

Interpretation of results in euroFOT

FOT-Net seminar:
Interpretation and Presentation of Results



Freek Faber

TNO
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www.eurofot-ip.eu



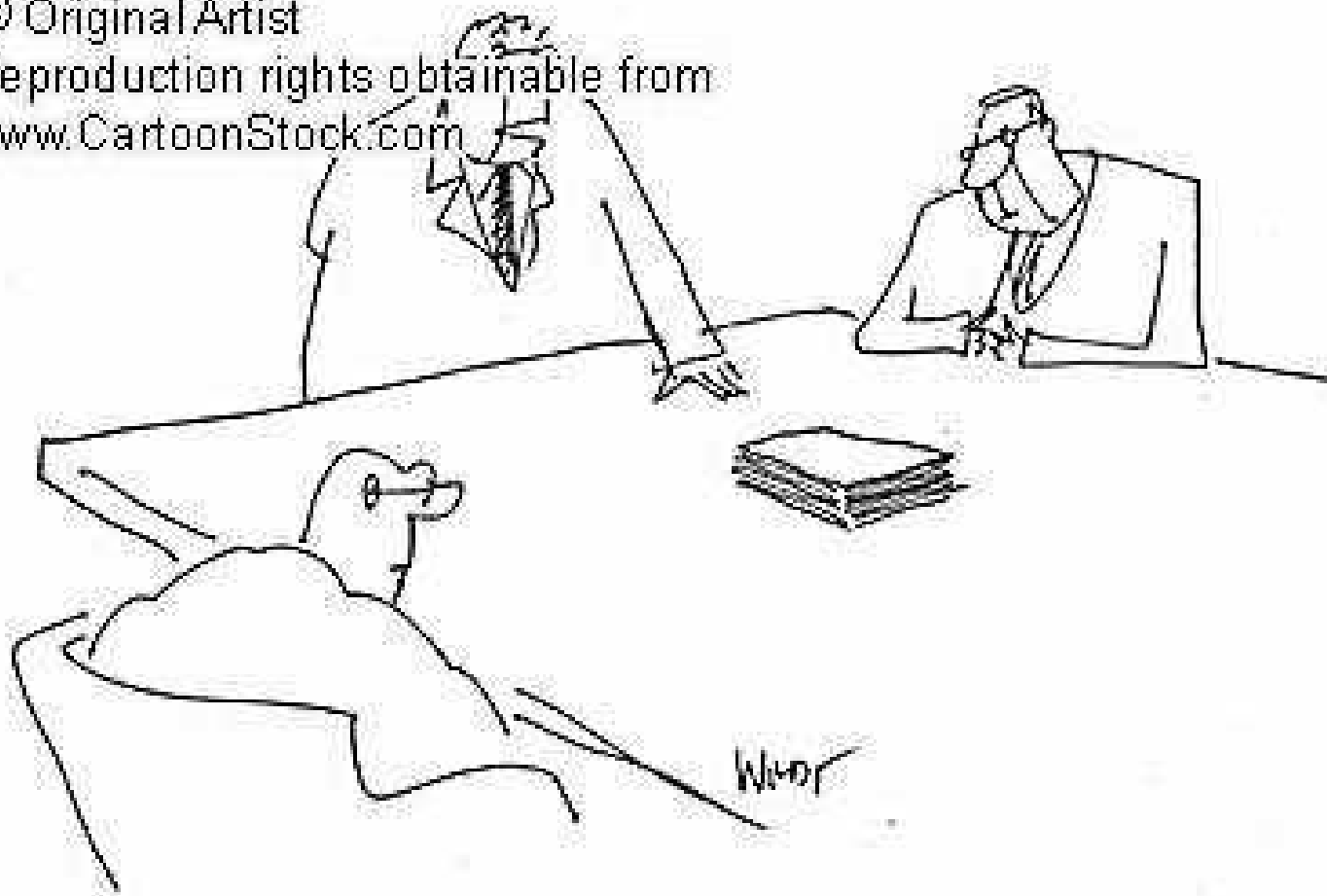
Bringing intelligent vehicles to the road

Interpretation

“Explanation of something that is not immediately obvious”

“Assign meaning to”

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"There sits the unvarnished truth. Now, how shall we interpret it to our advantage?"



