

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

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December 2013



# *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....*



- Energy and infrastructure
- Industry
- Data centers and networks
- Buildings
- Residential

**72%** of energy consumption

*Integrated solutions where  
energy is used...*

# SE-IT (APC) Business Overview

## Business Description

**€3.6B**  
2012 annual sales

UPS	#1
Services	#1 or #2
Cooling	#3
Racks/PDUs	#1 or #2
Software	#2

## Link to SE Business

### Segment Responsibility



Finance



Cloud/Collocation



IT



Surge Protectors



Home & Professional UPSs



Data Centers



Industrial UPSs



Security



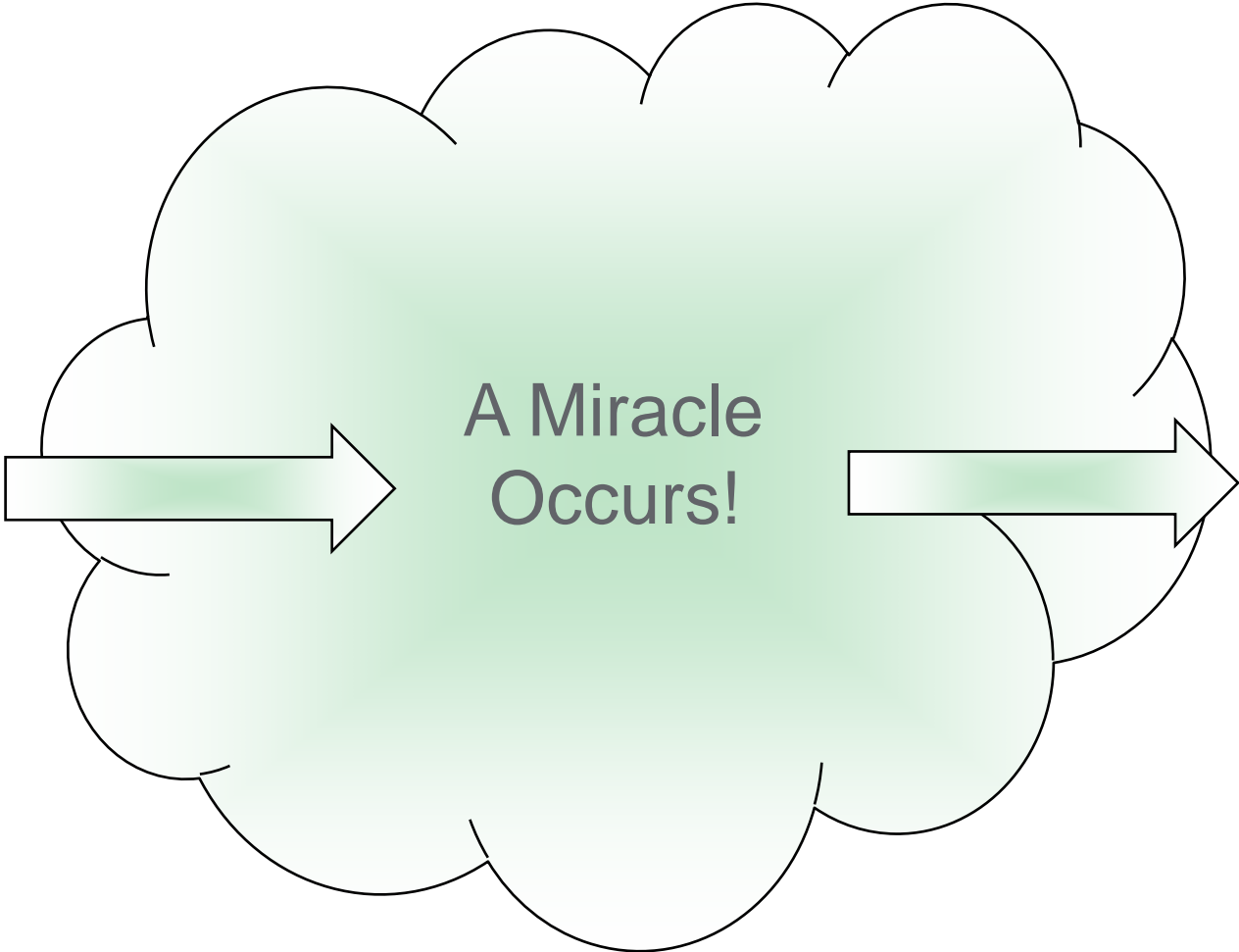
Cooling



Software

# Model – Decision Process

*options*



*Selections*

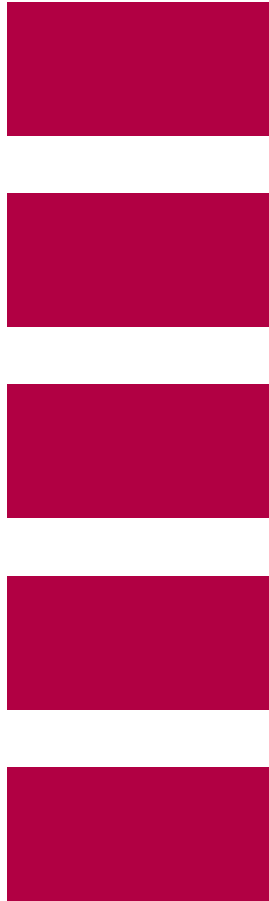


# Decision Hierarchy

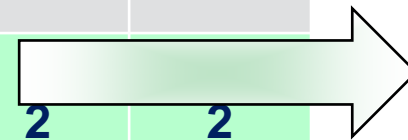
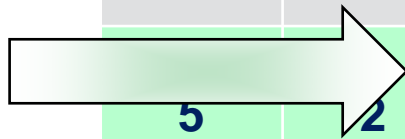
<u>Level</u>	<u>Focus</u>	<u>Frequency</u>
• Company	Vision, Purpose, Governance....	Decades
	(Focus on Energy from Generation to Use)	
• Business	Product & Technology Roadmaps, Investment, Acquisitions....	Annually
AA	(Acquire APC to focus in Datacenter energy use) (Develop non-phthalate power cord materials)	
• Product	Design, Technology Selection, Product Delivery....	Daily
LCA	(Select material for use in a product's power cord)	

# Model – Decision Process (Business)

*Options*



Performance.	Cost	Risk	Market	Mfg.	Regulations
4	3	5	2	4	4
3	3	4	5	5	4
5	2	3	4	2	2
3	3	3	5	2	2
2	1	3	5	2	2



*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

	Weight (kg)
2012 Purchases of Wires with Phthalates	3,250,000

	% of Total
SE-IT NR with wires with phthalates	29.0%













# 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)

<i>Options</i>	<b>Perf.</b>	<b>Cost</b>	<b>Risk</b>	<b>Mkt.</b>	<b>Mfg.</b>	<b>Reg.</b>	<b>“AA”</b>	<i>Selections</i>
	4	3	5	2	4	4	5	
	3	3	4	5	5	4	4	
	5	2	3	4	2	2	3	
	3	3	3	5	2	2	4	
	2	1	3	5	2	2	3	



# Questions

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