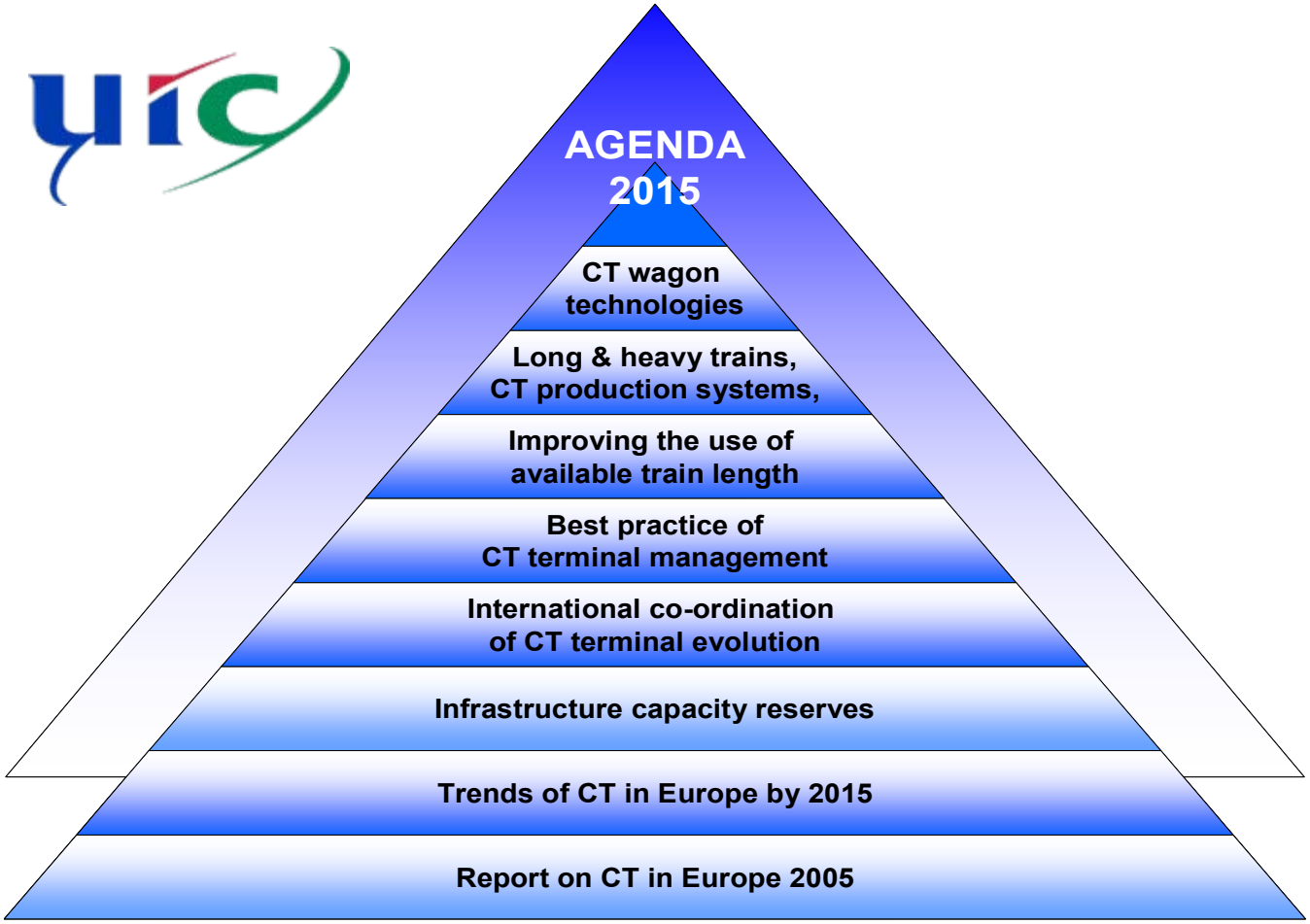
DIOMIS Conference,
Paris, 10/3/2009

The Case for Infrastructure:
How can we ensure sufficient Network & Terminal Capacity?

