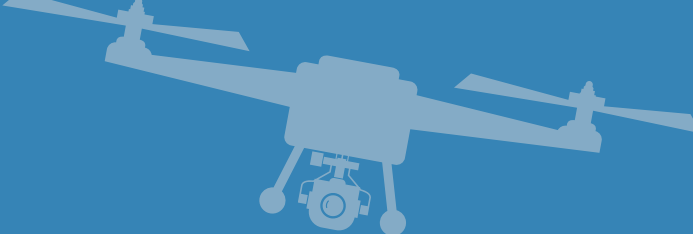


## Robots Need Not Apply: Human Solutions for the Skills Revolution



**We are in the midst of a Skills Revolution. Technology is transforming organizations, skills needs are changing rapidly and we know companies cannot find the talent they need.** People with in-demand skills who can continually learn and adapt can call the shots. Those with ubiquitous skills see wages stagnating and insecurity ahead, playing out in politics, protectionism and populism.

We also know that digitization and automation is happening at different speeds impacting regions, sectors and organizations at different times in different ways. In the past, transformation took decades, even centuries. Today, it is happening at an unprecedented pace, yet the outcome is not predetermined. **Human ingenuity and preference will be the lynch pin for how we leverage technology in our lives and businesses.** And in all future scenarios, helping people to upskill in this fast-changing world of work will be what ensures their employability and it must also happen at speed and at scale.

**Skills and access to employment will be the solution to the Skills Revolution.** We must identify skills adjacencies that create clear career paths from education to employment, from this job to that job. We need accelerated reskilling programs with faster, shorter bursts of on-the-job, experiential training. And we must shift more people from declining industries to growth sectors: textile workers to composite materials technicians, coal miners to coders.<sup>1</sup>

**We need to help people think differently too.** In this digital world success will not always require a college degree, but will rely heavily on the appetite for continuous skills development. We must nurture people's curiosity and learnability so they have the desire and ability to continuously develop their skills to stay employable.

**With the right skills mix, people will augment rather than compete with technology.** And as leaders, helping people upskill and future-proof themselves will be the defining challenge of our time. Identifying in-demand skills and providing access to employment will be the solution to the Skills Revolution.

Jonas Prising,  
Chairman & CEO, ManpowerGroup



## WE ASKED 20,000 EMPLOYERS IN 42 COUNTRIES ABOUT:

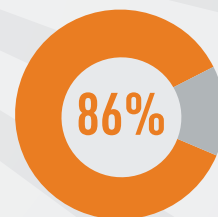
- The likely impact of automation on their headcount in the next two years
- Which functions within their organization will be most affected
- The human skills they value most and which they struggle to find

## HUMAN STRENGTHS IN THE SKILLS REVOLUTION: SOFT SKILLS + TECHNICAL + DIGITAL SKILLS = BEST BLEND

Labor market predictions talk of extremes over the long-term: technology eating our jobs, robots replacing drivers, even the threat of a world without work.<sup>2</sup> In the near-term we are seeing new jobs and new skills. For the second year, eighty-six percent of employers globally say their headcount will remain the same or increase in the next two to three years as a result of automation. And, as skills needs are changing faster, employers do not always know which skills they will need even eighteen months from now.

This report provides a real-time view of the impact of automation on the workforce in the digital age – not five or ten years out, but now and in the near-term. It shows which functions within companies are set to grow or contract. And it provides insight on the value of soft skills – or **human strengths** – that are most in-demand by employers and which they have the greatest challenge finding.

As world of work experts, we find work for 3 million people annually and have nearly 30,000 employees advising 400,000 companies on hiring decisions and skills development every year. We are well-placed to share human solutions for the Skills Revolution.



