

Driver Assistance Systems (DAS) Intelligent Accident Prevention in Road Traffic

«ICT and Road Safety»

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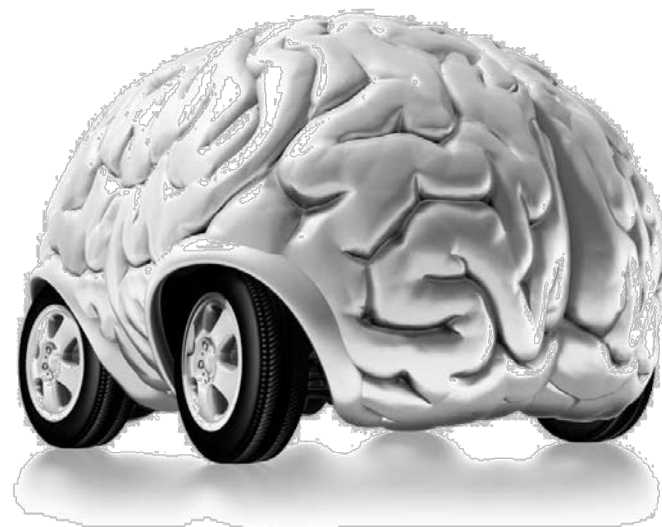
Definition

Driver Assistance Systems (DAS) are extra electronic features in motor vehicles

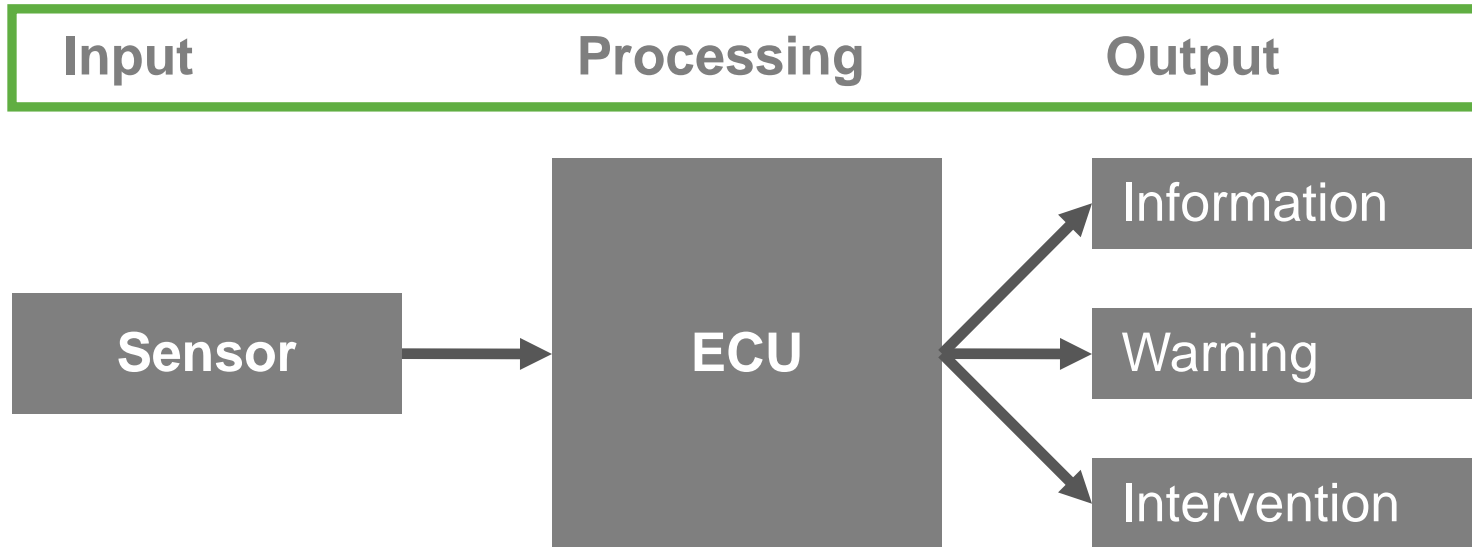
DAS support the driver in certain driving situations. Often considerable safety advantages exist. DAS are a very effective form of accident prevention.

With DAS, 50% of serious road traffic accidents could be avoided.

Worldwide there are 1.3 million road traffic fatalities per year.



