



LEAP HR

Manufacturing

Radical Change Through People

Manufacturing HR Outlook

2017



www.leaphr-manufacturing.com





About the research

The 2017 Manufacturing HR Outlook is an industry benchmark study developed in collaboration between the LEAP HR team at Hanson Wade and the Manufacturing Institute, and has been developed in association with LEAP HR: Manufacturing – the annual meeting place for progressive people leaders across the Manufacturing industries.

For the last six months, the LEAP HR team has been working with the Manufacturing Institute to engage in in-depth conversations with CHROs, Heads of People and strategic business leaders with a goal of identifying both the talent challenges and the talent opportunities which exist in manufacturing firms across the US.

During the course of that research, we have spoken to the People leaders at 100 large and small, established and emerging, traditional and advanced manufacturers. The goal was to build up a clearer picture of what's working, what's not and what's needed for firms to gain a competitive talent advantage in a rapidly changing industry.

This report delivers an assessment of the most critical industry people challenges, opportunities and priorities, in addition to expert analysis of the key pressures facing the industry in the year ahead and their likely impact on people and business strategies.

Discover more at LEAP HR: Manufacturing 2017

The industry leaders who contributed to this HR Outlook shared the stories behind their own people leaps with those taking part in LEAP HR: Manufacturing in November 2016 in Pittsburgh (www.leaphr-manufacturing.com). The best will return in 2017 to share what happened next. Join us in Cleveland on November 14-15 and find new ways you can solve a growing technical skills shortage, build ready-now manufacturing leaders and future-proof talent for a changing industry

Manufacturing competitiveness is driven by talent, but in many cases current approaches are falling short of solving the skills challenges we share. A new way of thinking is required, and by sharing the leaps being taken to transform HR impact we can take a step closer to achieving that reality?



Jennifer McNelly,
Executive Director,
The Manufacturing Institute



100+

Manufacturers engaged



20 of the top 20

manufacturers included

FORTUNE

100%

of manufacturers in the Fortune 500



74%

of contributors at VP level and above



12

in-depth interviews with strategic manufacturing leaders



Contents

5 key questions for 2017	p4
10 key leaps in the spotlight	p9
5 solution providers making a difference	p12
12 micro-learnings from LEAP HR Manufacturing	p14

Acknowledgements

We would like to extend our thanks to all contributors to this report for sharing their time and insights with us, and, in particular, to the following industry leaders who are referenced by name (listed alphabetically, by forename):

Duane Hebert, Senior Learning & Development Analyst, **Tooling U-SME**

Gale Tenen Spak, Associate Vice President, Continuing Professional Education, **NJIT**

Glenn Johnson, Manufacturing Workforce Development Leader, **BASF**

Gwendolyn Bluemich, Strategic Education & Workforce Development Initiatives, **GLOBALFOUNDRIES**

Jennifer McNelly, Executive Director, **The Manufacturing Institute**

Kent Suiters, ERP, Learning & Initiatives Leader – Manufacturing, **GE Appliances**

Michelle Murphy, Chief Diversity Officer, **Ingersoll Rand**

Neddy Perez, CEO, **D&I Creative Solutions**

Nora Harding, Director of Leadership Development, **Special Products & Mfg., Inc.**

Peter Bolstorff, Executive Vice President Corporate Development, **APICS**

Robert Chiappetta, Director of Government Affairs for Manufacturing and Workforce,
Toyota Motor North America

Scot McLemore, Manager of Talent Acquisition & Deployment, **Honda North America**



5 key questions for 2017

1

How do we do more with less in an era of increasing expectations and decreasing resources?

The leaning of manufacturing has hit every department, meaning the vast majority of manufacturers can't just ramp up recruiting budgets or throw money at people problems to solve them.

Instead, a new paradigm is taking root: call it the "crowd-sourcing" of manufacturing. The most progressive manufacturers are mobilizing the "army" of their employees, business partners, and community resources to help tell the story of manufacturing, build a pipeline of qualified applicants, and collaborate around skills and best practices as never before.

