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IFOW Institute *for the* Future of Work

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Responsible investment in technology

How employers can adopt technology to optimise job quality and business outcomes

The CIPD is the professional body for HR and people development. The registered charity champions better work and working lives and has been setting the benchmark for excellence in people and organisation development for more than 100 years. It has more than 160,000 members across the world, provides thought leadership through independent research on the world of work, and offers professional training and accreditation for those working in HR and learning and development.

Guide

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Contents

Acknowledgements

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1 Introduction

Why is responsible investment important and why now?

As technology becomes increasingly advanced but also more readily accessible, there is a growing need to consider how different technologies can optimise business outcomes while supporting workforce engagement, enhancing job quality and providing 'good work'. Macro external factors such as the global pandemic, which accelerated changes in how technology is used in many organisations, as well as rising skills and labour shortages and the need to operate more sustainably, make responsible investment in technology even more important.

The question of who technology benefits depends on why and how it is adopted. If designed and deployed responsibly, technology can boost productivity and secure better outcomes for both the organisation and its people. Being responsible means having ethical and sustainable practices that consider and involve the workforce and other stakeholders during business decision-making.

Conversely, a failure to adopt good practices can reduce return on investment, undermine workers' wellbeing and performance, and even result in the loss of valuable skills.

This guide is for people professionals and business leaders whose organisations are looking to invest in technology in ways that benefit both their organisation and its people. It provides an overview of the key considerations for embedding technology responsibly into the workplace. It also outlines a framework for the critical stages of investment and implementation and can be referred to at any stage of iteration.

The aim is to help ensure that when organisations adopt new technology, they consider the central people management and workforce issues that are critical to promoting job quality and good work wherever possible, in addition to maximising return on investment. While the examples in this guide are from large organisations, the framework shared may be applied to small, medium or large organisations.

For more detail on the case for adopting technology responsibly, and its impact on good work, see the Institute for the Future of Work's (IFOW) *Case for importance: understanding the impacts of technology adoption on good work*.

What do we mean by 'technology'?

In this guide, 'technology' is defined in its broadest sense. Borrowing our project partner IFOW's definition, it can include: *'artificial intelligence and machine learning, the internet, the internet of things, big data analysis, digital technologies; combining and applying these technologies in diverse ways; and the collection of techniques and processes used by people in relation to these technologies.'*

What do we mean by 'good work'?

The CIPD and partners Carnegie UK and Institute for the Future of Work advocate that creating and maintaining good work should underpin responsible investment in technology.

Work can and should be a force for good that benefits people and societies as much as it benefits business and the economy. The CIPD believes good work:[1]

- is rewarded fairly and gives people the means to make a living securely
- allows for work–life balance
- gives opportunities to develop and ideally a sense of fulfilment
- provides a supportive environment with constructive relationships
- gives employees the voice and choice they need to shape their working lives
- is physically and mentally healthy for people.

The CIPD measures 'good work' from a number of perspectives or 'dimensions'. Table 1 outlines how these can be adapted for examining technology investment.

Table 1: Impact of technology viewed through the CIPD's seven dimensions of job quality

Job design and nature of work	Technology may impact factors like the level of skills, workload, empowerment and meaning that people derive from the work.
Relationships at work	Technology can positively or negatively affect trust, inclusion, manager support and employee relations.
Employee voice	The ability of workers to be heard may change through the use of technology, as might the quality of information and consultation in the workplace.
Work–life balance	Technology can enhance or compromise people's ability to balance work and their personal lives, including caring responsibilities or other priorities.
Health and wellbeing	Technology can be used to support people's physical and mental health and wellbeing, but over-monitoring or being 'always on' can result in detriment.
Employment contracts	Broader use of non-permanent employment contracts may be a consequence, and employment security negatively affected.
Pay and benefits	Technology adoption may provide an opportunity to improve pay and benefits.

Source: Adapted from the CIPD Good Work Index

Case studies: Preparing workers for future roles

Marlin Steel Wire Products

In the US, manufacturing firm Marlin Steel Wire Products, which makes wire baskets, transformed its business through purchasing US$2 million worth of robots in 2017–18. It retrained employees to operate the robots and to use laser-cutting software. By turning factory workers who previously created parts into coders to enable the robots to make the parts, the company has not only retained employees but created new, higher-value markets through better-quality products and unique intellectual property.[2]

