

# Global Talent 2021

How the new geography of talent will transform  
human resource strategies



A white paper produced in partnership with Towers Watson, AIG, American Express, British American Tobacco, the Center for Effective Organizations at the University of Southern California, Cummins, Coca-Cola, Edison International and the Organization of American States



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## Preface

This white paper provides insights into how corporations are preparing for the global shift in the demand and supply of talent over the next decade. To ensure the rigor of our research, we undertook a blend of quantitative and qualitative analysis, including:

- A global survey of 352 HR professionals to examine how rapid globalization and the transformation of the business environment will affect workforce needs in the future, and the implications of these shifts for senior business and HR executives.
- An extensive modeling exercise of 46 countries and 18 industry sectors to understand where the shifts in the supply of talent will occur over the next decade, using Oxford Economics' extensive databank, which includes 25-year forecasts and 30 years of historical data on 190 countries and 100 industry sectors. We also drew upon national census and annual labor force surveys.
- A series of in-depth personal interviews and panel discussions with over 30 senior executives, consultants and policy-makers involved in setting talent strategies and initiatives.

We thank all the executives who took part in both the survey and the qualitative research. We also thank Towers Watson for its advisory support and contributions to the research.

This study was informed by the input of our Executive Steering Committee, which included Towers Watson, the Center for Effective Communications at the University of Southern California, AIG, American Express, British American Tobacco, Cummins, Coca-Cola, Edison International and the Organization of American States. We are grateful for the inputs of each of these organizations, including:

- Ravin Jesuthasan, Fanny Potierkoninckx, Graham Spencer and Juliet Piekarski at Towers Watson;
- John Boudreau at the Center for Effective Organizations;
- Walter Hurdle at AIG;
- Samira Kaderali and Kathleen McCarthy at American Express;
- Margaret St. John and Borwin Jung at British American Tobacco;
- Paul Wright at Cummins;
- Terry Hildebrand and Libby Wanamaker at Coca-Cola;
- Paul Boyett at Edison International;
- Rosine Plank-Brumback at the Organization of American States.

Oxford Economics carried out the research. The results of the study are the sole responsibility of Oxford Economics and do not necessarily represent the views of the sponsors.

**October 2012**

## Introduction

Tectonic market shifts are transforming the global business landscape. Economic realignment, advances in technology, globalization of markets, changing demographic trends, new customer needs, and increased competition are radically altering how companies operate in virtually every industry and region of the world. Evidence of this new world order is dramatically reflected in trade numbers. In 1990, the total of the world's exports and imports accounted for only 30% of the world's GDP—today, they make up more than half.

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These structural shifts are reshaping both the supply and demand for talent across the globe. To cope with a changing business environment, employers are demanding new skills from their employees, yet often find they are in short supply. The paradox is profound: On the one hand, 40 million workers in the industrialized world are unemployed, according to recent estimates by the International Labor Organization. Yet executives and managers tasked with hiring new workers often say they are unable to find the right people with the proper skills to fill their key vacancies.

Meanwhile, the sources from which talent might be recruited are also realigning. More talent is being “home grown” in the developing world, and as a result, our forecast shows that over the next decade, new and sometimes unlikely regions of the world will generate a surplus of skilled workers. By contrast, other regions—like the US and much of Europe—will confront the need to undertake a critical “reskilling” of labor to meet the new demands of a highly digitized and interconnected world where higher-level skills will be required.

To make their organizations more effective in the face of sweeping business change, HR leaders will need to rethink their techniques for managing talent and ensure they are aligned with the new strategic objectives of their organization. Increasingly, they will need to develop more evidence-based approaches to manage global talent—drawing on improved analytics to identify talent segments and recognize gaps, optimize resource allocation, integrate workforce plans and manage unavoidable risk.

Whether the issue is opening a new plant in a distant market, identifying the firm's next set of corporate leaders, or preparing for a new customer engagement strategy, the HR executive is emerging as a key strategic player proficient at using evidence-based analysis to influence corporate decisions. As Samira Kaderali, Director of Strategic Workforce Planning at American Express puts it, “The notion of HR being much more analytic and data-driven provides a foundation for HR to be a strategic partner to the business, to help drive business results—this is the conversation that all the business and HR leaders want to have.”

To help explore how market transformation will affect senior HR executives and the companies they serve, Oxford Economics undertook an extensive, two-pronged research program. We conducted a global survey of 352 HR professionals in the first quarter of 2012 to examine how rapid globalization and the transformation of the business environment will affect workforce needs in the future, and the implications of these shifts for senior business and HR executives. We also undertook an extensive modeling exercise of 46 countries and 21 industry sectors to understand where the

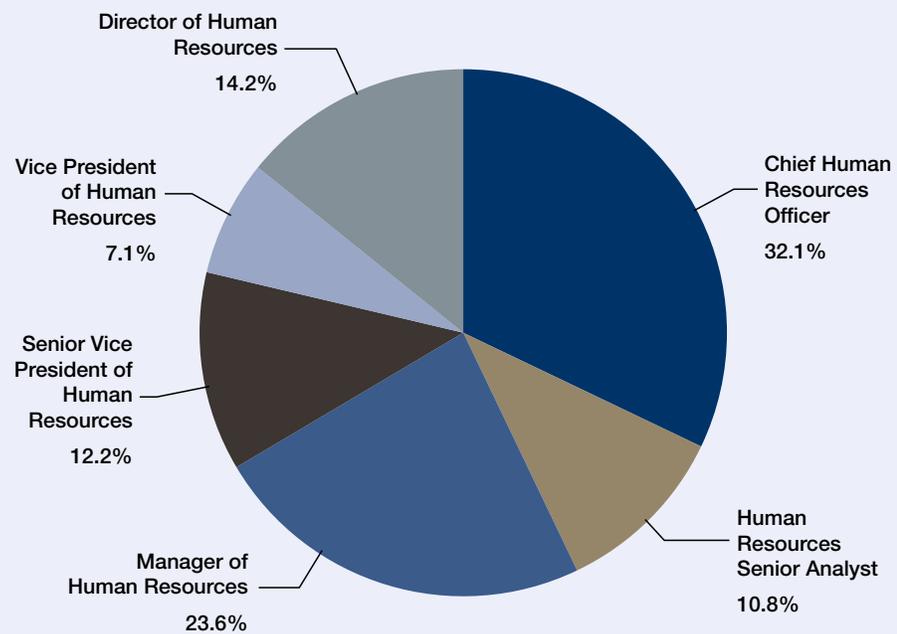
shifts in the supply of talent will occur over the next decade. To supplement the results of our quantitative research, we conducted a series of in-depth interviews with HR executives across the globe and drew on the expertise of our HR steering committee.

Our research reveals not only that tomorrow’s landscape for global talent will be dramatically different from that of today, but that some countries and industries will need to adapt more quickly to accommodate these rapid shifts.

### Who took the survey?

This survey was conducted in the first quarter of 2012, reaching a total of 352 human resources professionals around the world. Of them, roughly one-third were CHROs (chief human resource officers); another third were senior vice presidents, vice presidents or directors of HR; and the rest were HR managers and analysts. About 22% came from companies with between \$25 million and \$250 million in annual revenue; 31% between \$250 million and \$1 billion; 23% between \$1 billion and \$5 billion; 18% between \$5 billion and \$50 billion; and 5% over \$50 billion. The survey reached executives in all regions around the world and represents a wide range of industry sectors.

**Figure 1: Survey respondent titles**



Source: Oxford Economics

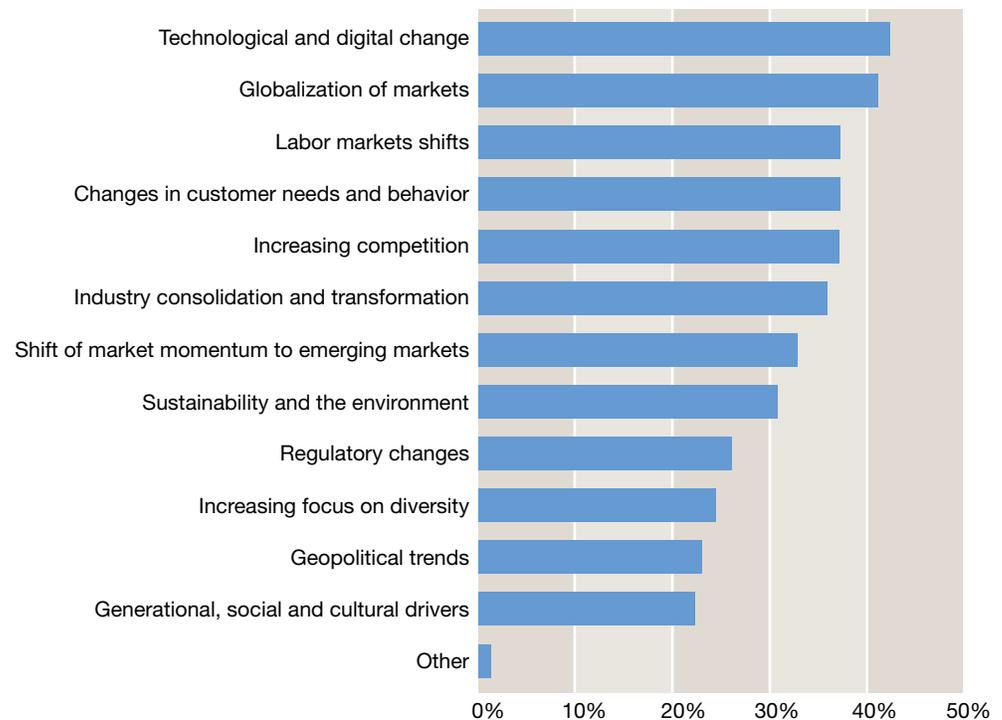
# Market transformation is redefining the supply and demand for talent

Everywhere across the globe, wrenching business changes are touching every firm and industry. Profound shifts in the global marketplace are ushering in a new era of complexity, uncertainty and change for companies. The rise of the internet and related technology has accelerated these market shifts, up-ending business models, strategies, and processes along the way.

The growing impact of the digital explosion is clearly recognized in our survey. Firms identify advances in technology (42%) and globalization (41%), combined with shifts in labor demographics (38%), customer needs (38%), and competition (37%) as underlying forces that are compelling them to find new ways to manage in a global marketplace characterized by complexity and change.

**Figure 2: Global shifts affect talent requirements**

Which market shifts will have the biggest impact on your organization’s talent requirements over the next five to 10 years? (% of respondents)



Source: Oxford Economics

Because of these rapid shifts in the market, the vast majority of companies have implemented, plan to implement or are going through transformation initiatives to rethink their global strategies, business models and organizational approaches. Indeed, according to our survey, 41% have recently completed a significant transformation initiative or are currently undergoing one. And another 47% of those surveyed are preparing to do so. For certain industries, such as financial services and heavy manufacturing, the total of those that have gone or plan to go through business transformation is even higher (more than nine out of 10).

Naturally, these shifts affect industries differently. For example, 54 % of firms involved in heavy manufacturing and 52% in life sciences cite globalization as the key driver of internal reorganization, while firms in technology, information, communications and entertainment (TICE) sectors are more likely to cite changes in technology (48%) and customer behavior (44%).

Firms in the financial sector are among the most significantly affected by the explosive pace of change in recent years, particularly as it pertains to digital technologies and the gathering forces of globalization. American Express is one firm that is proactively harnessing new digital technologies to revolutionize its business practices. From its aggressive forays into social media partnerships, to changing the way it recruits and measures the effectiveness of its call center employees, Amex has recognized that it must be a leader as it adapts to the emerging digital ecosystem that will significantly alter the nature of interactions with clients and the future uses of payment systems. These changes, characterized as “digitizing the core” of its business, will cascade through the organization and have profound effects on future talent requirements.

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***“Globalization, technology, and shifting demographics are changing our customers and transforming our business.”***

*Samira Kaderali, Director of Strategic Workforce Planning, American Express*

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“Globalization, technology, and shifting demographics are changing our customers and transforming our business,” Ms. Kaderali explains. “So business leaders know that they need to figure out how to better manage those big-ticket items like salary and benefits, and have the right workforce to drive results.” Already Amex is building new capabilities that marry workforce planning to sophisticated analytics to measure more effectively the cost and quality of the workforce, as well as metrics related to risk and productivity. These new sources of data give business leaders insights into their organization they could not possess in the past. “They know much more now about what type of employees they have, where they have them, and what the overall organization looks like from a talent perspective,” Ms. Kaderali explains.

Even for firms that have operated across the globe for decades, rapid technological change makes it more feasible for companies to create more consistent management structures and back office functions. Whilst these systems will eventually improve efficiency and equity, developing them can create substantial management challenges. “Ultimately our company has come to terms with the fact that we are truly a global entity that needs to operate at both the global and local level,” explains Libby Wanamaker, Global Director of Program Development for Coca-Cola. “Our transformation has really shifted the way we think about our business strategically.”

In the past, “many of our processes and systems varied by regions or locality,” she explains. “In recent years we have strategically shifted to a more consistent global approach. Naturally, that meant that HR needed to change, to develop new processes and standards to meld together geographies that might have employed different systems. Today, a series of standardized processes service back office functions across the entire firm.”

The growing importance of global markets as a source of overall growth is another imperative driving innovative transformation. Cummins Inc., the engine manufacturer, was once primarily a domestic US firm. Today, Cummins has operations in 52 countries and generates over 60% of its revenue from its foreign operations. Yet for most of its existence, Cummins operated its lone engineering and technology development center from its headquarters in Columbus, Indiana.

That traditional model no longer seems quite as relevant. Today, rather than see itself as a multinational firm run out of a US headquarters, Cummins seeks to operate as a truly global firm, opening engineering centers in both India and China and leveraging an increasingly complex global supply chain to better serve customers. As new plants open in fast-growing markets like Brazil and Turkey, HR executives like Paul Wright, the company's Global Diversity Special Projects Manager, know they will need to recruit the right talent to fill these newly created jobs and standardize job categories that exist in different regions.

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*“We’re trying to make it easier to move talent around the world as we need it, and help offer people development opportunities.”*

*Paul Wright, Global Diversity Special Projects Manager, Cummins Inc.*

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“If you’re saying that the future of your market is outside the US, then it doesn’t make sense for all your product development to happen in the US. We’ve got to give up some of this centralized control and the idea that we in the US have all the brain power.”

That impetus puts HR “at the center of planning now,” Mr. Wright adds. “We’re trying to make it easier to move talent around the world as we need it, and help offer people development opportunities.”

### Talent needs in manufacturing

As it rapidly establishes networks of factories and subcontractors around the globe—and a complex supply chain to service them—the manufacturing industry is undergoing significant transformation to address its talent needs, according to our survey. “There was a day and age where we machined virtually every part that composes our engines,” says Mr. Wright of Cummins. “Today, we’re really in the business of global logistics, often balancing supply and demand between plants in both hemispheres. Our customers are all over the world.”

Cummins is not alone. Our data show that 40% of manufacturing firms have recently completed or are currently undergoing business transformation; another 40% expect to undergo a transformation within the next three years. More than half of heavy manufacturers cite globalization of markets as wielding the biggest influence on their anticipated talent needs. In fact, over the next three years, survey respondents in this sector expect that overall workforce growth will increase by 60% in Asia, 33% in Eastern Europe, and 24% in Western Europe.

