

# Benefit-cost analysis

## Assumptions for 2010 / 2020

Vehicle stock  
Vehicle mileage  
Discount rate  
Lifetime

Accident data  
Penetration rate (two scenarios)  
Share of driven mileage

## Physical impacts – benefits

Safety (fatalities, injuries)  
Direct traffic effects (average velocities)  
Indirect traffic effects (congestion)

Cost-unit rates

$$\frac{\text{Benefits}}{\text{Costs}} = \text{BCR}$$

## Costs

Penetration rate

\*

Vehicle stock

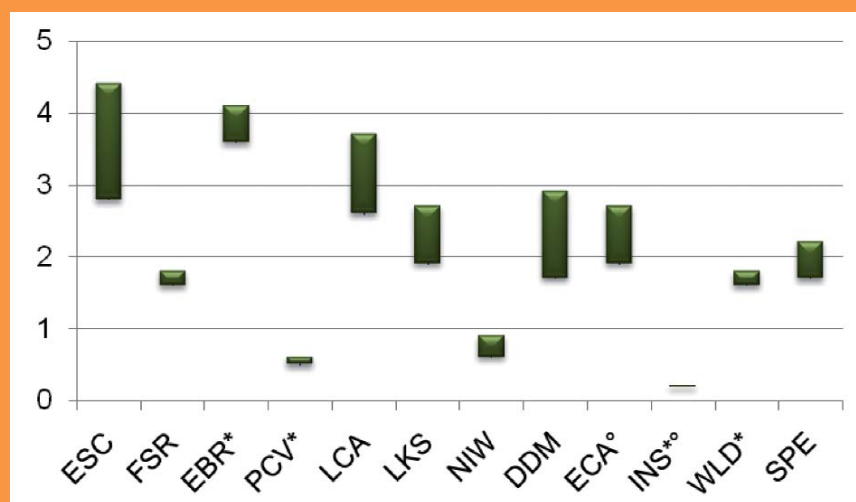
\*

System costs

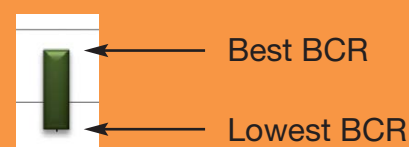
## Sensitivity analysis

- Discount rate (3% vs. 8 %)
- Lifetime (12 years vs. 16 years)
- Safety impact (most probable vs. optimistic vs. pessimistic)
- Accident trend

## eIMPACT results



Legend (valid for all considered scenarios)



- \* not available in 2010
- ° only potential case considered (infrastructure requirement)