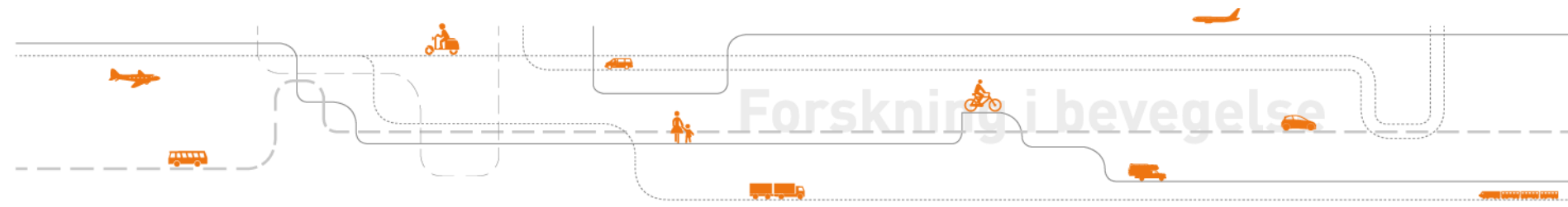


Kollektivtransport og utslipp

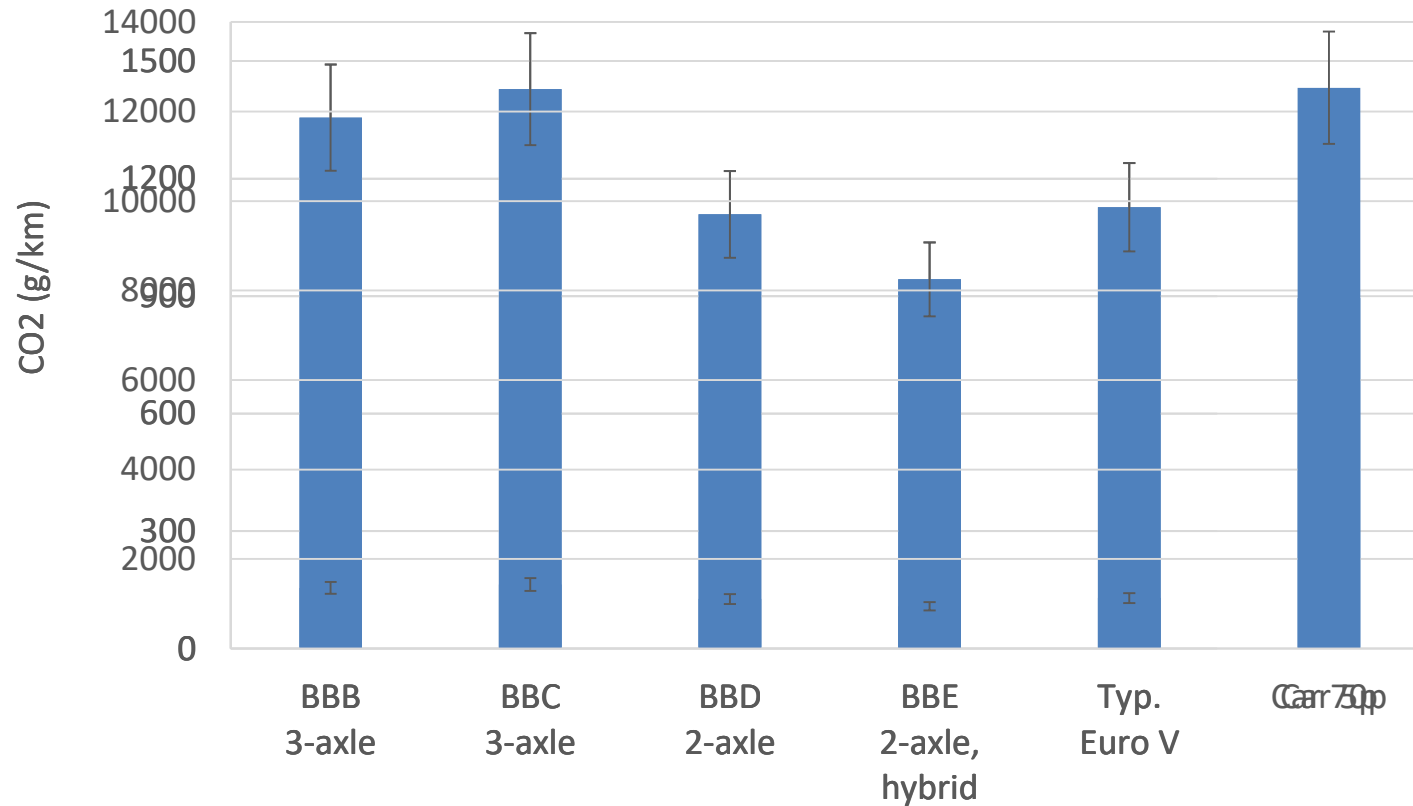
Dieselbussenes rolle

Arbeidsseminar Kollektivforum, 08.06.217

Christian Weber
cwe@toi.no



Klimaperspektiv



Transport og Luftkvalitet



UCLA, 1960

<http://framework.latimes.com>