Technology is also fundamentally changing the way manufacturers operate. The digital revolution lets engineers in far-flung geographies collaborate on new computer-aided designs, while cloud computing enables managers regularly to reprogram robots operating on a factory floor thousands of miles away. New forms of 3-D printing will empower small-scale, do-it-yourself inventors. And as marketers in one region can now communicate closely with factory floors in another, companies can improve efficiency, reduce inventory, and speed the time to market. “That’s how we manage inventory margins and better predict plant production schedules,” Mr. Wright says.

As a result, 64% of heavy manufacturers report that digital business skills will be in high demand and half will need employees who understand IT systems and software. These firms will also be putting a premium on workers who possess innovative qualities and can work well in both face-to-face and virtual teams.

“We’re driving toward the ability to load-balance demand from our manufacturing plants regionally and that requires more flexibility on the manufacturing floor,” Mr. Wright explains. “If we can temporarily move some orders from a UK plant to a China plant, or from a Mexico plant to a US plant, and meet that customer requirement sooner, that is to great advantage.”

### Emerging markets gain influence

Of course, this challenge is not limited to companies based in industrialized markets.<sup>1</sup> In 2008, Tata & Sons, which long operated soda ash businesses in India among its many other lines of business, acquired a soda ash mining operation based in Wyoming, which uses a completely different technology than its Indian counterparts. For Satish Pradhan, Chief --Group Human Resources for Tata Sons Ltd. in Mumbai, the issue is one of assimilating different business cultures. “We have to recognize that people in that region are different and are doing different things in different ways than in India. Although they may still be part of one business, their needs are going to be different. So how do you balance between differentiation and integration—in structure, in systems, in organization design, in process? What is universal and where must you respond to regional needs?”

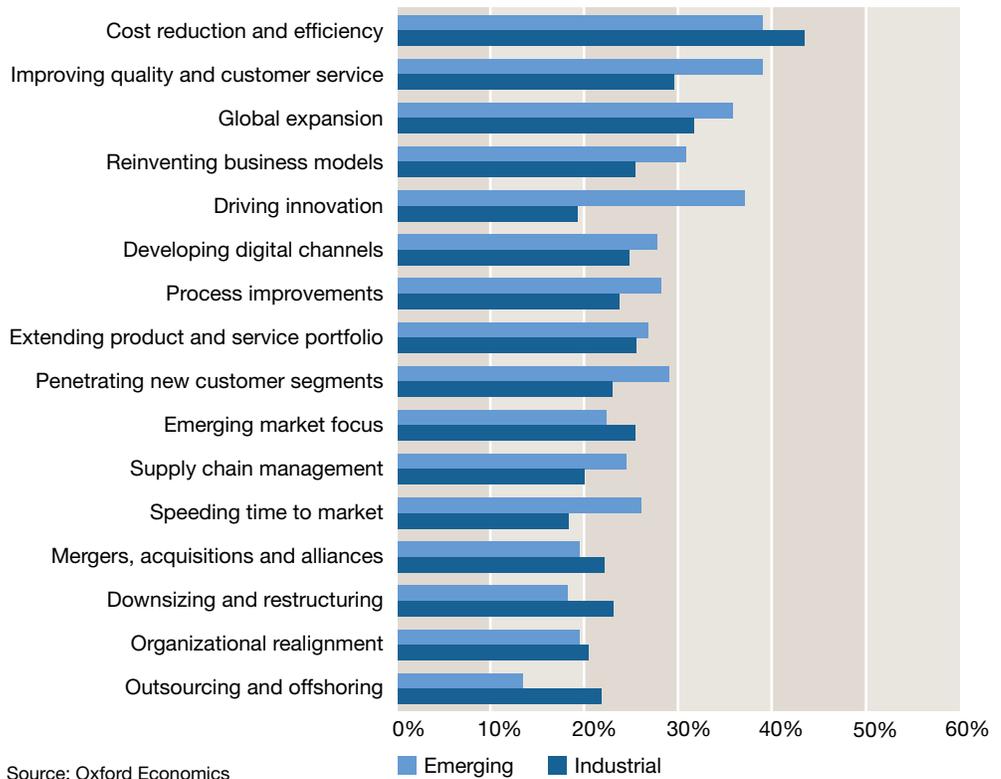
Rapid growth in global operations can also produce HR challenges, as computer maker Lenovo is finding as it strives to boost market share in both emerging and mature economies simultaneously. “If we continue to outpace the market and become the leading PC+ vendor in the world, we will need to double the number of our leaders across the company,” says Robert Gama, the firm’s vice president of Human Resources. “We are always looking to attract the best talent around the world. How do you grow and accelerate the development of that many people in that many areas? That’s what keeps me up at night. That’s the challenge.”

Our survey reinforces this view. Asked which factors would most affect their needs for talent in the next five to 10 years, “global expansion” is cited most frequently by consumer goods firms (35%), heavy manufacturers (30%) and TICE firms (30%). By contrast, only in one sector, travel and tourism, did as many as 30% of respondents cite “outsourcing and offshoring” as a significant shift that will have a major impact on global talent requirements.

<sup>1</sup> For the purposes of this study, Australia, Austria, Canada, France, Germany, Japan, Netherlands, Sweden, Switzerland, UK, and US are classified as “industrialized” nations.

**Figure 3: Corporate strategies drive talent change**

Which strategic initiatives at your firm will have the biggest impact on your talent requirements over the next five to 10 years? (Please choose the top five.) (% of respondents)



Source: Oxford Economics

As the barriers to acquiring the latest and most advanced skills tumble, and digital media rapidly accelerate the dissemination of information across the globe, firms from emerging markets like Tata and Lenovo find themselves with a competitive edge, according to our research. The internet allows even small, upstart local firms to rapidly gain access to the global marketplace. Companies in the emerging world that can take advantage of new business models and the rising capabilities of their homegrown talent are poised to steal a march on their counterparts in the West in terms of being ready to meet the new challenges of transformation. These “young lions” tend not to be encumbered by legacy systems, and often prove themselves agile enough to adopt the latest technologies, so they can flexibly leverage their talents and efficiently deploy their more limited capital. Thus, not unlike technology startups in Silicon Valley, these firms have the potential to emerge quickly as rivals to more established firms, as they will increasingly attempt to penetrate the world’s largest markets. As they do so, they will be able to target and siphon away skills from incumbent players that must wrestle with slowing growth and an aging workforce.

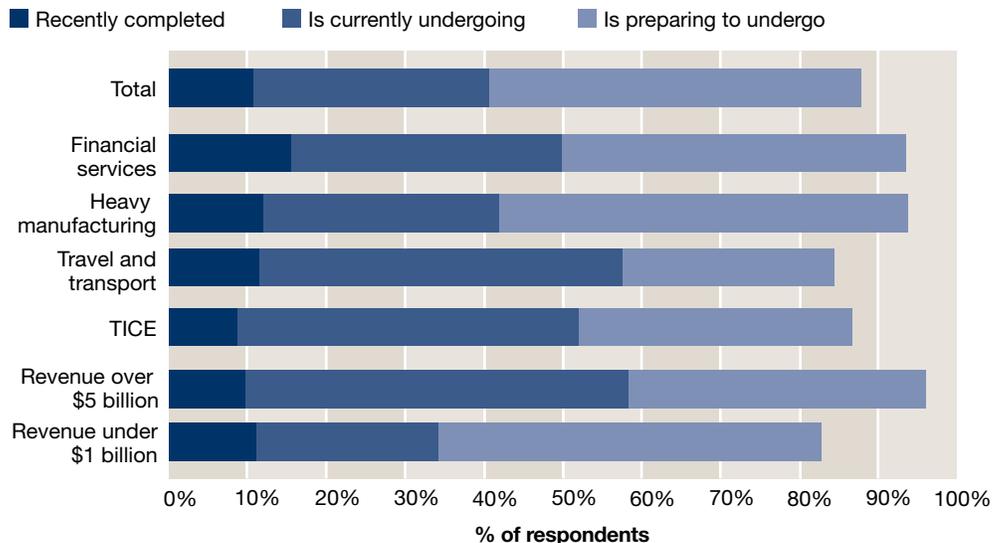
One important sign of this adaptation is that the priorities of firms that operate in emerging markets differ markedly from those in more mature economies, our survey indicates. Emerging market firms are putting more weight on global expansion (36%) than those in industrialized markets (31%) and are placing more emphasis on driving innovation (38% compared with 20%). By contrast, industrialized market firms are more inclined to downsize and restructure (23%) than companies in emerging markets (19%). They are also more likely to outsource (22% compared with 13%).

### Business transformation requires new skills

The need to expand the corporate footprint into new geographies is not the only driver of rapid business transformation, however. The rapid reinvention of business models, the accelerated adoption of new technologies and the volatility in markets themselves are compelling firms to expect new kinds of skills from their staff, across all levels of employment.

**Figure 4: Transformation is pervasive across industries**

Please select the statement that best applies to your firm’s business transformation efforts.



Source: Oxford Economics

\*TICE refers to the Technology, Information, Communications and Entertainment industries

Source: Oxford Economics

Our study identified four broad areas where skills will be in greatest demand. These are:

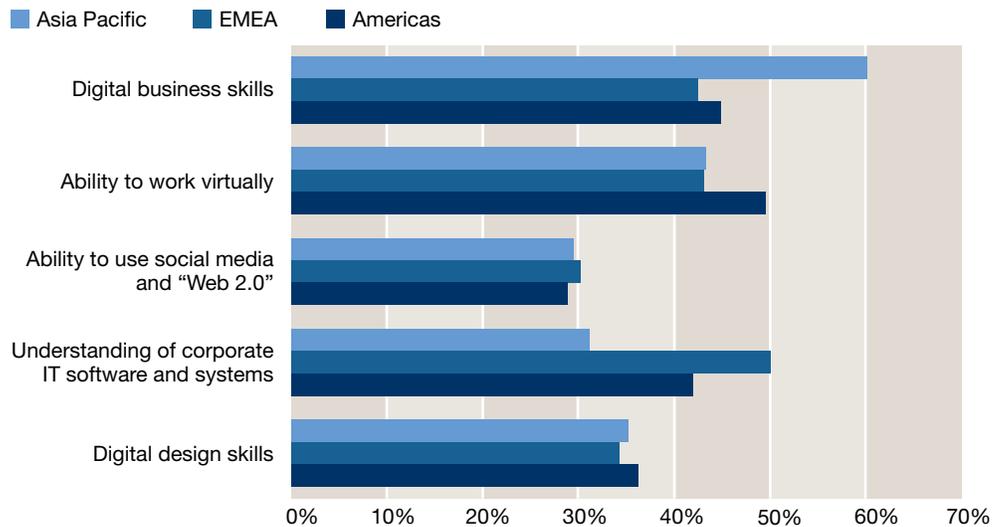
**1. Digital skills.** The fast-growing digital economy is increasing the demand for highly skilled technical workers. In particular, the emergence of social media is putting a premium on developing new forms of digital expression and marketing literacy. Respondents see digital business skills as the most critical of all technical capabilities. This is particularly true in Asia-Pacific, where e-commerce is mushrooming because of the early adoption of new digital technology as a way to “leapfrog” an inefficient infrastructure. In Europe, where economic conditions are weaker, the use of business software and systems to build internal efficiencies will continue to be a high priority.

“Social media is changing the way we’re marketing, the way we’re servicing and the way we’re reaching card members,” explains Ms. Kaderali of American Express. Today, thanks to the firm’s assertive adoption of social media techniques, it is now equipped to offer special savings to card members when they Tweet about specific products, while new analytic tools let managers measure more directly the impact of investments in new marketing campaigns, or the responsiveness of customer service agents. Through email and surveys, Amex is learning how to make its relationships with customers even closer. It is also crafting new methods to personalize customer interactions. These new imperatives make it necessary for Amex staff to develop “some new and evolving skillsets that we haven’t necessarily had in the past,” she

says. “So there’s a whole continuum of how we can leverage analytics to better align with what our prospective customers, as well as our current customers’ needs are.”

**Figure 5: Digital skills**

Which of the following digital skills will be in highest demand at your firm over the next five to 10 years? (Pick two.) (% of respondents by region)



Source: Oxford Economics

*In a period of sustained uncertainty, where economic, political and market conditions can change suddenly, agile thinking and the ability to prepare for multiple scenarios are vital.*

**2. Agile thinking skills.** To succeed in the changing marketplace of the future, HR executives also put a high premium on innovative thinking, dealing with complexity and managing paradoxes. In a period marked by sustained uncertainty, where economic, political, and market conditions can change suddenly, agile thinking and the ability to prepare for multiple business scenarios become vital. In industries that face significant regulatory and environmental cross-currents, such as life sciences, and energy and mining, the ability to prepare for multiple scenarios is especially important—according to 72% and 71% of respondents in those industries respectively, compared with 55% for the overall pool of respondents.

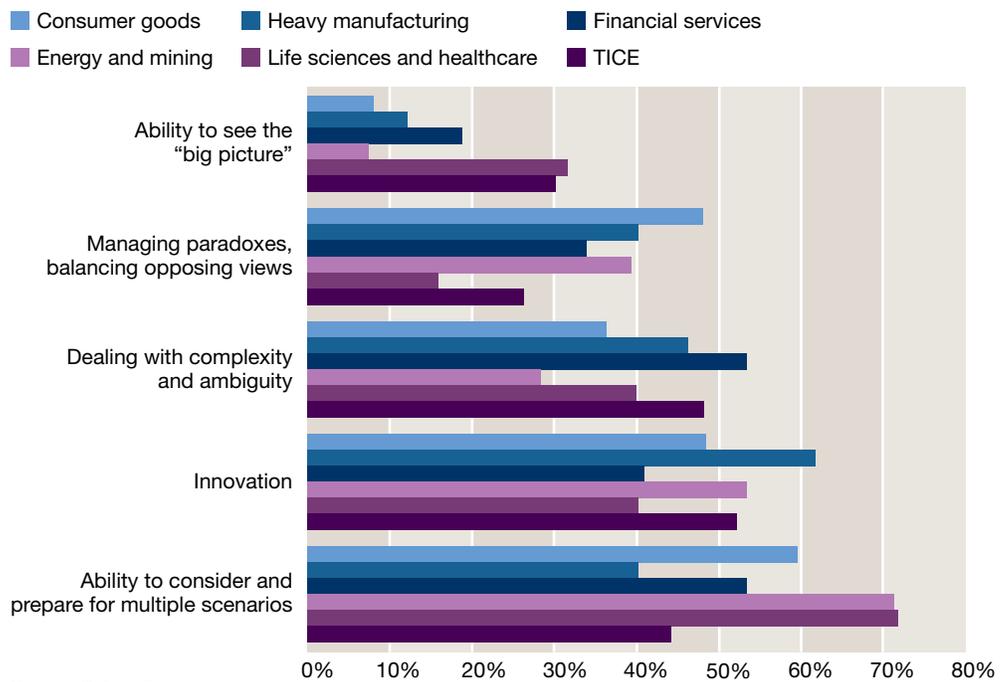
The new intricacies related to global supply chain fulfillment and sweeping geographic expansion put a premium on HR managers to find potential executives who can manage complex problems across a culturally varied landscape. Coca-Cola, for instance, faces significant supply chain needs that must constantly be addressed as it determines where to build new plants and align distribution centers.