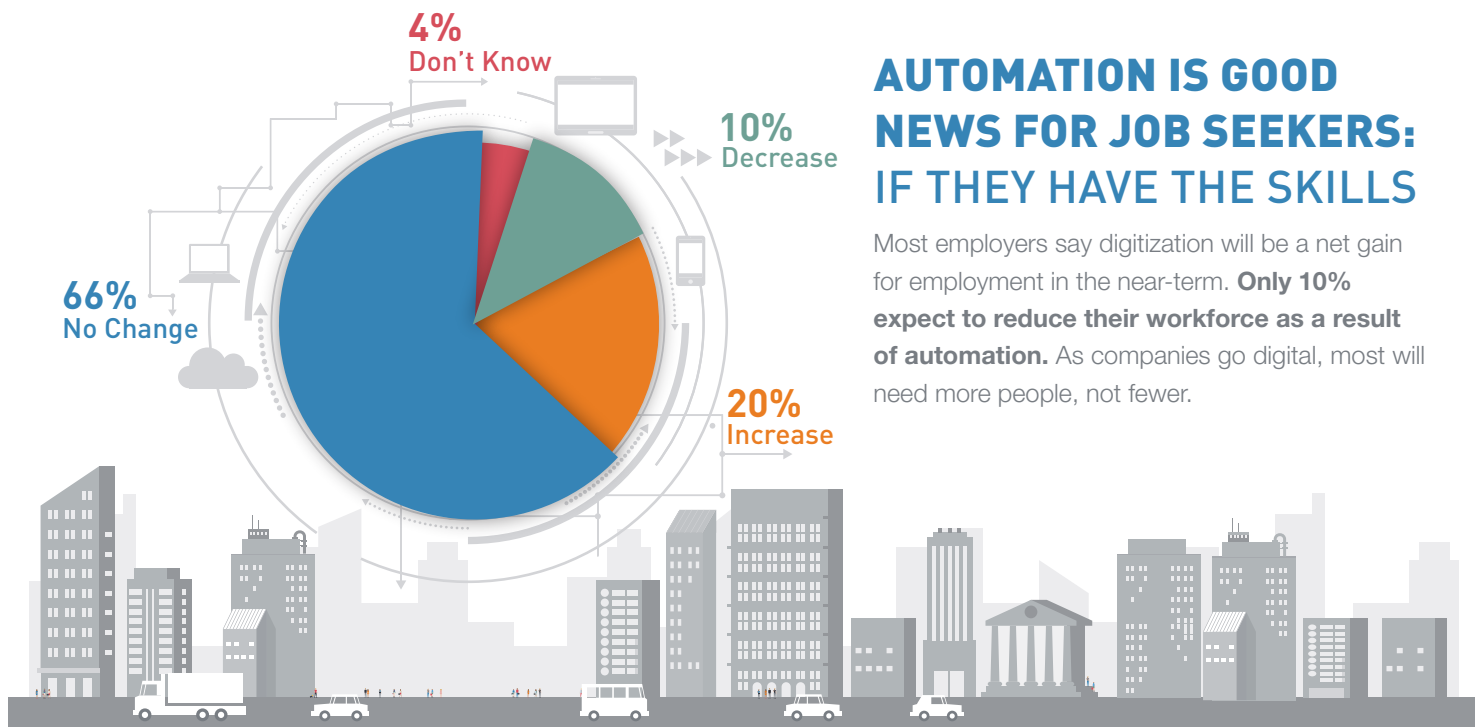
*of employers  
plan to maintain  
or increase  
headcount due  
to automation*



## HUMAN STRENGTHS

include traditional soft skills like communication, collaboration and creativity, as well as uniquely human traits like empathy, relationship-building, cognitive ability, curiosity and the desire to learn. **Human strengths are skills that will augment technology and reduce the threat of replacement by automation.**

# THE GLOBAL IMPACT OF DIGITIZATION



## AUTOMATION IS GOOD NEWS FOR JOB SEEKERS: IF THEY HAVE THE SKILLS

Most employers say digitization will be a net gain for employment in the near-term. **Only 10% expect to reduce their workforce as a result of automation.** As companies go digital, most will need more people, not fewer.

