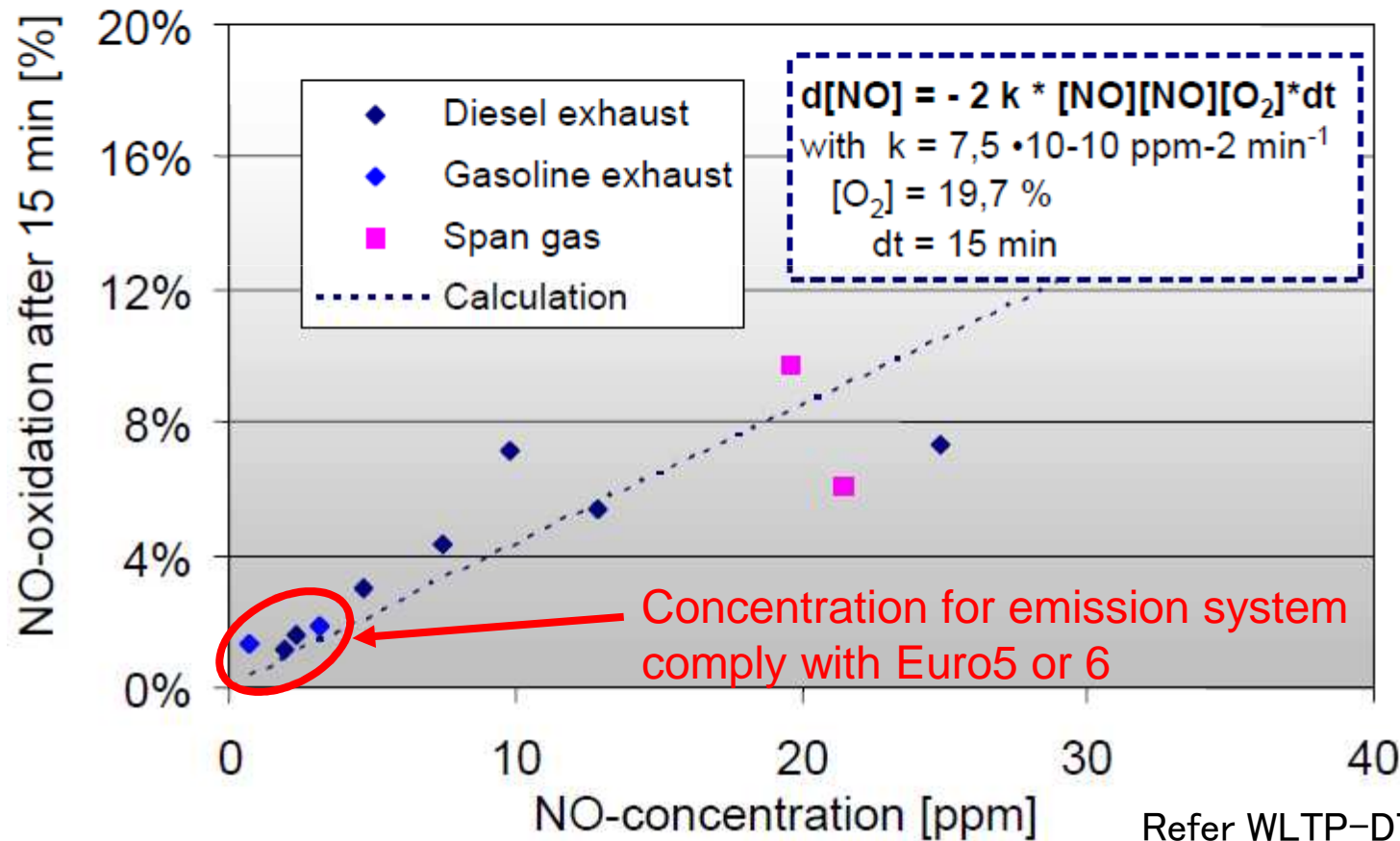


NO₂ Measurement Method proposed by Japan

9 ~ 10 December 2010

Current concerns on NO₂ measurement