McDonald's

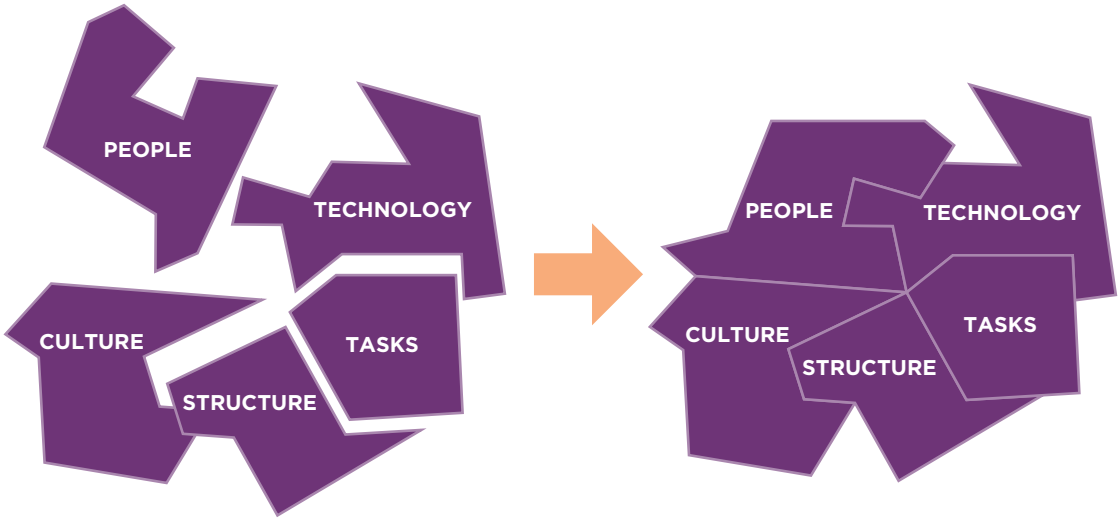
In 2020, McDonald's developed its 'Archways to Opportunity' scheme by creating an app designed to help restaurant employees understand the valuable skills they were developing at McDonald's – and how to leverage them in future career opportunities at the company or elsewhere. Through the app, users can find education and growth opportunities within their local communities and can work in real time with a career adviser to chart a personalised educational pathway.

2 Framework for investing and implementing technology

As organisations work through the process of investing in and implementing technology, they should remember that success depends more on supporting people through the change than on the technology itself.

Introducing technology must be closely aligned with and complemented by relevant changes to the other key elements that make up an organisation – its people, culture, structure and tasks. This will maximise benefits and minimise risks across the organisation.

Figure 1: The key elements of an organisation should be aligned through the technology investment and implementation process



*'**A big risk is putting in a technology project but failing to understand the culture and work processes of the organisation.** Culture moves slower than tech.[3] Bring in real influencers who know how things get done. If you fail to address the human element of this, you will fail – and it will be an expensive failure.'*

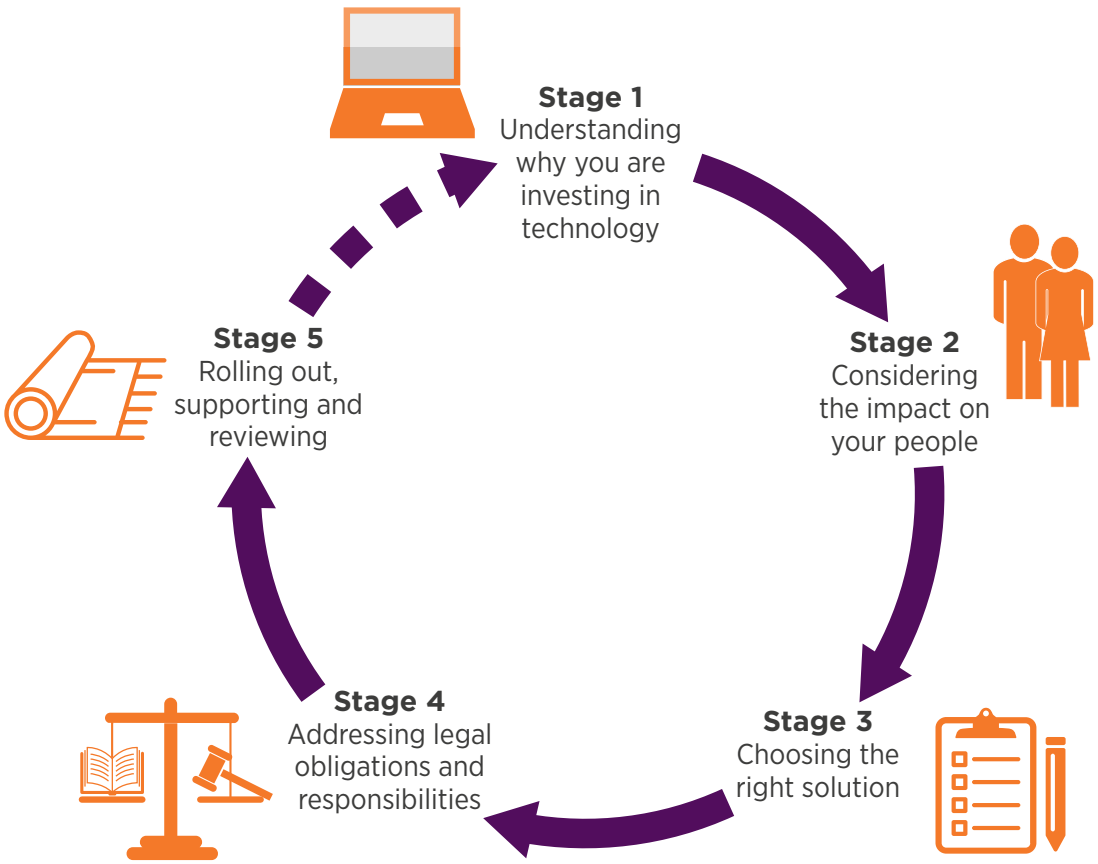
Iain Wright, Managing Director, Reputation and Influence, ICAEW

The framework we present in this guide breaks the investment and implementation process down into five broad stages, namely:

Stage 1: Understanding why you are investing in technology (Chapter 3)
Stage 2: Considering the impact on your people (Chapter 4)
Stage 3: Choosing the right solution (Chapter 5)
Stage 4: Addressing legal obligations and responsibilities (Chapter 6)
Stage 5: Rolling out, supporting and reviewing (Chapter 7).