Finding talented employees who can “think strategically and with a global perspective is not easy,” explains Coca-Cola’s Ms. Wanamaker. She notes that logistics personnel are among the hardest to recruit.

“Our supply chain needs are pretty vast, ” she explains. “We operate in over 200 countries, manufacturing, delivering, and selling a large variety of beverages in each location. Given this scope, for us logistics is an imperative.” As a result, Coca-Cola believes that in the future it will need to consider partnerships with universities to develop its own pool of supply chain experts. “We realize that we might have to become the educator to ensure we have access to the kind of talent we need,” Ms. Wanamaker says.

**Figure 6: Agile skills by industry**

Which of the following agile thinking skills will be in highest demand at your firm over the next five to 10 years? (Pick two.) (percent of respondents by industry)



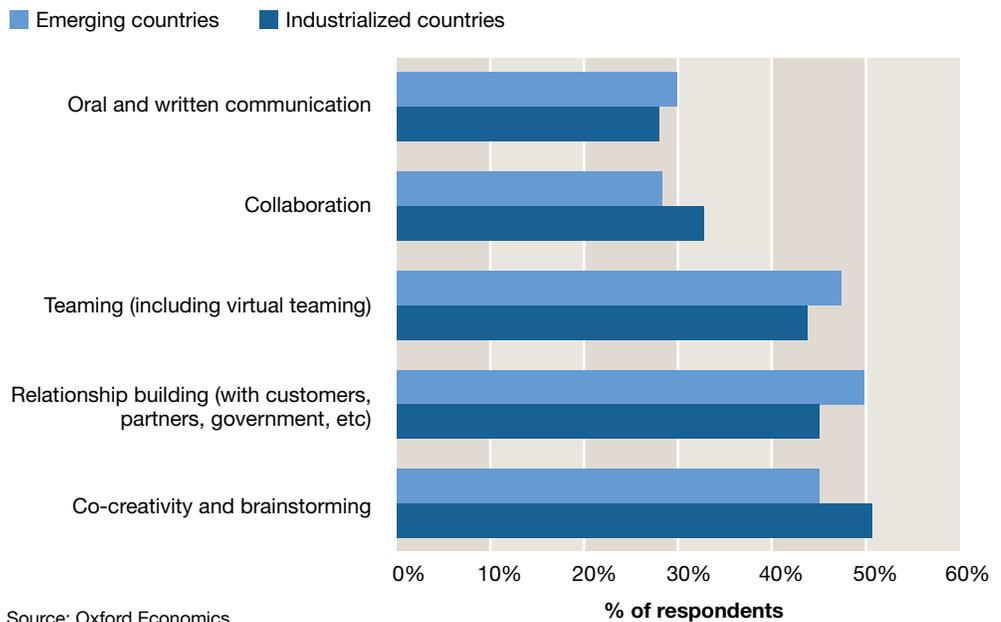
The rapidly changing business environment will also force firms to evaluate talent in a new way, notes Mr. Pradhan of Tata Sons Ltd. “We historically believed that you were either a specialist or you were a general management person. And I think the future is going to require us to have specialist general managers because you’ll need more depth and experience in the domains you’re playing in.”

**3. Interpersonal and communication skills.** Overall, HR executives believe that co-creativity and brainstorming skills will be greatly in demand, as will relationship building and teaming skills. This reflects the continued corporate shift from a command-and-control organization to a more fluid and collaborative style. As enterprises of the future respond to the development of a “networked” corporate world, where relationships with suppliers, outsourcing partners and even customers become more dispersed and nuanced, the capacity to align strategic goals, build consensus and encourage collaboration will become paramount.

The challenge becomes all the greater because of the vast geographies and varied cultures that tomorrow’s extended global enterprise will need to encompass. Managers in industrialized markets cite co-creativity and brainstorming slightly more often than do managers in emerging markets—51% compared with 45%. Financial services, life sciences, and energy firms, meanwhile, place greater emphasis on relationship building. Likewise, while consumer goods firms recognize a need for relationship building, as they try to create both supply chain and distribution relationships in new markets, firms in life sciences and healthcare put more emphasis on co-creativity and brainstorming, as they begin to knit together deeper relationships with affiliates and collaborative research partners.

**Figure 7: Co-creativity and brainstorming are in high demand**

Which of the following interpersonal and communication skills will be in highest demand at your firm over the next five to 10 years? (Pick two.)



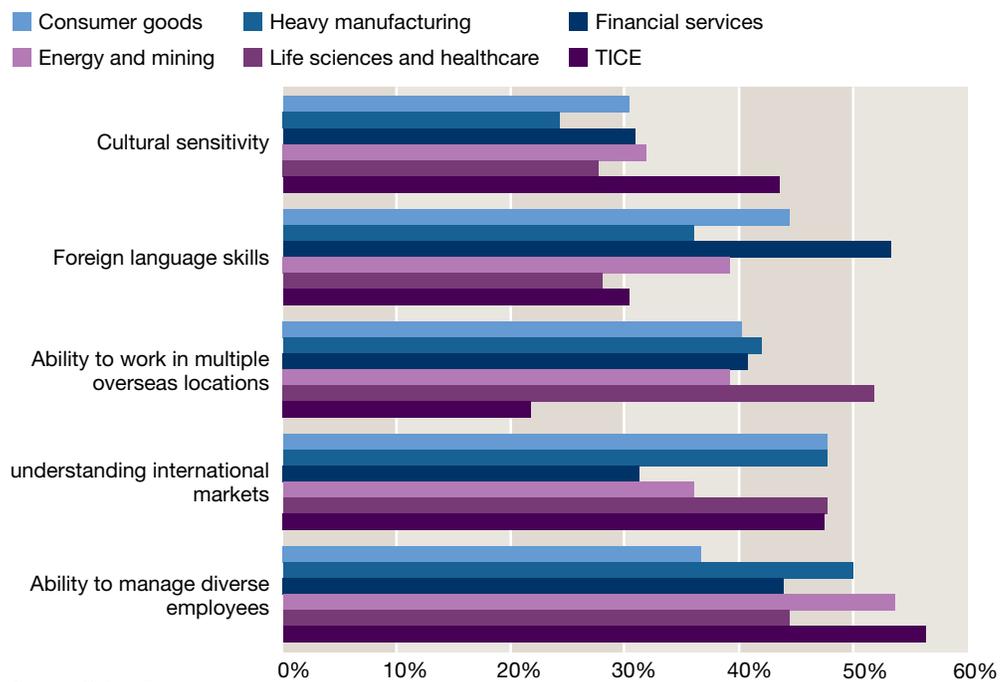
In a country like Brazil, “we’ve learned how important it is to have a balance between the relationship and the transactional models,” of commerce, says Mr. Gama of Lenovo, by pairing global executives who understand the commercial enterprise “with someone who grew up there, who has the relationships that we’re going after.”

**4. Global operating skills.** Reflecting the impetus of firms to expand in markets around the world, the ability to manage diverse employees is seen as the most important global operating skill over the next five to 10 years. In the US, where companies are embracing globalization and seeking to penetrate new markets, understanding international business is the top global operating skill required, according to our respondents. These operating skills will become even more important as globalization enters its next phase.

Indeed, according to Jeff Immelt, Chairman and CEO of GE, firms will increasingly move from “glocalization,” where home market products and services are tailored to the tastes of overseas customers, to reverse innovation, under which innovation is led from emerging markets and then brought back home to mature markets. Such global operating trends, which are already evidenced in both life sciences and engineering firms, will require a global redistribution of key skill sets. Our data show that TICE and energy and mining firms will emphasize managing cadres of diverse employees, while consumer goods and life science firms will place a premium on understanding international markets.

**Figure 8: Ability to manage employees and understand global markets**

Which of the following global operating skills will be in highest demand at your firm over the next five to 10 years? (Pick two.)



At Medtronic, the global manufacturer of stents, defibrillators and other medical devices, the firm’s expansion into new global markets has made it far more important for its HR executives to conduct a thorough analysis and personnel assessment to determine which skills are most important for managers in emerging markets to develop. “We are assessing all people, all people leaders and some key individual contributors against a set of global traits, to try to get at these competencies,” explains Randall Bradford, International Vice President for Human Resources.

The firm’s analysis indicates that its most successful employees know how to navigate in a dense local network and possess the ability to deal adroitly with regulators, suppliers and distributors. “They really have deep local knowledge of what goes on in their market. That is the most important thing,” he says.

IBM also takes the challenge of developing global operating skills very seriously. It puts an emphasis on cross-pollinating teams; technology strategists are often paired with mentors who ensure they get an opportunity to work on a variety of projects across a number of different continents, in order to develop both cross-functional and cross-cultural expertise. Such an IBMer, according to Thomas Vines, Vice President of Business and Technical Leadership HR for the company, may work on software-related projects, then work on some hardware assignments, and then be transferred to a cloud computing initiative—all in different locations. “So now, that employee is able to bring that capability back to, say, another country. In addition, he or she has established all these relationships here that can be called on and leveraged when needed. That person becomes more than just a name; it’s a relationship.”

In the Americas, understanding international markets is identified as the top global operating skill that will be demanded over the next five to 10 years, followed by the ability to manage diverse employees. The same is true of firms in Asia.

### **Technology reshapes people management in financial services**

According to our survey, the recent explosion in digital technologies and the growing use of social media will have the largest impact on talent requirements for companies operating in the financial services sector.

Nearly 47% of respondents in financial firms surveyed cite digital innovation and global expansion as the key forces driving talent acquisition, compared with 40% who cite a continuing need to focus on mergers and acquisitions. “Technology and digital transformation are having a huge impact on our business,” says Ms. Kaderali of American Express. As customers in emerging markets like India and Indonesia migrate directly from cash to e-commerce or digital payment systems, and as tablets and mobile phones gain more traction, the digital transformation will significantly alter how financial firms operate and grow their businesses. As a result, it will raise the bar on the sort of digitally literate workers companies must recruit and retain.

Financial services firms appear to be of two minds when it comes to their future talent needs, however. On the one hand, nearly 60% cite changing labor markets as a key factor shaping their future talent requirements, and 44% note rampant technological change. Yet 40% cite industry consolidation as a key driver of future talent demand.

Over the next several years financial services firms believe their biggest talent needs will occur in Latin American, Middle Eastern and North African markets, and in Asia Pacific. Furthermore, 80% of financial services HR respondents say that within three years they will have processes and systems in place to formally identify their key employees in pivotal roles and will be able to communicate how employees can influence their own career paths, compared with 60% today.

As global expansion remains an important priority for financial service firms, managers say they are particularly keen to attract workers who can build relationships. Foreign language mastery is cited as the global operating skill that will be in highest demand.

## Permanent shifts in the business demand for talent

*The demand for workers is already more pronounced in emerging markets thanks to continued brisk growth in most of these economies.*

As firms contend with the transformation of their businesses, and the “reskilling” of their workforces, they must also prepare for long-term, permanent and structural shifts in the demand for labor. Indeed, a new geography of talent will come to define workplace recruitment.

The demand for workers is already more pronounced in emerging markets thanks to continued brisk growth in most of these economies.<sup>2</sup> The most dramatic jump in demand, according to survey respondents, will be in emerging Asia, where the need for new employees will rise 22% over the next five to 10 years. Other emerging markets that will see above average growth in demand are Latin America (13%), the Middle East and North Africa (13%) and Eastern Europe (10%).

### Figure 9: The future demand for talent

How will the proportion of staff are employed in the following regions change over the next five to 10 years? (percent change in share of staff in each region)

	How will the landscape for talent change over 3 years?						
	Western Europe	North America	Developed Asia	Eastern Europe	MENA	Latin America	Emerging Asia
Total (% change)	3.5%	6.1%	10.0%	10.0%	12.7%	13.0%	22.2%
Industrial	-0.5%	-2.4%	11.4%	2.4%	28.7%	17.1%	37.7%
Emerging	26.1%	38.3%	8.4%	19.8%	6.3%	10.2%	13.3%
Heavy manufact.	24.6%	1.7%	1.7%	33.2%	10.3%	17.8%	60.3%
Business services	-4.4%	0.3%	51.4%	6.8%	30.1%	-0.6%	40.0%
Financial services	13.2%	-8.1%	4.9%	-9.9%	31.6%	48.6%	20.9%
Energy	-11.3%	22.7%	8.0%	8.7%	12.2%	-11.9%	33.0%
Travel and transport	-9.3%	-1.4%	36.5%	5.0%	14.1%	32.9%	32.6%
Life sciences	-4.1%	4.2%	8.2%	19.7%	8.6%	20.4%	16.6%

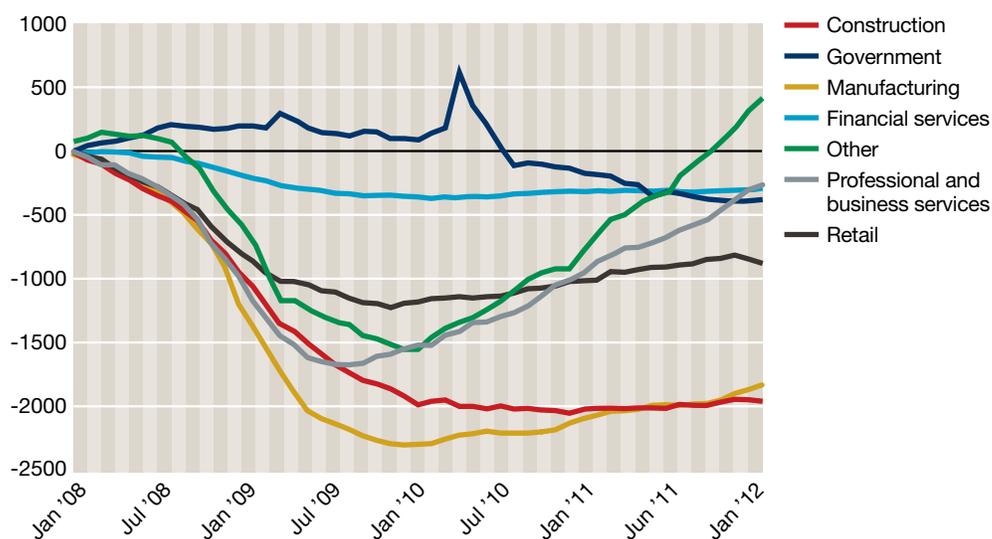
Source: Oxford Economics

Demand for talent in Western Europe, by contrast, is projected to grow by less than 4%, a rather modest rate, according to our survey. In some industries in the region, like business services, energy, travel and transport, and life sciences staffing demand will actually decline as Europe copes with its ongoing debt crisis and austerity-driven recession. Somewhat stronger demand is expected in North America, where surveyed executives expect overall employment requirements to rise more than 6% over the next five to 10 years as a result of more resilient economic conditions.

<sup>2</sup> Emerging markets surveyed include Argentina, Bahrain, Barbados, Bermuda, Brazil, Chile, China, Egypt, India, Malaysia, Mexico, Oman, Qatar, Russia, Singapore, South Africa, Thailand, and the UAE.

The outsourcing of manufacturing jobs from the developed to the emerging world and the long-term consequences of the financial crisis of 2008 mean employment in certain industries is likely to shrink permanently in mature economies. In the US alone, Bureau of Labor Statistics data clearly illustrate that the sharp decline in construction and manufacturing that resulted from the financial crisis was not followed by a rapid “snap back” after the crisis passed, as happened after previous recessions. In part, this reflects the rising competitiveness of emerging markets in low-skilled manufacturing. While in North America demand for industrial workers is expected to decline by more than 2%, it is expected to rise by nearly 38% in emerging Asia and by over 17% in Latin America.

