



United Technology Corporation

COMPANY: UTC is a \$43B global technology corporation headquartered in Hartford, Conn., with a long history of pioneering innovation in aerospace, aviation, helicopter design, climate control, elevator design and hydrogen fuel cells.

CHALLENGE: UTC was facing increasing numbers of customer restrictions and regulatory bans on certain hazardous materials. The company set ambitious goals to eliminate heavy metals – lead, mercury, cadmium, hexavalent chromium – and chlorinated solvents from its product offerings and associated manufacturing processes. To target limited resources effectively, the company needed a method to assess the risk of potential human and environmental impacts of these materials in many UTC products across different Business Units (BUs). The BUs look to UTC's Environmental Program (EP) group for facilitation, coordination, communication and reporting that will help them meet the company's internal objectives and the customers' requirements while still achieving the BUs' financial goals. UTC's EP group had developed a system that tracks progress and reports via the Web, but this system was not designed to prioritize projects based on a limited budget.

ACTION: The EP group needed a practical but reliable method to assess risk that could help the BUs determine where to best spend limited budgets to achieve the biggest impact for the company overall. The uses targeted for elimination were all legal uses not currently under any market restrictions, and the BUs wanted practical guidance for determining the highest risk uses that were most likely to face future restrictions.

A cross-divisional team working with EP had developed internal qualitative rankings to use as a half-step, but there were some inconsistencies, and recommendations for project selection were difficult to justify and communicate to management. Since EP had successfully used Expert Choice for a previous environmental risk assessment project they decided to incorporate the product into the materials-of-concern decision-making process.

Using Expert Choice 11 in an on-site facilitated session, and several Web-based collaborative sessions on the Expert Choice Decision Portal, EP was able to get the team to prioritize its risk criteria and then evaluate nearly 100 materials of concern. When finished, they modeled their constraints and optimized the portfolio of materials using the Expert Choice Resource Aligner.

RESULTS: Initially, BUs were impatient to get the final result of recommended projects partly due to the fear of losing their project priority and partly due to the focus on bottom-line metrics driving BU managers' compensation. However, the BUs have recognized the value of the process with continued use and a better understanding of the process. This value includes discussions of issues, objectives, what-if scenarios and inconsistencies that lead to greater consensus and better justification for BUs to present their case to senior management.

There are still challenges to overcome. Now that the BUs better understand and accept the process and the outcomes, there is a desire to rework the risk model. The Expert Choice model identified some significant inconsistencies between ratings by different divisions and with the ad hoc qualitative assessments. Resolving these apparent discrepancies builds team confidence in the risk model, making their communication of results to senior management more effective. Improved decision-making at both Corporate and Operating Unit levels will demonstrate the value of Expert Choice.

BENEFITS:

Expert Choice is helping EP prioritize risk projects, enabling Business Units to:

- standardize a prioritization process among the BUs
- clarify and gain consensus on important objectives and measurement criteria
- better prioritize materials of concern and identify inconsistencies in judgment while prioritizing
- develop stronger customer relationships, particularly when a customer has an environmental concern or a requirement for a Request For Proposal (RFP)