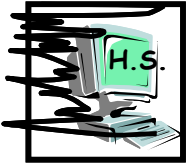


Informal R51 ASEP Group

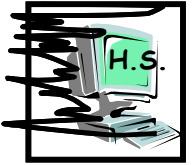


Assessment of ASEP Scenarios

By Heinz Steven

07.12.2009

Scenarios



- **Informal GRB ASEP proposal with the following parameter variations:**

➤ Slope	edge	margin
➤ 7	1	2
➤ 7	2	3
➤ 6	1	2
➤ 5	1	2
➤ 5	1	1

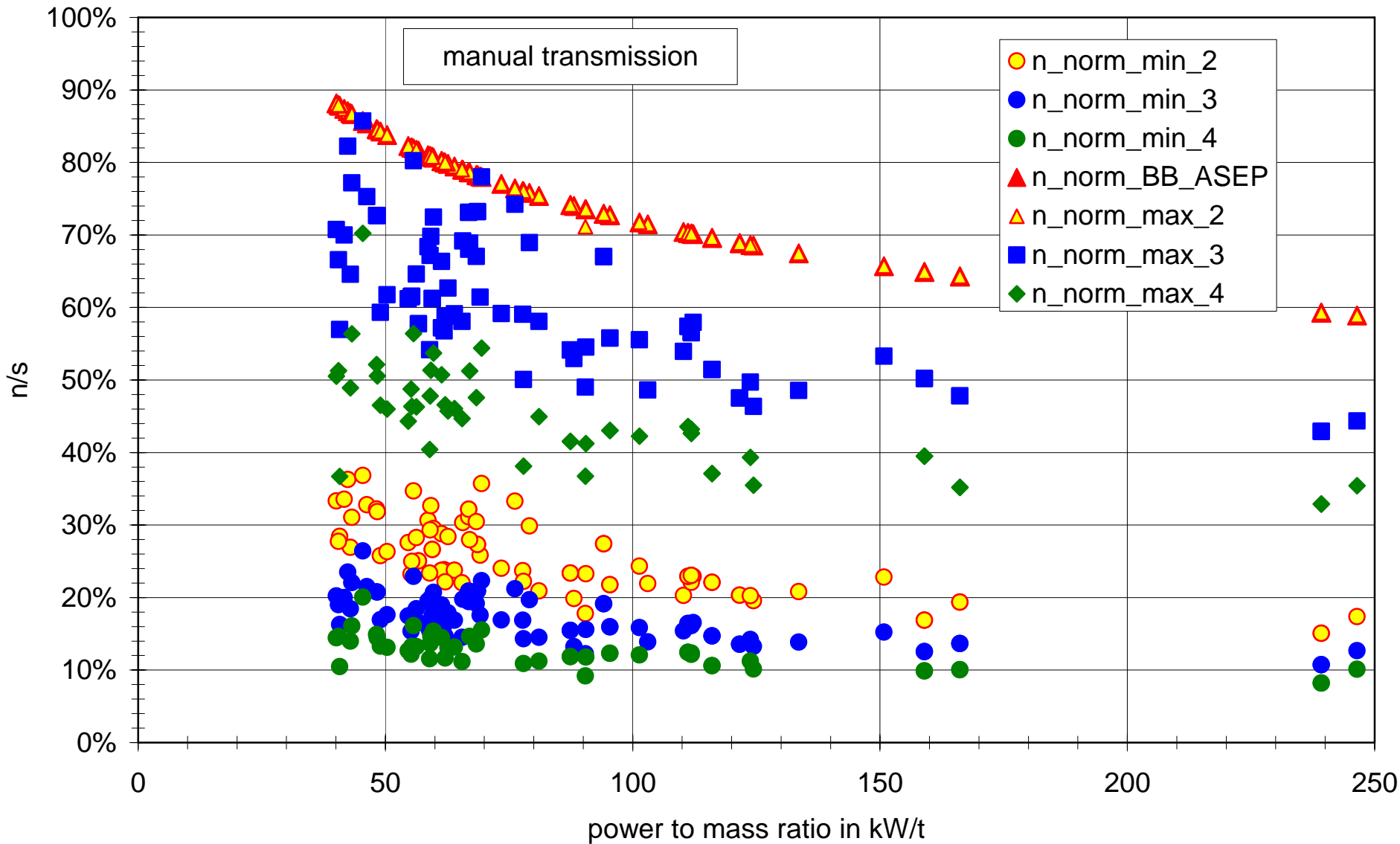
- **NL proposal with slope = 3, Lmax = 80 and max Delta-L = 8.**
- **KBA_proposal**

Side conditions

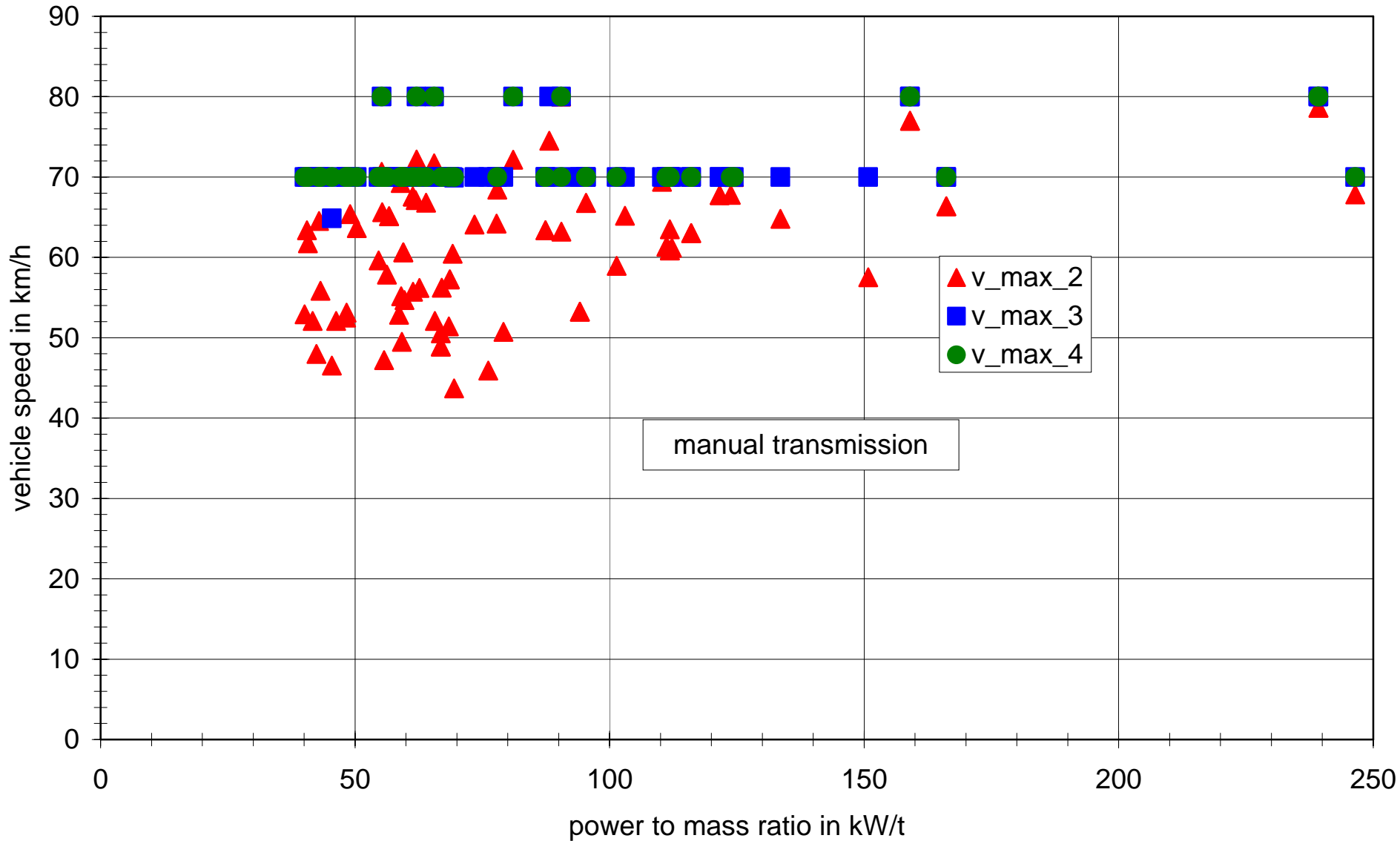


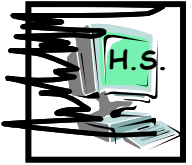
- **Only M1 vehicles,**
- **Bonus option was considered,**
- **Vehicles with too few measurement results were disregarded (94 vehicles remained in database),**
- **Only gears 2 and 3 for manual transmissions were considered (see following figures),**
- **R 51-02 results were checked for compliance with limit values,**
- **R 51-03 results were checked for compliance with DE limit value proposal,**
- **Lmax in control area was reported,**
- **Vehicles of concern: Lmax in control area \geq 85 dB.**

