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ARTIFICIAL INTELLIGENCE IN THE WORKPLACE

CREATING EFFECTIVE MACHINE-WORKFORCE
COLLABORATION



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INTRODUCTION TO THIS REPORT

What do the advertisements we watch, the games we play, the virtual assistants we talk to, and the marketing e-mails we receive have in common? All these activities, often taken for granted, are increasingly being powered by intelligent algorithms which process huge amounts of data to imitate cognitive human capabilities.

Advances in Artificial Intelligence (AI) and other technologies, such as robotic process automation, are transforming the workplace and driving radical shifts in the way organizations operate and the roles workers play. The most successful organizations are moving towards a bionic model, combining capabilities of humans and machines to drive superior results and customer solutions. Yet, while the potential of these technologies to boost human potential and unlock significant business value is increasingly recognized, many struggle to adapt to and adopt these.

In 2019, when The Adecco Group Foundation and BCG set out to explore how machines and employees can better collaborate, we did not yet imagine how COVID-19 will turn the world upside down, speeding up our dependence on technology and digital tools at an unprecedented rate. As they continue to work remotely, hundreds of millions of people are now in closer contact with the tech solutions they need for their jobs than with their human team members. If employers are smart, they'll use the opportunity to optimize these person-to-technology interactions to create a modern bionic organization that's poised for the future.

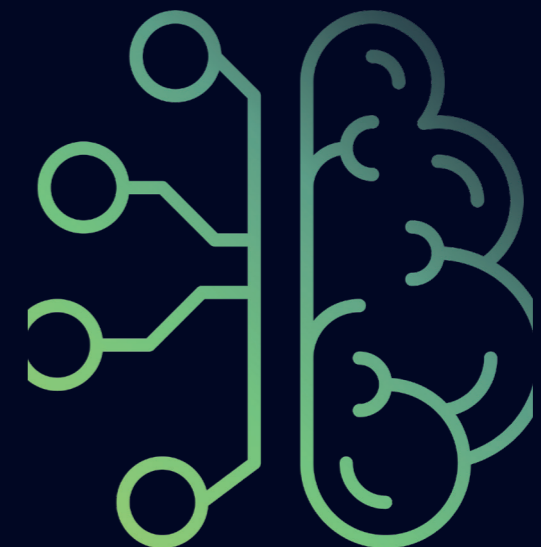
In this study, we aimed to understand what it will take to ensure effective machine-workforce interaction with a specific focus on white collar workers. The decision to focus on white collar workers was motivated by the scarce research on the segment. Despite the significant impact they have experienced – and continue experiencing – on their working lives, skills and roles, the majority of studies focus on the blue collar population. To deeply understand the challenges white collar workers and their employers are facing, a survey with more than 1,000 workers and HR practitioners was conducted. This perspective was complemented by in-depth interviews with business leaders. Spanning across nine countries, the research focused primarily on the financial services/insurance industry and on the consumer/retail segment; both subject to the major digital disruption and significant employers of white-collar workers. Within these industries, we surveyed people in roles that are likely to be impacted by technological changes such as Finance Advisors, Traders or Sales representatives (see Appendix). This approach provides not only a global picture on key qualitative trends, but also offers sufficient data to generate quantitative insights. While our research was conducted before the COVID-19 crisis, we feel that the insights gathered are still relevant. As workers' exposure to digital tools and technological solutions has recently skyrocketed, and human-machine touchpoints have significantly increased, this topic is more important than ever.

The study disconfirms the prevalent opinion that technology will replace human jobs, and reinforces the value of advanced software – also recognized by the workers. The report finds a positive attitude towards the future use of machines, with only a very low share of workers being concerned about their

jobs being replaced. However, we have also found that a significant portion of respondents feel overwhelmed by advanced software, and may need help to adjust to it. Reaping the full value of AI, thus, requires organizations to upskill, enable and motivate workers for more efficient use of intelligent machines.

How do we define artificial intelligence?

For the purpose of this study, we have used a broad concept of AI, defining it as advanced forms of software that have the ability to imitate cognitive human capabilities in various fields of activity. These technologies can update themselves in real time, adapt to changing environments, autonomously improve information processing, and interact with workers in a collaborative way. Applications include optimizing prices in real time, using augmented reality to create visualizations of products or automating customer service to answer queries.





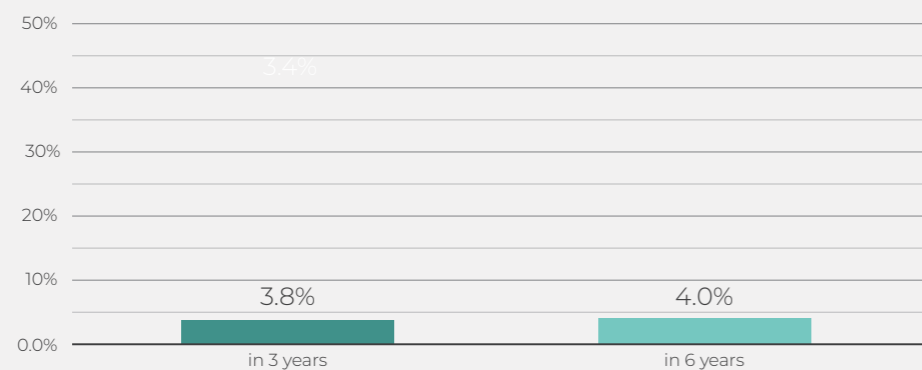
THE CHANGING ROLES OF HUMANS AND MACHINES IN THE WORKPLACE

AI will augment, not displace

With machines increasingly capable of replicating tasks that otherwise required human cognition, jobs of many white-collar professions are expected to be disrupted. With AI-enabled software being able to detect emotions, recognize speech, analyze text, and respond accurately to visual data, it has been put forward that many white-collar workers will be displaced

by technology in the medium-term. However, our survey results suggest that full substitution situations are unlikely to occur frequently in the near future; rather, AI will augment the contributions of humans. This is evidenced by the fact that less than 5% of respondents felt that their tasks are completely substitutable by advanced software in the next six years (Exhibit 1).

Exhibit 1: Percentage of respondents indicating a substitution situation²



1 N (all workers) = 1,088

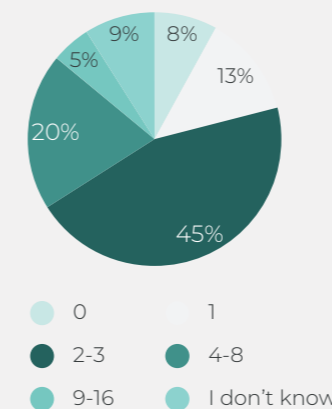
² Substitution situations: These refer to instances wherein current human roles become irrelevant because they are completely taken over by advanced software.

