

# Evaluation study on Speed Limitation Devices

Scenarios and methodology

Stakeholder conference 10 June 2013

## ▶ Scenarios for the ex-ante evaluations for HCVs and LCVs

- What would be options for amending the Directive?
  - Feasible, realistic and distinctive scenarios
- Eight scenarios:
  - Four scenarios for HCVs
  - Four scenarios for LCVs
  - Both for HCVs and LCVs: two speed limiter scenarios, two ISA scenarios

## ▶ ISA systems

- ISA: Intelligent Speed Assistance / Adaptation
- Characteristics
  - System type (Advisory, driver select, mandatory)
  - Information (Fixed, variable, dynamic)
- Could be complementary to speed limiters for HCVs
- Also affecting speeds on urban roads
- May serve as an alternative to speed limiters for LCVs

## ▶ Argumentation for HCV scenarios

- Scenario 1: A maximum speed of 80 km/h for HGVs, 90 km/h for buses is reasonable
  - Many countries have this speed limit on motorways
  - Compatible with minimum speed of 70 km/h
- Scenario 2: A maximum speed for HGVs and buses of 100 km/h
  - Decreases differences in vehicle speed between vehicle types
  - Feasible for the HCV's of today
- Different maximum speeds for M2 and M3 or between N2 and N3 vehicles
  - Lack of sufficient data for carrying out such an analysis
  - Will be included in the discussion on policy strategies

## ▶ Argumentation for HCV scenarios (2)

- ISA scenario 3: “Advisory/informing” with variable posted speed limit information and no changes in current speed limits
  - The technology is already introduced to a sufficiently high level
  - Informative: No invasive actions are taken by the ISA system (liability perspective)
- ISA scenario 4: “Half-open” driver feedback. With fixed posted speed limit information and a decrease in maximum speed
  - Technology needed is available, ready for the market within 5 years
  - Databases with speed limit information available at both private and public level
  - Driver acceptance
  - System should be combined with fixed speed limit information (liability perspective)
  - Highest safety impact expected

## ► Scenario definition for HCVs

	Speed limiter HGVs	Speed limiter buses	ISA system
Reference	90 km/h	100 km/h	no
Scenario 1	80 km/h	90 km/h	no
Scenario 2	100 km/h	100 km/h	no
Scenario 3	90 km/h	100 km/h	Advisory/open - variable speed limit information
Scenario 4	80 km/h	90 km/h	Half-open - fixed speed limit information

## ▶ Argumentation for LCV scenarios

- Maximum speed of 120 km/h will have too small effects
- Scenario 1: a maximum speed of 110 km/h for vans is feasible and realistic
- Scenario 2: a maximum speed of 100 km/h for vans is feasible, realistic and distinctive from scenario 1
- Maximum speed of 90 km/h or lower: high speed differences between N1 and M1 and unrealistic
  
- ISA scenarios: the same as for HCVs
  - ISA scenario 3: Advisory - variable speed limit information
  - ISA scenario 4: Half-open - fixed speed limit information
  
- Current maximum speed in Member States is different: different effects

## ▶ Subcategories LCVs

- Policy options for differentiating between LCVs
- Limiting the obligation for N1 vehicles:
  - Vehicle mass between 2610 and 3500 kilogrammes (subcategories Regulation EU/510/2011).
- Including M1 vehicles
  - Commercially used M1-vehicles to vehicles with 8-9 seats

