

**EURO 7 IMPACT ASSESSMENT:
THE OUTLOOK FOR AIR QUALITY COMPLIANCE IN THE EU
AND THE ROLE OF THE ROAD TRANSPORT SECTOR**

Scrappage schemes: Relative benefits of Emission Factor ratios

ACEA Webinars 24 and 29 March 2021

- Method tests the relative benefits of replacement of older technology vehicles with current Euro 6/VI technology vehicles
- For a damage costs based approach to cost benefit analysis, benefits of avoided costs are proportional to the emissions reductions
- Hence, for a given vehicle activity, comparison of the emissions factor reduction ratio gives a direct view of the relative benefits of different technology replacement strategies
- Assuming “best possible case” of zero tailpipe emissions replacement, the ratio is:
$$\frac{(\text{Emission Factor Replaced} - \text{Emission Factor of Euro 6d/VI})}{(\text{Emission Factor of Euro 6d/VI})}$$
- For the zero emissions tailpipe vehicle the comparison value would be 1

HDV	PM2.5ex	NOx		PCD(M)	PM2.5ex	NOx
Average Euro III	36.0	44.5		Average Euro 3	20.9	8.8
Average Euro IV	7.7	30.5		Average Euro 4	17.1	6.4
Average Euro V	9.2	20.6		Average Euro 5	0.4	6.7