

Strategies for Compliance of BS V / BS VI Legislations on Heavy Duty Commercial Vehicles



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Continental Emitec

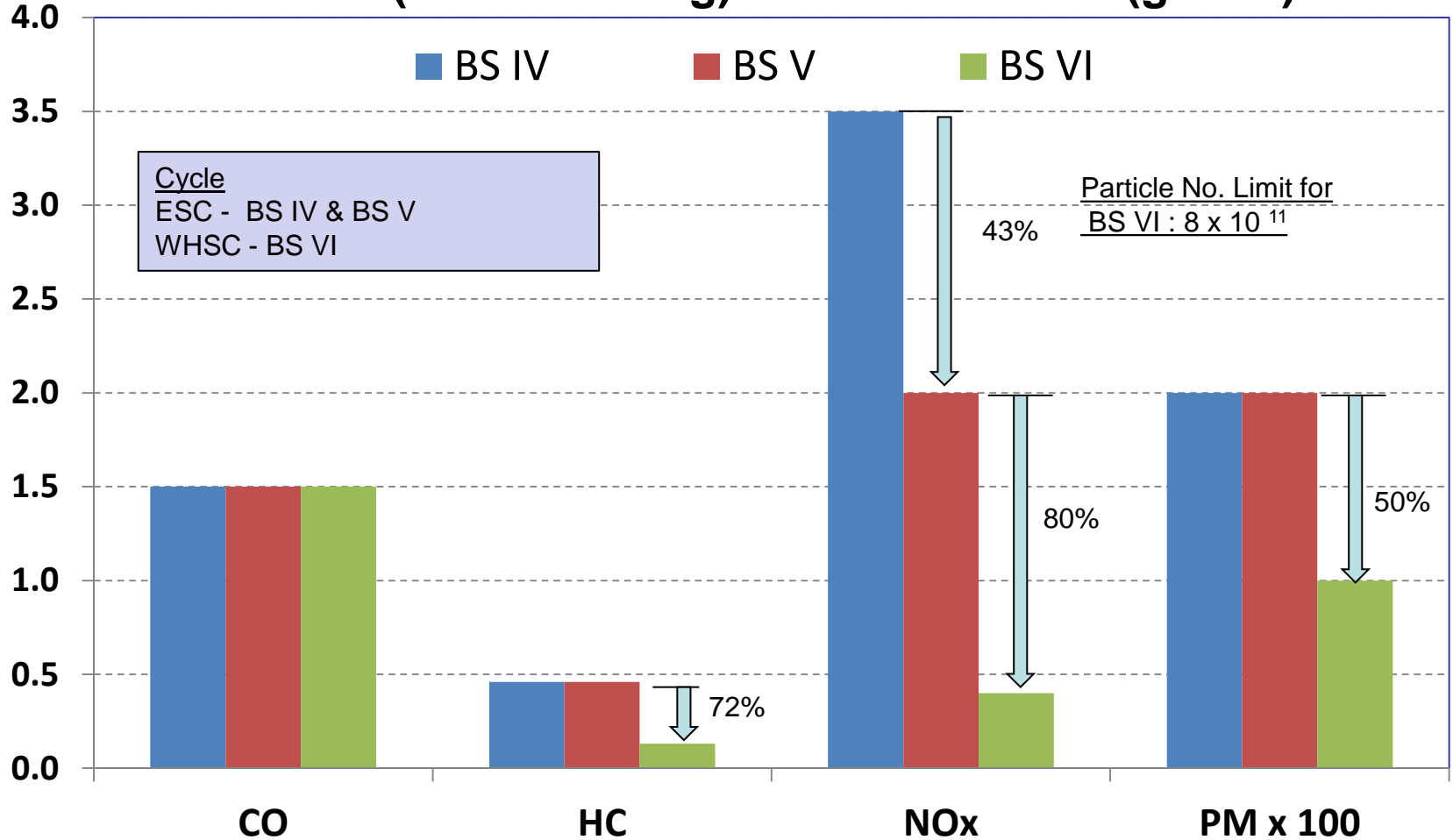
ECT – 2015, New Delhi

