

Medtronic Uses Bold AI-Powered Strategy to Hire MedTech Talent

A woman with glasses and a lab coat is seen from the side, working on a laptop. In the background, a man in a lab coat and mask is working at a lab bench with various glassware. The scene is set in a laboratory with a fume hood.

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A Global Leader in MedTech Transforming Millions of Lives Worldwide

Medtronic is a healthcare technology company established in a Minnesota garage in 1949. Less than a decade later, it produced the world's first battery-operated pacemaker. Its technologies and therapies now treat 70 conditions, with medical equipment that includes cardiac devices, surgical robotics, insulin pumps, surgical tools, patient monitoring systems, and more.

Having celebrated its 75th anniversary in 2024, Medtronic's overarching mission is to use technology to alleviate pain, restore health, and extend patients' lives worldwide. The company helps improve the wellbeing of more than 78 million people annually and is focused on advancing innovation-driven growth to reach even more patients each year. Headquartered in Minneapolis and Galway, Ireland, Medtronic employs more than 95,000 people across 150 countries.^{1,2}

LinkedIn named Medtronic to its Top Companies 2024 list of the 50 best large workplaces to grow your career in the United States. The company's portfolio of distinctions also includes ranking on the list of Best Managed Companies by *The Wall Street Journal* and being named America's Best Employer for Veterans by Forbes.³

A Vision for Leading Talent Acquisition to Drive Better Health Outcomes

Medtronic's talent acquisition (TA) strategy is integral to achieving its mission-driven growth. The company recognizes talent as a key competitive advantage and takes a future-focused, strategic approach to building its workforce. This approach includes exploring adjacent skill sets, tapping into broader talent pools, and leveraging AI and automation to enhance the candidate experience and free up recruiters to act as true talent advisors.

1 ["See how our past inspires our future,"](#) Medtronic, 2025.

2 ["Our dedication to transforming lives starts here,"](#) Medtronic, 2025.

3 ["Honors & Awards,"](#) Medtronic, 2025.

Summary

Challenge

- Hiring a significant number of individuals with rare, highly specialized skills for manufacturing operations amid fierce competition for talent.
- Competing with traditional medical device talent rivals and technology giants like SpaceX, Apple, and Amazon for the talent needed to develop tomorrow's healthcare technology.
- Lacking brand recognition in the candidate market, as Medtronic's products are not a consumer brand and are often most recognizable by people when they are vulnerable or in medical distress.

Solution

- Leveraged adjacent skills to fill high-precision manufacturing roles such as micro-subassembly.
- Focused on internal mobility and nontraditional external skills to reskill and develop talent in a world where new technology is constantly evolving, and skills and experience are still emerging.
- Implemented "Sam," a conversational AI assistant built by Paradox AI, to automate chat-to-apply, scheduling, and candidate feedback collection for high-volume manufacturing roles.

Results

- Streamlined and standardized the application and interview processes, freeing recruiters to act as talent advisors to line managers while significantly improving the candidate experience through meaningful conversations.
- Adopted a realistic and intentional workforce plan with customers, emphasizing a disruptive, segmented approach over a "post and hope" strategy.
- Gained better visibility into the hiring process through platform data and dashboards, sharpening the company's talent strategy.
- Transformed the company's image from a traditional healthcare organization to a more dynamic and memorable employer brand, appealing to top talent.

By continuously evolving its TA practices, Medtronic aims to ensure it has the right people in place to drive the company's growth, innovation, and patient-centric mission forward (see Figure 1).

As the medical technology sector expands into new areas such as robotics and AI, Medtronic's HR teams are focused on ensuring the enterprise has the right talent to meet its needs. "Our strategy is patient-centric; that is what our business model revolves around, and so the mindset must be focused on excellence, invention, ownership, mindset, and our performance to deliver against this," said Mark Smith, Medtronic's Vice President of Global Talent Acquisition.