Driver Assistance Systems

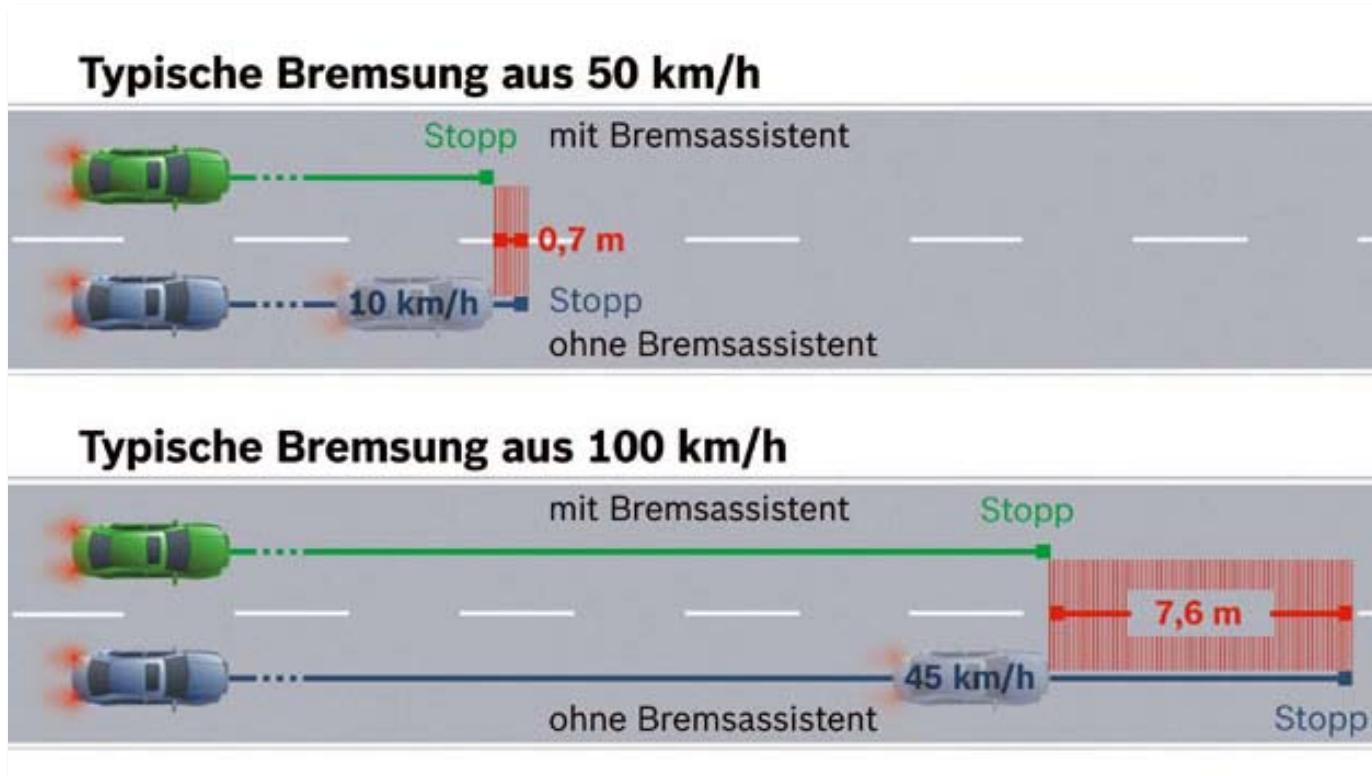


Handling in Emergency Situations



Anti-Blocking System ABS

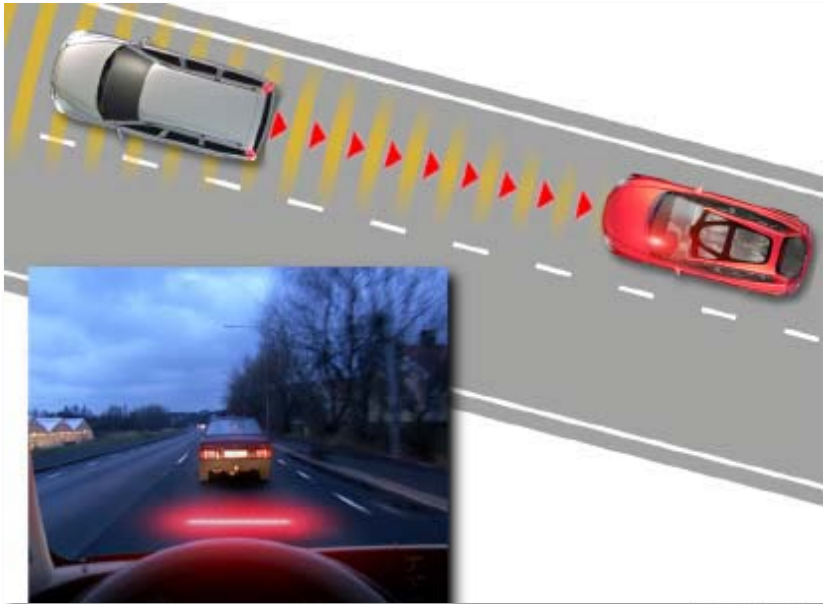
Handling in Emergency Situations



Brake Assistant Systems

BAS (Brake Assistant System)