Within companies, work teams are increasingly integral to recruiting, training, and onboarding decisions and procedures. Supervisors, floor leaders, and line workers help define the jobs and skills and lay out training needs. When incentives are based on team efficiencies and employee satisfaction, that sends a strong message that everyone is responsible for growing the talent base within the company.

In the community, there is a world of resources that is often ready to assist. Organizations serving youth, veterans, women, and other sources of talent are an important link to the future manufacturing workforce. Often the best way to unleash these force multipliers is our own employee base.

Particularly important are Ambassadors—employees with the passion and authority to be the face of manufacturing in schools, on military bases, and wherever our workforce may come from.

Companies have started to institutionalize this outreach, providing formal goals and training for Ambassadors—and making that function an important career development opportunity. They are proving you really thrive while meeting the bottom line.

Technology is changing our talent experience. We need to re-imagine a talent ecosystem where the person is at the center and where technology enables us to bring our best selves to work.



Gwendolyn Bluemich,
Strategic Education & Workforce
Development Initiatives,
GLOBALFOUNDRIES



5 key questions for 2017

2

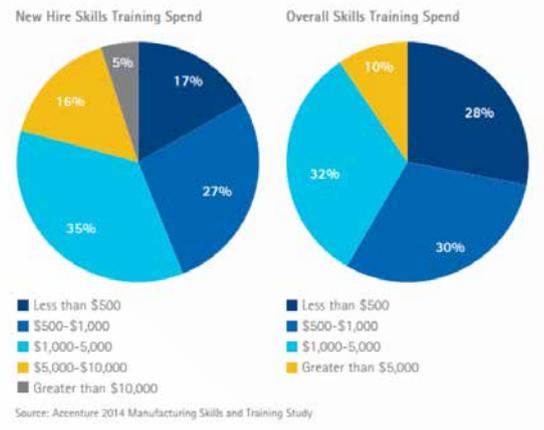
How do we realign learning to create a link to advancement and the relevance of a career?

Automation and technology are rapidly changing the way we produce. Yet our training methods are lagging behind.

According to a 2014 study by Accenture and the Manufacturing Institute, well over half of manufacturers report spending less than \$1,000 a year for each employee's skills training after the new hire period. Evidence suggests the overall lack of employee development is one reason for high turnover and low employee engagement. The same study found that the skills gap, meanwhile, is costing up to 11 percent of earnings each year as measured by downtime, cycle time, and overtime.

Faced with a growing skills gap, companies are forging a new model. Instead of searching for the elusive perfect candidate for hard-to-fill technical positions, they are recruiting as much for work-ready skills: dependability, leadership, teamwork, adaptability, and above all readiness to learn. The focus then is growing their workforce for jobs today, and the jobs of the future.

Examples like Toyota North America demonstrate the value of a structured approach to on-the-job learning—supporting interns into full-time positions and on into higher-skilled jobs like industrial maintenance. When companies lay out their required skills and competencies and benchmarks for advancement, they empower their workers to take control of their careers. A culture of learning can take hold, where career growth and advancement are valued and supported.



Source: Accenture Manufacturing Skills and Training Study



5 key questions for 2017

3

How do we build effective partnerships to drive systemic change in talent development and people management?

In many parts of the country, companies report that their go-to recruitment strategy relies on hiring from one another to fill critical positions. Sometimes this competition even filters down within a company, with different divisions or plant locations working at cross purposes to protect or poach existing talent. Meanwhile, the total pool of qualified workers remains stagnant or may even be in a long-term decline. This self-destructive cycle does little to grow the overall workforce.

A better, more productive, way is for companies to partner on the critical issue of talent. Internally, it takes the commitment of the C-Suite to make sure all departments are working as one in developing the human capital supply chain. The right measures are critical. For example, companies can reward managers for growing subordinates for promotion—even if they transfer to other locations or divisions.