Engine speeds in control area

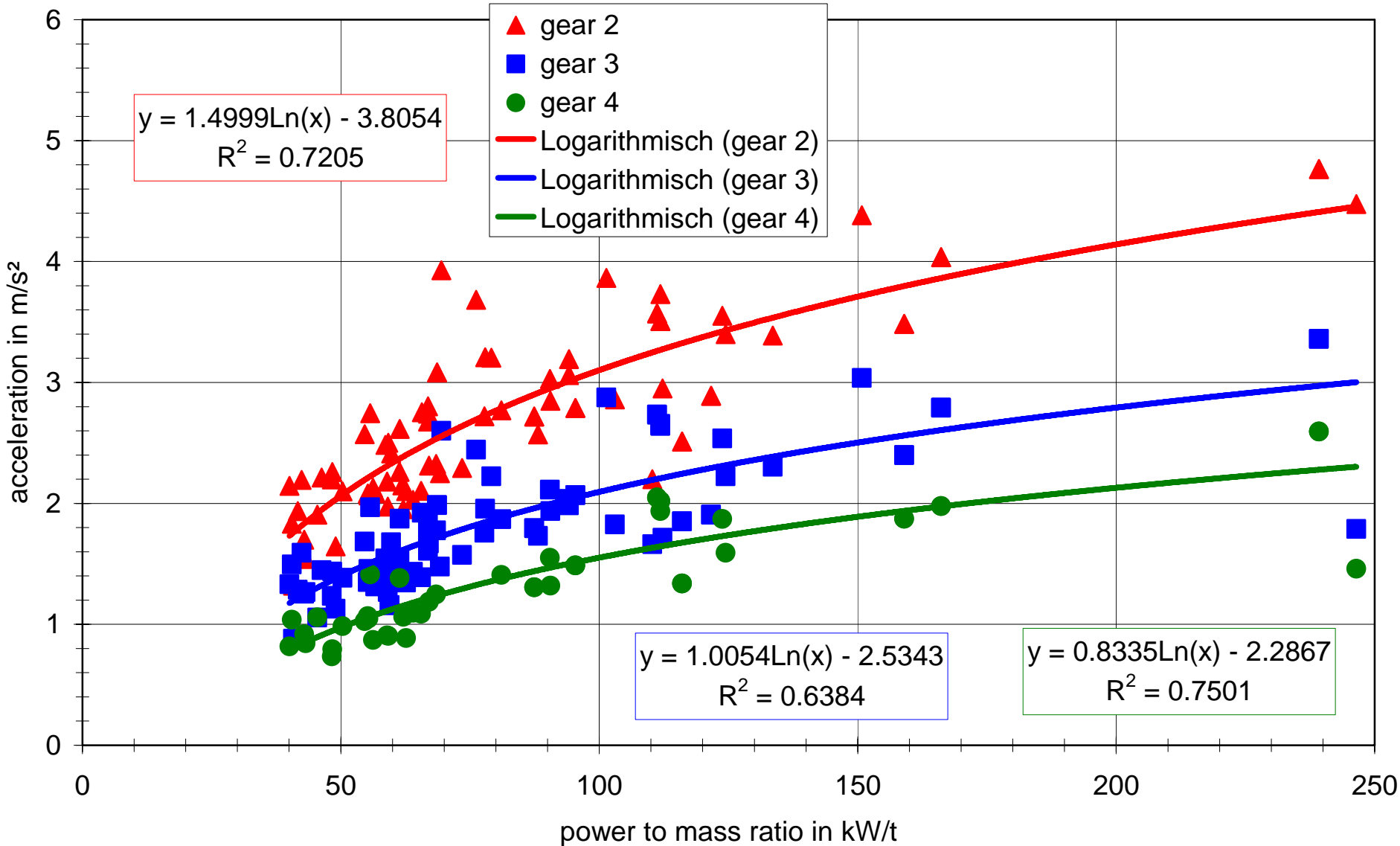


v_max_BB vs pmr

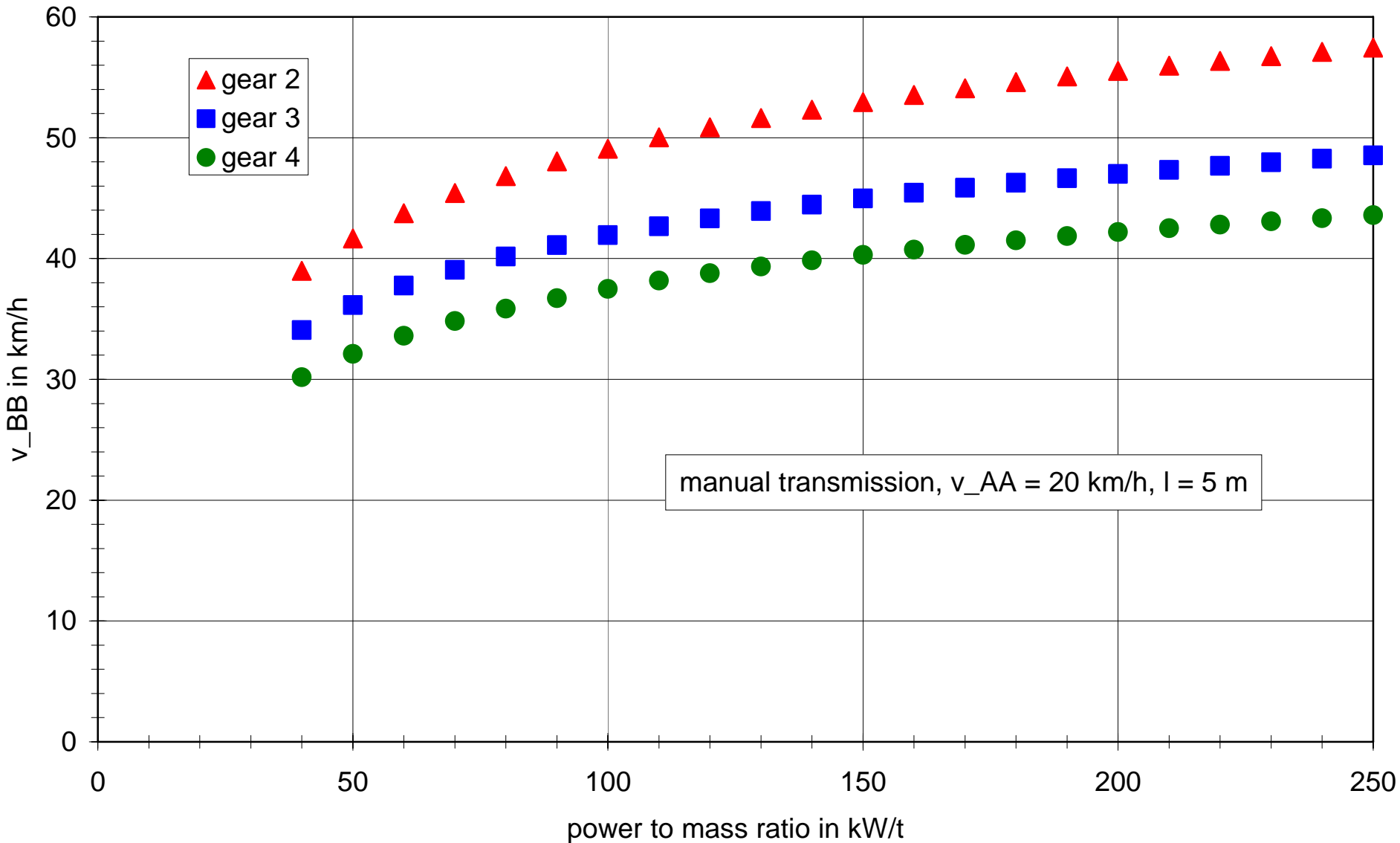


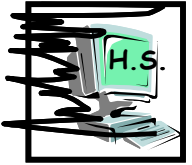


Acceleration vs pmr



v_BB vs pmr





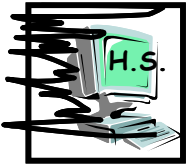
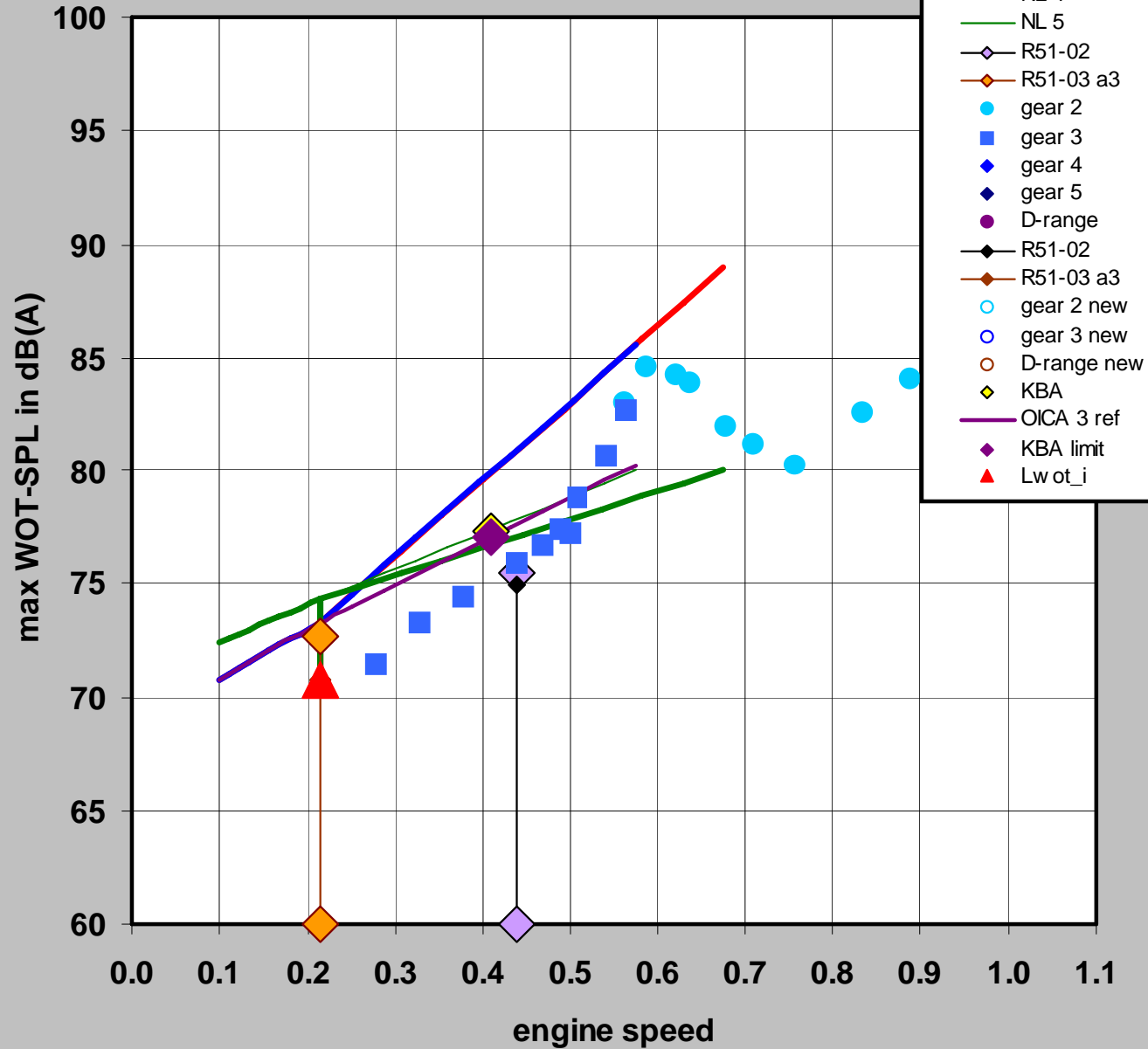
Overview of results

- **9 vehicles fail R51-02 limit values,**
- **8 vehicles fail R51-03 DE limit proposal,**
- **14 vehicles reach 85 dB or more in the control area, 3 of them fail R51-02 limits, 4 fail R51-03 limits.**

	Informal GRB ASEP Proposal					NL	KBA prop.
slope	7	7	6	5	5	Lmax = 80	
edge	1	2	1	1	1	slope = 3	
margin	2	3	2	2	1	delta-L = 8	
fail	4	1	5	8	13	23	7
concern	2	1	3	5	8	14	6
border case	2		2	2	3	8	
no concern				1	2	1	
uncritical							1
pass	90	93	89	86	81	71	87
classification	uncritical	no concern	border case	concern	sum		
	52	17	11	14	94		
fails R51-02	1	3	1	4	9		
fails R51-03		2	1	5	8		

