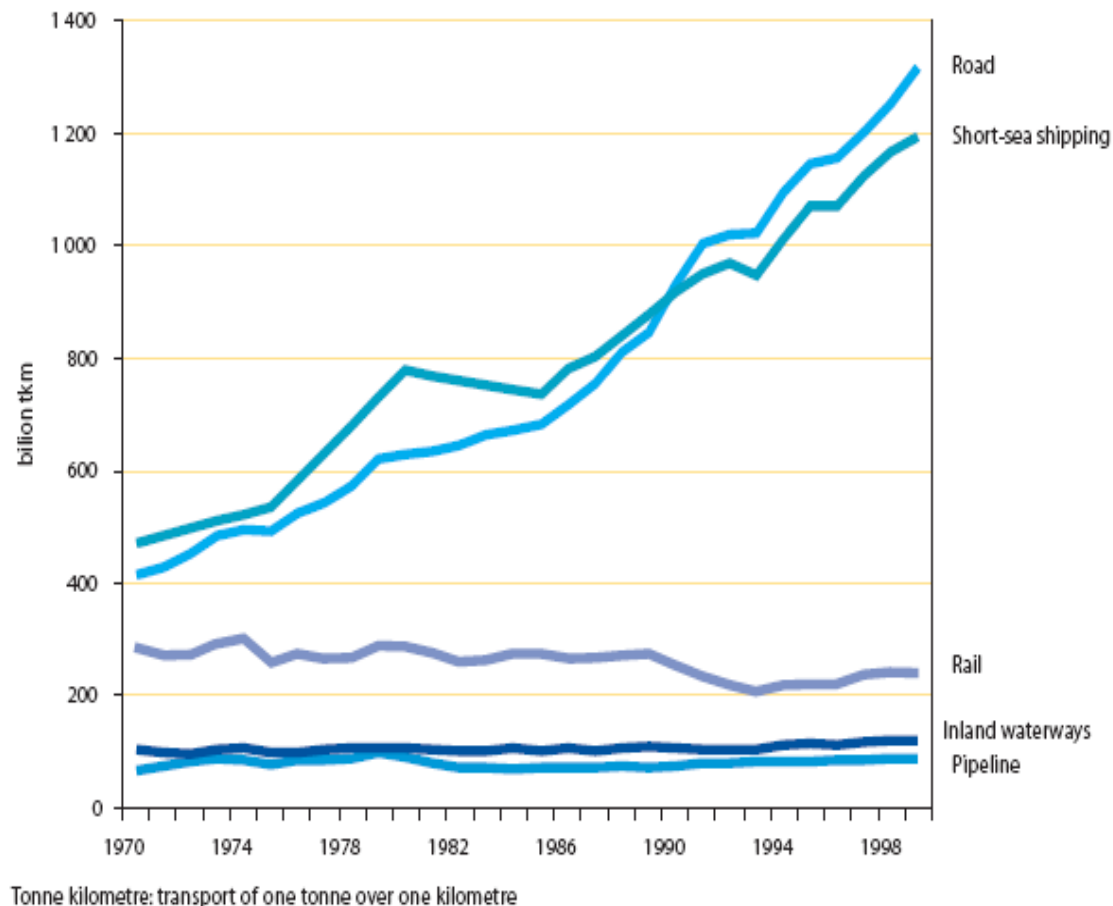
## Reasons

### 1. Unequal growth in different modes of transport

- Road transport is generally faster and more flexible when compared to other modes. Road networks are developed much faster than rail networks. These qualities also play a part in a growing demand for just-in-time delivery (European Environment Agency, 2007)