A Staggering Demand for Highly Specialized Manufacturing Skills

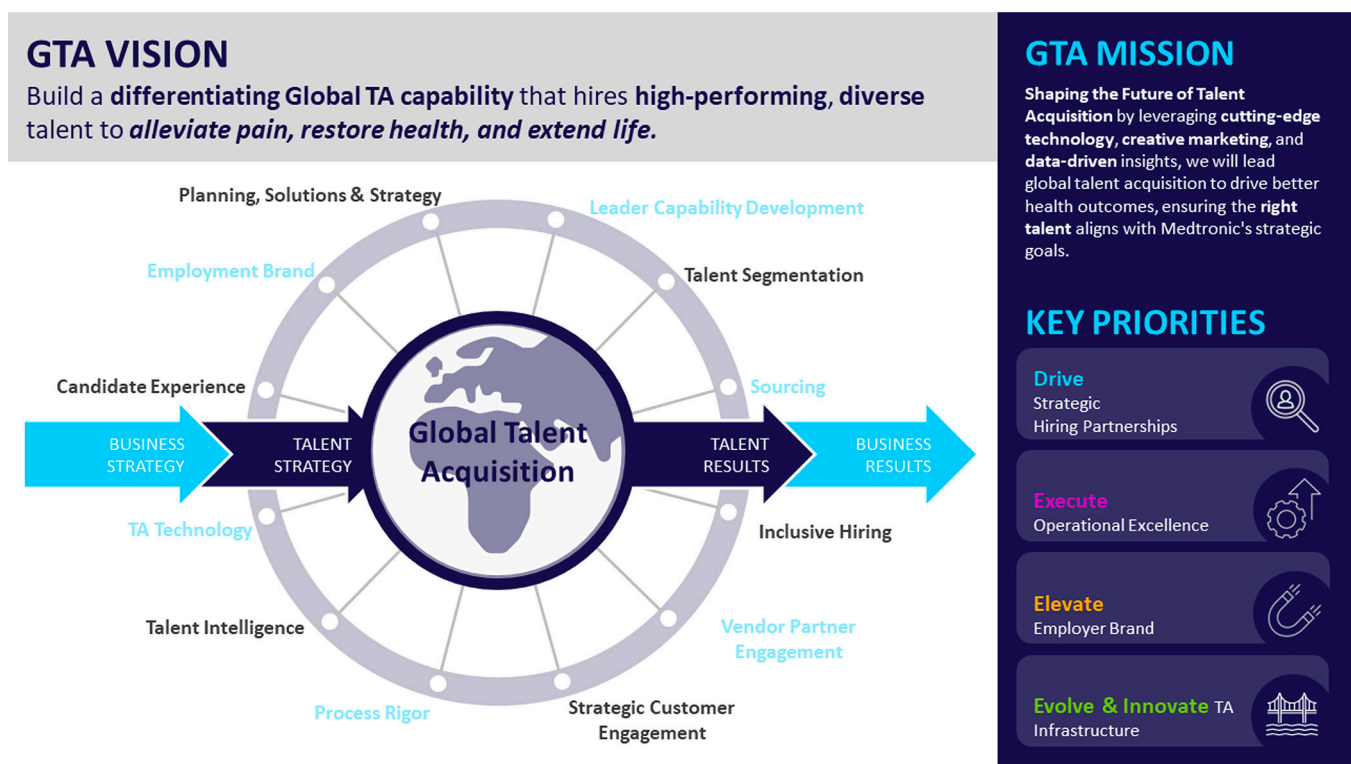
More than half of Medtronic's headcount is concentrated in manufacturing roles across 60 facilities and support centers worldwide. Recruiters are tasked with high-volume hiring in

specialized manufacturing areas such as micro-subassembly (precision assembly of miniature components) and complying with the stringent ethical and legal standards associated with healthcare (see Figure 2 on the next page).

"There are areas in any business where you can afford to wait to hire, but when it comes to high-volume manufacturing, waiting can cause a lot of delays," said Molly Hines, Director of Global Talent Acquisition Strategy and Transformation at Medtronic.

The demand for specialized skills in specific locations can be staggering. Out of the company's 7,000 annual manufacturing hires, for example, 500 were concentrated in one facility in Boston alone, leading to fierce competition for talent with a handful of the region's other manufacturing companies, including Boston Scientific and 3M. Complicating matters, many manufacturing employees work in deskless environments, making it more difficult for recruiters to reach them through traditional online channels.

Figure 1: Medtronic's Global Talent Acquisition Strategy



Source: Medtronic, 2024

Figure 2: Medtronic's Precision Assembly in Action



Source: Medtronic, 2025

“Supply chain hiring and manufacturing hiring is constant, and what we tend to find is skill shortages—not talent shortages—in a market. We’ve got to make a dent in thinking differently and more disruptively about how we engage the talent, because not everyone has the skills, and we need to try to change that.”