External partnerships are equally important. In a community, individual manufacturers usually lack the clout to guide changes in courses of study or curriculum. That can change when multiple companies come together around a common expectation for skill requirements and desired certifications. Sometimes an organization such as a local chamber, manufacturing association, or talent network steps in to organize companies to assess skill needs and communicate them to educators. In other places, a major employer takes the lead in organizing its suppliers, or a group of likeminded companies, of any size, comes together and commits to working collaboratively.

“I can't afford to just develop my own talent, because if I do, you're going to try and take it from me. What I need to do is ensure we're all working together to develop a big enough pool of talent which would mean there's plenty for all of us, that way we all win.”



Robert Chiappetta
Director of Government Affairs
for Manufacturing and Workforce,
Toyota Motor North America



5 key questions for 2017

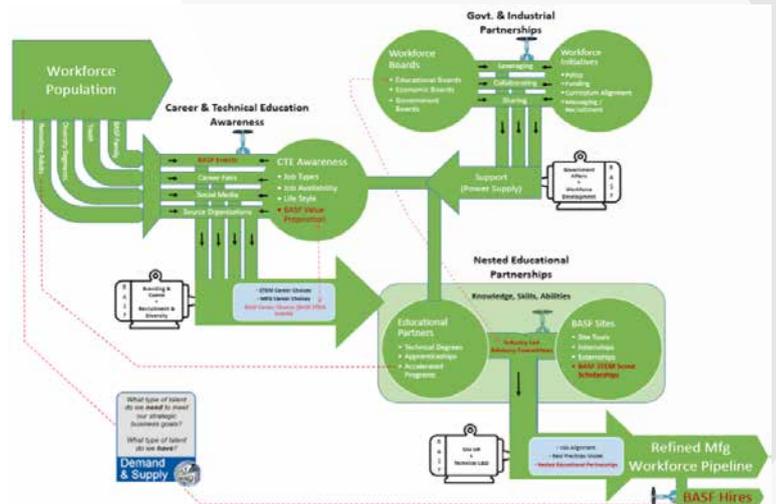
4

How do we position manufacturing careers to attract the best talent so they find us?

Much as word of mouth is the lifeblood of many sales strategies, positive goodwill and awareness of manufacturing are vital to our recruitment strategy as an industry. But while we are making modest gains, the fact remains that only one-third of parents would recommend manufacturing for their child. These are powerful headwinds, and as an industry, we are falling further behind.

Recruitment will need to change to meet the growing challenge. Instead of focusing on the job order—the last step—companies are strengthening systems to build and retain a talent pipeline. BASF is an example of a company that has taken the new model to heart: it engages students as young as grade school and nurtures relationships to grow the potential size of the workforce, then partners with community colleges to ensure a level of quality.

Companies are also looking within to strengthen the "pull" of meaningful manufacturing careers. Some of the innovations include flexible scheduling, a culture of teamwork and inclusion, and leadership training for frontline supervisors. Companies such as Ingersoll Rand have used employee engagement surveys to measure progress and set achievement goals.



Source: BASF



5 key questions for 2017

5

How do we accelerate knowledge sharing and learning to support manufacturing and the manufacturing HR community?

Manufacturers are increasingly recognizing the value of HR to their production processes, their supply chain, and the bottom line. HR leaders are hungry for battle-tested knowledge and best practices specific to the manufacturing industry.

And why not? Manufacturing itself is built on innovation, standards, benchmarks, and efficiencies—and that same level of rigor and understanding is needed in the procurement and application of human talent.

The landscape for talent is upsetting HR conventions that many companies have relied on for decades. It is also raising a host of new questions: How can we balance short-term needs to fill positions today, while building a pipeline for our future success?

How can we capture and transfer the knowledge of our most experienced workers, before they retire and take that knowledge with them? How can HR be a critical asset for business improvement, even as regulatory compliance looms ever larger on the agenda?