Agenda

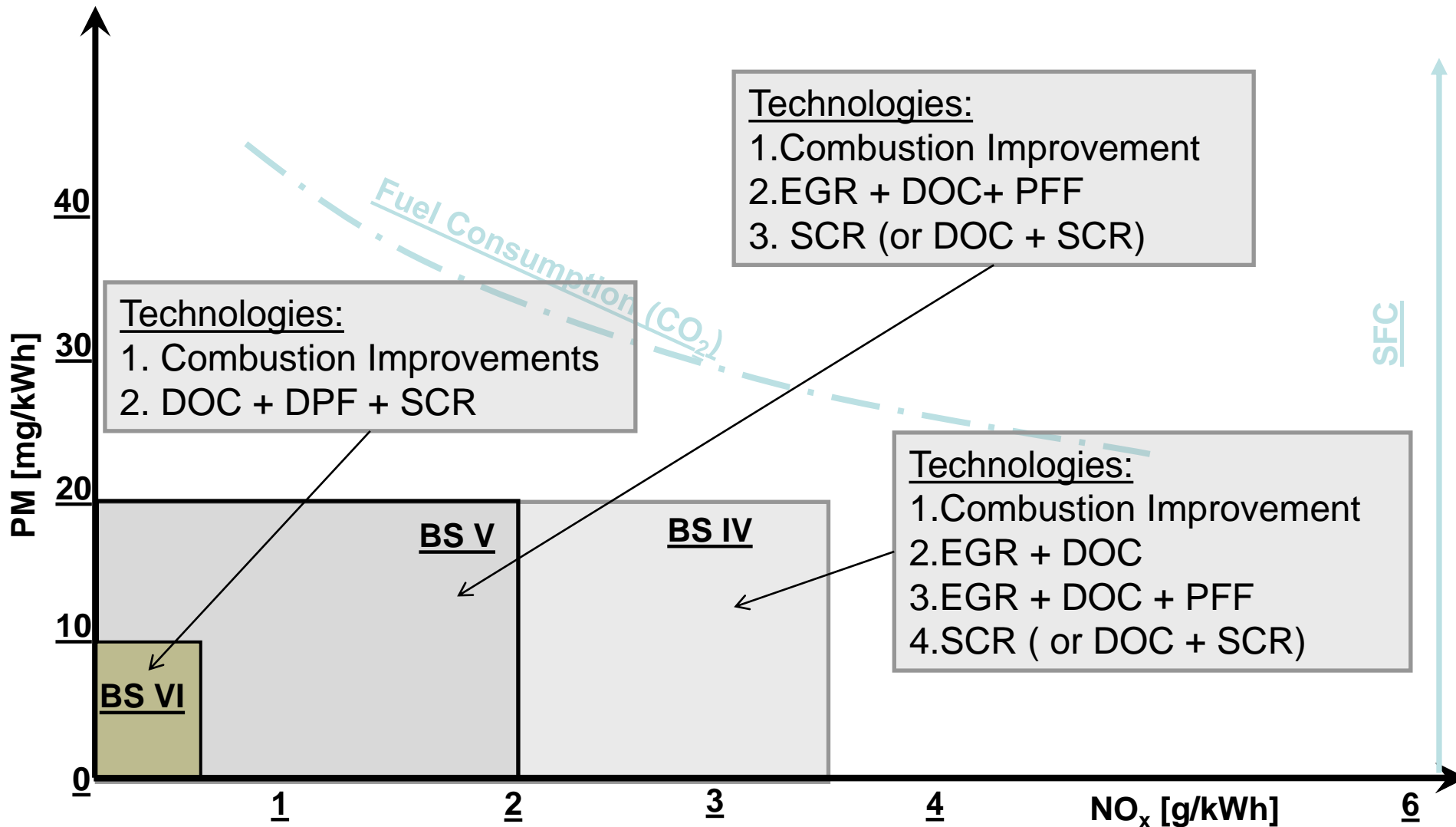
- Diesel Engines
 - Legislations
 - Aftertreatment
 - Requirements / Challenges
- CNG Engines
 - Legislations
 - Aftertreatment
 - Requirements / Challenges
- Summary

