


# **AUTONOMOUS MINING TRUCK EFFICIENCY - A TOTAL SYSTEMS PERSPECTIVE**

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Caterpillar Non-Confidential





To build a better world, we create and capture value through sustainable products, services, solutions and operations, and contribute time and resources to promote the common good in our communities.

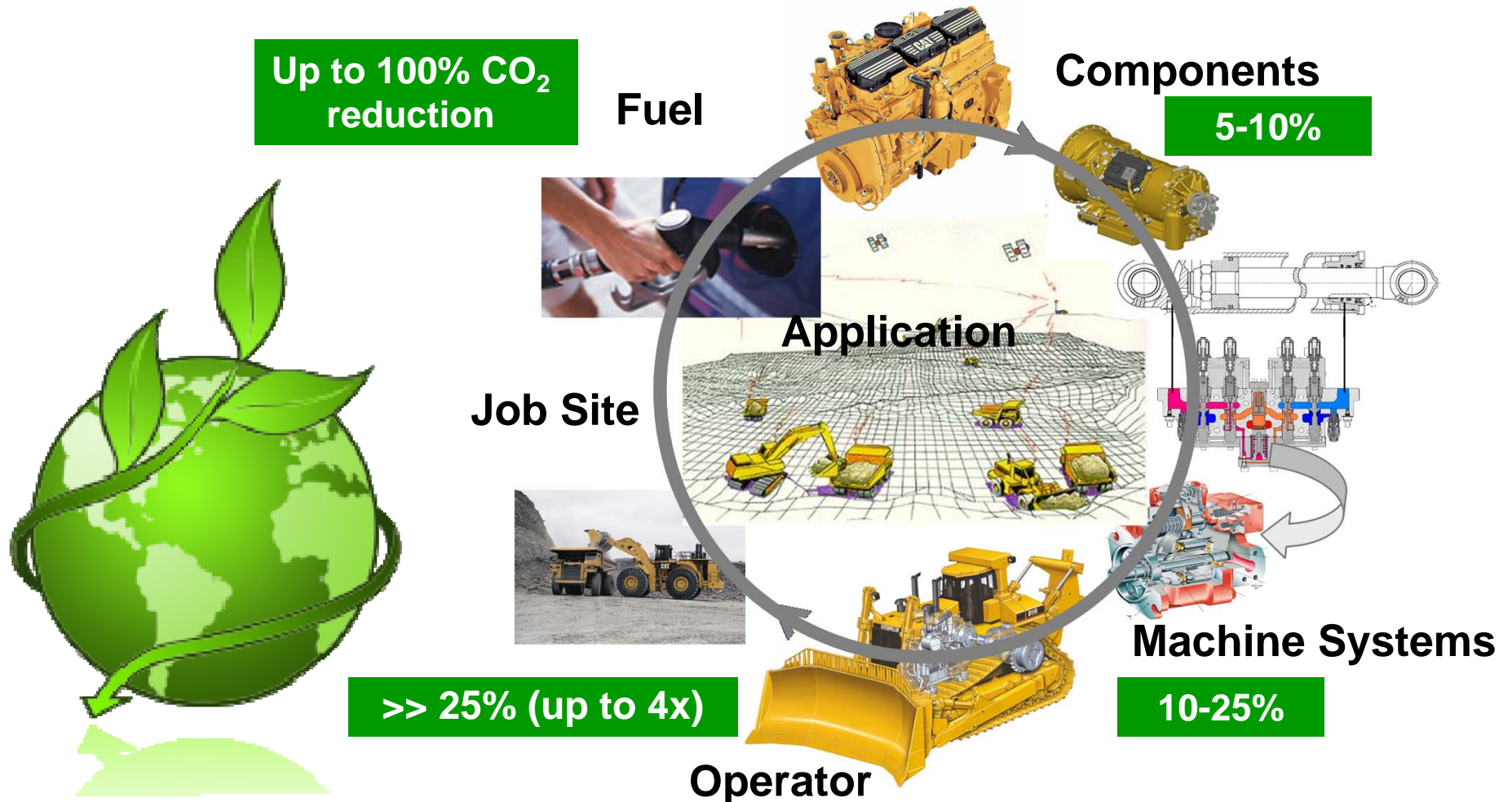
# SUSTAINABILITY

The Power of Endurance

A Caterpillar Core Value



# A Total Systems Perspective to Improve Fuel Efficiency and Reduce CO<sub>2</sub>



# Enterprise Technology Strategy Bold Goals

- Lower GHG / Improve Fuel Efficiency
- Increase Power Density
- Reduced owning / operating cost
- Alternative Fuels
- Improve operator efficiency
- Accelerate Novice performance

# Autonomous Mining Truck Technology Advantages

- Improved Mine Site Safety
- Estimated Improved Fuel Efficiencies by 5-10%
- Water Truck Usage Reduction (~25%)
- Potential to Improve Major Component Lives by 5-15%

# Autonomous vehicle solution available TODAY

## COMMAND FOR HAULING

An autonomous hauling solution that boosts haul truck safety, productivity and availability.



### NEXT GENERATION. NOW.

Command for hauling takes advantage of the most sophisticated technologies available to enable Cat® autonomous haul trucks to work safely and productively on busy mine sites.

More than just an operator-free equipment system, Command for hauling is a complete, next-generation haulage solution that delivers solid, bottom-line benefits for miners who need to work in difficult or inaccessible locations. Highly advanced safety systems enable Cat autonomous haul trucks to operate reliably around other mining equipment, light vehicles and site employees.

#### **Safe. Efficient. Productive.**

Caterpillar engineers have taken autonomous technologies to new levels to make autonomous hauling safe and productive. Cat autonomous haul trucks can negotiate complex haul roads, maneuver through mine site traffic and navigate efficiently to and between loading points and dump sites.



#### **Contact An Expert**

Mine more efficiently, safely and productively. Contact a Cat® MineStar™ expert

# Demo video clips

[Hauling application](https://www.youtube.com/watch?v=N_JsLOfm1aI) - https://www.youtube.com/watch?v=N\_JsLOfm1aI

[Dozing application](https://www.youtube.com/watch?v=3cWZCPJccvM) - https://www.youtube.com/watch?v=3cWZCPJccvM

[Underground mining](https://www.youtube.com/watch?v=8c9IGP1SmSs) - https://www.youtube.com/watch?v=8c9IGP1SmSs





# RESOURCEFUL

in More Ways Than One.