



***Federale Overheidsdienst  
Mobiliteit en Vervoer***

Belgian Federal Ministry of Transport and Mobility

# **Transport Trends in Europe**

## ***The Experience of Belgium***

***Presentation for:***

***UNECE WP. 5 Transport Trends and Economics***

***September 9, 2008***



# Transport Trends in Europe

## *The Experience of Belgium*

- Geographical situation
  - Western Europe: between The Netherlands, Germany, Luxembourg, France and the Northsea
  - Close to the UK
- Area: 30.501 km<sup>2</sup>
- Population: 10.6 mio
- The Belgian transport sector stands for 205.000 jobs.



# Mobility of persons - trends

- Motorisation degree: 5,3 mio cars for 10,6 mio inhabitants\*,
- 300.000 motorcycles, unknown number of two-wheeled motorised vehicles;
- Road network: dense, excellent and (still) tollfree
- Rail road network: densest in the world
- Public transport: growing



# Persistent growth of passenger traffic

- **weaker polarisation of built up areas:** growing suburbanization, development of the service sector, combined with dissimination of shopping and industrial areas
- **higher living standard and more leisure time** of households
- **fiscal legislation** which has until now remained fairly favourable towards the acquisition of company cars and fuel bonuses
- **development of Brussels** as the national capital and seat of the European institutions, generating commuter traffic
- **growing complexity of mobility trips**
- high degree of **car ownership:** 1 in 2 Belgians

