# *From Euro 7 to BS 7/VII: Applying European Emissions Control Technology Learnings in India*

Dominik Rose

XX October 2026

# Keynote Roadmap

01

## EU7 reality check

What the final regulation actually demands - and where it stopped short of expectations.

02

## The EU7 toolbox

Proven gasoline and diesel aftertreatment technology for light and heavy duty.

03

## Translating to India

Applying Europe's learnings to India‘s market, duty cycles, fuel quality and cost structures.

# The Reality Check: Euro 7 fell short of our Industry's Expectations

Euro 7 was announced as *the* regulation that would finally close the gap on real-world tailpipe emissions. It did not.

- **Light duty:** exhaust limits are a Euro 6 carry-over — headline numbers barely moved.
- **One real gain:** PN10 now applies to GDI **and** MPI. Heavy duty limits were genuinely tightened; reshaping exhaust system designs moderately.
- **Ambition moved sideways:** brake and tyre particulates, battery durability, on-board monitoring.
- Industry calls it **unworkable;** clean-air advocates call it **capitulation**. The reality is likely somewhere in between.

**So, the question for this room: How to apply these lessons to India’s need?**

# The Proven EU7 Technology Toolbox

## Particulate control

GPF/DPF/SCRoF for passenger car and LCV, advanced microstructures for HDD PN10; GPF with fresh FE >99%.

## Dual-dosing w/ SCR on DPF

DeNOx across the full real-world engine map, while enabling lean engine operation and lower fuel consumption.

## Thermal management

Advanced engine calibration and catalyst heating strategies balancing fast heat-up against raw emissions.

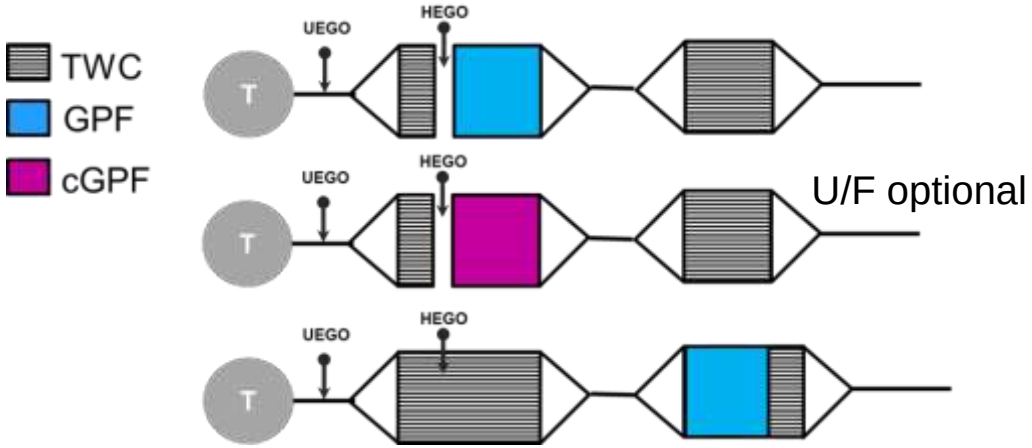
## Substrate & catalyst innovation

Higher cell density, lower thermal mass and reduced PGM dependence.

