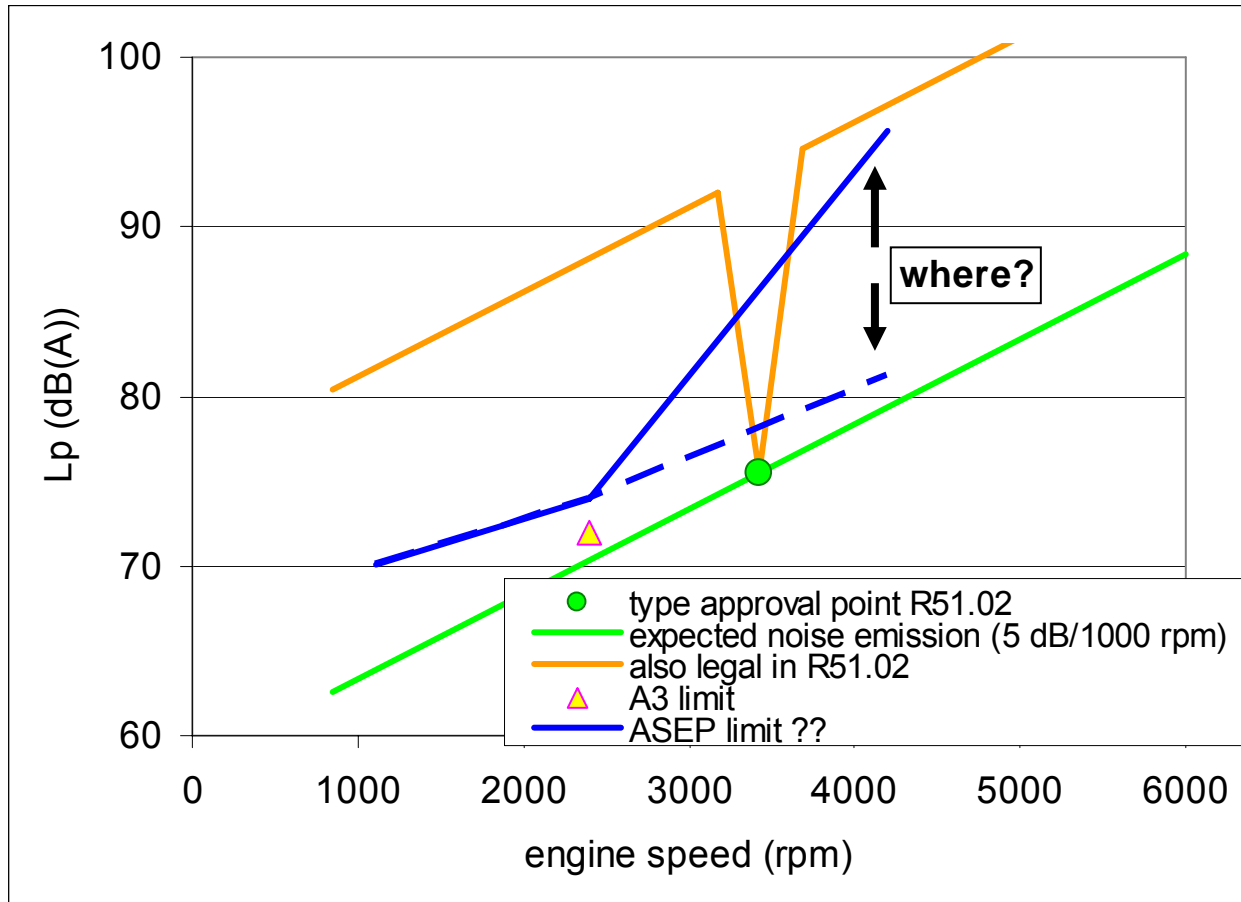


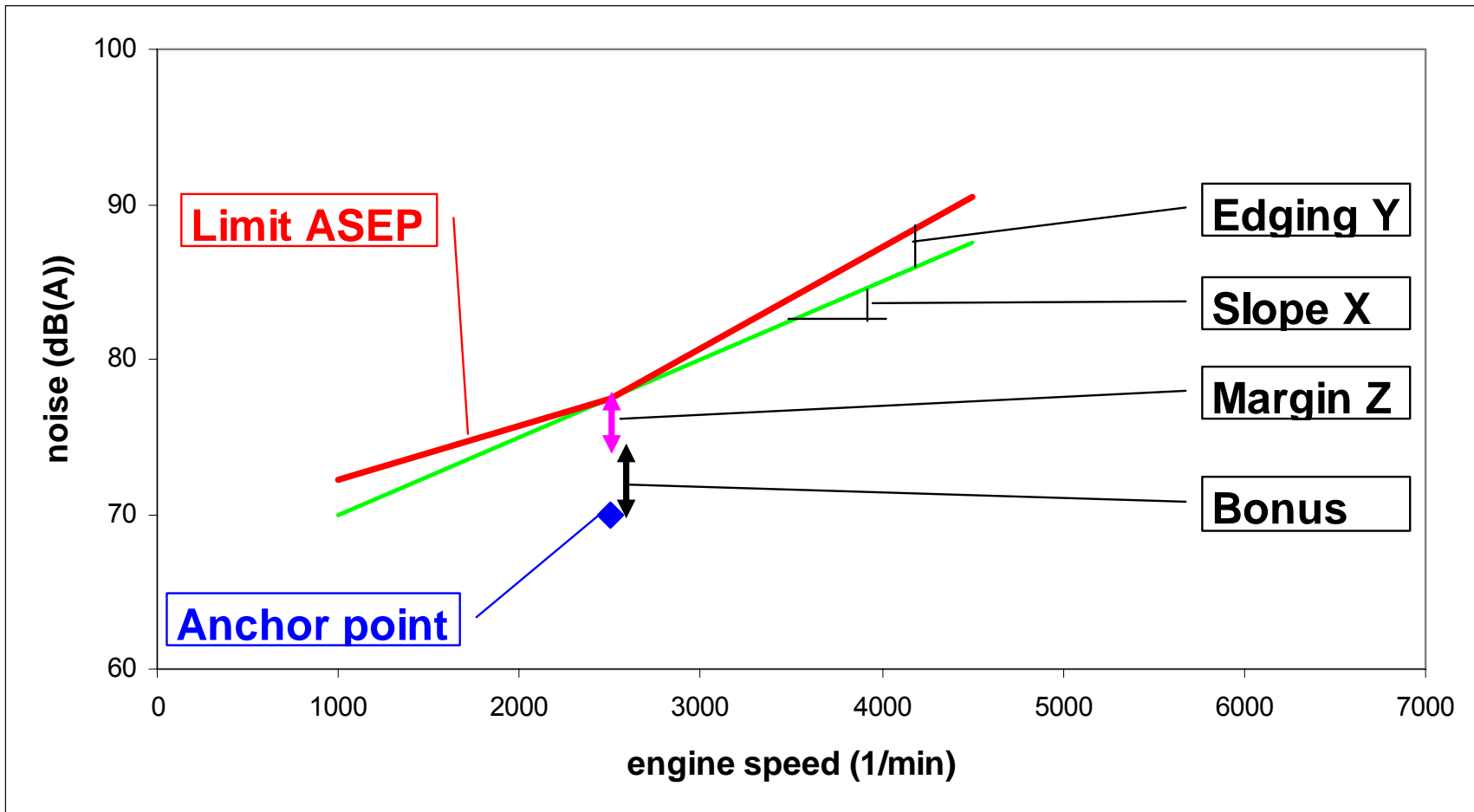