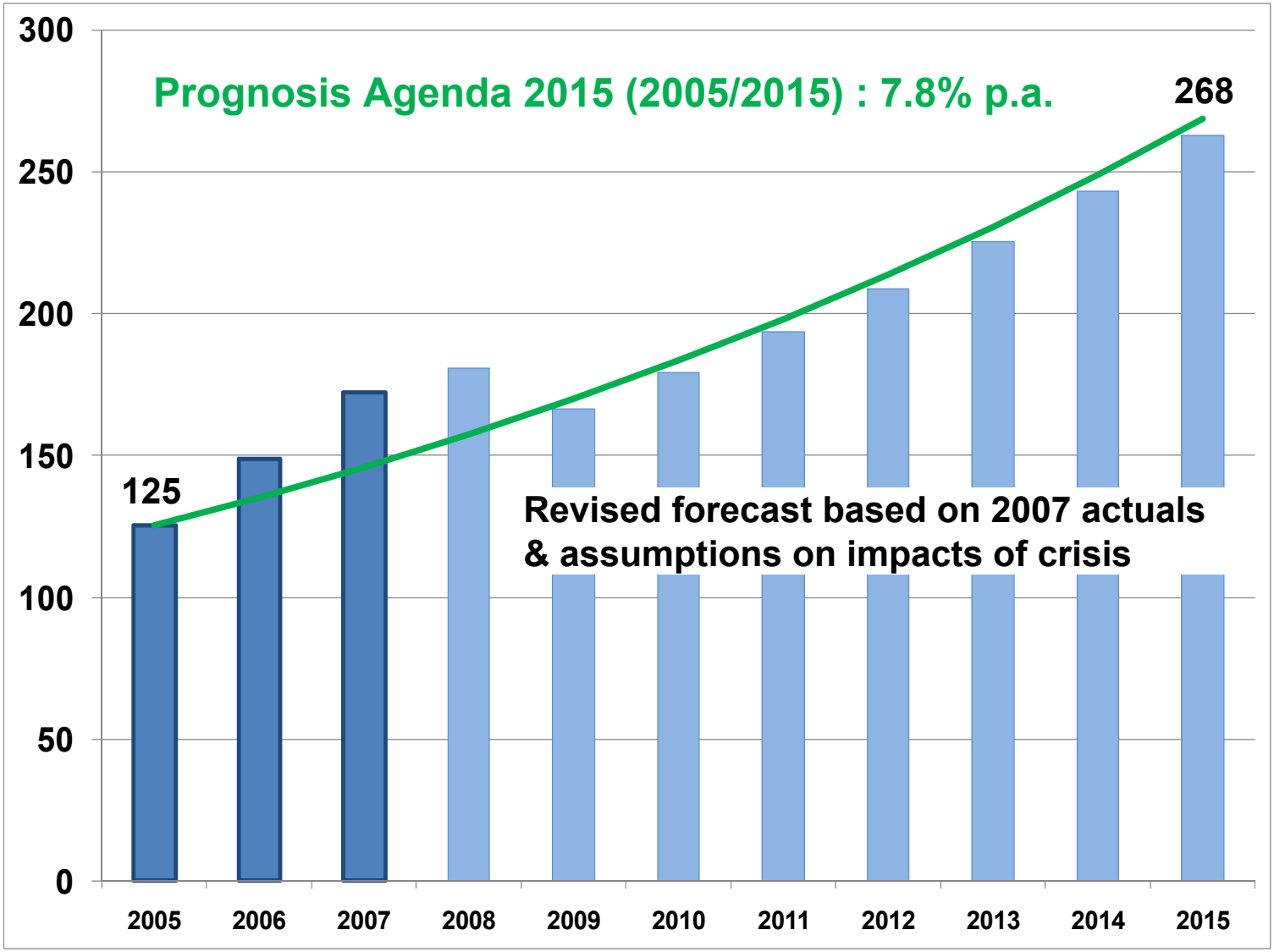
Introduction to Session 2 by
Eric Peetermans (SNCB/CTG UIC) & Uwe Sondermann (KombiConsult)

