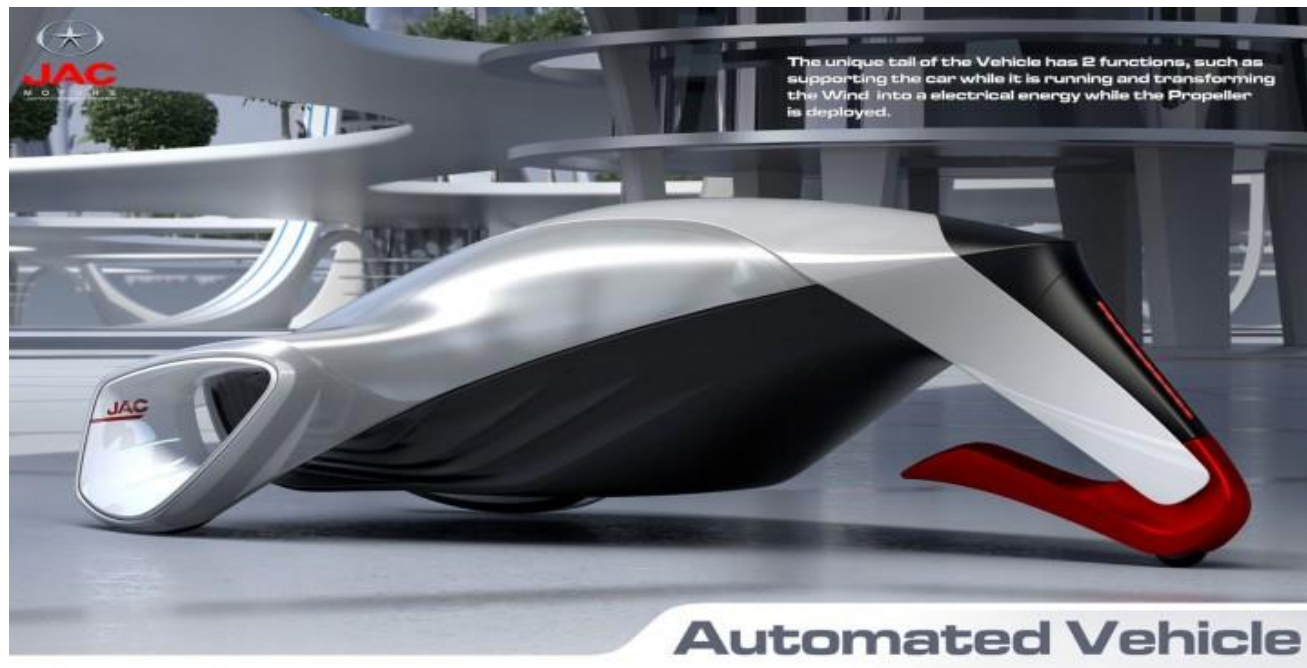
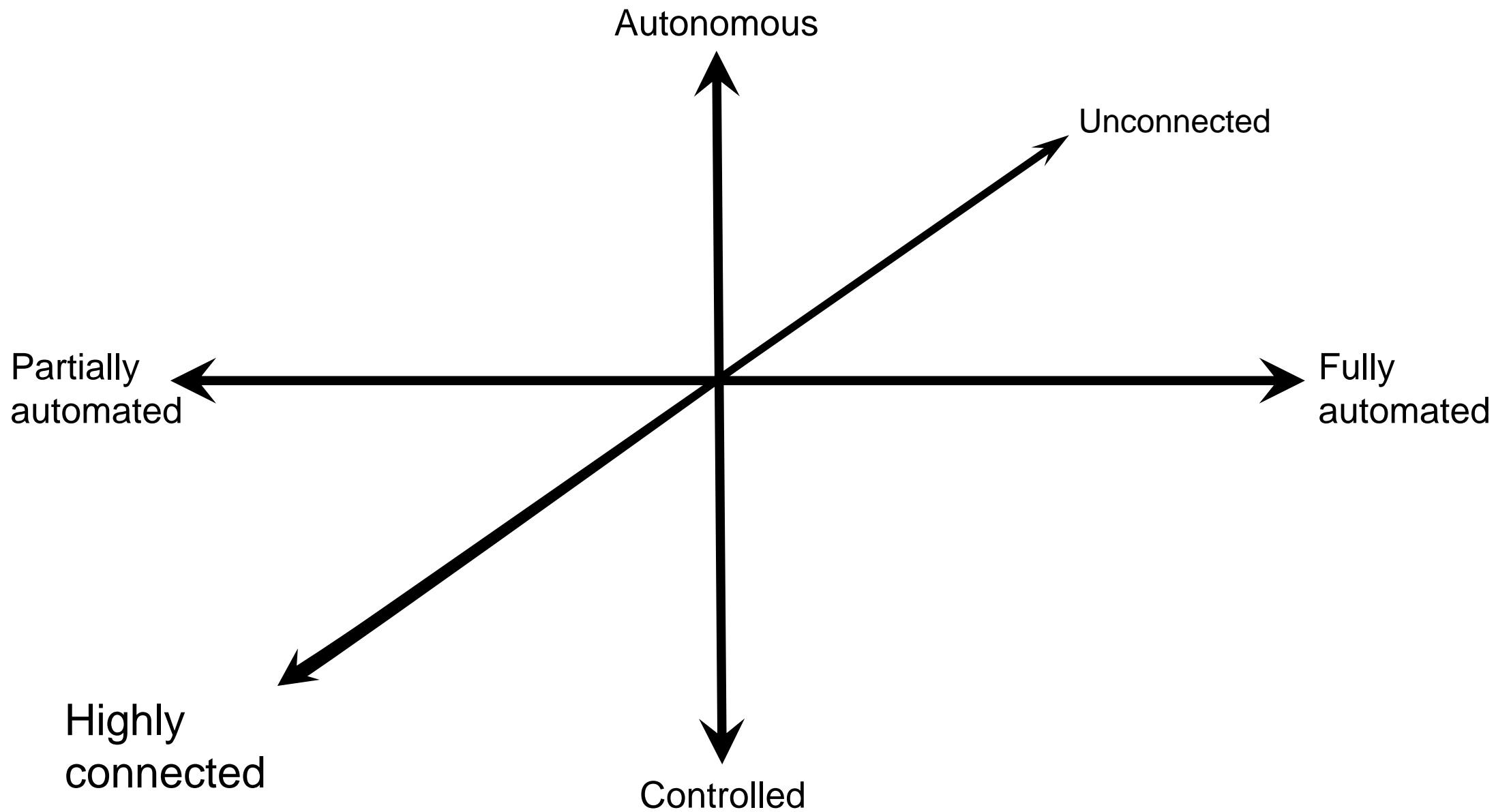