Legislations Trend BS IV → BS V → BS VI

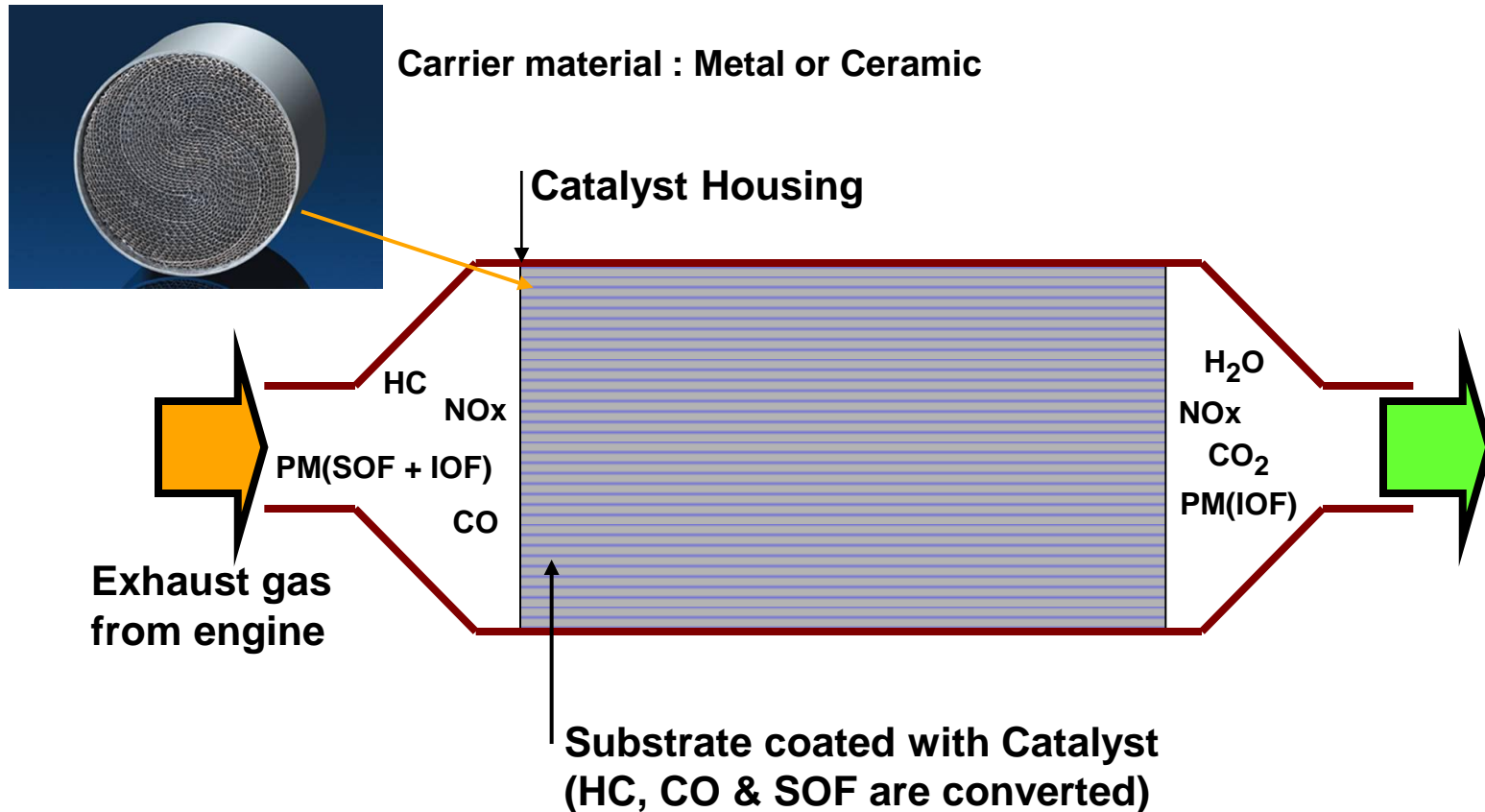
HCV Diesel (GVW>3500 kg) Emission values (g/kWh)