It should be noted that these stages may overlap or occur concurrently in practice. Each stage should be viewed as iterative in nature, requiring consultation, feedback, review and adjustment throughout.

Figure 2: Five key stages of technology investment



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3 Stage 1: Understanding why you are investing in technology

Revisit objectives and define the problem

Whether the investment is large or small, start with articulating what investment is seen to be necessary and why. This stage can be overlooked as organisations jump on the technology bandwagon without fully understanding the problem they are trying to solve or whether technology is even needed to address the problem.

Do ensure that any decision on technology investment reflects your organisation's objectives and priorities, and assess how the investment would further those aims.

The following questions can help assess the 'why' objectively:

- How does your organisation's operating context and wider ecosystem impact on and interact with any decisions around investment in technology?
- What are your goals and what investment might be needed to achieve those goals?
- Whose problem are you trying to solve? Is it for the customer or is it an internal problem?
- How would different stakeholders identify the problem?
- Is there a more effective way to solve the problem?
- How critical is the investment for the organisation's short-, medium- and long-term survival and growth?

Understand your operational context

Factors such as climate change, consumer expectations and scarcity of skills or labour mean organisations must think longer term about the sustainability of their business models. A PESTLE (political, economic, sociological, technological, legal and environmental) analysis, for example, can help assess the external factors that could impact your decision.

Aside from the broader opportunities or challenges presented by market trends and external forces, consider specific developments or events that may give good reason for your organisation to invest in technology. A merger, for example, could present an opportunity to replace an outdated HR information system with a more efficient one. Acute recruitment difficulties could spark exploration of technology that would improve candidate experience and fast-track application processes. Or it may be that a relevant new technology has entered the market – potentially providing operational efficiencies or competitive advantage.

A broader workforce planning assessment can also help provide relevant insight, particularly since technology adoption could impact the size, type and structure of your workforce.

Invest today for tomorrow: Investing as an SME

Small and medium-sized enterprises (SMEs) need to lay the groundwork today to be ready for tomorrow. For instance, if they don't seek or develop the technical skills and the behaviours needed to adopt technology change, they may find themselves having to react when it is too late, with good talent having left and being unable to recruit the right candidate.

In addition to this, there are other incentives to support active investment. In the UK, for example, there is a research and development corporation tax relief that may help SMEs get the ball rolling. Jill Bottomley, Director of The HR Dept, says that where UK companies create new products or services, improve existing ones, or research or develop the overall knowledge in their area of specialism, there is an opportunity to claim tax relief for their innovations: *'Examples could be new ways of solving customer problems, introduction of quality management standards or developing a CRM.'*

Get the right people involved in defining the problem

When defining the problem and goals of the investment, make the decision-making process inclusive. Convene a range of expertise and experiences to allow a balanced conversation and avoid groupthink.

Use the tasks that might be most impacted by the potential area of investment as a focal point. Involve those who are:

- **completing** the task
- **accountable** for the satisfactory completion of the task
- **advising** on how best to complete the task
- **interested in or have the right to know** the outputs of the task.

As tasks don't normally exist in isolation, consider also involving those who are:

- **working on tasks related** to the one affected by the investment
- **taking over responsibilities** related to the task in the new structure, for example, implementing self-service and giving people new responsibility – see Natura & Co case study in Stage 5: Rolling out, supporting and reviewing
- **responsible for aligning the task** with the organisation's people, culture, structure and technology
- **directing** how the organisation or their departments should create value.

The group should include those with experience in finance, IT, operations, the workers on the ground or their representatives, as well as the people function (see also Stage 3: Choosing the right solution). The people function is essential for technology adoption in managing change when it happens. It can also provide early insight into the elements that need to be aligned with technology change: for example, organisational **culture**, workforce **structure** and policies, and potential **people** risks.

Crucial role of HR in responsible technology investment

HR is the business function least likely to be involved in decisions on AI and automation, according to the CIPD's *People and machines: from hype to reality* report.[4] This is despite its critical role in developing strategies that integrate workforce planning and people management with technology. The report identified five key areas where HR can make practical contributions:

1 **People strategy.** HR should work with operations and technology leaders to consider how the workforce will need to change, and how they can work effectively alongside the new technology being introduced.

2 **Job quality.** HR should ensure that AI and automation are used to create higher-quality jobs, involving increased learning and interesting tasks.

3 **Fostering an innovation culture.** HR should help instil a culture that supports innovation and adaptability. If an organisation's culture doesn't empower people and engage them in the new technology, losing talent becomes a risk.