## DIGITIZATION: A GLOBAL PHENOMENON

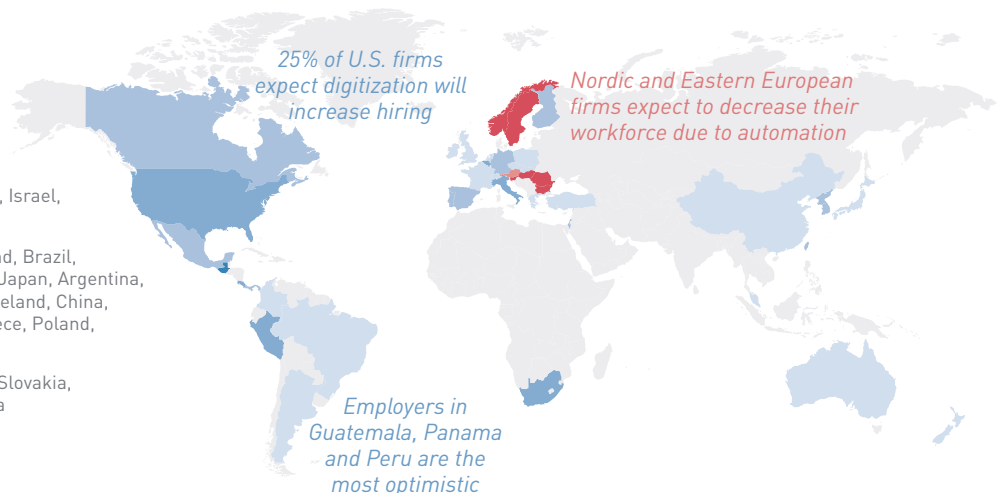
No country is immune from digitization. As industries shift to more advanced, automated processes, employers need additional people – especially those with IT skills – to drive transformation. **Of the 42 countries surveyed, 34 have more companies expecting to grow rather than shrink their workforce as a result of digitization.**

### Impact of Technology on Headcount in the Next Two Years

#### % that will Increase Headcount

41 – 50	Guatemala
31 – 40	Panama
21 – 30	Peru, Netherlands, USA, South Africa, Belgium, Italy
11 – 20	Costa Rica, Mexico, Portugal, Israel, Taiwan, Spain, Canada
0 – 10	United Kingdom, New Zealand, Brazil, Australia, Turkey, Germany, Japan, Argentina, Colombia, Czech Republic, Ireland, China, Switzerland, Singapore, Greece, Poland, Hungary, France, Sweden
-1 – -10	Norway, Slovenia, Romania, Slovakia, Finland, Hong Kong, Bulgaria
-11 – -20	Austria

#### % that will Decrease Headcount



Latin American employers continue to be the most optimistic about the impact of automation on hiring. In Europe, German and Belgian employers now predict net headcount increases – a brighter picture than last year.<sup>3</sup> **In the U.S., 25% of companies expect automation to increase hiring, versus only 3% of Chinese firms.**<sup>4</sup>

## ROBOTS TAKE TASKS, NOT JOBS: THE SKILLS RESHUFFLE

Most employers expect overall headcount to increase as a result of digitization, however, the impact varies by function.

