

LISBOA 2010
MAY 25/28
16th World Meeting

Ecodesign and Ecoconcepts



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Contractors Face Increasing Pressures

- Economic
 - Fuel and material costs
 - Waste disposal costs
 - Cost of regulatory compliance
- Environmental
 - Air quality and greenhouse gas emissions
 - Waste
 - Land use/job site impacts
- Social
 - Job site safety
 - Shortage of skilled labor
 - Reputational impact (e.g. ability to hire)

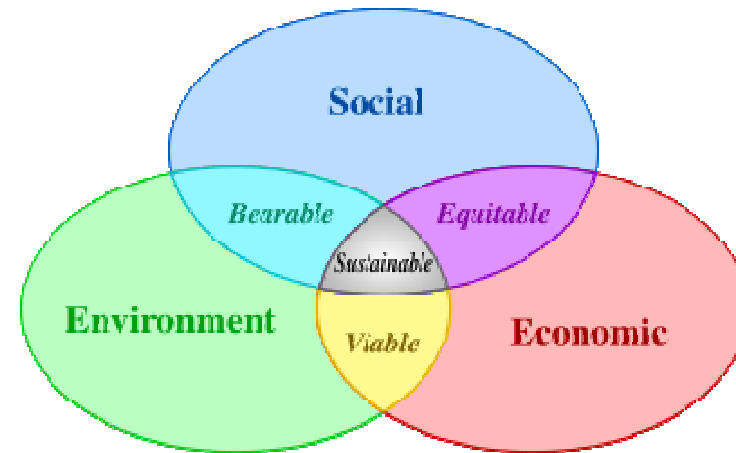


**Voice of Contractors:
“How will you help me
respond to the pressures?”**

Sustainability In New Product Development

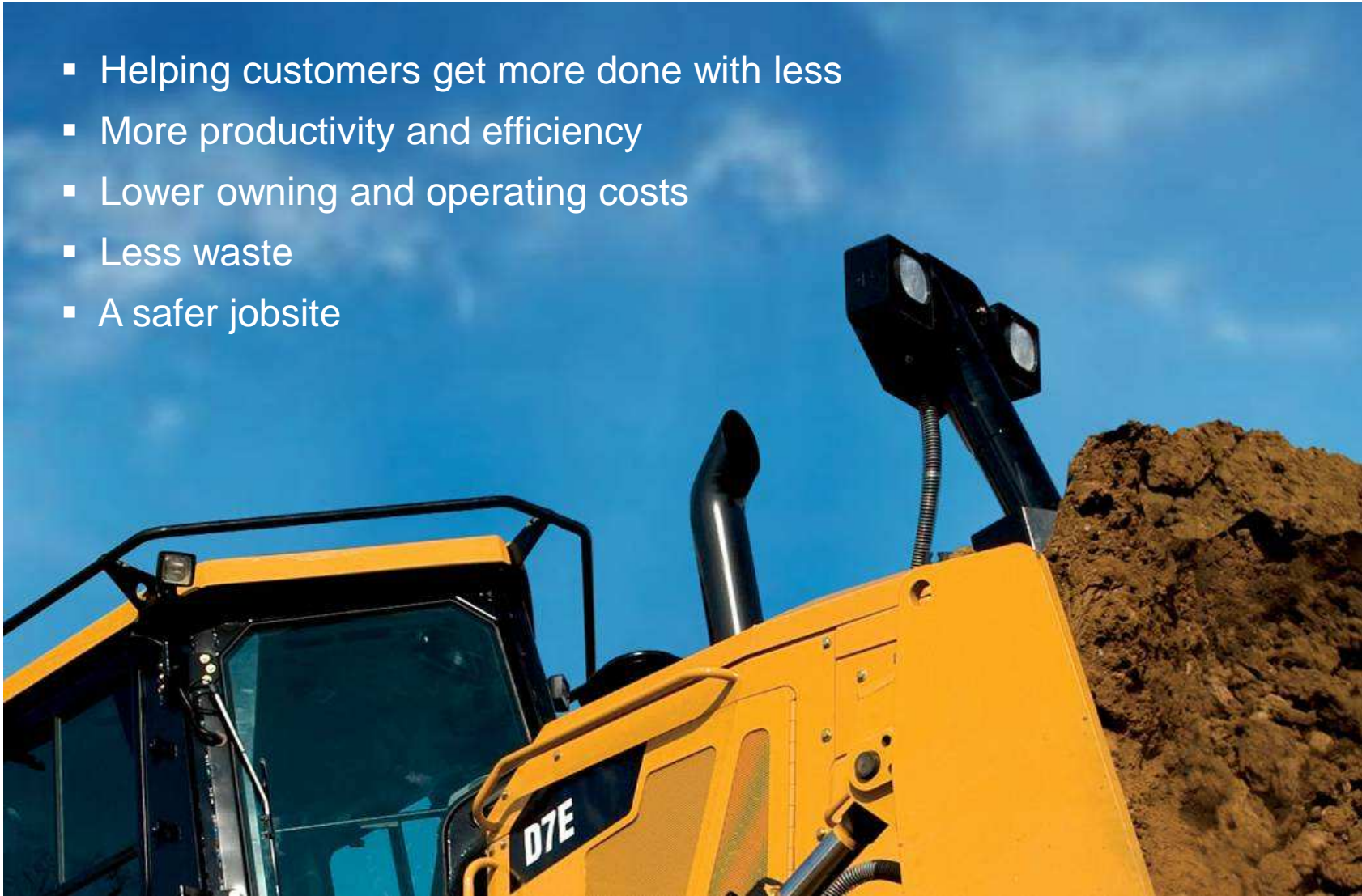
- Economic
 - Life Cycle Cost
- Environmental
 - Fuel/Energy Efficiency
 - Air Quality Emissions
 - Greenhouse Gas Emissions
 - Materials Efficiency
 - Manufacturing Impacts
 - Supply Chain Impacts
- Social
 - Safety
 - Sound