## Sensors, models & diagnostics

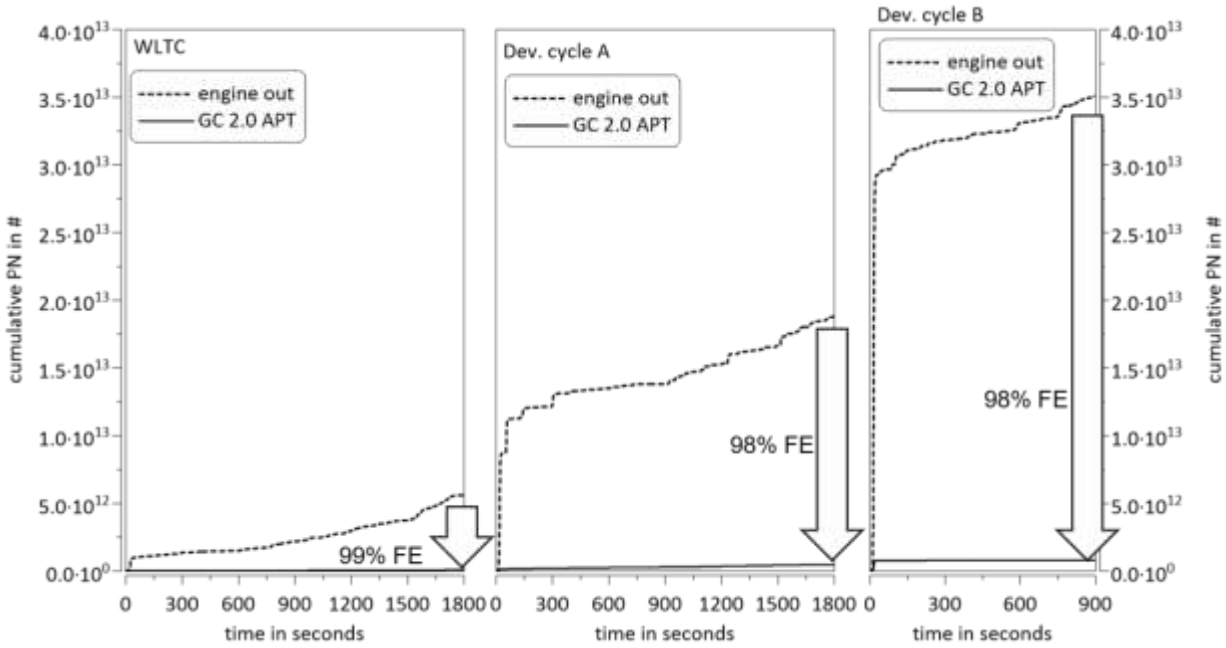
Enabling on-board diagnostics (OBD) and on-board monitoring (OBM).

# EU7 – Gasoline Aftertreatment for Light Duty Vehicles




- EU7 exhaust systems are carried over from EU6
- GPF primarily in CC2 – some OEMs increase FE
- Higher share of **bare GPF** in Europe compared to ROW
- Trend to **global architectures** including US
- **Fast light-off substrates** enable cost optimization

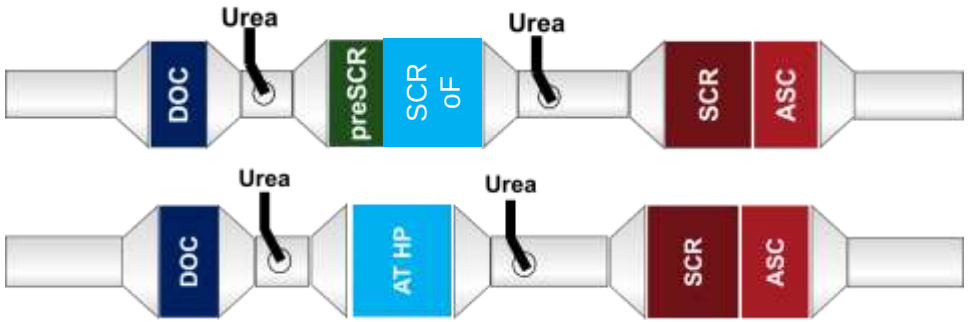
EU7 GPF technologies enable
**PN10/PN23 reduction up to 99%** in all drive cycles,
including RDE at 0°C