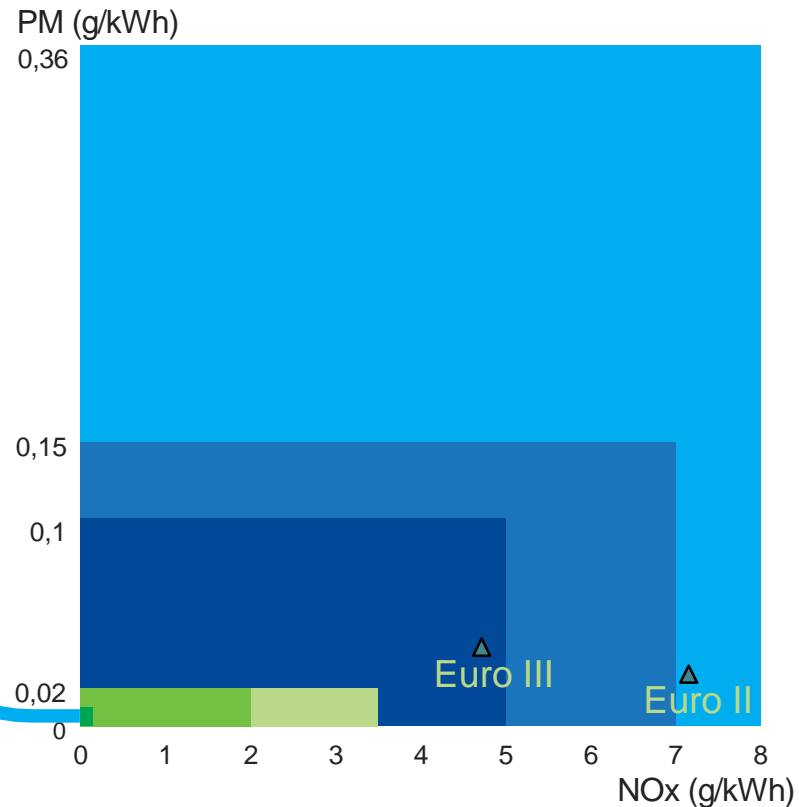
Los Angeles, 1948

<http://www.oregonlive.com>

Grenseverdier

Tunge kjøretøy:

	g/kWh		year
	NOx	PM	
Euro I	8.0	0.36	1992
Euro II	7.0	0.15	1996
Euro III	5.0	0.10	2000
Euro IV	3.5	0.02	2005
Euro V	2.0	0.02	2008
Euro VI	0.04	0.01	2013