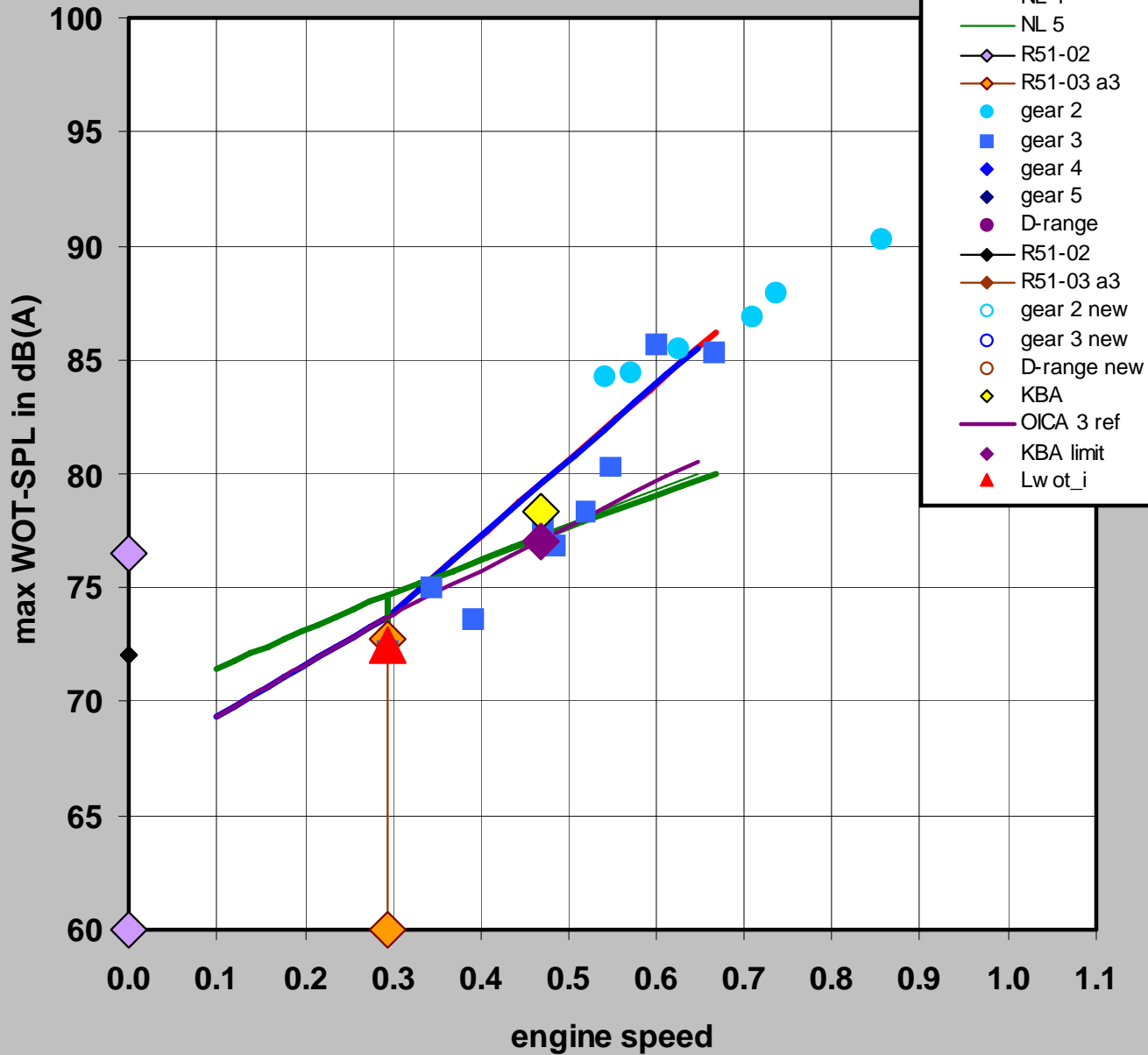
Vehicles of concern 001 - 48

sound emissions R51-ASEP database



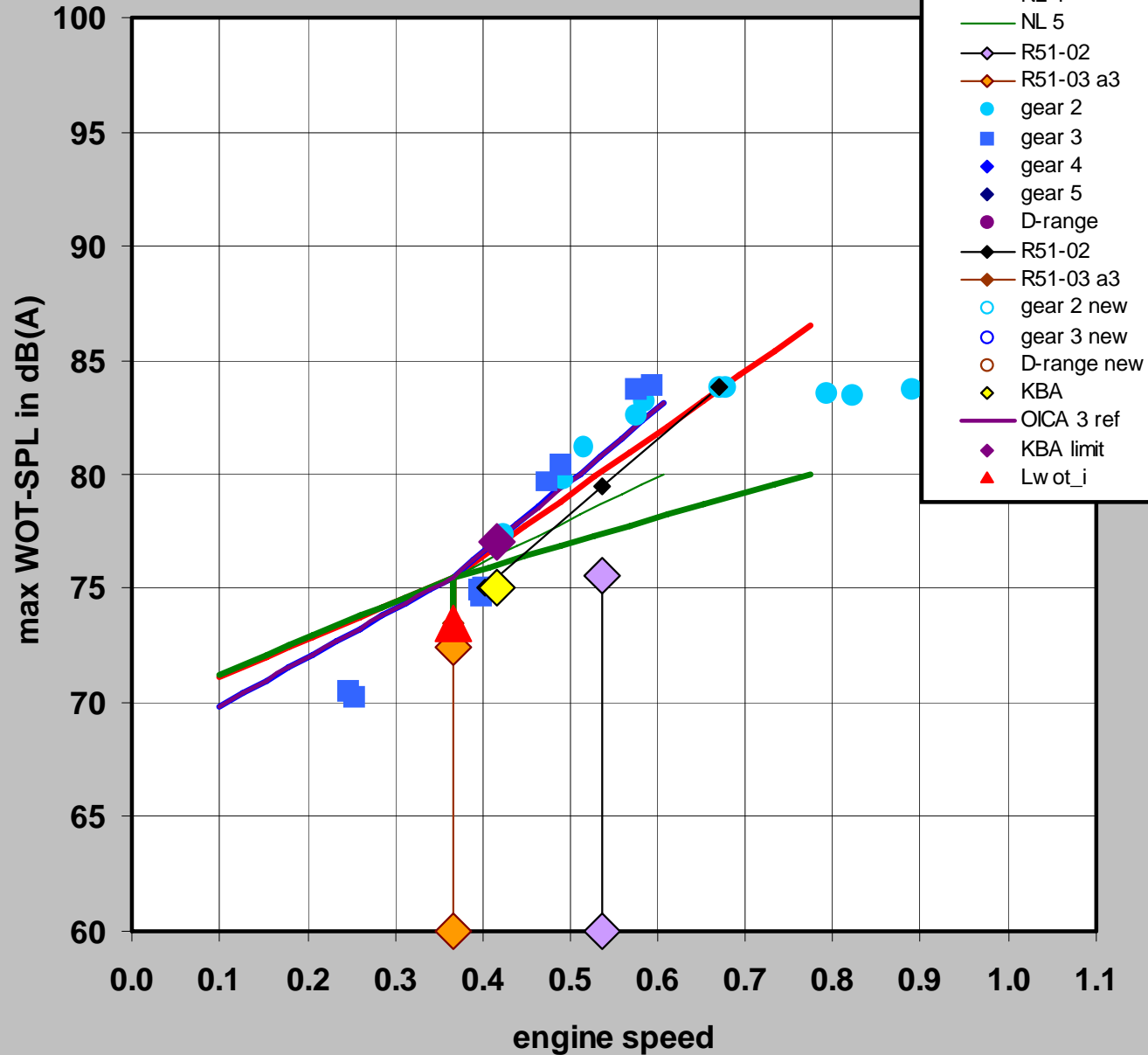
Vehicles of concern 001 - 49

sound emissions R51-ASEP database

