



## RECRUITING IN MANUFACTURING

# HELP WANTED: THE TALENT CHALLENGE

The manufacturing industry in the United States and other industrialized countries is facing an increasingly worrisome issue: A shortage of top talent. Competition is heating up as a result of too few skilled graduates, retiring Baby Boomers, and increasing technology and innovation requirements. Solving the talent shortage will require focusing on long-term strategic talent development and paying more attention to a shifting work culture – both of which are new challenges for manufacturers.

Post-global recession, manufacturers in industrialized countries have been straining to recruit engineers, researchers, and scientists fast enough, and the problem is only likely to get worse: According to a recent survey by the Manufacturing Institute, 33 percent of US manufacturing executives surveyed are reporting high to severe shortages of engineers, and 48 percent expect to face a critical shortage by 2020; the gap for researchers/scientists is not far behind. Similar situations exist in manufacturing centers like Munich and Stuttgart in southern Germany, where unemployment rates for specific types of engineers have dropped below one percent.

A number of forces are coalescing to drive down the availability of talent with advanced skills. These include talent flight from former manufacturing centers, an aging workforce, healthy business growth, an overall decline in STEM (science, technology, engineering, mathematics) graduates, and a greater demand for engineers and researchers overall (and with more diverse skill sets), in response to an increase in high-tech/science components and a push for innovation. Finally, generational changes are having an impact, in terms of what Millennials<sup>1</sup> want from their careers and what industries they are willing to consider.

## CHANGING DEMANDS – AND CULTURE

Globally, all manufacturing firms see a need for stronger skill sets in their workforces across all aspects of technology/computer skills, problem solving, math, and technical training. Most critically, the expanding role of technology in manufacturing is putting the sector directly at odds with other high-tech industries that pull from the same talent pool – and that often have greater appeal to Millennials, who want to be at the forefront of innovation.

This group also wants to stay where the “action” is – centers of tech culture – which has led to traditional manufacturing firms setting up and expanding R&D units in Silicon Valley or opening up new international facilities in hot emerging markets, such as India and Brazil, to tap into local talent pools.

Another challenge is that the traditional job security offered by manufacturing is less appealing: 70 percent of Millennials in industrialized countries typically change jobs every two years, according to Kelly Services, a US based staffing agency. And Millennials rate flexibility as a top perk – making contract work more attractive.

## EXPANDING THE PIPELINE

As the above trends make clear, traditional manufacturing firms will need to move faster on several different fronts to keep up with an evolving workforce and the ongoing contest to attract top talent. An important initial step is fine-tuning the talent strategy: identifying growth areas and thus where the most critical skill gaps could emerge. Firms can then focus their talent programs on addressing these gaps first, both by casting wider cross-industry and cross-country nets and increasing investment in recruitment and in-house training for specialized skills.

Furthermore, manufacturing firms will need to strategize on how to appeal to Millennials, such as the promise of R&D opportunities and co-location with other tech-focused companies, ideally in towns with high quality-of-life offerings. And with job hopping on the rise, firms may need to develop efficient outsourcing programs, offering more project work on long-term contracts, as well as offering more options for remote work.

The lack of a sufficiently robust talent pipeline, however, starts with not enough young people considering technology-focused careers – and unaware of how trends like Industry 4.0 are changing manufacturing. In response, firms need to reach out and encourage students in their local communities early on to pursue STEM careers. This could include sponsored, interactive programs with schools that highlight innovation and problem-solving in manufacturing, together with visible and broad support for relevant certification and college programs, including graduate-level internships and strong apprenticeship programs.

This last step has been shown to work: Companies in Germany and Sweden, such as AB Volvo, Audi, BASF,

# 80%

OF SURVEYED MANUFACTURING  
EXECUTIVES ARE WILLING TO PAY  
MORE THAN MARKET RATE TO  
FILL POSITIONS.



and Siemens have had an easier time recruiting precisely because strong ties with universities and graduate-apprenticeship programs have been the norm in these countries for some time.

The other end of the pipeline is redesigning strategies to retain employees and increasing succession planning. There may be a need to develop more flexible options for the most skilled resources as well as for older workers thinking about retirement, with the goal of ensuring that training and know-how get passed on.

In summary, the challenge for manufacturing firms of getting and keeping top talent is unlikely to go away anytime soon, and may get worse. Skyrocketing compensation and poaching may scratch the itch but they are not good long-term solutions. Innovation, flexibility, and investment will be as important to meeting future talent needs as they are to making the products of tomorrow.

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<sup>1</sup> Millennials are roughly defined as those born in 1980-2004. In the US, they are now the largest generational cohort – about one-third of the population.