Expected outcome



Bringing intelligent vehicles to the road



Impacts of ITS on

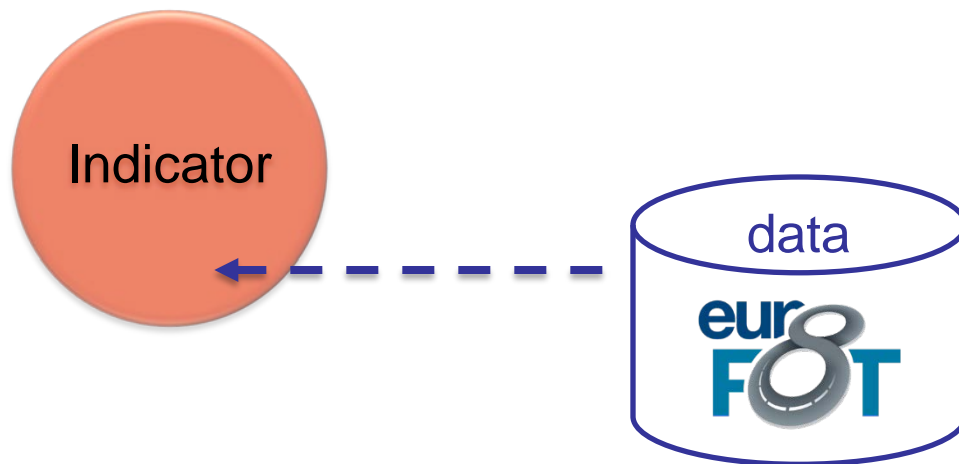
- Safety
- Efficiency
- Environment

per system
on EU level

Usage of the ITS

Costs and benefits

speed increases 4% on motorways
15% reduction of hard braking events



Expected outcome

≠

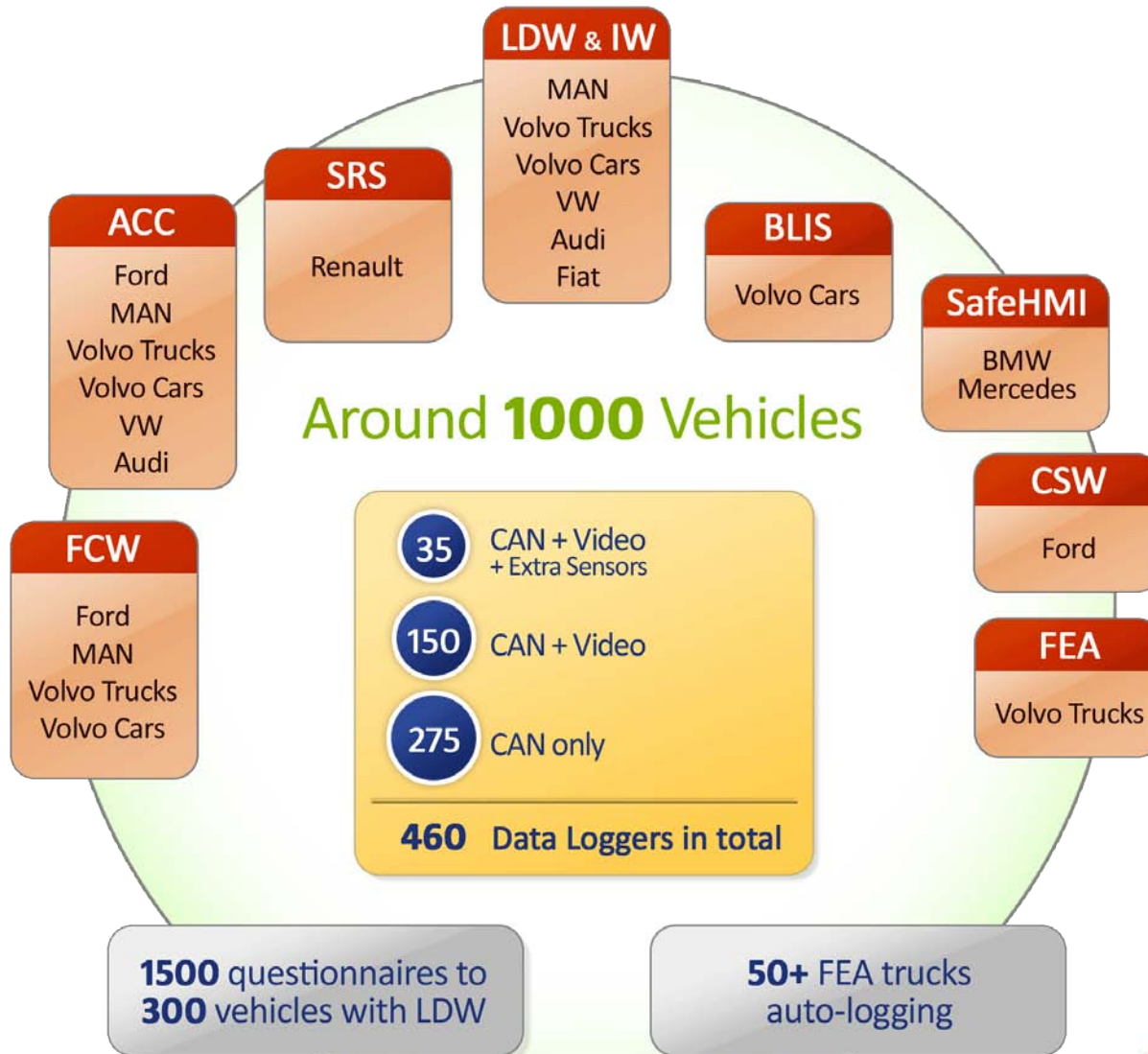
Data
analysis
result

Why not in line?

