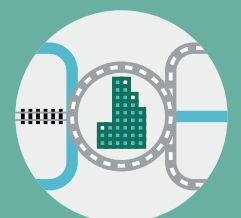
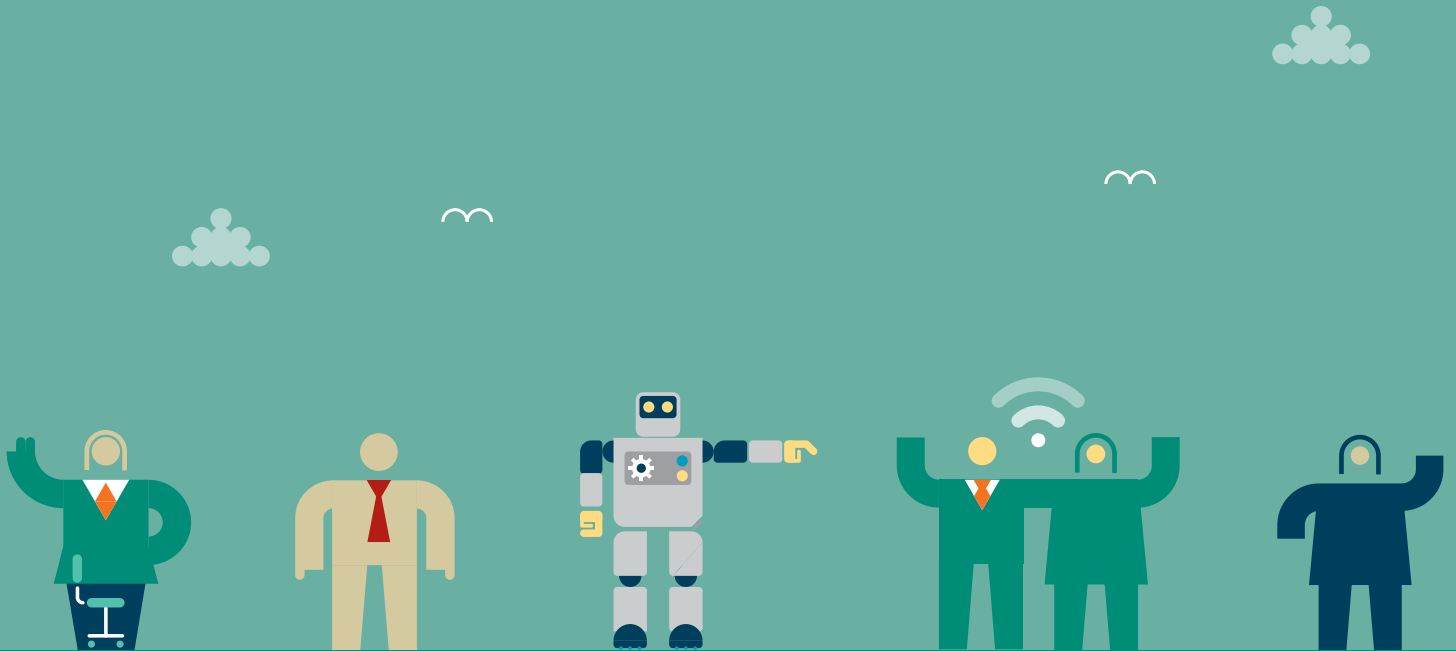


The Future of Work
Digital business and technology in focus



This future of work report focuses on new working trends in the technology and digital business sector. It is based on interviews with HR Directors and senior legal Counsel at four leading companies in this space – Accenture, Dyson, MetaPack and Siemens – as well as Osborne Clarke’s experts.

This report explores four linked themes, identified by these interviewees, that are impacting their workforce and workspace. These are:

- how companies are embracing artificial intelligence, robotics and automation – and the impact of those technologies on the workforce;
- the use of contingent workers (including agency workers, contractors, consultants, zero-hours workers and so-called gig workers);
- whether skills shortages have grown, for example following the Brexit vote; and
- how working practices are changing as a result of millennials and post-millennials entering the labour market in increasing numbers.