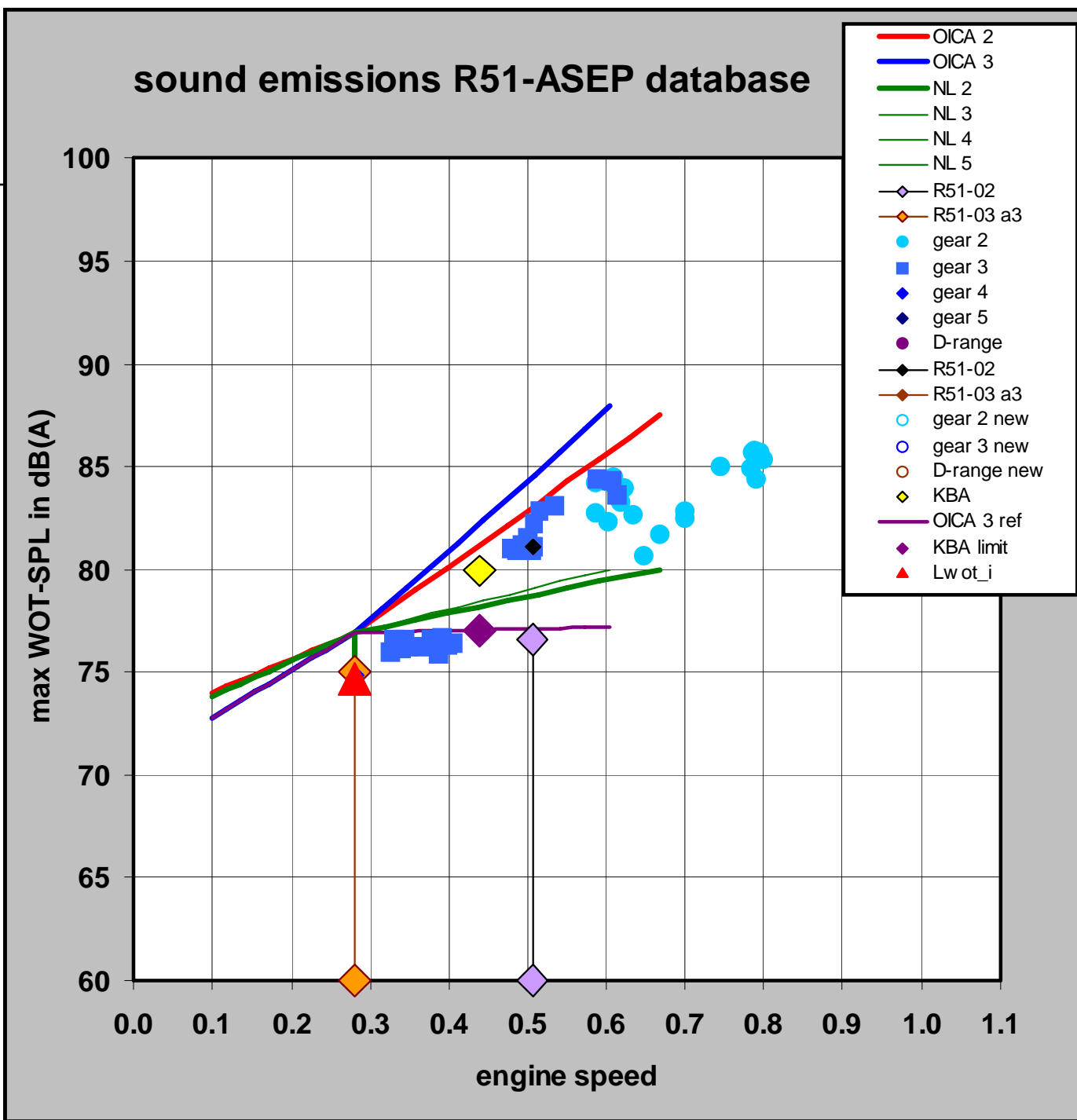


Vehicles of concern 003 - 4

sound emissions R51-ASEP database

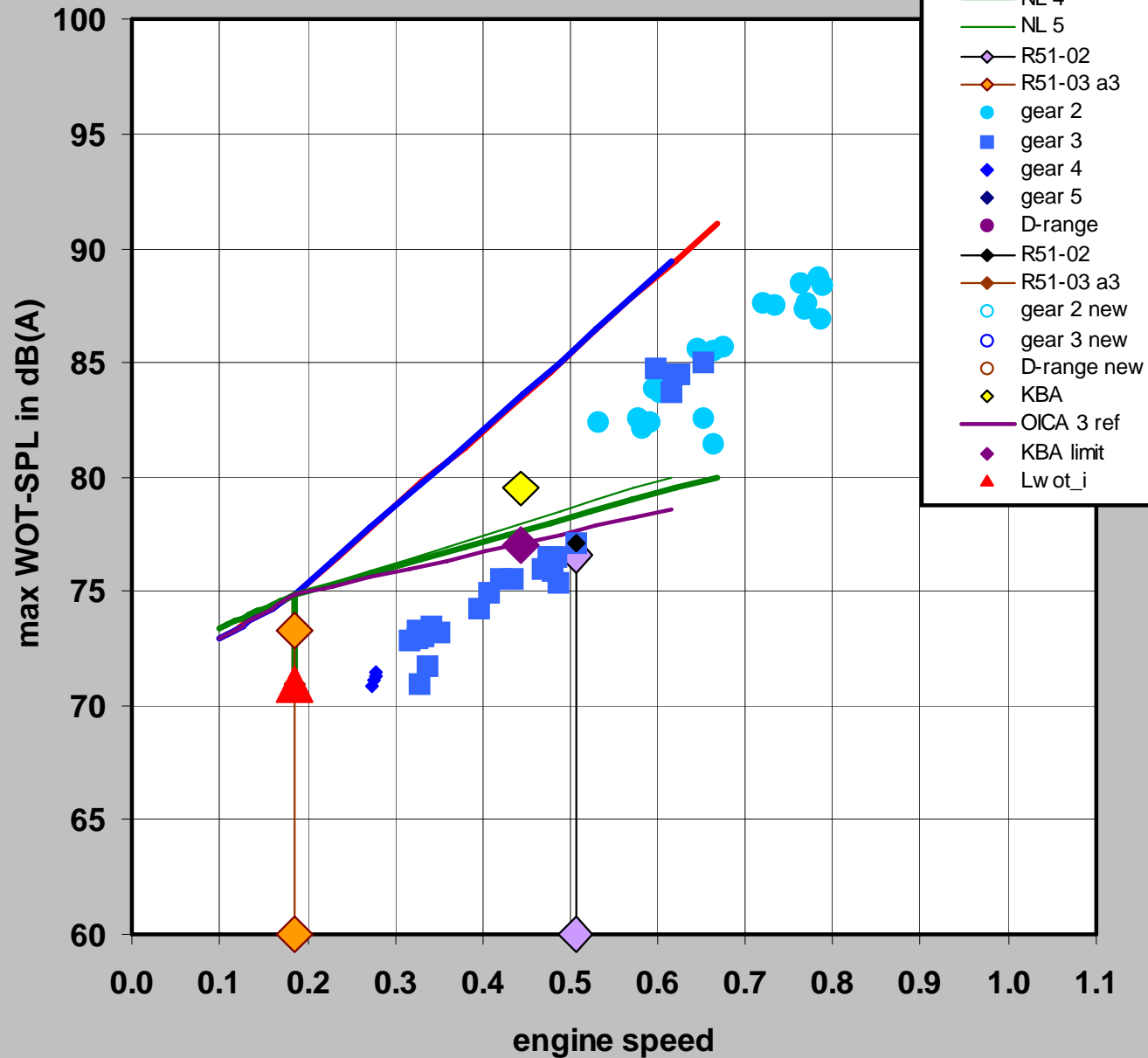


Vehicles of concern 200 - 3

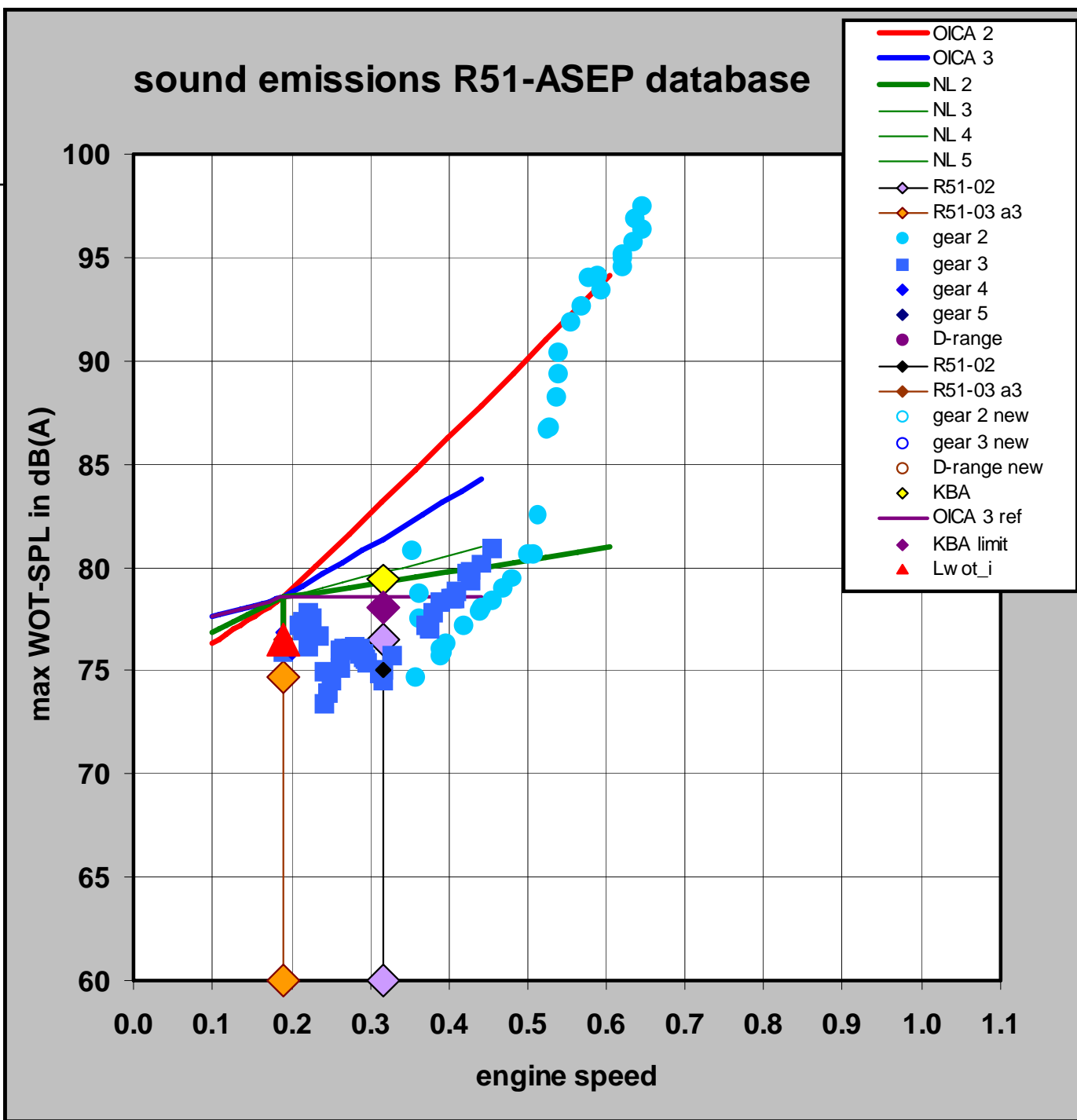


Vehicles of concern 200 - 4

