

FACT SHEET NO.: 8/1

PERFORMED BY: TRT

A GENERAL INFORMATION		
A 1	Category	Other
A 2	Subcategory	Alternative commute solutions
A 3	Transport policy measure (TPM)	Promotion of flexible working hours (and opening hours)
A 4	Description of TPM	The promotion of flexibility of working time refers to the length and distribution of working time (e.g. flexitime, compressed work week, staggered shifts, etc.). A variety of goals are comprised: - enterprise competitiveness, to respond to sudden changes in demand, adapt to new technologies and be in a position to innovate constantly; - family orientated working times, to improve the balance between company and private life; - education orientated working times, to promote life long learning; - age orientated working times, to support the extension of gainful activity; - 'transport' orientated working times, to prevent congestion and support an efficient use of transport services. In many countries, this kind of policy is applied during parental leave and for parents and carers during a limited period of time; nevertheless, alternative work arrangements for all employees may be introduced also for the purposes mentioned above and are the objective of the TPM under analysis. So far, this approach has been introduced only in a minority of countries. [2][7]
A 5	Implementation examples	Germany, Netherlands, Denmark, Norway, Finland: Legislation on Flexibility / organisation of working time UK: Oxfordshire County Council / Balfour Beatty Civil Engineering Major Projects / Nationwide Building Society Canada: City of Edmonton / Royal Bank USA: Southern California Association of Governments / City of Avondale
A 6	Objectives of TPM	In a 'transport' orientated view, the TPM aims at reducing congestion (at least spreading the traffic over a longer period of time around peak periods), and promote an efficient use of public transport services. [4] [7] From a social point of view, the objective is mainly to improve the balance between company and private life, in the view of increasing quality of life. [4][7][8] From the employer point of view, the TPM might increase productivity and competitiveness. [4][8]
A 7	Key changes concerning:	
A 7.1	- Choice of transport mode / Multimodality:	Possible change, depending on availability and choice during the selected time period [5] [6] [7]
A 7.2	- Origin and/or destination of trip:	No major change
A 7.3	- Trip frequency:	Possible change, depending on the possibility of 'compressed working week' [4] [7] [8]
A 7.4	- Choice of route:	Possible change, depending on choice during the selected time period
A 7.5	- Timing (day, hour):	Major changes [3] [4] [5] [6] [7] [8]
A 7.6	- Occupancy rate / Loading factor:	Possible change, depending on choice during the selected time period. Both on private and public transport modes. [4] [8]
A 7.7	- Energy efficiency / Energy usage:	Possible change, depending on mode choice during the selected time period
A 8	Main source	[4] [7] [8]

B IMPACTS																																																																																																																																																																																															
B 1	OVERVIEW ON IMPACTS	<table border="1"> <thead> <tr> <th colspan="14">AFFECTED SEGMENTS</th> <th colspan="2">Geographical level</th> <th colspan="2">Source</th> </tr> <tr> <th colspan="5">Passengers</th> <th colspan="5">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>Overall tendency</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>L</td><td>R</td><td>S</td><td>L</td> </tr> <tr> <td colspan="2"></td> <td colspan="18">- main impacts will affect the distribution of trips over time on private/public transport mode, resulting in reduced traffic congestion [4] [5] [6] [7] [8]; - an increased job satisfaction and quality of life is expected: individualised working hours can help employees to reconcile their work obligations and personal life.[3] [4] [7]</td> </tr> <tr> <td>B 1.2</td> <td>Overall tendency: Income groups</td> <td colspan="18">Some groups might have more benefits as their job is more suitable for flexibility, while other might be excluded. It might be the case of high-income jobs (flexible because mainly based on working on a computer) or low-income jobs with flexible schedule. On the other hand, some disadvantaged workers have jobs with inflexible schedules (i.e. factory staff) and cannot benefit from this policy [7]</td> </tr> <tr> <td>B 1.3</td> <td>Overall tendency: Age groups</td> <td colspan="18">Ageing employees might have more interest to adopt a flexible working policy, especially when approaching their retirement.</td> </tr> <tr> <td>B 1.4</td> <td>Overall tendency: Disabled people</td> <td colspan="18">No specific change</td> </tr> <tr> <td>B 1.5</td> <td>Overall tendency: Gender groups</td> <td colspan="18">People with children might have more interest to adopt a flexible working policy (but the TPM should be addressed to all employees).</td> </tr> <tr> <td>B 1.6</td> <td>Overall tendency: Ethnic groups</td> <td colspan="18">No specific change</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	Overall tendency																L	R	S	L			- main impacts will affect the distribution of trips over time on private/public transport mode, resulting in reduced traffic congestion [4] [5] [6] [7] [8]; - an increased job satisfaction and quality of life is expected: individualised working hours can help employees to reconcile their work obligations and personal life.[3] [4] [7]																		B 1.2	Overall tendency: Income groups	Some groups might have more benefits as their job is more suitable for flexibility, while other might be excluded. It might be the case of high-income jobs (flexible because mainly based on working on a computer) or low-income jobs with flexible schedule. On the other hand, some disadvantaged workers have jobs with inflexible schedules (i.e. factory staff) and cannot benefit from this policy [7]																		B 1.3	Overall tendency: Age groups	Ageing employees might have more interest to adopt a flexible working policy, especially when approaching their retirement.																		B 1.4	Overall tendency: Disabled people	No specific change																		B 1.5	Overall tendency: Gender groups	People with children might have more interest to adopt a flexible working policy (but the TPM should be addressed to all employees).																		B 1.6	Overall tendency: Ethnic groups	No specific change																	
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		Road	Rail	Air	Public transport	Slow modes	Road	Rail	IWW	Air	Maritime										Public transport	
B 3.1	Transport costs	→					→											L	R	S	L	
B 3.2	Private income / commercial turn over																					
B 3.3	Revenues in the transport sector						→											L	R	E		
B 3.4	Sectoral competitiveness																	L	R	S	L	
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	- public transport operators might face a slight increase of cost due to the adjustment of the service during the day; - revenues for public transport operator might be slightly affected, depending on mode choice; - competitiveness of enterprise might be increased, responding to sudden changes in demand, adapting to new technologies and innovating [4] [5] [8] - possible saving of car operation and maintenance costs, in case of reduced use (Compressed Work Week or as consequence of mode shift) [4] [5] [6] [7] - possible additional cost for employers: Time must be spent planning the program and explaining it to employees, Increased security and utility expenses should be considered if the building's operating hours are extended. Additionally, there are potential costs associated with the disruption of work because some employees are unavailable. [4]																				
B 3.V	Quantification of impacts	not available																				