Focus on robotics and automation

Each of the companies interviewed for this research is ramping up investment in various ways of automating processes. Of course, these initiatives vary considerably, due to companies’ different business models and the different products and services they provide.

That said, there are some similarities across the sector. Instead of investing in robotics and technology that automate physical production line processes, today’s technology companies are instead focused on automating processes across the entire business. Companies are embracing a wide range of different technologies to do so, from machine learning and artificial intelligence to big data and virtual reality.

“Two things are a real step change though and are massive game changers: big data and machine learning.”

Toby Peyton-Jones
Director of HR, Siemens UK

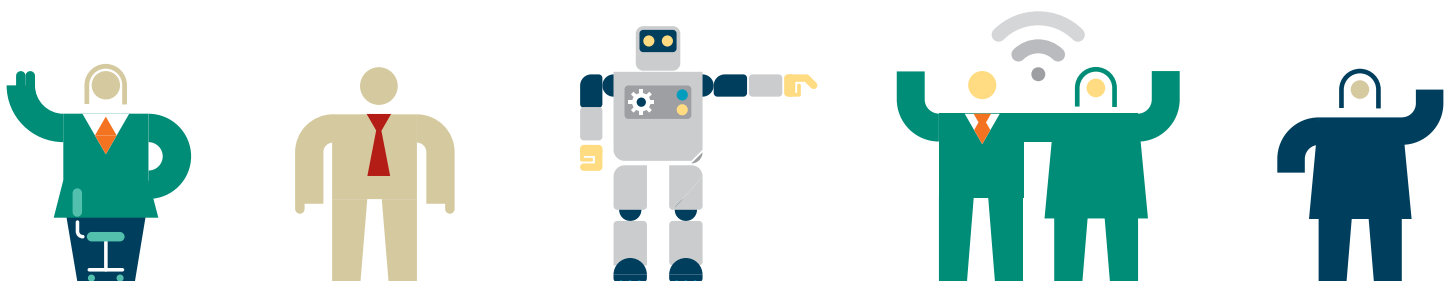
Toby Peyton-Jones, Director of HR at Siemens UK, highlights some of the most innovative technologies the company is embracing. “Things like factory automation have been around for years and are nothing new,” he says. “Two things are a real step change though and are massive game changers: big data and machine learning. In oncology, for example, machine learning can enable robots to learn how to identify cancerous cells to the level of a doctor with 20 years of experience. The speed of machine learning is incredible and means computers could do tasks that it was never thought possible, such as driving a car.

“Virtual reality and digital twins are also huge for us.”

Toby Peyton-Jones
Director of HR, Siemens UK

“Virtual reality and digital twins are also huge for us. In the past we had to make a physical prototype of a product, including all of its components. You also had to physically prototype the production line and then the entire supply chain. But now this can all be done virtually. The digital twin of a product will contain its complete design history and evolution and any associated financial information.”

It’s not just the biggest industrial organisations that are embracing innovative technology to efficiently test and launch new products. MetaPack, a provider of delivery management technology to retailers and delivery companies, continues to increase the levels of automation to its product development processes. “We automate check-in, testing, and deployment as much as we can, additionally we have thousands of automated monitors and alerts on business processes and operational system parameters,” explained Craig Fines-Allin, Group HR Director at MetaPack. “The scale and complexity of the market we operate in requires that we exploit as many emerging tools and techniques as possible, such as machine learning, to limit the reliance on our staff to spot an issue.”



“...we are looking actively at artificial intelligence in the fields of contract management and IP portfolio management...”

Martin Bowen

Group General Counsel, Dyson

Product development aside, companies in this sector are also investing in ways of automating a huge number of internal business processes, from HR and finance to legal and compliance. “Even in our global legal function we are looking actively at artificial intelligence in the fields of contract management and IP portfolio management,” explains Martin Bowen, Group General Counsel at Dyson. “In the last 12 months or so these applications have matured to an extent that there is some real value in exploring them. This means we can allow current counsel to work more effectively and intelligently and have information brought to them in a way that couldn't previously be achieved without huge amounts of fairly plodding work.”