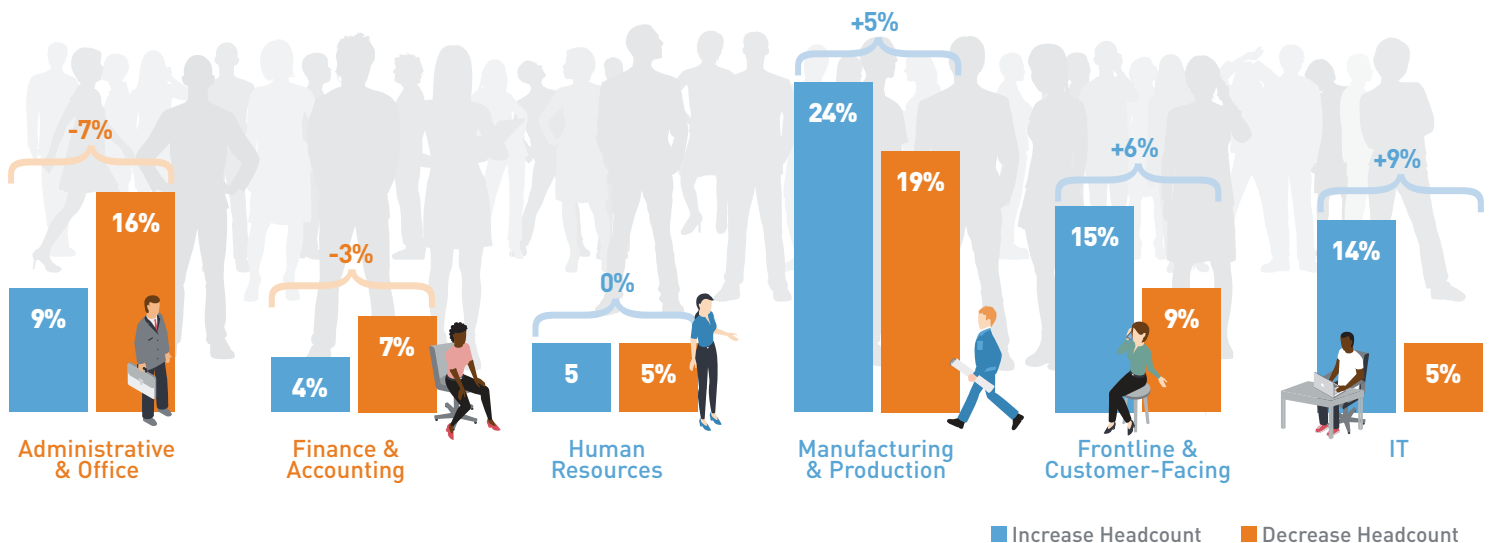
**IT comes out on top as organizations invest in digital skills, and Frontline & Customer-Facing functions are close behind.**

In contrast, Administrative & Office functions expect the greatest decreases in headcount as a result of automation.

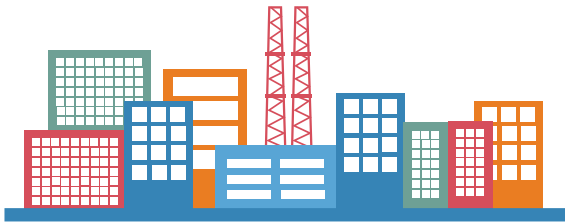
The rise in consumerism and the value companies now place on customer service and last mile delivery are increasingly evident in a digital world. **Roles that are routine or add less value to customers are under greatest threat of automation.**



### Functions Likely to See the Largest Increase and Decrease in Headcount in the Next Two Years



**IT** functions expect the **greatest increase** in headcount;  
**Administrative & Office** functions expect the **greatest decrease**.



## MANUFACTURING & PRODUCTION: THE BIG CHURN

Employers anticipate significant churn as new skills emerge and others become obsolete.



Manufacturing & Production functions are leading the digital revolution for the second year with employers predicting the highest turnover – increases (24%) and decreases (19%). The rise of Industry 4.0 is fueling the advanced manufacturing renaissance. As manufacturers recalibrate their workforce and experiment to find the right digital skills, other industries will soon follow.



## HR & FINANCE: DOING MORE WITH LESS

Most companies expect headcount in HR and Finance functions to remain stable with net hiring at 0 & -3% respectively. **As organizations implement new technology and adapt their workforce and skills to leverage it, these functions will be tasked to drive efficient transformation,** while the overall workforce grows elsewhere in the organization.

