

Innovative Upskilling: How Eastman and A. O. Smith Are Shaping Workforce Development

SUMMARY

Employee upskilling is a crucial strategy for organizations to remain competitive and foster innovation. Defined as the process of enhancing existing skills or acquiring new ones, upskilling is increasingly vital for both individual career development and organizational success. This report draws on data from the Spring 2024 IRI Community Forum survey, which examined upskilling trends across sectors, and highlights best practices from leading companies with innovative workforce development initiatives. Profiles of Eastman Chemical Company and A. O. Smith Corporation showcase the value of comprehensive programs focused on generative AI and subject matter expertise and demonstrate the importance of aligning upskilling efforts with both employee needs and organizational goals. The combination of survey findings and these best practices offers actionable insights for improving training programs and provides clear guidance for organizations seeking to build or refine their upskilling strategies.

Key Takeaways

- Upskilling Focus: Leading companies are actively emphasizing customized upskilling programs that align with organizational goals and individual employee needs. This includes a focus on emerging technologies like AI as well as leveraging subject matter expertise for knowledge transfer.
- Learning Culture: A strong emphasis is placed on creating a culture of continuous learning and innovation where employees are encouraged to experiment, ask questions, and apply new skills. Companies foster this culture by addressing employee feedback and adjusting training approaches to maintain engagement.

- Measuring Impact and Effectiveness: Companies are working to improve the
 effectiveness of upskilling programs by gathering feedback, analyzing
 outcomes, and refining content. Metrics such as employee engagement, skill
 application, and alignment with business goals help companies measure the
 success of their initiatives and adjust them accordingly.
- Relevance and Organizational Investment: A majority of employees feel that
 upskilling programs are relevant to their roles, and many believe their
 companies are significantly investing in their career development, highlighting
 positive perceptions of upskilling efforts.
- Common Upskilling Methods: In-house workshops, seminars, and training sessions are popular, with most employees participating in these initiatives, suggesting that hands-on and interactive learning remains the dominant format.

Upskilling

Upskilling refers to the process of learning new skills or enhancing existing ones, typically to keep up with changes in technology, industry standards, job requirements, or personal career advancement. It involves acquiring knowledge, abilities, or competencies that are relevant and beneficial for one's professional growth and success and can occur through formal education, training programs, online courses, workshops, or self-directed learning efforts.

Understanding how leading-edge companies are approaching upskilling is crucial for organizations aiming to stay competitive. This paper will offer valuable insights into the strategies employed by industry leaders, helping companies understand what others are doing and how they can improve their own initiatives.

The term upskilling will be used throughout with acknowledgement that multiple terms are synonymous including professional development, skill upgrading, knowledge acquisition, and capacity building. The meanings of the terms are broadly synonymous with some built in nuances that are interpreted differently and in accordance with organizational culture.

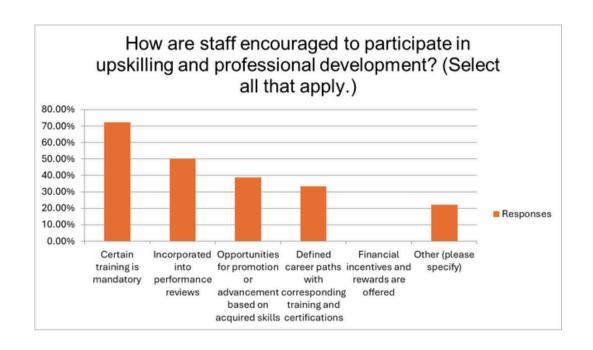
Community Forum Survey Results

In Spring 2024, IRI conducted a survey to examine upskilling trends among its member companies. The survey featured 18 questions focusing on broad themes related to upskilling initiatives and was divided into two segments.