# Goods transport — Growth of traffic by mode of transport, EU-15: 1970–99



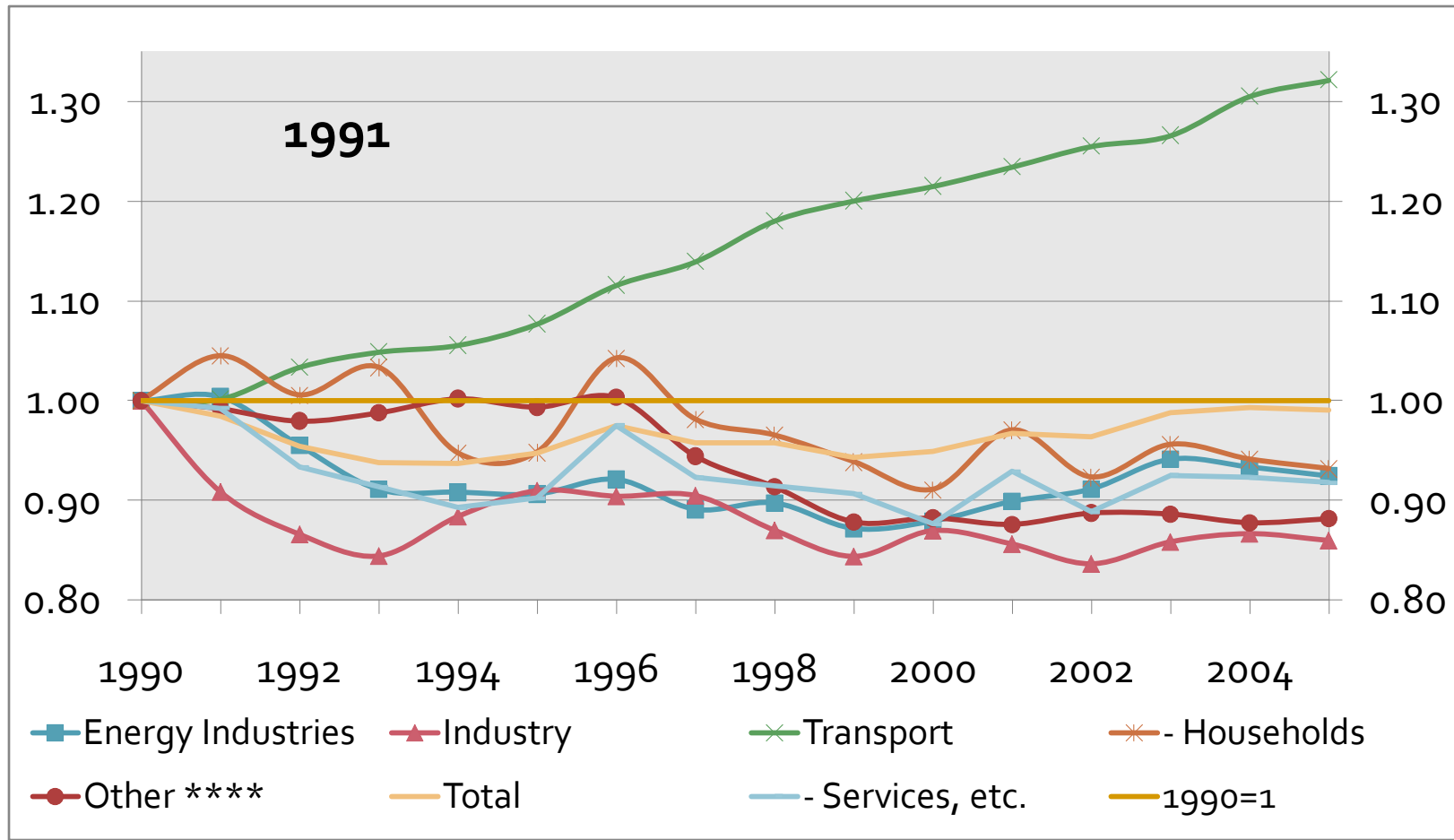
# Present EU transport policy

## Reasons for policy change

2. Congestion on main road and rail routes, in towns, and at airports which lead to a serious risk that Europe will lose economic competitiveness
3. Harmful effects on the environment and public health as well as the large amount of road accidents



# CO2 Emissions by Sector



# Present EU transport policy

## New policies

1. Eliminating bottlenecks
2. Placing users at the heart of transport policy
3. Managing the globalisation of transport
4. **Shifting the balance between modes of transport (Marco Polo Programme)**



# The Marco Polo Programme

- Is launched 'to support intermodal initiatives and alternatives to road transport in the early stages until they become commercially viable' (European Commission, 2001)
- Modal shift in specific markets can contribute to reducing the environmental impacts of transport (EC, 2006)



# The Marco Polo Programme

## Concerns

- Modal shift towards rail and inland shipping is not in all circumstances an efficient way to reduce the environmental impact. Advantages are most pronounced for long distance transport (EC, 2006)
- Specific measures aimed at modal shift, like building new rail infrastructure, may in some cases boost the transport volume of rail without necessarily decreasing road transport volumes significantly. In those cases, the net effect is higher transport volume and higher total emissions (Essen et al, 2003)

# Case study: Antwerp Intermodal Network (AIN)

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“Investments have to be made along the entire logistics chain at the port of Antwerp, including the rail, road and waterway connections”

*Jean-Pierre Verschueren*

*PR-Manager Port of Antwerp, 2003*

# Challenges for the Port of Antwerp

- Increase of incoming cargo at Port of Antwerp
- Internal problems with terminals  
⇒ Delay in handling
- 2004 – 2007 construction work at ring of Antwerp
- Increasing traffic volume on streets in Europe  
⇒ Delay in delivery to and portage from the Port

**Basic necessity for grow of harbour**



# How to tackle the Challenges

1. Making handling more efficient
  - Barge planning system
  - Better timing between barge operators
2. Improving hinterland connection
  - Rail shuttle between Antwerp and Cologne
  - Share of information between members of AIN
3. Decrease road traffic
  - Increase travelling on rail and river
  - Decrease container transport via truck from 64% in 2004 down to 40% in 2015