Rather than fearing substitution, most workers displayed a fairly positive sentiment towards new technologies; especially positive in light of the majority of workers exposed to some kind of advanced software (83% worked with at least one). Looking forward, a large

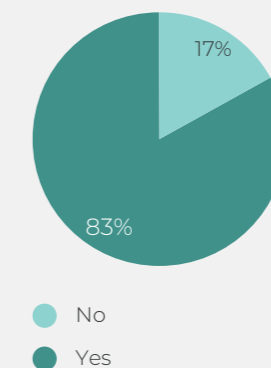
majority of workers (83%) stated that advanced software will help perform their tasks more efficiently in three years from now (Exhibit 2), and nearly all respondents saw a clear added value of advanced software to their jobs (96%).

Exhibit 2

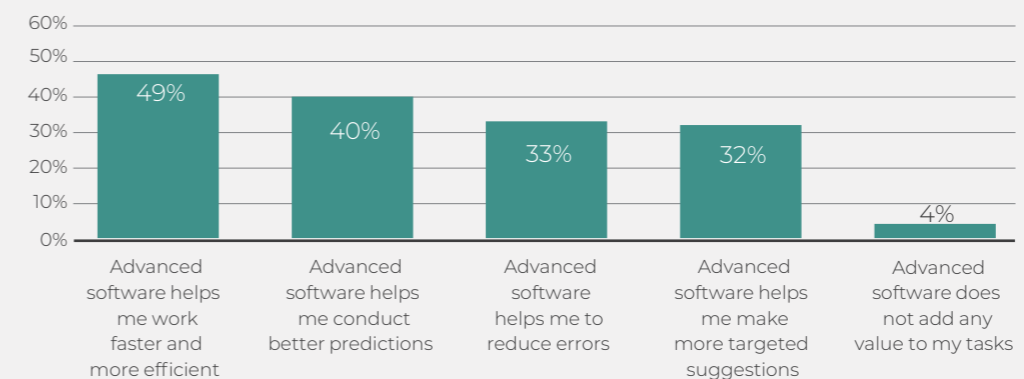
How many types of advanced software are integral to your job?



In 3 years, will your tasks be performed more effectively through the application of an advanced software?



For those with basic to advanced knowledge on AI, do you feel you achieve the value expected from advanced software? (Multiple selection)



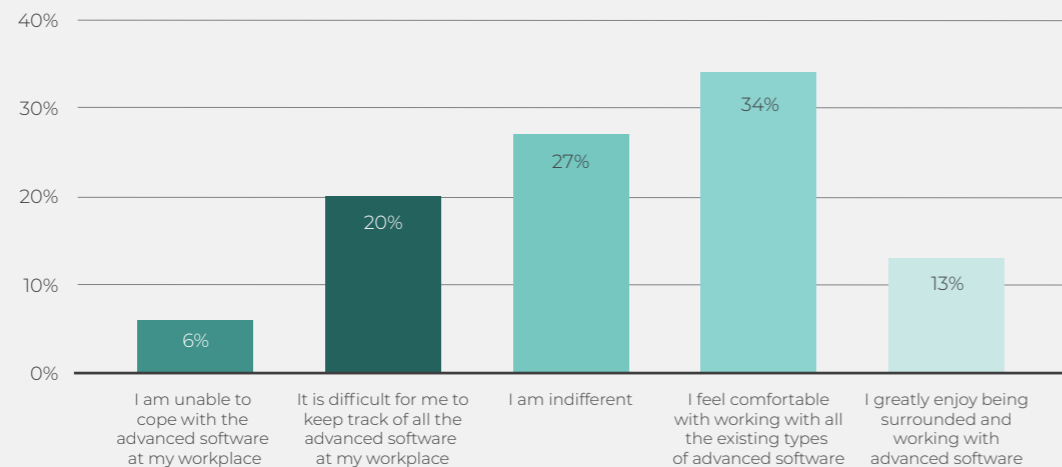
3 N (all workers) = 1,088

Workers are willing to leverage the potential of AI – even if not fully ready

But how well prepared are workers to adapt to the new collaboration models? According to our research, they are not (yet) fully ready. Employee resistance and organizational inertia to adopt advanced software are still there, and workers seem to lack confidence in their ability to perform well in the workplace of the future.

Our survey shows that only 13% of respondents greatly enjoy working with advanced technologies, and 34% are comfortable with advanced technologies in their workplaces. 26% feel challenged or unable to cope – a high number considering that all our respondents work in roles which will be significantly transformed by technology (Exhibit 3).

Exhibit 3: Are you overwhelmed by the advanced technology software you work with?³

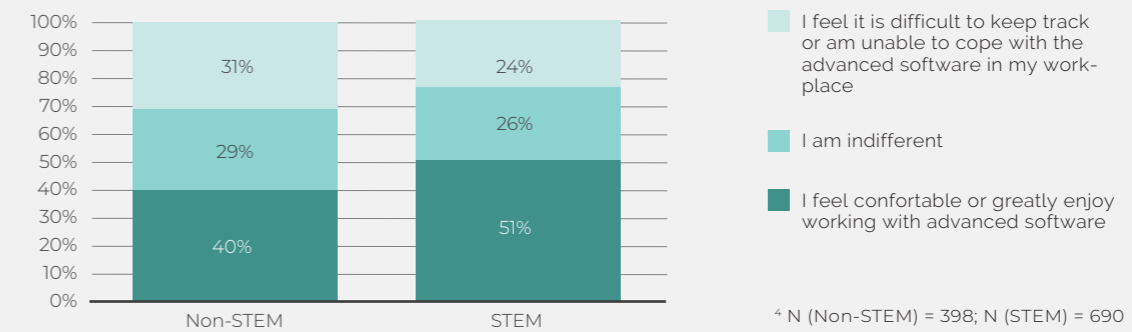


³ N (all workers) = 1,088

Unsurprisingly, the survey shed light on generational and educational differences in being prepared to work with new technology. For instance, the older respondents indicated they face difficulty in distinguishing the types of advanced software in their workplaces when compared to younger people. In fact, only 8% of respondents over age 55 indicated they would be able to name all types of advanced software they work with. For those aged between 18 and 34 years, the percentage doubled to 15%. Additionally, the survey revealed

a significant impact of educational backgrounds on the acceptance of intelligent machines. While 51% of respondents educated in STEM fields (science, technology, engineering, and math) stated they greatly enjoyed being surrounded by intelligent machines and felt comfortable with working with all types of advanced software, a smaller proportion (40%) of non-STEM-educated respondents agreed (Exhibit 4). In contrast, we did not find major differences based on gender.