Linear Flow Controls



Collision Warning Systems

FCW (Forward Collision Warning)

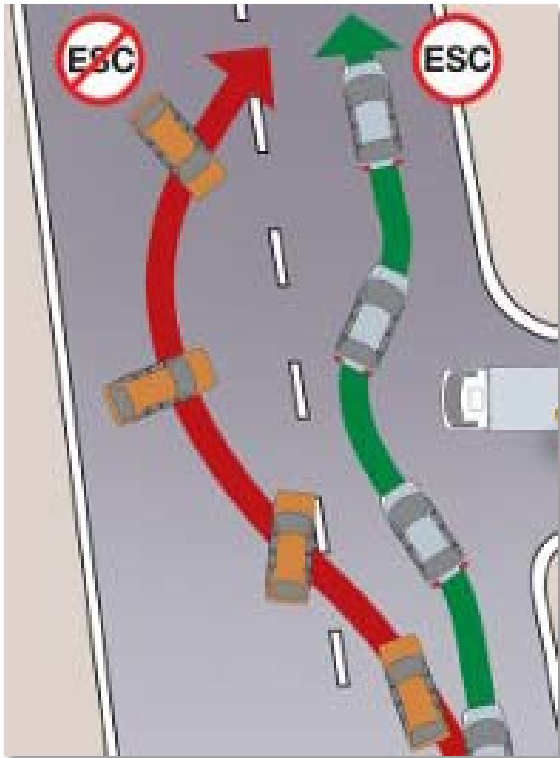


Collision Avoidance Systems

ACA (Advanced Collision Avoidance)

CMS (Collision Mitigation System)

Handling in Emergency Situations



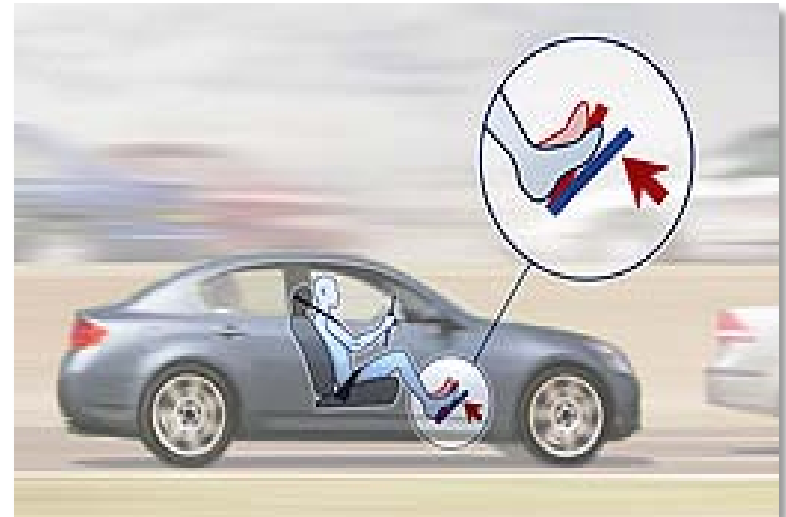
Electronic Stability Controls

ESC (Electronic Stability Control)

