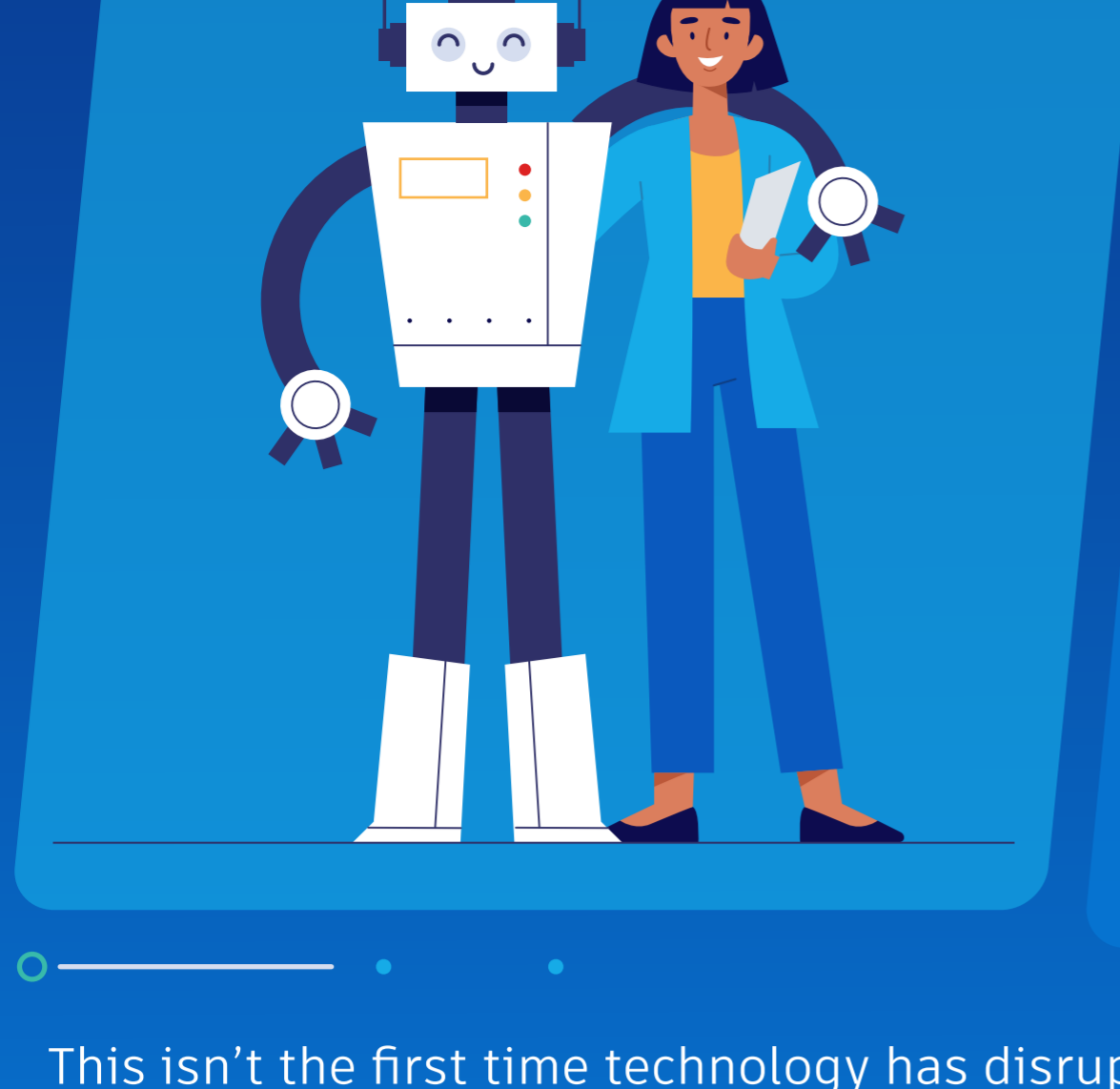


# AUTOMATION

## FRIEND OR FOE?

Upskilling can help workers adapt—and thrive—in a future of disruption.