Exhibit 4: Are you overwhelmed by the advanced technology software you work with?⁴



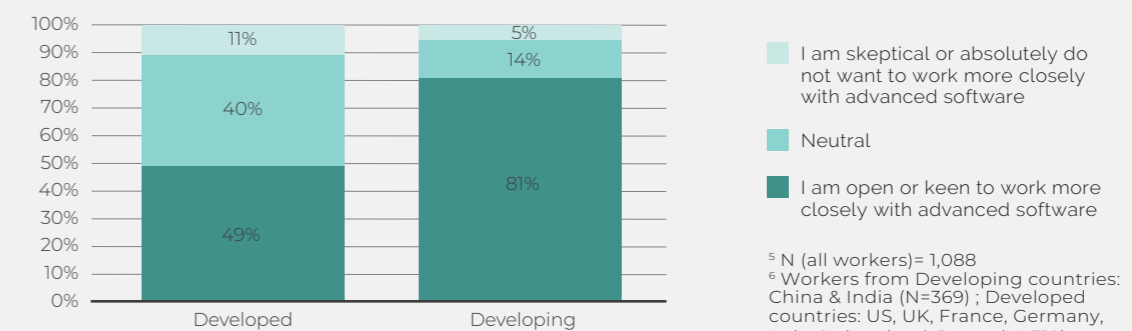
⁴ N (Non-STEM) = 398; N (STEM) = 690

Despite feeling seemingly unprepared, the survey revealed a willingness of employees to engage with and leverage technology going forward; a positive signal for future developments. In fact, when asked about their feelings towards the use of advanced software in their jobs, many workers indicated they were either open or keen to work more closely with machines (~55%) and 35% were neutral towards it. For respondents between 18 and 54, less than 10% displayed a negative attitude, indicating they were “skeptical or absolutely did

not want to work more closely with advanced software”. Here again, the number was higher for respondents over 55 (14%).

More interestingly, 81% of workers from developing countries indicated being open or keen to work more closely with advanced software (only 14% being neutral, 5% skeptical). For respondents from developed countries, the share of individuals showing a positive attitude to technology was only 49%.

Exhibit 5: How do you feel about using advanced software in your job?^{5 6}

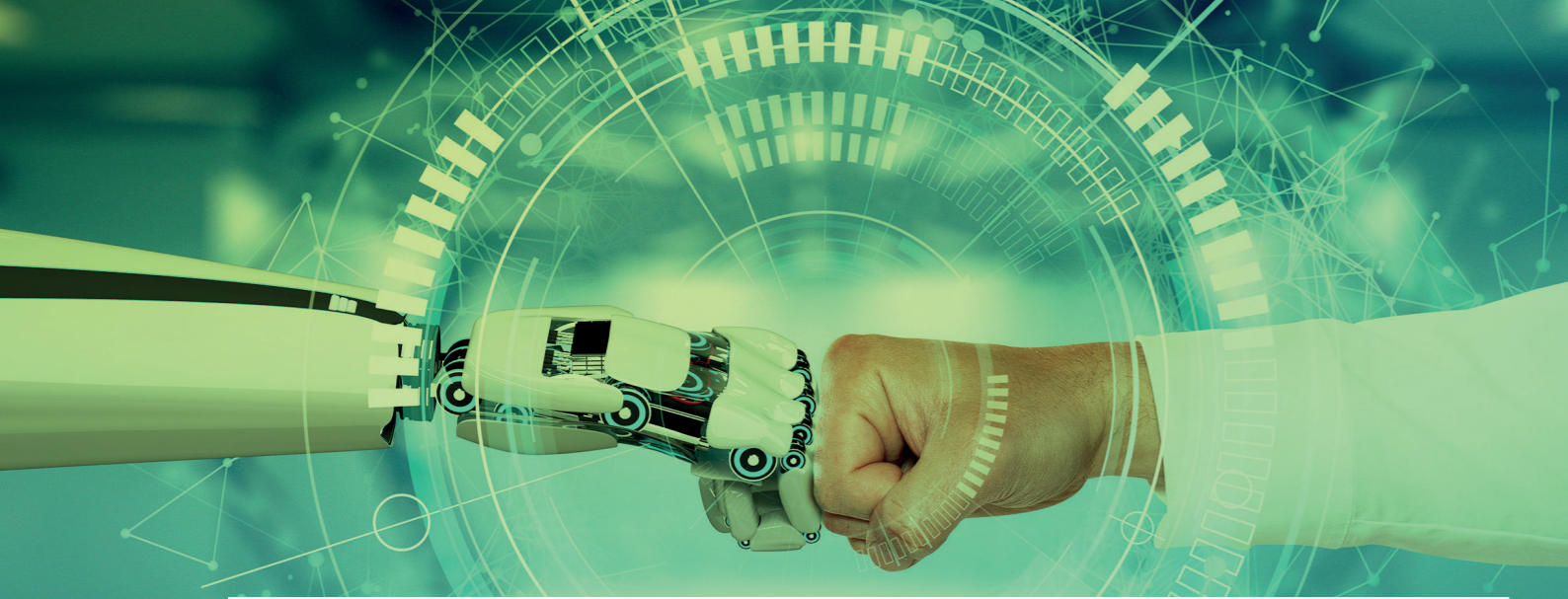


⁵ N (all workers) = 1,088

⁶ Workers from Developing countries: China & India (N=369) ; Developed countries: US, UK, France, Germany, Italy, Switzerland, Japan (N=719)

While the above paints a mixed picture, it reveals the need for equipping workers with the necessary skills and confidence to work with advanced software, leveraging on their willingness to engage with it. Organizations should

develop a comprehensive strategy for encouraging collaboration between workers and machines, learning from best practices in the market, such as the ideas presented in the next chapter.

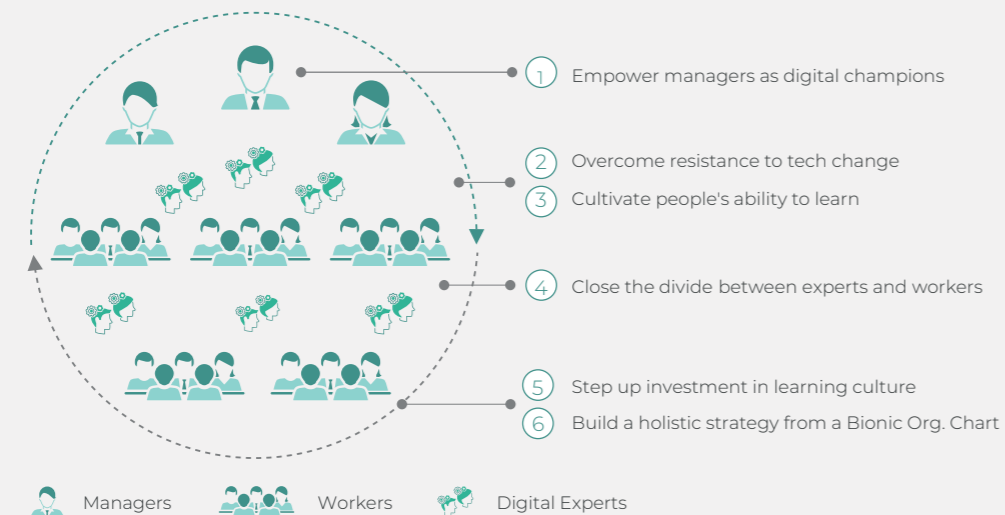


RECOMMENDATIONS TO IMPROVE HUMAN-MACHINE COLLABORATION

Overall, the survey results shed light on the discrepancy between the value workers see in advanced software and their abilities to deal with it. In order to understand what leading companies are doing to overcome this, we interviewed CHROs, technology managers, and business leaders from 15 companies. The interviews revealed that while organizations are taking various steps towards improving the way they harness

advanced software, most are lacking a clear direction, as highlighted by an interviewee from a leading global bank: “for the moment, we are just trying to figure out how to use AI in different ways, and are unclear on the full picture of workforce implications”. Still, our interviews uncovered several good practice measures, summarized in 6 key intervention areas.