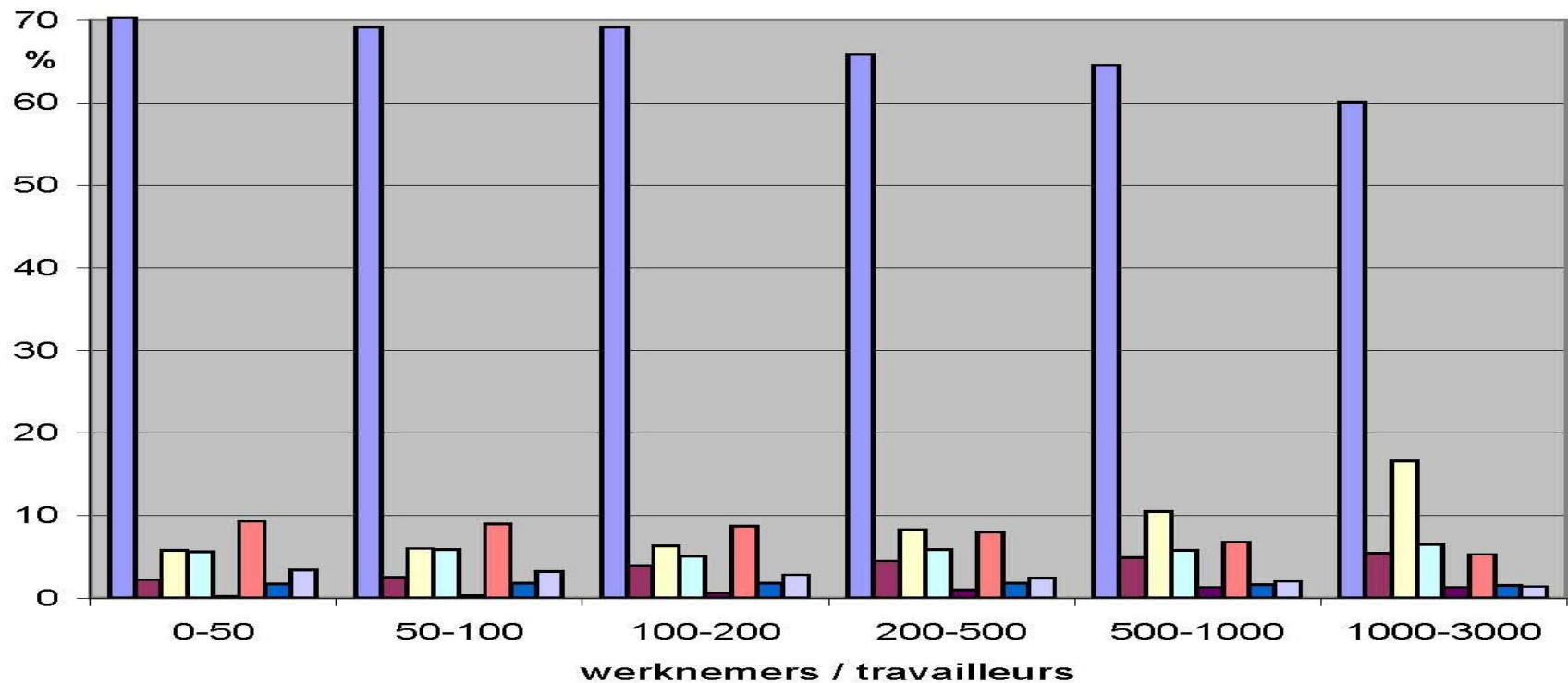


**MODAL SPLIT NAAR AANTAL WERKNEMERS OP DE VESTIGINGSEENHEID**

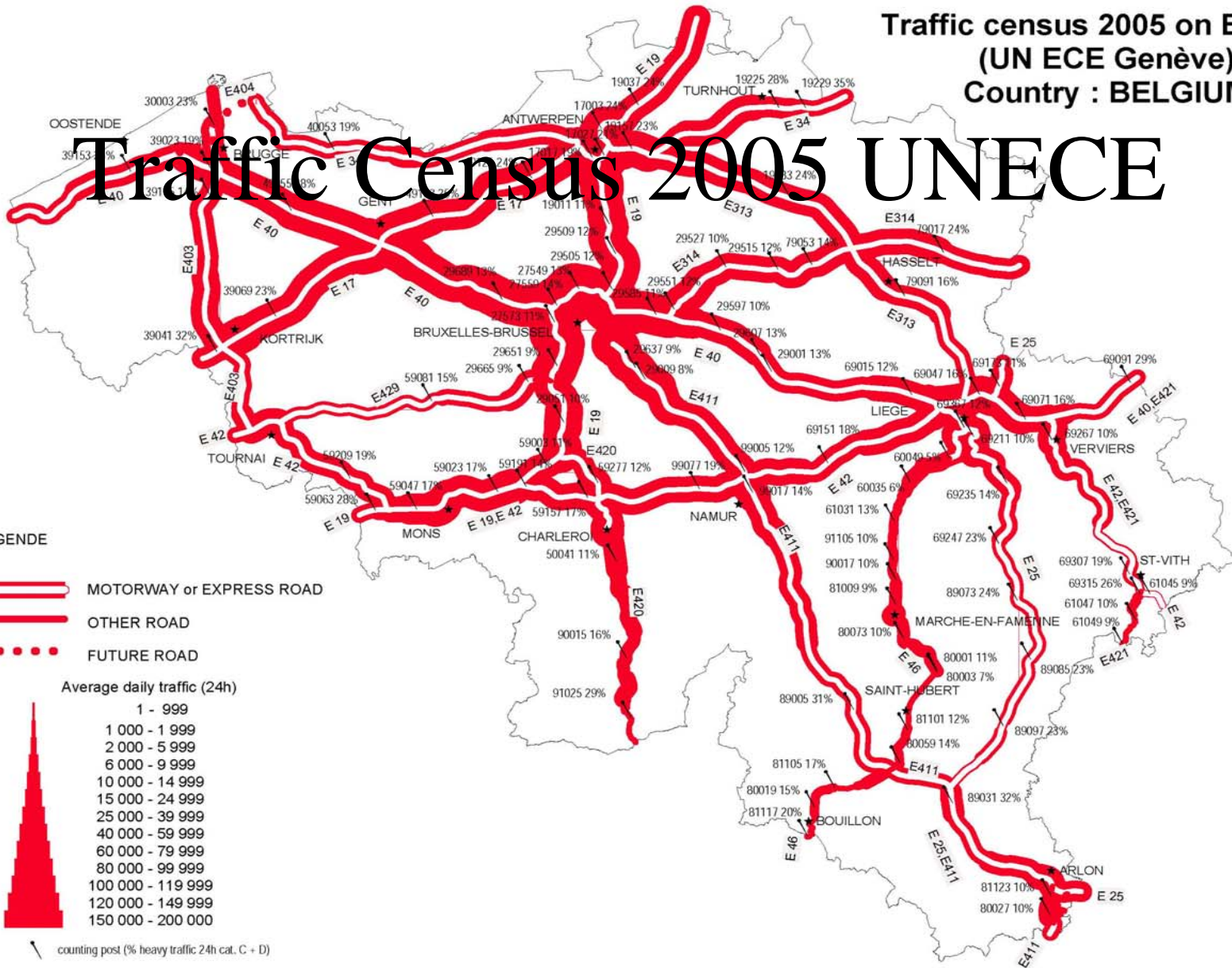
**MODAL SPLIT SELON LE NOMBRE DE TRAVAILLEURS PAR UNITE D'ETABLISSEMENT**

werknemers travailleurs		vestigingen	wagen alleen/fam.	wagen collega	trein	metro tram bus	collectief vervoer	fiets	motor	stappen	andere
>	<=	totaal total	voiture seul/famille	voiture collègue	train	méto tram bus	transport collectif	vélo	motor	marche	autre