Replacing roles, not people

The jury is out on whether investments by technology and digital business companies in automation and robotics will lead to a reduction in the number of human workers. The truth is that there is no simple answer. The extent to which automation will lead to fewer human roles depends on the type of automation, the company's business model and the extent to which that organisation is growing. It also depends on the extent to which new roles can be found for people whose jobs have been automated.

It is certainly not inevitable that automation will lead to large-scale job losses. For example, Accenture has introduced thousands of pieces of automation (minibots) in its transaction processing activities. Last year it reduced over 10,000 roles because of this technology but the company hasn't lost one person. “A lot of the work done by robotic process automations is actually in the business process operations group, and that is any task that has a mechanical element with a set of rules attached to it,” explains Richard Phillips, Director, Global Compliance, Employment Law at Accenture. “An obvious one is invoice processing because this requires a human or machine to understand how much is payable, tell the bank to pay it and tell the supplier that it has been paid. There are mechanical steps to follow with this.

“We have made very significant investments, particularly in training, to move our people out of this kind of ‘rinse and repeat’ work and help them move up the value chain to roles that are better suited to their human skills. This is not only about cost, it's about deploying the best talent in the right way.”

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You can't tax a robot

This investment in liberating humans to focus on higher-value work will be reassuring to policymakers, who have become increasingly concerned about the impact on jobs of AI, robotics and automation. Those policymakers are facing calls for increasing job protection and statutory rights to retraining for affected people (as has been called for in countries such as France) and tax on the use of technologies (as suggested by Bill Gates, among others) to help manage the impact of job losses. It may be impossible to protect certain jobs against automation. The key may be for companies to retrain staff to proactively manage the desire of governments to protect jobs and fix talent shortages in the process.

A tailored approach to contingent workers

Across all sectors, the use of contingent workers is rising rapidly. According to a survey of large companies (those with more than 1,000 FTEs) conducted by US-based Staffing Industry Analysts in March 2017, contingent workers of various types currently account for 20% of companies' workforces. This is a significant increase on the 15% share of the workforce in 2014. In ten years' time, respondents expect the share of contingent workers to rise to 25%.

How is this trend playing out in the technology and digital business sector? Kevin Barrow, Contingent Workforce Partner at Osborne Clarke, explains, “Generally speaking, companies in this space are using more contingent workers,” he says. “Often, groups of specialist consultants are needed to run projects that implement some of the innovative technologies or digital transformation initiatives discussed earlier. These individuals are often only willing or needed to work on a short-term consultancy basis.”

Large international companies may also have to rely on contingent workers if they need to expand into a new country quickly, or undertake a project in a jurisdiction where they are not already present. Accenture is one of these. Although the company has 125,000 employees around the world (comprising more than a quarter of the company's total global workforce) doing work through Accenture's own internal gig economy platform, the business still has to look outside its traditional permanent workers when undertaking work in new countries.

It has traditionally used a series of employment agencies, each with expertise in particular regions, when it needs to staff up rapidly in a new jurisdiction. However, it has recently started to experiment with crowd vendors.

Richard Phillips, Director, Global Compliance, Employment Law at Accenture, explains: “Like all big companies we go to the external market for capability and capacity reasons, and recently we've started experimenting with crowd vendors – particularly in countries where we don't have permanent employees.

Contingent workers accounted for **20%** of workforces in 2017 according to Staffing Industry Analysts research.

"One crowd vendor has twelve million freelancers on their books and is in more countries than we are. With the proliferation of digital devices and all of the App and QA testing that we do, it's very much the case that in the future we will look to rely more on those crowd models to help deliver services."

