Road-Rail Combined Transport:
new developments and best practices

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Combined Transport - Figures that speak for themselves

1 in 4 European freight trains was a Combined Transport train

- 80BN tkm in 2010, or 28,5% of total rail freight performance
- CT is the most dynamically growing segment of rail freight

400 Terminals connected by nearly 2000 trains a day

- A network that spans the continent

11% of European cargo movements

- Uses Road-Rail Combined Transport

6-7% = long-term average annual growth rate

- Realised by Road-Rail Combined Transport since the late 1990s

75% fewer proportional GHG emissions and 30% less energy needed

- By Road-Rail Combined Transport in comparison with pure-road transport

40-times fewer accidents

- In comparison with road transport

Post-crisis recovery: UIRR figures 2010

	International			Domestic			Total		
	2009	2010	% 10-09	2009	2010	% 10-09	2009	2010	% 10-09
Unaccompanied CT	1 385 659	1 509 152	9%	1 016 710	1 073 461	6%	2 402 369	2 582 613	8%
Accompanied CT	229 276	250 663	9%	186 704	197 589	6%	415 980	448 252	8%
Total CONSIGNMENTS	1 614 935	1 759 815	9%	1 203 414	1 271 050	6%	2 818 349	3 030 865	8%
Total TEU	3 229 870	3 519 629	9%	2 406 828	2 542 100	6%	5 636 698	6 061 729	8%