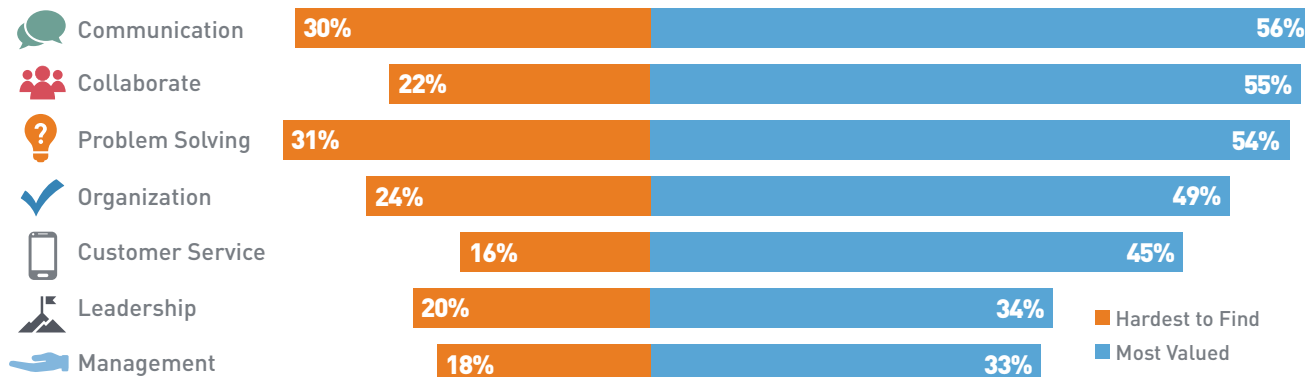
In the Financial Services sector specifically – companies including financial services, real estate and insurance – demand for IT hires is expected to be five times greater than hiring for accountancy staff.



**73%** of companies shrinking their HR teams the most, still expect an overall increase in headcount

## HUMAN STRENGTHS STAND OUT IN THE DIGITAL AGE

### Most Valued Soft Skills Are Hard to Find





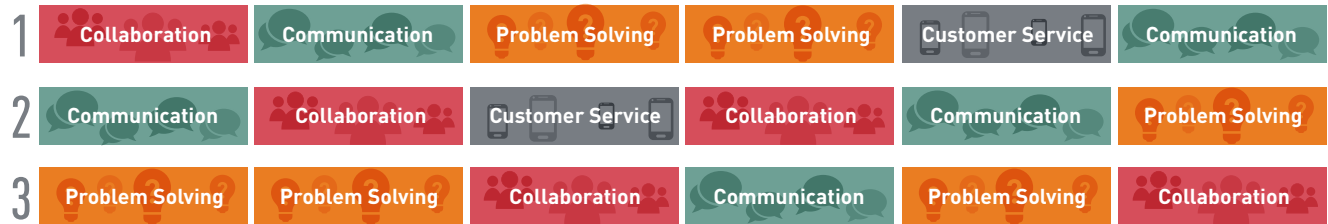
# NOBODY PUTS IT IN THE CORNER: DIGITAL COMMUNICATORS IN HIGH DEMAND FOR FRONT AND BACK OFFICE

In the Skills Revolution, for organizations and individuals alike, the best blend of high-tech and high-touch will be the combination of human strengths with technical and digital know-how. **More than half of companies say communication skills, written and verbal, are their most valued soft skill followed by collaboration and problem-solving.**

Finding talent with the right skills mix is a challenge: employers say problem solving, communication, organization and collaboration are also the hardest skills to find in candidates.