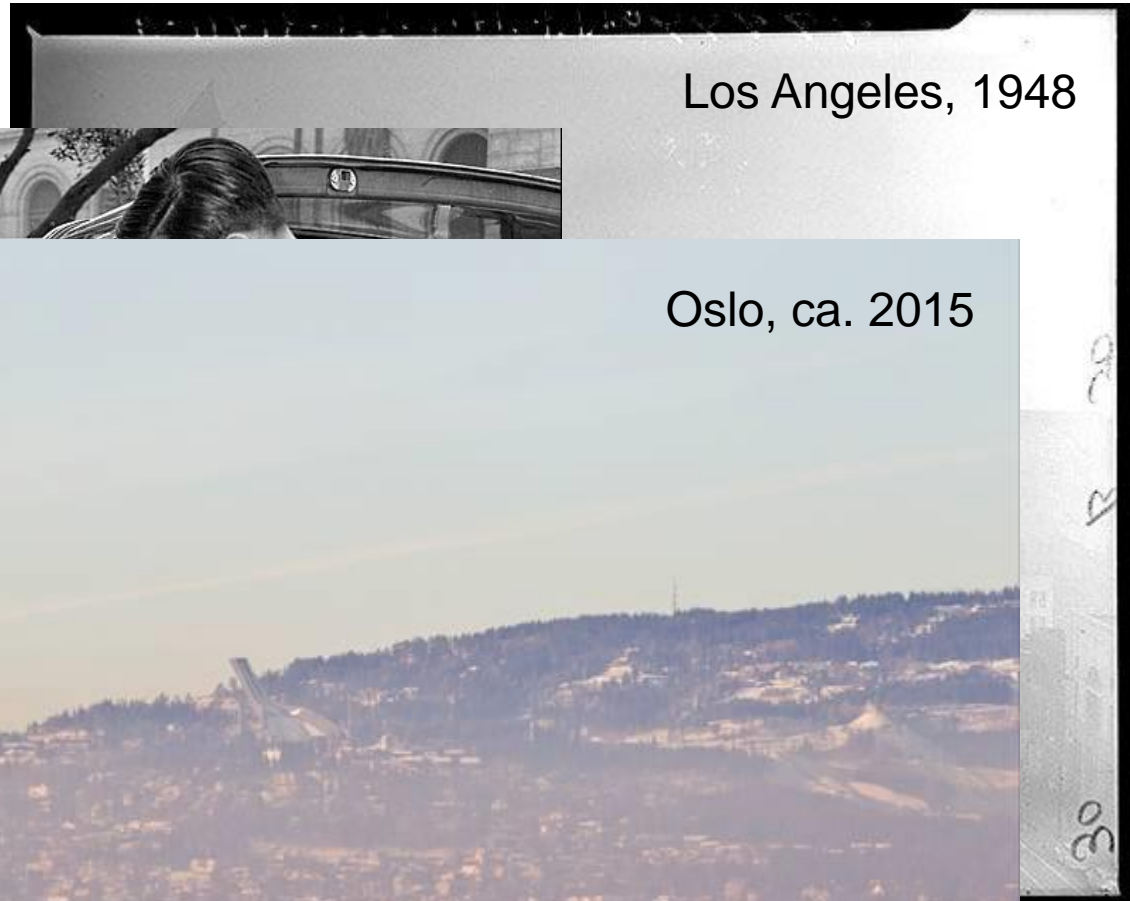


Kilde: VTT visions 5, R. Hautala et al., VTT 2014

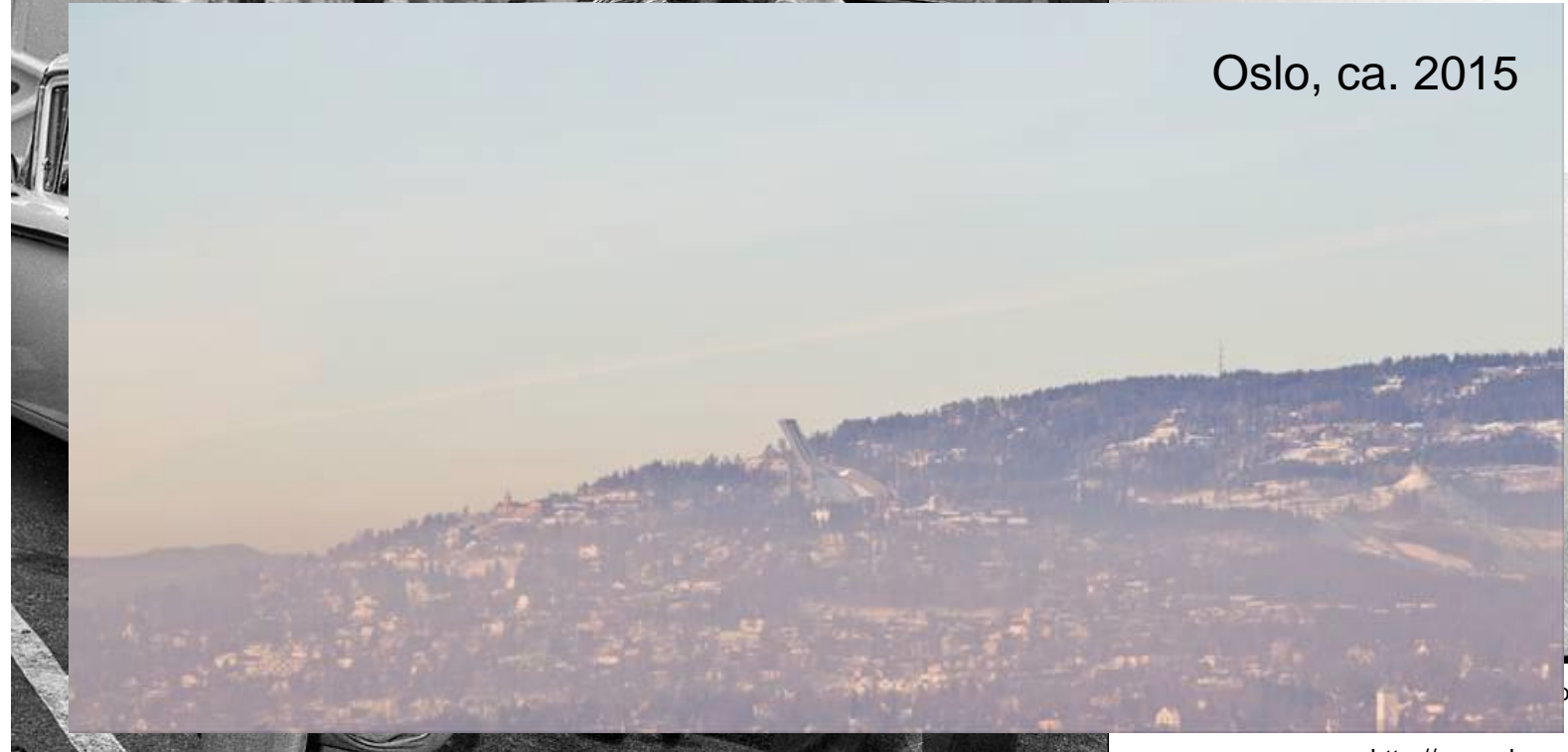
Transport og Luftkvalitet



UCLA, 1960



Los Angeles, 1948