4 **Involving employees in technology decisions.** At the earliest opportunity, HR should engage employees affected by technology change as well as their representatives, on how best to design and implement the new systems, to ensure they dovetail with other work processes and to reduce the risks of glitches.

5 **Learning and development.** HR should plan and provide training and support for employees, ensuring learning opportunities keep pace with evolving technology and embedding new processes to aim for long-lasting success.

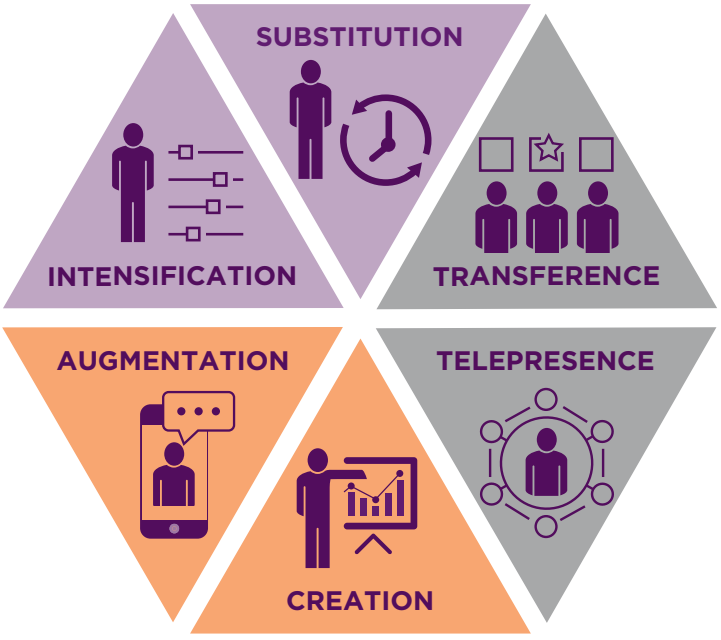
4 Stage 2: Considering the impact on your people

When thinking through the impact on your people, remember that they are normally involved with or exposed to more than one type of technology, so ensure you consider the overall impact of different technologies in your assessment.

IFOW has highlighted six ways that technology can impact jobs (Figure 3). These are not mutually exclusive, so a person can experience more than one type of job impact. For example, a shift booking system on a mobile app enables workers to book their shifts from anywhere (telepresence) and transfers an administrator's task of recording shifts to workers (transference).

As with other stages throughout the technology investment process, active consultation and engagement with workers will be vital, especially for assessing impact in a meaningful way. Open and honest dialogue will help build trust and engagement, which will be critical for the latter stages, especially when it comes to rollout.

Figure 3: Ways technology impacts jobs



Source: The Institute for the Future of Work's *Case for importance: understanding the impacts of technology adoption on good work* report

Table 2 outlines questions to consider in relation to the different ways technologies can impact jobs. Business leaders should focus on answering the questions related to the most relevant impacts of their organisation's technology investment and adapt accordingly.

Table 2: Questions to consider regarding impacts on jobs and/or tasks

Intensification – doing more tasks in the allocated time
Example: A call centre worker uses online chat to talk to several customers at the same time.

1. Will the person be able to cope with the new pace of tasks? If not, how can they be supported? Would training, tools or changing the pace help?
2. Will there be enough variety in their work to keep them motivated?
3. Could some of the time and money saved be invested back for the worker? For example, better pay, paid time off, training, or other benefits (financial or non-financial).

Augmentation – augmenting workers' capabilities
Example: Using a business intelligence tool augments a worker's ability to gain insights and run reports.

1. How much training would current workers need to use the technology correctly? Do they need incentives to motivate them to learn?
2. Will augmentation increase or reduce empowerment and meaning that people derive from their work?
3. If hiring new people, can they work alongside and help current workers to gain the skills to use the technology? Can this responsibility be built into their job descriptions or annual objectives? Are incentives needed?

Substitution – technology performs new tasks previously undertaken by workers
Example: A stock monitoring system directly displaces the work of stock room managers.

1. Where automated tasks are replaced with other tasks, are there dimensions of the job quality that may deteriorate? Could some of the savings from the investment be reinvested for the worker?
2. If substitution significantly reduces the need for people, can existing workers be redeployed and retrained to do other tasks? To limit the 'sinking ship syndrome', what other support can the organisation offer now to prepare people for future skills in the organisation or elsewhere?
3. What can the organisation do to avoid large-scale redundancies that impact the livelihoods of workers' families and their communities? Can the organisation collaborate with other industries to redeploy people or support their relocation to work in subsidiaries or partner organisations in other regions?

Creation – technology creates new tasks and even new jobs for people
Example: Engaging with stakeholders on social media on behalf of organisations has created demand for social media managers.

1. What are the prerequisite skills and experience needed to do the job?
2. Will it change an existing job, create new jobs or both? Will it change the role of an existing department or create a new department? If so, how?
3. What are the skills pathways into and progression prospects for this job? What should prospective candidates know and what communications are needed so that they are aware?