Time and again, manufacturers find themselves reinventing the wheel—shift by shift, plant by plant, company by company. It will pay to invest and learn from each other, try new models, risk failure, and reap the rewards of a competitive LEAP.

The learning can begin at an HR LEAP event. It carries on as HR leaders apply best-in-class innovations within their own companies and share that experience forward.

“We can’t afford to continue to do the same things we’ve always done. Engaging in a disruptive dialogue around how to rethink our talent strategy at this conference will help us uncover new solutions we can all use to solve the challenges we share.”



Scot McLemore, Manager of Talent Acquisition & Deployment, **Honda North America**



10

key leaps in the spotlight

1

The case study:



TOYOTA

The challenge:

How do we cultivate a system that creates the talent we want?

The LEAP:

The FAME model is a way to partner with local schools and invest in upcoming manufacturing talent, engaging students in the manufacturing work environment from day one of the program.

The result:

160 different companies are involved, and Toyota has found that students coming through this program are significantly better qualified and ready to make an impact as soon as they join the company.

The inspiration:



Robert Chiappetta,

Director of Government Affairs
for Manufacturing and Workforce,
Toyota Motor North America

2

The case study:



GE APPLIANCES
a **Haier** company

The challenge:

How do we transform the impact of new hires on business by reducing turnover and accelerating productivity?

The LEAP:

Using the FAME model in Louisville, GE Appliances was able to focus on getting the right candidates, by providing work experiences and creating programs to deliver needed skills and behaviors.

The result:

GE Appliances understands the importance of showing students the possible career pathways offered and has partnered with its community on a foundation of skills.

The inspiration:



Kent Suiters, ERP, Learning & Initiatives
Leader – Manufacturing, **GE Appliances**



3

The case study:



The challenge:

How do we transcend traditional thinking to deliver an engaging culture, effective teams and accountable leaders?

The LEAP:

Ingersoll Rand placed accountability on its leaders to be more personally engaged and care about the overall well-being of members of their teams, driving widespread organizational change in the process.

The result:

Ingersoll Rand offers annual surveys on employee engagement and has consistently shown positive increases which have translated to higher productivity across the organization.

The inspiration:



Michelle Murphy, Chief Diversity Officer,
Ingersoll Rand

5

The case study:



The challenge:

How do we change the conversation around a career in manufacturing?

The LEAP:

Honda's EPIC initiative has rendered enthusiastic engagement, passionate participation, innovative instruction, and continuous commitment from middle school students, high school students, community college students, and incumbent workers. Honda sells the appeal of manufacturing careers to students.

The result:

Honda has reached students at all levels to engage them in U.S. manufacturing operations, through classroom engagement, parent outreach, work study programs, and more.

The inspiration:



Scot McLemore, Manager of Talent Acquisition and Deployment,
Honda North America

4

The case study:



The challenge:

How do we get the best candidates to seek us?

The LEAP:

BASF has channelled communication with middle school students through educational partnerships, government and policy partnerships, industry tours, careers fairs, social media, and source organizations.

The result:

By leveraging career and technical education awareness, nested educational partnerships, and government and industrial policy partnerships, BASF has managed to supply a consistent source of talent for its workforce.

The inspiration:



Glenn Johnson, Manufacturing Workforce Development Leader, **BASF**

6

The case study:



The challenge:

How do we close the skills gap to ensure a workforce for the future?

The LEAP:

Tooling U-SME has developed a list of best practices to improve company performance and lead to higher employee engagement and retention.

The result:

Tooling U-SME has helped manufacturers implement a successful leadership and development program to build high-performance workforces.

The inspiration:



Duane Hebert, Senior Learning & Development Analyst, **Tooling U-SME**



7

The case study:



The challenge:

How do we transform your approach to performance driven learning to drive a greater ROI from your manufacturing training initiatives?

The LEAP:

APICS has developed a Supply Chain Operations Reference (SCOR) model to define industry standards, connect individual learning to organizational pain points, and achieve business results.

