

The Economic, Environmental and Social Value of Sustainable Innovations

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School of the Environment – University of Leeds

Here's what we know about Henkel's performance in 2000.

- + 464 million € Value Added than in 1999.
- + 85,000 tons of CO₂ emissions than in 1999.
- – 40 tons of SO₂ emissions than in 1999.
- + 7 tons of VOC emissions than in 1999.
- – 72 tons of NO_x emissions than in 1999.
- – 80 work accidents than in 1999.

- So, innovating for sustainability?
Contributing to more sustainability?



Here's why Henkel is polluting.



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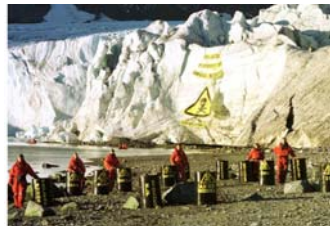
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Eco-Efficiency: The big buzz-word



€



CO₂

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The Environmental Approach



- What's Henkel's overall damage to society?
- Weigh up different „environmental bads“
 - How bad is more CO₂ in comparison to less work accidents?
 - What's the trade-off between work accidents and CO₂?
- It's
 - Focused on how bad emissions are.
 - Ethically doubtful.
 - Impossible in practice for many impacts.
 - Unimportant.

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The Business Approach



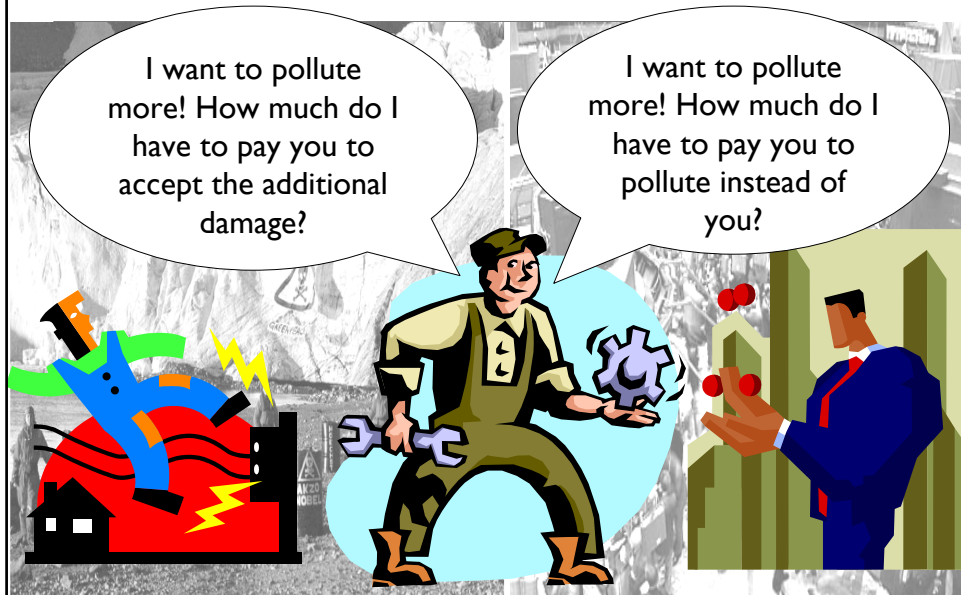
- How much value is created?
 - How much € value is created per ton of CO₂?
 - How much € value is created per ton of VOC?
- Compare the value of alternative uses (opportunity costs)
 - When used in another place – how much more value is created?
- It's
 - Focused on how much value is created.
 - Easy to do.
 - Using the logic of the financial markets.
 - Compatible with managerial thinking.

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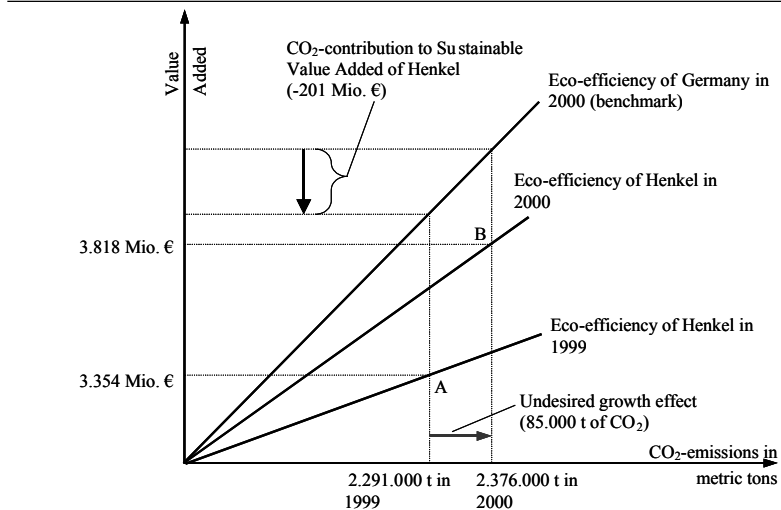
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How to deal with environmental damage?



The Henkel Case



How do multiple impacts add up?

- Companies need several environmental and social resources to create value.
 - Impacts are complementary.
 - Companies use bundles of environmental and social resources to create value.
- We know e.g. that in the German economy
 - 1 ton of SO₂ goes with
 - 1,079 ton of CO₂to create value.
- This relationship is what we use to account for the complementary character of impacts.

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Sustainable Value Added of Henkel in 2000

Contribution of environmental and social impacts

CO ₂ -Performance contribution	-201 Mio. €
SO ₂ -Performance contribution	102 Mio. €
VOC-Performance contribution	-9 Mio. €
NO _x -Performance contribution	91 Mio. €
Work accident-performance contribution	107 Mio. €
Overall environmental & social performance	18 Mio. €

Contribution of economic performance

Economic Growth	464 Mio. €
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Sustainable Value Added	482 Mio. €
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Conclusions

- Sustainable Value Added
 - expresses Henkel's Triple Bottom Line performance in € terms.
 - shows Henkel's contribution to making Germany more sustainable.
 - leaves overall environmental and social burden constant.
 - is based on data which is publicly available.
 - does not require external cost figures.
 - provides basis for meaningful but understandable TBL performance measurement.
 - shows whether Henkel has been successfully innovating for sustainability.