

FACT SHEET NO.: 3/6

PERFORMED BY: FÖMTERV

A GENERAL INFORMATION		
A 1	Category	Internal Markets
A 2	Subcategory	Multimodal transport
A 3	Transport policy measure (TPM)	Stimulate bundling freight transport to make optimal use of road, rail and IWW
A 4	Description of TPM	Freight operators are dissatisfied with the presence of numerous administrative and institutional barriers at terminals, the quality of operations and sub-optimal transshipment processes. This situation calls for new concepts for bundling freight into consignments and new transshipment schemes, which in turn will require advanced designs of intermodal terminals. Bundling is the process of transporting goods belonging to different flows in a common vehicle (like train, barge or truck) or other unit during part of their journey. The measure simulates freight transport bundling, which is one of the key driving forces of container service network dynamics. The bundling of cargo typically involves several layers starting with the consolidation of parcels onto a pallet up to the bundling of a large number of containers onto a trunk line at sea or in the hinterland.
A 5	Implementation examples	- Inland service configuration and bundling in the Hamburg-Le Havre range - Bundling in between the Antwerp, Rotterdam and the Rhine basin - Several bundling practices around Europe, and the rest of the world (China, North America)
A 6	Objectives of TPM	- Support energy efficiency - reduction of congestion - reduction of transport costs - efficient use of transport infrastructure - optimisation of infrastructure usage (rail, road, ports, hubs, iww)
A 7	Key changes concerning:	
A 7.1	- Choice of transport mode / Multimodality:	Improvement in multimodality
A 7.2	- Origin and/or destination of trip:	No impact
A 7.3	- Trip frequency:	Need to be adapted to the 'bundling timetable'
A 7.4	- Choice of route:	Route of goods adapts to the bundling route
A 7.5	- Timing (day, hour):	Need to be adapted to the 'bundling timetable'
A 7.6	- Occupancy rate / Loading factor:	Increase in efficiency of loading units.
A 7.7	- Energy efficiency / Energy usage:	Significant improvement of energy efficiency and usage
A 8	Main source	[1] Lowest Cost Intermodal Rail Freight Transport Bundling Networks: Conceptual Structuring and Identification

B IMPACTS																																																																																																																																																																																	
B 1	OVERVIEW ON IMPACTS	<table border="1"> <thead> <tr> <th colspan="13">AFFECTED SEGMENTS</th> <th colspan="2">Geographical level</th> <th colspan="2">Source</th> </tr> <tr> <th colspan="5">Passengers</th> <th colspan="6">Transport operators</th> <th rowspan="2">Employees in transport</th> <th rowspan="2">Residents</th> <th rowspan="2">Economy</th> <th rowspan="2">Public bodies</th> <th rowspan="2">Society</th> <th rowspan="2">1st level</th> <th rowspan="2">2nd level</th> <th rowspan="2">Source of assessment</th> <th rowspan="2">Spatial level of source</th> </tr> <tr> <th>Road</th> <th>Rail</th> <th>Air</th> <th>Public transport</th> <th>Slow modes</th> <th>Road</th> <th>Rail</th> <th>IWW</th> <th>Air</th> <th>Maritime</th> <th>Public transport</th> </tr> </thead> <tbody> <tr> <td>B 1.1</td> <td>Summary</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>I</td><td>N</td><td>S</td><td>I</td> </tr> <tr> <td>B 1.2</td> <td>Summary: Income groups</td> <td colspan="19">No impact</td> </tr> <tr> <td>B 1.3</td> <td>Summary: Age groups</td> <td colspan="19">No impact</td> </tr> <tr> <td>B 1.4</td> <td>Summary: Disabled people</td> <td colspan="19">No impact</td> </tr> <tr> <td>B 1.5</td> <td>Summary: Gender groups</td> <td colspan="19">No impact</td> </tr> <tr> <td>B 1.6</td> <td>Summary: Ethnic groups</td> <td colspan="19">No impact</td> </tr> </tbody> </table>	AFFECTED SEGMENTS													Geographical level		Source		Passengers					Transport operators						Employees in transport	Residents	Economy	Public bodies	Society	1st level	2nd level	Source of assessment	Spatial level of source	Road	Rail	Air	Public transport	Slow modes	Road	Rail	IWW	Air	Maritime	Public transport	B 1.1	Summary																	I	N	S	I	B 1.2	Summary: Income groups	No impact																			B 1.3	Summary: Age groups	No impact																			B 1.4	Summary: Disabled people	No impact																			B 1.5	Summary: Gender groups	No impact																			B 1.6	Summary: Ethnic groups	No impact																		
AFFECTED SEGMENTS													Geographical level		Source																																																																																																																																																																		
Passengers					Transport operators						Employees in transport	Residents	Economy	Public bodies	Society	1st level	2nd level	Source of assessment	Spatial level of source																																																																																																																																																														
Road	Rail	Air	Public transport	Slow modes	Road	Rail	IWW	Air	Maritime	Public transport																																																																																																																																																																							
B 1.1	Summary																	I	N	S	I																																																																																																																																																												
B 1.2	Summary: Income groups	No impact																																																																																																																																																																															
B 1.3	Summary: Age groups	No impact																																																																																																																																																																															
B 1.4	Summary: Disabled people	No impact																																																																																																																																																																															
B 1.5	Summary: Gender groups	No impact																																																																																																																																																																															
B 1.6	Summary: Ethnic groups	No impact																																																																																																																																																																															

B 2 TRAFFIC IMPACTS																						
B 2.1	Travel or transport time																					
B 2.2	Risk of congestion																					
B 2.3	Vehicle mileage																					
B 2.4	Service and comfort																					
B 2.I	Overall impacts on social groups																					
B 2.II	Implementation phase																					
B 2.III	Operation phase																					
B 2.IV	Summary / comments concerning the main impacts	Bundling of freight transport helps to use the resources (energy, human, infrastructure etc) in the most optimal rate, therefore reduces costs, risk of congestion, and improves service and comfort for operators.[1]																				
B 2.V	Quantification of impacts																					

B 3 ECONOMIC IMPACTS																						
B 3.1	Transport costs																					
B 3.2	Private income / commercial turn over																					
B 3.3	Revenues in the transport sector																					
B 3.4	Sectoral competitiveness																					
B 3.5	Spatial competitiveness																					
B 3.6	Housing expenditures																					
B 3.7	Insurance costs																					
B 3.8	Health service costs																					
B 3.9	Public authorities & adm. burdens on businesses																					
B 3.10	Public income (e.g.: taxes, charges)																					
B 3.11	Third countries and international relations																					
B 3.I	Overall impacts on social groups																					
B 3.II	Implementation phase																					
B 3.III	Operation phase																					
B 3.IV	Summary / comments concerning the main impacts	The overall effect of the measure is the improvement of multimodal transport. That means, the number of vehicles decrease on roads, and the traffic on rail and iww increases. Principally, the specific costs of the road transport is higher than the others (except air cargo) so the overall costs reduce, including externalities. Through more efficient and effective transport chain, the sectoral competitiveness improves as well [3, 5]																				
B 3.V	Quantification of impacts																					