The result:

More than 5,000 companies have used SCOR to connect process, performances, practices, and people.

The inspiration:



Peter Bolstorff, Executive Vice President
Corporate Development, **APICS**

9

The case study:



The challenge:

How do we find a new approach to developing higher quality partnerships to fill the manufacturing talent pipeline?

The LEAP:

NJIT brought together industry partners and linked existing infrastructures to create MechaFORCE: a Registered Internship Manufacturing Program.

The result:

The program broadened pipeline development for a wider variety of manufacturing occupations.

The inspiration:



Gale Tenen Spak, Associate Vice President,
Continuing Professional Education, **NJIT**

8

The case study:



The challenge:

How do we leverage our existing employees better to inspire student interest in STEM, support our recruiting and retention efforts, and build long-term relationships with the community to develop the future talent pipeline?

The LEAP:

GLOBALAmbassadors is a team of manufacturing ambassadors on a mission to "change the world". It's been a unique low-cost, high-impact approach to build the local talent pipeline and strengthen employee retention.

The result:

Low on cost, but high on passion, this initiative has transformed brandawareness, student recruitment, and employee engagement as well as driven higher productivity and created a movement of manufacturing ambassadors inspired to make a difference.

The inspiration:



Gwendolyn Bluemich, Strategic Education
& Workforce Development Initiatives,
GLOBALFOUNDRIES

10

The case study:



The challenge:

How do we increase workforce agility, versatility, productivity and profitability in manufacturing?

The LEAP:

Special Products & MFG Inc empowered its operations leadership to redefine its company culture by setting expectations for employees, developing their talent, creating a common language, and sustaining culture.

The result:

Special Products & MFG Inc has increased its revenue and efficiencies by doing more with less, giving associates access to tools to measure whether they have had a successful day or not and adjust accordingly.

The inspiration:



Nora Harding, Director of Leadership
Development, **Special Products & Mfg., Inc.**



5 solution providers making a difference

1



Tooling U-SME is an organization with more than 80 years of experience working with manufacturers and educators that has grown to help more than half of the Fortune 500 manufacturers and educational institutions nationwide solve their workforce development challenges. Owned by the Society of Manufacturing Engineers, Tooling U's proprietary Accelerate Methodology helps manufacturers analyse their specific needs, design and implementation customized training plans, and then offers follow-through with evaluation and support to assure the best results and outcomes. Programs are flexible, even customizable online and instructor-led courses, plus a library of online resources.

www.toolingu.com

2



PeopleFluent works with more than 400 manufacturers around the world to help them hire, develop, and ensure high performance from their teams, attract and hire skilled labor faster, and develop and retain talent to sustain operational excellence. Because of its dedicated manufacturing focus, PeopleFluent understands that manufacturers need to strive for innovation and quality at the lowest cost possible, so provides affordable talent acquisition and talent management cloud-based applications to build and drive high performing teams, no matter how diverse, how they're employed, or where they're located. PeopleFluent also ensures the necessary visibility to increase productivity and drive growth.

www.peoplefluent.com/industry/manufacturing



3

bayard

advertising agency, inc.

As a leading digital media and brand strategy agency, the mission of the Bayard team is to be a passionate, progressive thought leader that helps companies hire great employees (and people find great careers). The Bayard team endeavors to be the agency that brings insight, innovation and inspiration to its clients across the manufacturing industry and actively encourages manufacturers of all sizes to rethink the way they attract and engage future manufacturing talent to give them a competitive advantage in the battle to recruit the best. Challenging traditional thinking is key to the success Bayard has had in helping manufacturers achieve a step-change in their talent attraction activities.