Mark Smith, VP of Global Talent Acquisition at Medtronic

Competing with Tech Companies for Scarce Talent

One of Medtronic’s key talent challenges is competing with prominent tech companies for in-demand technical skills. As the healthcare technology company looks to develop innovative products powered by AI, robotics, and other advanced technologies, it vies for the same software engineers, coders, and AI experts who are highly sought after by SpaceX, Apple, Amazon, and other tech giants.

Roles like software engineers, AI experts, and cybersecurity specialists are increasingly hard to staff. “A recent high-volume ask was when we were asked to hire 250 software engineers. That’s not new to an Amazon- or Apple-type company, but to us, it is,” Smith said. “We can’t think like a traditional healthcare company, and so [we] must think differently in terms of how we attract talent.”

Improving Brand Awareness

To attract coveted tech talent, Medtronic recognizes it can no longer rely on a traditional healthcare industry employee value proposition (EVP). Instead, the company must offer a more compelling, relevant, and clear EVP that speaks to the interests and priorities of today’s tech-savvy workforce. Talent leaders across all areas recognize the need to improve the hiring process and enhance Medtronic’s overall recognition, given its relatively low consumer awareness.

“How many people know who we are? Our products are inside the body . . . we’re not branded,” Smith said. “We want to capture [candidates’] attention, and so we must take advantage

of the purpose of our work. We have cool technology, and we design and manufacture solutions that can change or save people's lives—that's a powerful value proposition."

A Skill-Based Talent Philosophy That Scales with AI

Medtronic focuses on broadening the talent pool to recruit from adjacent talent pools to meet needs in high-volume and high-skill manufacturing roles. People in roles that require precision and close attention to detail—such as engravers and even nail technicians—are great candidates who can be upskilled into sought-after positions.

"In the past, we would focus on hiring from our competition. Lesser so thinking about talent to 'boost' with new skills or indeed 'build' our own capacity. In Boston, we looked at the skills required, and we went about to find people with similar levels of dexterity, accuracy, or quality focus," Smith said. "What about pharma? What about retail? What about someone that's left the military?"

This broader talent sourcing and skill development philosophy extends beyond manufacturing roles to all levels of Medtronic. For example, the chief technology and innovation officer—tasked with driving innovation—previously worked in the automotive and retail sectors. "We feel that our greatest innovations will come from people who aren't in our sector as much as those who are . . . Diversity of thought can bring so much new disruption and agility," Smith said.

Building on this commitment to rethinking talent pipelines, Medtronic is also dedicated to removing barriers and expanding employee education and career development access. Through the Medtronic Advancement Pathways and Skill-building (MAPS) program, the company fully covers tuition costs for undergraduate degrees, paying directly to academic institutions. This initiative allows Medtronic employees to achieve their educational aspirations without financial burden.

Recognizing that traditional degrees aren't always the best measure of job capability, Medtronic's Multiple Pathways Initiative (MPI) emphasizes skills-based hiring. Eliminating the four-year degree requirement for certain positions broadens career opportunities and fosters an inclusive workforce.

Leveraging AI to Improve the Recruiting Process

To improve its recruiting process, Medtronic introduced a Workday applicant tracking system (ATS) alongside "Sam," the AI recruiting solution built in partnership with Paradox AI, in 2024. Sam was initially focused on connecting recruiters with hiring managers' requisitions, job searches, and candidate care, while the Workday ATS served as the system of record.

"We inserted [Sam] at the top of the funnel for now, with the goal to embed it further down in the organization over time," Hines said. The team has emphasized text and mobile chat experiences to target deskless workers in the manufacturing sector better. "Sam does a really great job of making the candidate experience and application process seamless and easy," she concluded.