website: **http://www.uic.asso.fr/diomis**

Issues covered



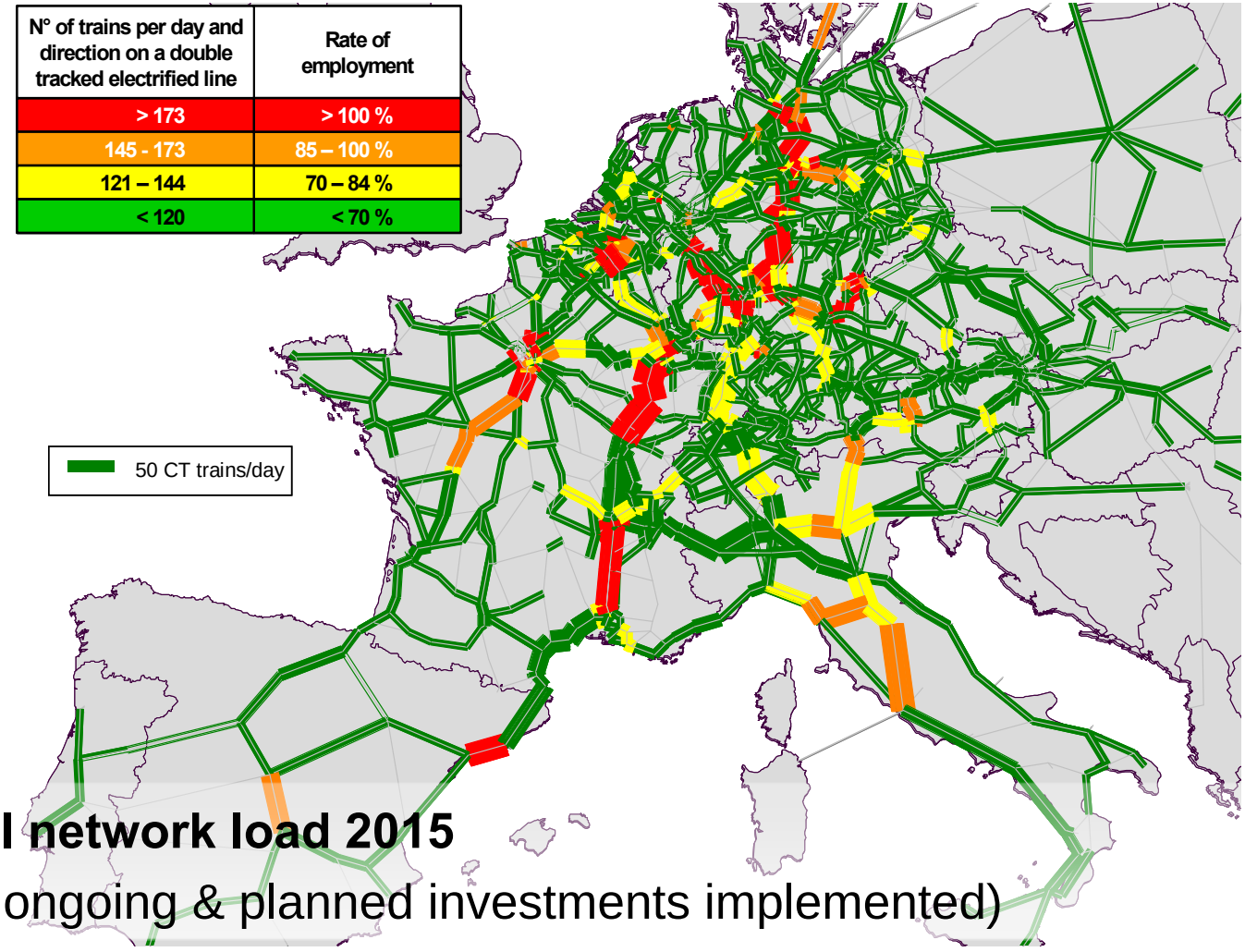
Combined transport in Europe 2005-2015



KombiConsult
beraten planen umsetzen

K+P Transport Consultants
Hans-Paul Kienzler

Domestic & international CT trains on rail network: 2015



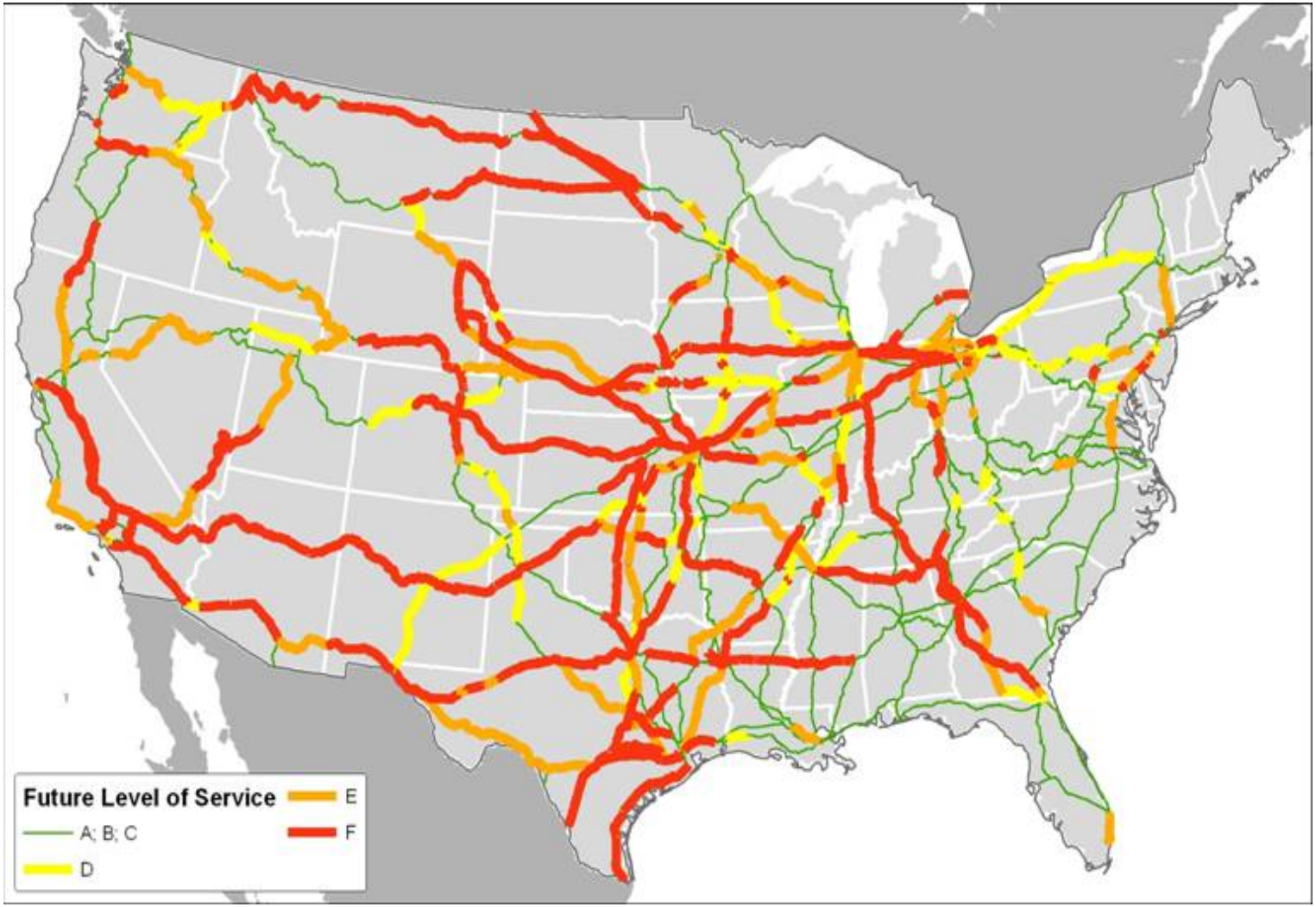
Rail network load 2015

(all ongoing & planned investments implemented)

And in the USA:

Future Corridor Volumes Compared to Current Corridor Capacity

2035 without Improvements



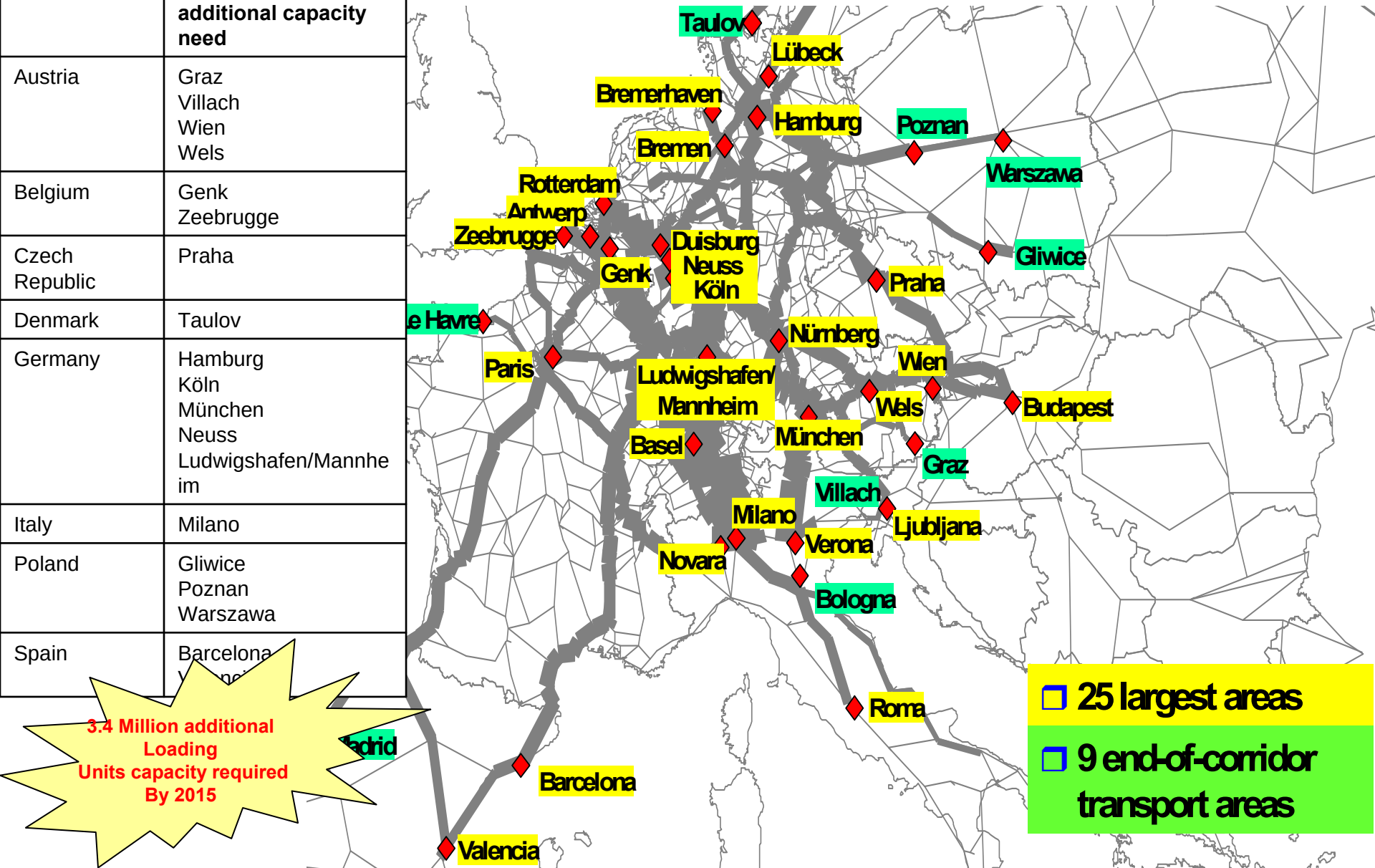
Source: National Rail Freight Capacity Study, 2007