0	50	187302	3003	17,8	2,2	5,6	1,2	5,3	1,7	3,4	1,5
50	100	149325	293	69,2	2,9	5,9	1,3	9,9	1,8	3,2	2,1
100	200	293337	2115	69,2	3,9	6,3	5,1	0,6	8,7	1,8	1,6
200	500	331872	1111	65,9	4,5	8,3	5,9	1,0	8,0	1,8	2,4
500	1000	215206	317	64,6	4,9	10,5	5,8	1,3	6,8	1,6	2,4
1000	3000	168015	106	60,1	5,4	16,6	6,5	1,3	5,3	1,5	1,9

Example: Modal split for workers



# Traffic Census 2005 UNECE



# Length of the Belgian road network

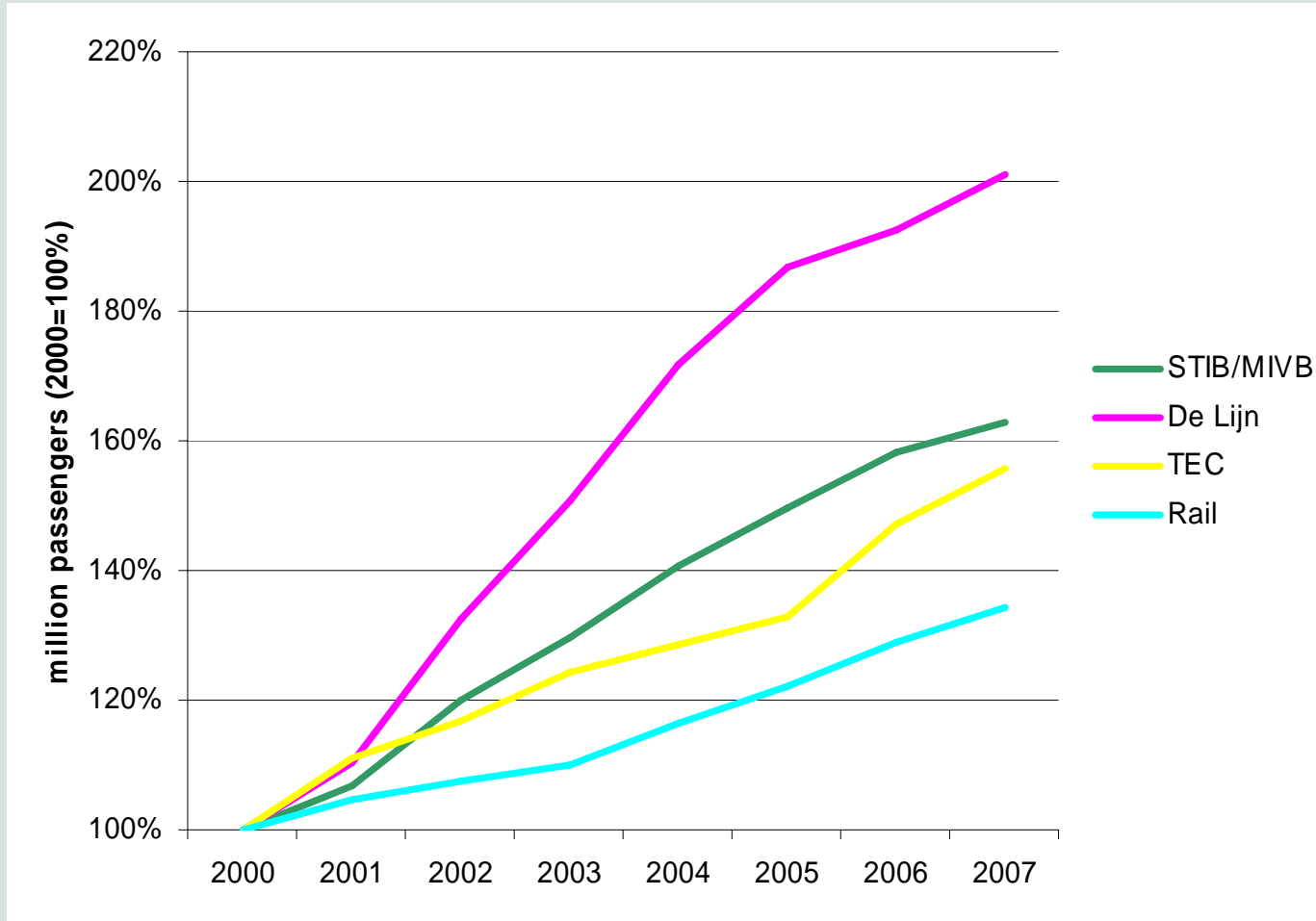
- in km at January 1<sup>st</sup> 2007:

Motorways	Regional roads	Local roads
1.763	14.000	137.400





# Mobility of persons – PUBLIC TRANSPORT



# Mobility of persons - trends

## *Choice for a more sustainable modal split*

Further examples:

- Fiscal encouragement:
  - of purchase of cars with low carbon emission or sootfilter
  - for employers that invest in more sustainable mobility for their workers
- However, there remains some lack of coherence in the (timid) policies of the authorities



# **Mobility of persons - Aviation:** *passenger traffic is up, but for how long?*

- **Brussels National Airport:**  
**2007: 17.8 mio passengers, up 7%** (=above the European average)
- **Charleroi (BSCA): 2.5 mio passengers, up 13%!**  
New low cost terminal opened in January 2008
- **Other regional airports:** number of passengers remained stable in 2007.

# Transport Trends in Europe

## *The Experience of Belgium*

### **Transportation of goods echoes the economy**

- Globalisation = supply chain management strategies increasingly critical
- European distribution market has continued to expand in response to international needs
- Due to its location Belgium is at the heart of a number of important supply chains



# General trend 2000-2007

= growth in all modes and hubs

- **Road haulage**
- **Maritime transport/ports**
- **Transport by barge**
  - over inland waterways
  - to inland ports & waterbound (multimodal) hubs
- **Rail cargo** (many new initiatives due to European liberalisation, but only modest growth up to now)
- **Air cargo**