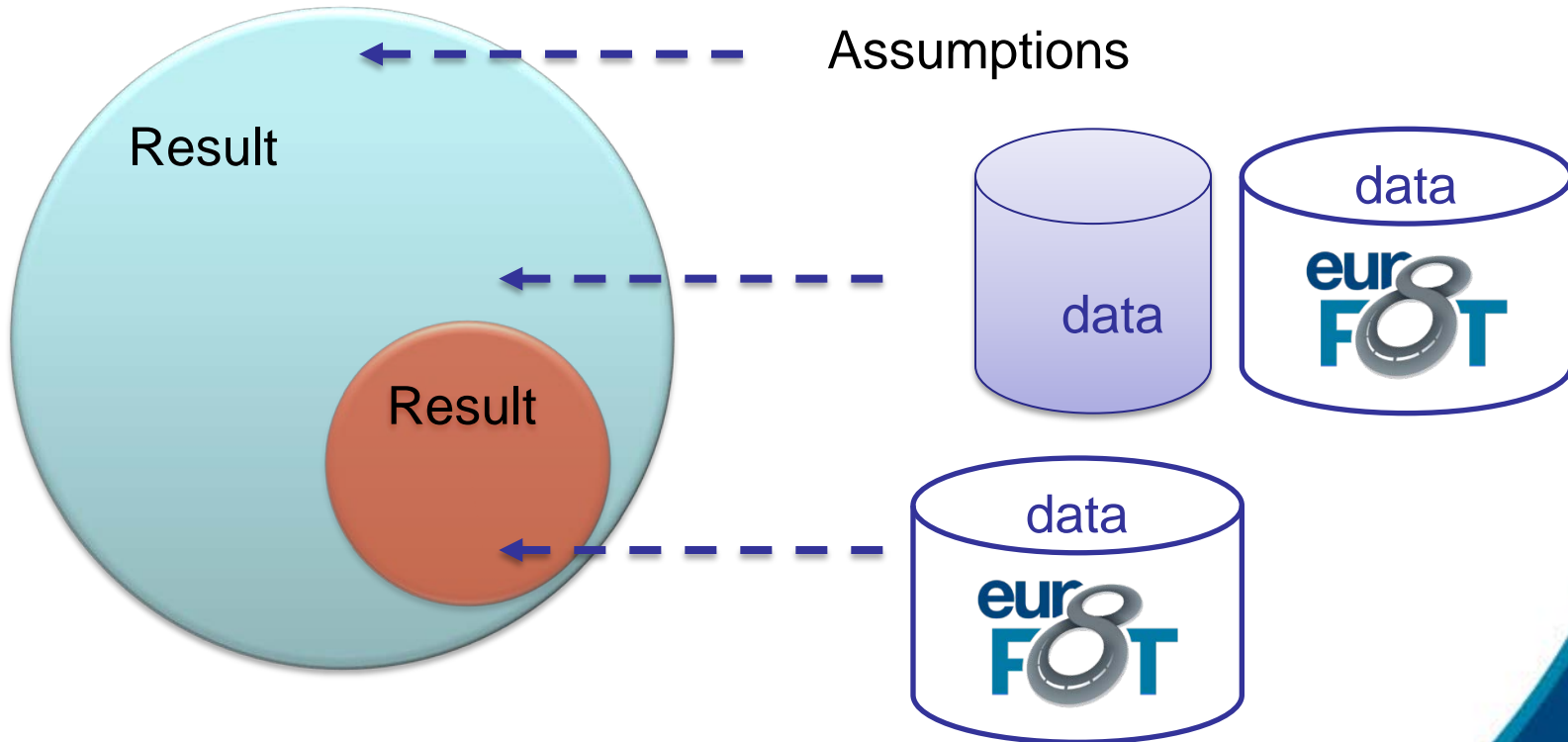
Limited nr of vehicles

Different system configurations

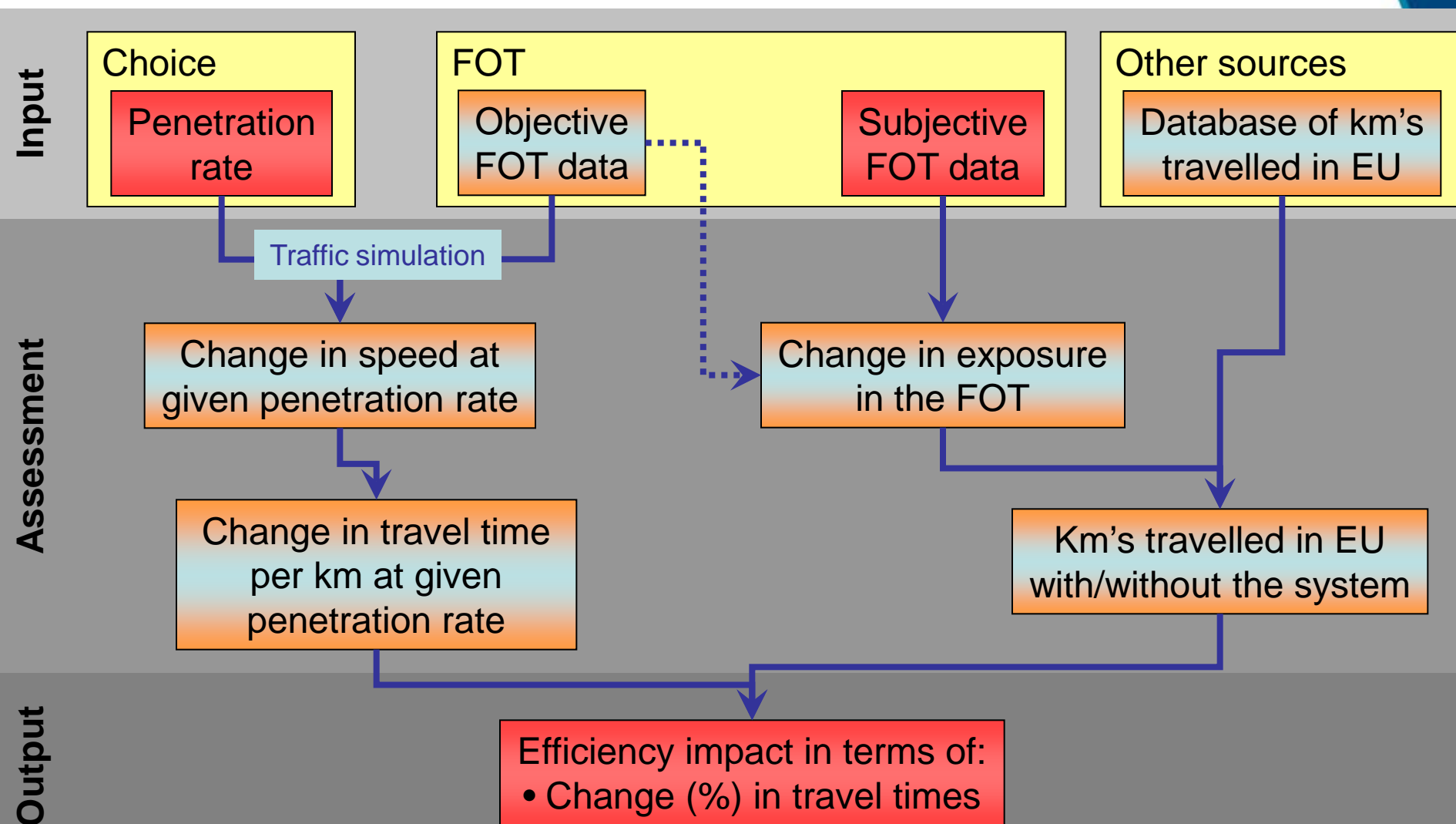
Functions under Test



Effect on France motorway is representative for EU
Nr of hard brakings is representative for the nr of accidents



Traffic efficiency impacts assessment (modeling route)