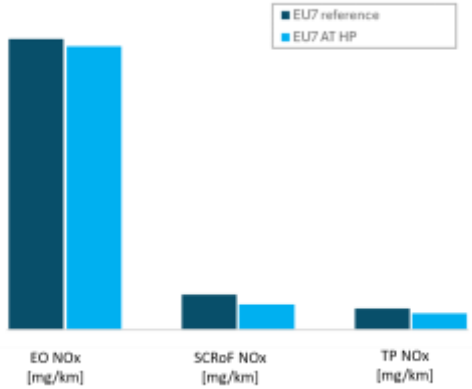

Boger, T et al: *Next Generation Gasoline Particulate Filters for Uncoated Applications and Lowest Particulate Emissions,* 29th Aachen Colloquium Sustainable Mobility 2020

# EU7 – Diesel Aftertreatment for Light- and Heavy-Duty Vehicles

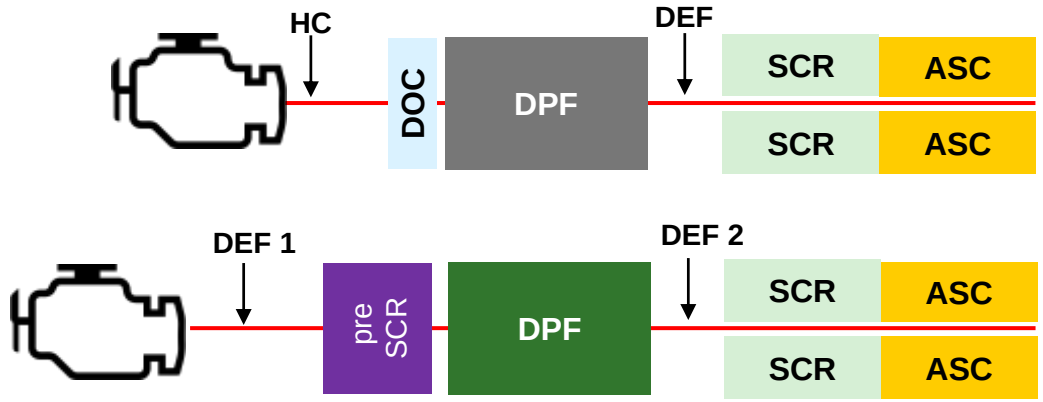
## Light Duty / Light Commercial Vehicles up to 7 tons




- Dual SCR enables low load deNOx
- Majority of NOx conversion from SCRoF
- Minimize PN10 from U/F SCR




## Heavy Duty Vehicles




Systems are “updated” EU VI e architectures:

- Introduction of improved DPF materials (microstructure, coatings) to address tighter PN10 limits & budget for PN10 from urea
- Exhaust systems get updated beyond EU7 to address CO2

# Translating to India

## Duty cycles differ

Speed distributions, load patterns, ambient conditions

## Two- and three-wheelers carry the volume

Contribute significantly to air quality. Cost, packaging & thermal constraints need India-specific solutions

