interactIVe – Lessons learnt and next steps

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Sensor concept
Support: splitting driving task between driver and vehicle
Research concept

- **SECONDS**
  - Continuous driver support

- **INCA**
  - Collision avoidance support

- **EMIC**
  - Collision mitigation support
interactIVe Demonstrators – assistance for drivers

SECONDS
- Continuous Support
- Curve Speed Control
- Enhanced Dynamic Pass Predictor
- Safe Cruise

INCA
- Lane Change Collis. Avoid.
- Oncoming Vehicle Collis. Avoidance/Mitigation
- Rear End Collis. Avoidance
- Side Impact Avoidance
- Run-off Road Prevention

EMIC
- Emergency Steer Assist
- Collision Mitigation

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interactIVe Final Event, Aachen
AdaptlVe: Automated Driving Applications & Technologies for Intelligent Vehicles
Levels of Automation (BASt 2011)

**Assisted driving**
- The driver permanently controls either longitudinal or lateral control. The other task can be automated to a certain extent by the assistance system.

**Partly automated**
- The system takes over longitudinal and lateral control, the driver shall permanently monitor the system and shall be prepared to take over control at any time.
- The system takes over longitudinal and lateral control; the driver must no longer permanently monitor the system. In case of a take-over request, the driver must take-over control with a certain time buffer.
- The system takes over longitudinal and lateral control completely and permanently. In case of a take-over request that is not carried out, the system will return to the minimal risk condition by itself.
AdaptIVe: project structure

SP1: IP Management (VW)

SP2: Response 4 (DAI)

SP3: Human-Vehicle Integration – collaborative automation (VTEC)

SP4: Automation in close-distance scenarios (DEL)

SP5: Automation in urban scenarios (CRF)

SP6: Automation in highway scenarios (VW)

SP7: Evaluation (IKA)
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Thank you.

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