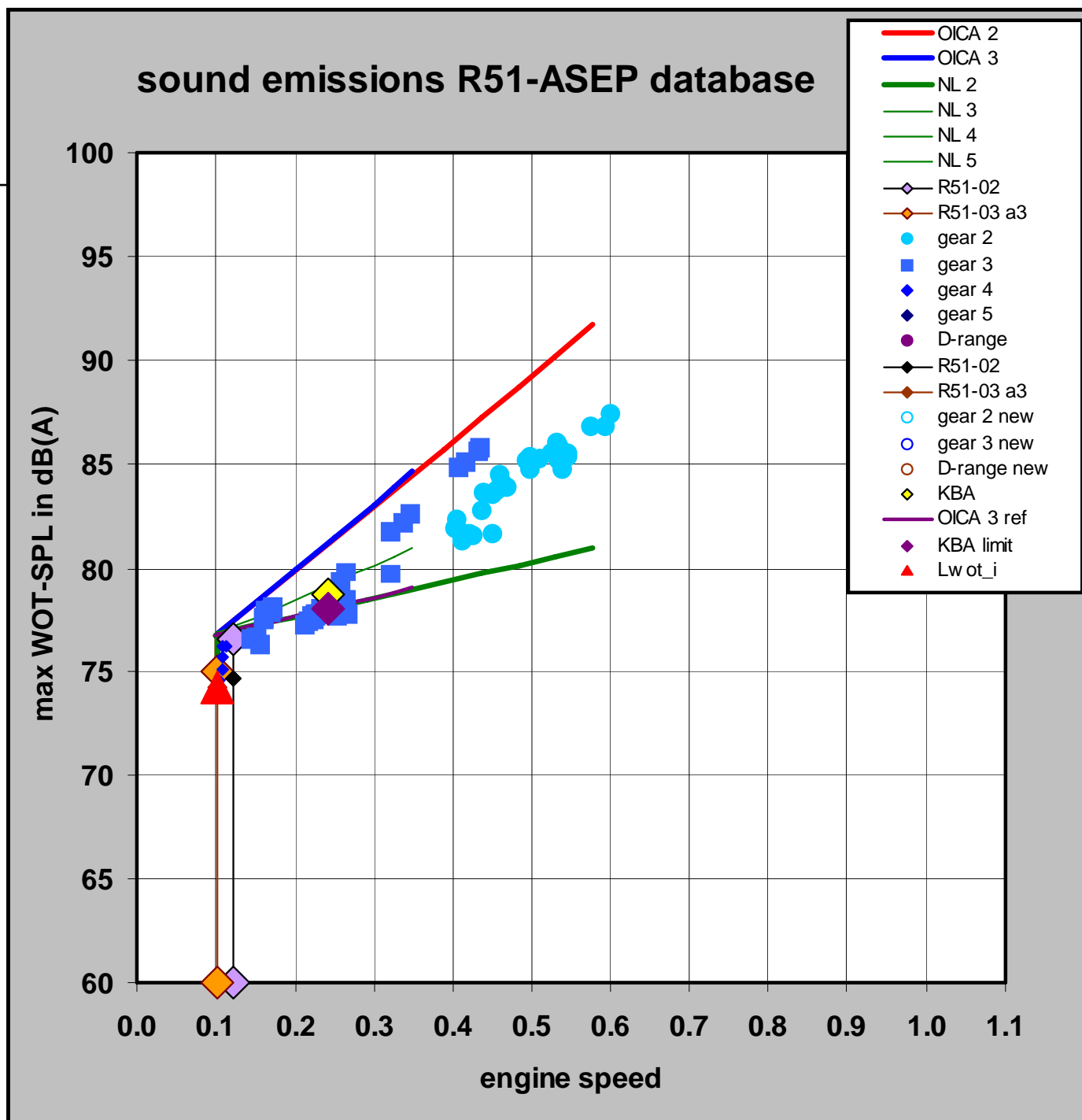
sound emissions R51-ASEP database



Vehicles of concern 200 - 9

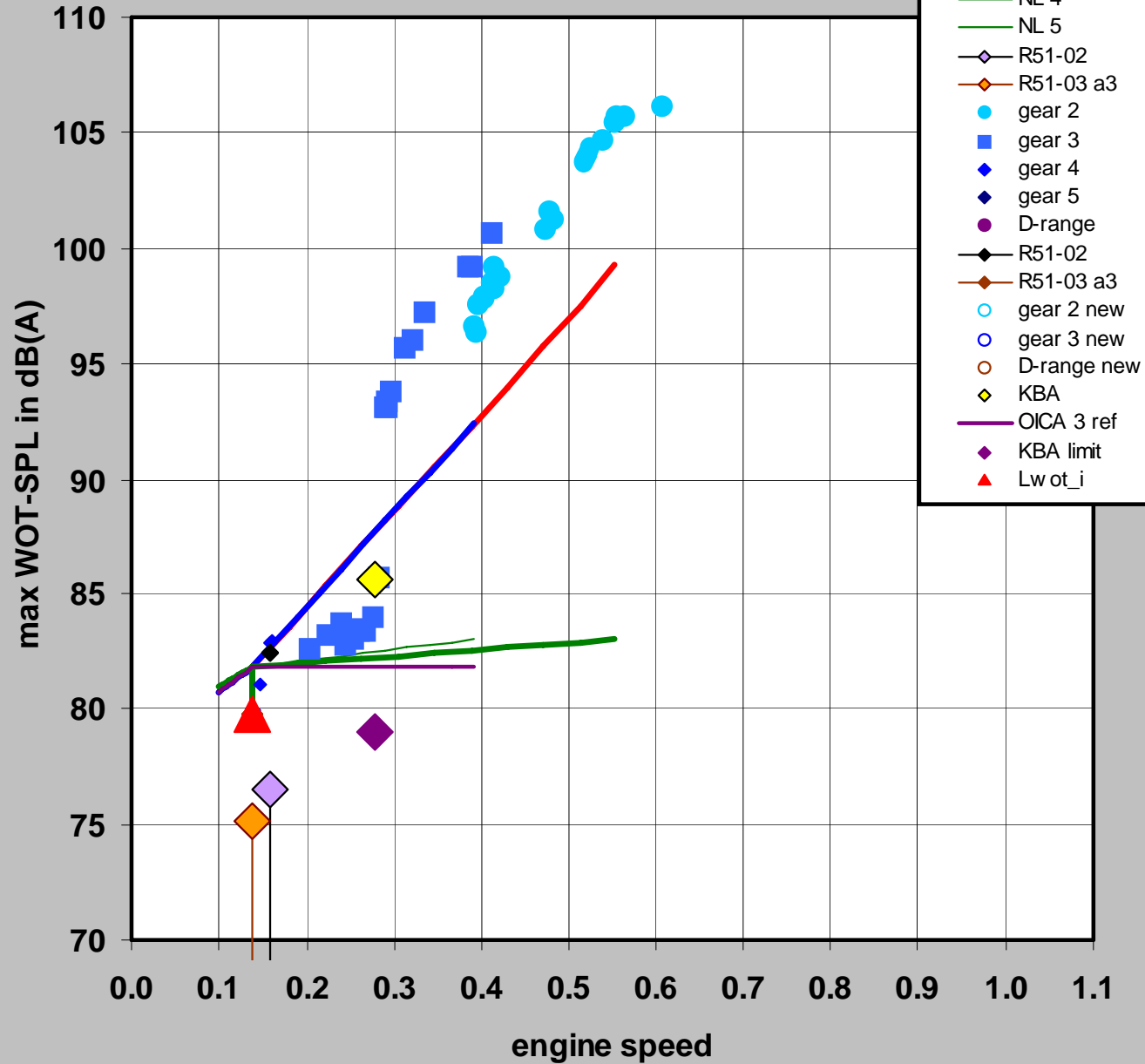


Vehicles of concern 200 - 10



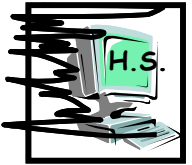