Linear Flow Controls

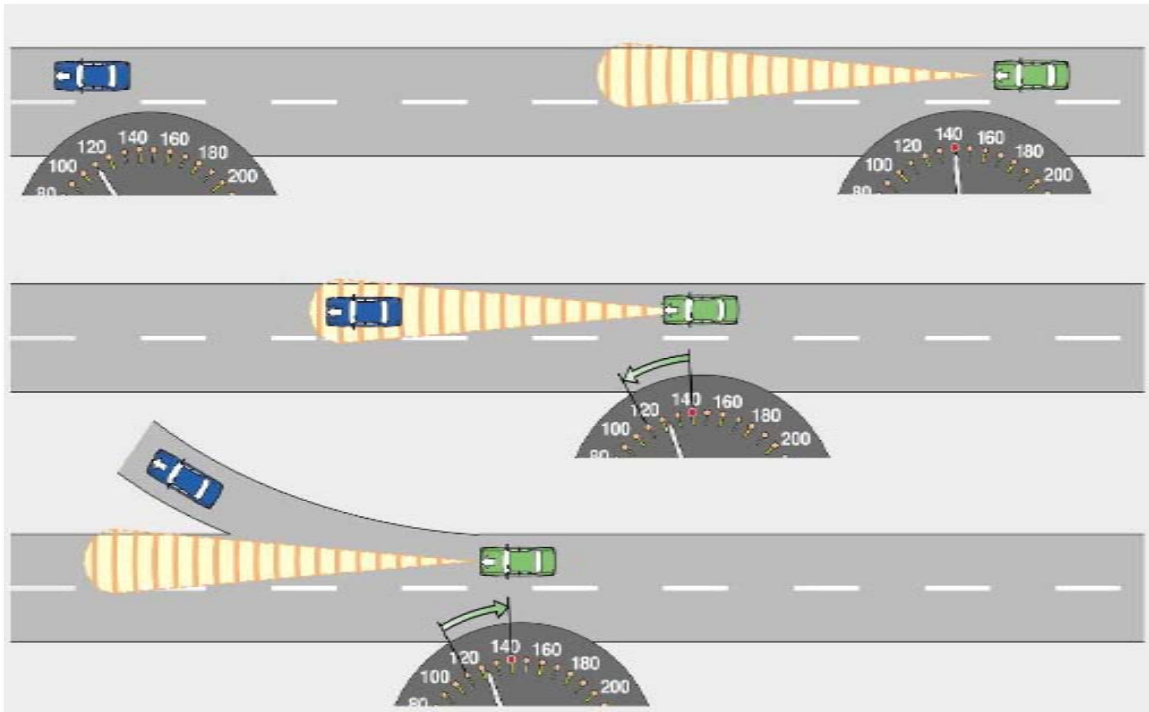


Speed Assistance
ISA (Intelligent Speed Assistance)



Active Gas Pedal

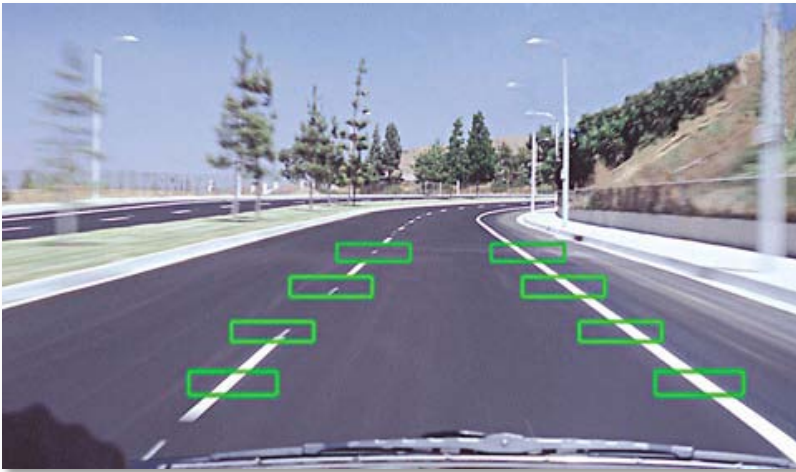
Linear Flow Controls



Distance Controls

ACC (Adaptive Cruise Control)

Lateral Controls



Lane Departure Warning

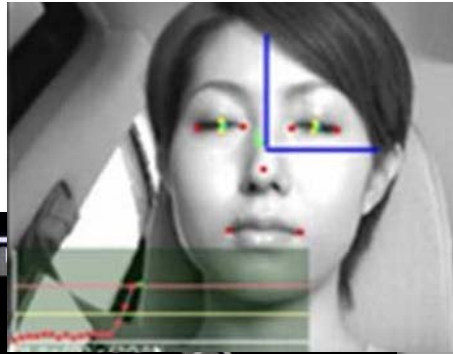
LDW (Lane Departure Warning)



Lane Keeping Support

LKS (Lane Keeping Support)