Oslo, ca. 2015

onlive.com

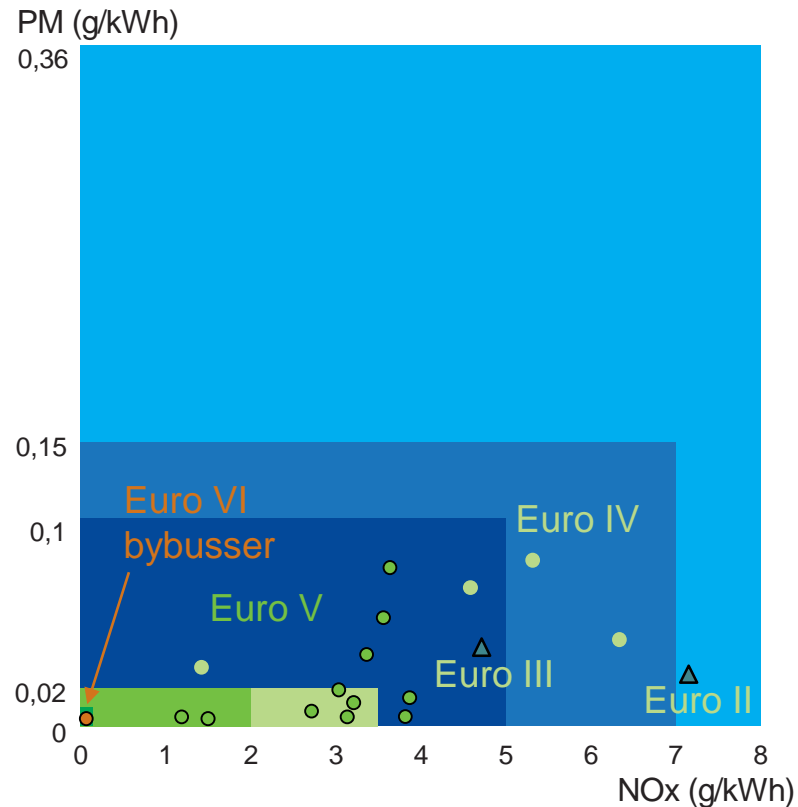
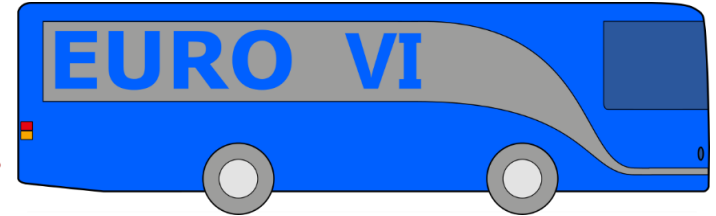
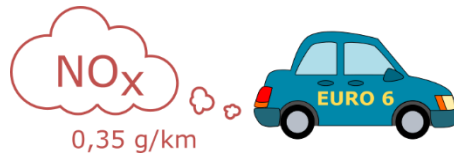
<http://framework.latimes.com>

