

ROSI: How to Ensure Sustainability Initiatives Drive Enterprise-Wide Value Creation

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The Opportunity (s)

Sustainability is Good Management

- Manages operational, market, regulatory, reputational risk
- Creates innovation and growth opportunities
- Identifies operational inefficiencies
- Creates sales and marketing and customer loyalty benefits
- Improves supplier relations and resiliency
- Supports stakeholder relations and license to operate benefits
- Creates employee productivity and retention benefits

For Example: Decarbonization Value Creation

Drives:

- energy costs savings
- avoidance of energy pricing volatility
- avoidance of carbon fees
- avoidance of regulatory and market risk
- potential increased market share/premiums/customer loyalty
- more resilient supply chain partners
- lower cost of capital

Cardinal Health™ Reduced GHG Emissions by Optimizing Pharmaceutical Delivery Schedules

Cardinal Health™ collaborated with NYU Stern CSB to find operational efficiency and emissions reduction benefits through early optimization of their pharmaceutical delivery schedules

Financial Value Creation

- Optimizing the number of last mile deliveries can yield **\$254K** in **average annual savings** by way of decreased fuel costs, operational efficiency, and reduced emissions

Additional Benefits

- GHG emissions reduction
- Improved operational efficiency



EILEEN FISHER Finds Financial Cost Savings by Shifting Away from Air Transportation

EILEEN
FISHER

NYU Stern CSB collaborated with Eileen Fisher to monetize shifting its transportation mix away from air and towards sea and trucking transports resulting in financial cost savings and societal benefit



Transportation Cost Savings

In 2019, the company spent ~\$1.6 million less in transportation costs than in 2015



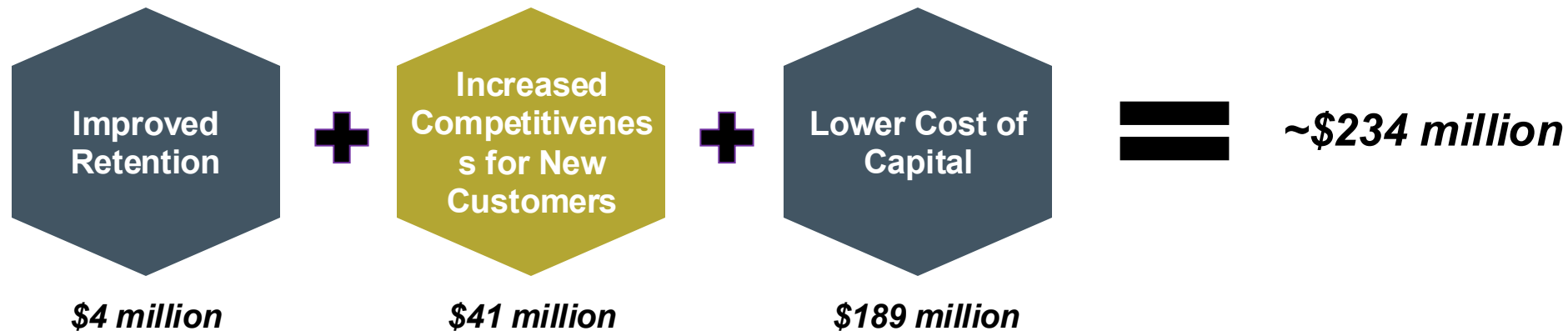
Societal Benefit

From 2015 to 2019, the company achieved a cumulative societal benefit of ~\$150,000* due to the reduction in its GHG emissions

**Note: Using \$50 per MT CO₂e as the social cost of carbon*

Capital Power's Pursuit of Early Decarbonization

- Capital Power, a Canadian electricity generator with annual revenues of ~\$1bn, evaluated the business case for an early exit from coal-generated electricity and into renewable energy (primarily wind & solar)
- Upon applying the ROSI framework, 3 primary benefits were identified:
 - Improved retention and lower turnover due to sustainability commitments
 - Increased competitiveness for new customers interested in renewable energy
 - Lower cost of capital for sustainability initiatives



The cumulative net benefits from 2021-2030 are equivalent to ~\$234 million

Energy Efficiency at Utility Company Creates Intangible Financial Benefits (Utility Does Not Pay for Energy)

- A utility company evaluated the business case for investments in energy efficiency projects at several facilities
- Upon applying the ROSI framework, four benefits from these investments were identified.
- ***On an annual basis, the total net benefit is ~\$2.1 million; the cumulative NPV benefit over 10 years is \$12.8 million***



Employee
Relations

***Greatest value achieved
from increases in
employee productivity***

Stakeholder
Engagement



Customer &
societal benefits

Reduced utility &
operational costs
and financing costs



\$2.06 million



For Example: Circularity

Drives:

- operational efficiency (reduced input and waste disposal costs)
- new product sales, increased market share, premiums, loyalty
- reduced supply chain risk through closing the loop
- reduced exposure to tariffs
- ability to make sustainability claims
- earned media benefits

Advocate Health Boosted Operational Efficiency by Using Reprocessed Devices

Advocate Health Care collaborated with NYU Stern CSB to find operational efficiency and risk management by utilizing reprocessed medical devices

Financial Value Creation

- **10-year Net Present Value** assessed at **\$20.3M**
 - ◆ Total present value of benefits were **\$20.8M** with program costs of **\$0.5M**
 - ◆ Average annual benefit of **\$3.5M**

Additional Benefits

- GHG emissions reduction
- Waste reduction
- Improved operational efficiency

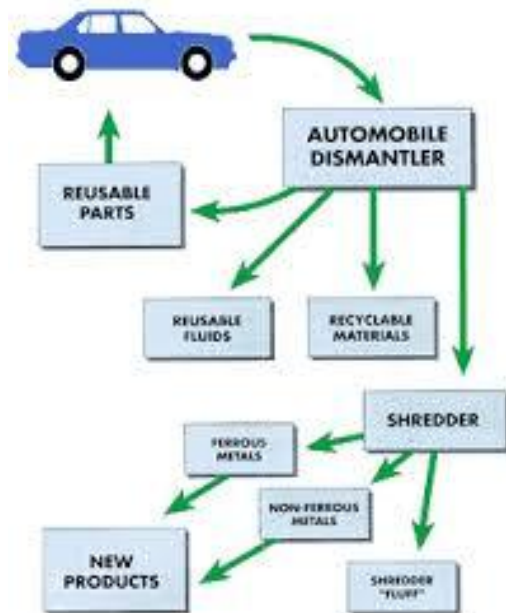


Benefits of Circularity In Automotive

Incorporating benefits of sustainability strategies into decision-making requires a systems thinking approach

Examples of Practices

- Recovering & recycling materials from end of life (EOL) vehicles - to maximize the benefit reusable material needs to be incorporated in the car design



Results

- 2.5% of treated EOL material was recovered and reused and 10% was sold to recyclers in Europe
- Savings achieved from reduced virgin materials, process savings and lower disposal costs and in incremental revenues generated from sales

Total EBIT savings of \$100 million