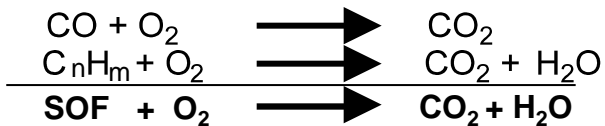
Aftertreatment System Trend BS IV → BS V → BS VI (Diesel Engines)



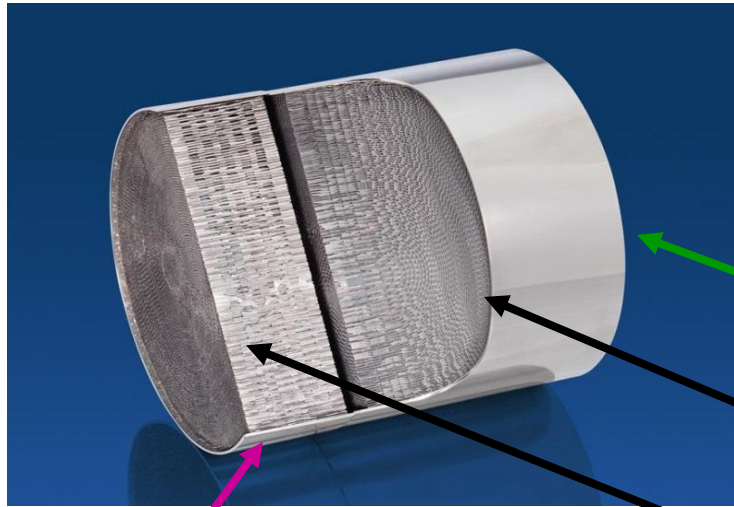
Aftertreatment Systems: DOC



Chemical reaction