When a Product/ Practice/
Initiative satisfies all 3
criteria, it is considered
sustainable

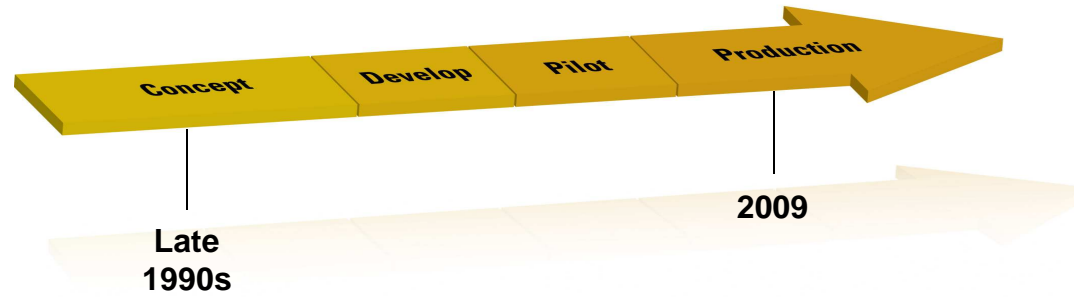


Sustainability In New Product Development : More than “Environmentally Friendly”

- Helping customers get more done with less
- More productivity and efficiency
- Lower owning and operating costs
- Less waste
- A safer jobsite