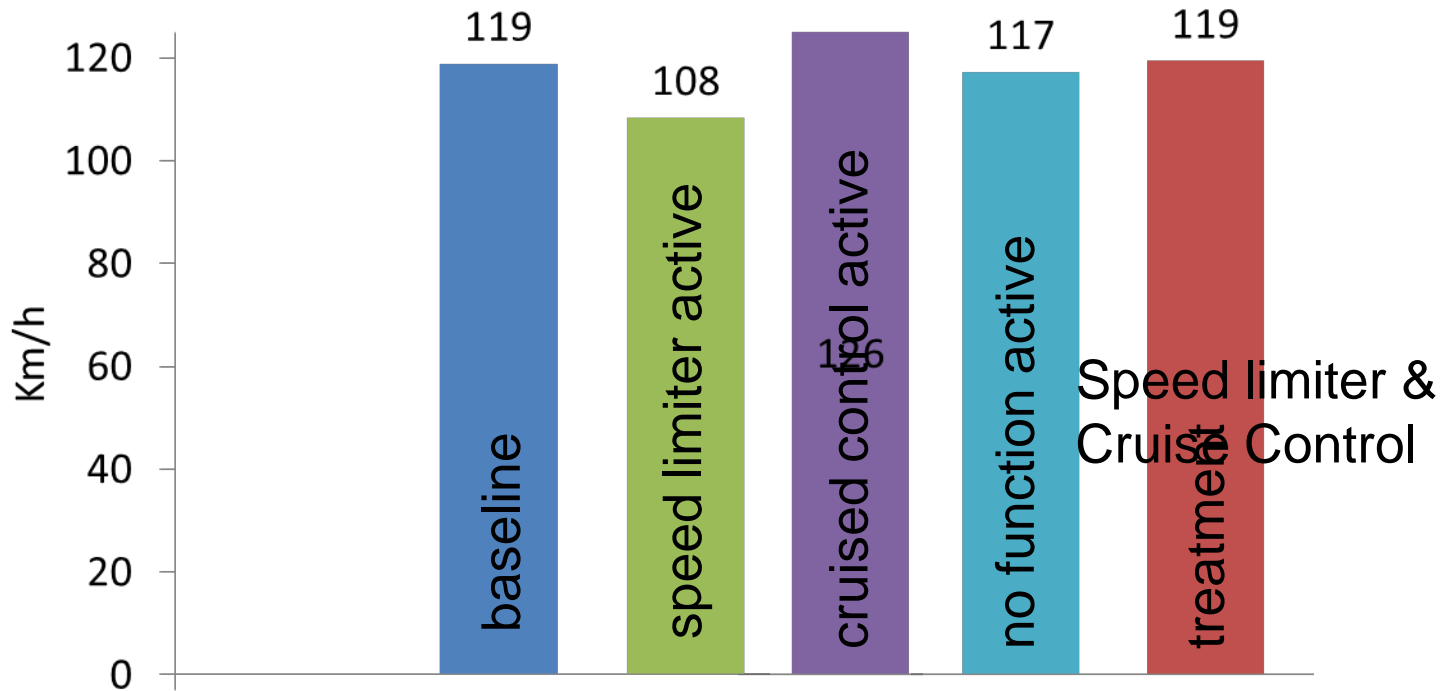


Challenges that 'require' interpretation

- Indirect impact assessment
- Upscaling
- Debundling
- Integration