KombiConsult
beraten planen umsetzen

K+P Transport Consultants
Hans-Paul Kienzler

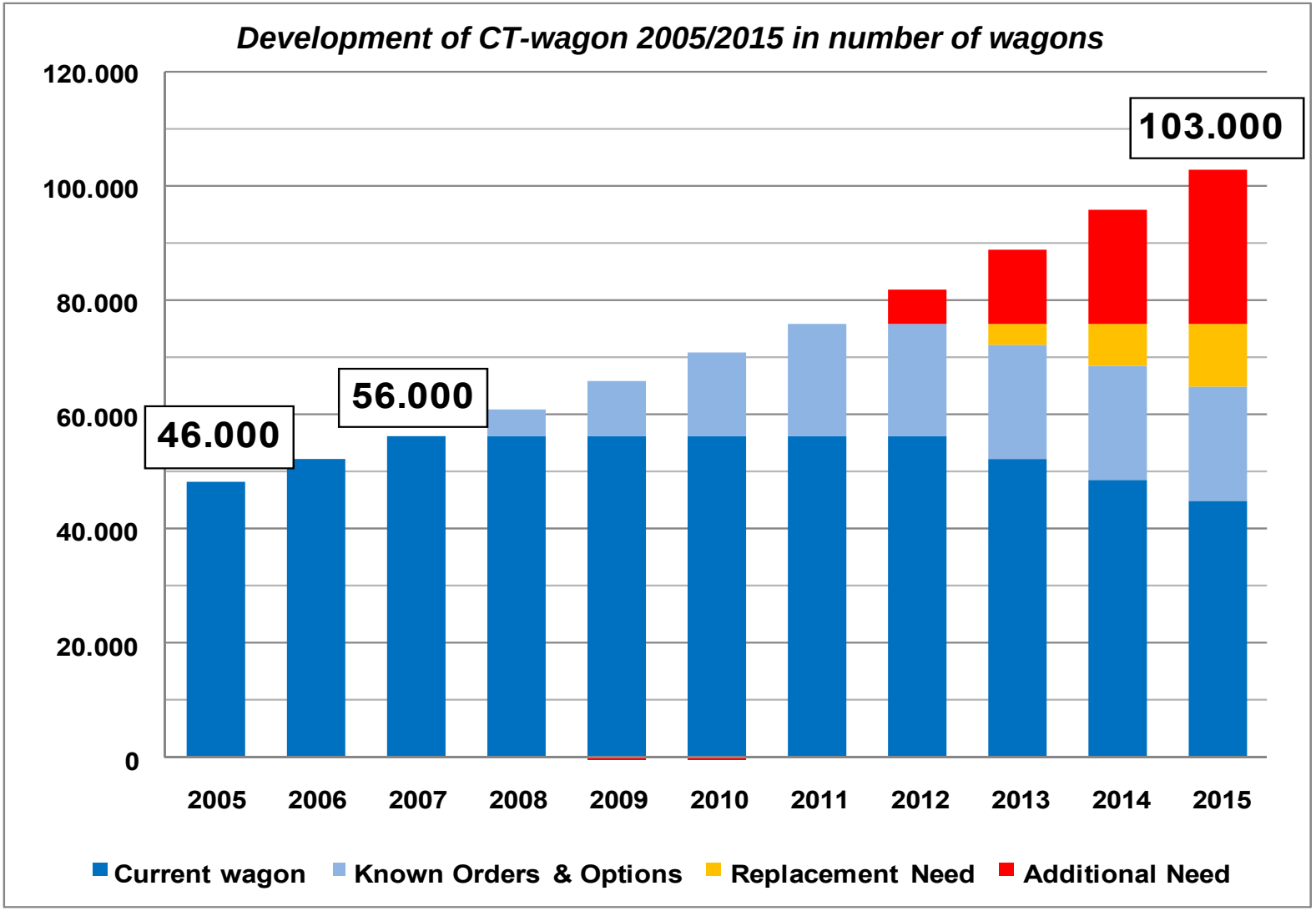
More infrastructure required :
Top 25 terminal areas by 2015 for international CT

	Transport areas with additional capacity need
Austria	Graz Villach Wien Wels
Belgium	Genk Zeebrugge
Czech Republic	Praha
Denmark	Taulov
Germany	Hamburg Köln München Neuss Ludwigshafen/Mannheim
Italy	Milano
Poland	Gliwice Poznan Warszawa
Spain	Barcelona [illegible]



3.4 Million additional Loading Units capacity required By 2015

The availability of wagons for CT may also become a bottleneck !



Source: DIOMIS 2 Report on Intermodal Rolling Stock in Europe 2005/2015, KombiConsult/UIC, December 2008

KombiConsult
beraten planen umsetzen

K+P Transport Consultants
Hans-Paul Kienzler

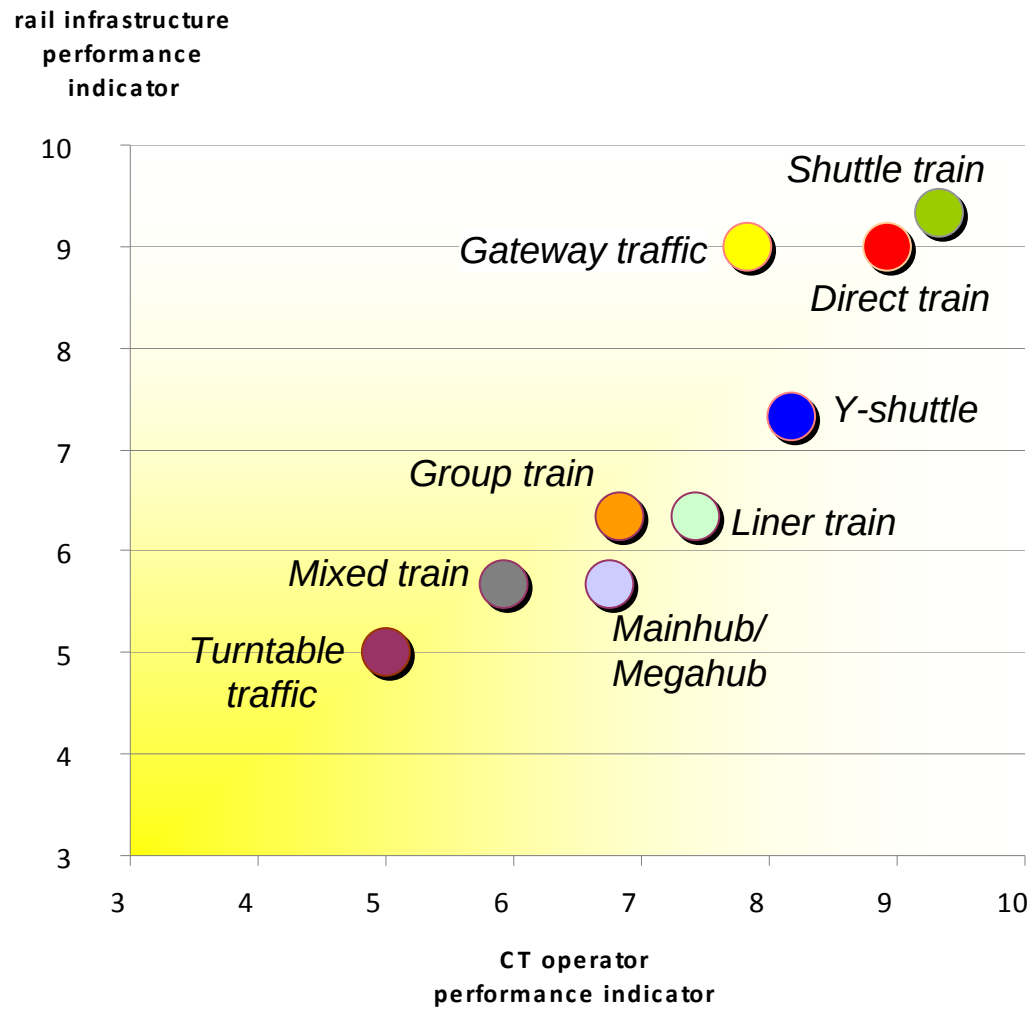
More efficient use of rail infrastructure

