



- Human Factorの観点
 - 自動運転による効果

The infographic is divided into two horizontal sections. The top section is titled 'Increased safety' and contains two images: a night-time driver's perspective with a callout box 'Reduction of human error/ weakness' and a blue car in a lane with a callout box 'Faster and stronger reactions'. The bottom section is titled 'Increased comfort' and contains two images: a top-down view of traffic with a callout box 'More efficient use of time' and a woman using a smartphone while driving with a callout box 'Release of attentional resources'.

Increased safety

Reduction of human error/ weakness

Faster and stronger reactions

Increased comfort

More efficient use of time

Release of attentional resources



■ Human Factorの観点

- 自動運転によるマイナス面も存在

The infographic is divided into two main sections. The top section is titled 'Altered driver state' and contains two images: a woman looking at a smartphone with a 'Drowsiness' label, and a man reading a newspaper in a car with a 'Reduced situation awareness' label. The bottom section is titled 'Inappropriate trust in Automation' and contains two images: a driver with hands on the steering wheel with an 'Overreliance' label, and a glass of alcohol with a 'Misuse' label.

Altered driver state

Drowsiness

Reduced situation awareness

Inappropriate trust in Automation

Overreliance

Misuse



■ Human Factorの観点

- 自動運転によるマイナス面も存在

System understanding

Mode confusion

Mental model

Long term effects

Loss of skill

Behavioural adaptation



■ Human Factorの観点

- 自動化と運転者の操作の移行: 効果的方法の確立





■ Human Factorの観点

➤ 人間中心な設計

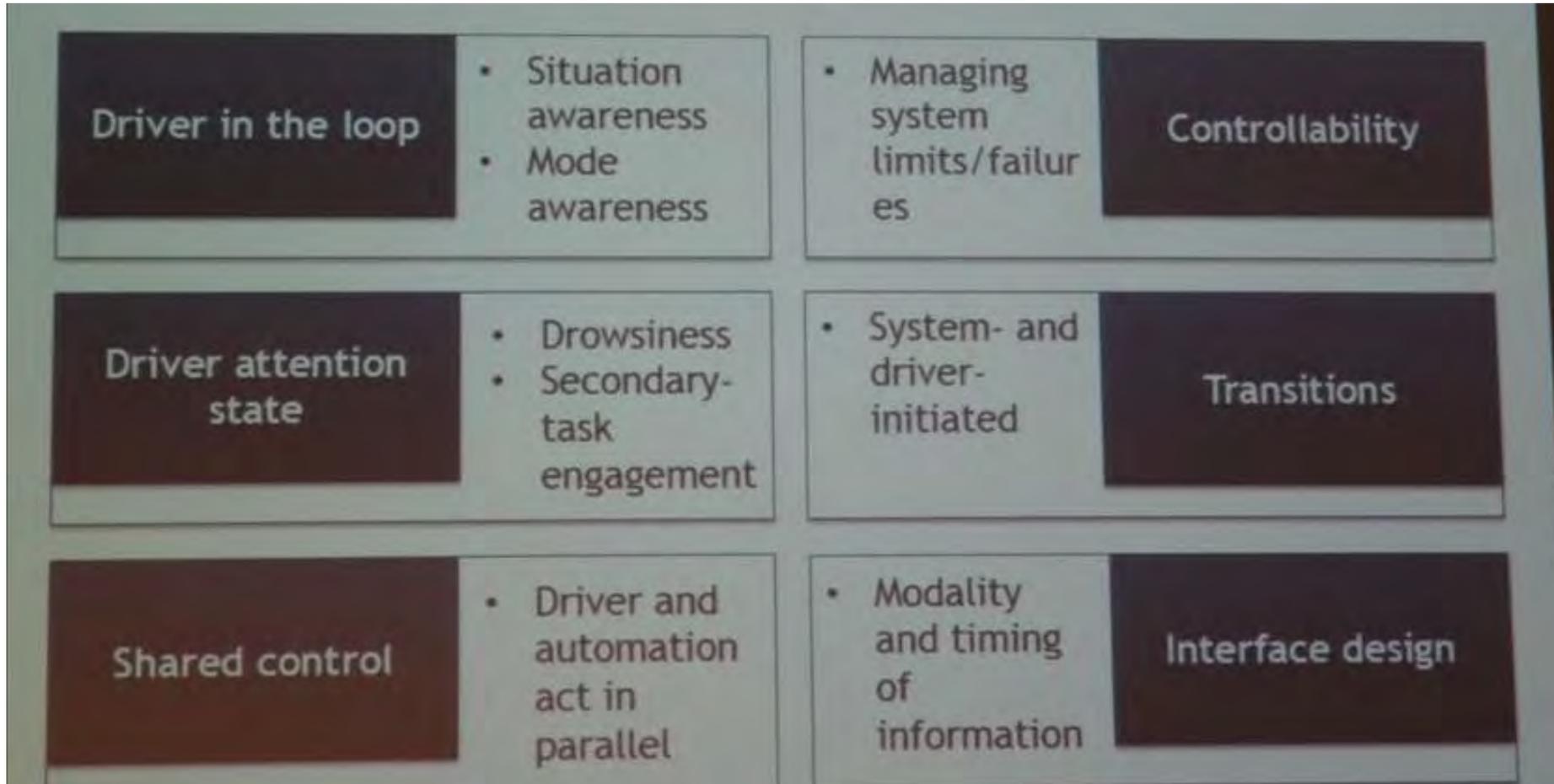
- Finding suitable strategies to hand back vehicle control to the driver
- Prevention of automation surprises in order to:
 - Increase system understanding
 - Increase reliance
 - Increase acceptance



Positive automation effects will only affect traffic safety if the automation is actually used.



- Human Factorの観点
 - AdaptIVeにおける開発課題





■ Human Factorの観点

➤ Use caseの定義

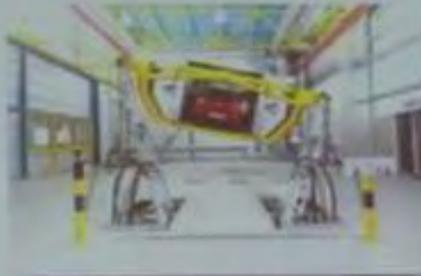
Close distance maneuvers	<ul style="list-style-type: none">• Activation/Deactivation with/without driver in car• Parking in/out• Drive to parking lot• Pass through construction site
Urban scenarios	<ul style="list-style-type: none">• Activation/Deactivation• In lane lateral and longitudinal control• Lane change (driver/system initiated)• Handling of traffic lights/intersections/roundabouts
Highway scenarios	<ul style="list-style-type: none">• Activation/Deactivation• Lane Following• Lane Change• Enter/exit motorway• Cooperative Use Cases (using C2X-Technology)• Driver State



- Human Factorの観点
 - 各種試験評価の実施



Leeds driving simulator



DLR driving simulator



WIVW driving simulator



FORD fixed based simulator



AB Volvo truck simulator



VCC fixed based simulator



DLR FASCar



END