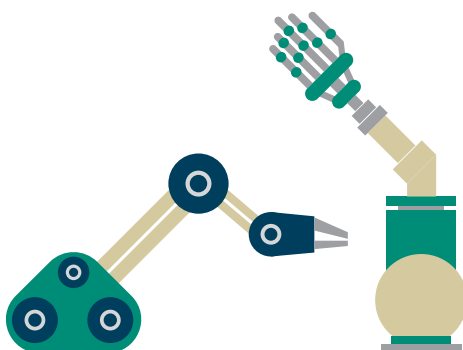
That said, despite the compelling reasons for technology and digital business companies to use contingent workers in some circumstances, there is unlikely to be a major surge in their use, as there has been in many other sectors.

"We engage more contingent workers than five years ago but as a technology business we really need to be careful about where we use those workers," explains Martin Bowen, Group General Counsel at Dyson. "On the face of it there shouldn't be a problem with the right contractual protections, but in reality contingent workers do sometimes think differently and could quickly up sticks and move on. And while they have a professional reputation, you have to wonder whether they have as much loyalty to the business as a full time employee would. Therefore we are rather sensitive about certain areas of the business and to whom we open up our most secret commercial and technical information."

"We develop our own solutions so it's important to entrench people and embed them in the business. It's harder to do this with contingent workers."

Craig Fines-Allin
Group HR Director, MetaPack

The use of contingent workers in this sector is also reduced because companies often want workers in product development to be committed and therefore employed on a permanent, full-time basis rather than as short-term contractors. "We currently have 350 staff globally but only a small number of contractors," explains Craig Fines-Allin, Group HR Director, MetaPack. "We might add a few more contingent workers but it is unlikely to be many. We develop our own solutions so it's important to entrench people and embed them in the business. It's harder to do this with contingent workers. Around 50% of our workforce are in the product development team so that immediately reduces the amount of contingent workers we can use."



"...the existing categories of employment protection will need to evolve to meet new patterns of working practice. This is something that is very much on our radar."

Joy Casey, Senior Legal Counsel,
Employment Law at Accenture

Then there is the rising tide of regulation that in some instances seems to be worrying hirers about the use of contingent workers. Many businesses in this sector perceive that employment law is outdated and does not suit modern ways of working. We will be exploring these concerns in more detail in the upcoming financial services report.

"There is the tide of business change and the ever growing need for flexibility that is flowing in one direction and in the other direction, the 'riptide' of governmental legislation and regulation, tribunal and court decisions, not to mention public and trade union scrutiny," explains Joy Casey, Senior Legal Counsel, Employment Law at Accenture. "We are living today with employment legislation designed for the 20th century. The main issue is whether freelancers in flexible work models sourcing work through technology platforms are effectively employees, and if they are not is there another category that affords them rights?"

"Things like the Taylor Report (commissioned by the UK government as an independent review of modern working practices) indicates that the existing categories of employment protection will need to evolve to meet new patterns of working practice. This is something that is very much on our radar."

Many commentators have been looking at the impact on society (and voters) of a perceived increased precariousness of income and casualisation of jobs suffered by parts of society where contingent working is growing. Related concerns about the growth of non-standard employment relationships are expressed in both the Taylor Report and the September 2017 EU Industrial Strategy report.

Immigration restrictions are a major concern

Attracting and retaining top talent is extremely important to companies operating in this sector. It is therefore unsurprising that there is general concern about the potential for tighter immigration controls, both in the UK, as has been widely reported on in recent media coverage of Brexit, and internationally. For the time being, most companies in this sector are focused on monitoring political and legislative developments that might impact their ability to gain access to the talent that they need.

"We want the best engineers from around the globe working for us. It doesn't matter where they are from, we care about what they can do."

Martin Bowen
Group General Counsel, Dyson

65% of respondents to a 2016 World Economic Forum survey said they were investing in reskilling.

"The UK simply does not produce enough engineers to service its own requirements and demand let alone generate a surplus it can send abroad," explains Bowen. "So inevitably there has to be a net inflow of engineers to meet demand. If that is impacted by changes to immigration rules and policy then that is something of enormous concern. We want the best engineers from around the globe working for us. It doesn't matter where they are from, we care about what they can do."