Speed Regulation System

Average speed on 130km/hr motorway

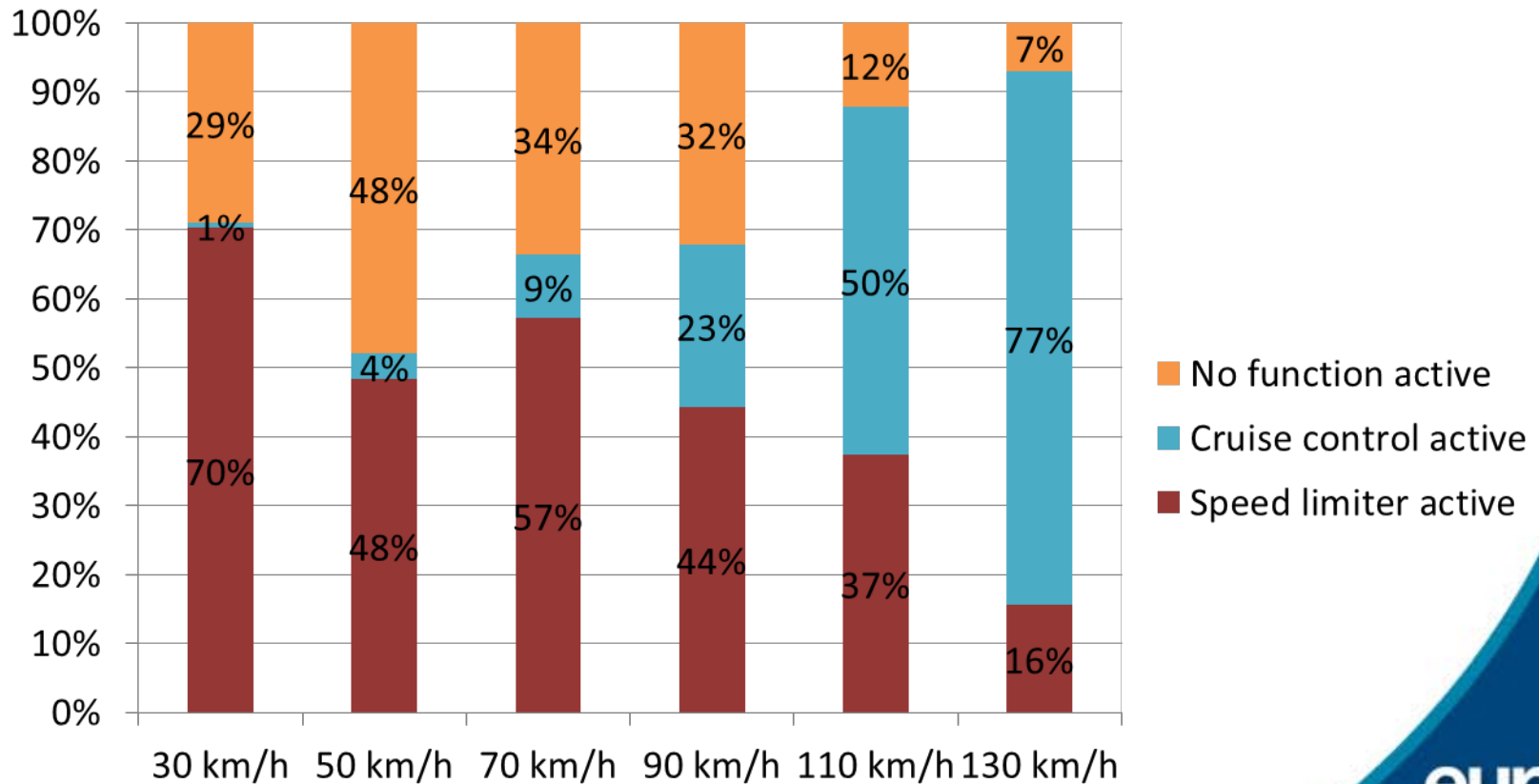


Interpretation:

Speed limiter reduces average speed