Telepresence – technology reduces the need for physical proximity, enabling workers to perform tasks from any location
Example: Managers use monitoring software to check how much time people spend on non-work-related websites during working hours.

1. How would the worker and the people they work with prefer to update each other on work progress and how they are generally? Does the technology support these preferences?
2. What structures are needed to ensure worker wellbeing and work–life balance are protected or enhanced? Some telepresence can improve wellbeing and work–life balance by cutting down commuting time. But too much of it can cause stress from overwork or too much monitoring.
3. What identifiable and anonymised personal data will the technology collect and use, and for what purposes? Are the access privileges customised according to roles so that people can't accidentally access more data than they're authorised to see? How transparent is the organisation with workers about all of these and can workers opt out?

Transference – technology transfers tasks from the worker to others
Example: Workers use the HR information system self-service function to book annual leave instead of HR doing it for them.

1. How intuitive and accessible is the technology for the people who will be taking over the work? This is especially important if the people don't use it regularly.
2. Who can view and update the data and summaries of the data? Make sure it's possible to define the required roles for viewing and updating different data.
3. By transferring the work to this worker, are they at risk of work overload or becoming less efficient because it disrupts their normal flow of work? Is it worth considering the following to meet the investment goals?
   - Find someone else to do it.
   - Free up the worker's time by identifying ways to spend less time on other tasks.
   - Find another technology solution that is less time-consuming and less disruptive for the worker.

5 Stage 3: Choosing the right solution

Choosing the right solution doesn't always mean buying new technology. It could mean using existing technology in a different way, upgrading existing technology or developing something in-house. It could also mean investing in people's skills, shaping a new culture, updating the structure or redesigning how work is done.

Understand what technology can and can't do

When it comes to digital technology, remember the programming maxim 'garbage in, garbage out'. Technology is a tool and will only do what you tell it to do. So be critical about what the products or services actually offer and whether those capabilities will match up with your organisational goals or resolve your challenges. Seek case study examples of the technology being applied in similar contexts. Consult widely in your organisation to surface insight and experience – these may come from unexpected sources.

Reconvene your stakeholders

Go back to the people (see Stage 1: Understanding why you are investing in technology) who helped define the problem and solicit their views on the possible solutions or proposals. If there are stakeholders who were not involved in the initial process of defining the problem, consider this an opportunity to bring them in. Remember that a successful solution requires cohesion among people, culture, structure and tasks with technology. Therefore consult widely, particularly with teams and individuals who have responsibility or influence over these elements.

Case study: Preparing workers for change through constant dialogue

Weetabix Food Company

Stuart Branch, executive member for HR, IT and business systems at Weetabix, says organisations should have a constant dialogue with their workers and stakeholders about the changing workplace. *'As Amara's Law says, we constantly overestimate the short-term impact of technology, but we significantly underestimate the long-term impact of technology. And I think that's very true.'*

Weetabix's 'Change for Better' framework comprises ten elements, including 'better data for better decisions'. This is about how it can put data into the hands of the people closest to the work to empower and enable them to make the best decisions for the organisation. Another element is 'better ways of working', where the cereal giant talks about continuous improvement. From a strategic point of view, workers are encouraged to challenge the way they work and continuously look at doing things differently. The internal dialogue is that Weetabix has existed for 89 years and wants to exist in 89 years' time, so it needs ongoing investment in the business.

'We talk about our desire to offset our commodity inflation each year by removing cost. ***But what we also talk about is that removal of cost is then used to invest in other parts of the business.****'*

Branch says 60% or more of its investment in technology has a direct implication for its people, for example change of role or change in skillset. *'So, we have a constant*

dialogue with our workers around that. Then, when we're talking to Sam in supply chain about a job they do that robots are going to do in the future, it's not a surprise because we're talking about it all the time.'

Weetabix places great emphasis on change management. As well as more typical tools, Weetabix uses the following formula to assess whether meaningful change is possible:

$$D \times V \times F > R$$

Here, D stands for dissatisfaction with the current state, V for the vision of the future and F for clarity of first step. These all need to be greater than the resistance (R) to the change.

A recent example of technology investment is an accounting system that will take much of the work away from the accounts processing (AP) team. The result is that some tasks become redundant. However, there is almost always an opportunity to redeploy people, says Branch. *'What we would say is that you may see yourself as an AP clerk and you may only ever want to be an AP clerk. In which case we can make you redundant and wish you well. But if you like working at Weetabix, we will take a responsible organisation approach and offer training and redeployment.'*

'We want to provide meaningful work. It means committing to retraining people to give them meaningful employment today.'

He adds: *'We have been saying for the last eight years that, as the executive team and as the HR team, our job is to be pre-communicating and pre-conditioning unions and workers to this change that's coming. Specific engagement on particular projects and implementations comes later, but I would expect good HR professionals to be continually doing this pre-conditioning of people and context-setting.'*

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Procurement

If buying is the best solution, ensure thorough research is done as you consider possible products, services and vendors. Choosing the right vendor will be particularly important for post-purchase or post-implementation support. When choosing a vendor, consider the following checklist.