"We are certainly lobbying hard to ensure that industry voices are heard on this point and we hope that any immigration rule changes are cognisant of the value that business derives from highly educated foreign students and workers coming to this country, from wherever they originate. We have to think carefully about where we locate as we grow and part of this is about where we can get people to come and work for us. All options are open at the moment and we will adapt of course. We are waiting to see what the specifics of the proposals are."

Will training and reskilling become key?

The September 2017 EU Industrial Strategy report calls for greater investment in skills and concrete actions to "re-train European citizens in the wake of digitisation," which is a key focus of governments across Europe.

According to Thierry Viérin, Employment Partner at Osborne Clarke in Belgium: "One intriguing issue in the current debate about the Future of Work and productivity problems in many countries across Europe will be the extent to which job losses in many industries, the growth in low-paid work in others, and widespread talent shortages caused by demographic changes and immigration changes can be alleviated by a better commitment to building skills, and retraining and redeployment of existing workforces."

Sixty-five percent of respondents to a 2016 World Economic Forum survey said they were investing in reskilling and it appears technology and digital business companies in particular may 'do their bit' by retraining and redeploying people whose jobs have been partly/wholly replaced by automation. Certainly we see training as a major area of focus in the coming years, with apprenticeship subsidies and other training incentives being just some of the ways businesses may seek to benefit.

"The shift to a connected workplace doesn't just concern HR teams, it has massive repercussions for other parts of the business too. For example, the future workplace will produce a wealth of data on its inhabitants, which raises data privacy and security concerns too."

Xavier Pican, Data and IP Partner,
Osborne Clarke, Paris

Millennials bring new ways of working, and new challenges

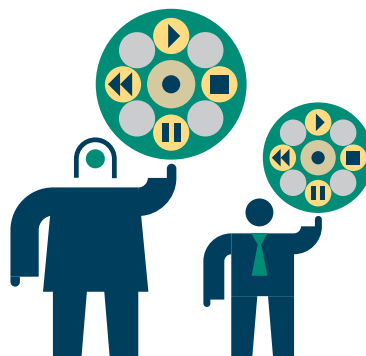
Many technology and digital business companies are exploring new working practices and initiatives that will cater for the working requirements and aspirations of millennials and post-millennials (albeit that these requirements and aspirations are not confined to workers from these age groups only). This is a high priority as most companies realise that attracting and retaining such workers is key to ensuring a diverse workforce that is capable of securing and optimising future growth.

So, what different requirements and aspirations do millennials and post-millennials have? First, there is a widely held view that they require greater flexibility in when and where they work and more variety in their roles, with meaningful work and strong career development opportunities (linked to training opportunities). The challenge is now for businesses to, within reason, try and accommodate these demands.

"Millennials certainly want more flexibility than earlier generations and want the ability to take chunks of time off," explains Bowen. "We try to accommodate that when we can. They also like more space to intermingle, work informally and meet people and not have such rigid work and desk space patterns. So smart working, open plan and hot desking is something that millennials actually like. We are now completely open plan and are in the process of redesigning and refreshing our headquarters to create more natural meeting points. We want to avoid people being in silos not knowing what the rest of the business is doing. Millennials are more than happy to do this and we just have to facilitate it."

As Xavier Pican, Data and IP Partner at Osborne Clarke in Paris, explains, "The shift to a connected workplace doesn't just concern HR teams, it has massive repercussions for other parts of the business too. For example, the future workplace will produce a wealth of data on its inhabitants, which raises data privacy and security concerns too."

Many businesses are also exploring initiatives to allow remote and agile working, but the way this is implemented needs careful planning so that workers don't miss out on learning from their colleagues. It's also important that work that requires close collaboration is not compromised because a team member is working remotely and that companies think hard about how best to preserve their culture and team spirit.



“...there is an opportunity for businesses to modernise their approach. This requires an analysis of current working practices and an understanding of who works remotely and who does not and why.”