Monitoring



Drowsiness Detection

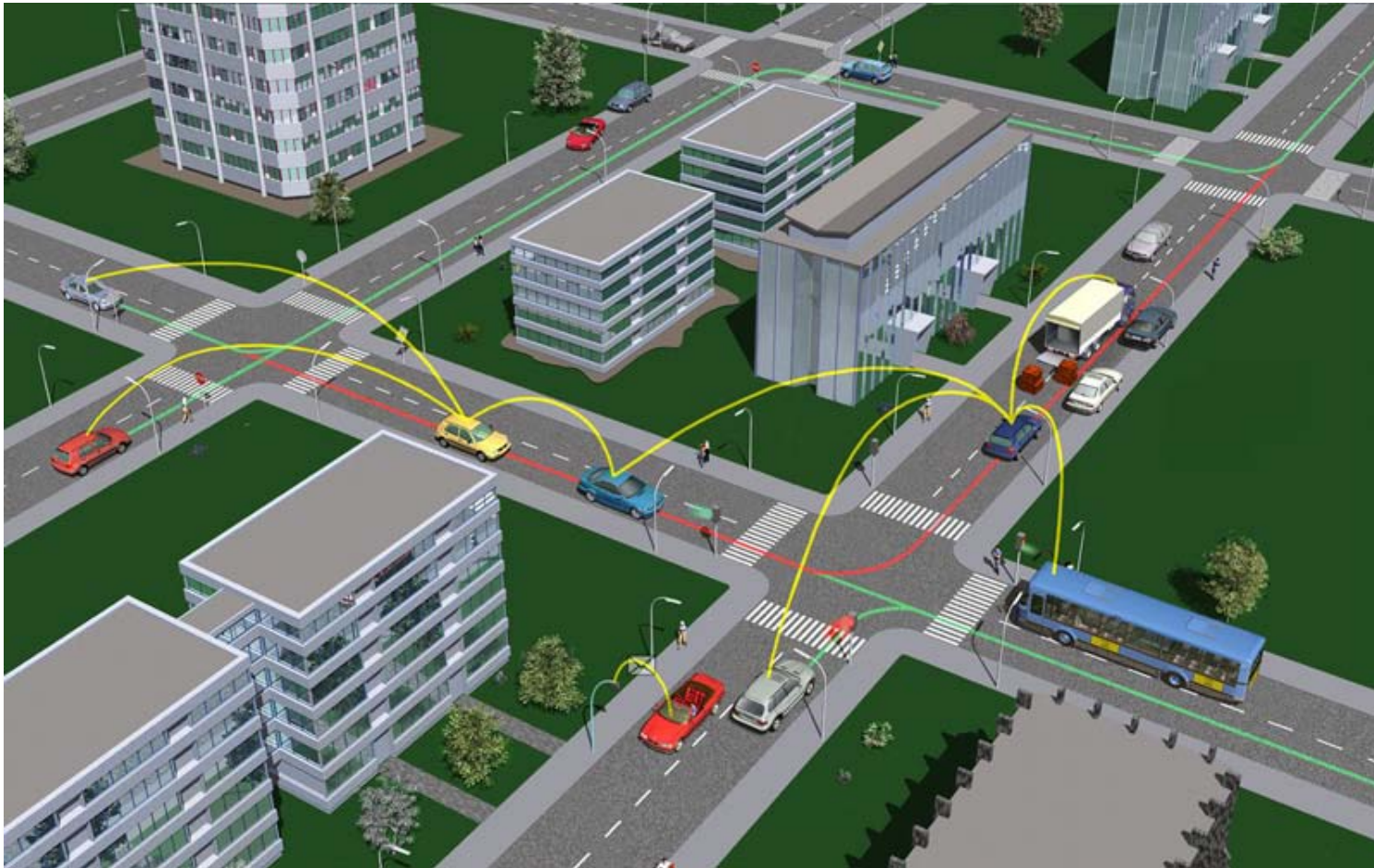
Driver Alertness System



Alcohol Interlocks

Alcolock (Alcohol Ignition Interlock)

Cooperative Systems



Campaigning

Denkt Ihr Auto mit?
www.Auto-IQ.ch

31.03.2010 - 02.2010



**Jetzt
online
testen!**



Denkt Ihr Auto mit?



www.Auto-IQ.ch

Marke:

Modell:

Typ:

Jetzt zeigen >



Wie intelligent ist Ihr Auto?

Überprüfen Sie hier die Fahrer-Assistenz-Systeme

Wählen Sie ein Fahrzeug aus:

Marke:

Modell:

Typ:

TATA Indica 1.4 - Lim/5

Treibstoff: diesel
Hubraum: 1405 ccm
PS: 49

Sicherheits-Ausstattung und Relevanz

Das ausgewählte Fahrzeug verfügt über keine offiziell registrierten Fahrer-Assistenz-Systeme

STATEMENT

Fahrer-Assistenz-Systeme bieten einen deutlichen...