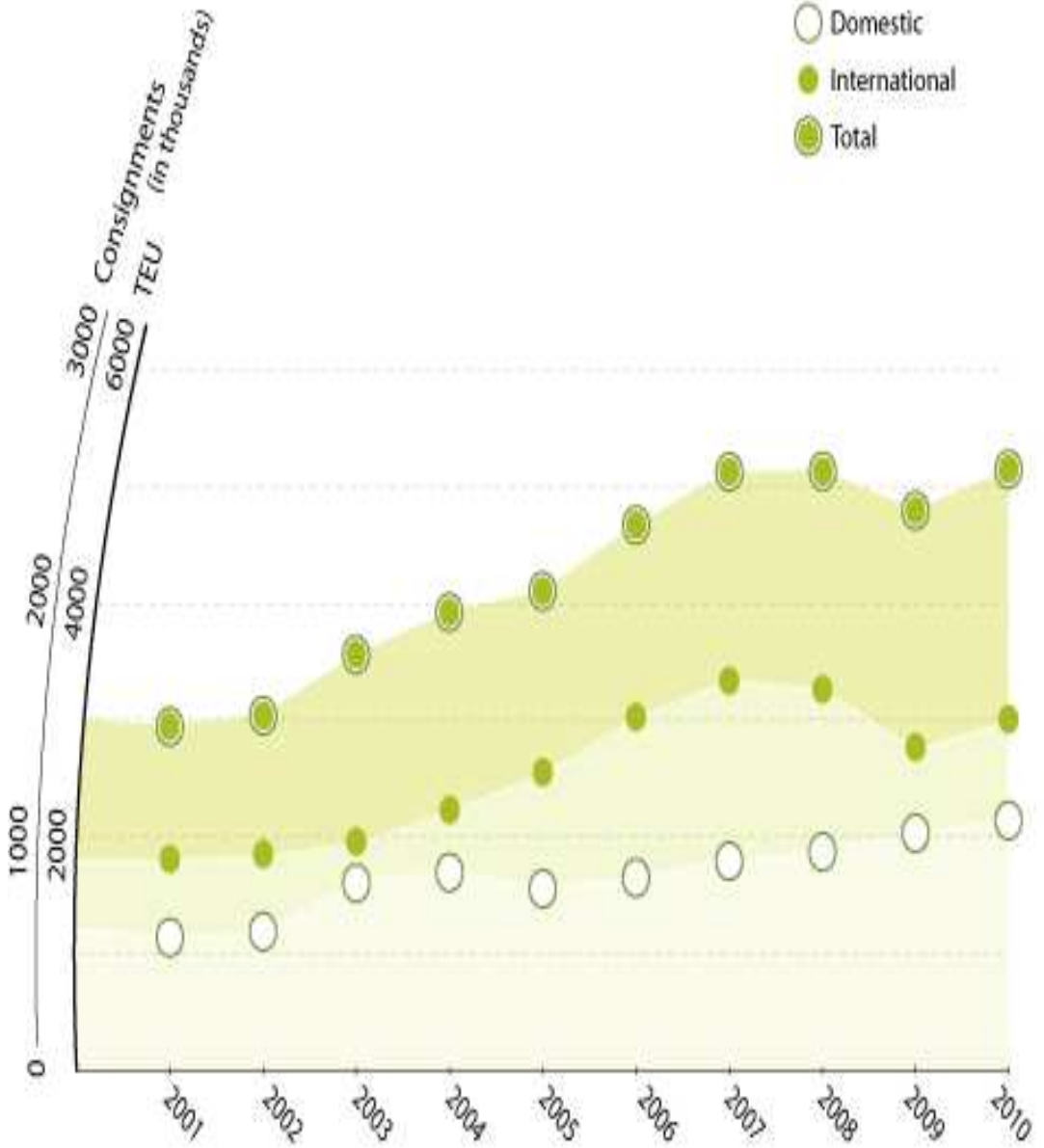
2010 Summary

- 2008 levels not yet fully achieved
- Unaccompanied traffic:
  - Leading roles of the transalpine corridors (around 60% of the total UIRR traffic) with very interesting growth rates on DE/BE/NL to IT
  - Encouraging results on the continuous eastwards extension with SI as gateway country
- Accompanied traffic
  - Return-to-growth year (reaching again the golden years between 2000-2003)
  - Both increases on the Swiss and Austrian corridors

UIRR traffic development 2001-2010

Unaccompanied Transport

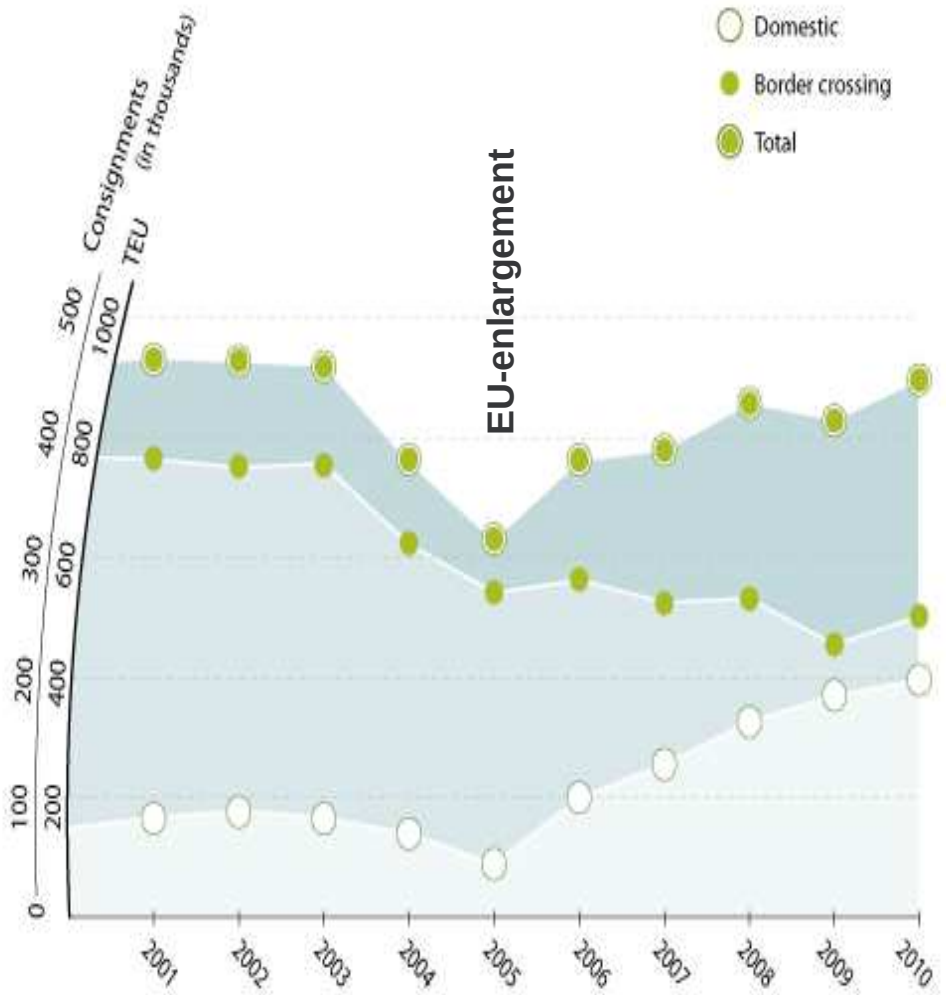
- Intermodal Loading units (swap-bodies, containers, semi-trailers)
- 85% of the total UIRR traffic
- Average annual growth of 8% for border crossing
- Importance of the transalpine corridors (55% of the unaccompanied traffic)