**Figure 10: US employment by sector**



Source: Bureau of Labor Statistics

*Over the next decade, the percentage of college graduates will rise to 60% in the E7—some 217 million workers, as opposed to 143 million in the developed world.*

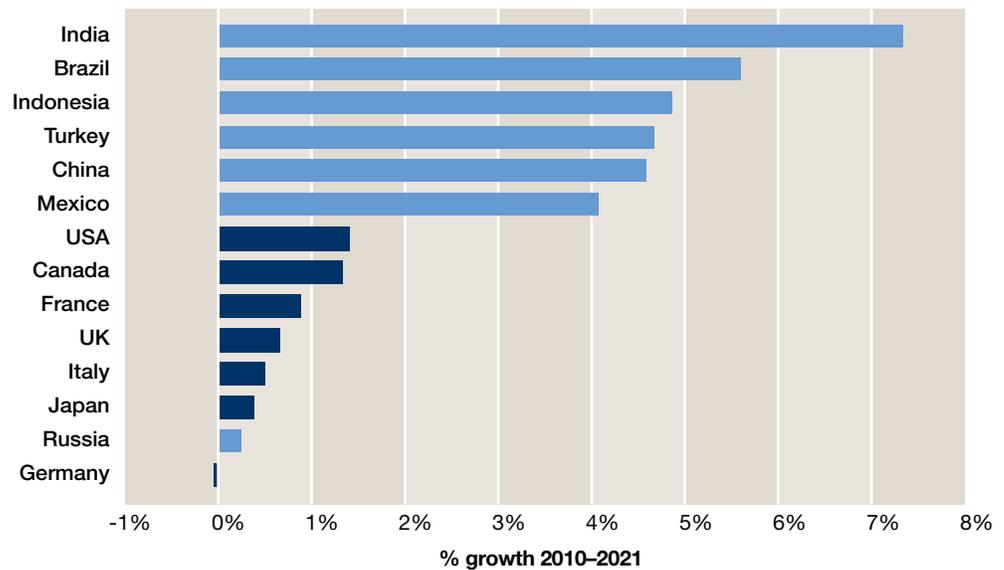
### The talent pool moves from industrialized to emerging markets

In the last decade, rapidly growing nations like India and China siphoned off many low-wage and relatively unskilled manufacturing jobs from the developed world, causing dramatic dislocations. In the coming decade, however, these nations will continue to move up the skills ladder as they improve access to high-quality education. A demographic bulge, accelerating economic growth and technology-enabled training will also contribute to the dramatic rise in the number of college-educated talent that developing markets are expected to produce. Of the major emerging markets, the fastest annual growth in the talent pool will be observed in India (7%), followed by Brazil (6%), Indonesia (5%), Turkey (5%), and China (5%).

For many developed countries, particularly in Europe, however, the next decade will see a further slowdown in population growth and a continued aging of the workforce. Paradoxically, the biggest losers may be economies that have made the greatest strides in tapping potential talent by increasing access to education and raising labor market participation, since they will have less scope to boost talent supply. The US and Canada will lead the G7 in annual talent growth, at just over 1%, while France, the UK, Italy, Japan and Germany will lag.

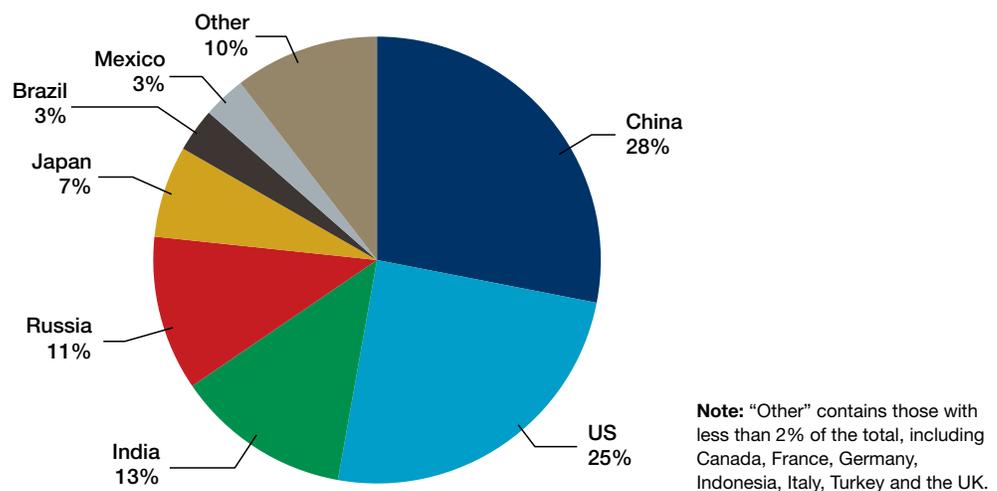
The impact of the global redistribution of talent will be dramatic. Already, over half of the world’s college graduates (54%) come from the top emerging markets (the E7: Brazil, China, India, Indonesia, Mexico, Russia and Turkey), compared with 46% from the industrialized world (the G7: Canada, France, Germany, Italy, Japan, the UK and the US). Over the next decade, the percentage of college graduates will rise to 60% in the E7—some 217 million workers as opposed to 143 million in the developed world. Perhaps most tellingly, China will overtake the US as the country with the largest pool of educated talent.

**Figure 11. Growth in the college-educated talent pool**



Source: Oxford Economics

**Figure 12. Size of college-educated talent pool, 2021**



Source: Oxford Economics

### Will supply meet demand?

Developing nations understand that as technology changes rapidly and diffuses readily, sustained investments in education and training can pay off by helping their young workers become critical players in future waves of innovation. There is no ironclad rule mandating that areas like Silicon Valley in the US will be the only home of future innovation and job creation, as nations like China and India invest aggressively in industries ranging from life sciences to renewable energy and space exploration. In fact, eight of the top 10 countries likely to boast the largest talent surpluses a decade from now will be in the developing world, led by India, Indonesia, Colombia and South Africa. Even though these countries are expected to experience robust economic growth, more skilled workers will be produced than job opportunities will appear.

As the digital divide now begins to operate in reverse, the global South, rather than the global North, could become the major source of technical talent a decade from now.<sup>3</sup> Moreover, as the flow of capital and technology becomes increasingly frictionless across the world, centers of innovation and product development are likely to spring up in previously unheralded regions.

Some firms, anticipating the new challenges, are moving proactively. Cummins is partnering with a women’s school in India to develop a supply of well-trained female workers to ensure that it can continue to operate efficiently in the future, and has opened research labs in China and India. Other firms like General Electric and Merck are also opening research and innovation centers in countries like China, to seek the benefits of a pool of well-trained talent.

While a surplus of labor is expected to persist in some developing nations, labor shortages are projected to appear in many mature markets, including the US, Germany, Canada and Italy, in part because of their aging populations and in part because much of their population is already relatively well educated. This offers less room for meaningful improvement in the labor supply.

Moreover, possessing a better understanding of where supply and demand for talent are in balance, and where talent is in short supply now and in the future, will represent a critical form of intelligence for HR professionals in the decade to come.

*As the digital divide now begins to operate in reverse, the global South, rather than the global North, could become the major source of technical talent a decade from now.*

**Figure 13: The mismatch between supply and demand for talent in 2021**



Source: Oxford Economics

<sup>3</sup> “Global South” refers to nations in the Southern hemisphere, like Indonesia, India, South Africa, Colombia and Brazil, which together will generate the strongest talent surpluses over the next decade. The “Global North” refers to nations in the Northern Hemisphere, like the France, Germany, Italy, the UK and US.

A closer examination of two major economies, India and China, helps to illustrate the dynamic forces at work in this new landscape for talent. On our “heat map” outlining the projected balance of supply and demand for skilled labor, China is shown in balance: Heavy investment in education will enable China to meet its talent needs and sustain its rapid economic development, even as population growth levels off and its population begins to age. The nearly 5% annual increase projected for college-educated talent will roughly match the forecast of its economic growth.

For Medtronic, the medical device manufacturer, China is expected to become the firm’s largest single market at some point. Yet even with the rapid growth, Mr. Bradford says the firm has found the domestic market for qualified workers very rich: “In China the challenge is less one of ‘supply.’ There is plenty of well-educated talent there, and, of course, we have to compete for that talent. But an even larger issue for us and many multinationals is how to foster our new hires’ loyalty and engagement longer-term once they join.”

### **In focus: China**

Is China facing a looming shortage of workers, especially in technical fields where college training is generally needed? Our projections suggest not.

Despite China’s emergence in the past two decades as the world’s manufacturing workshop—and expectations that economic growth will continue to be vigorous in the years ahead, outpacing many Western countries—our “heat map” projections indicate that the supply and demand of talent within China should be roughly in balance a decade from now.

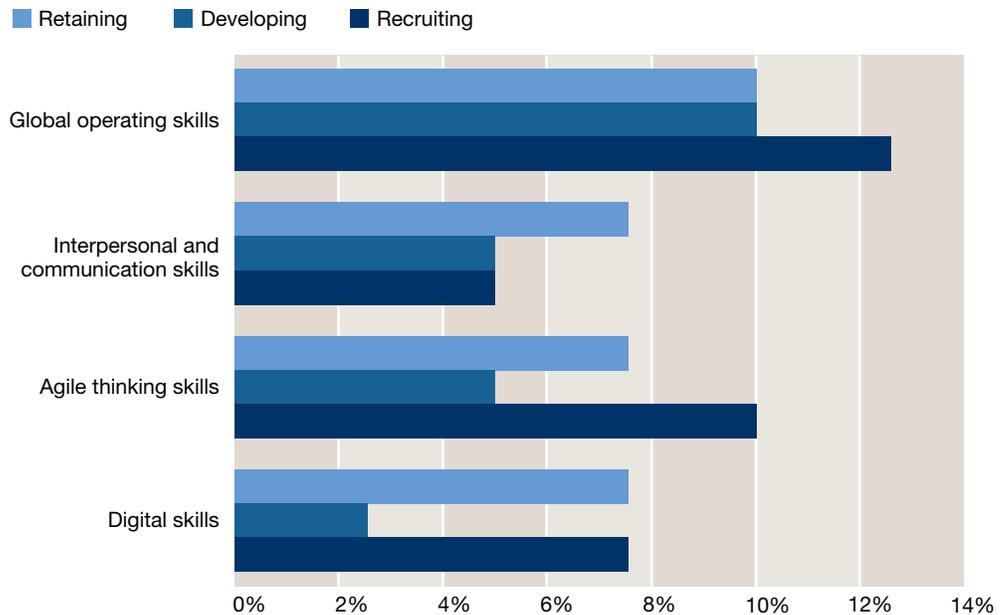
This reflects in part the Chinese government’s aggressive focus on boosting investments in science and technological education and training, as part of its strategic Five-Year Plan for economic growth. This plan targets specific sectors like biotechnology and solar energy for sustained focus. As a result, we estimate that the nation’s pool of college-educated workers will grow by nearly 5% annually over the next 10 years. This means that the need for highly trained workers will be roughly in balance with the number of workers being trained for these positions.

Managerial shortages will persist in some areas, however. While firms in the information technology and finance sectors will have no difficulty finding highly trained workers, companies in industries like retailing, hotels and hospitality, and construction may find it more difficult to find professional and executive talent to manage facilities, our projections suggest. And while finding manufacturing workers should not be problematic, locating executive and professional talent may be difficult.

Many global firms doing business in China report difficulty in retaining the talent they hire and train because of acute managerial shortages. A decade from now, it appears this will be less of a concern, as the number of well-educated workers expands and fills the need.

**Figure 14: Difficulty hiring, developing and retaining China-based highly skilled workers**

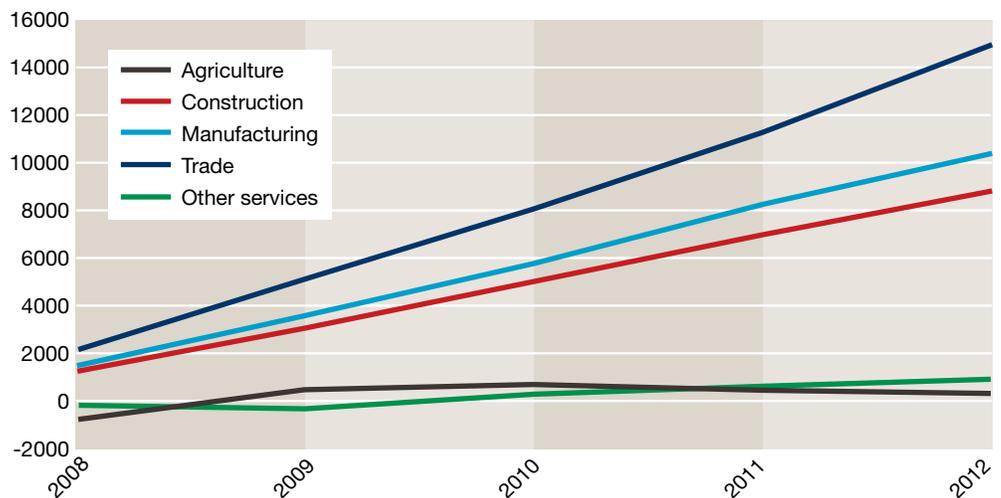
Share of Chinese respondents who say recruiting, developing or retaining fully proficient employees is fairly difficult or highly difficult



Source: Oxford Economics

India, by contrast, is projected to top the country rankings in terms of its surplus of educated talent. This surplus results from its young and rapidly growing pool of workers and some educational improvements (although much less dramatic than in neighboring China). India’s pool of college-educated talent is expected to rise by more than 45 million in 10 years and will exceed the number which can be absorbed by the Indian economy. This will compress the wage premium for talent, allowing for investment in new technologies and business models that will fuel growth well beyond 2021.

**Figure 15: Employment growth in India**



Source: Oxford Economics



### In focus: Brazil

Now the world’s sixth largest economy, Brazil has gained enormous international exposure in recent years, as it—along with other emerging nations like India, China and Russia—became part of the “BRIC” constellation of nations expected to become global economic superstars in the decades to come.

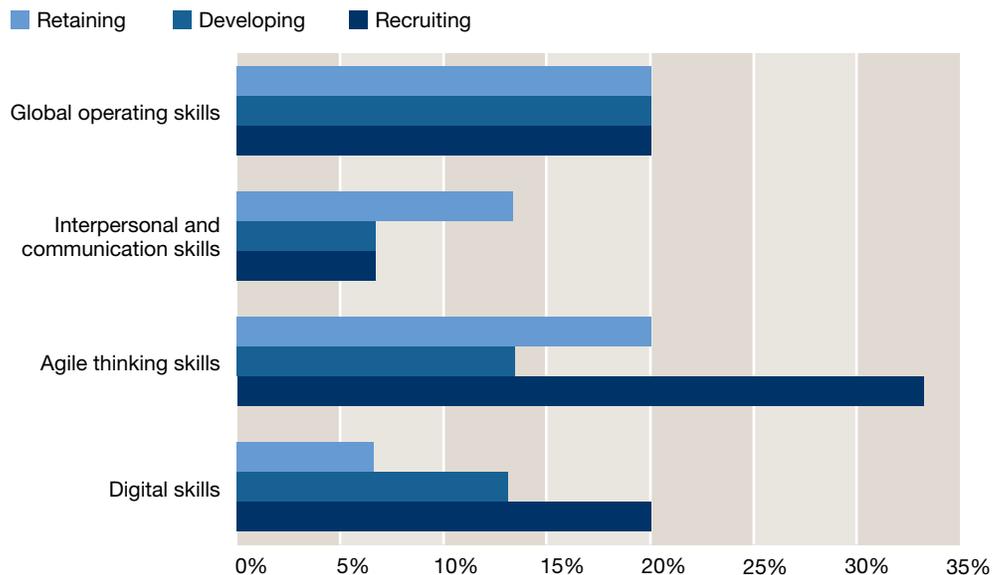
As foreign investment pours into Brazil to exploit the country’s rich offshore oil fields, develop agricultural lands, modernize the infrastructure and build the harbors, roads, and factories necessary to sustain economic growth, some may fear that the nation will face a shortage of skilled labor that might pose a serious bottleneck to further expansion.