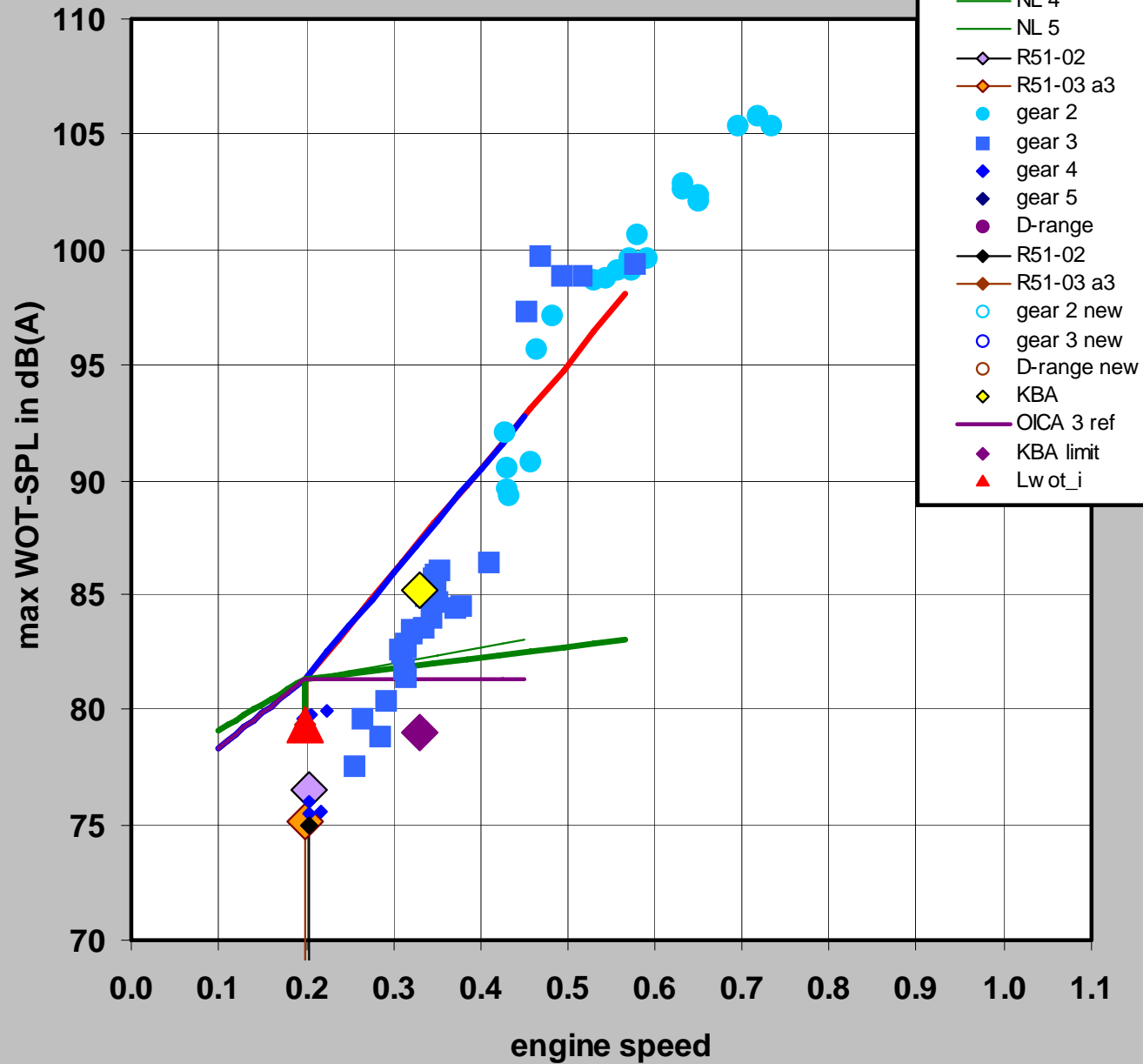
Vehicles of concern 200 - 11

sound emissions R51-ASEP database



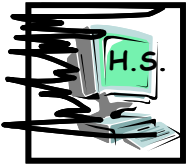
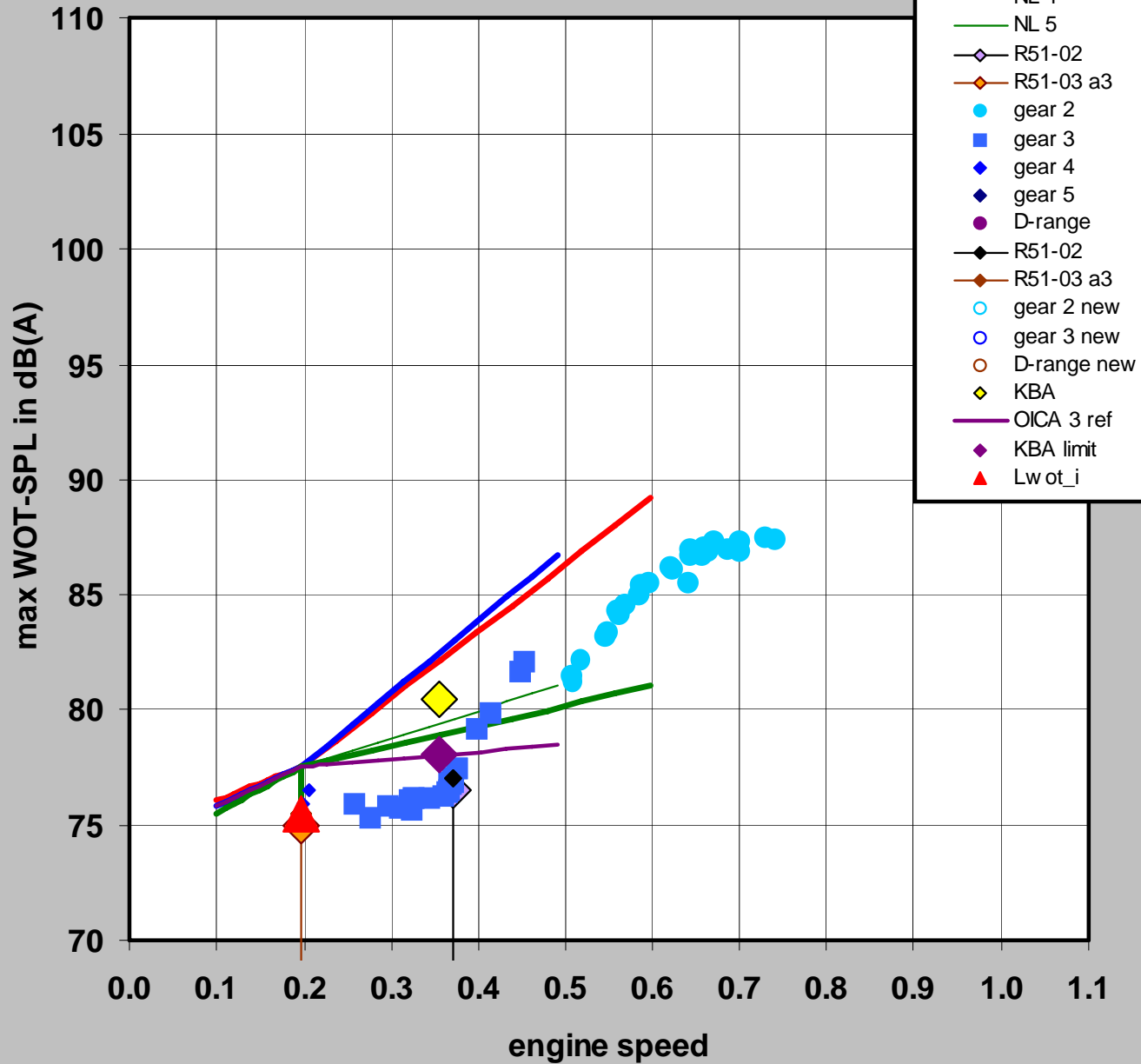
Vehicles of concern 200 - 13