## Diverse fuel pathways

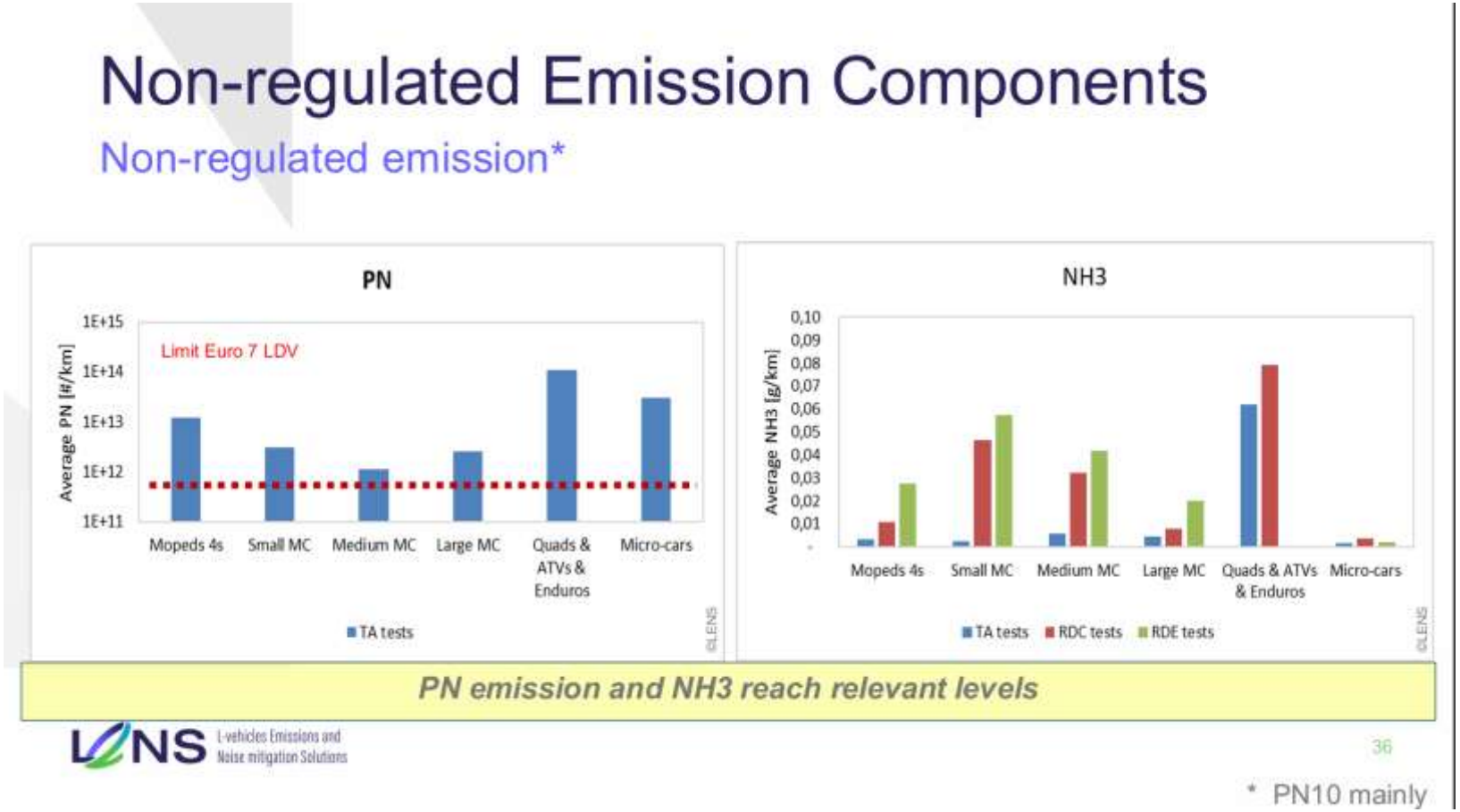
Ethanol blends, CNG/LNG, hydrogen, HVO and e-fuels – support Indian energy security & air quality

# Translating to India – Non-regulated Emissions

- Two-wheeler PN emissions are still unregulated in Europe and India.
- EU LENS measurements (Sep 2022 – Nov 2025) show two-wheeler PN well above the Euro 7 LDV limit.

**Recommendation**

**India should include PN from two-wheelers in its next emission standard.**




*Source: Alba Garbi (Applus+ IDIADA) & Stephan Schmidt (TU Graz), LENS project (Horizon Europe GA No. 101056777), lens-horizoneurope.eu*

# Four Takeaways for India’s Next Emissions Standards

## Euro 7 fell short

Light-duty limits are a Euro 6 carry-over; ambition moved to brake and tyre particulates, battery durability and on-board monitoring.

## The technology is proven

GPF and DPF/SCRoF, dual-dosing SCR, thermal management and advanced substrates already deliver in Europe – up to 99% PN reduction.

## India needs its own answer

Duty cycles, fuel diversity and cost structures call for India-specific calibration – not transplanted systems.

## Regulate two-wheeler PN

EU LENS data shows two-wheeler PN well above the Euro 7 LDV limit, yet unregulated – BS 7/VII should close that gap.

CORNING

175

YEARS