DOC + Partial Flow Filter

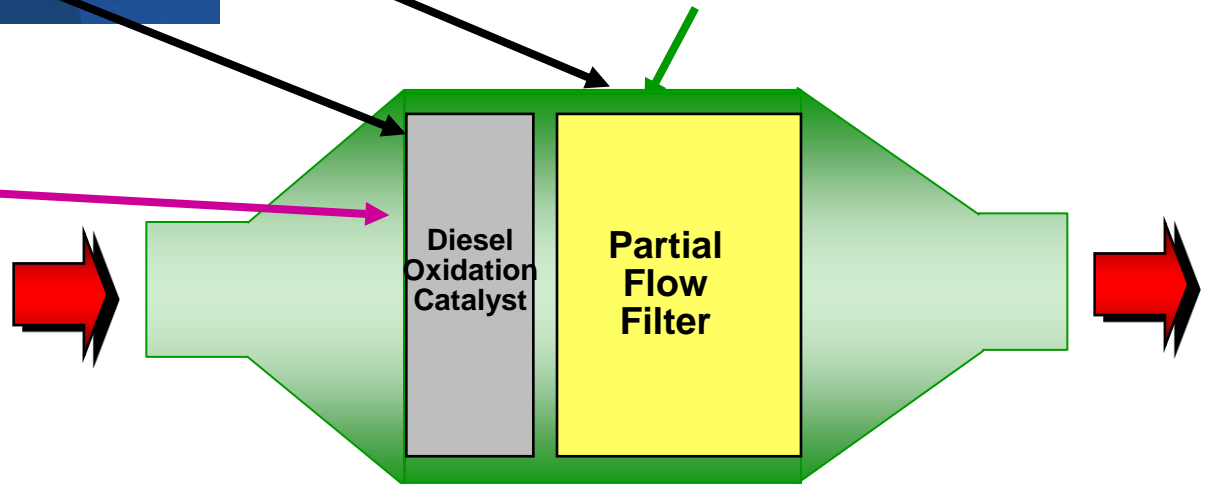


Regeneration reaction in PFF

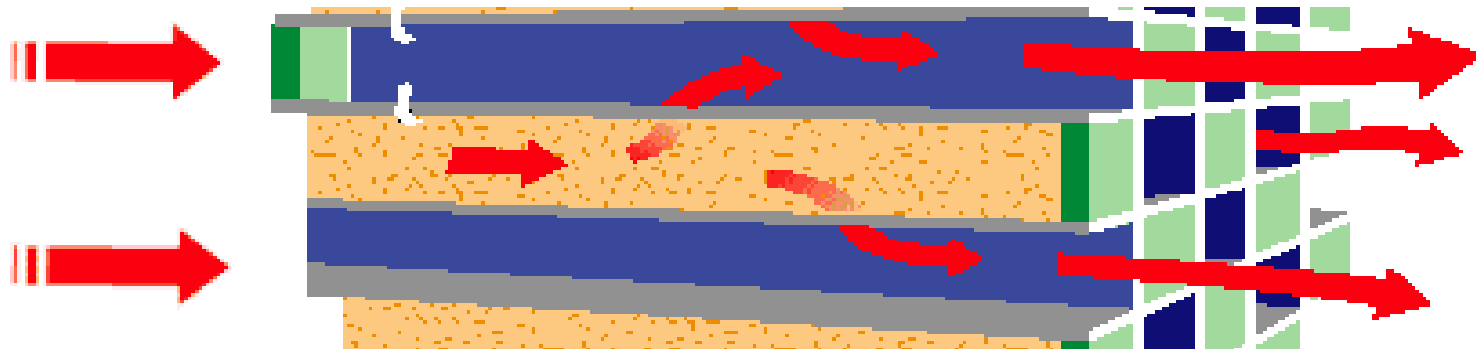
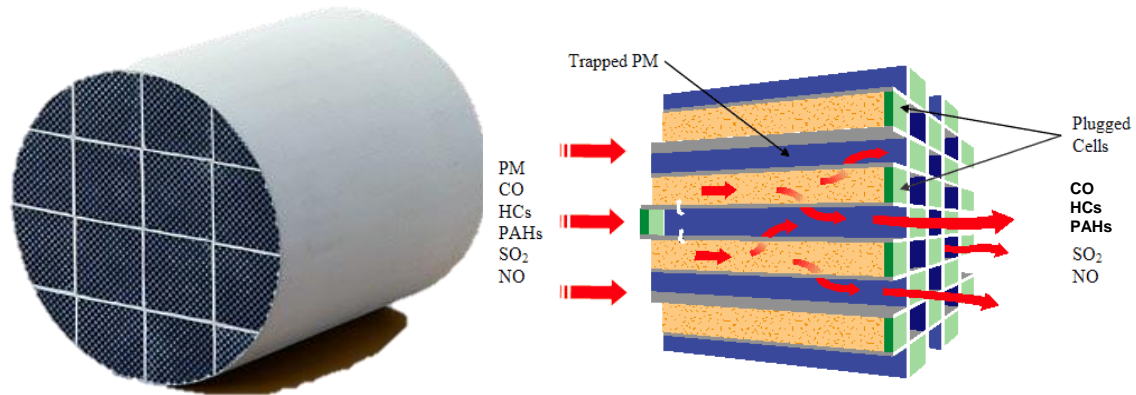