Vendor checklist

- ✓ Does the vendor's solution meet your requirements better than what can be done in-house or by the vendor's competitors?
- ✓ What use cases can the vendor demonstrate, particularly longer-term deployments rather than pilots?
- ✓ Can you achieve most of what you require 'out of the box'?
- ✓ If it is AI-based, how much training data is needed to prime the solution and how often will it need to be retrained?
- ✓ Have robust audits been carried out to show that the technology complies with local laws, for example, on data protection and equality?
- ✓ How clear is it where proprietorial information will be held by the business, relative to any service provider?
- ✓ Will the vendor allocate sufficient resource to support the business and users before and after implementation?
- ✓ What is the vendor's track record for responding to customer requests to fix bugs or introduce new features?
- ✓ Is there a risk of the vendor going out of business and being unable to provide continued product support?
- ✓ Have you checked indemnities so that it's clear who's liable for what if a problem arises later?

Remember to put people at the centre of any technology solution being considered. The technology needs to deliver an easy and intuitive experience, align with organisational culture and be flexible for future needs. Involving workers during procurement will help ensure the solution delivers for them.

6 Stage 4: Addressing legal obligations and responsibilities

Responsible investment in technology should not compromise employment rights in any way. It is important to take stock of the underpinning principles to ensure they are not undermined by hasty decision-making.

Employers have a duty of care for the health, safety and welfare of their people, which includes managing and preventing the causes of stress at work. Alongside this is the mutual duty of trust and respect implied in all employment contracts, requiring employers to act reasonably, transparently and fairly when managing their workforce.

Employers have a further duty not to discriminate against their people, either directly or indirectly, on the basis of a protected characteristic, and they also have legal obligations in relation to data protection, such as under the EU's General Data Protection Regulation (GDPR) (also transposed into UK law). Additionally, employees have a right to be informed and consulted about any major changes their organisation makes which affect them and their jobs.

These obligations extend to technology adoption. In this guide, we will focus on those based on UK laws, but the principles they enshrine will broadly apply across other jurisdictions. That said, one of the biggest minefields will be for employers operating in multiple jurisdictions with different requirements. Organisations should be particularly alert if technology they intend to adopt has been developed outside of their jurisdiction where there are different legal standards.

In this section, we consider employee relations, health and safety, equality and discrimination, data protection and privacy, and exceeding obligations and striving for 'good work'.

Employment relations

Where technology adoption will have a significant impact on the workforce or their jobs (see Stage 2: Considering the impact on your people), and clearly where roles may become redundant or substantially changed, employers need to check that their legal and contractual obligations will continue to be fully met – for example, taking the right steps to consult with workers and their representatives, looking at existing provisions in collective agreements and ensuring that decisions are made fairly. The UK has specific legislation in relation to fair dismissal,[5] trade union and labour relations[6] as well as on information and consultation.[7]

Health and safety

Under health and safety law,[8] employers' duty of care extends to their people's mental health as well as their physical health. Assessing and managing stress from technology adoption will therefore be an important consideration. Equally, impacts like work intensification (see Table 2) which can lead to unsafe working conditions must also be taken into account.

Recently, there have been echoing calls for the right to disconnect after France became the first country in the world to enact legislation preventing employers from encroaching on their employees' personal lives with calls and emails. Under the law, employees do not have to take calls or read emails related to work when they are not at work.[9]

In the UK, the Trades Union Congress (TUC) is also calling for a statutory right for employees and workers to disconnect from work to create 'communication-free' time in their lives and improve wellbeing.[10] In Ireland, the Government has specifically sought to tackle this with a Code of Practice on the right to disconnect. This came into force in April 2021, and was framed in the context of work–life balance and protecting all workers, including those who work remotely and flexibly.[11]

Meanwhile, the trend towards self-directed learning could also add to pressures on work–life balance. With much learning migrating to mobile devices and apps, employers should be mindful of obliging people to use their own time to learn rather than providing time within contracted working hours. In addition, technology accessibility needs to be considered, for example visually impaired people being unable to access some forms of online training.

Equality and discrimination

Employers should be aware that the technology they use should not lead to practices and procedures that directly or indirectly discriminate against people based on their protected characteristics or fail to satisfy their obligations towards persons with disabilities. Adoption of technology could expose an organisation to these risks, for example, through poorly designed use of AI in recruitment or a failure to consider whether processes should be adjusted to accommodate disability. Not only would this result in a negative or damaging experience for the person or group discriminated against, it can lead to compliance as well as reputational risks, as companies such as Amazon found when an AI-based recruiting tool showed bias against women.

Case study: Potential bias in AI

A complaint filed with the US Federal Trade Commission against recruitment software company HireVue in 2019 alleged its use of AI to assess job candidates' video interviews was 'unfair and deceptive' trade practice. While not illegal, the company announced in 2020 that it had stopped using facial expressions in interviews as a factor its algorithms considered. In a bid to improve transparency, HireVue has also released an audit of its algorithms which acknowledged its efforts to eliminate potential bias in AI but also found areas for improvement. These included finding minority candidates were more likely to give short answers to questions, which the system had difficulty scoring – the result being that these candidates were disproportionately flagged for human review.[12]

In the future, organisations may need to pre-emptively consider the impact of using automated decision-making technologies as a matter of compliance. In December 2021, the UK Government published a roadmap to an effective AI assurance ecosystem which will make third-party audits of such technologies mandatory. This came after recommendations by the All-Party Parliamentary Group for the Future of Work in November 2021 for the Government to regulate the use of AI at work.