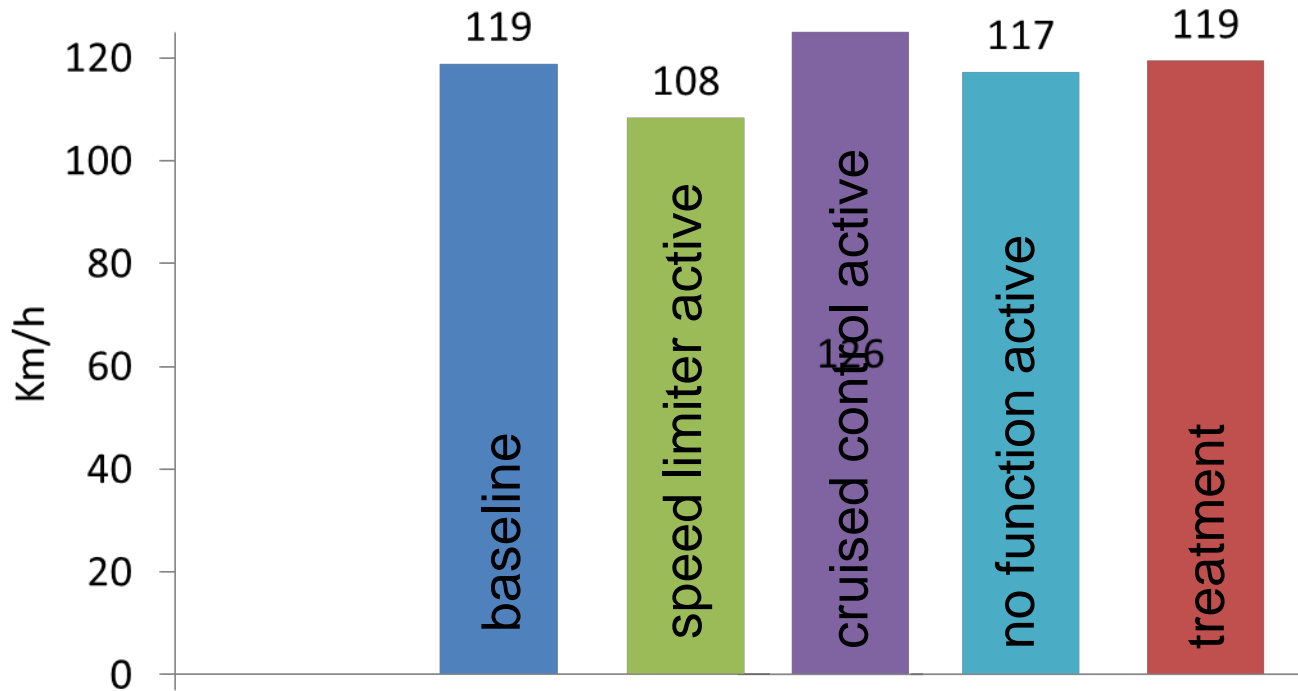
Cruise control increases average speed

Use of SL/CC (in km driven) per road type (speed limit)