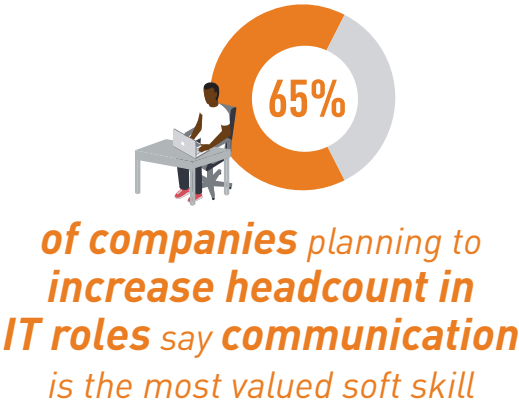
## Most Valued Soft Skills by Function



## Hardest to Find Soft Skills by Function



Communication skills are especially important in IT functions where people are increasingly working across teams leading digitization. **IT is no longer a siloed, stand-alone department; today it's a cross-functional, core element of business transformation.** In turn, organizations value front-line workers who can communicate, problem-solve and understand new technology and systems that provide better client service and add value where customers want it most.



# IDENTIFYING IN-DEMAND SKILLS: PROVIDING ACCESS TO EMPLOYMENT



## UPSKILLING WORKERS FROM DECLINING INDUSTRIES TO HIGH GROWTH SECTORS IN ITALY



As fast as new skills develop, old ones are becoming obsolete. Automation is changing how work gets done and we must find solutions for workers who are displaced from declining industries. This public-private partnership, **led by employers, offers a compelling upskilling solution and is transforming hiring demand and revitalizing communities.**

In Italy's Emilia Romagna region, the world's most advanced motorsport manufacturers – Ferrari, Maserati, Lamborghini and Dallara – were struggling to find enough skilled workers to fabricate the stronger, lighter-weight components used in their high-performance cars. **Partnering with local technical schools, universities and government, ManpowerGroup's Experis team opened the Labs and Academy Training Center.** Leveraging a unique targeted curriculum, the Experis Lab has retrained hundreds of workers and upskilled the region's under-employed textile workers to work with high-tech materials like carbon fiber to work in the prestigious, high-performing, automotive industry; a formula that can be scaled elsewhere.<sup>5</sup>



*In the Skills Revolution, all **employees will need digital skills and the ability to problem solve and collaborate** as more organizations and functions are poised for greater levels of digitization.*





## ACCELERATED RESKILLING OF U.S. VETERANS INTO ADVANCED MANUFACTURING AND DOUBLING SALARIES

Manufacturing employers in the U.S are experiencing a gap between the skills they need and those people have. **By 2020, there will be up to two million unfilled manufacturing jobs.** To close this gap, together with the Digital Manufacturing Design Innovation Institute of Chicago, ManpowerGroup mapped 165 advanced manufacturing roles to help define the jobs and skills of today and tomorrow.<sup>6</sup>

ManpowerGroup identified military veterans with engineering experience as a population with relevant adjacent skills that could be easily adapted, developed and applied to these new roles. **They also had strong learnability: the desire and ability to upskill for these high-demand instrumentation, automation and controls technician roles.**

In partnership with Rockwell Automation and the Academy of Advanced Manufacturing, we launched **a fast-track 12-week training program combining classroom learning with hands-on lab experience and career coaching with a heavy focus on soft skills.**

The first class graduated in November 2017; all secured job offers from top employers and many doubled or even tripled their salaries. By identifying a skillset with growing market demand, and tapping an underutilized segment of the workforce with adjacent skills and enrolling people with proven learnability, we unleashed their potential, developed valuable talent and changed lives.<sup>7</sup>



# HUMAN SOLUTIONS FOR A SKILLS REVOLUTION

Steps employers can take to boost their workforce strategy to prepare for digital transformation, changing business models and shifting skill needs.



## 1 HIRE FOR LEARNABILITY

Employers can no longer rely on a spot market for talent. We need people with learnability – the desire and ability to develop in-demand skills to be employable for the long-term. Employability today is less about what you already know and more about your capacity to learn.