Data protection and privacy

Data protection legislation outlines how organisations can process data on their people. It also includes the right for workers to be informed of automated decision-making processes that impact them and ask for a person to review those decisions. But as more data-driven technologies enter the workplace, transparency around the use of data and who has access

should be built into the consultation process. This is important not only from a legal risk perspective, but also as it will help to create meaningful dialogue and buy-in. It will also give people objective understanding to challenge any decision they feel is unfair.

With regards to monitoring technology, organisations need to be aware of the right to privacy enshrined in Article 8 of the Human Rights Act. How this balances with an organisation's interest in knowing what workers are doing is a relatively untested area of law at the present time, particularly around working from home or outside normal working hours.

Case study: When the purpose of technology changes

RICOH

RICOH implemented telematics to enable its vehicles to collect data such as speed, harsh acceleration, vehicle faults and fuel consumption. This information helped improve safety, accuracy of mileage reports and operational efficiency. It removed the monotonous task of reporting and calculating mileage each week. The organisation communicated the changes to affected workers before implementation.

However, once the system was in use, some drivers on its worker forum raised concerns on who could access the data collected during their private time. This was not the intended outcome of a system designed to make life better for the driver as well as save money for the company.

RICOH reacted swiftly by removing access to telematics data for line managers and retained access for regional managers. *'People don't normally have an issue with HR having access to the data because it is seen as anonymous. However, they can have concerns with their immediate line manager seeing data,'* explained Rebekah Wallis, Director – People and Corporate Responsibility at RICOH.

'We have a very good working relationship with our employee forum, and it is often part of the steering committee, which was the case for the telematics implementation, so we are immediately getting that voice into any decisions. We talk to them about everything, even if there's not an obligation to do so. They say it as it is, which is exactly what we want,' Wallis said.

While telematics is no longer used at RICOH, Wallis said it provided some timely lessons.

Practice considerations

- If the technology captures data, have a clear understanding of what the data is going to be used for, who will have access to it and what they will do with it. Be mindful of your data protection obligations.
- Ensure you ask the vendor to what level of individual that data can be accessed. You may not want this level of analysis, but you need to understand what information you may hold as a result of implementing a system.
- Bring worker representatives, ideally from the impacted group, into the discussion at an early stage.
- Maintain two-way conversations with workers because unintended consequences may later surface and you will need to review.
- Act on the feedback.

Responsible organisations should of course not limit themselves to mere compliance with local laws. Wherever possible, they should aim to improve the quality of work for their employees, having in mind the various dimensions of job quality we have discussed.

When technology displaces jobs

If it becomes clear that technology implementation will lead to jobs being replaced, before considering redundancies, look at opportunities to **retrain and redeploy** workers within the organisation. Employers could also **extend training into career development programmes**.

If roles are to be displaced, ensure affected workers are given as much notice as possible to prepare and bring in stakeholders such as unions at the earliest stage. Give longer notice than statutorily required and bring in outside parties who can support them on their career transition journey. Outplacement service providers can help existing employees find new work through career coaching, support and advice.

Case study: Maintaining access to good work

Unilever

Redundancy can be one of the most distressing events an individual can experience and should be a last resort. When Unilever wanted to future-proof its Kenyan tea plantations through mechanisation, it identified that it would impact low-skilled workers and their families who depend on them. These workers' current skills were analysed, and agricultural opportunities were identified for individual workers. Reskilling initiatives were deployed, along with funding programmes for those who became entrepreneurs.

There are now more than 2,000 workers who are in alternative sustainable employment, translating into over 10,000 sustained livelihoods. More than 1,200 impacted workers were also enrolled in artisanal trade projects, mainly in hand-woven craft and homemade detergents on a small scale. Trade unions and social partners said the initiatives have had a positive impact in the community.[13]

Employers can also run **workshops for displaced employees** to improve their employability as well as to provide psychological support. Offer help with CVs, applications, interviewing techniques and advice on building networks.

Explore how you can help employees **leverage knowledge gained** in the business. For example, in 2011, Finnish telecoms company Nokia closed several R&D and manufacturing plants worldwide, with job losses of 1,800 people across 13 countries. But it created an incubator programme that helped employees leverage intellectual property it no longer needed into new business ventures. This not only helped individual workers but spurred growth and innovation in the local economies Nokia was exiting.[14]

Consider **building partnerships with other employers**. Contact other local employers who could benefit from the skills of your displaced workers and be up front about what is happening in your organisation. During the COVID-19 pandemic, Hilton Hotels & Resorts arranged preferred application status for their redundant workers at other organisations that were experiencing a huge uptick in demand. Despite having laid off 50,000 people, Hilton was still voted the number three place to work in the US because they treated their workers with dignity.