In fact, our data suggest quite the opposite. Thanks to rapid growth in the working age population, a so-called “demographic dividend,” as well as significant expansions in investment in poverty alleviation and educational infrastructure, Brazil will actually boast a significant surplus of trained talent in 2021. In most executive and professional fields, Brazil will have slightly more well-trained workers than jobs to fill, making it fourth on our list of nations that will have significant talent surpluses, after India, Indonesia and Colombia.

This conclusion suggests that as HR professionals in the global North find it difficult to identify and recruit key managerial, technical, and professional talent, they would do well to look South to Brazil to help them plug significant gaps. As Northern nations generally face an aging workforce and a slowdown in birth rates, the working age population in countries like Brazil will grow, and the explosion of internet technologies and virtual learning will make it easier for young people in emerging markets to obtain the cutting-edge advanced skills that employers will be seeking.

**Figure 17: Difficulty in hiring, developing and retaining Brazil-based highly skilled workers**

Share of Brazilian respondents who say recruiting, developing or retaining fully proficient employees is fairly difficult or highly difficult



Source: Oxford Economics

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*To support its global growth, Lenovo is partnering with top-ranked Chinese universities to identify talent that may have gone abroad to study, but might be interested in returning to work in China.*

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## Managing the talent mismatch

The talent mismatch—between where talent is most needed and where it will be most available—is not likely to evaporate soon. Managing this skills gap in the developed world and recruiting appropriate talent in the emerging economies will become vital tasks for global firms in the future. In the developed world, where talent shortages in a number of managerial and technical fields are expected to persist, companies will be forced to think more explicitly about the trade-offs between outsourcing work, offshoring staff and retraining workers. Similarly, decisions about where to locate new centers of innovation, product design, or advanced engineering facilities may become focused on geographies not previously considered by the C-suite. Firms will also need to become more proactive in collaborating with relevant government and educational institutions to develop and train workers, as they start to anticipate more accurately employee turnover and retention rates, as well as future workforce demands.

Lenovo is one such forward-looking firm. To support its global growth, Lenovo is partnering with top-ranked Chinese universities to identify talent that may have gone abroad to study, but might be interested in returning to work in China, with its booming economic prospects. “We’re looking to build that talent pipeline three or four years down the road,” explains Mr. Gama.

The most successful of the emerging economies—those at the top of our country rankings—will benefit from the significant transformations already underway. The relative abundance of skilled workers will act to compress the skill premium, giving firms a powerful incentive to adopt new technologies and work practices that take advantage of this growing supply of skilled labor.

The imbalances revealed by the global heat map present both opportunities and threats to businesses and governments alike. Open trade, foreign direct investment, outsourcing and skill-oriented immigration policies all provide means to help businesses and society handle the tensions that can arise when a talent deficit or surplus becomes too extreme. This is true regardless of whether local labor markets are highly competitive. An extreme talent deficit can exacerbate income disparities, while an excessive surplus can lead to high levels of unemployment and vacancies coexisting simultaneously. For example, in fast-growing markets like China, many firms report that while they can find suitable talent, these well-qualified workers are frequently lured away by competitors.

Coca-Cola confronts this problem routinely in places like China. “Because of the war for talent, other companies actively recruit our key talent, offering extremely lucrative contracts,” Wanamaker explains. “How do we match talent expectations with the needs of the business? We partner with our Chinese business leaders to ensure we are actively engaging our talent through interesting work, strong development and rewarding careers.”

In the near future, notes Mr. Pradhan of Tata Sons Ltd., “we may actually have higher numbers of people who are skilled, but a greater mismatch between what’s needed, where it’s needed, and how it’s available.”

### In focus: The United States

Human resources professionals working in the US frequently complain that they have trouble finding workers with the right set of skills for the openings they are urgently trying to fill. Unfortunately, this is a trend we expect to persist for some time, despite the recent efforts of major US corporations and the government to increase student interest in studying Science, Technology, Engineering and Math (STEM).

In the future, this “skills mismatch” between the managers and professionals US companies will need, and the talent the country’s education and vocational training system produces will only worsen, according to Oxford Economics’ projections.

Though we forecast modest US economic growth at 2.7% annually over the next decade, America’s supply of managerial and technical talent is not projected to keep pace. The expected 1.4% annual growth rate of college-educated workers will not prove adequate to meet the expected 2.2% annual growth in demand for executives and managers, nor will it match the 1.8% annual growth in demand projected for technically trained workers.

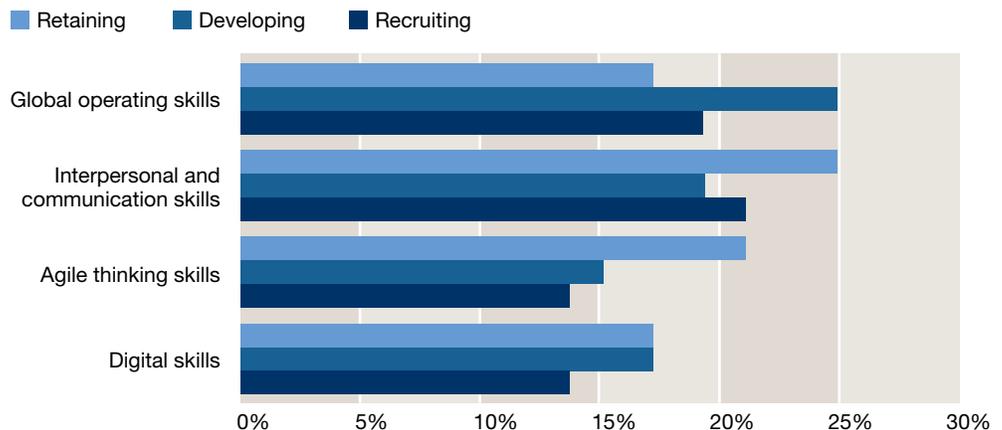
By industry, our “heat map” forecasts that the most severe talent shortages will emerge for top management in construction, wholesale and retail, entertainment and the arts, as well as in the hotel and catering industries. The real estate and information technology sectors will be among the least affected by the projected talent gap.

However, in marked contrast to some of the other countries analyzed in this report, the relatively open immigration policies adopted by the US will probably continue to serve as a magnet that attracts highly skilled talent from nations like India and Brazil, which are projected to boast talent surpluses in technical fields.

Ultimately, though, our forecasts suggest that unless the US reinvigorates investment in its education system, it is likely to fall behind other global powers, as well as those emerging economies determined to invest ambitiously to develop their human capital potential.

**Figure 18: Difficulty hiring, developing and retaining US-based highly skilled workers**

Share of US respondents who say recruiting, developing or retaining fully proficient employees is fairly difficult or highly difficult



Source: Oxford Economics

## Encouraging public and private cooperation

So rapid are the changes transforming the global economy and the world of work that many public and private sector organizations have begun to realize that they can find useful ways to break down barriers and work together to help develop the types of workers the 21st century is demanding. In overcoming a deep-rooted tendency to distrust one another, business and government are starting to find new and productive ways to create partnerships that boost economic opportunity and promote growth.

For example, the Organization of American States (OAS), which brings together the 35 nation-states of the Americas, engages in multi-pronged efforts to accelerate the integration of students in its region into the technological frontiers of the global economy and to foster collaboration for scientific and technological advances and innovation. In partnership with a consortium of public and private universities and other educational institutions within and outside the region, academic and professional development scholarships are offered to citizens of the Americas, particularly from smaller and relatively less developed economies to gain occupation-specific skills they can use in their home countries. The OAS also works with engineering and technology institutions to promote the exchange of best practices to strengthen engineering curricula and develop stronger and applied IT programs. Likewise, the OAS partners with public and private institutions and companies to offer online courses in priority areas for development, improve teaching and teacher training, and promote the use of technology in schools and institutions of higher education throughout the Americas.

Such public and private cooperation initiatives should be viewed in the broader context of the rise of emerging economies into middle income ranks and the “new paradigm of horizontal and triangular cooperation for development, beyond the traditional North-South official development aid,” says Rosine Plank-Brumback, of the Executive Secretariat for Integral Development at the OAS.

In the developed world as well, new partnerships linking educational institutions more closely with government agencies catering to the unemployed are also beginning to emerge. Anticipating future needs, innovative firms like Coca-Cola and Cummins are either already working to establish relationships with colleges and training centers in new geographies, or are considering joining with local institutions to help proactively train the pool of skilled workers they will need in the future.

Michigan, a state hard hit by the automotive slump in 2008, offers a compelling example. Dow Chemical, headquartered in Midland, MI, is partnering with Delta Community College in nearby Saginaw to retrain former auto workers to work in the chemical processing technologies demanded by the new solar power and battery manufacturing facilities Dow is building. The Fast Start program links the college, employers and Michigan Works, the state employment agency, to develop “just in time” workers who are trained and available for potential opportunities, six to nine months in the future. “We’ve been able to significantly lower the time it takes to get workers up to speed on their new jobs,” explains Patricia Graves, who runs the Fast Start program. “That makes them more productive from day one, so the employers love it.”

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*To help overcome what may become a persistent mismatch between labor market demands and the available talent, governments and companies will need to work in partnership, adopting innovative new approaches.*

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To help overcome what may become a persistent mismatch between labor market demands and available talent, governments and companies will need to work in partnership, adopting innovative new approaches. These will include intensive retraining and reskilling of older workers, strengthening labor intermediation services to better link labor supply and demand, embracing multi-generational workers, accepting more flexible working structures to accommodate workers' needs, and developing programs to help female workers balance work and family demands.

Companies themselves benefit from helping city or state governments tackle their most pressing issues. Not only does working in partnership with governments allow private firms to marshal a suite of technologies and expertise that may not always pair together—an approach that develops internal learning. Such collaboration also serves as a powerful recruitment tool, attracting high-skilled workers who seek to join forces to tackle complex challenges that will “make a difference” and benefit the wider society. Moreover, the skills mastered in one complex project often carry over into future projects, or help firms develop unique intellectual property that can help them attract future commercial opportunities.

IBM is one company that believes that its partnerships with governments to help solve complex urban challenges like traffic or waste management, or improving delivery of city services, not only helps sharpen the technological skills of government employees, but also improves the firm's ability to recruit top talent. In a recent interview published in Canada's Financial Post, Stan Litow, President of IBM International Foundation, said that by the end of IBM's “Smarter Cities” program: “We will have given 600 people within our company a shared understanding about cities' issues, and we will build the skills and talent of our workforce. We'll help them learn problem solving better. We'll help them learn the interdisciplinary nature of problem solving; help them expand their teamwork skills and listening skills.” In addition, he adds, “By featuring these programs in our recruitment efforts, we found it's a major decider for people who come to work at IBM because they like the opportunity to participate in these large-scale efforts to work collaboratively to solve societal problems.”

## Rethinking HR strategies for the new global marketplace

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*The HR manager is rapidly becoming a more strategic decision-maker.*

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The need for major business transformation and the new geography of talent will mandate a fresh HR approach and mindset. Even as global firms move more nimbly into the “networked economy,” the new complement of analytical tools which are now gaining traction in HR departments allow firms to better identify their best talent, connect HR investments to business opportunities, and more rapidly anticipate potential talent gaps before they become critical.

The change process is enormous and complex. As a consequence, the HR manager is rapidly becoming a more strategic decision-maker. Our survey indicates, for instance, that while only 54% of HR executives today employ business frameworks to help them make decisions, in three years 66% will do this. Likewise, while fewer than half of HR executives today report they have integrated data from their global operations into their enterprises’ central HR systems, within three years 63% will have done so. Integrating these new HR tools can help firms optimize their talent and boost employee performance.

To help manage these transformations, HR executives will need to employ new kinds of analytical tools to understand and plan for the future, assess the impact of decisions, optimize performance, prepare for a wide variety of potential scenarios, and align talent management with larger corporate strategies. A more analytical, evidence-based approach will not only lead to better HR results, but will generate greater support from senior management, who require sound business cases for making decisions.

“For the last 15 to 20 years, we’ve focused HR leaders on efficient delivery of services,” says Ravin Jesuthasan, Talent Management Practice Leader for the consulting firm, Towers Watson, and co-author, with Dr. John Boudreau of the Center for Effective Organizations at the University of Southern California, of *Transformative HR: How Great Companies Use Evidence-Based Change for Sustainable Advantage*. “Today the opportunity is for HR to transform how firms manage talent, enabling business leaders to make better decisions about human capital.”

As a consequence of increased globalization, the mobility of top talent, and the volatility of the world economy, firms need more sophistication in their approach to managing people. “You can’t use your grandfather’s HR anymore, because that simply won’t work,” Mr. Jesuthasan points out. “Just as organizations use tools like scenario planning and risk modeling when they are engaging in long-term business planning, these same tools need to be brought into planning for human capital.”

Using their book as a guide to develop a series of HR benchmarks, our survey reveals five important steps firms should undertake to retool HR to better respond to the dramatic changes ahead.

### 1. Use more sophisticated analytical tools for making global decisions.

Over the next three years, companies will increasingly rely on **logic-driven analytics** to make better decisions about the supply and demand of talent. According to Dr. Boudreau, “under a logic-driven approach, firms should identify the most pivotal organizational issues and use robust analytics to describe the issues and assess the likely outcomes.” Best practice will entail the consistent use of analytics to generate insights, test alternatives, monitor progress, and measure business impact.

While only 52% of our survey respondents say their HR scorecard today is aligned with the firm’s human capital goals, 64% say they will make this transition in the next three years. And while only 52% of firms today say they possess a “strong understanding” of the HR metrics that matter to each business unit, 65% of respondents expect this to be true in three years.