ASEP stringency analysis

issued by the Netherlands
GRB 51; February 2010

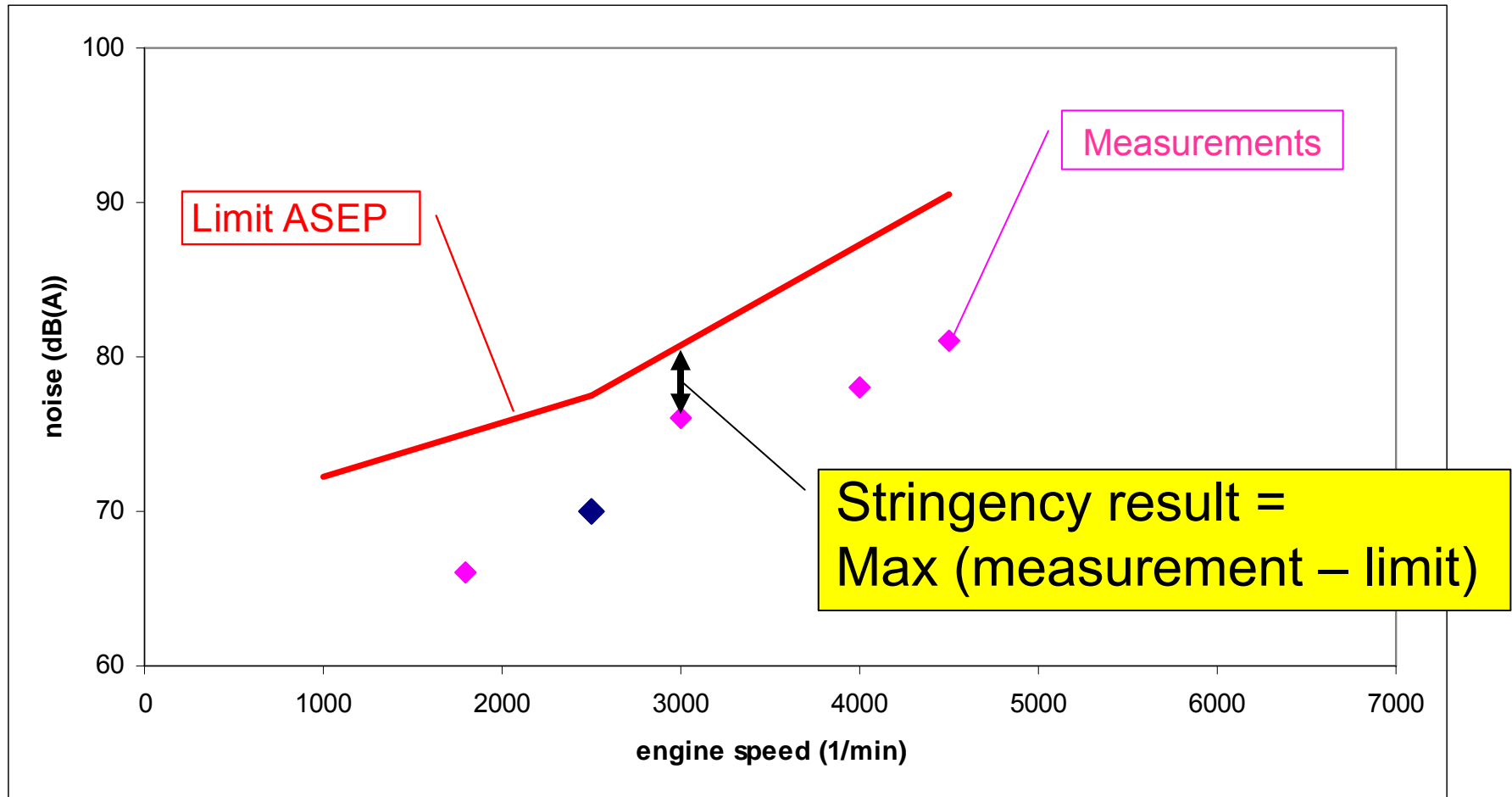
Where to draw the limit line: that's the question