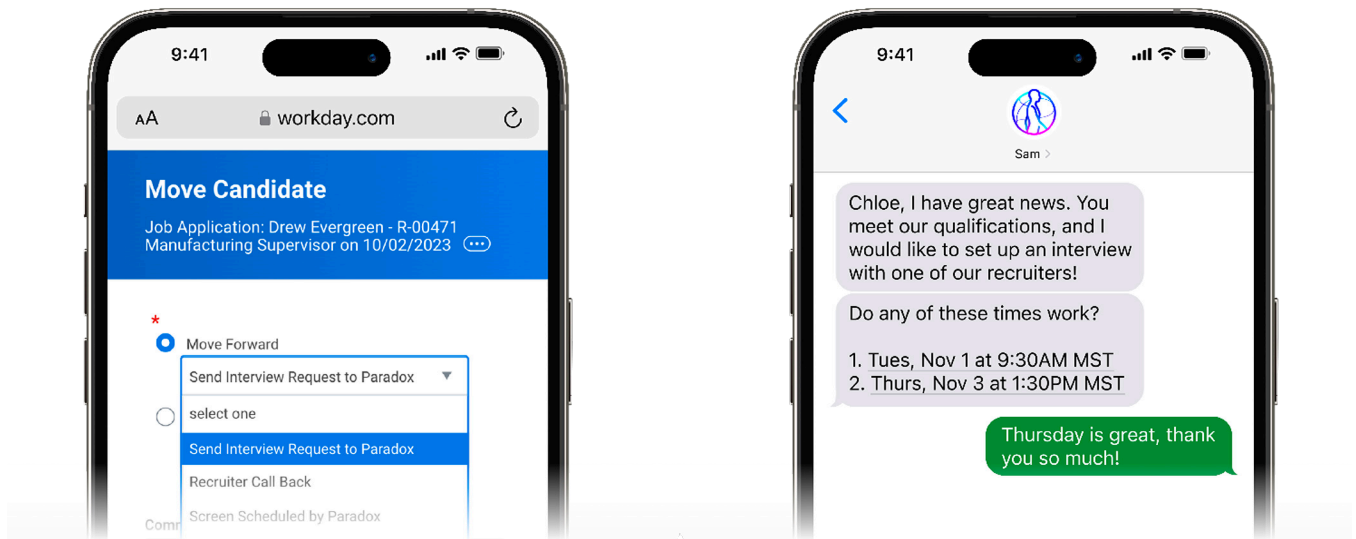
In December 2024, Medtronic launched a pilot for automated scheduling and chat/text-to-apply functionalities for high-volume manufacturing roles at six manufacturing sites. Conversational AI can answer questions about the company, benefits, and the application process. The assistant's name, Sam, was selected to align with an existing internal chatbot Medtronic offers to employees, ensuring candidates have a consistent experience from application through onboarding and throughout their time with the company (see Figure 3 on the next page).

Future-Proofing the Talent Strategy

As it looks to adjacent skills and hires for new roles, Medtronic also created a new position within HR to ensure the talent strategy remains nimble and adaptive to changing conditions. The director of emerging careers and talent is tasked with working with schools, universities, and community organizations to prepare future talent for a field that is likely to change dramatically in the coming years. Smith predicts that as Medtronic and other companies embrace AI, roles and job titles throughout the enterprise will evolve.

"The future of work demands a more dynamic and adaptable approach," Smith said. "The real opportunity—and imperative—is to rethink how we partner with the business not only to fill critical roles with the best talent but to do so in ways that challenge convention. It's not just about attracting interns or MBA talent; it's about opening doors for individuals who may have never imagined themselves in healthcare technology.

Figure 3: Medtronic's AI-Powered Applicant Tracking System and Chat-to-Apply Channel



Source: Medtronic, 2025

Tapping into that untapped potential, widening the aperture, and bringing fresh perspectives into our industry—that's where real innovation begins. And that's what excites me most."

Results: A Streamlined Candidate and Recruiter Experience

Through its implementation of AI in talent acquisition, Medtronic has streamlined the candidate experience, particularly for high-volume manufacturing roles. Automation has helped free recruiters' time and capacity as they begin focusing on adjacent skill sets and hiring for new roles within the company. "It's taking away many of the manual tasks and administrative burden for our recruiters," Hines said. "The more AI does, the more time they have to act more like talent advisors and have conversations with the business and candidates. Less administration."

The implementation also helps standardize hiring processes across the company, which previously had significant variability from location to location. "We had 150 different processes. There was a lot of work done around taking those processes and making sure they're streamlined globally," Hines said. "If I apply to a job in engineering in Massachusetts, I am getting the

same experience I would be getting if I were to apply for a job in Ireland. That's what we want. We want it to be memorable, we want it to be seamless, and we want it to be uniform."

Data and Analytics to Inform the Talent Strategy

The team is collecting data and monitoring feedback from pilot sites before rolling out the AI functionality globally. As part of this work, the analytics team created dashboards to track metrics such as time to application to candidate drop-off. New capabilities in the platform also incorporate scheduling metrics, including cancellations and rescheduling rates.