Oxidation of NO to NO₂ in CVS bag after 15 min Influence of NO concentration



Proposed method based on WLTP-DTP-02-06

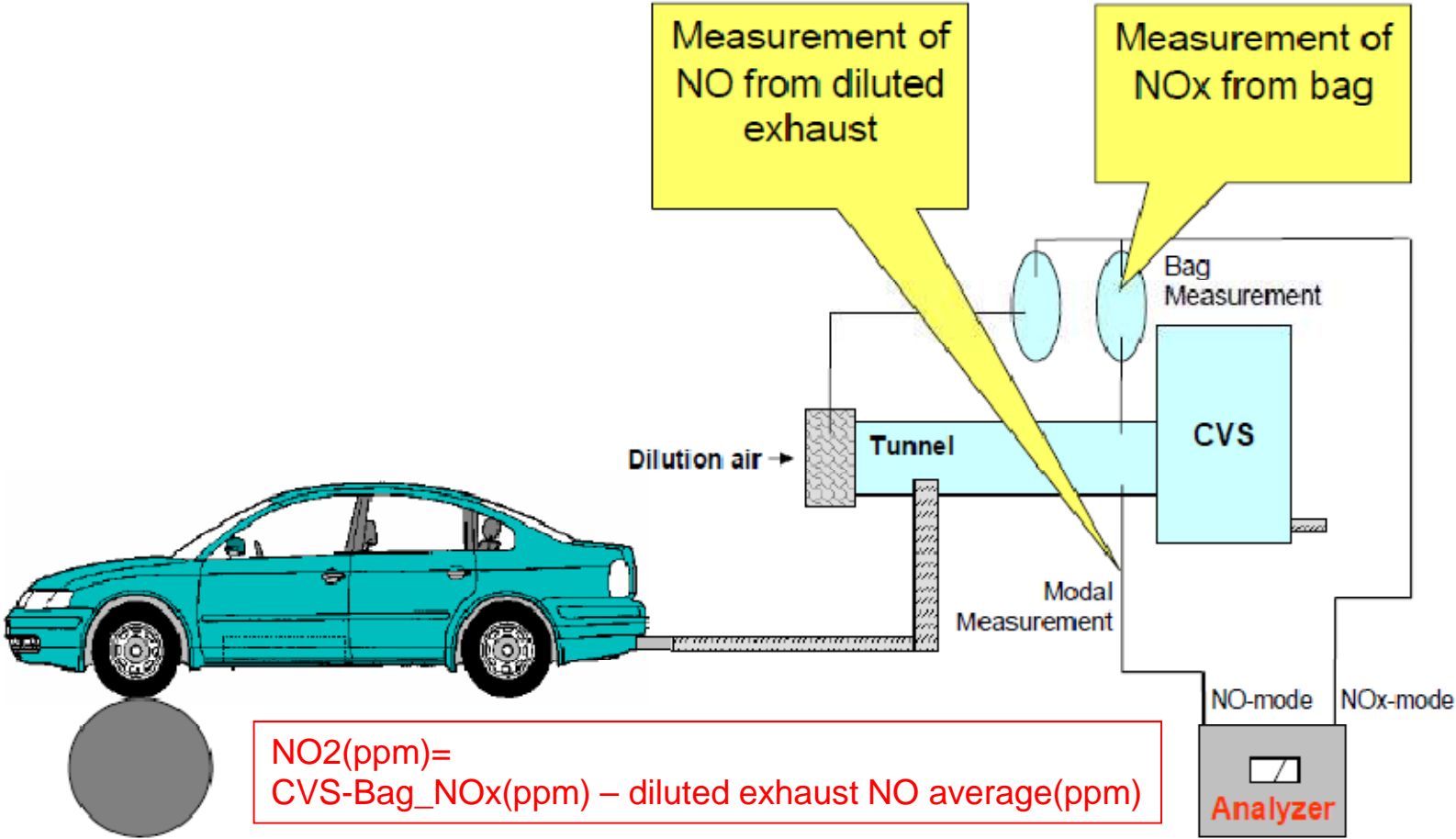
Proposed setup for NO₂ determination