Exhibit 6: Six best practices to encourage human-machine collaboration in your company



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Empower managers as digital champions

Our interviews suggest that managers have an important role in the successful integration of AI into the workplace. They need to be seen as champions, and be empowered to build the digital journey of their divisions. This requires the development of a targeted leadership development strategy addressing the organizational challenges of the advanced software adoption. More

specifically, leaders need to be trained to navigate the new environment, but also to ensure they are able to support the development of workers and guide the reskilling efforts. They should also be enabled to communicate difficult messages: success cases had leaders in common who made the need for change clear and benefits and tradeoffs transparent.

As part of its digital transformation efforts, L'Oréal created a leadership development program specifically addressing the knowledge, ways of working, and mind-set needed for leading people into the digital age. To date, over 1,000 executives have gone through the process of building digital journeys for their particular business divisions and have modelled the critical team behaviors needed for success. These included a willingness to experiment, openness to collaborate and build external partnerships, and team structures that are more autonomous.

Overcome resistance to tech change

Resistant workers – e.g. due to lack of faith in advanced software, weak understanding of technologies, or fear of job loss – represent a key challenge for successful adoption of AI. While the survey revealed the early willingness of many workers to engage with advanced software, best practices have shown the need to push efforts further. To address the challenge, innovative measures

to build a company culture that encourages positive attitudes towards advanced software have been developed. Creative incentives and rewards for the use of advanced software have been widely used, complemented by strong positive messaging and role modeling by CEOs. The examples below depict different methods to get workers on the boat.

Wipro has developed a concept called Botcoins to reward developers and sales teams for using technology and coming up with new ideas for integrating digital tools into everyday work. These Botcoins can be converted into cash rewards, supporting Wipro's overall automation strategy.

Vanderbloemen introduced an advanced AI-based marketing software product called Hubspot to increase the company's sales. To drive quick adoption within the firm, the CEO launched a contest, in which the employee who generated the highest internet traffic over one month won two first class airline tickets. “It was a way to make it fun for people and also a way for us to unearth the folks we didn't know were experts,” the CEO said. “Now I have those people teaching others how to do it.”⁷

Alibaba has developed a company culture that places its people at the center. By repeatedly communicating with employees and leadership that machines will not replace humans but should be seen as team members, the CEO constantly seeks to create a positive momentum. His communication focuses around the importance of human creativity, as a key differentiator in the era of intelligent machines, in order to grow the willingness of employees to work with machines and overcome the potential resistance.

⁷Harvard Business Review, Convincing Skeptical Employees to adopt New Technology, 2015

Cultivate people's ability to learn

As the resistance is often driven by the lacking ability to understand the technology, it is also crucial to build workers' capabilities. This includes building capabilities to learn as well as developing hard tech skills.

First, to cope with the ever-changing technological requirements, workers need to widen their mental boundaries, i.e. improve their learning agility. In order to do so, organizations have, for example, developed mindfulness trainings; allowing employees to free up mental capacity and broaden their perspectives.

While an open mind is key to adapt to new technologies, lack of needed

hard skills is another major roadblock. Successful reskilling efforts require innovation both in how needed skills are defined as well as in how learning interventions are delivered. This is even more true in the post-COVID world, where learning needs to happen mostly virtually. Best practices include defining individual reskilling plans for each persona and leveraging AI-driven predictive analytics to create customized, on-demand, and adaptive training content. These allow for organizations to improve the targeting of training interventions and maximize benefit for the organization and the employees.

Jaguar Land Rover conducts mindfulness trainings to enable continuous learning. The firm believes that mindfulness – the state of being present in the moment – helps employees navigate the heavy inflow of information in the digital age and let go of their judgements. A recent BCG study⁸ has confirmed this assumption, having found that mindfulness helps develop the clarity and open-mindedness required to successfully adapt to today's digital challenges and unpredictable environments. Ultimately, mindfulness helps employees build mental agility, increasing the comfort and willingness to work with the new technologies.

L'Oréal has enrolled more than 15,500 of its digital marketing employees in an upskilling program, which includes competencies such as digital analytics, digital media allocation, and search engine optimization. The company has appointed a digital transformation learning director to establish a baseline of digital knowledge that is relevant for each employee and has partnered with General Assembly, the training provider, to create tailored content. A range of methods, such as employee incentives, executive communication, and gamification, have helped the company to achieve a 90% global completion rate and enabled its marketing, communications, and go-to-market strategy to be digitally powered.

IBM uses AI-generated advice to build employee-specific training programs based on employees' previous and current roles, anticipated future roles, interests, and trainings they have completed in the past. Beyond technical skill development, the company has also created exclusive training programs – with animated simulations of different personas, which showcase useful behaviors, such as providing constructive criticism – for employees who will be working in agile or cross-functional team setups

Close the divide between experts and workers

Beyond the lack of skills, one of the major challenges in the establishment of an effective human-machine collaboration is the deep divide between digital experts and workers who are everyday users. Relying only on a

handful of experts can be dangerous, as digital transformations can lose a lot of momentum when colleagues with unique tech expertise leave. Experts not being available to help the average workers through everyday challenges

⁸ BCG, Unleashing the Power of Mindfulness in Corporations, 2018
Copyright picture p. 15: Techno girl pressing virtual buttons (copyright) Elnur #117167188/stock.adobe.com



of using tools and resolving teething troubles can also rapidly lead to workers feeling unable to collaborate effectively with the machines.

In order to avoid this, employers should consider democratizing technology, training a larger group of workers to be advanced users instead of focusing only on the bare minimum of skills.

Companies are also setting up expert units comprised of data scientists and digital tool developers that employees can directly and quickly interact with when encountering tech challenges or developing new solutions. These units can also help to implement initiatives ranging from formulation to execution.

Aegon NL believes in the idea of democratizing technology and in the importance of ensuring its employees are comfortable using it. Thus, employees, irrespective of seniority, have been provided Robotic Process Automation (RPA) software licenses and provides free training on it. The company has also trained 70 volunteers on collaboration with its 70 automation bots. The company plans to have 150 RPA bots in use by the end of the year and to ensure that they are user-ready for employees across all levels. This is a major shift from previous strategy which relied on a few experts to deal with these technologies.

IBM has introduced IBM Garage, a network of physical innovation hubs that are designed to enable agile working capabilities and enhanced technology collaborations. Inside the Garage, IBM experts sit near their client employees and work with them to rapidly develop, test, and improve new ideas.

Step-up investment in learning culture

Beyond providing the right training opportunities and incentives, organizations need to re-think where ownership lies for training interventions. In a fast-changing world, empowering both employees and managers to take responsibility for learning needs is essential for future success; an outcome achieved through two interventions.

