

# AUTHORITY TRANSITIONS

in highly automated vehicles



ASSISTED DRIVING

AUTONOMOUS DRIVING



## CONTEXT

In 2020 autonomous driving becomes a reality for vehicles. A highly automated vehicle can drive completely autonomous in certain scenarios. With the automation of vehicles, however, new problems arise. A significant decrease in situational awareness and driver vigilance lead to dangerous and complex transitions of control for the user. A new HMI is designed for these authority transitions.

## DESIGN

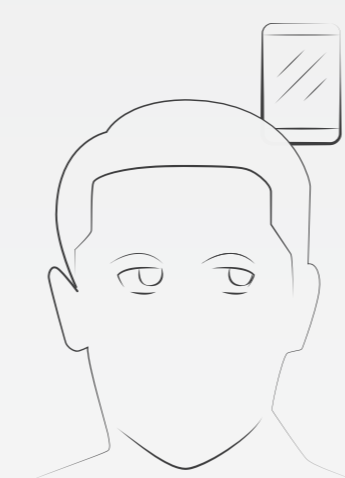
A retractable steering wheel emphasises the transition of control. The seat embraces the user as a passenger and guides the user through the transition to assisted driving. The instrument cluster in combination with the head-up display warns the user to wake up, regain attention or prepare for take over when needed. The steering wheel confirms the transitions as a metaphor for taking over the wheel.



WAKING UP



The user will be woken up in time to regain driver vigilance



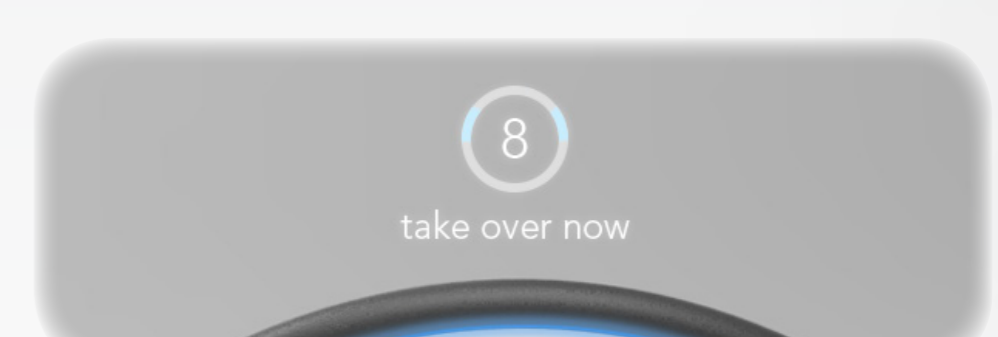
REGAIN ATTENTION



The user will be made attentive before the take-over to increase situational awareness



PREPARING TAKE-OVER



The head-up display prepares the user for the take-over