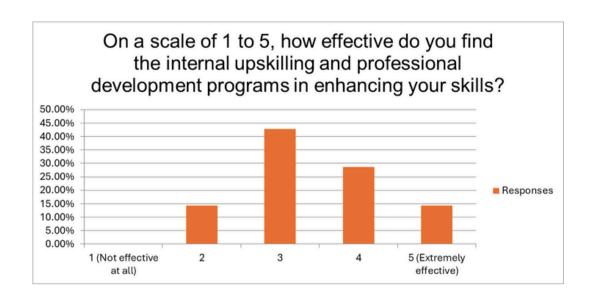
The Community Forum results below highlight the most illustrative examples of upskilling initiatives among IRI member companies. In response to a question about member companies' upskilling and professional development efforts, participants shared how staff are encouraged to engage in these programs. The majority (72.22%) indicated that certain training is mandatory while half of the respondents (50%) confirmed that upskilling is incorporated into performance reviews. Additionally, 38.89% noted that opportunities for promotion or advancement are based on acquired skills. Furthermore, 85.71% of respondents feel that upskilling initiatives are relevant to their roles, and 71.43% believe their organization is making a strong investment in their career development. The survey results reveal a variety of popular upskilling methods among respondents. The most common initiatives include in-house workshops, seminars, and training sessions, with 88.89% of respondents participating in these activities.

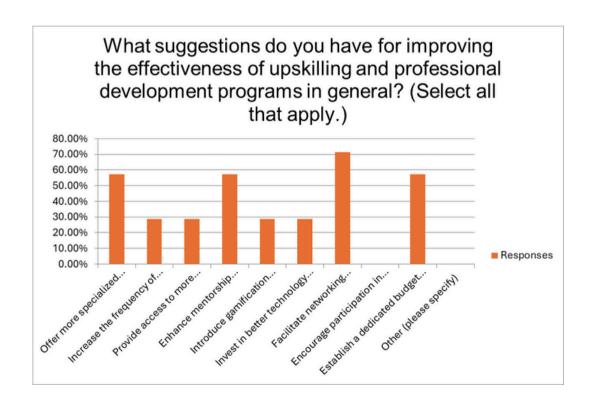
However, challenges persist as respondents expressed hesitation about the value of their upskilling programs. While 42.86% found internal training to be valuable, only 14.29% rated their initiatives as extremely effective. Additional data demonstrates possible reasons behind these results with 83.33% of respondents stating that the length of time required to train on new skills is a deterrent while simultaneously acknowledging the value of the learning opportunity once completed. Additionally, there is a need to narrow the focus of the training and clearly explain the relevance to specific job functions, with 50% of respondents stating that content areas are often too broad. Of note is that survey respondents believe that upskilling initiatives can be improved by offering more specialized training tailored to specific job roles or departments and by introducing gamification elements to make learning more engaging and fun. In addition, respondents believe that a dedicated budget should be established for employees to attend external conferences or training events. These recommendations highlight the potential for enhancing upskilling programs to better meet the needs of employees and organizations alike, fostering a culture of continuous improvement and innovation.

Please find graphs that illustrate additional findings below:









R&D Caveat from the IRI Research Technology Management Journal

Upskilling R&D professionals can be challenging due to the depth of specialized knowledge required, the continuous demand for learning in dynamic fields, and the essential hands-on experience often necessary for mastery (Andreggen, Zoller, Boutellier, 2015). Additionally, the interdisciplinary nature of R&D work and the inherent risks and uncertainties involved further complicate the upskilling process, making it a multifaceted endeavor requiring significant investment and commitment. However, despite these challenges, investing in the upskilling of R&D professionals is crucial for fostering innovation and retaining top talent. In particular, Generation Z employees place a high value on continuous learning and development opportunities, which are key factors in their job satisfaction and retention (Katz, 2024). The combination of data and best practices below will demonstrate how companies are tackling these challenges and meeting the evolving expectations of the workforce.

Best in Class Profile: Upskilling at Eastman

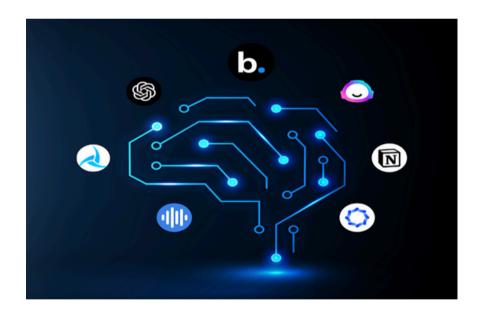


"Our goal is baseline generative Al literacy with flexibility built in."