Advanced analytics will empower the talent team to design smarter data-driven key performance indicators (KPIs) for recruiters—not just tracking outcomes but understanding how recruiters spend their time, how feedback flows through the process, and uncovering deeper insights into the candidate experience. By harnessing this data, leaders can go beyond surface-level performance metrics, identify where individual recruiters excel—whether in interviewing, candidate engagement, or influencing hiring decisions—and use that expertise to elevate the broader team. "We're intentionally walking before we run, but the early data already offers some fascinating insights," Smith said.

Next Steps: Predictive Analytics and Making Recruiting “Fun” for Everyone

As the Medtronic TA team expands its data capabilities, Smith envisions a future where predictive analytics play a central role—anticipating hiring trends, especially in high-volume areas, and allowing for more strategic workforce planning.

To build truly actionable, company-specific insights, Smith imagines leveraging conversational AI tools like Sam to gather feedback directly from candidates, asking tailored questions such as whether they used Glassdoor during their search and moving away from generic, one-size-fits-all industry data.

“What builds real credibility with our business leaders is talent intelligence—not just reporting numbers, but delivering insights that help them make smarter, faster decisions,” Smith said. “This is all about value creation for our business partners so we can attract better, higher-quality talent—the kind of talent that drives innovation and ultimately powers our mission to alleviate pain, restore health, and extend life.”

Smith emphasized that talent intelligence is just the beginning. The future of TA requires bold, disruptive tactics, particularly as AI reshapes work and roles evolve. This evolution also requires rethinking traditional employment types, challenging the rigid boundaries often set by corporate functions like HR, finance, and procurement around full-time employees (FTEs), contingent workers, freelancers, and statement of work (SOW) engagements. As technology accelerates, Smith believes organizations must shift from static workforce models to more dynamic approaches centered on skills, tasks, and holistic solutions, thereby meeting business needs with greater agility.

“Seeking adjacent skills is only step one. The real challenge is helping our leaders reimagine what’s possible when roles, skills, and even career paths are no longer static,” Smith said. “It’s a conversation I’ve already started, and it’s going to be an ongoing dialogue because we’re negotiating with tradition. Shifting that mindset will take consistency, composure, and a lot of passion.”

At the same time, talent leaders see Sam as part of a broader strategy to improve awareness of Medtronic by making the process more “fun.” “It’s serious stuff we do, and we care about

it deeply,” Smith said. “But in those moments of relationship-building, how can we have some more playful moments, rather than just dull job descriptions and long application forms?”

Medtronic sees Sam evolving into a more intuitive and empathetic “buddy” in the recruiting process—“Helping people with what kind of interview questions they should prepare for, what they should wear, and wish them good luck,” Smith said. “I’d love every recruiter to have the time to do that, but this is where technology can help us.”

Lessons Learned

Medtronic’s journey is an engaging example of how companies can leverage technology to address talent challenges, allowing recruiters to focus on adjacent skills, serve as strategic advisors to hiring managers, and engage in meaningful conversations with candidates. Here are some key lessons learned:

- **Tap into adjacent talent pools, but be prepared to upskill.** Moving away from vertical industry-specific experience reflects the changing workforce and requires a commitment to upskilling new kinds of talent at scale, especially for high-volume roles.
- **Challenge traditional mindsets about recruiting and roles.** Talent leaders must guide the business away from hiring solely to fill a previous position. Instead, they should engage in ongoing conversations around evolving skills needs. Testing assumptions through the “buy, build, borrow, or bot” framework helps generate more creative approaches to talent.
- **Leverage technology to broaden the talent funnel and polish the employer brand.** Medtronic focused on automation and conversational AI to better reach the deskless manufacturing employees essential to the business and to build a foundation for future changes in the TA strategy. Companies also need to develop awareness among difficult-to-reach targeted candidates and consider unconventional approaches to brand-building, such as new forms of social media outreach and enriching the employee value proposition.

About the Author



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Stella is the senior director of research and Global Workforce Intelligence Project leader at The Josh Bersin Company. In this role, she conducts empirical research on a variety of topics related to the skills economy, talent intelligence, and HR technology. Stella has almost 20 years of experience across several industries, including banking. Prior to joining The Josh Bersin Company, Stella was the HR transformation leader for Deloitte, where she led large-scale HCM implementations and designed frameworks for talent acquisition and performance management for the public sector. Stella holds master's degrees in engineering, information systems management, business administration, and lifelong learning. Stella lives and works in Greece and is pursuing her PhD in talent intelligence. She is a certified project manager, change management practitioner, lean six sigma green belt, and ICAgile HR professional.

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