<Modal Method>

Mass emission during cycle

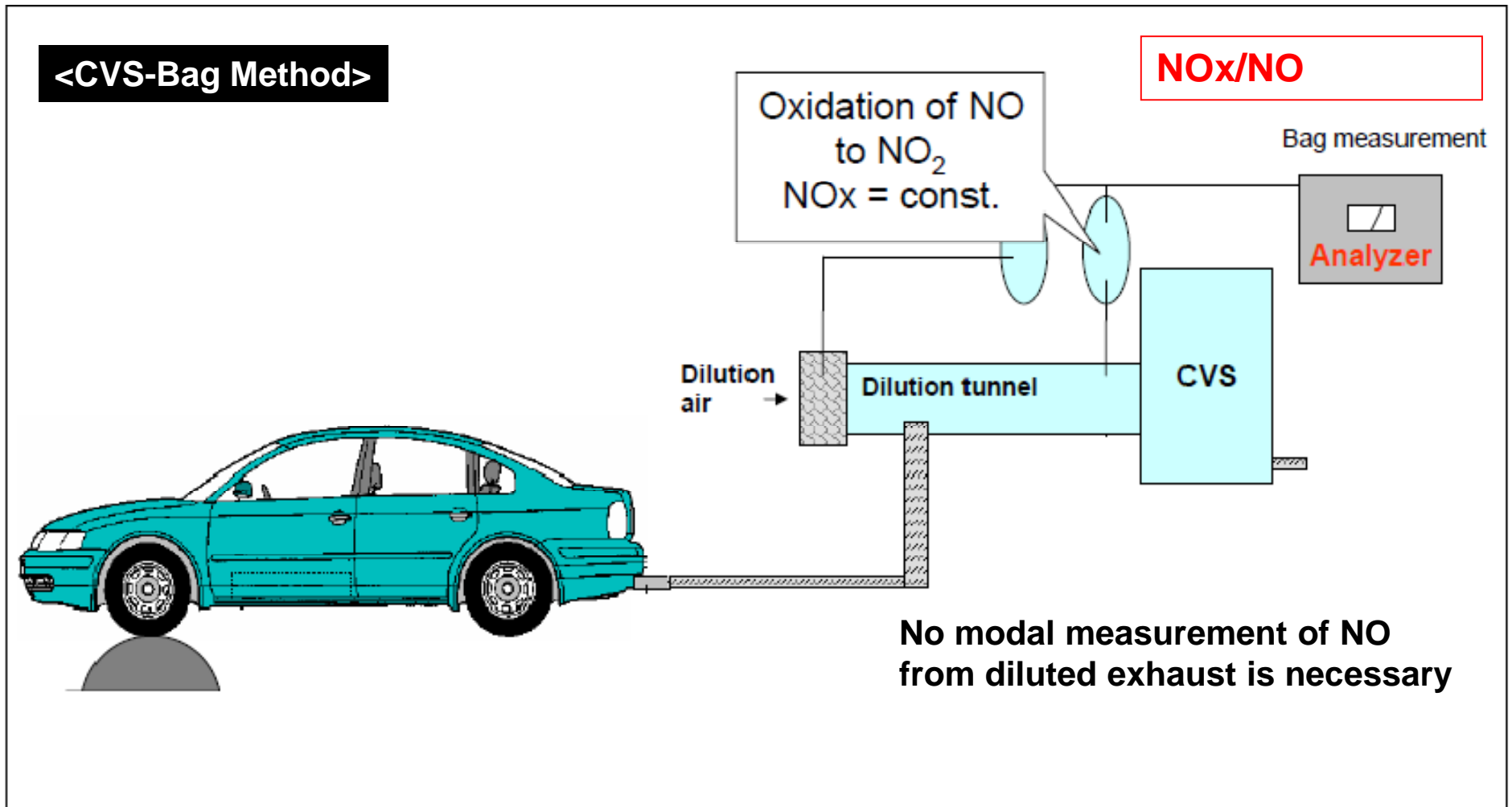
Measurement of NO from diluted exhaust

Measurement of NOx from bag