First, learning contracts, which align the learning journey of an organization with the learning intent of individuals, are recommended. Learning contracts emerge from a discussion between employees and employers and enable companies to grow empowerment in leaders. Ultimately, managers become coaches helping employees define their path and apply learnings into real work. However, the learnings contracts to be successful, enterprises must commit to measuring and rewarding business and learning outcomes – “proxy” credentials, for example, often used to recognize new

skills in novel ways. In light of the current need for upskilling millions of workers at an unprecedented speed, such a flexible yet consistent approach can prove extremely beneficial in helping to build a continuously learning and self-tuning organization.

Second, innovative financing methods fostering ownership in employees can also be helpful to master the reskilling challenge. This approach advocates the benefits of shifting training related decisions to the hands of the employees – engaging them in the selection and completion of their trainings. In France, for example, a learning account has been developed, where each worker is entitled to a right of twenty hours of training to be spent as he or she sees fit; a sort of “government-created statutory right to training” financed by the Mutualized Contribution CPF. Employers could consider implementing a similar approach that provides employees both

the resources for learning and a flexible framework to use them.

Summary: choose the right intervention by developing an overarching man-machine collaboration strategy

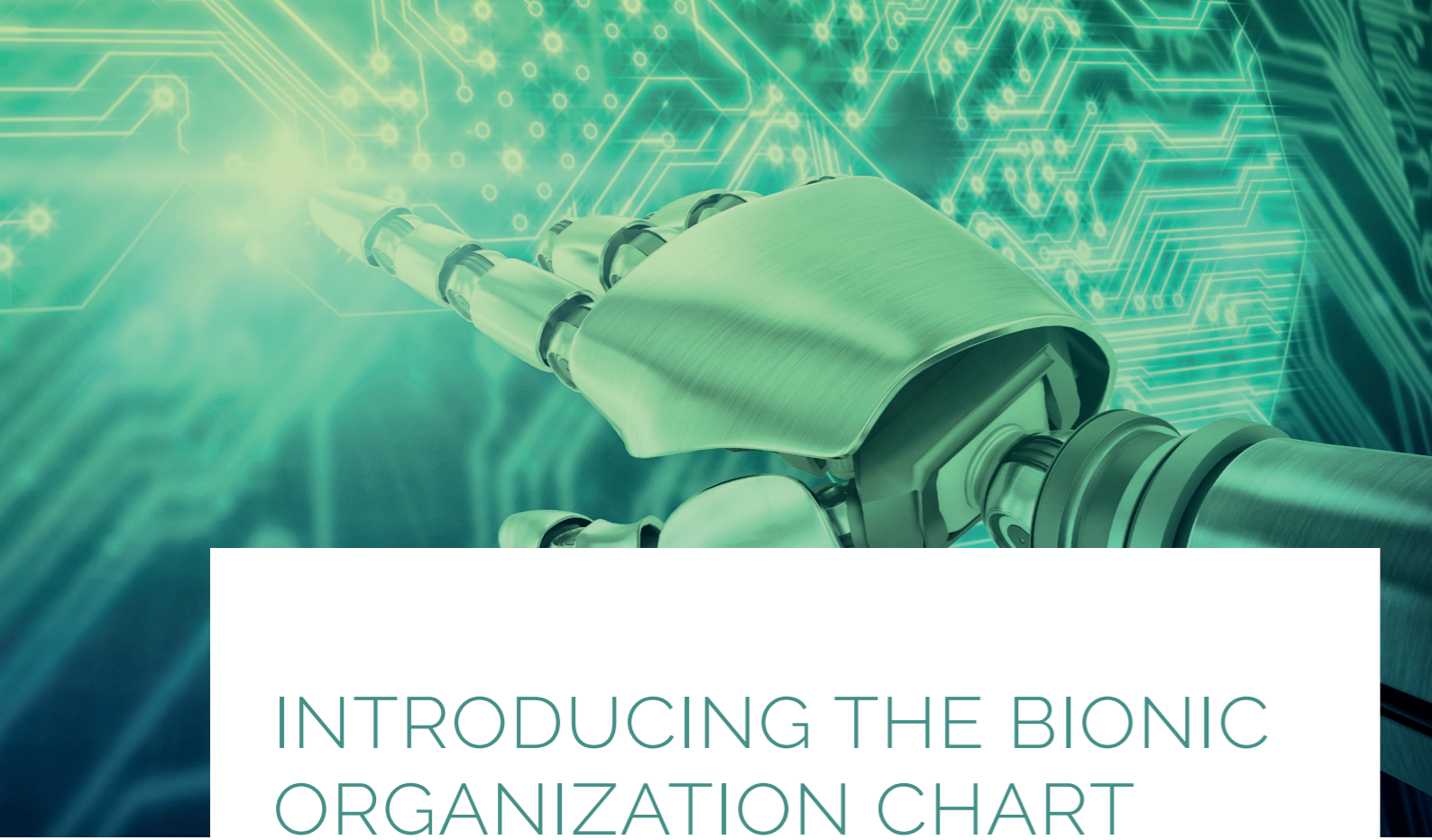
In the AI-led revolution, companies able to treat intelligent machines as high-potential colleagues will be the winners. However, as our interviews highlighted, employers often lack a conscious, comprehensive strategy to enable employers to work with new technologies in an efficient partnership. In defining an AI strategy and deciding on the collaboration types needed and how to support upskilling, two major perspectives must be jointly considered.

1. The human view: the worker who uses the technology, including their skills, motivation, qualification, organizational position

2. The machine view: the type of software used, the frequency of human-machine interaction, and the business criticality and cost of the technology

Understanding these dimensions helps provide a roadmap with regards to how and in which parts of the organization to implement the best practices above.

The Bionic Organization Chart, introduced in the next chapter, is one possible tool to gain transparency on the adoption of intelligent machines and their role and place in the organization.



INTRODUCING THE BIONIC ORGANIZATION CHART

While companies often recognize a gap in the adopting of intelligent machines, most also face the challenge of understanding how to direct their investments effectively to create most impact and ensure workers are on-board with the technology. This is mainly fuelled by the lack of visibility of the technologies used within the organization, the missing overview of the availability of skills needed to leverage these and the insufficient communication around the importance of technology solutions.

Addressing the challenge and gaining transparency requires companies to move away from considering employee skills and needs separately from technology. To help companies identify worker-technology interdependencies and combine human workers and technologies in one view, BCG has developed the Bionic Organization Chart, a visual tool to capture business-critical

Creating a human view

To introduce a Bionic Org Chart, organizations must first identify key areas

areas of human-machine collaboration within an organization. This can be used to keep track of and assess the human-machine collaboration points, and plan interventions to enable humans to work effectively with machines.

