Implementing Alternatives Assessment: Business Implementation of Alternatives Assessment: Challenges and Opportunities

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Agenda

Introduction to SE
Simple Decision Heirarchy
Alternative Assessment (AA) to Improve the Decision Process
Where SE is today
Conclusions
Schneider Electric – focusing on energy

24 billion € sales in 2012

41% of sales in new economies

140,000 people in 100+ countries

4–5% of sales devoted to R&D

Energy is key to our business – from generation to use...

72% of energy consumption

Integrated solutions where energy is used...
SE-IT (APC) Business Overview

**Business Description**

- **€3.6B**  
  2012 annual sales

- **UPS Services**  
  #1  
  #1 or #2

- **Cooling**  
  #3

- **Racks/PDUs**  
  #1 or #2

- **Software**  
  #2

**Link to SE Business**

**Segment Responsibility**

- **Finance**

- **Cloud/Collocation**

- **IT**

**Products**

- **Surge Protectors**

- **Home & Professional UPSs**

- **Data Centers**

- **Industrial UPSs**

- **Security**

- **Cooling**

- **Software**

Schneider Electric
Model – Decision Process

A Miracle Occurs!

options

Selections
## Decision Hierarchy

<table>
<thead>
<tr>
<th>Level</th>
<th>Focus</th>
<th>Frequency</th>
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<tbody>
<tr>
<td>Company</td>
<td>Vision, Purpose, Governance…. (Focus on Energy from Generation to Use)</td>
<td>Decades</td>
</tr>
<tr>
<td>Business</td>
<td>Product &amp; Technology Roadmaps, Investment, Acquisitions….</td>
<td>Annually</td>
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<tr>
<td>AA</td>
<td>(Acquire APC to focus in Datacenter energy use) (Develop non-phthalate power cord materials)</td>
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</tr>
<tr>
<td>Product</td>
<td>Design, Technology Selection, Product Delivery….</td>
<td>Daily</td>
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<tr>
<td>LCA</td>
<td>(Select material for use in a product’s power cord)</td>
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# Model – Decision Process (Business)

<table>
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<tr>
<th>Options</th>
<th>Performance</th>
<th>Cost</th>
<th>Risk</th>
<th>Market</th>
<th>Mfg.</th>
<th>Regulations</th>
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Selections:
Example: Business-level Alternatives Assessment (Technology Roadmap)

• Materials Roadmapping Team:
  • Evaluate material use in Schneider Electric and identify uses with greatest potential impact.
    • Edison Experts perform the evaluation
    • Based on regulatory, availability, cost, technology disruption, market needs…
  
• Material uses are ranked on impact to the business.
  • Expert Teams formed to focus on material uses with greatest impact
  • Perform Alternatives Assessment (Purpose of the Material Use, Identify Alternatives, Conduct Feasibility Assessment, Conduct Hazards Assessment)
  • Establish standard replacement material use to communicate to engineering and the supply chain.
Example: SE-IT Critical Materials: Phthalates in Cords/Wire

- Phthalates in PVC Wire – Plasticizer in the insulator of PVC wire (Power Cords, wire assemblies)
  - Applications that rely on plasticizers to achieve performance
    - Power Cords – customers expect flexibility
    - Wire harnesses with tight radius bends

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<th>Weight (kg)</th>
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<td>2012 Purchases of Wires with Phthalates</td>
<td>3,250,000</td>
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<td>% of Total</td>
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<td>SE-IT NR with wires with phthalates</td>
<td>29.0%</td>
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Example: SE- IT Critical Materials: Phthalates in Cords/Wire

- Find the **Right** Safer Chemical to replace Phthalates:
  - Utilize Plastic Material Technical Expert community to evaluate and select the **Right** substitute
  - Involve experts beyond SE
    - Private – Public Partnership with multiple stakeholders (GC3)
    - Supply chain, start-ups, academia (Green Screen)
  - Leverage existing SE sustainability initiatives to test and develop safer chemicals.
  - Incorporate Hazards Assessment and principles of Alternatives Assessment as a key component of Technical Expert community capability.
# Model – Decision Process (AA)

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Questions

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