ASEP limit depends on X, Y, Z and Bonus



Stringency of ASEP depends on distance from measurements to limit



Explanation of results

Vehicle data

Expert judgement

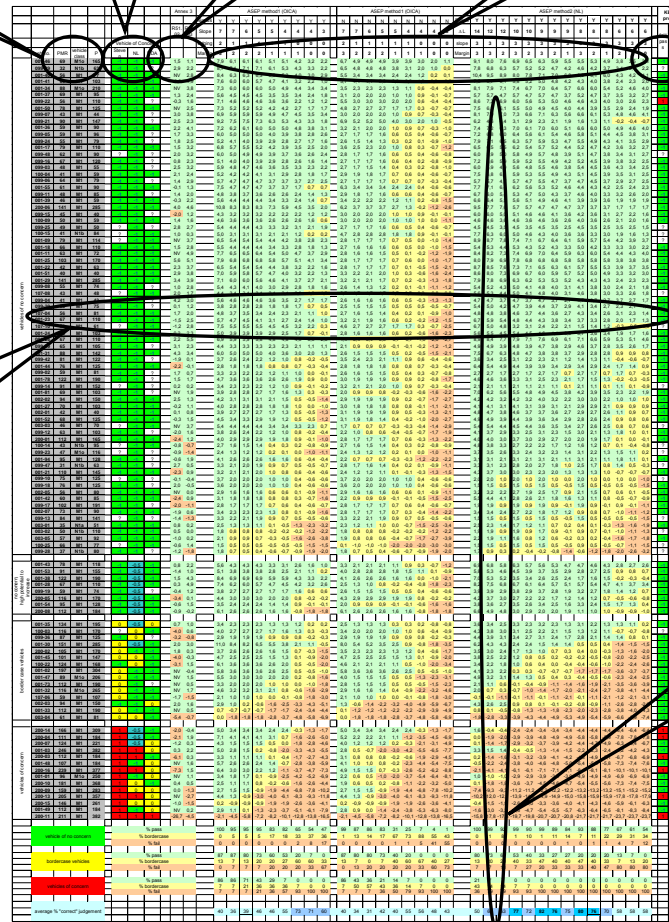
Annex 3 results

ASEP results

KBA results

Every row = 1 vehicle

Every column = 1 ASEP variant



Explanation of results

ASEP method 1
bonus: yes

ASEP method 1
bonus: no

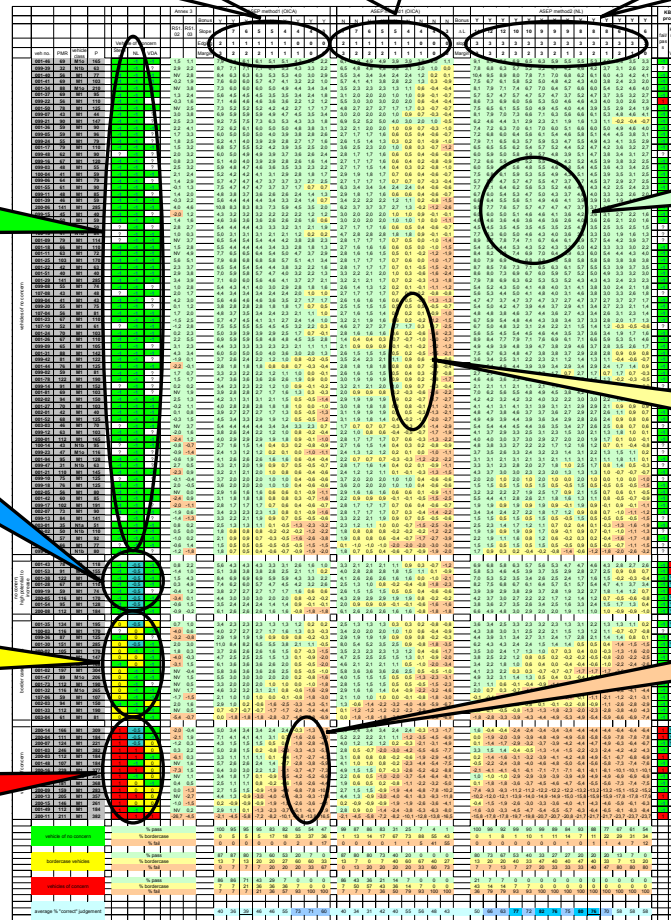
ASEP method 2

Uncritical vehicles

High potential to increase

Border case vehicles

Vehicles of concern

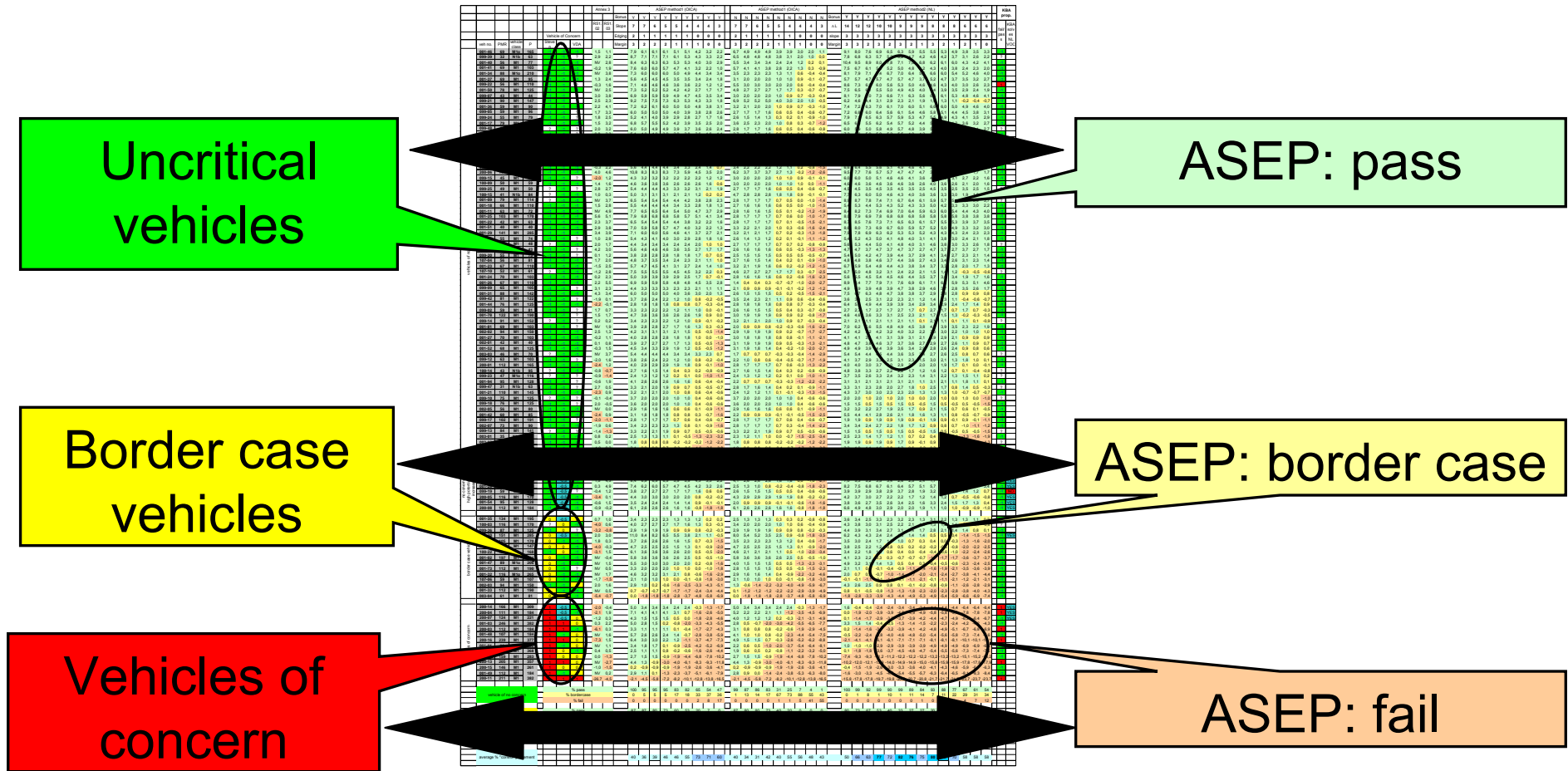


ASEP: pass

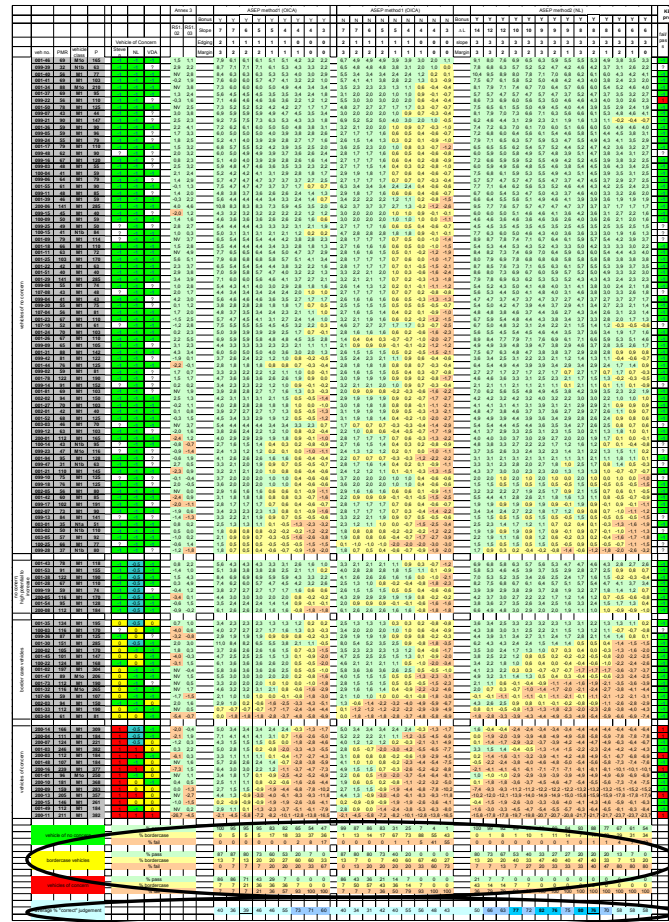
ASEP: border case

ASEP: fail