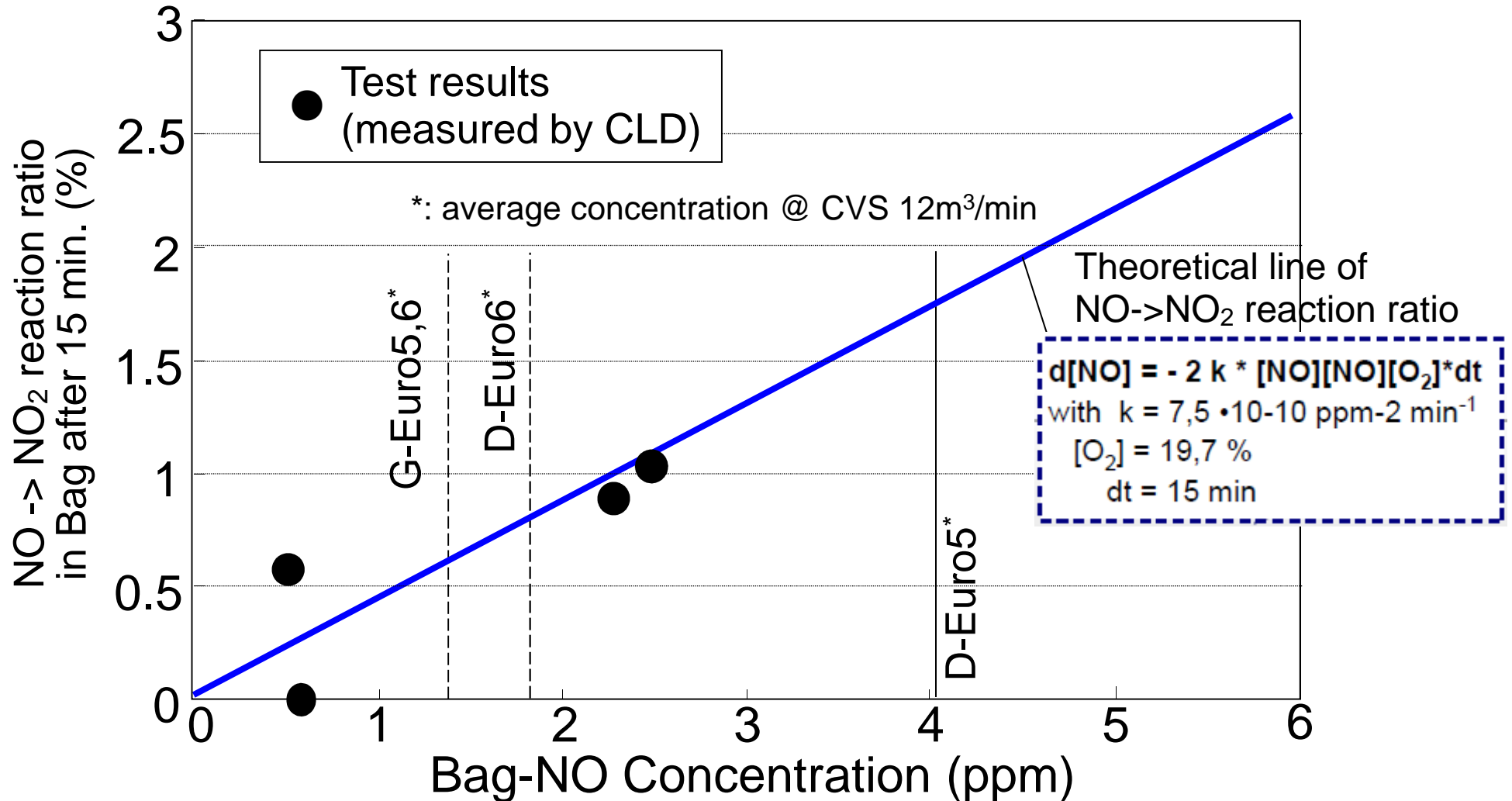
Counter Proposal by Japan

Apply current measurement method (=CVS-Bag method)
then, analyze NOx/NO respectively