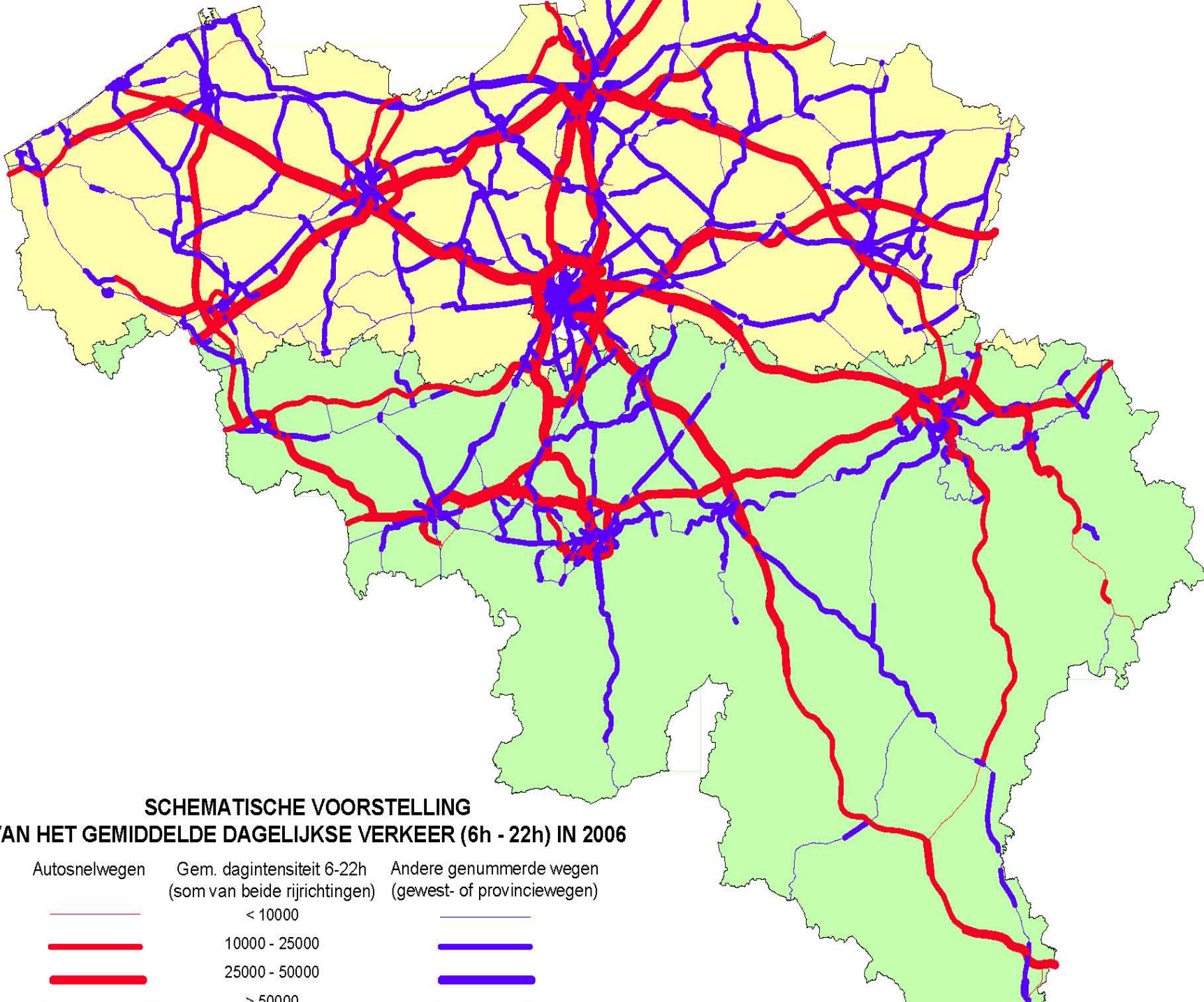


# Excellent infrastructure; well integrated in the European networks

Not only an elaborate **road network**, but also:

- The world's densest **rail network**
- Extended network of **inland waterways**
- **4 ports with maritime access**: Antwerp, Zeebrugge, Ghent, Ostend
- A range of **inland waterways, ports and waterbound inland terminals**





**SCHEMATISCHE VOORSTELLING**

**VAN HET GEMIDDELTE DAGELIJKSE VERKEER (6h - 22h) IN 2006**

Autosnelwegen	Gem. dagintensiteit 6-22h (som van beide rijrichtingen)	Andere genummerde wegen (gewest- of provinciewegen)
	< 10000	
	10000 - 25000	
	25000 - 50000	
	> 50000	

# Railway-network





# Network of Inland Waterways



Vaarweg Voie navigable	Klasse Classe	Tonnenmaat Tonnage	Lengte Longueur	Breedte Largeur	Diepgang Tirant d'eau	vrije hoogte Hauteur libre
	I	250-400	38,50	5,05	2,20	4,00
	II	400-650	50,00	6,60	2,50	5,00
	IV	1000-1500	80,00	9,50	2,50	5,25
	Va	1500-3000	95,00	11,40	2,70	7,00
	Vb	3200-6000	185,00	11,40	2,80	7,00
	VIIe	6400-12000	185,00	22,80	3,40	7,00