<http://www.dn.no>

Grenseverdier

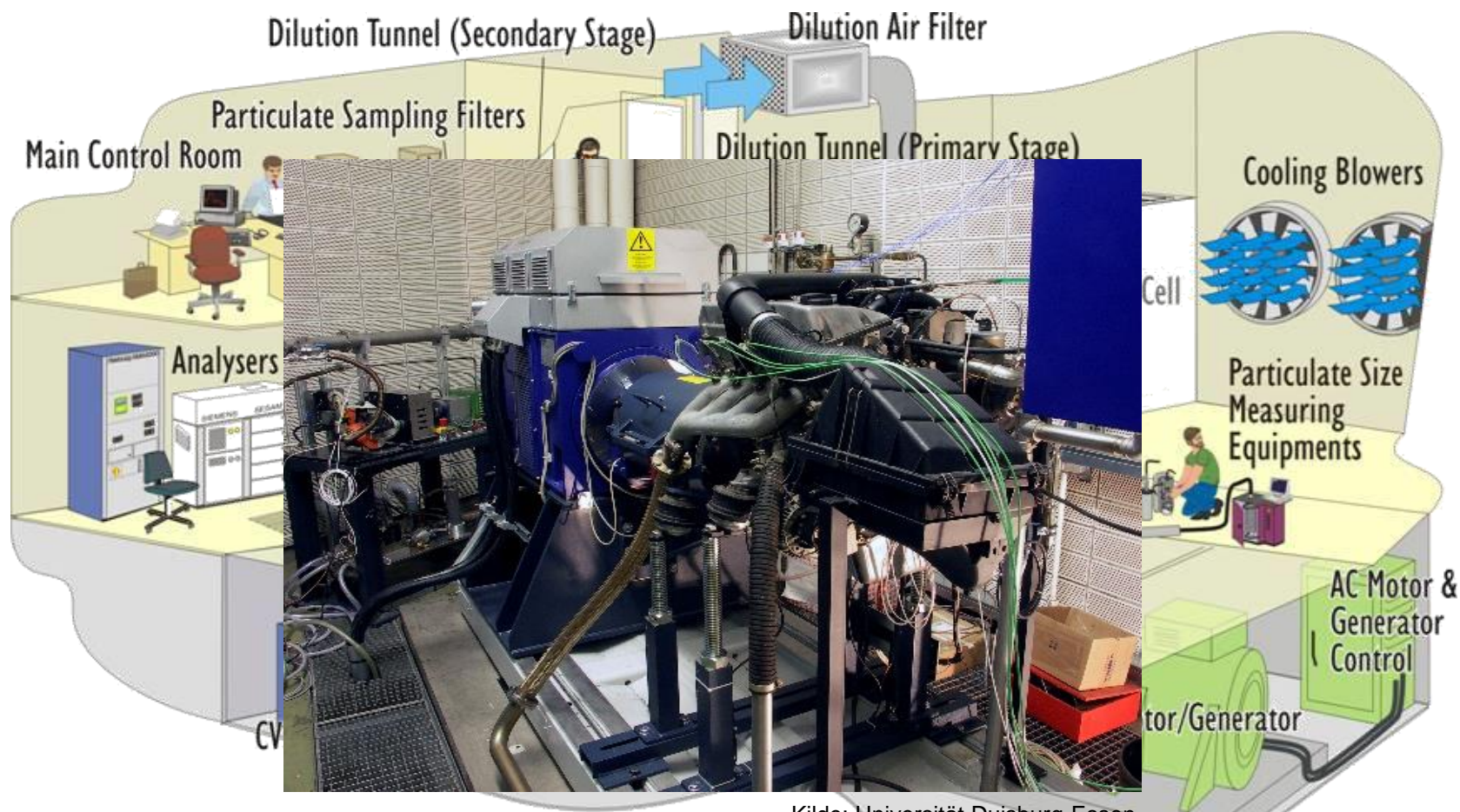
Tunge kjøretøy:

	g/kWh		year
	NOx	PM	
Euro I	8.0	0.36	1992
Euro II	7.0	0.15	1996
Euro III	5.0	0.10	2000
Euro IV	3.5	0.02	2005
Euro V	2.0	0.02	2008
Euro VI	0.04	0.01	2013