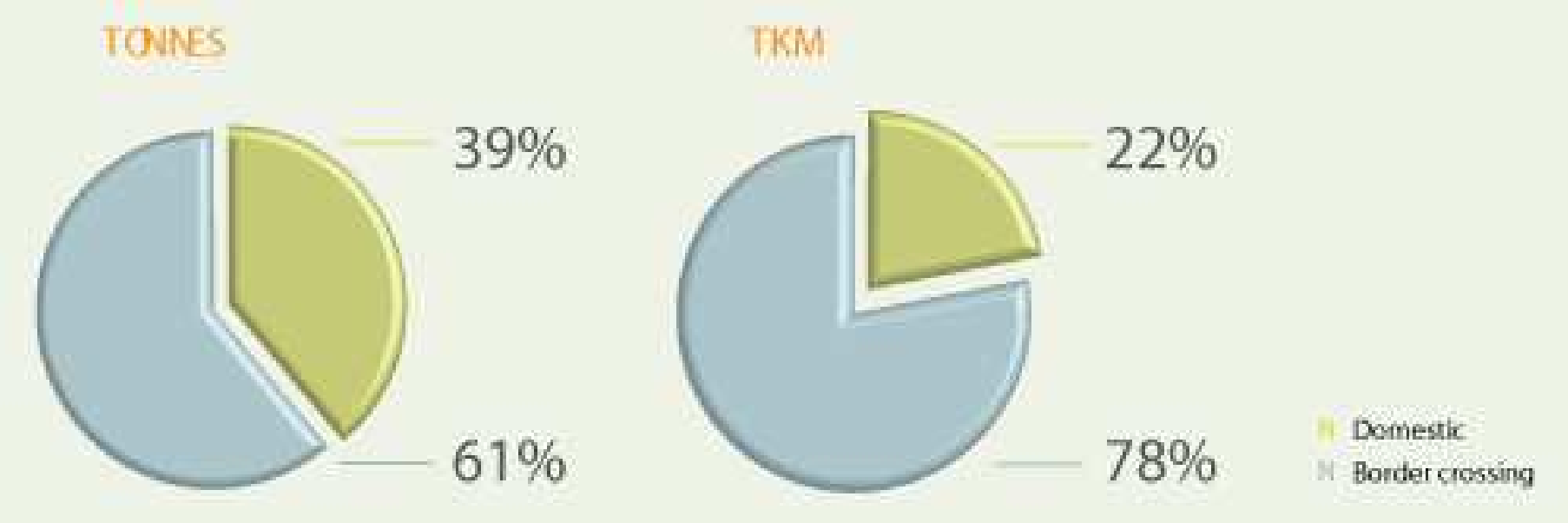
UIRR traffic development 2001-2010

Accompanied Transport

- Complete road vehicles on special low-floor wagons
- 15% of the total UIRR traffic
- Significant impacts of the EU enlargement (2005)
- From 158,000 trucks in 1989 to 450,000 vehicles in 2010
- High capacity utilisation (above 90%)



