“Can we manage sustainably and make more money”

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What we’ve done before

• EMA
• Expert Working group
• IFAC
• ISO 14001 / ISO 26000

• How can this idea be related to water and sanitation operations?
• Why should you be interested?
The Cost of Waste (Inventory loss)

- The cost of waste is higher than most business managers assume
- The cost of waste goes beyond disposal costs
- Improved cost of waste information can be a powerful driver for implementing social responsibility in companies

Costs included in EMA

- Disposal and treatment costs
- Liability, contingency and overhead costs
- Wasted materials purchase costs
- Production costs of wastes and emissions
- Material inventory losses
**Environmental Costs Are Often Underestimated**

- Research Findings:
  - For every dollar of waste cost that companies actually measure, another 2 to 3 dollars of cost are "hidden" in the accounting records, or are not on the books at all.
  - Companies typically underestimate how much waste really costs them, sometimes by several orders of magnitude.
  - This applies even to big, well-managed companies.

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**Shareholder Value**

- Shareholder Value is today's value of the future earning streams Shareholders may expect.
- Shareholder Value is often equated with Market Capitalization which is the financial market's estimate of Shareholder Value.
- Shareholder Value is not the same as Enterprise Value but an estimation of future cash flows thus of perceived financial health.
How can we become “green” and successful?

• Only “revenue enhancing” Corporate Sustainability Activities can be sustainable.
• Not every kind of Corporate Sustainability Strategy enhances the economic success of companies.
• The key question for companies is:

• What kind of Corporate Sustainability Strategy has a beneficial impact on the economic performance of companies?

Environmental Shareholder Value Analysis – SONY (2001)

<table>
<thead>
<tr>
<th>Environmental activity</th>
<th>Value Growth Duration (1)</th>
<th>Revenue Growth (2)</th>
<th>Operating Profit Margin (2)</th>
<th>Regulatory conditions (1)</th>
<th>“Bed up” capital (2)</th>
<th>Cost of capital (1)</th>
<th>Partial Score Max (11)</th>
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</table>
What kind of corporate sustainability activities increase Shareholder Value?

- **Capital-extensive**: software rather than hardware ('smarter', smaller, cheaper installations);
- **Low material consumption**: reduced throughput (lower purchase, storage, and depreciation costs);
- **Sales-boosting**: increasing the benefit and attraction to customers (more desirable products and services for more customers);
- **Margin-widening**: increasing the benefit to customers and reducing the costs of producing the respective products and services (higher prices due to greater benefit and lower operating costs by improved operating efficiency);
- **Safeguarding the flow of finance**: confidence of the capital market (lower and more unsystematic risks and ‘green bonus’);
- **Long-term enhancement of value**: anticipation of future costs and earnings potential

### Manufacturing Steps at Water Treatment Plant

**Materials Flow Map**

- **INVENTORY**
  - Raw water
  - Ancillary materials

- **Pumping**
  - Filter
  - Labour
  - Equipment
  - Infrastructure
  - Others
  - Fuel loss?
  - Water loss
  - to waste management

- **Treatment**
  - Labour
  - Equipment
  - Infrastructure
  - Others
  - Waste chemicals
  - to waste management

- **Pumping**
  - Potable water

- **Chemicals**
  - Air emissions

- **Energy**
  - Fuel loss
  - Water loss
  - to waste management
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