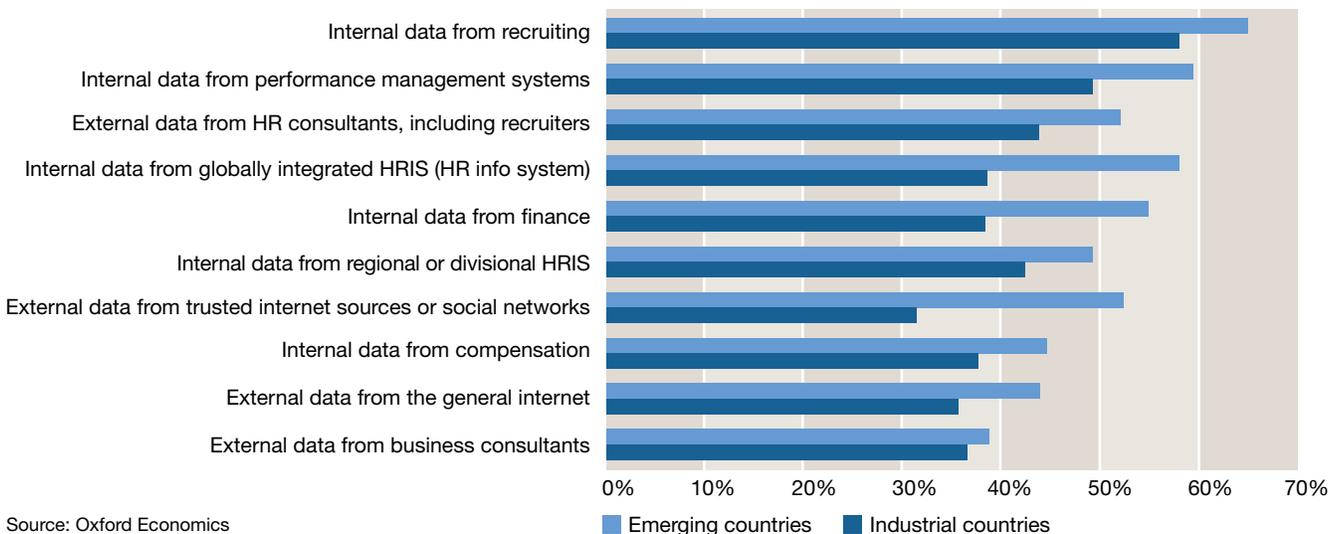
More rigorous data analysis offers firms many benefits. For ATK, a global defense, aerospace, and commercial products company headquartered in the US, analytical tools are crucial for workforce planning. “Our data analysis allows us to be proactive and forward-looking in recruiting,” says Carl Willis, Vice President for Human Resources in ATK’s sporting group. Such analysis lets his firm see “where the business is going, and what kind of talent we’re going to need in the future.”

*Over the next three years, companies will rely on more advanced forms of data and analytics to make decisions about the supply and demand of talent.*

Over the next three years, companies will rely on more advanced forms of data and analytics to make decisions about the supply and demand of talent. The survey shows that internal data from recruiting (61%) and from performance management (54%) will remain the dominant sources of data used to analyze talent trends. However, according to our survey respondents, the use of data from globally integrated Human Resources Information Systems (HRIS) will leap from 39% today to 47% in three years and from regional or divisional HRIS from 40% to 46%. Likewise, the use of external data from HR consultants will rise from 40% to 47% and from trusted internet sources and social media from 35% to 41%.

**Figure 19: Sources of data to analyze talent trends**

What sources of data do you plan to use (or continue to use) in three years to understand shifts in the supply and demand of global talent? (percent of respondents from emerging and industrialized countries)



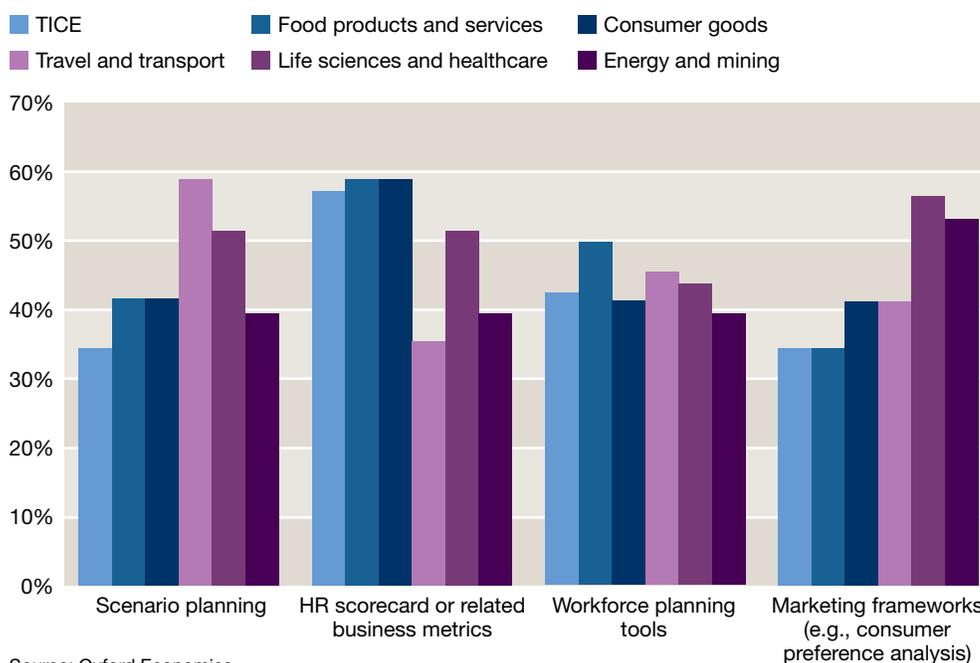
Source: Oxford Economics

The analytical methods that will be the most widespread to understand future talent supply and demand include an HR scorecard (47%), workforce planning tools (41%), marketing frameworks (41%), scenario analysis (38%) and finance frameworks (37%). In general, HR respondents in emerging markets are planning to rely on data and analytics more than those in industrialized markets. For example, 58% in emerging market firms plan to use internal data from global HRIS vs. 39% in industrialized market firms. Likewise, 53% of respondents in emerging market firms expect to use trusted internet sources vs. 32% of those in industrialized market firms.

The use of data and analytics varies by industry, however. For instance, survey respondents in TICE, food, and consumer goods firms plan to be the biggest users of the HR scorecard; scenario planning will be most prevalent among those in travel and transport and life science firms; marketing frameworks will be used predominantly by those in life science and energy firms.

**Figure 20: Tools used to manage talent**

Which analytical tools do you plan to use (or continue to use) three years from now to understand shifts in the supply and demand of global talent? (percent of respondents by industry)



Source: Oxford Economics

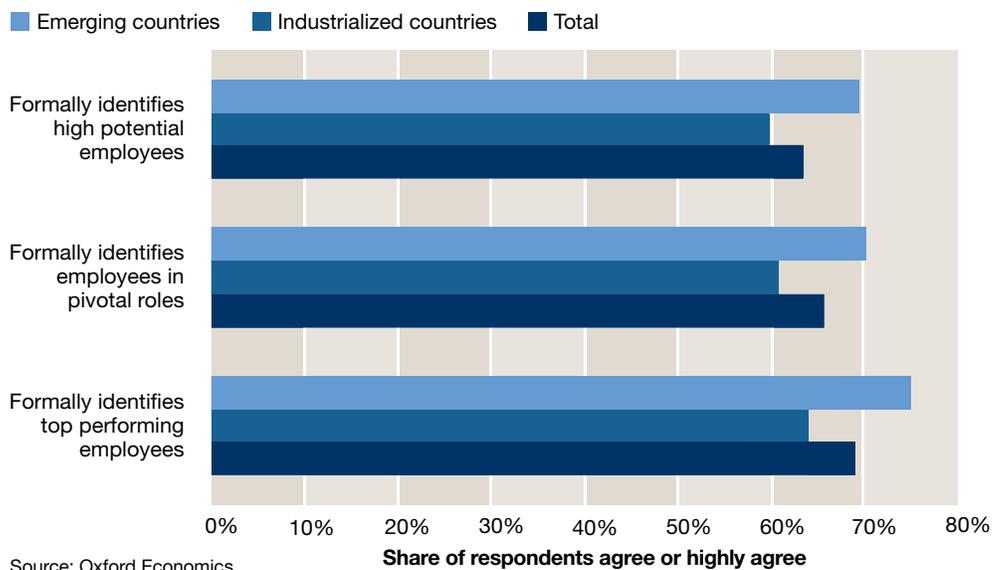
When asked about their firm’s use of data and analytics in three years, aligning human capital goals (66%) and using workforce planning to determine talent needs (65%) are popular among HR respondents. However, one of the most striking changes is that 67% of HR respondents plan to employ business frameworks to make decisions in three years, up from 54% today. Similarly, the survey shows significant increases in those measuring turnover for different strategic categories of talent (from 58% to 66%); having a strong understanding of the HR metrics that matter most to each part of the business (52% to 65%); and shifting to enterprise HRIS that integrates HR information from global offices (49% to 63%).

## 2. Use segmentation to understand talent categories, differences and gaps.

Once they have obtained a deeper and more nuanced understanding of their employees’ skills, HR executives can better determine where business transformation might affect talent demands, and anticipate where skill gaps might emerge. **Talent segmentation** enables HR executives to better appreciate generational differences, specific work-life challenges and differing cultural attributes that can affect motivation or the design of incentives. Segmentation also allows HR executives to measure more accurately the individual contribution each employee makes, as well as variations in performance, which in turn can help them unlock hidden sources of value.

**Figure 21: Future approaches to talent segmentation**

To what extent do you agree with the following statements about your firm’s current and future approach to talent segmentation? (Share of respondents who agree or highly agree.)



*In the coming years, nearly 70% of all firms will identify top-performing employees, as well as those in pivotal roles (66%) and those with high potential (64%).*

Firms in emerging markets, where top talent is a precious commodity, already seem to appreciate the value of measuring the performance of their employees. Today, 69% of HR respondents in emerging market firms formally identify their top performing employees, versus 61% in firms located in industrialized economies, and 75% expect to do so in three years, compared with only 64% in industrialized market firms. Likewise, respondents in emerging market firms are far more likely to identify employees in pivotal roles within the firm.<sup>4</sup> In the coming years, nearly 70% of all respondents believe their firm will identify top-performing employees, as well as those in pivotal roles (66%) and those with high potential (64%). Companies will also change the way they approach segmentation. Among respondents, 68% say their firms will differentiate talent management programs and tailor them to different business segments. They also say their firms will become more forthcoming in telling employees how and why talent is being segmented, so they might better understand what is expected of them and how they can succeed. In financial and business services especially, roughly 80% of those surveyed say their firm plans to tell employees how they can influence their own career trajectories.

<sup>4</sup> Pivotal roles are those that contribute directly to an organization’s ability to maintain a long-term competitive advantage in the marketplace; often these roles require specialized skills or knowledge.

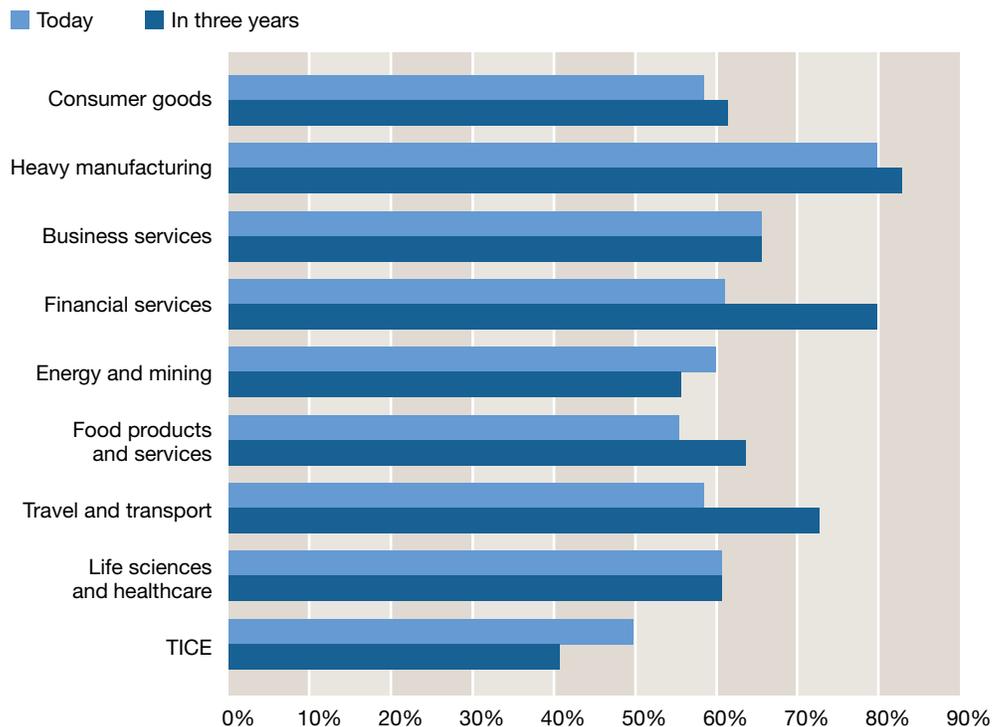
At Cummins, the annual personnel review process involves assigning to each employee a grade that identifies “how we see your potential to develop in a leadership role,” as well as everyday performance, Mr. Wright says. It also helps managers better understand which employees are most interested in and suited for challenging international assignments.

“Segmentation is such a pivotal issue for so many organizations,” notes Mr. Jesuthasan of Towers Watson. “If you can’t segment the workforce, then no amount of insight into what’s going on in the business is actually going to help you. Where does having different talent make a difference? What are the unique demands of various talent pools?”

Today, heavy manufacturers and financial service firms are the most likely to employ segmentation techniques to analyze their top performers, in part because they assume capital risks across a long time horizon. Some 80% of respondents in heavy manufacturing say they already identify employees in pivotal roles. Although only 61% of financial services respondents identify such key employees today, 80% expect to be doing so in three years.

**Figure 22: Identifying pivotal roles**

To what extent do you formally identify employees in pivotal roles?  
(percent of respondents who agree/highly agree by industry)



Larger companies will be more likely than smaller ones to embrace segmentation. For example, over 70% of respondents from firms with sales over \$5 billion will make employees aware that their managers will evaluate them on their potential to become top performers, and will estimate how the contribution of employees in particular roles will contribute to the firm’s overall performance. By contrast, fewer than 60% of respondents from companies with sales under \$1 billion have such plans.

As more powerful analytic tools make it possible for HR managers to develop a deeper analysis of how individual managers measure up, many firms are choosing to explicitly advise their managers on how well they are performing and their potential to develop. Similarly, being honest in explaining how even senior employees are being evaluated can benefit both companies and their employees.

### Identifying future global leaders at Medtronic

Does a set of “global traits” lead to leadership success for companies operating across international markets? HR executives at Medtronic such traits do exist after conducting extensive interviews with its top leadership cadre in emerging markets around the world.

“Our research has shown that the most important competency for an emerging market leader has to do with relationship-building and navigating local networks,” explains Mr. Bradford, who is now based in Europe after completing an assignment in Singapore. The people who are the most successful not only know how to navigate a local network; they also demonstrate the ability to see what needs to be done (strategic insight), to get things done (speed, execution and accuracy), and to get things done the “right way” (ethics and integrity). Flexibility and being able to demonstrate a global mindset also factor into success.

Carrying out such rigorous assessments of its managers allows the company to reduce its turnover and identify the sort of senior managers it needs to recruit and retain in crucial markets. “It’s not so easy sometimes to find people who have really taken the time to develop each skill,” Bradford says, “but they are there, and you just have to be more vigilant at finding them.” This, in turn, has led Medtronic to rely less on recruiters and more on recruiting from direct sources, including social media.

“The thing we are looking for is people who can manage well in what we call ‘first-time changing situations,’ where they have never encountered the experience before but they have shown a proclivity to do well even though this experience is new to them.”