Main Function :
Particulate Matter
Trapping and Passive
Regeneration

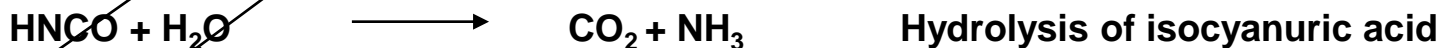
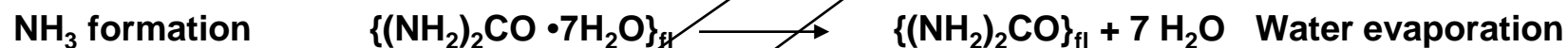
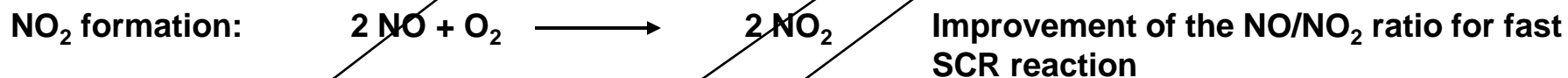
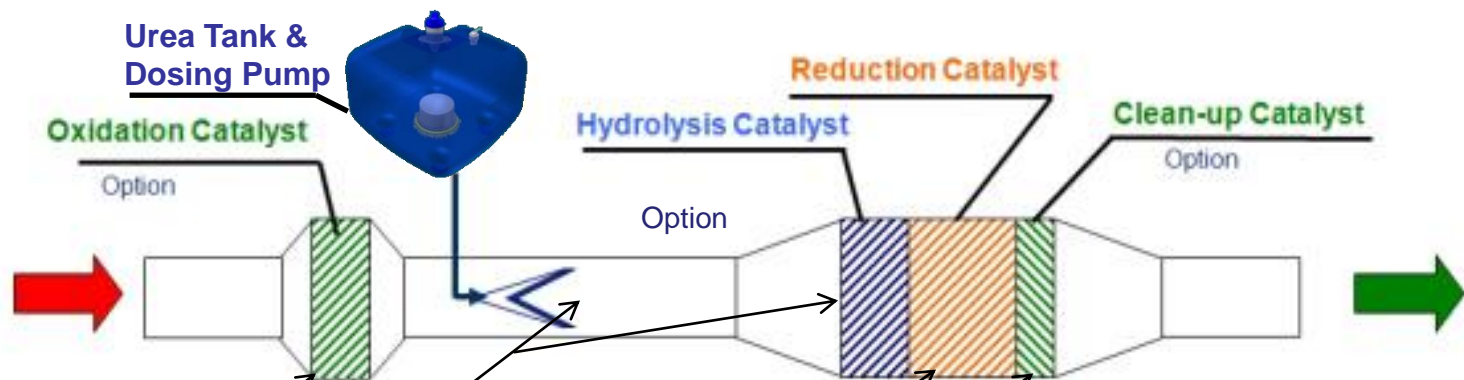
Main Function :
NO₂ Generation
SOF Conversion



Diesel Particulate Filter



Selective Catalytic Reaction System (SCR)



