

HOW DRIVER MONITORING SYSTEM EFFECTIVELY ALERTS DRIVERS OF PARTIALLY AUTOMATED VEHICLES

Wen Jiang

Baidu Apollo Design Center, Beijing, China, jiangwen01@baidu.com

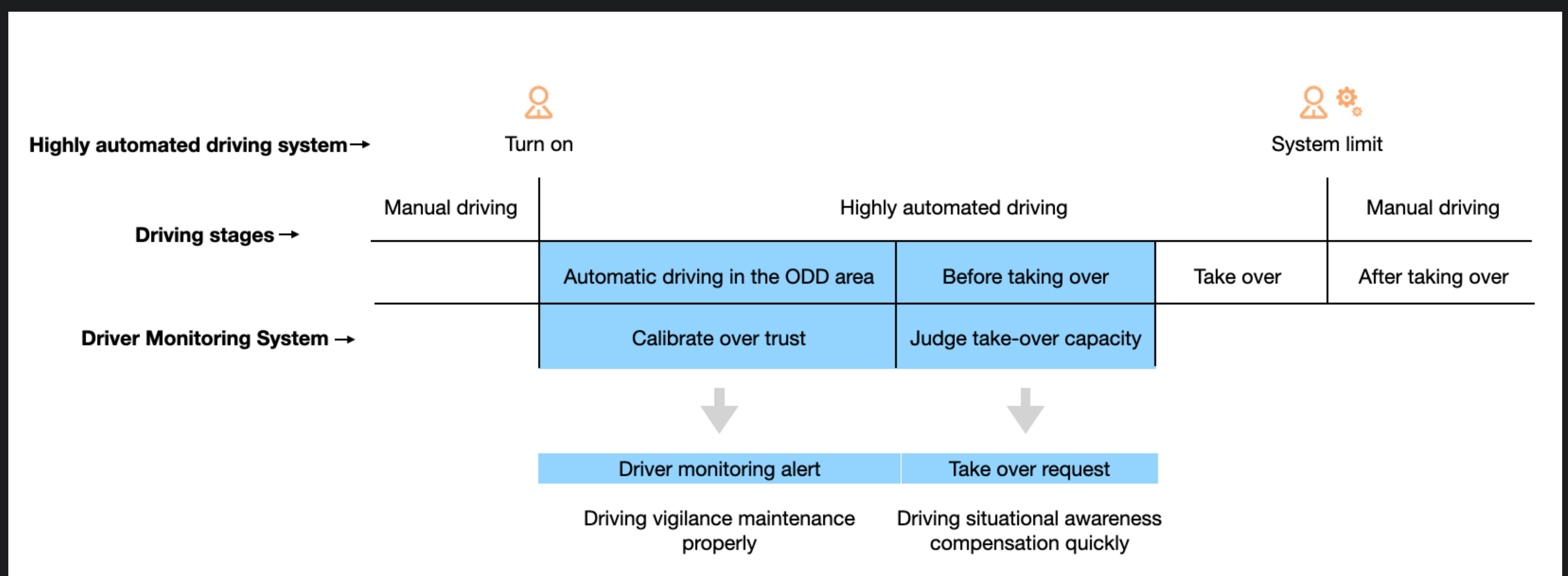
Xiaojun Luo

Baidu Apollo Design Center, Shenzhen, China, luoxiaojun01@baidu.com

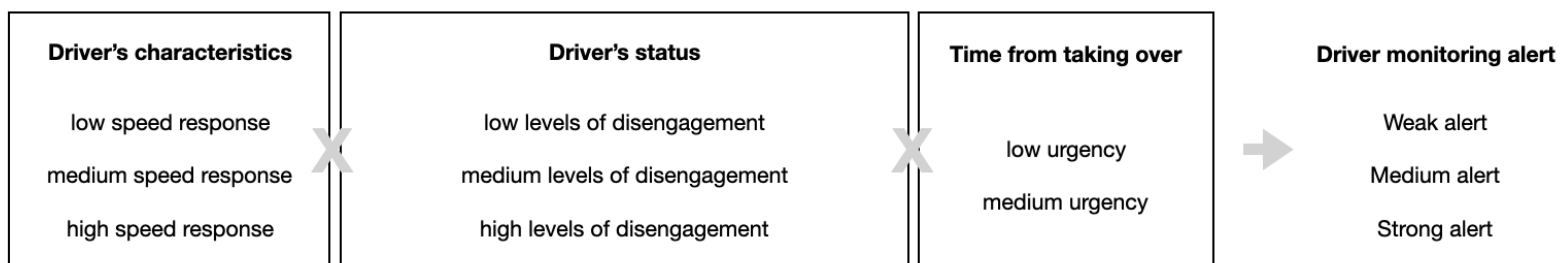
Jifang Wang

Baidu Apollo Design Center, Shenzhen, China, wangjifang@baidu.com

Automated driving systems today cannot ensure that drivers can be completely liberated from the driving task. In this condition, Driver Monitoring System (DMS) through non-driving tasks could be necessary to ensure alertness and availability during highly automated driving. How to identify and alert by DMS in Shared Autonomy Era is virtually worth researching in the field of Human Machine Interface. By understanding different types of drivers and drivers' different states on their response time when they perceive DMS or take over alert. Further sort out the factors that affect the response time of drivers, and then output suggestions with different levels of alerts through the comprehensive judgment of the system to help carmakers develop more flexible and humanized human-computer interaction principles.



1. Automatic driving in the ODD area



2. Before taking over