This isn't the first time technology has disrupted the workplace (think personal computers and ATMs), and it won't be the last. But technologies like robotics and artificial intelligence (AI) automate repetitive tasks, not jobs—and that means they ultimately create new opportunities.

## THE GOOD NEWS

Automation will actually create more jobs than it replaces.

By 2025, automation will create

**12 million net-new jobs.**<sup>1</sup>



### THE MINDSET SHIFT

But automation requires both employers and workers to embrace the idea of lifelong learning.

50% of all employees will need reskilling by 2025.

## IT'S TIME TO MAKE FRIENDS WITH YOUR ROBOT

Because the robots aren't coming—they're already here. And together with automation, AI, and virtual reality (VR), they're changing the nature of work. More jobs will require people to:

### Work on Robots

Build, code, run, and maintain robots and other tools.



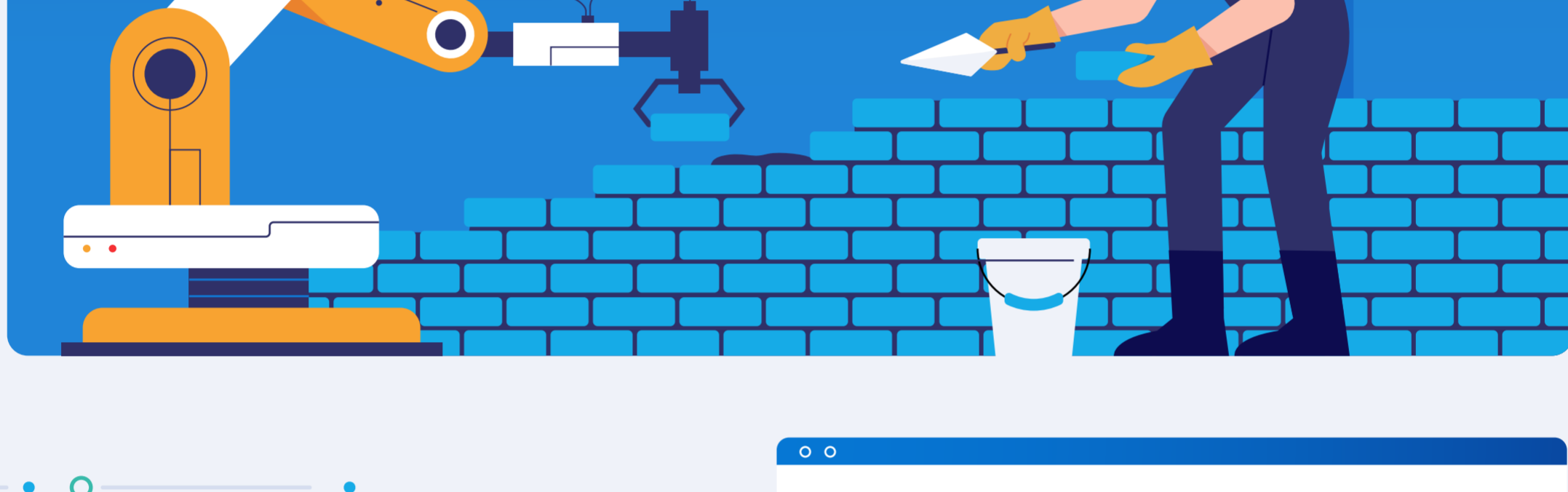
### Use Uniquely Human Skills

Solve complicated problems using empathy, creativity, and critical thinking.



### Work With Collaborative Robots

Perform tasks alongside cobots.