Speed Regulation System

Average speed on 130km/hr motorway



Interpretation:

Speed limiter reduces average speed

Cruise control increases average speed

Speed limiter is used in crowded traffic

Example debundling

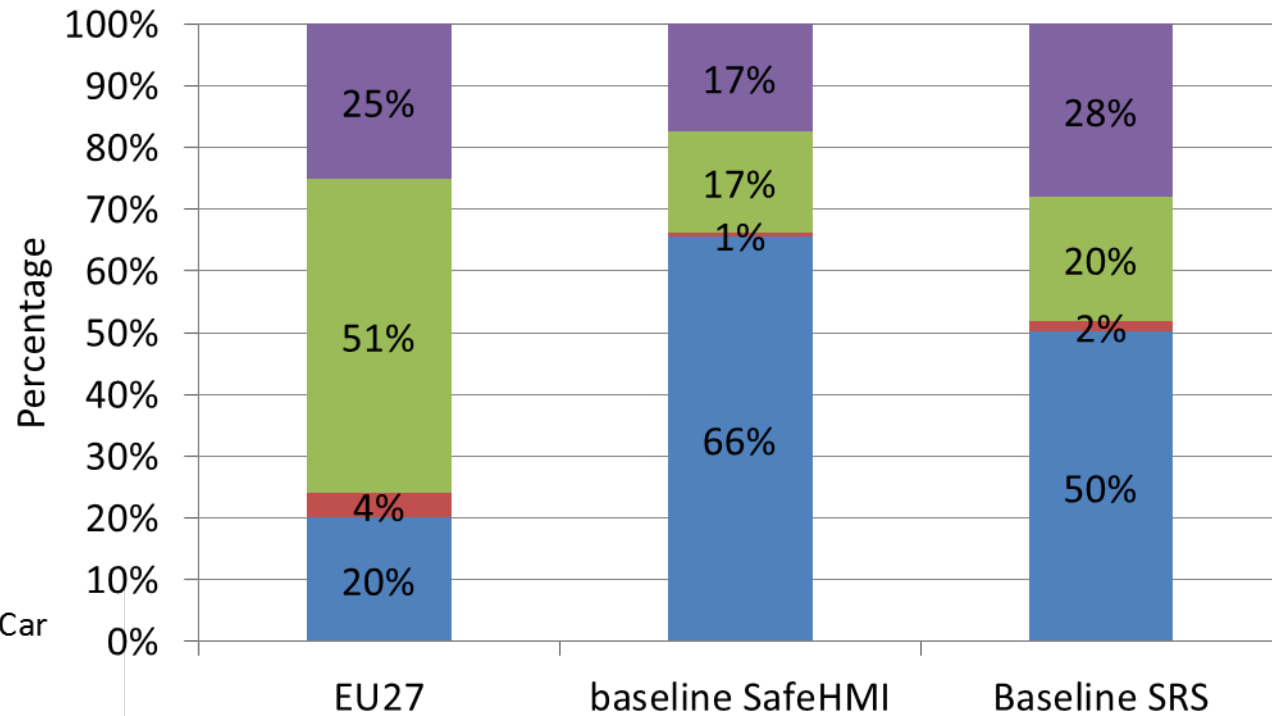
Effect of a bundle of systems can not be separated from effect of individual functions

euroFOT solution: debundle if possible, present effect for a bundle if not possible.

Generally, longitudinal effects and lateral effects can be separated. => Lateral bundle and longitudinal bundle.

Upscaling

Kilometres driven per road type



- Urban, (Free flow), Car
- Rural, (Free flow), Car
- Motorway, Congestion, Car
- Motorway, Free flow, Car

KM per road type and trip length
SafeHMI results are not
representative for EU.

Summary

Data interpretation is necessary due to the euroFOT design

- Indirect impact assessment
- Upscaling
- Debundling
- Integration

With smart and well tested assumptions, results can be provided, most of the time.....