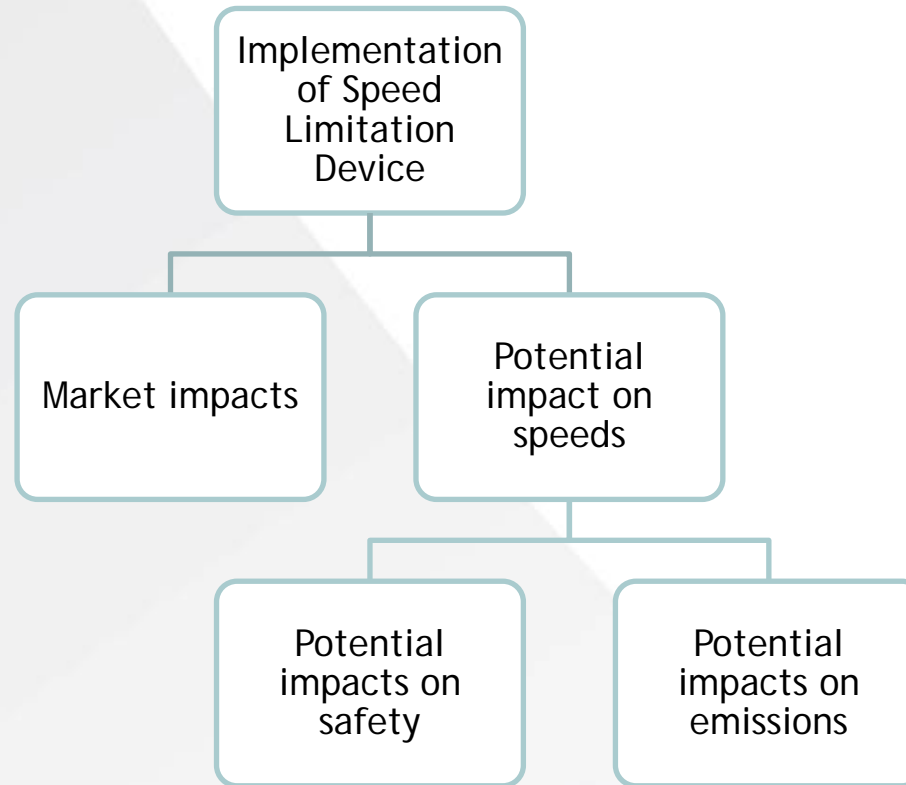


▶ Scenario definition for LCVs

	Speed limiter LCVs (type N1)	ISA system
Reference	no	no
Scenario 1	110 km/h	no
Scenario 2	100 km/h	no
Scenario 3	no	Advisory/open - variable speed limit information
Scenario 4	no	Half-open - fixed speed limit information

## ► Approach: Ex-ante evaluation

Logic of the evaluation:



## ▶ Types of impacts

- Vehicle speeds: average speeds, speed distribution and speed profiles
- Traffic safety: numbers of accidents, injured and fatalities
- Fuel consumption and emissions: CO<sub>2</sub>, PM and NO<sub>x</sub> emissions
- Market impacts:
  - vehicle design
  - shifts between vehicle categories, e.g. between HCVs and LCVs
  - fraud
  - administrative burden
  - costs of compliance/enforcement
  - SMEs

## ► Methodology

Type of impact	Methodology
Speed	Literature review of vehicle speeds and data from Member State survey Modelling (using speed data from literature)
Traffic safety	Modelling (using speed data and speed-accidents relationships from literature) For ISA: data from literature on the relationship between ISA and traffic safety
Fuel consumption and emissions	Modelling (using speed data and the VERSIT+ -model for speed-emissions relationships) For ISA: modelling data complemented with data from literature on the relationship between ISA and emissions
Market impacts	Qualitative assessment (based on literature review and survey)

## ► Questions

1. Do you agree with the definition of the scenarios for the ex-ante evaluations on HCVs?
2. Do you agree with the definition of the scenarios for the ex-ante evaluations on LCVs?
3. Do you see other elements which could be taken into account to complement the conclusions of the ex-ante evaluation?
4. Can you agree with the application of different speed limits for vehicle categories N2 and N3 (e.g. 100 km/h for N2 and 90 km/h for N3 category)?
5. What should be the definition of light commercial vehicles of M1 category and light commercial vehicle of N1 category (e.g. M1 category with 8 and 9 seats including driver's seat, N1 category between 2.6 and 3.5 tonnes)?
6. What suggestions do you have with respect to the possible amendments of the Speed Limitation Directive?