In the US and Europe, the need for **technical skills** (working with technology, coding) will rise by **58%** over the next decade. The need for **high-level social and emotional skills** (initiative taking, leadership, entrepreneurship) will rise by **33%**.<sup>2</sup>



Nearly **50%** of companies in the manufacturing (MFG) and architecture, engineering, and construction (AEC) industries expect technology to have a major impact on their business in 1–3 years.<sup>3</sup>



### Automation & Robotics

46% of MFG companies

45% of AEC companies

expect automation & robotics to have a major impact on their business.



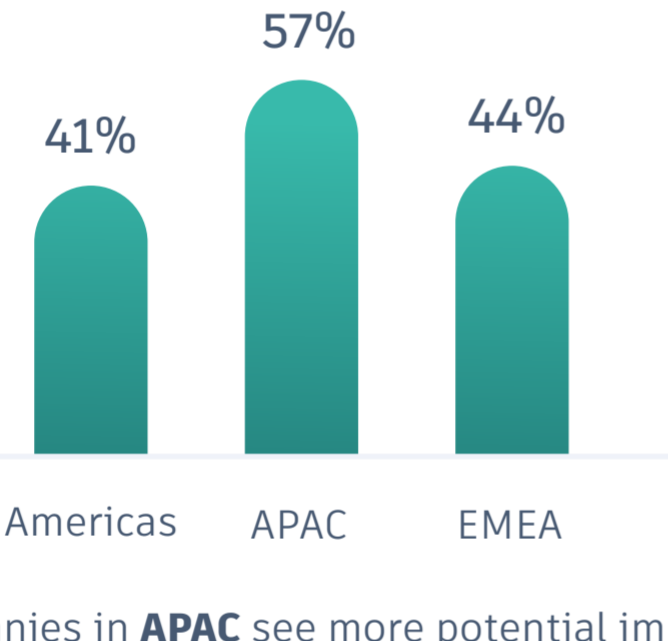
### AI & VR

46% of MFG companies

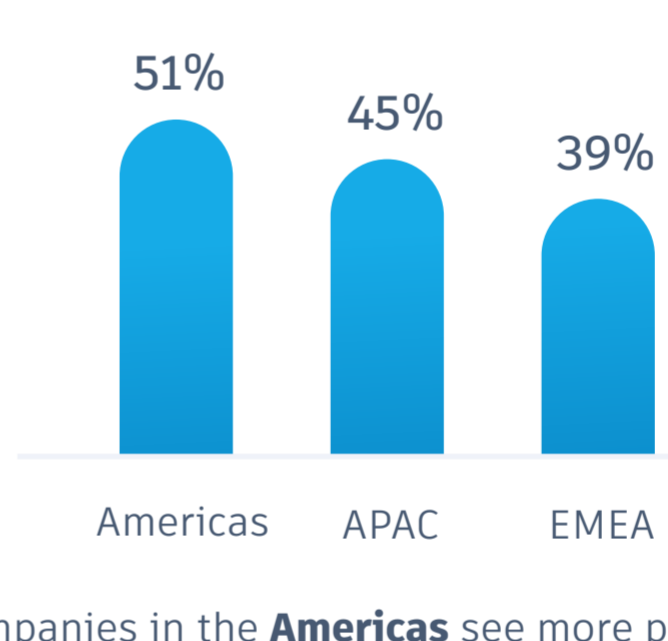
44% of AEC companies

expect AI & VR to have a major impact on their business.

The impact of technology varies by region:



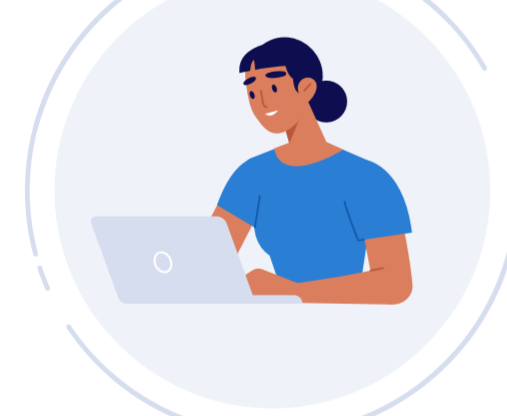
Companies in **APAC** see more potential impact for automation & robotics.