In the following chapter, we illustrate the step-by-step process of introducing a Bionic Org Chart using a generic example of a contact centre organization. In a nutshell, first, the human view – an overview of key organizational units collaborating with technology, and their level of savviness – needs to be created. Second, the machine view should be added: a list of the advanced software that supports the various units, their cost and business importance. Third, the full picture including the level and frequency of collaboration between humans and machines should be drawn; serving as a decision support tool for defining the right strategy to create the workplace of the future.

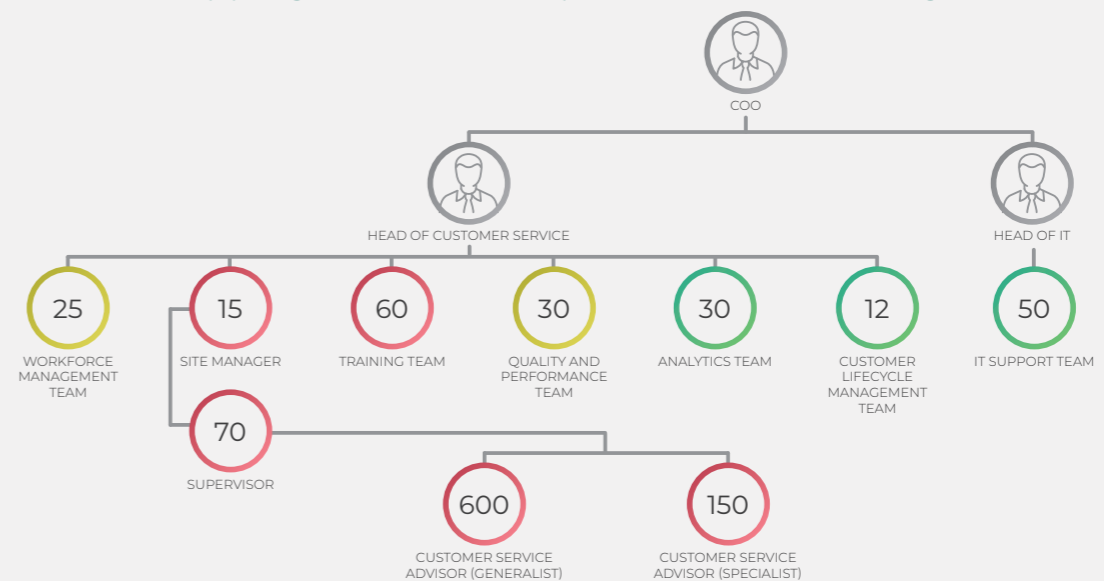
where human colleagues and machines collaborate closely. Banks' customer

contact centres, for example, use various intelligent tools to support most roles, as depicted in the illustration.

Once identified, the traditional org chart of this unit, showing reporting lines, different job roles, and the size of teams should be drawn up and serve as a starting point. Next, organizations should define their ideal level of digital preparedness, and assess each worker's comfort with using the required technology. Ideally, the assessment is based both on workers' own opinion

on their level of tech savviness (e.g., self-assessment survey/employee focus groups), and on the opinion of their managers and senior leadership of the unit (e.g., survey/workshops). The output is shown on the illustration below, representing the tech savviness levels of the different teams and roles in the contact centre. Insights from such an exercise make it possible to plan interventions that can bring about mindset shifts within the workforce based on current levels of preparedness (Exhibit 7).

Exhibit 7: Mapping the human aspect of the Bionic Org Chart



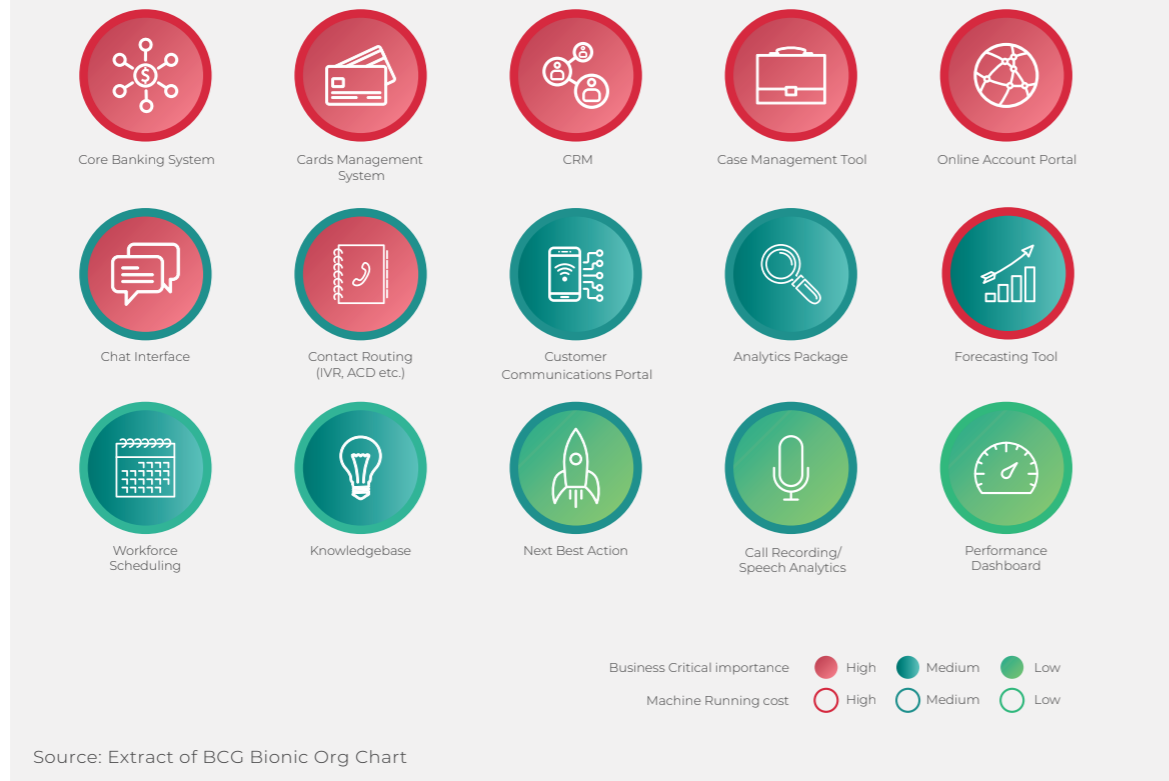
Source: Extract of BCG Bionic Org. Chart, the human view

Creating the machine view

After the human view, companies should create a comprehensive list of major software solutions that are in use by the various teams of the focus unit in order to define the technology view. In our contact centre example, this might include a CRM system, a speech analytics solution, a chat interface, etc. To get a full view, we recommend to start from an existing IT solutions landscape and complement it by asking the employees themselves what software and digital tools they use. In companies with a decentralized governance, or with a strong entrepreneurial spirit, various teams may be using custom made, self-developed solutions that are not transparent to a central IT team.

Once these solutions are identified, their importance to running the business must be assessed, i.e. what value would be lost if a disruption or downtime arise? Rating can be assigned based on input from both IT and business stakeholders, and marked, as seen on the example, from low to high. Further, the running cost of the machines should be explored, in order to help steer future investment decisions. From these two perspectives, an initial prioritization of machines in question – moving from high cost, high value-add solutions to low cost, low value-add technology – can be derived.