Edith Hunkeler, Rollstuhlsportlerin

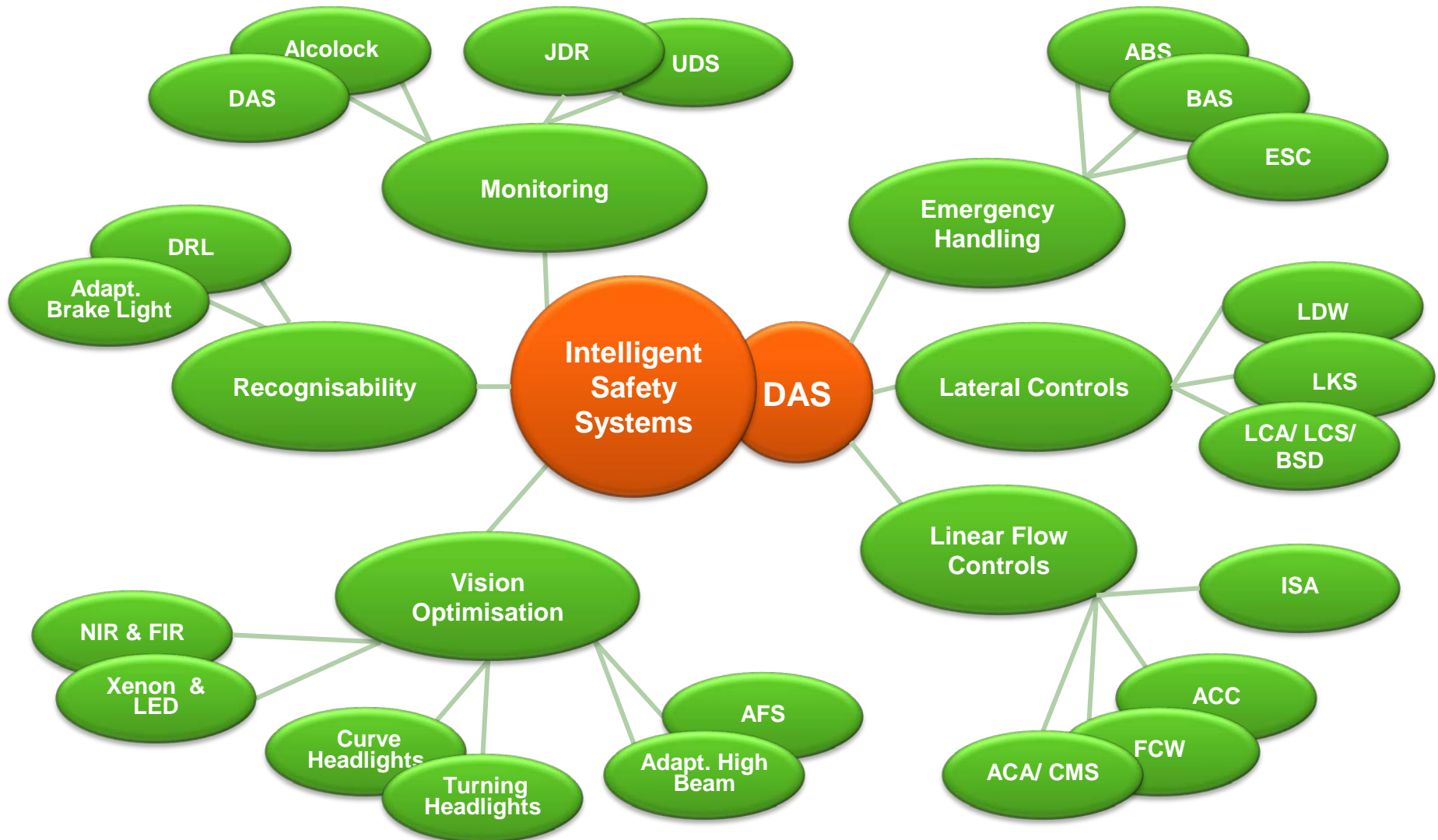


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NEWS

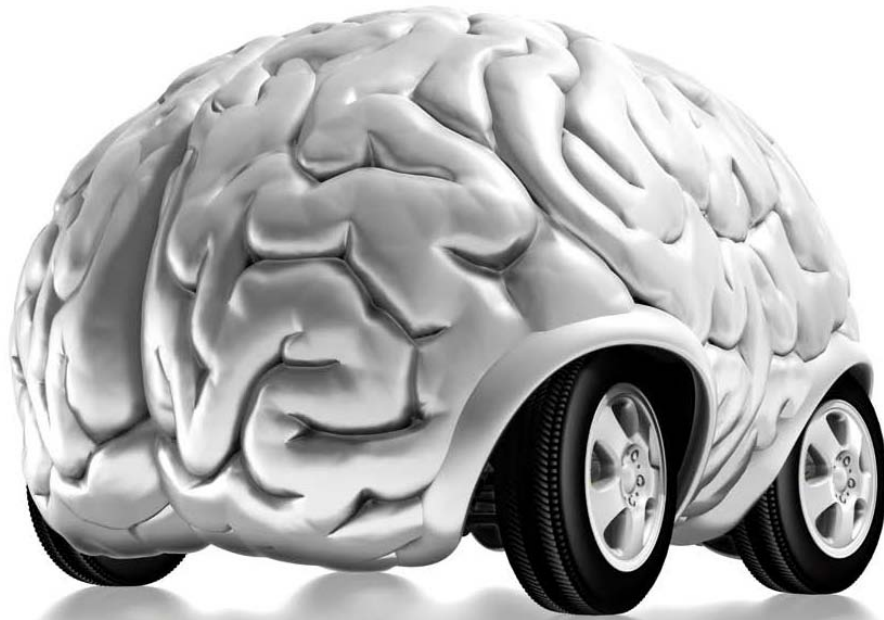
Das Wissensmagazin „Einstein“ präsentiert „das intelligente Auto“

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But there are also terrible ones...