Target: colour matching



Explanation of results



Statistics of ASEP variants

Average % correct

Analysis / conclusions

- Method 1:
 - KBA proposal solves 10 out of 13 vehicles
“with high potential to increase”
 - unsolved vehicles are tested in R51.02 in 2nd and 3rd gear
 - “bonus=yes” always higher score than
“bonus=no”

Analysis / conclusions

judgement by experts	judgement by ASEP proposal	ASEP method 1 + limit proposal J/F		ASEP method 2 + limit proposal NL	
		Bonus	Y	Bonus	Y
		Slope	6	Δ L	8
		Edging	1	Sl. Below A.	3
		Margin	2	Margin	2
uncritical vehicles	% pass	95	88		
	% bordercase	5	11		
	% fail	0	1		
bordercase vehicles	% pass	80	20		
	% bordercase	13	40		
	% fail	7	40		
vehicles of concern	% pass	71	0		
	% bordercase	21	0		
	% fail	7	100		
average % "correct" judgement		39	76		

Proposal 2 is more stringent than proposal 1

- Proposal 2 has more “hits” (VOC = fail): 100% vs 7%
- Proposal 2 has more “collateral damage” (uncritical \neq pass): 12% vs 5%

Analysis / conclusions

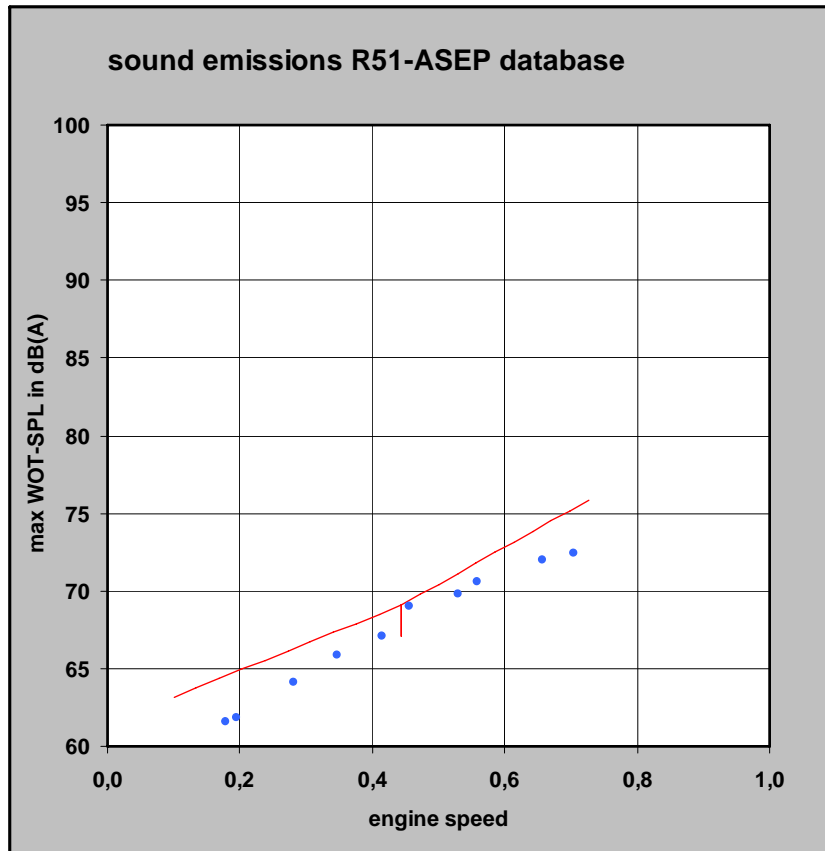
- Method 2: % collateral damage can be reduced with more lenient variants
- Method 1: % hits can be increased with more stringent variants
 - Soon collateral damage is bigger than in method 2
- Highest score: method 2 (9,3,3)
 - % correct = 82%
 - % hits = 100%
 - % collateral damage = 1%