NO₂ reaction ratio

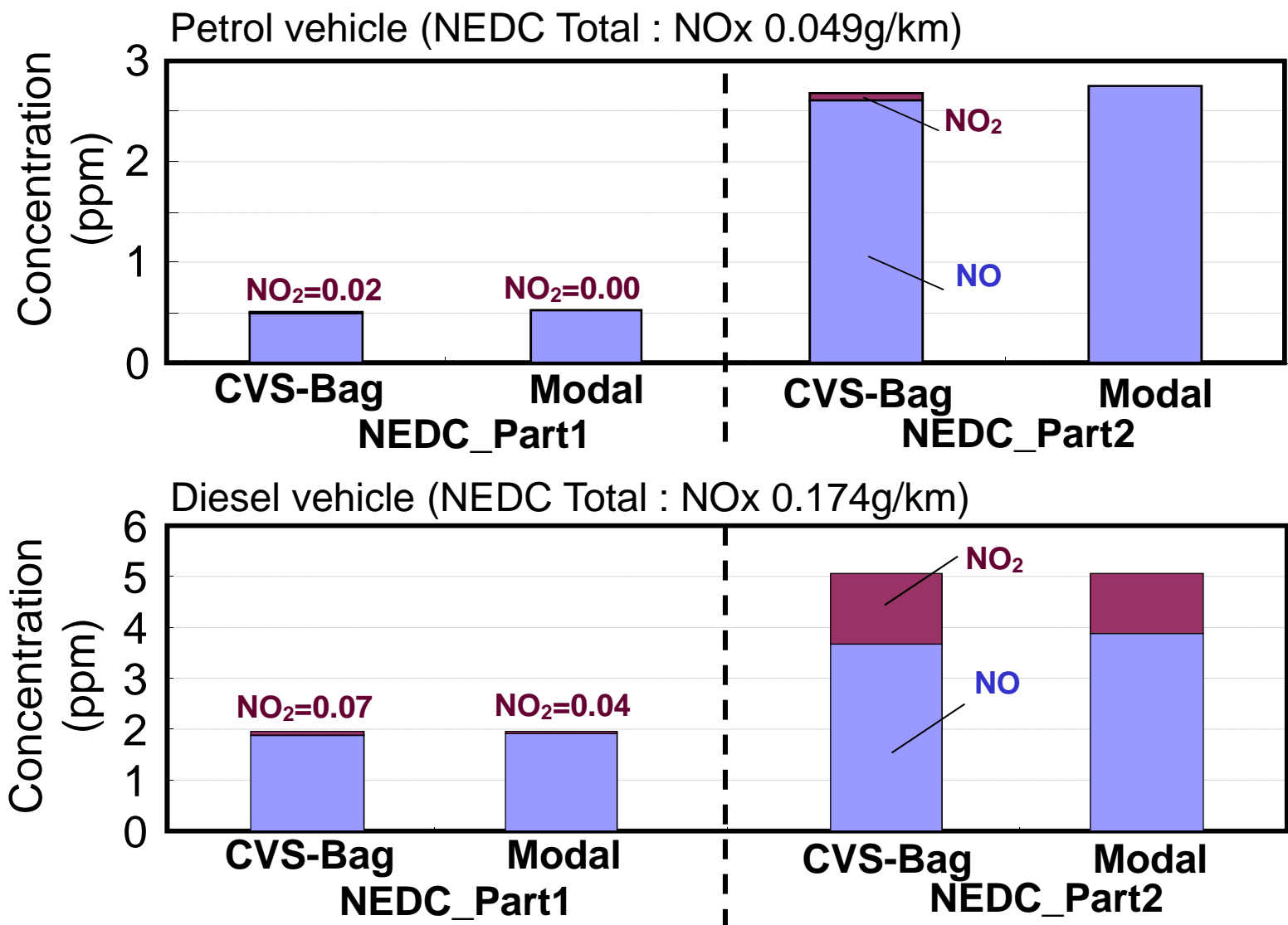
NO₂ reaction ratio is less than 2% when NO concentration in Bag is less than 4 ppm (=equivalent Euro 5 or 6 level)



Test Results Comparison (NO, NO₂)