Thank you!

Some more Charts ...

- **Emotions** play a central role in buying a car
- Safety is a feature with **little appeal**
- The **subjective employment** of DAS is modest as one usually assesses one's own accident risk as low
- European car drivers are **sceptical** of DAS that intervene in driver autonomy
- Car drivers are inadequately **informed** about DAS and see little personal need
- DAS are not products that are **spontaneously and casually** purchased
- Readiness to buy and pay increases when the buyer has **personal experience** of DAS
- Optional DAS that are available to buyers are not adequately and **actively advertised** in the marketplace
- Selling and **advertising strategies** of the car industry inadequately address the lack of information and the lack of subjective need recognition.

Causes of Accidents

Area of Error		Steps in Process
Perception		<p>Access to information  23%</p> <p>Uptake of information  41%</p>
Decision		<p>Processing of information  16%</p> <p>Goal-setting  14%</p>
Action		<p>Handling  6%</p>

System Groups

- Handling in emergency situations
- Linear flow controls
- Lateral controls

- Monitoring
- Vision optimisation
- Recognisability

- Future (cooperative) systems



Lateral Controls



Lane Change Assistance

LCA (Lane Change Assistance)

BSD (Blind Spot Detection)

Monitoring



Accident Data Recorder

ADR (Accident Data Recorder)

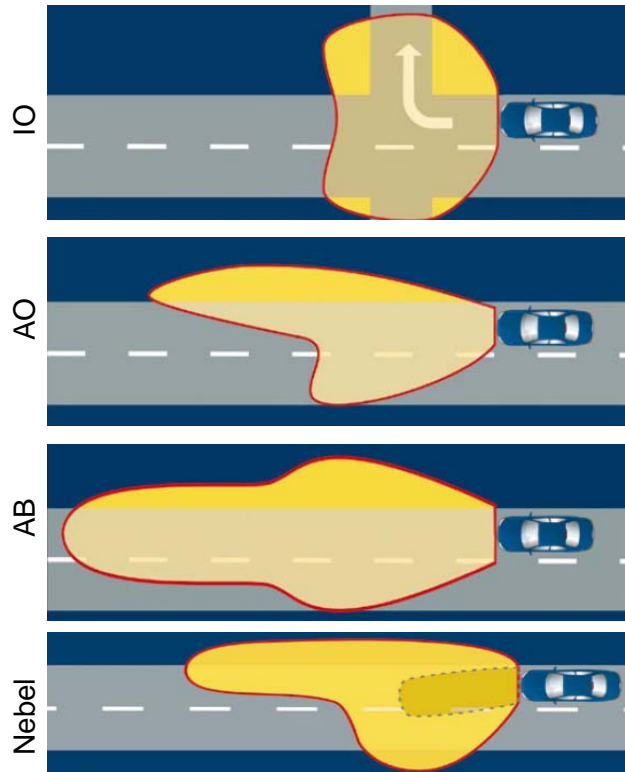
EDR (Event Data Recorder)