Requirements / Challenges for Effective implementation of Future Emission Norms

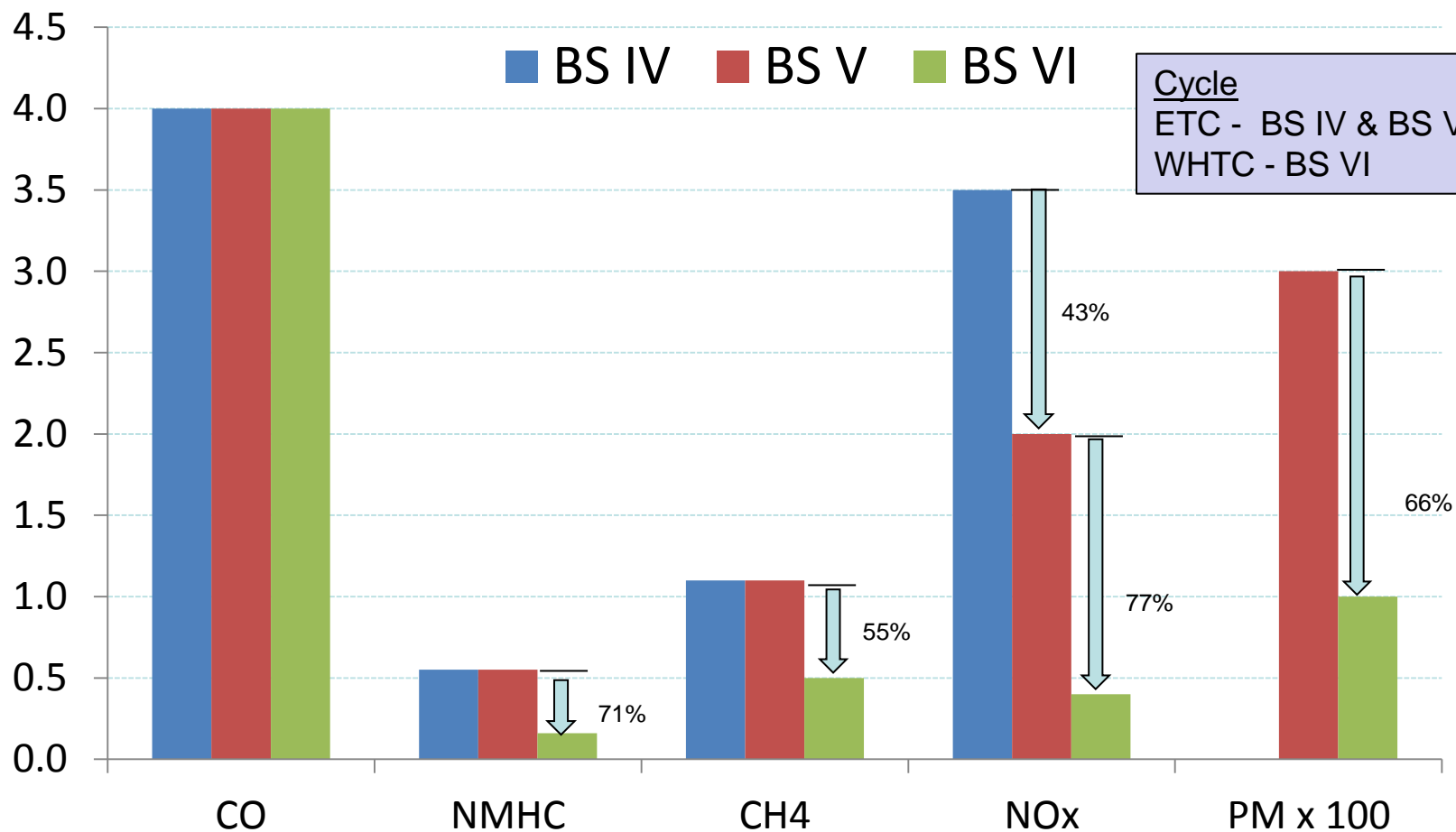
- Fuel Quality
 - Sulfur Content
 - 50 PPM for BS IV
 - 10 PPM for BS V/ VI
 - Adulteration
 - Other parameters
- Urea infrastructure
- User Education on After Treatment & OBD
- Inspection & Maintenance Programs

Agenda

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Legislations Trend BS IV → BS V → BS VI

HCV CNG (GVW>3500 kg) Emission values (g/kWh)



Requirements / Challenges for Effective implementation of Future Emission Norms

- Reference Fuel for emission test (CH₄ Content)
- CH₄ Conversion

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Summary

- Upcoming emission legislations are likely to be in-line with European Emission Norms
- Suitable aftertreatment technologies are existing with Aftertreatment Industry
- Key challenges like fuel, Infrastructure, I&M etc., to be addressed for successful implementation

Thank You