WLTP-DTP-AP-04-xx

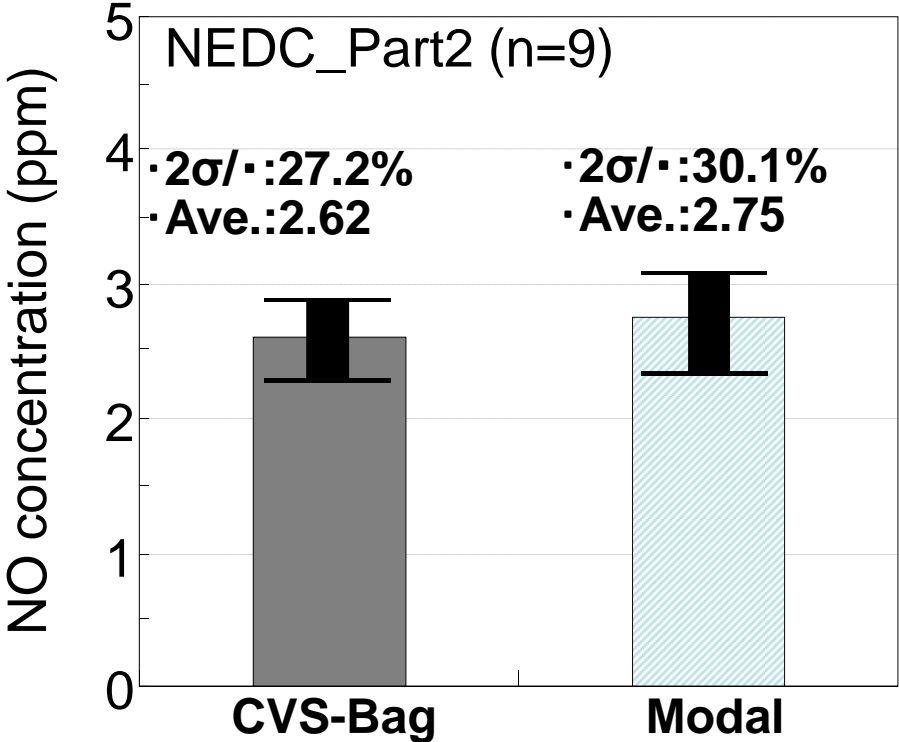
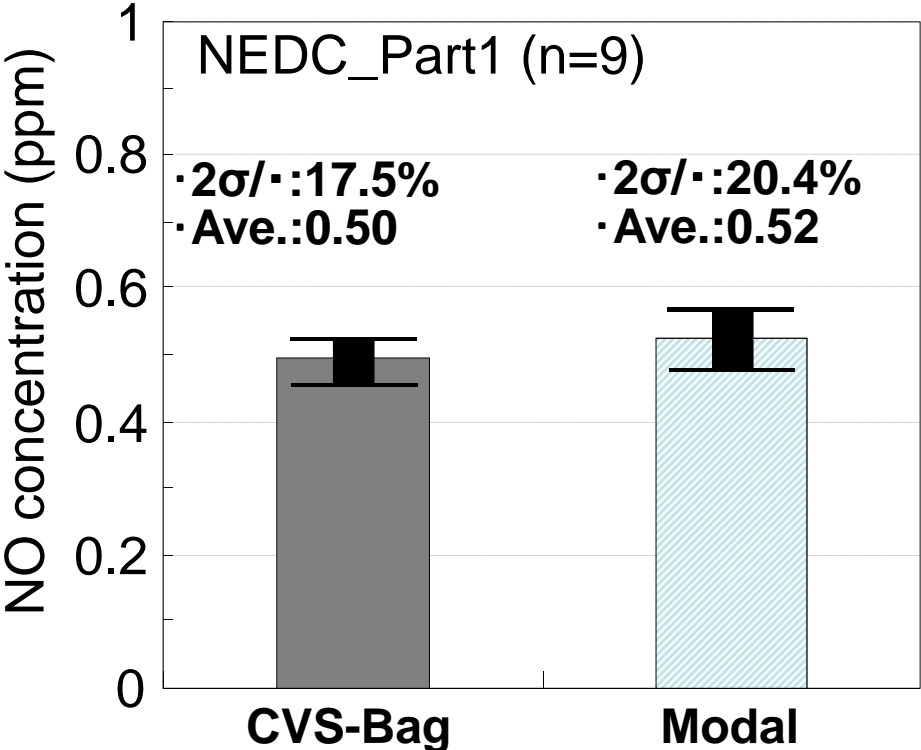
No significant difference is observed between CVS-Bag method and Modal method



Test-to-Test Variability (NO)

Nearly identical for both average and variability level

Petrol vehicle (NEDC Total : NOx 0.049g/km)



Summary

1. Recent study in Japan indicates no significant difference between CVS-bag method and proposed method for NO₂ measurement.
2. It's not right timing to eliminate the currently well recognized method without knowing the applicability under the new test cycle and new test procedure.
3. Once new cycle and new test procedure are available, Japan will evaluate the measurement methods again from the view points of measurement precision, applicability, investment and so on, then report it to this group for final decision.