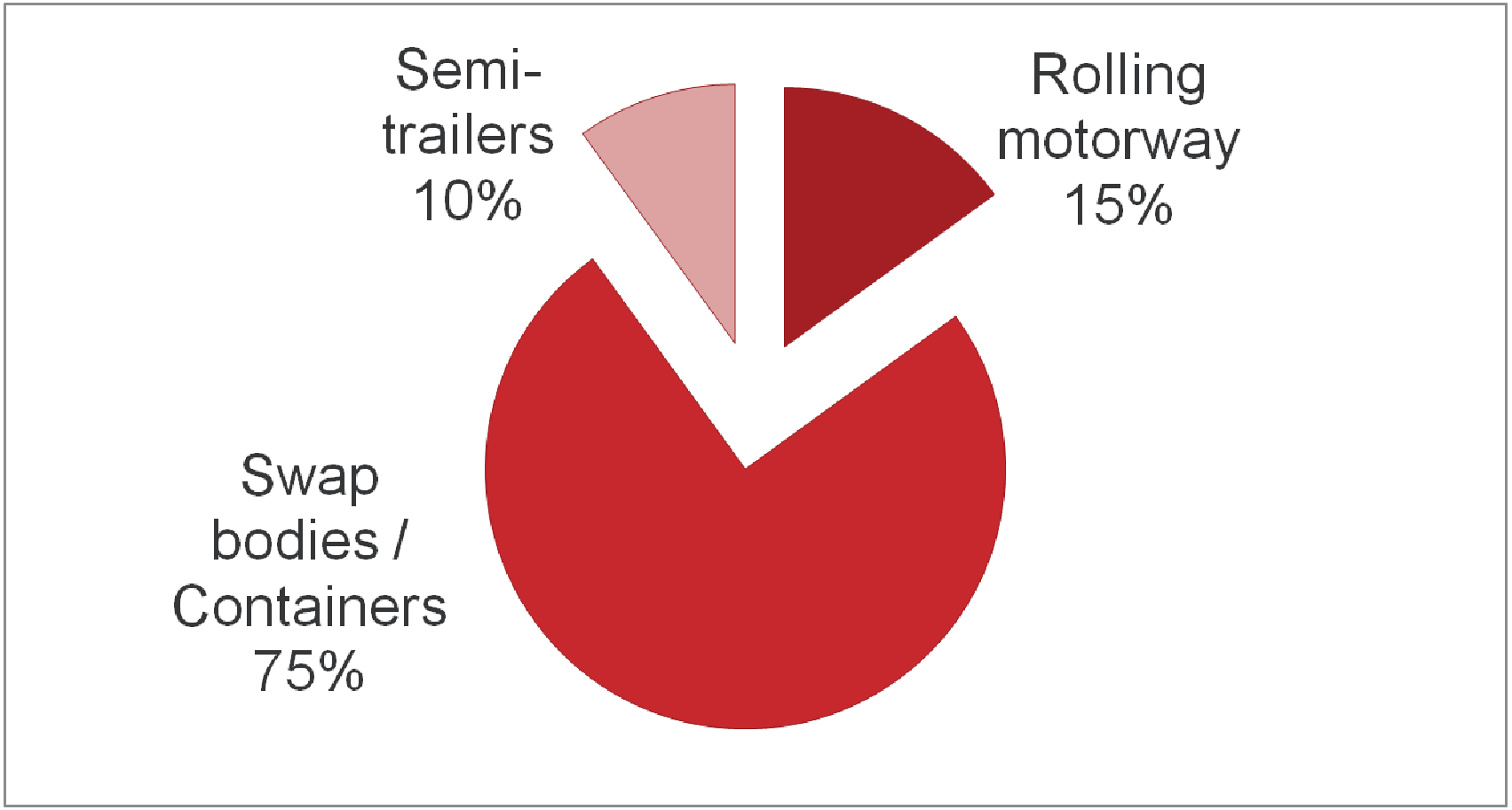
UIRR figures 2010: traffic performance



2010 Summary

- Border crossing: 41 million tonnes (+10%) and 33.2 billion TKM (+9%) average distance 850 km
- Domestic: 26 million tonnes (+7%) and 9.1 billion TKM (+8%) average distance 350 km

UIRR figures 2010: techniques



2010 Summary

- Stable repartition between unaccompanied traffic and RoLa
- Intermodal loading units (swap-bodies, containers, semi-trailers) still the utmost used intermodal techniques

2011 Situation – outlook 2012

2011 Situation – 1st Semester 2011

	Unaccompanied	Accompanied	TOTAL
National	+5%	-24%	-4%
International	+15%	+13%	+14%