NOORDZEE

NEDERLAND

VLAANDEREN

WALLONIE

DEUTSCHLAND

FRANCE

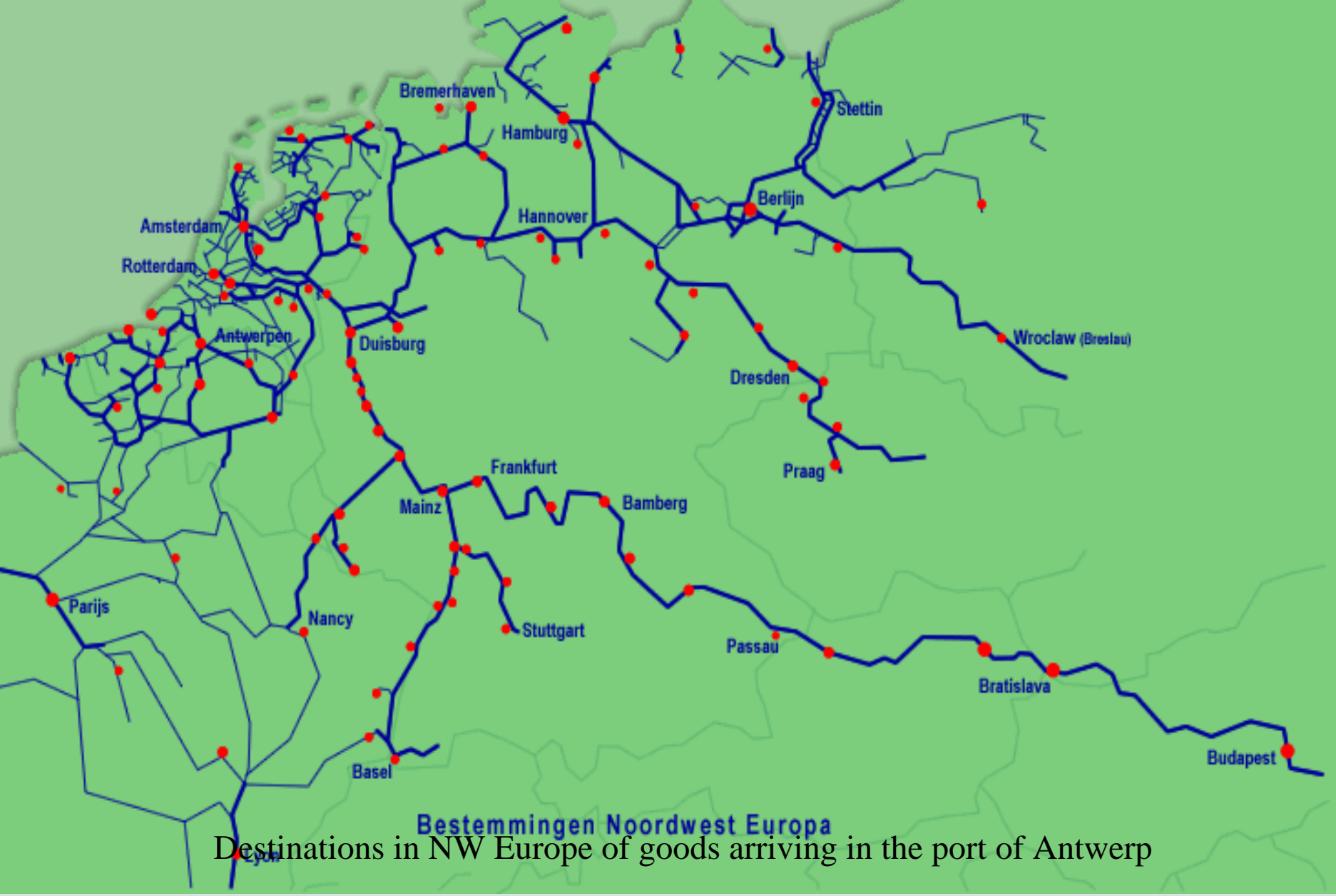
LUXEMBURG



**Legende**

- █ beperkte beroepsvaart
- █ veel beroepsvaart
- █ intensieve beroepsvaart
- jachthaven
- sluis
- milieustation







# The European “Blue Whale”: a new species?



# Belgium in the belly of the “Blue whale”

Source: Cushman & Wakefield



# The shadow of the Eastern European Eagle



# **Belgian ports: gates to the European markets**

- **4 ports with maritime access: Antwerp, Zeebrugge, Ghent and Ostend**
- **A range of inland ports and 15 waterbound inland terminals: “Extended gateways”**
- **Fast growth over the last 10 years**



# The port of Antwerp in 2007

- **Turnover: 183 mio tonnes, up 9.3%**
- **TEU: 8.2 mio, up 17%**
- **Roro-traffic: 4.4 mio tonnes, up 14.4 %**
- **Number of seagoing ships calling: 16.689 (15.770 in 2006)**
- **Gross register tonnage: 288.8 mio, up 8.9%**





# Port of Zeebrugge (Bruges) in 2007

- **Turnover: 43.3 mio tonnes, up 7.3%**
- **TEU: 2 mio, up 25%(!)**
- **Roro-traffic: 13(!) mio tonnes, up 6.5%**
- **Liquid bulk: 5.8 mio, (temporarily) down 7.2%**



# The modal split in inland transport of commodities

- **Road haulage: 75%**
  - **Rail cargo: 11%**
  - **Inland navigation: 14%**
- (transport by pipelines and air cargo excluded)



# Road haulage

**Modal share of 75% rather high** ( - 4% since 1999)  
(due to increased share of mainly inland waterways)

Tonnes/km 2006: 48.5 billion, up 14.3% since 1999

Tonnes/km of *transit traffic* 2006: 8.1 billion, **up 192% (!) since 1999**



# Rail cargo

- **Despite EU-imposed liberalisation 90% still in the hands of the historic carrier: B-Cargo** (turnover: consolidation at best: 8.1 billion tonnes/km; commercial results: return to profitability)
- **10% in the hands of dynamic newcomers** of which Dillen & Lejeune has 9%
- **Several interesting new (international) initiatives**, especially in the hinterland of the ports



# Intermodal transport

- **General trend: positive**
- Some modest state subsidies = some growth
- Initiatives international private operators: non-transalpine transport up 21.9 % ! in 2007
- Boosted by strong growth in the ports of Rotterdam, Antwerp and Zeebrugge
- Interface air cargo/HST coming



# Inland navigation

- Significant modal share of 14%
- Fastest growing transport modus in Belgium: up 50% since 1999 in tonnes and up 39% in tonnes/km
- Turnover 2006: 166.4 mio tonnes on a total for inland transport of 713.5 mio tonnes
- Serious new investments in waterways, quays and vessels by public and private sectors alike