Andrew Ervin, Generative Al Manager, Eastman
Chemical Company

Eastman Chemical Company is a global specialty materials company headquartered in Kingsport, Tennessee, founded in 1920. Eastman produces chemicals, plastics, and fibers used in various industries worldwide. The company is recognized for its focus on innovation and sustainability, developing products that meet customer needs while minimizing environmental impact. Eastman offers a diverse range of products, including chemicals for coatings, adhesives, and specialty applications, and plastics for packaging and consumer goods. Eastman works to supply essential materials and solutions globally and is driven by a commitment to responsible operations and continuous innovation.

In 2023, Eastman introduced an upskilling initiative to help employees navigate the complexities of the rapidly advancing digital landscape with the creation of specialized programs in generative AI. Employees are empowered to explore emerging technologies and practical applications via structured classes, discovery sessions, and breakout groups (Ervin, personal communication, 4/25/24). The program is built on the belief that generative AI will play a central role in work and that every employee should understand the technology and how it applies to their job. Eastman has expanded its longstanding digital academy beyond traditional courses in statistics, statistical process control, and experiment content to include these broader arrays of offerings in new and emerging technologies. Training sessions are available upon request typically between 1-2 times a week over the course of a year, with teams on hand to address any inquiries in interim periods (Ervin, personal communication, 4/25/24).



Central to Eastman's upskilling philosophy is a strong emphasis on cultivating basic literacy in AI and machine learning while embedding speed and agility into training processes. Notably, the deployment of generative AI training differs from introductory courses, by reflecting the technology's unique challenges and opportunities while teaching employees how to best apply these tools to their specific areas. Employees actively acquire practical insights into applying AI in real-world work settings while fostering a culture of experimentation, innovation, and continuous learning.

Additionally, Eastman's training draws upon insights from interactions with over 1,000 employees, many of whom have shared their technology-related challenges, resulting in a high level of customization (Ervin, personal communication, 4/25/24). The company's proactive approach to understanding employees' readiness and enthusiasm for upskilling reflects its commitment to delivering meaningful learning experiences. By engaging with different groups and teams, Eastman is working to develop a practical understanding of how Al can be effectively leveraged to drive business value, innovation, and competitive advantage. Eastman's leadership cares about value and believes that generative Al brings value and "value is what they should pursue" (Ervin, personal communication, 4/25/24).

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In terms of specific modes of use, Eastman has an internal ChatGPT platform that sees widespread usage, with thousands of employees utilizing it monthly for various tasks like transcribing meetings, generating summaries, and composing emails (Ervin, personal communication, 4/25/24). It's particularly valuable for non-native English speakers, aiding in communication and translation tasks which significantly streamline workflows. Training sessions delve into ChatGPT's functionalities, offering insights into effective utilization and problem-solving. These sessions encourage users to think creatively, explore different applications, and adapt the tool to their specific job roles.

Generative AI upskilling at Eastman has encountered some challenges around how to best navigate a broad array of opinions around these new technologies. Striking a balance between cautious skepticism to enthusiastic adoption has required respecting individual comfort levels while promoting the benefits of these new tools. A common starting point includes training around translation and meeting summary generation, which often helps bridge the gap while demonstrating value. Challenges also stem from the dynamic nature of the training process itself. While there is ample leadership support, the absence of a definitive playbook and the ever-evolving landscape of AI pose hurdles.

Balancing structure and flexibility in training sessions creates an ongoing challenge as formal training will not work due to the speed of change. However, despite these obstacles, the initiative remains rewarding, fueled by a dedication to addressing participants' questions and a commitment to continuous learning.

Eastman's proactive upskilling approach reflects its commitment to innovation and adaptation to the digital landscape. Through specialized programs on generative AI and an expanded digital academy, employees are empowered to embrace emerging technologies. Driven by continual improvement. Eastman is positioned to leverage AI for business value and competitive advantage in the future.

Best in Class Profile: Upskilling at A. O. Smith

"We are not just upskilling individuals but upskilling the whole organization."

Joshua Smith, Engineering Director – Electronics & Sensors R&D, A. O. Smith Corporation

A. O. Smith Corporation, a global leader in water heating and treatment technologies, has been serving both residential and commercial markets for over 150 years. Over the decades, A. O. Smith successfully diversified its product line from manufacturing steel automative frames to becoming a prominent name in water heating technology. Moreover, the company is known for its innovation and quality and offers a range of water heaters, boilers, and water treatment products. In fact, A. O. Smith continues to grow via a significant presence in North America, China, and India through strategic acquisitions and a strong focus on research and development. Culturally, A. O. Smith has upheld two core values: innovation and ethical practices. These principles are deeply embedded in the company's foundation and drive the company's sustained value and growth over the years (Smith, personal communication, 6/14/2024). A. O. Smith's commitment to continuous growth combined with the value placed on existing knowledge is the cornerstone of the company's upskilling and knowledge management program.