sound emissions R51-ASEP database



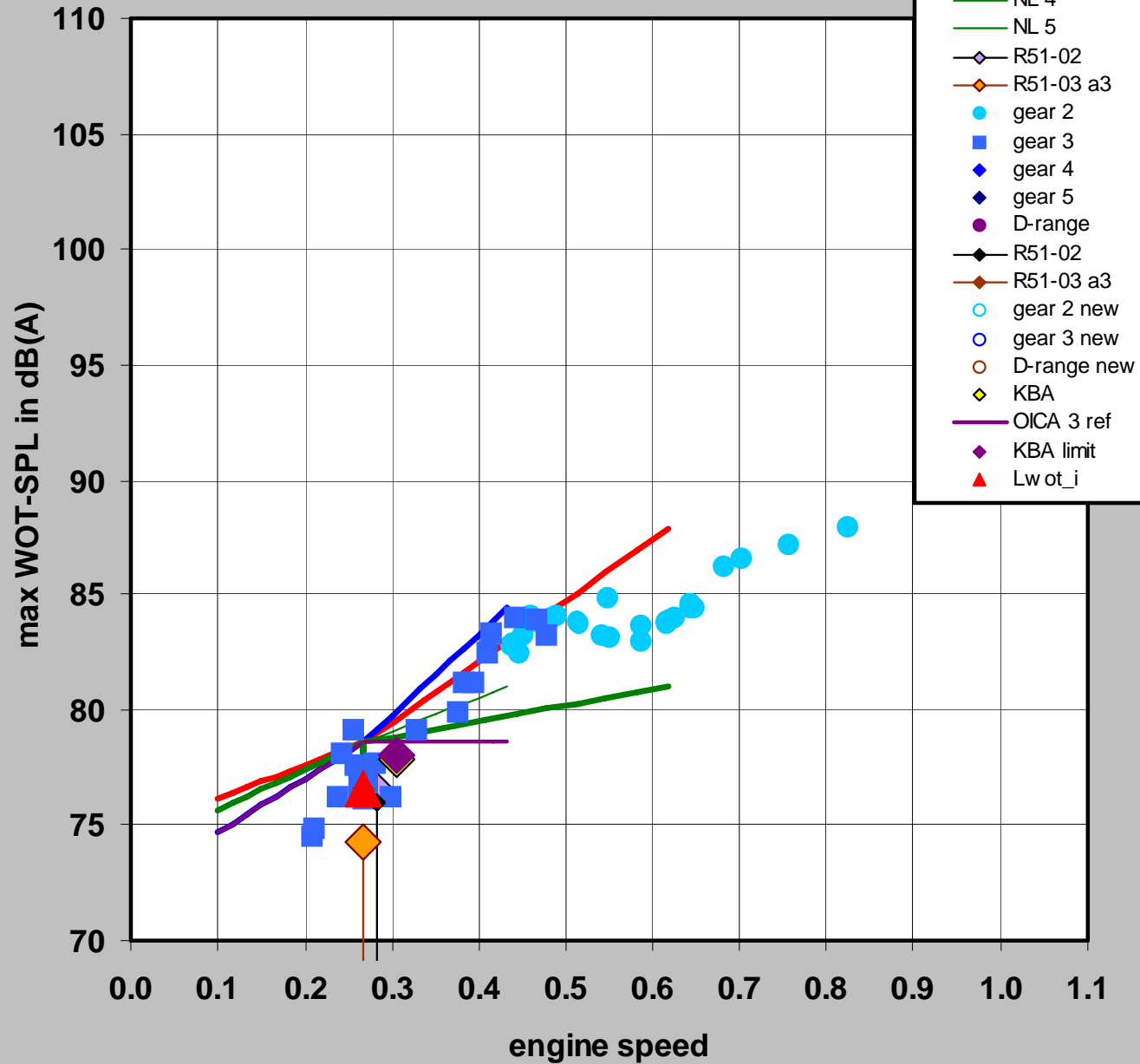
Vehicles of concern 200 - 14

sound emissions R51-ASEP database



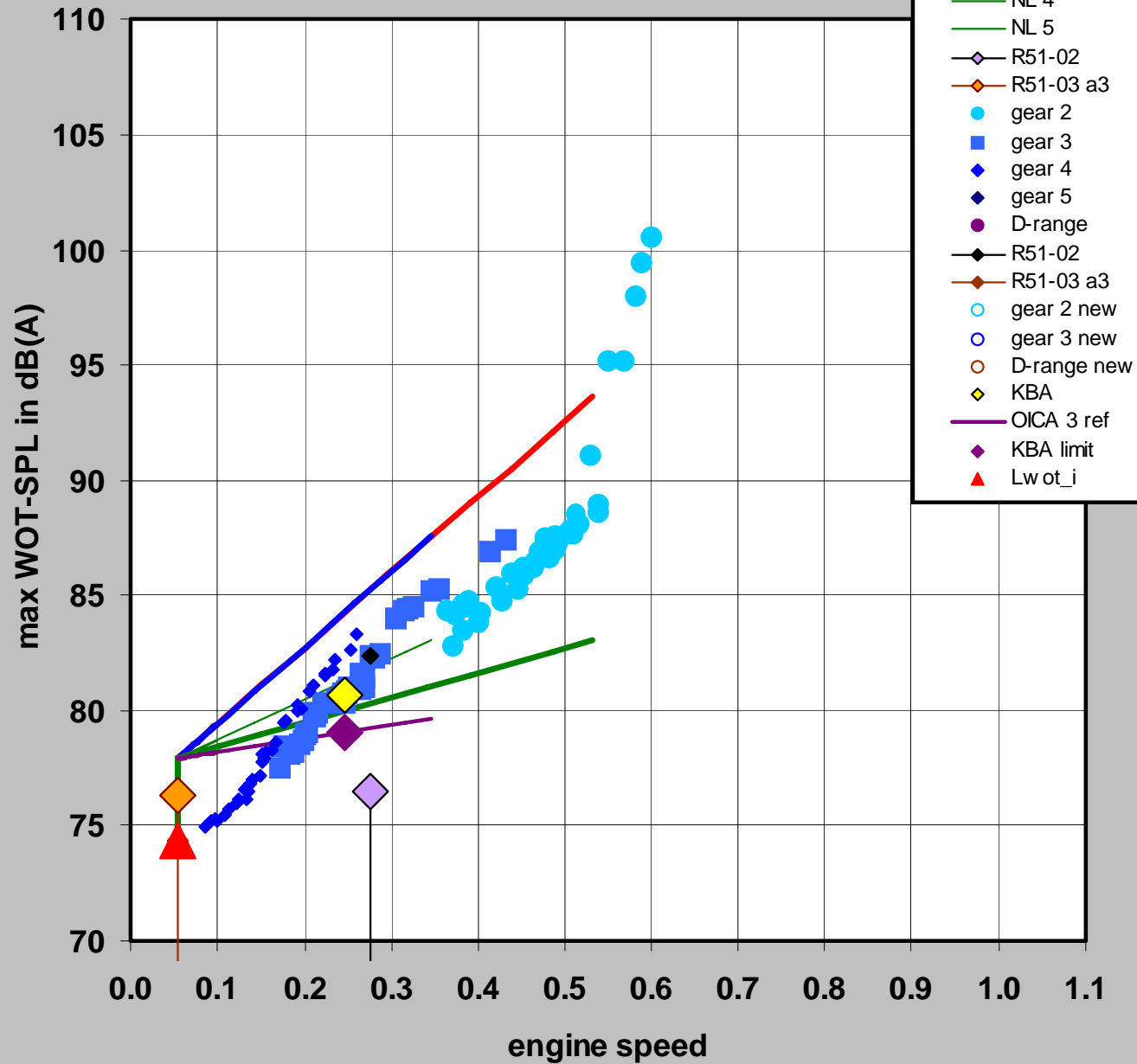
Vehicles of concern 200 - 15

sound emissions R51-ASEP database



Vehicles of concern 200 - 16

sound emissions R51-ASEP database



End



Thank You