Action	Impact		
	Low	Medium	High
Comprehensive employment of train path saving rail production systems			
Incentives in infrastructure access tariffs to induce resource-saving production systems			
Improvement of the performance of services			
Enhanced process organization of rail traction services			
Implementation of advanced train and network capacity management systems			
Enforcement of longer and/or heavier trains including minor infrastructure adaptations			
Increased wagon axle loads			

KombiConsult
beraten planen umsetzen

K+P Transport Consultants
Hans-Paul Kienzler

Evaluation of CT production systems



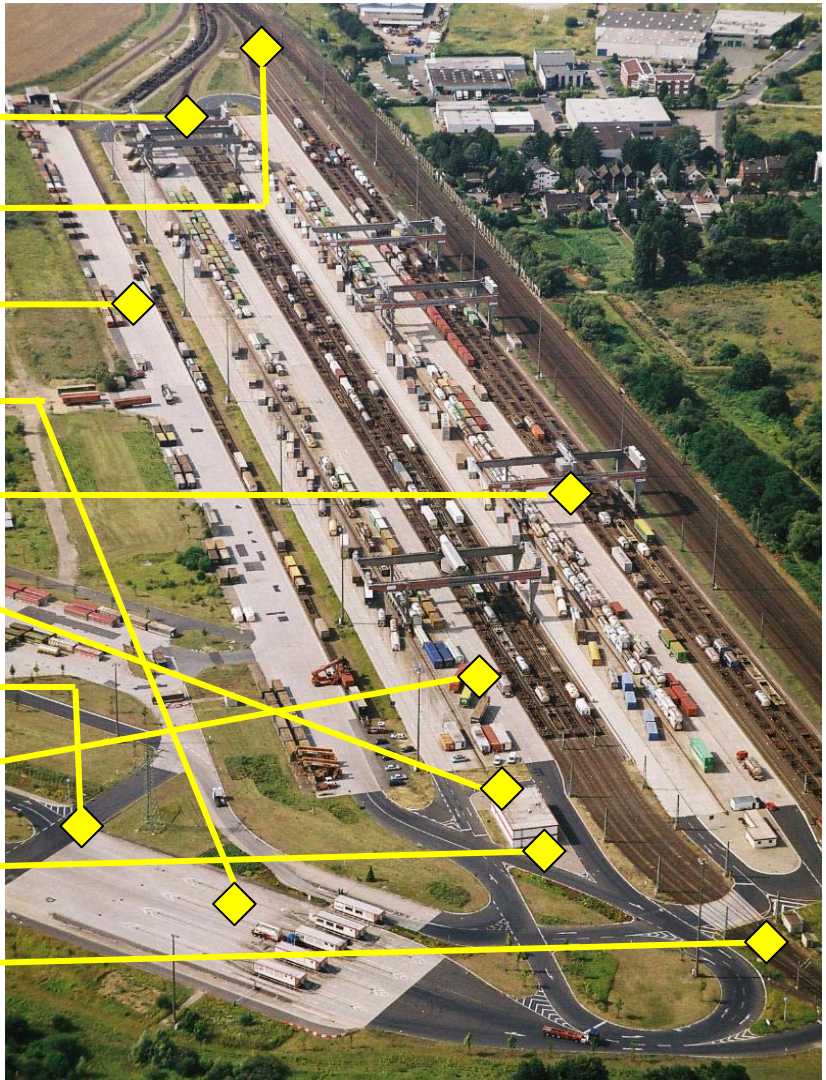
KombiConsult
beraten planen umsetzen

K+P Transport Consultants
Hans-Paul Kienzler

More efficient use of terminal infrastructure

Best practices of terminal management

- Flow factor
- Last rail mile logistics
- Road trucking services
- Opening hours
- Infrastructure use pricing
- Capacity management system
- Automated identification
- Separated rail and road handling
- Task management
- Punctual rail services