B 4	SOCIAL IMPACTS	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 4.1	Health (incl. well-being)	↗	↗		↗	↗												L	R	S	L	
B 4.2	Safety	→																L	R	S	L	
B 4.3	Crime, terrorism and security																					
B 4.4	Accessibility of transport systems																					
B 4.5	Social inclusion, equality & opportunities																	L	R	S	L	
B 4.6	Standards and rights (related to job quality)																					
B 4.7	Employment and labour markets																	L	R	S	L	
B 4.8	Cultural heritage / culture																					
B 4.I	Overall impacts on social groups	increased job satisfaction and quality of life expected [3] [4] [8]; slight increase of safety for road modes in case of reduced congestion [7]																				
B 4.II	Implementation phase																					
B 4.III	Operation phase																					
B 4.IV	Summary / comments concerning the main impacts	- increased job satisfaction and quality of life expected [2] [3] [4] [5] [7] [8]; - slight increase of safety for road modes in case of reduced congestion [7]; - increased equality treatment (currently working flexibility for parental leave only) [8], even though the TPM is not appropriate for some jobs [7]; - possible positive impacts on employment and productivity [3] [4] [7] [8]																				
B 4.V	Quantification of impacts	+3%% of productivity in San Rafael, USA [4]																				

B 5	ENVIRONMENTAL IMPACTS	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 5.1	Air pollutants																	L	R	S	L	
B 5.2	Noise emissions																	L	R	E		
B 5.3	Visual quality of the landscape																					
B 5.4	Land use																					
B 5.5	Climate																	L	R	S	R	
B 5.6	Renewable or non-renewable resources																					
B 5.I	Overall impacts on social groups	impacts on air pollution [4] [7] [8], climate change [8] and noise emission																				
B 5.II	Implementation phase																					
B 5.III	Operation phase																					
B 5.IV	Summary / comments concerning the main impacts	- Positive impacts might be obtained in terms of reduced pollutant emissions, GHG emissions and noise at local level. Nevertheless, the environmental benefits strongly depend on the number of people involved and switching between modes of transport. The reallocation of traffic will reduce impact during peak hours, but increase impact during other parts of the day: therefore, the 'net' effect is probably unclear (as reported in the table).																				
B 5.V	Quantification of impacts	-1.9% of CO emissions if 20% of employees involved in Phoenix, - 16% of average CO and HC emissions in Denver [4]																				

C REFERENCES		
C 1	Other TPMs of this subcategory	Teleworking (often applied in combination)
C 2	References	International [1] EC DG EMPL (2009), Flexible working time arrangements and gender equality - A comparative review of 30 European countries National [2] House of Commons All-Party Parliamentary Small Business Group (2009), Flexible Working: Challenges for Business, UK [3] A. Ilsøe (2009), Decentralisation of working hours in Denmark – a win-win situation for employers and employees?, DK [4] EPA (1998), Transportation Control Measures: Work Schedule Changes, USA [5] Ministerie van Verkeer en Waterstaat (2006), Nota Mobiliteit. Deel IV - Na parlementaire behandeling vastgestelde PKB, NL [6] Ministerie van Infrastructuur en Milieu (2011), Ontwerp Structuurvisie Infrastructuur en Ruimte, Den Haag, NL Regional / Local [7] Victoria Transport Policy Institute, Alternative Work Schedules (http://www.vtpi.org/tm/tm15.htm), CA [8] Transport for London (2011), Smarter Working guide, London (UK)