A. O. Smith has integrated upskilling with knowledge management initiatives by systematically training its entire workforce on existing and time-tested engineering techniques that have already proven effective and that are able to be modified and adapted (Smith, personal communication, 6/14/2024). The company has established several Subject Matter Expert (SME) councils to harness and disseminate critical technical knowledge across the organization, focusing on specialized areas such as welding techniques, operational efficiency, and electronic controls. The councils consist of seasoned experts possessing profound technical expertise and represent diverse geographical regions to ensure extensive coverage. They are overseen by a senior-level engineer that possesses both technical prowess and institutional insight (Smith, personal communication, 6/14/2024).

The Electronic Controls Council is leading the way in establishing new practices for knowledge management, transfer, and upskilling. It is working to capture and share essential technical knowledge within a safe learning environment while directly supporting business objectives and aiding in succession planning. This structured approach requires practice, implementation, conceptual understanding via the 70-20-10 learning model that consists of practical on the job training (70%), mentoring (20%), and formal education (10%) (Smith, personal communication, 6/14/2024).



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The council meets monthly to share best practices, tackle challenging issues, and align on strategic initiatives. Concurrently, A. O. Smith is developing a robust digital library tool aimed at creating a comprehensive and accessible database of technical knowledge to be overseen by the council. This system will support various learning preferences and will feature high level descriptions, videos by SMEs, reusable design concepts, and instructor-led courses (Smith, personal communication, 6/14/2024). The council ensures that all knowledge is up-to-date by integrating external courses with SMEs and encouraging employees to raise concerns about outdated or incorrect content.

The council model has been in place for a little over a year with much time dedicated to charter creation and the development of objectives and format. Initial feedback on the upskilling initiatives has been positive, though there is recognition of the challenges ahead. The most significant hurdles include developing the library system and scaling up practices across the organization.

A. O. Smith exemplifies how a long-established company can sustain innovation through continuous upskilling and knowledge management. By focusing on their people and maintaining a robust system for capturing and sharing knowledge, A. O. Smith ensures its workforce remains adept, and its business continues to thrive in a competitive global market.

Lessons Learned and Shaping the Future

The upskilling initiatives highlighted in this report emphasize the importance of continuous learning in helping organizations remain both competitive and innovative. Companies that align their workforce development programs with employee needs and strategic business goals are better equipped to drive meaningful change, retain talent, and stay ahead of industry disruptions. The profiled examples from Eastman and A. O. Smith showcase how customized, flexible approaches to training can lead to greater employee engagement and improved business outcomes. The integration of emerging technologies into upskilling programs not only equips employees with modern tools but also fosters an innovative culture. As seen in A. O. Smith's SME councils, effective upskilling initiatives align closely with organizational objectives which strategically leverage internal expertise to enhance efficiency. The most successful upskilling programs are those that remain agile and dynamic as demonstrated by Eastman's approach to addressing employee technology preparedness. By focusing on these best practices, companies can develop upskilling strategies that not only enhance individual competencies but also contribute to long-term organizational growth and success.

References

Andereggen, S., Zoller, F. A., & Boutellier, R. (2013). Sharing Research Equipment to Bridge Intraorganizational Boundaries. Research-Technology Management, 56(1), 49–57. https://doi.org/10.5437/08956308X5601082

Ervin, Andrew. Interview. Conducted by Lee Green and Meetal Desai, 25 April. 2024.

Innovation Research Interchange (2024), What Do Your Company's Upskilling and Professional Development Efforts Look Like? IRI: Community Forum Survey (Survey Monkey).

Katz, Roberta. (2024). 8 Ways Gen Z will Change The Workforce. Stanford Report. https://news.stanford.edu/stories/2024/02/8-things-expect-gen-z-coworker

Smith, Joshua. Interview. Conducted by Lee Green and Meetal Desai, 14 June. 2024.