Companies in the **Americas** see more potential impact for AI & VR.

## HOW LEADERS CAN HELP

Companies that focus on reskilling and upskilling can help their employees become more resilient and develop mindsets that embrace lifelong learning. Businesses that team up with governments, labor unions, and educational and training institutions often produce greater results.



**“94% of employees say they would stay longer in a company that invests in their career.”**

—Ben Reuveni, CEO, Gloat, a talent marketplace firm<sup>4</sup>

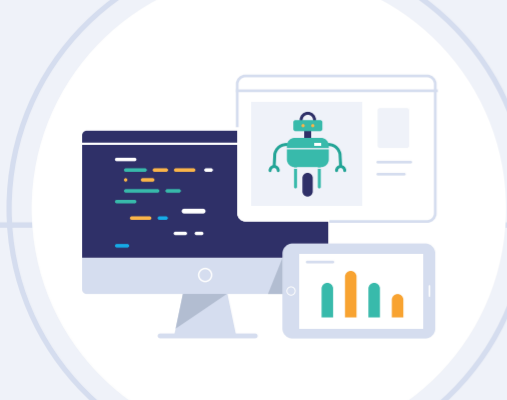
### WHAT CAN COMPANIES DO TODAY?<sup>5,6</sup>

- Support workers throughout their careers**  
McKinsey & Company's **ReGeneration** initiative supports midcareer workers in the US, Singapore, and Spain who've been displaced due to automation or are returning to work after a period of nonwork.
- Offer new modes of training and certification**  
South Korea's **Academic Credit Bank System** lets students of all ages pool credits that they've earned from various sources and count them toward one degree.
- Improve visibility for jobs and career paths**  
**Unilever's** FLEX Experiences talent marketplace uses AI to match jobs with employees based on their profile in 100+ countries.<sup>7</sup>
- Make upskilling a team effort**  
IBM's **SkillsBuild** platform, developed in concert with educational partners, offers career-fit assessments, training, and coaching to workers in 18 countries.<sup>8</sup>

## TOP SKILLS FOR AN AUTOMATED FUTURE

In 10 years, **40%–60%** of available jobs will be for roles that don't yet exist.<sup>9</sup>

The types of skills needed in a fast-changing job market include:<sup>10,11,12</sup>



**Technology use & development**

Example job: IoT Solutions Architect



**Problem solving**

Example job: Data Detective



**Resilience & flexibility**

Example job: Augmented-Reality Journey Builder



**Working with people**

Example job: Human & Robot Manager

## GET STARTED WITH THE FUTURE OF WORK

1 These Are the Top 10 Job Skills of Tomorrow—and How Long It Takes to Learn Them, World Economic Forum, October 2020

2 Building the Vital Skills for the Future of Work in Operations, McKinsey, August 2020

3 Executive Insights Research by Business Advantage Group, commissioned by Autodesk, 2021

4 The Future of Work Is Now: Is APAC Ready?, Deloitte, February 2021

5 The Future of Work Is Now: Is APAC Ready?, Deloitte, February 2021

6 Supporting Worker Success in the Age of Automation, Deloitte, June 2019

7 An Exciting New Normal for Flexible Working, Unilever, June 2020

8 IBM SkillsBuild website

9 Reskilling, Upskilling, and Workplace Learning for Industry 4.0, CGS, September 2020

10 These Are the Top 10 Job Skills of Tomorrow—and How Long It Takes to Learn Them, World Economic Forum, October 2020

11 “Blue Collar” to “New Collar”—The Future Workforce of Manufacturing, MAU Workforce Solutions, April 2021

12 21 Jobs of the Future: A Guide to Getting—and Staying—Employed for the Next 10 Years, Cognizant, 2019