Follow up

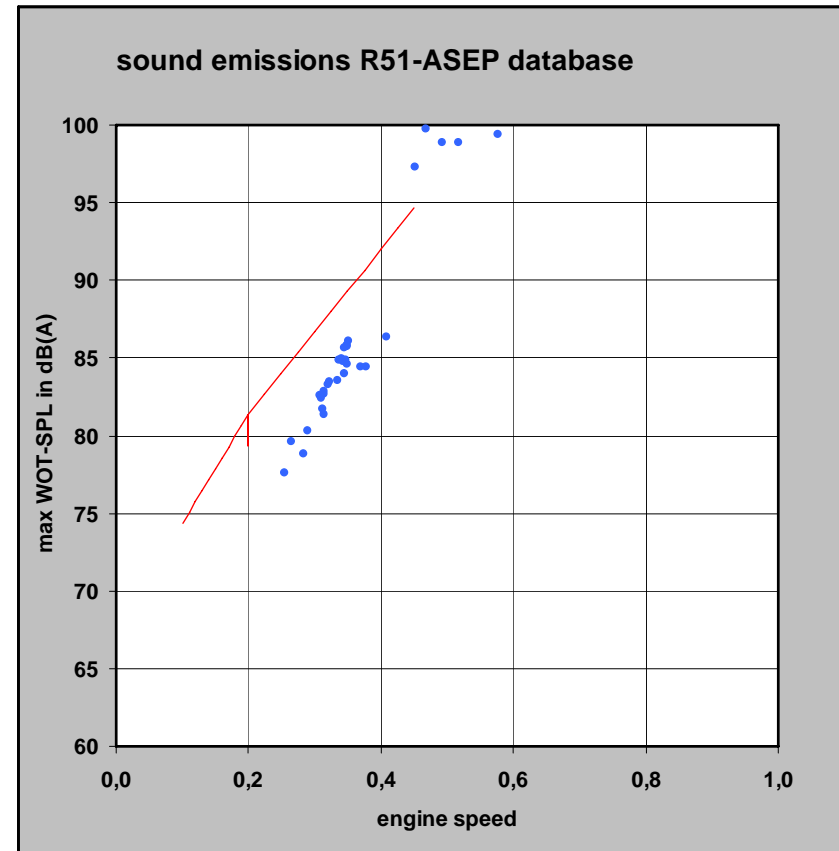
- Effect of other Annex 3 limits
- Other method 1 variants ?
- Compromises as mentioned by chairman

Thank you

Method 1 investigates relative, not absolute noise emission



Vehicle 1-26
L_{max} in control range = 76 dB(A)
OICA proposal becomes critical
 $\Delta = 0,4 \text{ dB(A)}$



Vehicle 200-13
L_{max} in control range = 95 dB(A)
OICA proposal is uncritical
 $\Delta = 3,4 \text{ dB(A)}$

What is 100 dB(A)?

100 dB(A) =
100 * 80 dB(A)
→
1 supersportcar =
100 heavy trucks
→
Need for
Not to exceed level

