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The Impacts of Automated Driving (PPT)

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	A first drive with fully automated vehicle	•••
hangamanaké kangan		
ŤU Delft	The Impacts of Automated Driving Workshop Sino-Dutch Cooperation in Transport, Beijing, 21-22 April 2016	







	SAE level	Name	Narrative Definition	Execution of Steering and Acceleration/ Deceleration	Monitoring of Driving Environment	Fallback Performance of Dynamic Driving Task	System Capability (Driving Modes)
	Huma	n driver monite	ors the driving environment				
	0	No Automation	the full-time performance by the <i>human driver</i> of all aspects of the <i>dynamic driving task</i> , even when enhanced by warning or intervention systems	Human driver	Human driver	Human driver	n/a
	1	Driver Assistance	the driving mode-specific execution by a driver assistance system of either steering or acceleration/deceleration using information about the driving environment and with the expectation that the <i>human driver</i> perform all remaining aspects of the <i>dynamic driving task</i>	Human driver and system	Human driver	Human driver	Some driving modes
	2	Partial Automation	the driving mode-specific execution by one or more driver assistance systems of both steering and acceleration/ deceleration using information about the driving environment and with the expectation that the human driver perform all remaining aspects of the dynamic driving lask	System	Human driver	Human driver	Some driving modes
	Automated driving system ("system") monitors the driving environment						
	3	Conditional Automation	the driving mode-specific performance by an automated driving system of all aspects of the dynamic driving task with the expectation that the human driver will respond appropriately to a request to intervene	System	System	Human driver	Some driving modes
	4	High Automation	the driving mode-specific performance by an automated driving system of all aspects of the dynamic driving task, even if a human driver does not respond appropriately to a request to intervene	System	System	System	Some driving modes
	5	Full Automation	the full-time performance by an automated driving system of all aspects of the dynamic driving task under all roadway and environmental conditions that can be managed by a human driver	System	System	System	All driving modes
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	Exploration using LMS					
	Automated Auto 5% capacity <u>decrease</u> network	nomous on primary road	Automated Cooperative 15% capacity increase primary road network 10% capacity increase secondary road network 10% decrease value of time commuting and business car trips			
		Index km travelled		Index km travelled		
	Train	100.3	Train	98.8		
	Car driver	99.8	Car driver	100.8		
	Car passenger	99.7	Car passenger	101.4		
	Bus, tram, metro	100.2	Bus, tram, metro	99.2		
	Cycling	100.1	Cycling	99.3		
	Walking	100.1	Walking	99.4		
	Total	99.98	Total	100.10		
ŤU Delft	Index congesti 115.7 Workshop Sino-D	on Impacts of Auto Dutch Cooperation in Ti	Index congestion 69.1 ransport, Beijing, 21-22 April 2016	DAVI		











