

### Different meaning of «Automated» Choice

S<sub>Mart car</sub>

SAE level	Name	Narrative Definition	Execution of Steering and Acceleration/ Deceleration	<i>Monitoring</i> 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 <i>driving mode</i> -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 <i>driving mode</i> -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 <i>human</i> <i>driver</i> perform all remaining aspects of the <i>dynamic driving</i> <i>task</i>	System	Human driver	Human driver	Some driving modes
Autor	mated driving s	ystem ("system") monitors the driving environment				
3	Conditional Automation	the <i>driving mode</i> -specific performance by an <i>automated</i> <i>driving system</i> of all aspects of the dynamic driving task with the expectation that the <i>human driver</i> will respond appropriately to a <i>request to intervene</i>	System	System	Human driver	Some driving modes
4	High Automation	the <i>driving mode</i> -specific performance by an automated driving system of all aspects of the <i>dynamic driving task</i> , even if a <i>human driver</i> does not respond appropriately to a <i>request to intervene</i>	System	System	System	Some driving modes
5	Full Automation	the full-time performance by an <i>automated driving system</i> of all aspects of the <i>dynamic driving task</i> under all roadway and environmental conditions that can be managed by a <i>human driver</i>	System	System	System	All driving modes

See Prof. Marco Perini presentation

https://cesifin.it/wp-content/uploads/2018/02/Pierini\_02-02-18.pdf

## Actors in case of intervention of an automated choice

- Phisical person acting with the use of an automated device
- Producer of the automated devices
- Programmer who prepares and tests programs for devices

### The automated device can be an actor?

In case of full automation the choice is on the device comunicating with other devices (automated cars comunicating together) and elaborating choice autonoumsly using information coming from other devices (i.e. information circulating in a smart city. A developed urban area that creates sustainable economic development and high quality of life by excelling in multiple key areas; economy, mobility, environment...through ICT infrastructure See Km4City experience: interview with Prof, Paolo Nesi, http://www.ingenium-magazine.it/en/the-km4city-experience-interviewwith-paolo-nesi/)

### «Agitur sed non agit»



### Liability and risk acceptance

■ In case of accident caused by an automated vehicle there is:

acceptance of a risk on the part of the owner of the vehicle Or there is mere casuality

## The liability of the owner can be excluded in case of strict liability?

The causality nexus connecting the human actor (the owner of the automated car, the driver, the producer, ...) and the accident remains also in case of strict liability. Otherwise liability is going to miss its deterent function The legal cause must be demonstrated to hold a defendant liable for a crime or a tort. It must be proven that causality, or a "sufficient causal link" relates the defendant's actions to the criminal event or damage in question.

### See Ernest J. Weinrib (1987), Causation and Wrongdoing

## The automated device can interrupt the causality nexus



## Automated choice and the concept of Force Majeur

*Force majeure* is generally intended to include occurrences beyond the reasonable control of a party.

Automated choice include occurrence beyond the reasonable control of a party too.

# Automated choice and «the cost of accidents»

Less Damage Less Liability Less Liability Insurance More insurance without Liability

## GRAZIE PER L'ATTENZIONE!