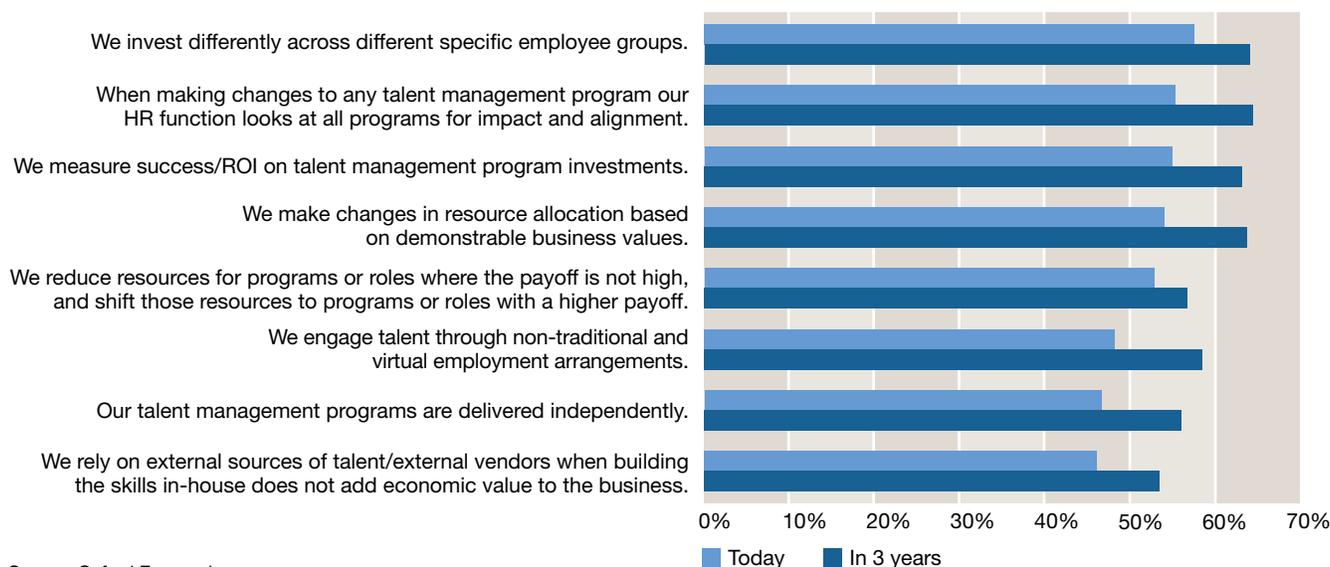
### 3. Optimize talent by deciding where to invest and where to prune.

**Talent optimization** is a critical tool for deciding where human resource investments will make the biggest difference. Few companies have reached the point where they are not only well-aligned internally, but also know how to optimize the workforce to meet shifting business needs. Yet this is the ultimate payoff that results from a comprehensive investment in the suite of HR tools and analytics that properly interconnect people and strategy.

“These things tend to move hand in hand,” explains Dr. Boudreau. “If you’re doing segmentation, if you are using logic-based and deeper analytics, you’re also trying to optimize your workforce.” Such an approach allows executives to determine where investments will have the biggest impact, while also giving them the courage to pare investment in areas that will become less critical.

**Figure 23: Current and future approaches to talent optimization**

To what extent do you agree with the following statements about your firm’s current and future approach to talent optimization? (percent of respondents who agree/highly agree)



Source: Oxford Economics

Cummins is already using its investments in analytics to plan its future workforce needs. “It’s something that we’re looking to develop,” Mr. Wright says. New techniques will allow it to transfer an employee based in Mexico, who understands a suite of supply chain software tools, to assist a team in Turkey trying to install a similar system. “Being able to make those kinds of movements and do them as seamlessly and smoothly as possible” creates major efficiencies for the company, he says.

Our survey shows that while 55% of respondents say their firms today measure the return on investment of talent management initiatives, that number will rise to 63% in three years. In addition, 63% say they will make changes in resource allocation based on demonstrable business value in three years, an increase from 53% today. However, reducing ongoing commitments to less critical parts of the HR operation seems more difficult to achieve. While 52% say they currently reduce resources to programs or roles where the payoff is not high, that number will rise only slightly, to 57%.

The HR executives we surveyed point to a number of HR investments that provide a tangible payoff in helping them manage talent. Traditional HR strategies will provide the highest ROI in the next three years. Other successful tools cited by survey respondents are training and career development (48%), recruitment and retention (43%), and reward and recognition (38%).

According to our survey respondents, workforce planning (37%), technology investment (35%), and better analytics and reporting tools (35%) also provide a high payback for many companies. Consumer goods, heavy manufacturing, and energy companies are seeing particularly high returns from their investments in technology. Better analytics and reports often offer high payback for firms in the food, life science, and travel and transport industries.

HR executives indicate that using software as a service (SaaS) to support people programs (26%), outsourcing and other flexible sourcing strategies (26%), employee

segmentation (26%), building centers of excellence around business issues (24%), policy development (23%), and embedding social media into change management (21%) all have demonstrated proven returns.

#### 4. Shift from a risk-averse to a risk-aware mindset

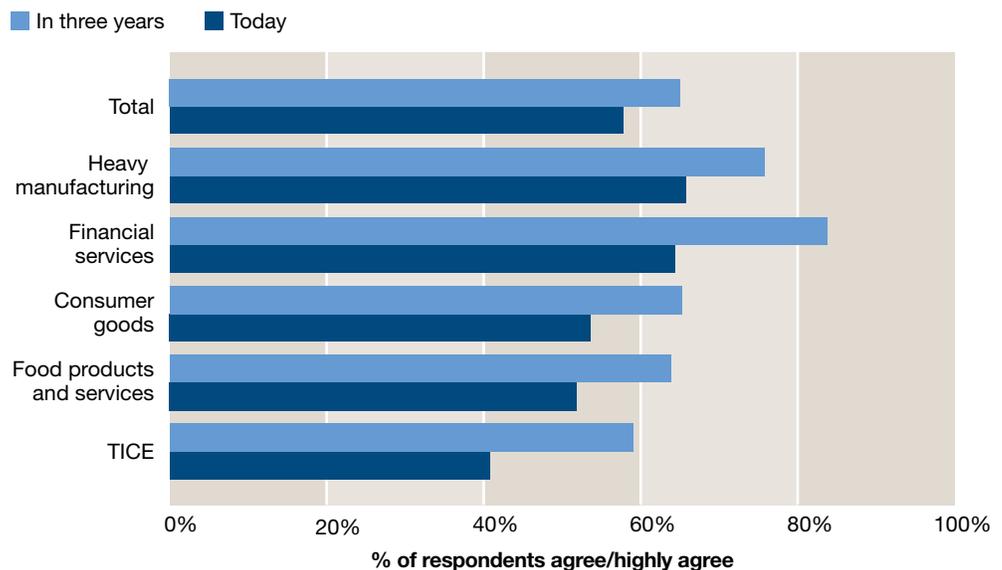
In a business world characterized by accelerating volatility and increasing uncertainty, HR executives will need to move away from risk avoidance to **risk leverage**. Just as top management teams now find it critical to balance the risk and reward of their decisions, HR leaders will also need to incorporate risk into their thinking. This new mindset will help them not only to understand the full range of HR risks, but also to determine which risks are worth accepting.

Mr. Jesuthasan puts it succinctly: “Being risk-averse is no longer a viable approach. Risk awareness is not just about identifying the risks you don’t want to take, but also the risks you do want to take.” Ms. Kaderali of American Express agrees, and sees an explicit relationship between the deep data analysis her company is now developing about its workers, and its ability to manage future risk: “If there’s risk in our workforces, or in our talent pools, then we need to be aware of it and we need to use the data to help manage that risk.”

Our research shows that HR executives plan to take a more informed approach to risk management in the future. For example, in the next three years, almost two-thirds of companies (65%) will leverage risk in a disciplined way for the benefit of their organization; for financial firms, where risk is central to their business, the percentage is considerably higher (84%). More than 55% of firms will use data-based forecasting to identify future risks, and nearly 60% will employ scenario planning.

**Figure 24: More firms are accepting HR risk**

To what extent do you agree with the following statement about your organization’s current and future approach to talent risk leverage? Understands that risk can be leveraged for the economic benefit of the organization in a disciplined way.



Source: Oxford Economics

*“Risk awareness is not just about identifying the risks you don’t want to take, but also the risks you do want to take.”*

*Ravin Jesuthasan, Talent Management Practice Leader, Towers Watson*

**Figure 25: Future plans to measure and manage HR risk**

Which techniques do you plan to use (or continue to use) in three years to measure and manage HR risks? (percent of respondents)

	Total	Industrialized countries	Emerging countries	Revenue > \$5bn	Revenue < \$1bn
Identifying alternate sources of talent	62.0%	60.3%	64.5%	72.0%	58.6%
Scenario planning	59.4%	52.1%	68.4%	59.8%	58.1%
Analyzing the value of difference in job performance for different roles	59.4%	55.7%	63.2%	58.5%	58.1%
Portfolio risk diversification	57.4%	50.0%	66.5%	73.2%	51.6%
Data-based forecasting	55.4%	49.5%	62.6%	58.5%	54.3%
Experimentation	50.3%	46.4%	55.5%	46.3%	50.0%
Heat maps	46.6%	44.8%	49.0%	48.8%	41.4%

Source: Oxford Economics

As HR executives begin to collect and analyze data systematically, our research suggests that they will become more confident about their ability to accept certain risks in human resources regarding issues such as sourcing, talent segmentation, and market optimization. Instead of being rewarded for sidestepping risk, HR managers in the future will be expected to better analyze and optimize risk, assessing the opportunities as well as the threats.

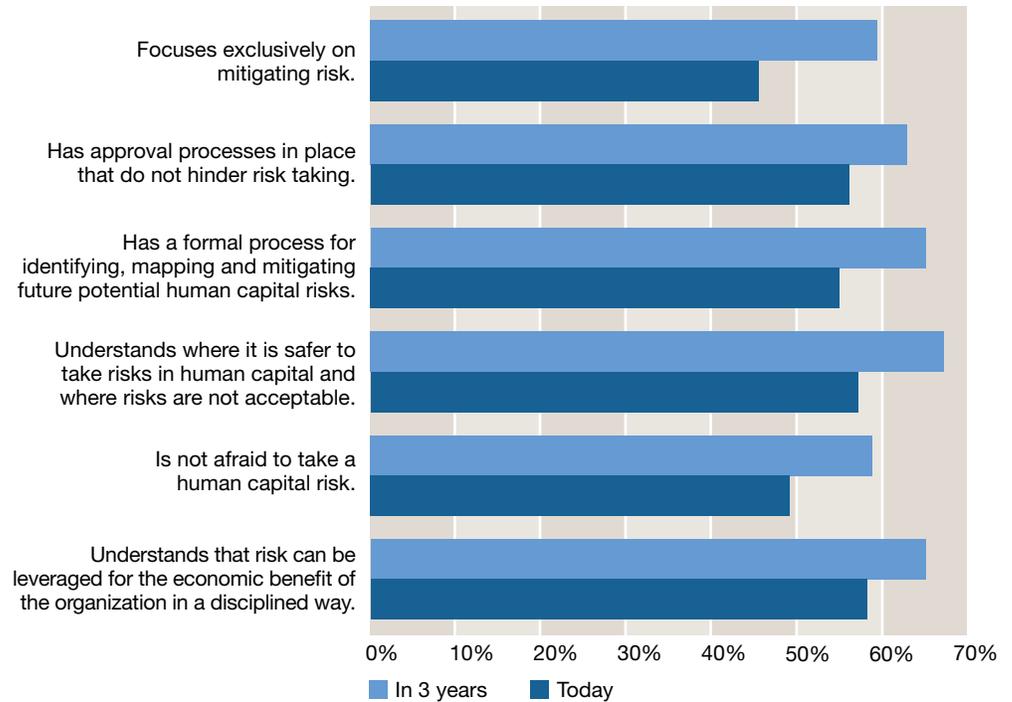
More than two-thirds (67%) of respondents say that in the next three years, their company will understand where it is appropriate to take human capital risks and where these risks are not acceptable. HR respondents from firms in heavy manufacturing and financial services appear even more enthusiastic about employing these techniques, at 80% and 77% respectively. Similarly, 65% of all respondents say their firm accepts that risks can be leveraged for the economic benefit of the organization in a disciplined way. Firms in emerging markets also have a higher risk threshold; nearly 75% of respondents in emerging markets say that within three years their firms will have plans in place to identify, map and mitigate future potential human capital risks.

Such attitudinal shifts will trigger significant changes in risk policies and procedures, the data suggest. Some 65% of HR executives surveyed expect to have formal processes in place for identifying, mapping and managing future potential human capital needs. Furthermore, 62% will have approval processes in place that do not hinder risk-taking.

However, HR executives seem to be of two minds when it comes to risk mitigation. While 59% will not be afraid to take a human capital risk in the future, 59% also say they plan to focus exclusively on risk mitigation. The explanation for this seeming contradiction lies in the variations in HR risk tolerance held by specific industries. For example, some industries, such as technology, life sciences, and heavy manufacturing, display a higher risk tolerance, while other sectors, such as energy and travel and transport are more risk adverse. Size also matters: about two-thirds of HR executives at firms with sales over \$5 billion expect to continue their focus on risk reduction compared with just 53% at firms with sales under \$1 billion.

**Figure 26: Future plans to measure and manage HR risk**

To what extent do you agree with the following statements about your organization’s current and future approach to talent risk leverage? Our organization... (percent of respondents who agree/highly agree)



Source: Oxford Economics

In the next three years, 62% of HR executives will identify alternative sources of talent, such as outsourcing partners and staffing firms, as ways to mitigate human capital risks. Scenario planning—to help understand how alternative business assumptions will affect talent needs—will be used by 59%. A similar percentage will analyze the value of differences in job performance for varying roles. Over half of those surveyed plan to use portfolio risk diversification, data-based forecasting and experimentation to cope with human capital risks.

### How Novo Nordisk uses scenario planning for people management

As a globally significant pharmaceutical firm based in Denmark, Novo Nordisk aspires to be the “best place to work” in the world by 2020. To that end, it employs scenario analysis to inform its business strategies and ties its HR practices directly to those efforts. This helps the company ensure that it is mitigating risk, or taking on the right risks in the right places.

Having launched a “Future Workplace” initiative, the firm has identified technology, globalization, societal trends, demographics, and carbon constraints as the key underlying forces framing the future of its workforce. As it expands into new regions of the world, Novo has worked to improve collaboration across geographical regions and maps cultural barriers that may affect the ability of global teams to work together.

Because it explicitly frames its personnel and management decisions around robust scenario planning, Novo is able to create alignment among its far-flung operations, while also creating the flexibility for individual divisions to customize solutions appropriate to individual markets, says Brigitte Kerjberg Petersen, who manages the future workplace program. The firm’s Global People Board sets annual strategies that are revisited throughout the year, and employees are rated annually on attributes ranging from leadership development to people engagement.

Such a rigorous planning process also allows Novo Nordisk to review its business strategies regularly and determine where they might have personnel gaps, and how they are to be filled in the coming year. “It’s a bottom-up process, but it’s a highly intensive, management driven process,” Ms. Petersen says. “So the managers of the different business areas are heavily involved.”

With half of its employees located in Denmark, a nation with an overall population that is greying, one of Ms. Petersen’s current projects focuses on how to ensure its staff does not become obsolete as technologies evolve.