# Example: Port of Liège (Trilogiport)

- 3th European inland port after Duisburg and Paris
- Port: 15.79 Mio tonnes of cargo transited through the port in 2007, up 9.54 %
- Multimodal hub Trilogiport: record total cargo volume of 21.24 Mio tonnes, up 6%



# Air cargo

- **Steady growth in 2007 (above European average)**
- **Brussels Airport (nr 6 in Europe):**
  - 783,727 tonnes, up 8.9%: top 5 of European cargo airports (proximity of the “pharma valley”)
  - The full-freight market accounts for 310,000 tonnes (+14%), courier services for 381,000 tons (+2%) and passenger flights (belly load) for 92,000 tons (+25%).
- **Liège –Bierset: 490.000 tonnes, up 24%**





# **OBSTACLES TO THE DEVELOPMENT OF TRANSPORT**

- **Environmental pressure, up to climate change**
- **Energy shortage /cost of fuel**
- **Living conditions and health, but also: NIMBY**
- **Split-up of political responsibilities leading to lack of coherence**
- **Unfinished liberalisation at EU-level**
- **Exiguity of the territory, combined with density of population and decades of sub-urbanization**





# Obstacles to further growth of motorised traffic in general

- **Cost of fuel**
- **Congestion**
- **Environmental pressure & Climate threat**
  - Air pollution: Toxic emissions +PM
  - Noise and “lack of viability” of built up areas
  - Kyoto engagements of Belgium
- **Road security**
- **Exiguity of the territory** (no room for massive expansion of the road network)



# Obstacles to growth of road haulage

**All the previous, but especially:**

- **Congestion around Antwerp and Brussels**
- **Fierce competition from Eastern European countries**
- **Shortage of wheels and truckers = turnaround to logistics**
- **Growth of transit traffic on toll free Belgian motorways**



# Obstacles to the growth of **rail** traffic

- **Bottlenecks and shortage of tracks**
- **Lack of reliability of rail cargo system**
- **Lack of interoperability of personnel and infrastructure in international traffic**
- **Problematic reopening of the Iron Rhine railroad to the German Ruhr**



# Obstacles to the growth of **inland navigation**

- **Severe competition and low profitability**
- **Need of professionalisation**
- **& capital investment: renewal of the fleet urgent**
- **NIMBY-syndrome**



# Obstacles to the growth of maritime ports

- **EU-habitat and birds directives + NIMBY**
- **Tensions with the Netherlands over the dredging of the river Scheldt (Scaldia)**
- **Risk for port congestion**
- **Administrative burdens for SSS**
- **Impaired interoperability of maritime and inland containers (obstacle to co-modality)**





# Aviation: obstacles to further growth

- **Environmental pressure:**
  - **Air pollution: Toxic emissions +PM**
  - **Noise**
  - **Viability of built up areas in the vicinity of airports**
- **Climate treaty (Kyoto engagements of Belgium)**
- **Exiguity of the territory: no room for the massive expansion of airports**





# **Best practices in transport regulation and infrastructure**

- **Option for sustainable transport: EU, Belgium, Regions, local authorities**
- **Regulatory framework**
- **Upgrading of infrastructure**
- **Filling in of missing links**



# **Best practices: improvement of transport infrastructure**

- **Filling in of missing links**
- **ITS “Easyway”-project**
- **Trans-European Network: 3 railroad projects on Belgian territory**
- **Suburban railroad project around Brussels**
- **Multi-modal hubs (hub-and-spoke around the ports)**



# **Best practices: technological progress and information needs**

- **Intelligent transport systems**
- **Progress in the GALILEO-satellite navigation programme**
- **Homogenous international statistics on transport and mobility**



# Trends 2008 – all transport modes

- **Growth continues during the 1st semester 2008**
- **Only sign of weakening: - 2% flights at Brussels airport in July**