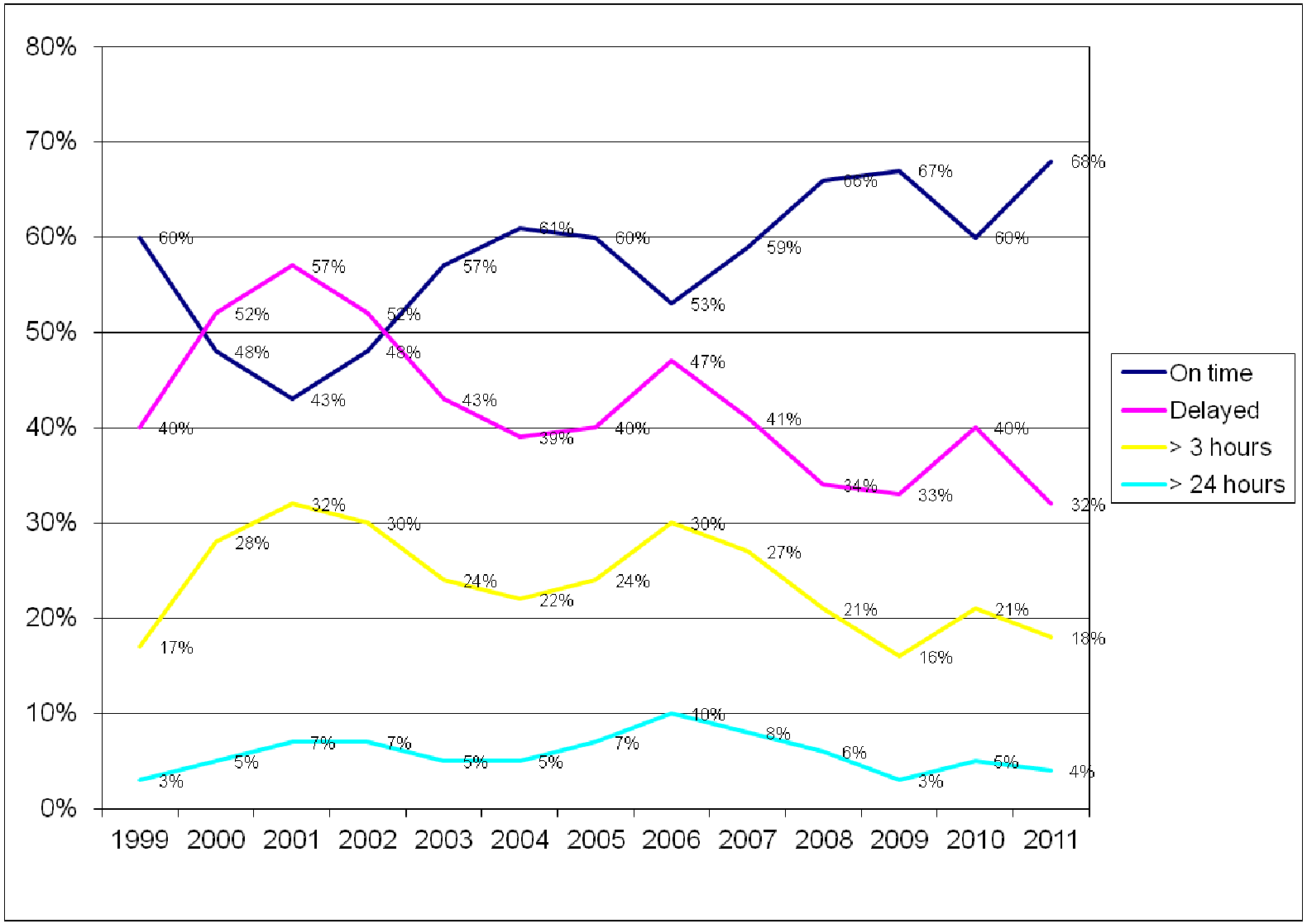
Outlook - 2nd semester 2011

2012 (UIRR Sentiment Index)

Causes

- Financial & economic situation
- Infrastructure works (Brenner)
- Quality, pricing
- Lack of pocket wagons

UIRR QMS: **EVOLUTION 1999 - 2011**



(Source: INTERUNIT + estimations of the UIRR office)

UIRR QMS: **AGGREGATE FIGURES S1.2011**

	2010 (6 months)	2011 (6 months
Punctual	65%	71%
> 3 hours	17%	14%
> 24 hours	3%	2%

(Source: INTERUNIT + estimations of the UIRR office)

Main problems:
Infrastructure bottlenecks in the conventional rail system, mainly on major corridors

Political initiatives: **White Paper COM (2011) 144**

Key Elements

- Overall policy goal: towards a low-carbon, competitive economy limiting climate change to 2 ℃.
- Transport accounts for around one quarter of EU CO2 emissions
- Transports depends nearly entirely on oil 96% and 30% of final energy consumption. Decrease oil dependency
- Prices do not reflect true costs: cheap for users, expensive to society
- Overall target of reducing GHG emissions be 80% by 2050
- Transport related emissions of CO2 by 60% by 2050 compared to 1990
- Rigorous standards and encourage modal shift
- 30% of road freight over 300 km should shift to other modes such as rail or waterborne transport by 2030, and more than 50% by 2050

Conclusion of UIRR

Catalogue of good intentions - Implementation plan is missing

Traffic shift to rail is by far the most effective measure to reduce CO_2 emissions

Transport modes maximise their productivity

Performance measures	Max	Top	Standard
Max train length (m)	3,050 (10,000')	1,830 - 2,440 (6-8,000')	1,340 (4,400')
Max speed (km/h)	113	96	-
Max axle weight (tonnes)	31.8		

Also in Europe we need: longer and heavier trains and higher axle load

⇦ **Trains in the USA**

⇩

Maximise volume and payload

Better use of capacity: CT operators, RU

- Network: capacity management software
- Terminal management software and automation
- Processes, ILU-Code, OCR, …

Adapt main freight lines: Member States / IM

- train length 750 m (1500m)
- train weight 1500 t (2000t or more)
- axle load 25 t at 100 km/h
- rail gauge GB+ or GC
- priority for freight on certain lines
- ERTMS

THANK YOU FOR YOUR ATTENTION!

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