Kilde: VTT visions 5, R. Hautala et al., VTT 2014

Målinger på laboratoriet



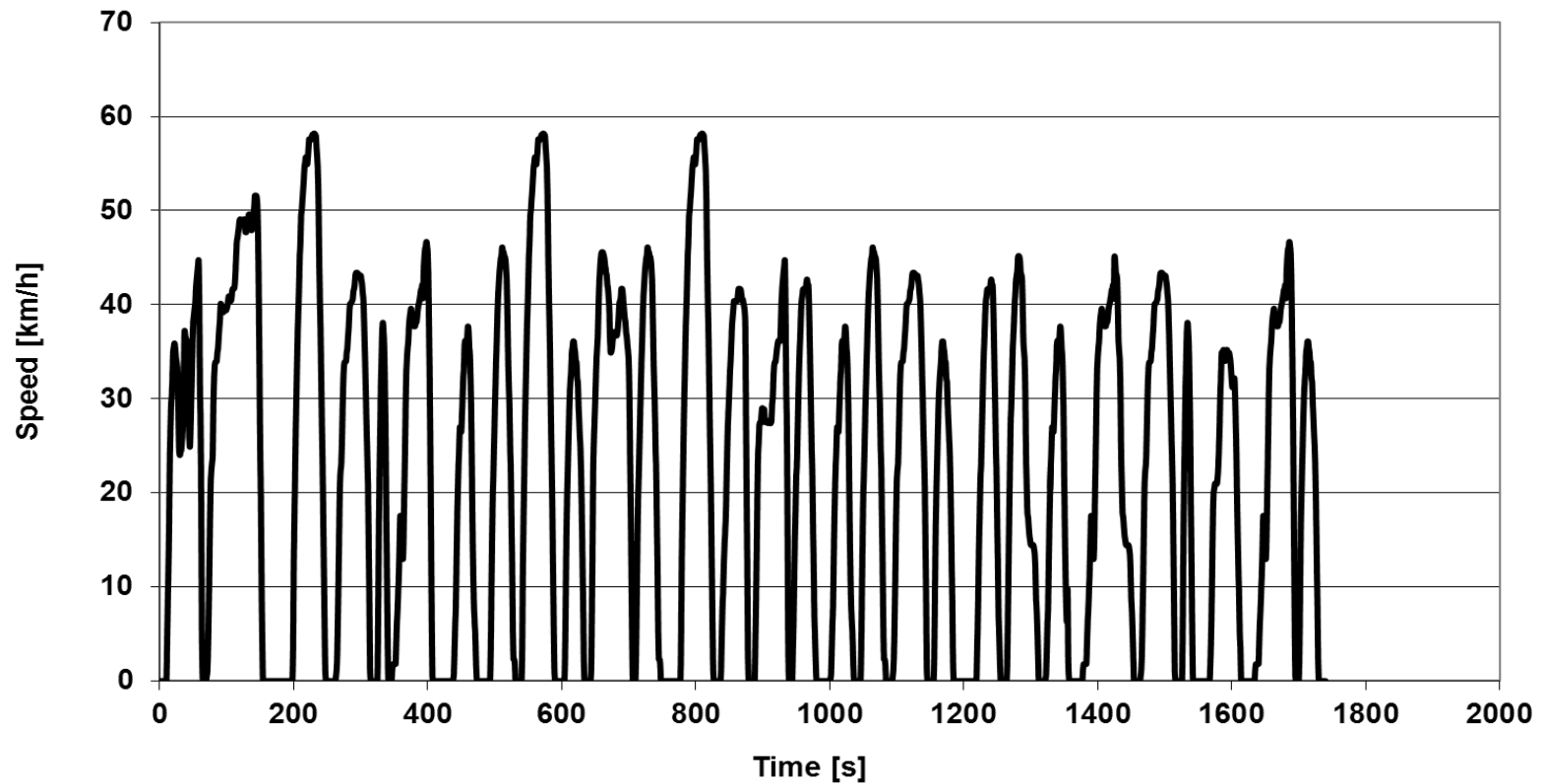