# Defining an automated vehicle (AV)



Tom Cohen  
24<sup>th</sup> November 2017





# Levels of automation (*SAE International*)

Level	Name	Narrative definition
<i>Driver performs part or all of the dynamic driving task (DDT)</i>		
0	No Driving Automation	The performance by the driver of the entire DDT, even when enhanced by active safety systems.
1	Driver Assistance	The sustained and ODD-specific execution by a driving automation system of either the lateral or the longitudinal vehicle motion control subtask of the DDT (but not both simultaneously) with the expectation that the driver performs the remainder of the DDT.
2	Partial Driving Automation	The sustained and ODD-specific execution by a driving automation system of both the lateral and longitudinal vehicle motion control subtasks of the DDT with the expectation that the driver completes the object and event detection and response (OEDR) subtask and supervises the driving automation system.
<i>Automated Driving System (ADS) performs the entire DDT (while engaged)</i>		
3	Conditional Driving Automation	The sustained and ODD-specific performance by an ADS of the entire DDT with the expectation that the DDT fallback-ready user is receptive to ADS-issued requests to intervene, as well as to DDT performance-relevant system failures in other vehicle systems, and will respond appropriately.
4	High Driving Automation	The sustained and ODD-specific performance by an ADS of the entire DDT and DDT fallback without any expectation that a user will respond to a request to intervene.
5	Full Driving Automation	The sustained and unconditional (i.e., not ODD-specific) performance by an ADS of the entire DDT and DDT fallback without any expectation that a user will respond to a request to intervene.

# Other principles

- Running on ground
  - i.e. not an aircraft or a ship (for today's purposes)
  - But could be a train
- Carrying people, goods, or both
- Any practical capacity



Thank you

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