Strategies for Integrated Emission Control

Walter G. Copan, Curtis J. Knapper -- Clean Diesel Technologies, Inc.

- Improve fuel combustion
  - Increase thermal efficiency
- Higher available work with catalytic combustion
- Lower carbon footprint
- Reduce engine emission
- Enhance performance of emission control systems

PM + NOx control
Thermal management

Platinum Plus Fuel-Borne Catalyst, Increase Total Efficiency, Low Pt DPF Continuous Regeneration, Integrated SCR/NOx reduction
Building Emissions Performance

- Significantly reduced levels of PM, HC, CO, NO₂ / NOx & CO₂
- Long-term durability of filter systems - replenishing catalytic activity
- Lower lifetime use of precious metals in control devices (-75%)
- Continuous / passive regeneration of DPF across a wider temperature range in difficult drive cycles; reduce thermal stress and fuel penalty
- Passive regeneration - widens range of DPF applications & improves fuel utilization (diesel and renewable fuels)
- Controlled lower burn temperature reduces the chance for hazardous run-away regeneration