Kilde: Universität Duisburg-Essen

Kilde: VTT

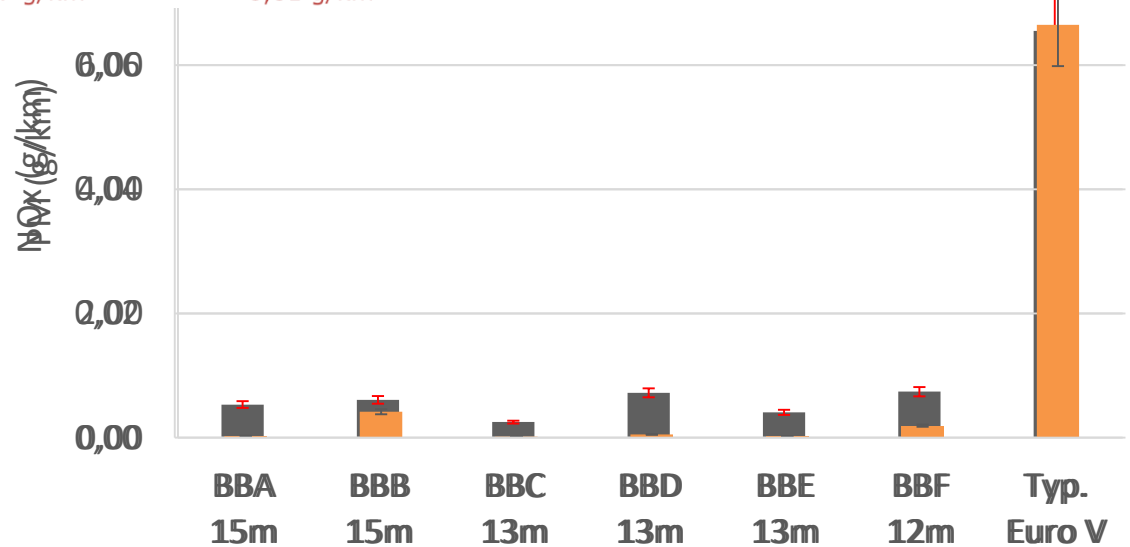
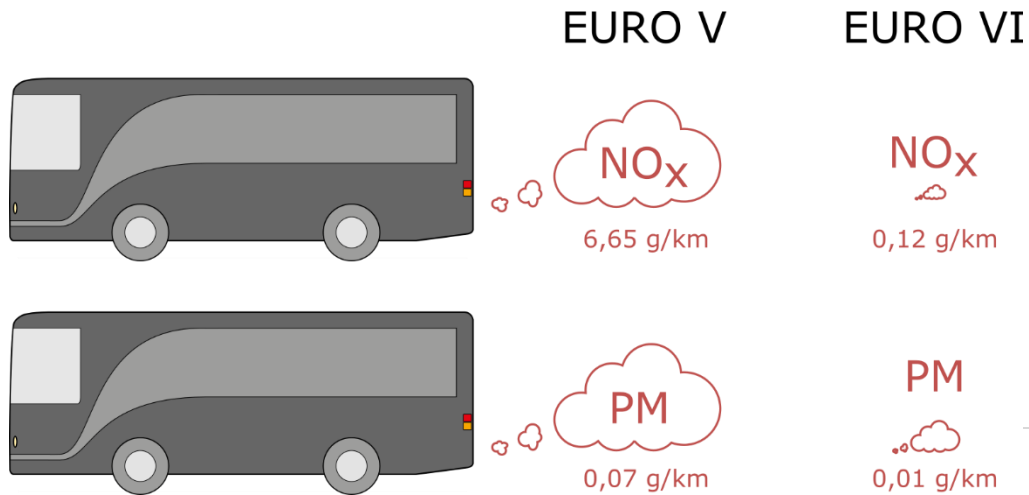
Kjøresyklus



