

## SPOTLIGHT ON NSE ALUMNI

### Dr. Andrew Cook: The Engineer as Executive



Successful technology-driven companies build an ongoing connection between their product development efforts, and the problems, needs and goals of their customers. This process requires technically skilled people who can also manage teams, build relationships, and adapt to changing conditions. One example: Andrew Cook (NUE '76, SM '76, PhD '78), who serves as Senior VP of Customer Relations and Marketing for AREVA, a global developer of nuclear and renewable energy.

Andy Cook did not have an executive level job in mind when he completed his studies in Nuclear Science and Engineering. "I wanted to run a nuclear power plant," he recalls. "I wanted to work for a vendor for two years and then move to a utility." But his knack for systematic analysis, an enjoyment of interpersonal communication, and a fascination with the dynamics of businesses as well as atoms led to a series of promotions, a multi-billion-dollar sales record, and his current high-visibility post at AREVA.

An important ingredient, says Cook, has been the confidence instilled during his years at MIT. "MIT is a very hands-on place, and I learned from people who built and ran things. MIT provides a strong grounding that lets you move in a very versatile way through the technical and business aspects of nuclear power. It means I can understand what customers are talking about. I feel comfortable in any situation on any subject," he explains. "It has allowed me to interact successfully and with confidence at all levels with customers, regulators, and even with anti nuclear advocates. I can keep the focus on the issues and on a positive, productive dialogue."

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Cook notes, however, that this value wasn't always apparent in the moment. “I sweated through two semesters of metallurgy, but now when a customer talks about crystal structure, I know what questions to ask. Or fuel-cycle economics — it seemed unusual to spend so much detailed time on this in Mason Benedict's course. We were training to be engineers, not accountants. But the subtleties of how customers do fuel cycle accounting turns out to be a very important topic. And the analysis approach applies directly to other products including new plants!”

The three decades of Cook's professional career have seen many changes, but the energy industry, and particularly the nuclear sector, has clearly grown in importance and excitement. “I would encourage students to look forward to the future of energy in the US and the world,” says Cook. “This technology is essential. We will find that it's a very important and profitable business. The typical nuclear plant, when it's running, delivers a net positive cash flow of a million dollars a day. Our customers are ecstatic!”

For all its sophistication, however, the nuclear industry (and many other technology sectors) continues to have a strong need for leaders who can listen, respond thoughtfully and sensitively, communicate effectively from a technical perspective, and ensure that engineering programs result in products that customers will value. Cook is an active advocate in this area; he is implementing new systemic product development processes at AREVA, and teaching internal sales and marketing classes at the four year AREVA training academy that he created. He has even written a book, *Sell*, which explores the effective management of large industrial sales and marketing teams.

“I've seen companies and executives struggle with listening to customers through much of my career; even major, enduring suppliers have to keep reminding themselves of the importance of understanding the customer's business and needs. It is very easy to get internally focused and forget where the money comes from,” notes Cook. “When you meet the customer's need with the type of thinking and the type of disruptive product that comes out of MIT, it can be very significant.” ■

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