www.bayardad.com

4



180 Skills is an online career and technical education experience that fills the skills gap and is helping manufacturers solve some of the most critical talent challenges they face today. With a library of over 650 courses and 1,100 hours of education, 180 Skills enables career seekers to gain the skills they need to attain meaningful employment in the least amount of time. Programs are delivered at over 25 Community and Technical Colleges across the country and the career and technical education programs have maintained a 90% graduate and 90% placement rate for more than six years, with graduates now employed at over 100 U.S. Manufacturing companies including Boeing, Bombardier, Spirit Aerostructures, Cessna and Honda Aircraft Company.

www.180skills.com

5



Clarkson University has been bridging discovery and engineering innovation with enterprise since 1896. As a nationally ranked research university, Clarkson delivers engineers, scientists, and business leaders to the manufacturing industry and remarkably, one in five alumni is already a CEO, president or senior executive of a company or business. Clarkson knows that new technologies, emerging fields and expanding career opportunities require new approaches to learning, which is why its students are grounded in the fundamentals but also learn how to successfully manage the unique challenges of today's complex world - valuable skills in any manufacturing operating context.

www.clarkson.edu



12

micro-learnings from LEAP HR Manufacturing

1

“ We need to be thinking about solutions as a community. If we want to have sustainable long-term change, we need to make sure the talent going to the community colleges is as high as it can be. ”



Robert Chiappetta, Director of Government Affairs for Manufacturing and Workforce, **Toyota Motor North America**

2

“ We are defining the skills and behaviors needed for success. We are working with educators to create programs to deliver needed skills and behaviors, and to communicate clear and transparent opportunity pathways. ”



Kent Suiters, ERP, Learning & Initiatives Leader - Manufacturing, **GE Appliances**

3

“ We changed the focus and accountability on leaders to be personally engaged and care about the members of their teams. Leader accountability is what really helped drive the change for us. It wasn't the CEO saying, 'Go do this.' It was the leaders holding each other accountable. ”



Michelle Murphy, Chief Diversity Officer, **Ingersoll Rand**

4

“ The last thing I want when I walk into a school to advise on curriculum is for BASF to be the only one at the table. We need all of our industry partners. ”



Glenn Johnson, Manufacturing Workforce Development Leader, **BASF**



5

Students have very limited exposure to the adult world and careers, especially in manufacturing. We have a great message to sell, we just aren't selling it well. We have to sell what it is, what it looks like, the technology, and the career opportunities.



Scot McLemore, Manager of Talent Acquisition and Deployment, **Honda North America**

7

It doesn't matter if you're a large company or small company. We all have the same issues. Find what's important and pitch it to your C-suite and don't let it fall behind.



Nora Harding, Director of Leadership Development, **Special Products & Mfg., Inc.**

9

We have to shift to embrace talking about things that aren't going well so that they can spot red flags and change course of action. Dig your well before you're thirsty – anticipate so you can act.



Nora Harding, Director of Leadership Development, **Special Products & Mfg., Inc.**

11

We need to gather the courage to say no to certain things so we can say yes to the things we want to go after and be really good at.



Michelle Murphy, Chief Diversity Officer, **Ingersoll Rand**

6

Failure is the DNA of success. If you just go out and do the same thing, you're not failing, you're not learning, and you're not winning.



Peter Bolstorff, Executive Vice President Corporate Development, **APICS**

8

Technology continues to change so we need to keep that line of communication between education and industry open.



Gwendolyn Bluemich, Strategic Education & Workforce Development Initiatives, **GLOBALFOUNDRIES**

10

In order to drive change in an organization, you have to challenge the concepts that are in place and ways to introduce the conversation so it feels like their own.



Neddy Perez, CEO, **D&I Creative Solutions**

12

All of us are experiencing similar problems, but there's no one solution. It's a combination of everything we've talked about, from creating community partnerships, education partnerships and reaching out to engage youth.



Jennifer McNelly, Executive Director, **The Manufacturing Institute**



LEAP HR

Manufacturing

Radical Change Through People

With thanks to Jennifer McNelly, Brent Weil, and Cristina Crawford at The Manufacturing Institute for the development of this HR Outlook.

www.leaphr-manufacturing.com