Exhibit 8: Mapping the machine view of the Bionic Org Chart



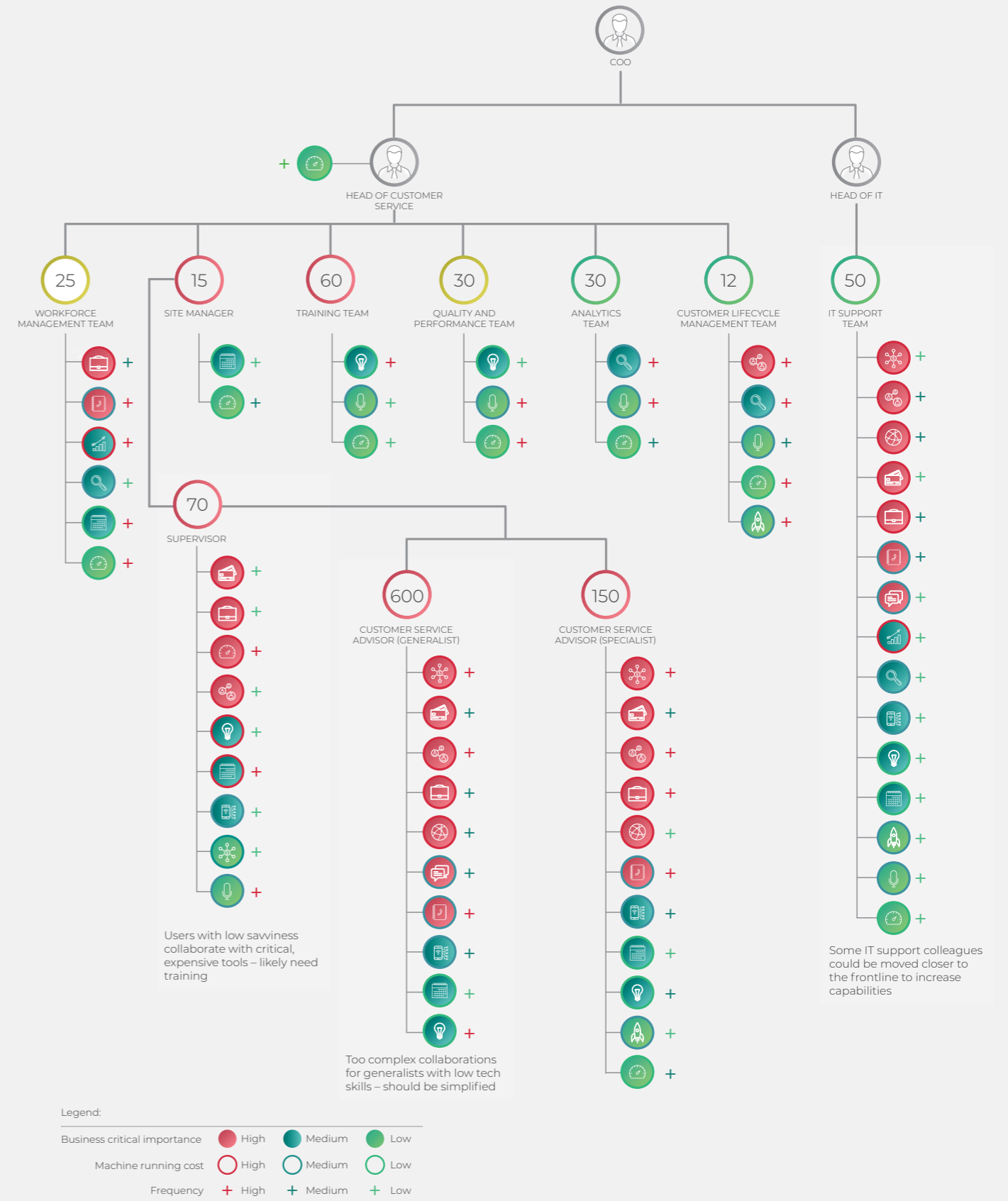
Identifying areas for intervention

Finally, the human and machine view should be combined to create the full Bionic Organization Chart. After integrating both angles, the chart becomes a useful tool to identify areas for intervention, derive the workplace strategy, and prioritize investments, for example. The highest priority would be to upskill teams with low savviness, but frequent interactions with a costly, business critical tool. Reciprocally, interventions that involve groups of people who only have rare interactions with less important machines, or interventions that focus on groups with already reasonable skill level, should be de-prioritized. The illustration below shows the exemplary full view for the contact centre example, and highlights the most pressing needs for intervention by evaluating the value to business, degree of collaboration and overall preparedness level (Exhibit 9).

After having identified the most important areas for collaboration,

organizations can focus their attention on the changes needed to improve the quality and efficiency of these human-machine partnerships. Moving from a team-specific view, a full organizational view can be created, which would then provide a basis for company-wide changes that need to be made to people processes such as workforce planning, recruitment and selection, skill development or workplace infrastructure. Leaders should also keep in mind that the Bionic Org. Chart delivers most value when kept updated, helping capture shifts in tech savviness, collaboration intensity, type of tech solutions, and can be then used as a measure of the effectiveness of the various people-related interventions. Overall, a Bionic Org Chart enables a common understanding as well as a higher level of transparency on how advanced software is being leveraged, and where investments are needed to ensure that existing tools truly augment human capabilities.

Exhibit 9: Full view of the Bionic Org Chart



SUMMARY OF BEST PRACTICES AND RECOMMENDATIONS

Based on the insights from our survey, the success stories of different organizations and the opportunity presented by the Bionic Organization Chart, this paper drew a roadmap for organizations to be successful in navigating the new, challenging environment. The six-step plan is summarized in the visual below.



Empower managers as digital champions

- Create a targeted leadership development strategy to build digital leadership skills
- Equip leaders with needed communication skills to motivate employees to work with technology



Overcome resistance to tech change

- Introduce innovative incentives and reward programs to encourage technology adoption
- Create a culture where workers feel empowered and willing to work with advanced software

Cultivate people's capability to learn

- Invest in large scale upskilling programs addressing both hard skills and mental agility (e.g. through mindfulness)
- Leverage new methods (e.g. predictive analytics) to create adaptive training content



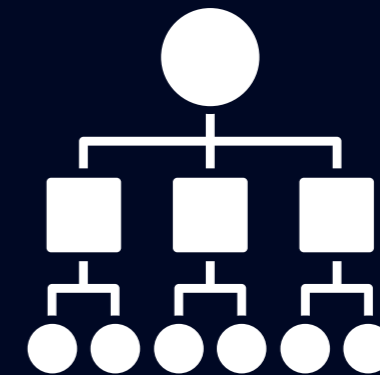
Close the divide between experts and workers

- Establish joint expert-worker teams and encourage close collaboration
- Democratize technology by increasing skill level of the whole organization rather than selectively training experts



Step up investment in learning culture

- Encourage managers to act as learning coaches through a learning contract
- Introduce innovative financing methods (e.g. learning accounts) to empower employees to take ownership



Build a holistic strategy with a Bionic Org Chart

- Create a combined human-machine view of the organization, ensuring transparency of most pressing challenges and critical intervention areas

CLOSING REMARKS

Being concerned about the impact of technology on workers is by no means a new phenomenon. For the past century, economists have often prophesized the “end of work” due to massive technological unemployment. However, these predictions have not yet come true, as technological progress so far always had a double effect: displacing some jobs, but also creating and augmenting others.