Braunschweig urban bus cycle



Resultater

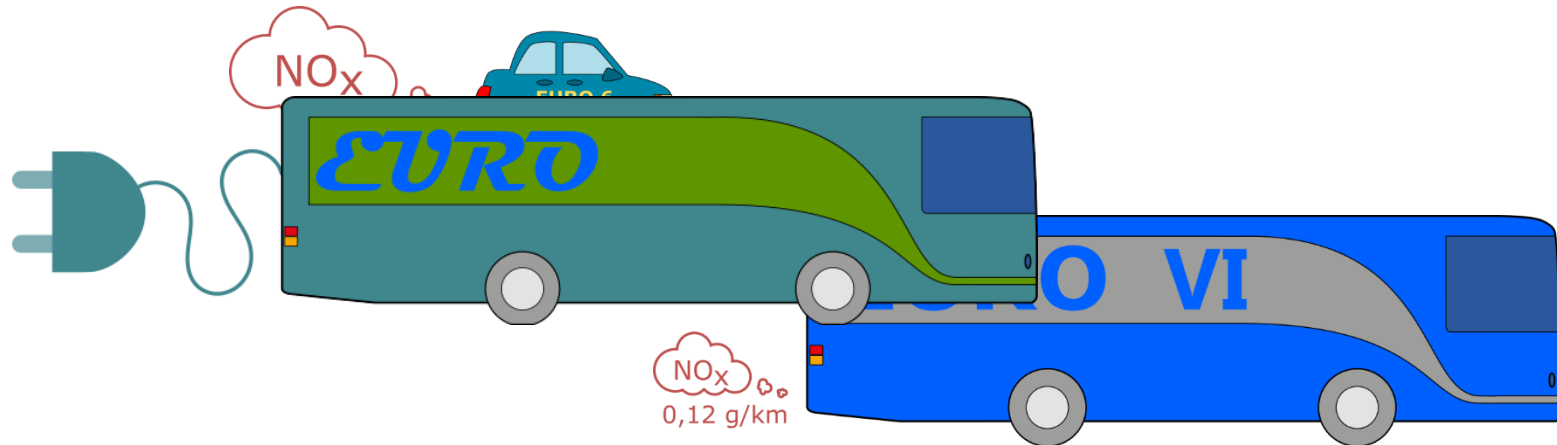


Ta buss eller bil?

EMIROAD



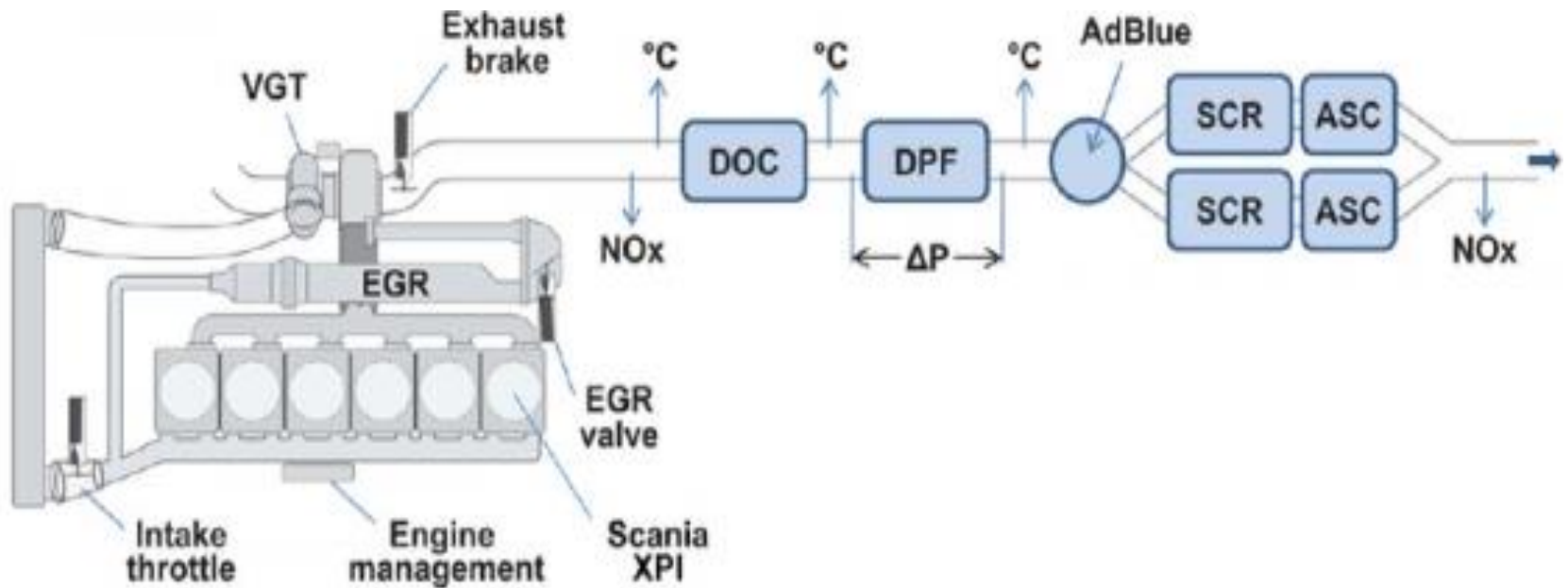
Statens vegvesen



Takk for oppmerksomheten!

cwe@toi.no

Avgassrensing i Euro VI-motorer



Kilde: Scania