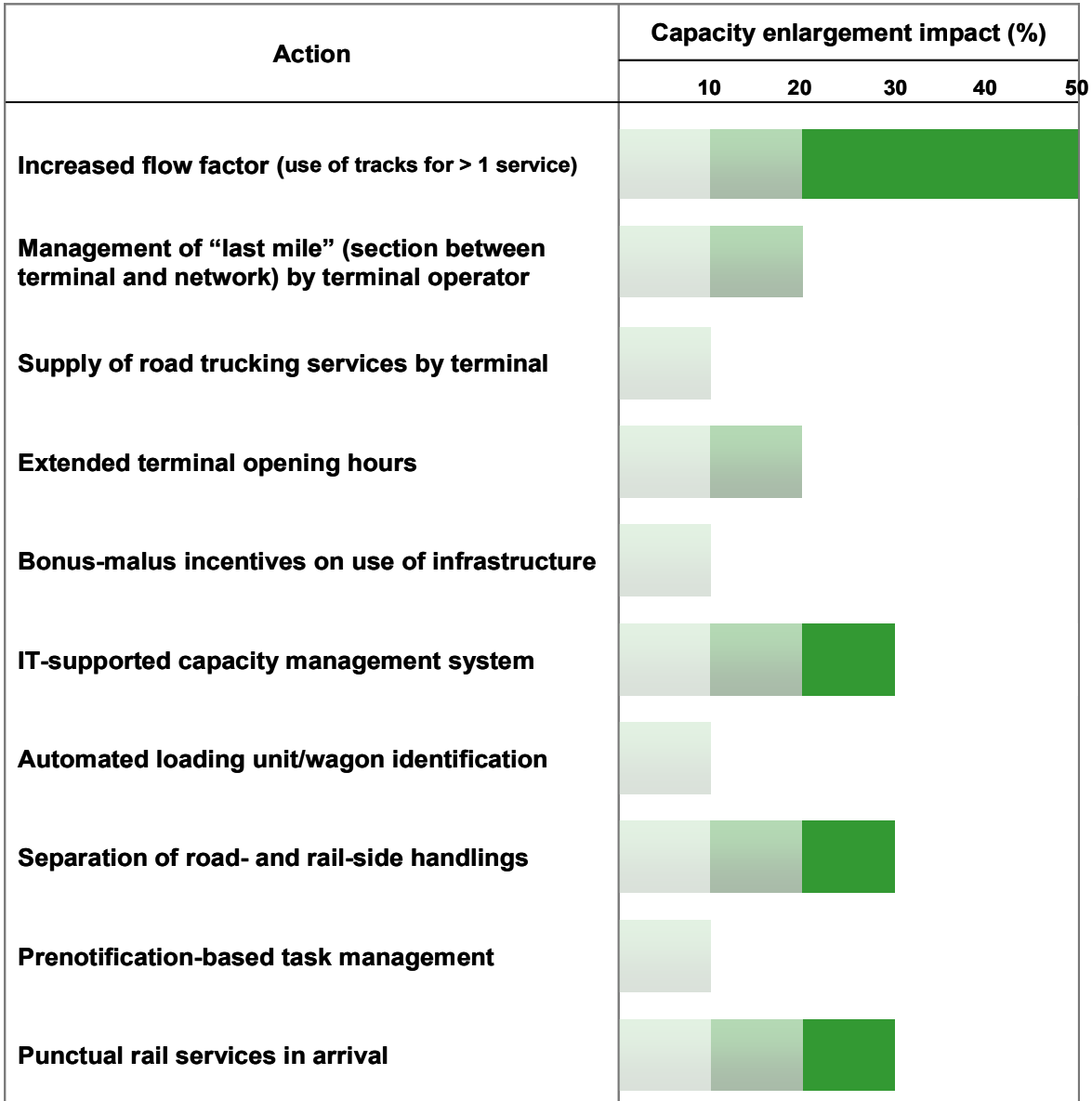


KombiConsult
beraten planen umsetzen

K+P Transport Consultants
Hans-Paul Kienzler

More efficient use of terminal infrastructure

Capacity impact of best practices

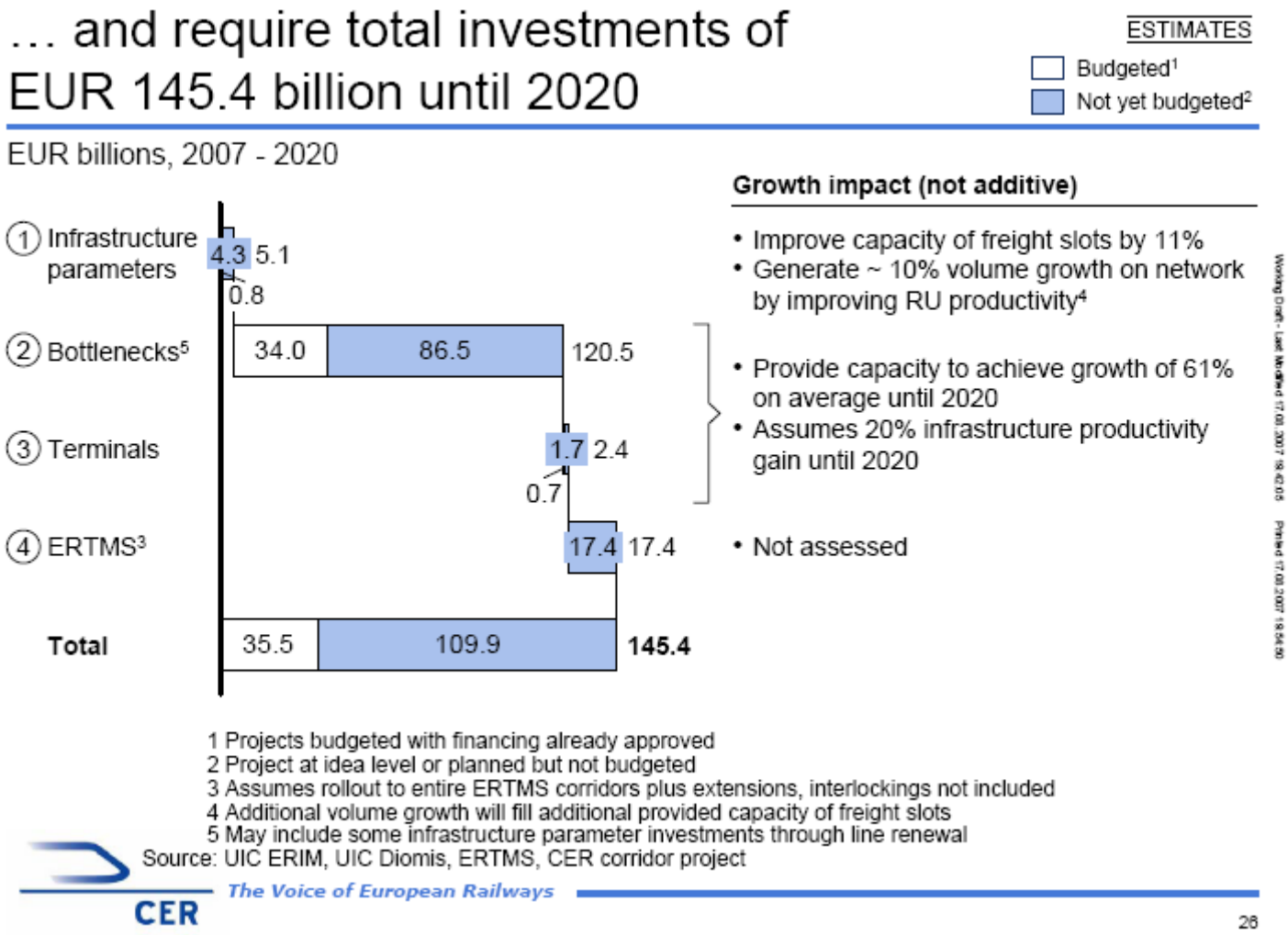


KombiConsult
beraten planen umsetzen

K+P Transport Consultants
Hans-Paul Kienzler

The Financial Challenge of bringing Infrastructure up to level: Estimate of the CER/McKinsey Business cases for a Primary European Freight Network (August 2007)

… and require total investments of EUR 145.4 billion until 2020



KombiConsult
beraten planen umsetzen

K+P Transport Consultants
Hans-Paul Kienzler

And in the USA…

- Infrastructure owned by the operating railway companies
- For integrated railroad companies like in the US, there is an advantage to re-invest in own infrastructure to physically attract new industries, examples from NS:
  - steel plant in Alabama,
  - VW project of plants in 3 sites located on NS network: Michigan, Alabama, Tennessee,
  - Thyssen: Arkansas (with BNSF), Alabama (NS and CN) = Team Alabama.
- In the eyes of the US railway community, the separation Ops/Infra, as carried out in Europe, has led to sub-optimization
- Private/Public partnerships to upgrade/expand railway infrastructure, e.g:
  - Alameda Corridor (in the L.A. region)
  - Heartland Corridor (shorter route from the East Coast to Chicago)
  - Patriot Corridor (Albany to New York)
- 148 Billion $ (2007 $) needed over the next 28 years for railway infrastructure expansion (AAR commissioned study)
- Demand for freight transportation will have increased by 88% by then (National Rail Freight Infrastructure Capacity and Investment Study, Cambridge Systematics)