Based on the insights from our study, workers and leaders in fields heavily affected by automation and AI tend to think that this trend will continue. Jobs being displaced by advanced software is not among their top concerns, but collaborating effectively with new technological solutions is certainly a key issue. Our survey and interviews have highlighted that both corporate and social competitiveness will depend on how well workers can adapt to working

alongside machines – a challenge underlined by the surge of virtual working arrangements during the recent COVID-19 crisis.

In our report, we laid out several initiatives **employers** can undertake to improve human-machine collaboration, both by addressing leaders, workers, and tech experts through targeted interventions, and by implementing the right enablers, such as the Bionic Org Chart. However, a comprehensive solution will also require **governments** to act, for example by incentivizing investments in reskilling through tax policy, or by redesigning the education system for the digital age. And at the same time, affected **individuals** will need to take ownership of their employability as well, by constantly improving their technological skills, and by being ready to accept machines as team members.

ABOUT THE STUDY

The insights in this publication were derived from and supplemented by two key sources: (1) a worker survey and, (2) in-depth interviews with executives.

(1) Between December 2018 and January 2019, The Adecco Group Foundation and BCG conducted an extensive online worker survey. Approximately 1,100 workers and 100 human-resource practitioners answered the survey released by Survey Sampling International, a specialized research agency. The sample covered white-collar workers, focusing on 11 preselected distinct job profiles from financial institutions, insurance firms, and consumer goods and retail companies. The survey analyses the specific job-related tasks for each of these 11 job profiles.

The survey provided insights into workers' perspectives on a variety of topics, including their feelings towards new technologies, their levels of comfort in working with advanced software, their knowledge of AI, differences in the time they spend on job-specific tasks in the past and present, perceptions of the relevance of advanced software for the

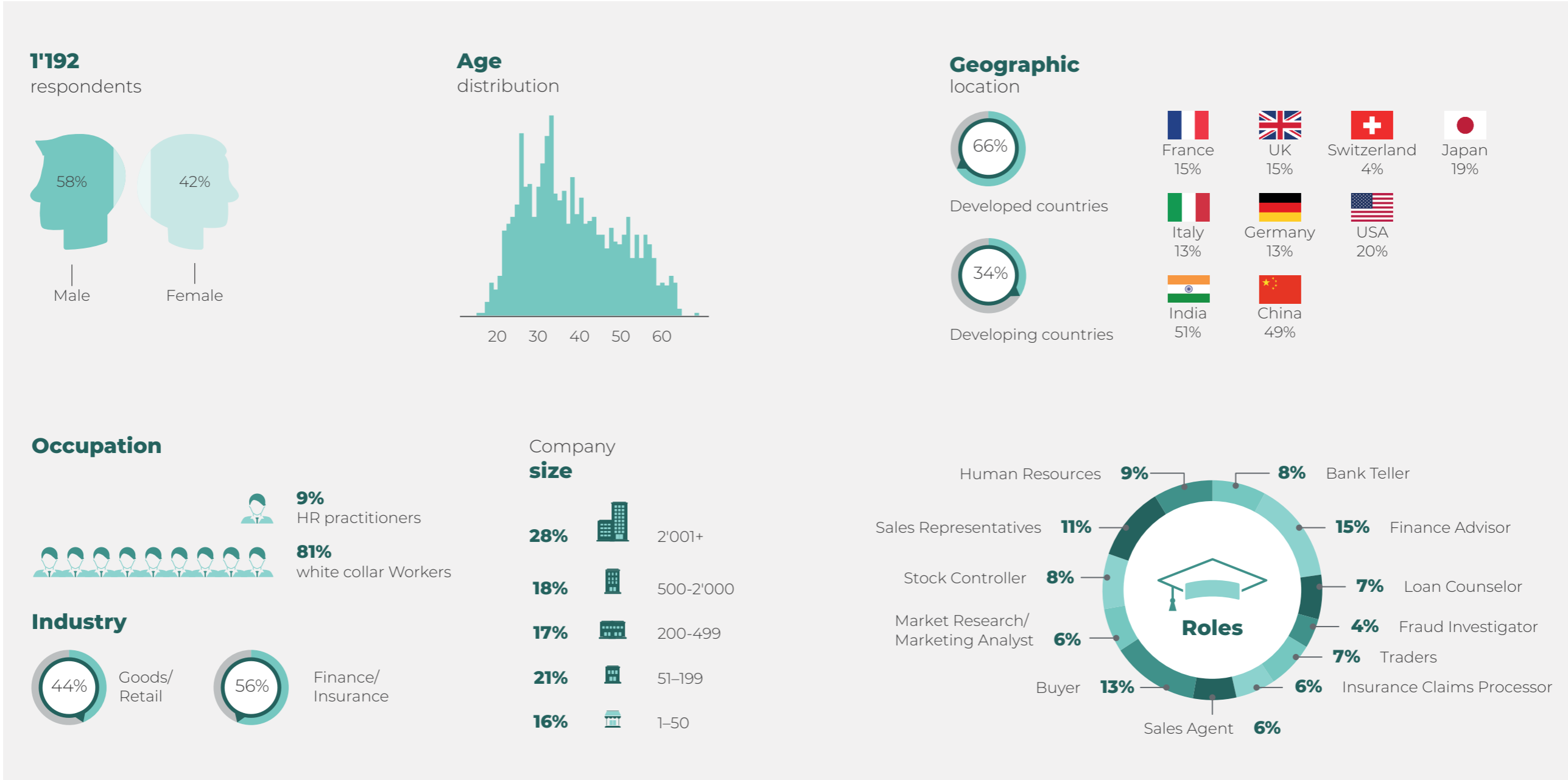
completion of their tasks, and their views on the value provided by advanced software. The survey also reveals workers' and HR practitioners' opinions on the possible interventions organizations should make in order to adapt to and capitalize on future changes in human-machine collaboration in the workplace.

The survey segmented demographic information, making it possible to analyze respondents' attitudes along a number of parameters, including nationality, age, gender, education level, industry, specific job role, employment type, size of organization, maturity level of organization, and years of experience.

(2) The Adecco Group Foundation and BCG also conducted a series of interviews with executives from both industry and academia. Interviewees were selected so as to understand what different organizations are doing to integrate technology into their operations and to gain insights into the operational challenges of doing so. While not the primary focus of the survey, the interviews also provided insights into the perspectives of upper management level executives.

APPENDIX

Demographics: A Survey of 1'192 Workforce Respondents in 9 Countries



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