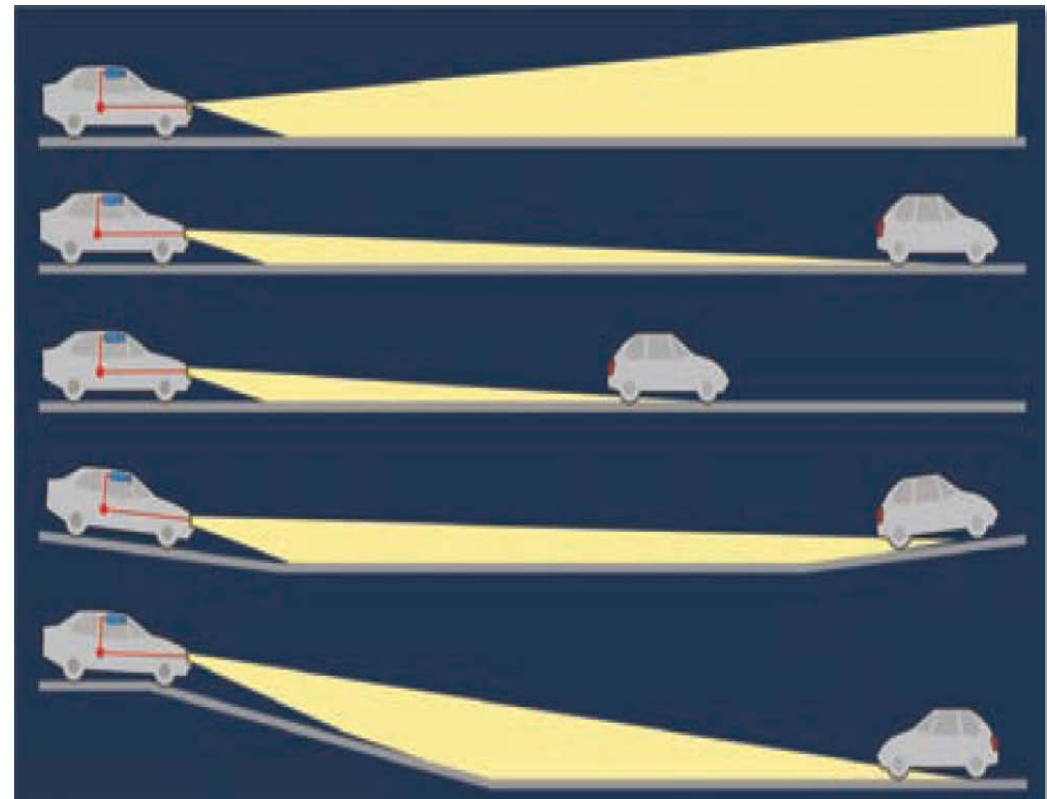
Journey Data Recorder

JDR (Journey Data Recorder)

Longitudinal Adaptive Light Assistance



Adaptive Frontlichtsysteme AFS

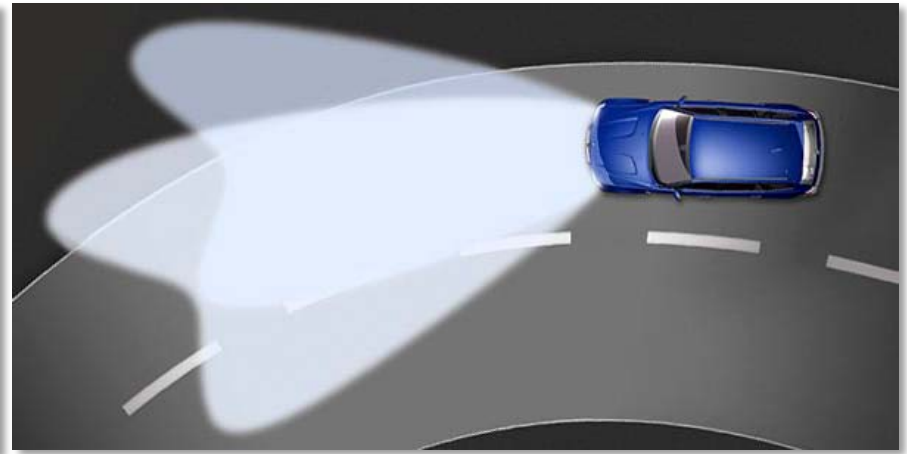


Adaptive High Beam Assistance

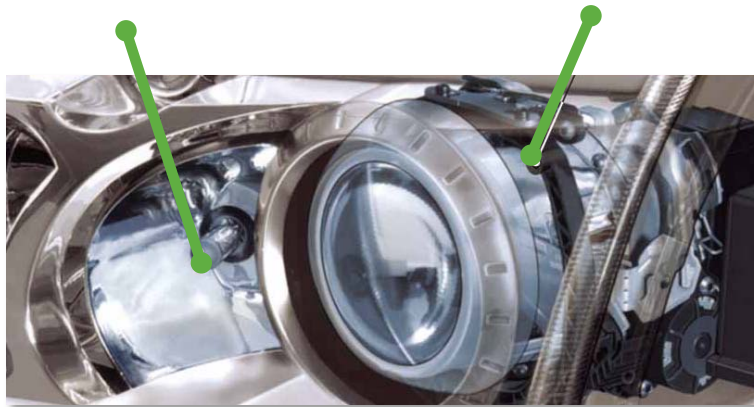
Lateral Light Control



Static curve / turning headlights



Dynamic curve headlights



Night Vision Devices



NIR

Active

Infra-red light source

150 meters



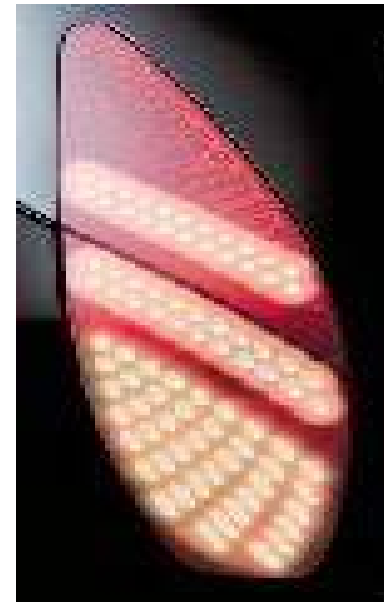
FIR

Passive

Thermal radiation

300 meters

Recognisability



Adaptive Brake Lights