# What is the AIN?

- Network between Port of Antwerp and 18 inland ports and terminals
- Started in Jan 2004
- Initialised by Port of Antwerp
- Subsidized by Marco Polo program with €1.72 m



# Results

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## Pros

- 120,000 TEU from road to barge till 2005
- 8,000 TEU from road to rail till 2005
- 91 additional departures till 2005
- 113 additional departures till 2006
- Corridor Born better than expected

## Cons

- Corridor Lille underachieved
- 3 operators quitted the partnership

# Questions so far?





# Discussion points

**D1. Should the EU impose road charges on major traffic routes for freight transport and charge prices on a high level to support modal shifts?**

**D2. Does the growth of Asian cargo flows affect the intermodal transport policy in Europe (e.g. The AIN project)?**



# Conclusions based on literature

D1. Should the EU impose road charges on major traffic routes for freight transport and charge prices on a high level to support modal shifts?

- Fair road taxes will stimulate a shift (B.Ubbels, P.Rietveld, P.Peeters, 2002)
- Government have to pay more attention on the other shift like rail and water (EU Commission, 2001)
  - Build more multi-modal terminals
  - Expand their rail network
  - Stimulate companies to invest in multimodal facilities
  - Work together with other countries



# Conclusions based on literature

## D2. Does the growth of Asian cargo flows affect the intermodal transport policy in Europe (e.g. The AIN project)?

- Globalization contributes to Asian developing countries becoming the main manufacturing points of the world. Therefore, their economic growth depends on export.
- Major shipping lines coming from Asia chose the port of Antwerp because of the central location AND intermodal network.

**A balance between the development of the port + the development of the intermodal network to the hinterland is essential.**



# References

- Essen, H.v., Bello, O., Dings, J. and Brink, R.v.d. (2003) *To shift or not to shift, that's the question. The environmental performance of the principal modes of freight and passenger transport in the policy-making context Delft: CE Solutions for environment, economy and technology*
- European Commission (2001) *White Paper – European transport policy for 2010: time to decide Luxembourg: Office for Official Publications of the European Communities*
- European Commission (2003) *European Union Energy and Transport in Figures: Statistical Pocketbook 2003 Luxembourg: Directorate-General for Energy and Transport*
- European Commission (2006) *European Union Energy and Transport in Figures: Statistical Pocketbook 2006 Luxembourg: Directorate-General for Energy and Transport*
- European Commission (2007) *European Union Energy and Transport in Figures: Statistical Pocketbook 2007 Luxembourg: Directorate-General for Energy and Transport*
- European Environment Agency (2007) *Transport and environment: on the way to a new common transport policy Luxembourg: Office for Official Publications of the European Communities*
- Port of Nagoya (2003) Goodwill Visit by Governor of Antwerp Province, Belgium [online] available: <http://www.port-of-nagoya.jp/english/news2003.htm#2003> [data access: 28<sup>th</sup> Feb 2008]
- Samskip MOL Container Services between Asia and Europe [Online] available: [http://www.samskip.be/Asia\\_Europe.html](http://www.samskip.be/Asia_Europe.html) [data access: 28<sup>th</sup> Feb 2008]
- Shanghai Foreign Affairs (2008) Shanghai's International Sister City [online] available: <http://www.shfao.gov.cn/wsb/node111/node136/node137/index.html> [data access: 28<sup>th</sup> Feb 2008]
- ShippingChina (2007) 第四届（2007）中国船港服务星光榜--中国国际海运网安特卫普港 [online] available: <http://star2007.shippingchina.com/?package=other&module=star2007com&act=detail&id=124> [data access: 28<sup>th</sup> Feb 2008]
- Tdctrade (2002) Belgium-Hong Kong trade to Flourish with Antwerp port expansion [online] available: <http://www.tdctrade.com/imm/02081503/markettrends038.htm> [data access: 28<sup>th</sup> Feb 2008]
- Tdctrade (2006) Antwerp port expects more Chinese cargo [online] available: [http://my.tdctrade.com/airnewse/index.asp?id=19861&w\\_sid=194&w\\_pid=629&w\\_nid=&w\\_cid=&w\\_idt=1900-01-01&w\\_oid=156&w\\_jid](http://my.tdctrade.com/airnewse/index.asp?id=19861&w_sid=194&w_pid=629&w_nid=&w_cid=&w_idt=1900-01-01&w_oid=156&w_jid) [data access: 28<sup>th</sup> Feb 2008]
- B.Ubbels, P.Rietveld, P.Peeters (2002) Environmental effect of a kilometre charge in road transport: an investigation for the Netherlands, Transportation Research, Part D(7), pp. 255-264

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