Encourage a culture of learnability to retain and attract the best talent: [www.learnabilityquotient.com/](http://www.learnabilityquotient.com/)



## 2 IDENTIFY SKILLS ADJACENCIES

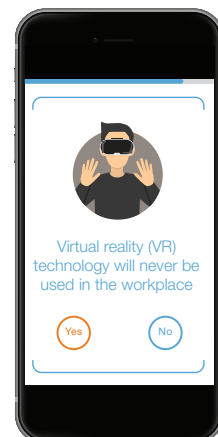
Set people up to succeed. Map out skill needs, then assess and identify candidates with adjacent skills sets – those skills that are closely connected and can be adapted to new roles. **Build on proven talents and equip people to shift from traditional to digital skillsets.** See how ManpowerGroup and the Digital Manufacturing Design Innovation Institute defined and mapped 165 leading-edge manufacturing roles: [www.right.com/digitalmanufacturing](http://www.right.com/digitalmanufacturing)

## 3 DEVELOP DIGITAL LEADERS

While 80% of leadership capabilities remain the same – adaptability, drive, endurance and brightness – a new style of leadership is required for the digital age. **What got you here, won't get you there.** Leaders today must be able to dare to lead and be prepared to fail fast. They need to nurture learnability, accelerate performance and foster entrepreneurialism. And of course, they must unleash potential in others.

How ready are you to lead in the digital age? Find your Digital Quotient: [digiquotient.io](http://digiquotient.io)

DigiQuotient





**Helping people upskill and future-proof themselves in a fast-changing world of work will be the defining challenge of our time.**

**Identifying in-demand skills and providing access to employment will be the solution to the Skills Revolution.**

## ABOUT THE RESEARCH

ManpowerGroup commissioned Infocorp to carry out quantitative research in October 2017 surveying 19,718 employers across six industry sectors in 42 countries. The research was conducted in Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Canada, China, Colombia, Costa Rica, Czech Republic, Finland, France, Germany, Greece, Guatemala, Hong Kong, Hungary, Ireland, Israel, Italy, Japan, Mexico, Netherlands, New Zealand, Norway, Panama, Peru, Poland, Portugal, Romania, Singapore, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Taiwan, Turkey, UK and USA. Data analysis conducted by Reputation Leaders.

<sup>1</sup> Erica Peterson, "From Coal To Code: A New Path For Laid-Off Miners In Kentucky." National Public Radio, (May 6, 2016).

<sup>2</sup> Martin Ford, Rise of the Robots: Technology and the Threat of a Jobless Future, (New York, NY: Basic Books, 2015).

<sup>3</sup> The Skills Revolution: Digitization and Why Skills and Talent Matter, ManpowerGroup, (2017). Showed that 83% of employers expected to increase or maintain their headcount as a result of automation, while 12% expected a decrease.

<sup>4</sup> Chart shows expected change due to automation (increase - decrease).

<sup>5</sup> Read more at: <https://doingwellbydoinggood.manpowergroup.com/skilling-up/dallara-motorsports/>

<sup>6</sup> Read more at: <http://www.right.com/digitalmanufacturing>

<sup>7</sup> Read more at <https://doingwellbydoinggood.manpowergroup.com/skilling-up/rockwell-automation/>



ManpowerGroup®

## ABOUT MANPOWERGROUP

ManpowerGroup® (NYSE: MAN), the leading global workforce solutions company, helps organizations transform in a fast-changing world of work by sourcing, assessing, developing and managing the talent that enables them to win. We develop innovative solutions for over 400,000 clients and connect 3+ million people to meaningful, sustainable work across a wide range of industries and skills. Our expert family of brands – Manpower®, Experis®, Right Management® and ManpowerGroup® Solutions – creates substantially more value for candidates and clients across 80 countries and territories and has done so for 70 years. In 2017, ManpowerGroup was named one of the World's Most Ethical Companies for the seventh consecutive year and one of Fortune's Most Admired Companies, confirming our position as the most trusted and admired brand in the industry. See how ManpowerGroup is powering the future of work: [www.manpowergroup.com](http://www.manpowergroup.com).



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