- Some (insufficient) consideration has begun to be given with the Obama recovery plan
- Without this investment, 30% of the primary corridors will be operating above capacity by 2035, with the ensuing reverse modal shifts to an already congested (and also underfunded) highway system
- To be compared to the amounts of the bank bailouts !

KombiConsult
beraten planen umsetzen

KP Transport Consultants
Hans-Paul Kienzler

Strong involvement of all stakeholders required

Actions	IM	RU	IO	TO	MoT	EC	Other
More efficient use of infrastructure							
Employment of infrastructure-efficient, train path-saving rail production systems		☐	■				
Application of incentives in infrastructure access charging systems	■	☐	☐	☐			
Improvement of punctuality of rail traction services	☐	■	☐	☐			
Enhanced process organization of rail traction services	☐	■	☐				
Advanced train and network capacity management systems		☐	■	☐			
Implementation of longer and/or heavier trains including minor infrastructure adaptations	☐	■	☐				☐ [1)]
Increased wagon axle loads	■	☐	☐				☐ [1)]
Best practices in terminal operation and management	☐	☐	☐	■			
More infrastructure investments and international co-ordination							
Implementation of ongoing and envisaged rail network investments	■				☐	☐	
International agreement on “Achilles’ heels” removal programme	☐	☐	☐		☐	■	
Realization of ongoing and envisaged terminal investments and intermodal hub programme	☐		☐	☐	■	☐	
Standardized process for international co-ordination of CT terminal development	☐	☐	☐	☐	■		

[1)] Railway Industry

■ Main Actor ☐ Involved Party

KombiConsult
beraten planen umsetzen

KP Transport Consultants
Hans-Paul Kienzler