### Boosting engagement through evidence-based change

Since evidence-based analysis was a key focus of our study, it seemed fitting to apply this principle to our own work.

As part of this survey, we asked firms 42 targeted questions on the five core principles of evidence-based change: logic-driven analytics, segmentation, optimization, risk leverage, and integration/synergy. We also asked them to evaluate how levels of employee engagement—work commitment and enthusiasm—had changed over the past three years. We then used regression analysis to investigate the correlation between the five principles and engagement.

Our research shows conclusively that implementing the five HR principles boosts employee engagement. Among the firms that use the principles, the ones that emphasize optimization, risk leverage, and integration/synergy have the best engagement performance. This reflects the typical development path of evidence-based change, since HR executives normally start with the fundamentals of logic-driven analytics and then move on to the more advanced principles of optimization, risk leverage and integration/synergy. It follows that the firms at the vanguard of these HR principles would experience the best results.

### 5. Align HR strategies with business transformation objectives.

Our research shows the increasing importance of integration/synergy as a transformative HR tool. Though difficult to engineer in times of constant and rapid change, aligning business and talent management strategies will be crucial for success in the future. Equally important, HR executives will need to understand how HR solutions and organizational processes mesh with one another to deliver a more integrated approach to talent management.

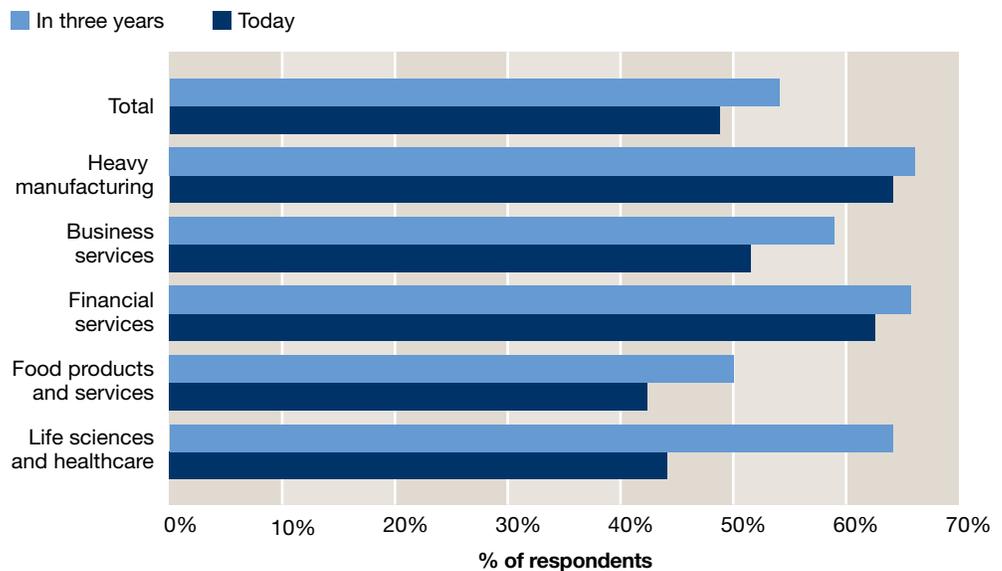
“HR has become more strategic because of the recognition that in the end, talent is what is going to make or break us,” Ms. Wanamaker of Coca-Cola says.

Novo Nordisk engages in a formal process to mesh talent development with business priorities, according to Ms. Petersen. The firm’s Global People Board meets four times a year to review corporate strategies and ensure there are adequate personnel in place. “We look at the business plan for the next year and at our strategy, to see what gaps might need to be filled to deliver that strategy,” she explains. “Then we say, ‘What are the actions we need to put in place in the coming year to make sure that we meet our strategy targets?’”

Our survey shows that as HR managers come to rely more on evidence-based tools, HR functions will become more strategic within companies. Some 49% of respondents say that today HR and business heads already share governance of people programs; this is expected to rise to 54% in three years. In addition, 57% say that HR initiatives are today brought together under key strategic goals; 66% expect this to be the case in three years.

**Figure 27: HR is becoming more strategic**

HR and business heads share the governance of people programs (percent of respondents)



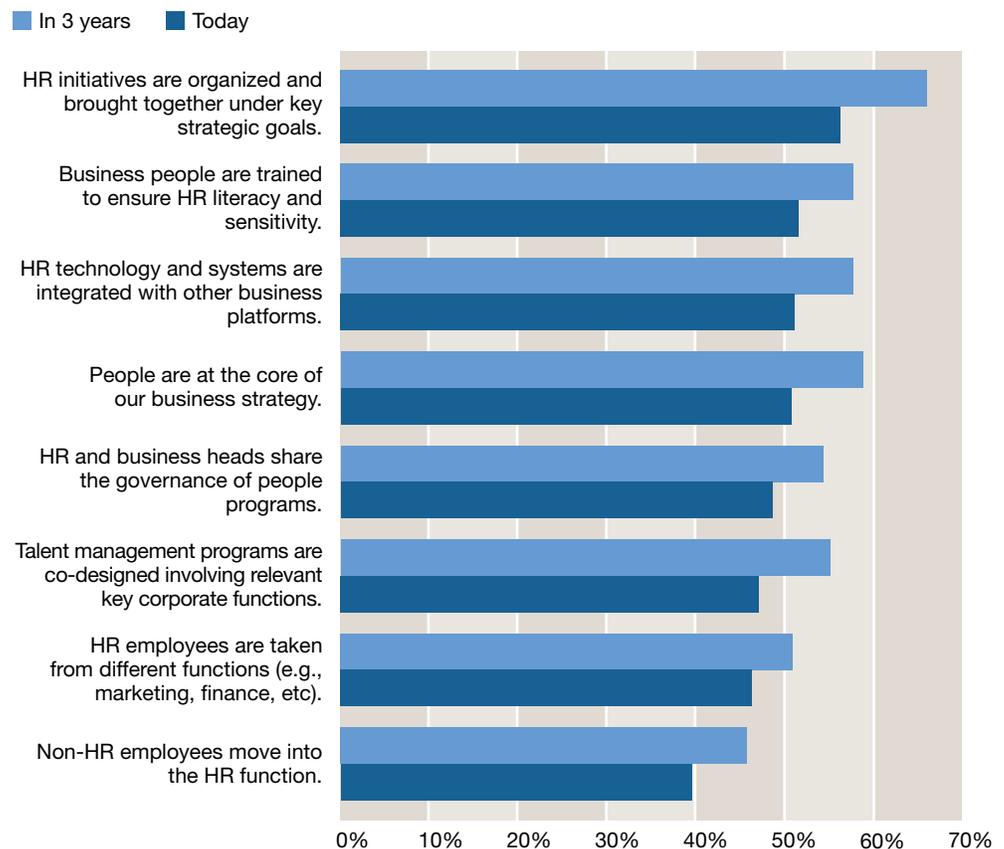
Source: Oxford Economics

About two-thirds of HR respondents report that the chief method they will use in three years to drive integration and synergy in their organization is to consolidate HR initiatives under key strategic goals, such as diversity or social responsibility. Training business people to improve HR literacy and sensitivity (58%), integrating HR systems with other business platforms (57%), and joint governance of people programs by HR and business heads (54%), will be other common techniques.

In the future, companies will encourage more cross-fertilization of ideas and people to stimulate integration and synergy, especially as they attempt to expand their global footprint. Our survey shows that increasingly, talent management programs will be co-designed with different corporate functions (55% of respondents) and HR staff will come more often from different functions within the firm, such as marketing and finance (51%). A significant number of respondents (46%) say their firm will move non-HR executives into HR functions.

**Figure 28: Ensuring alignment between HR and the business**

How do you ensure that your HR solutions and organizational processes are aligned and reinforce each other, and how will you do this in the future? (percent of respondents)



Source: Oxford Economics

Techniques to align HR solutions with business strategies can vary by industry, however. For example, respondents in both heavy manufacturing and financial institutions will put a higher premium on collaboration and cross-posting. For life sciences respondents (76%) and food products and services respondents (73%), organizing HR initiatives under key strategic goals will represent a key method for achieving alignment. Because of the vital importance of people to their business, HR executives in business services (68%) and TICE (65%) are more inclined to have talent management programs co-designed by different functions.

Larger companies are doing more to integrate HR solutions and business strategies than their smaller counterparts. For example, 70% of firms with sales exceeding \$5 billion will be organizing HR initiatives under key strategic goals, versus only 60% of companies with revenue under \$1 billion. Likewise 68% of firms with sales over \$5 billion will train business people to ensure HR literacy, versus just 53% at companies under \$1 billion.

Managers will also play a bigger role in talent management in the next three years. Our survey shows that 66% of company managers will clearly understand their roles in talent management, and 62% will own talent management programs. Heavy manufacturers and financial services firms will put particular emphasis on the role of managers in attaining talent goals.

Novo Nordisk puts talent leadership development as one of the core attributes it measures among its core employees, along with talent attraction, performance management, people engagement and organizational development. The company regularly dispatches facilitators to various regional and country operations to measure how well each unit is measuring up to the “Novo Nordisk way.”

Indeed, in the future, talent management programs will also become more evidence-based. The majority of respondents (65%) say their organization will measure the effectiveness of talent programs and 66% will link such programs to one another (e.g., tying performance management outcomes to development and compensation, or linking succession management outcomes to recruitment and selection). Because of the long-term capital bets they must make to be successful, respondents in heavy manufacturing (84%) and energy firms (76%) are most likely to ensure talent management programs support the company’s long-term goals, while HR executives with financial services firms are keen to ensure their employees understand how their performance affects their future careers.

## Calls to action

Over the next decade, remarkable shifts in the global marketplace will weigh heavily on all firms. The ability to attract and retain quality workers will be challenging, particularly as competition increases between new upstarts in fast-growth markets and long-established firms in the industrialized world. To meet these challenges, companies will need to rely on HR executives who are skilled at working in diverse cultures, managing complexity and change, applying the latest analytical tools and thinking creatively about filling future skill gaps before they emerge.

Executives already have a good sense of where they can make the best investments in HR. When asked which HR strategies and tools will deliver the highest payoff, 47% cite training and career development, 43% say recruitment and retention, and 38% cite reward and recognition plans. Firms in energy, heavy manufacturing, and consumer goods say technology investment is key, while companies in construction, food products, and travel and transport cite better analytics and reporting tools.

To stay ahead of the curve, companies should consider the following:

- **Apply the same rigor, effort and sophistication to human capital planning as they give to designing overall business strategy.** No change in business strategy can be successful without ensuring that human capital plans are well aligned. The same discipline and tools associated with forecasting needs, such as scenario planning, will become increasingly valuable to HR professionals. Evidence-based personnel management will become a critical success factor as firms ponder new business models or entering new markets.
- **Think more broadly about how and where talent is sourced.** Greater volatility and emerging talent shortages in key fields will require organizations to rethink many traditional employment relationships. HR executives will need to recruit talent in new and sometimes unexpected geographies, as talent surpluses develop in some fast-growing markets while mature markets face stubborn talent deficits. Many firms may also need to revisit traditional employee/employer relations in light of the shifting geography of talent. Questions of outsourcing or onshoring of specific talents and jobs will become much more salient in the future as firms adjust to a world in which specific skills may be in short supply in specific locations.
- **Be prepared to invest more in retraining and reskilling.** An open dialogue and partnerships with educational institutions and government employment development agencies can help firms ensure a healthy talent pipeline, particularly in fast-growth markets. Employers may find greater success when they can clearly advise training and educational institutions about their projected talent needs and their internal timetable for filling new jobs. “It requires developing some trust,” advises Patricia Graves, who, as a senior administrator at Delta College, helps train chemical engineering talent for Dow Chemicals. “But there isn’t any reason that employers, community colleges like ours, and state employment agencies can’t work together to match employers and workers.” Developing programs that train and educate workers not only helps with recruiting but tends to improve employee loyalty.

- **Take a more evidence-based approach to talent management.** Employing workforce analytics to assess and segment talent, and using quantitative tools to identify risk and integrate HR into business planning can lead to superior results. Making your workforce aware of how analytical tools are being used—and that performance is being measured and rewarded—can powerfully reinforce a message that people are at the center of any successful business transformation. Firms are already investing in analytics to better understand the skills and capabilities of their current employees. At firms like American Express “analytics 2.0 would be predictive modeling, using analytics to do scenario planning,” while bringing both internal and external data into forecasts, according to Ms. Kaderali. “It’s the end goal, and it is optimistic, but that’s where we want to get.”
- **Improve employee engagement.** Employers who are candid with their employees about how they rate relative to peers and what level of future leadership potential they are considered to possess may find their workers more motivated to develop new skills and master new techniques. Such programs are vital for service companies centered on talent, such as business services and financial firms. Making employees feel more part of the conversation is critical to business success, and closely correlates to the overall health and prosperity of the company.

The global rebalancing of the demand and supply of talent will have enormous implications for government. The race among educational institutions and governments to keep up with rapidly changing technology will occur in every country. Those nations that win the race will build a talent surplus that will drive economic performance; those that lose may see their competitiveness erode. To ensure that the supply and demand of talent are well aligned, governments will want to work in partnership with companies in pursuing the following policies:

- **Ensure that education policies are fully integrated into larger economic growth strategies.** Expanding access to education, increasing the average number of years of schooling, and improving the quality of education in key curricula (e.g., science, technology, engineering and mathematics), should be areas of particular focus. Educational institutions should listen to the needs of business and government in monitoring talent gaps and anticipating where future shortages may arise. Firms can also actively assist educational institutions in creating the training programs that will meet their future needs and investing in the cooperative training of teachers. At the same time, firms have a social responsibility to develop their staff and offer on-the-job training, create and expand opportunities for older workers, and encourage greater workforce diversity.
- **Move rapidly to develop new forms of digital and technology-enabled training programs.** Innovative new programs, including online learning and virtual teachers, can rapidly boost access to high-caliber education and training. By helping to ensure that today’s teachers are adequately trained to master basic digital technologies, educational institutions can rapidly boost opportunities for students. Creating digital literacy should be considered almost as important as basic literacy, and even primary schools should be encouraged to find ways to bring the internet and related digital technology into the educational experience. For example, in many Latin American nations, the OAS offers a program called

“Virtual Educa” to train hundreds of teachers each year on how to leverage new digital technologies to improve teaching and teacher training around the region. Another initiative helps train more teachers to become successful online tutors.

- **Develop investment policies that encourage foreign direct investment and reduce long-term unemployment.** As the supply of talent shifts to the South, developing nations should be more proactive in attracting the sort of foreign direct investment that can employ this expanding new pool of skilled labor, and thus encourage these high-value workers to remain in their home country. An “outward looking” trade policy that encourages domestic firms to be efficient and innovative in order to keep up with foreign competition will also encourage the development of high-quality jobs and reduce the “brain drain” of well-trained workers. Incentives to small- and medium-sized firms can also increase entrepreneurship. Additionally, to combat long-term unemployment among youth, policymakers should encourage formal schemes such as apprenticeships and mentoring programs.
- **Improve jobs banks and other labor intermediation services provided by governments and strengthen their linkages to the private sector.** Services that can match workers with available jobs more effectively can include developing an active list of job vacancies and job seekers, job placement and counseling, and labor market information. These services can play an important role in matching job seekers and new employment.



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