Julian Hemming, Employment Partner,
Osborne Clarke, UK

As Julian Hemming, Employment Partner at Osborne Clarke in the UK, explains, “When exploring alternatives to office working, there is an opportunity for businesses to modernise their approach. This requires an analysis of current working practices and an understanding of who works remotely and who does not and why. There is evidence to suggest that men and managers are less likely to take up a flexible working option and their reluctance is linked to the prevailing ‘workplace/collective time culture’ of their employer.”

“More and more people want to work remotely for a better work-life balance and it’s not just millennials,” says Fines-Allin. “We have some of this at the moment and manage requests on an ad-hoc basis dependent on the requirements of each role and each situation. At the moment we are primarily office-based and this aids collaboration which is key to our work. I am sure the debate around remote vs office working will continue and the crux of the debate will be around the potential impact on collaboration and the tools which are emerging to assist with that.”

Of course, the privacy issues associated with managing people who are working remotely may be huge, as employers track the performance and/or output of remote workers. However, this may come up against some major challenges under new EU data protection legislation (including the GDPR and working time and related health and safety legislation). And as workplaces become increasingly borderless, additional issues relating to ownership of IP rights and tax obligations come into play. Will the business risks associated with remote working match those associated with contingent working and lead to greater controls, or will the millennial work era involve employers and workers relying on trust to a greater degree than in previous eras? Whatever the case, managers will need retraining in all of these areas, and certain risks will need to be managed.

Embracing the Future of Work

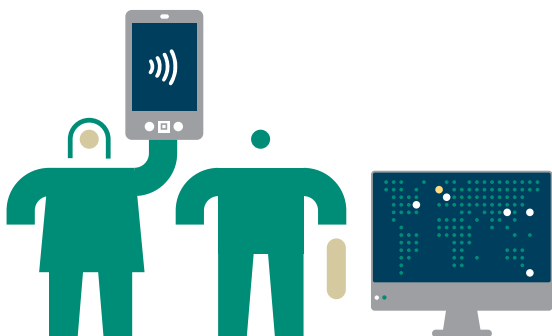
Technology and digital business companies are actively engaging with what their future workforce and workspace will look like. There are tremendous opportunities associated with this. Investing in and embracing innovative technologies such as machine learning and artificial intelligence can improve the efficiency and accuracy of business processes while freeing up workers for higher-value work. This may (at least in the digital business and technology sectors) reduce pressures on governments across Europe to introduce more legal protection for workers whose jobs may be threatened by AI, robotics and automation. Meanwhile, there are significant opportunities for businesses in this sector to leverage contingent workers to expand rapidly in new jurisdictions and to bring certain key skills into their business.

There are also risks and challenges associated with these initiatives that companies need to be mindful of. In particular, new ‘one size fits all’ regulation relating to the use of all types of contingent workers appears likely to affect technology and digital business companies as much as those in other sectors. Companies allowing remote working also need to be mindful of the risks of inhibiting collaborative working and the privacy law aspects of remote management.

Companies will need to monitor the legal and other changes that the next few years will see in the world of work, and make sure that governments hear their views. Needless to say, there will be need for specialist advice when embarking on these initiatives.

“I am sure the debate around remote vs office working will continue and the crux of the debate will be around the potential impact on collaboration.”

Craig Fines-Allin
Group HR Director, MetaPack



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- Craig Fines-Allin, Group HR Director at MetaPack
- Toby Peyton-Jones, Director of HR at Siemens UK
- Richard Phillips, Director, Global Compliance, Employment Law at Accenture

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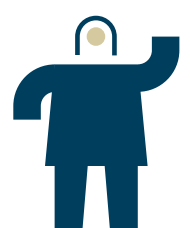
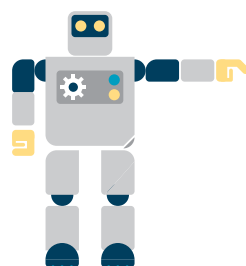
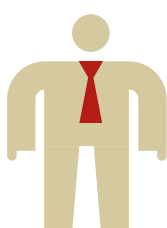
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