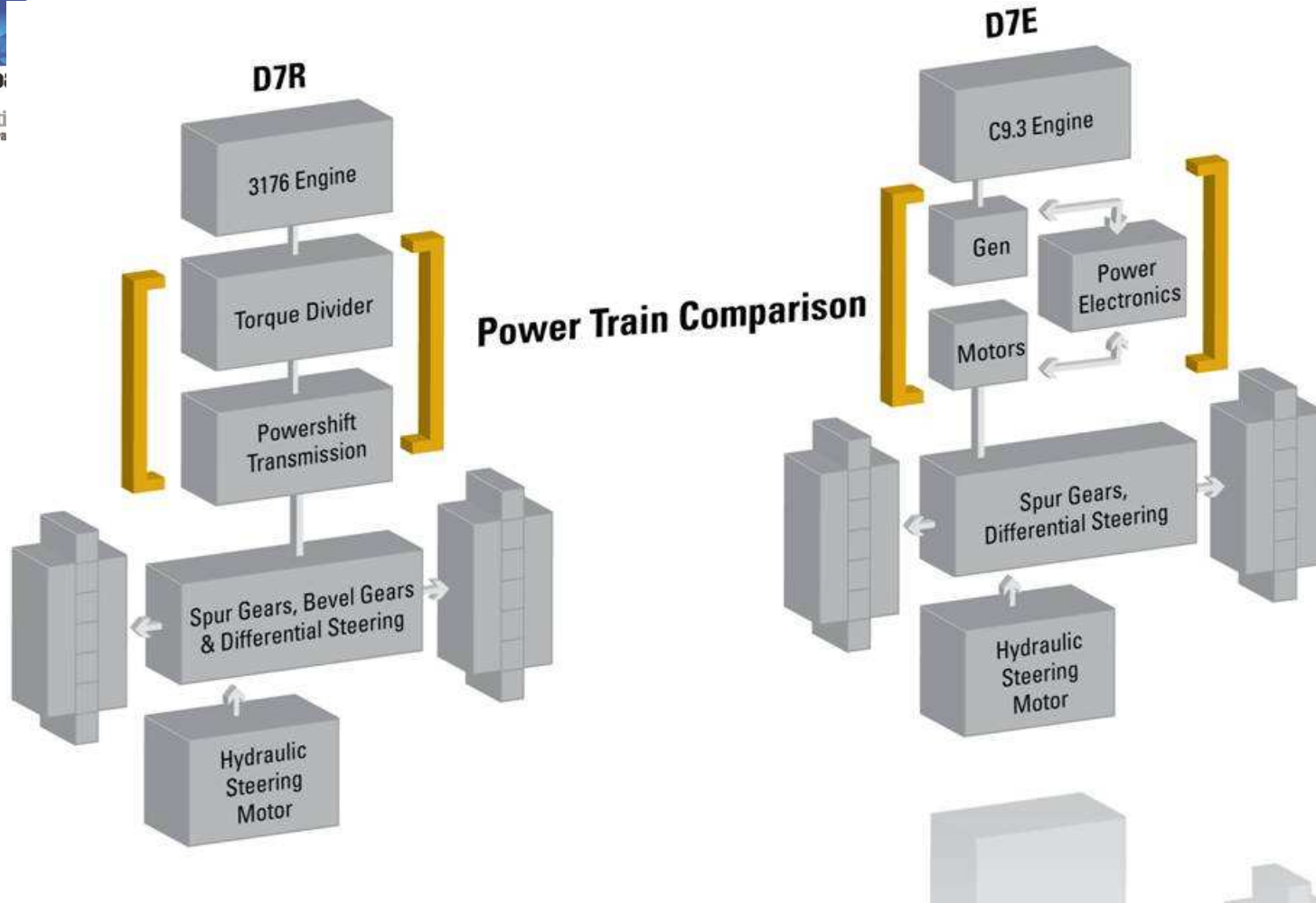
Example: D7E Product Development Timeline




New releases are RESOURCEFUL. In more ways than one.



60% Fewer Moving Parts



Less Fuel Used per Hour



- 10% to 30% less fuel per hour
- Lower lifetime greenhouse gas (CO₂) emissions
- A 25% reduction in fuel use would mean 25% less CO₂
- Bio-diesel compatible

Life Cycle Management - Facts



- **>95%** of mobile construction equipments are **recyclable** due to the nature of the components used (mostly iron and steel)
- In average **80-85%** of mobile construction equipments **weight is made of steel** or iron
- Currently between **30-40% of the steel used** on new produced equipment **is recycled**
- Availability of recycled steel requires use of virgin material

Cat 2020 Sustainability Goals For Products, Services and Solutions



- Provide leadership in the safety of people in, on and around our products
- Reduce customer greenhouse gas emissions by 20%
- Increase customer energy efficiency by 20%
- Increase customer material efficiency by 20%



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Thank You



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Questions for Round Table

Which method are you using to Find % of Steel/ iron Recycled Content?

- 2 Methods of Finding % Steel Recycled Content
 - **Method 1** – Caterpillar Experts
 - Mini Mill = 100% recycled content
 - Integrated Mill = 15% recycled content
 - **Method 2** – Steel Recycling Institute
 - Mini Mill = 82.8% Recycled Content
 - Integrated Mill = 28.9% Recycled Content



Questions for Round Table

How do you currently supply machines worldwide?

- Multiple Sourcing/ production for each selling region
- Supply chain developed to limit transportation. Both Components and raw material + finished goods
- Using Total cost logic rather than material cost only.
- Containerization (where possible) to reduce shipment cost and improve transportability