# Trends 2008 on the road in Belgium

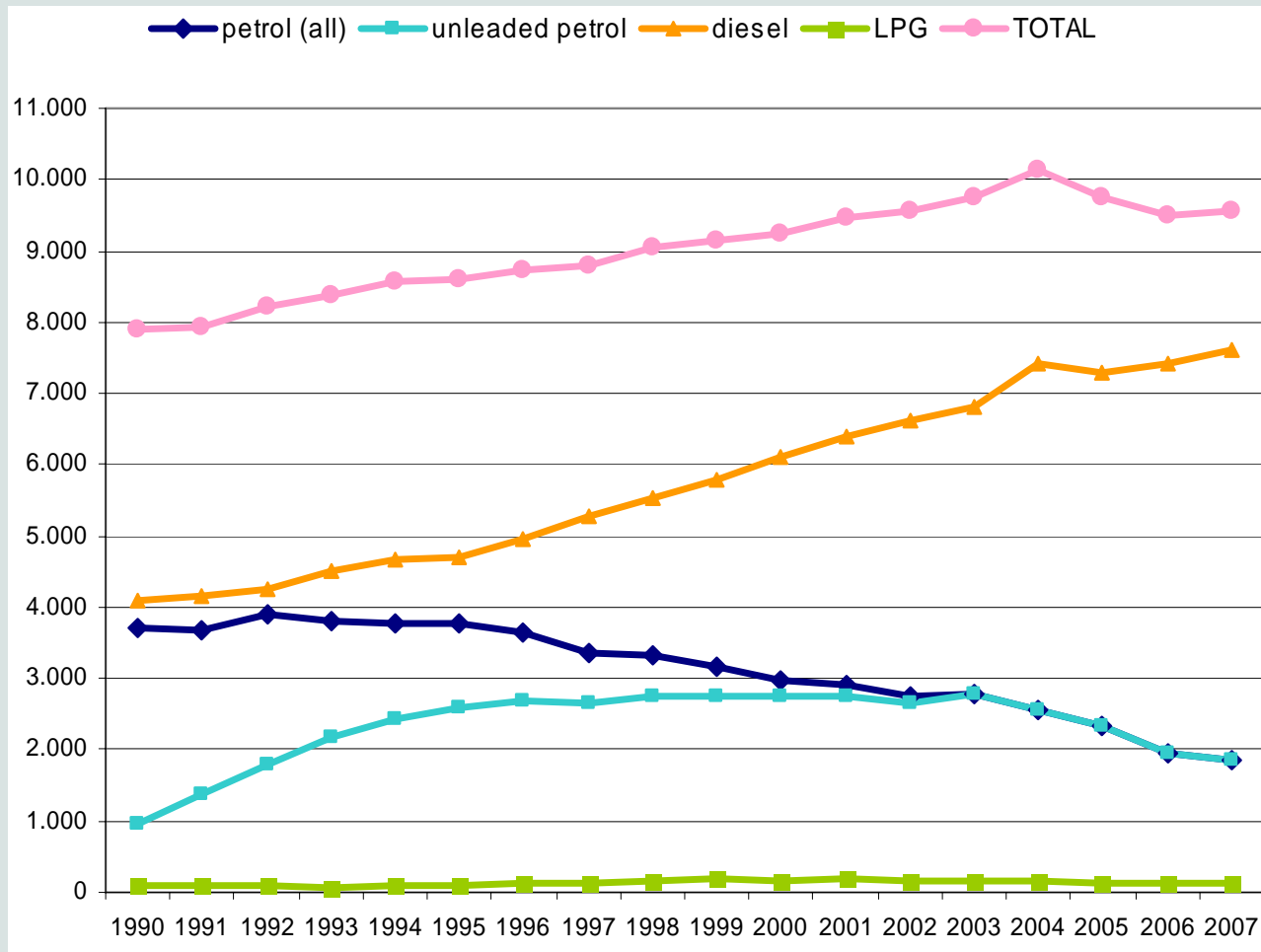
**QUID the 3 F-crisis? +80.000 cars!**

- **slight drop in the sale of fuel for cars in 2005/06**
- **Somewhat more km, with less consuming cars**
- **No drop in the sale of heavy fuel for trucks due to diesel-shopping by trucks from neighbouring countries**
- **But: Public transport continues its growth!**



# Fuel sales in Belgium

(million liter)



# Projections of transport until 2030

(Federal Planning Bureau 2008)

## Principaux résultats des perspectives du transport en Belgique à politique inchangée (scénario de référence)

	2005	2030	Croissance (en %)
<b>Transport de marchandises (en milliards de tonnes-kilomètres)</b>			
Rail	8,3	15,3	85%
Navigation intérieure	8,8	14,8	68%
Camionnettes	2,3	3,8	66%
Camions	49,9	67,6	36%
<b>Total</b>	<b>69,3</b>	<b>101,6</b>	<b>47%</b>
<b>Transport de personnes (en milliards de passagers-kilomètres)</b>			
Voiture avec un seul occupant	64,7	87,9	36%
Covoiturage	37,8	36,8	-3%
Rail	7,9	12,3	56%
Bus, tram, métro	7,9	6,7	-15%
Non motorisé	3,8	4,9	30%
<b>Total</b>	<b>122,1</b>	<b>148,6</b>	<b>22%</b>

NB : un passager-kilomètre est un kilomètre parcouru par un passager ; une tonne-kilomètre est un kilomètre parcouru par une tonne de marchandise.



***Thank you for your kind attention***

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