Taking these steps is not only the right thing to do but will enhance your reputation with existing and potential future employees, as well as demonstrate to all stakeholders that your organisation cares about your people's wellbeing and takes its role in the community seriously.

7 Stage 5: Rolling out, supporting and reviewing

Preparation and anticipation of potential sticking points will be essential to the rollout stage. Technology implementation often involves a level of uncertainty, requires experimentation and a 'fail fast' mindset that not everyone may be comfortable with. Build in sufficient time for embedding new processes, remembering that the time needed will likely be longer than you expect.

> *'We should approach technology as business transformation. If you start from the principle that technology adoption is primarily a change in your business model, you will have the people aspects up front.* ***My advice is start slow to finish fast.****'*
>
> Neil Carberry, Chief Executive, REC

If this stage is not well prepared, managed and supported, people may give up, become frustrated and seek workarounds to bypass the system.

Case study: Old habits with new technology

Guy's and St Thomas' NHS Foundation Trust

One lesson from implementing an initiative which digitised bedside notetaking is the importance of considering behaviour change from the start, said the trust's Director of Organisational Development Sarah Morgan.

'With the e-noting we just said, let's take the paper out and use IT. Come to the training session so you know how the kit works and off you go. We never told staff how to implement it, so they ended up wheeling the computer up to the patient's bed, which inadvertently created a barrier between the clinician and the patient.

'We were digitising the processes and had not really thought about the habitual way that people were using the current systems and how you break those habits to create new [work] habits.

'Just introducing technology doesn't mean you're going to get the best out of that tech. If people are used to doing it one way and it doesn't work that way, they will find the workaround that allows them to do it the way they've always done it. That's just the nature of humans. Everybody approaches work as a habit. We tend to underestimate the behavioural shift required.'

With the trust currently implementing one of the biggest electronic patient record system rollouts in the country, this is one lesson it has taken firmly on board. The programme, due to launch in April 2023, will replace many of the existing systems with a single, integrated and comprehensive source, and will change the working practices of the trust's 22,000 staff.

Blockers and enablers

Identify who or what may be the potential blockers that will hinder your rollout and the enablers that will assist it. Think through the five elements of people, culture, structure, tasks and (existing) technology:

- Who stands to gain from the implementation and the outcomes of the investment (it might not be the same stakeholders)?
- Are there workers at risk of losing out from the investment? If so, can the investment be adapted to minimise this risk while maintaining the benefits to the organisation?
- Which workers are not significantly benefitting from the investment? Can incentives[15] be offered to amplify the benefits for workers and ensure the goals of the investment are met?
- Are there existing processes that may hinder rollout or limit opportunities for affected workers to get involved? If so, how can the processes be updated?
- Is any existing technology being replaced or retired as part of the rollout? How attached are workers to the existing technology? What does the existing technology do that people feel is necessary for them to do their work well?

Line managers

Line managers are often the first line of support for workers during technology implementation. Their approach to and sponsorship of change is vital for a successful rollout. They can help you drive change even as they are going through it themselves. But many managers are already overwhelmed by workloads and new ways of working. When deciding on investing and implementing technology, employers should recognise line managers' capacity and capability, and ensure the chosen technology is easy to use, and that significant support and training is offered. Engage them through your investigation stages and be quick to bring them on board as advocates and champions.

Case study: Transferring recruitment responsibilities to line managers

Natura & Co

As with many businesses, technology adoption has not been without its challenges in Natura & Co's operations, best known in the UK for its brands The Body Shop and Avon.

When The Body Shop implemented the recruitment module in its HR information system, its business case was based on cost efficiencies.

Recruitment responsibilities were pushed to the line manager, enabling The Body Shop to take out the entire recruitment function. However, the system was not intuitive enough for line managers who are not digital savvy or rarely use it.

'We went too far too quickly,' says Louise Wilson, the former HR director of The Body Shop, now Global Transformation and Integration Advisor for Natura & Co and Director of LEW Advisory. *'We had to bring some people back into recruitment to support them.'* When looking at sister company Avon's HR information system from another vendor, it was also clear the firm had some HR administrators doing the activity for line managers.

In hindsight, Wilson realised that the end user, and specifically line managers, should have been engaged with even more and earlier. *'It's important to have engagement*

as early as possible. This is not about asking permission to bring a system in but rather getting your workers to visualise, think and play with a tool that is not yet in place. At The Body Shop we did lots of engagement, but probably not enough for such a big change planned.'

Practice considerations

- HR has a unique role to play in bringing the lived experiences of workers to leaders at an early stage.
- Line managers are critical in any worker-related system change, and the operating model needs to take into account their roles and skills.
- Technology does not have to be highly advanced to be disruptive. All technology implementations are disruptive when they are new to the workforce.
- Understand the different capabilities and potential adoption rates of different populations. The Body Shop found store managers and staff were among the earliest adopters as they are more autonomous and digitally savvy.

Employee champions

Apart from line managers, identify people who have credibility with employees who can act as advocates. Communications should be led through champions, trade union representatives or line managers to ensure workers have a chance to give feedback and not feel dictated to. Offer practical guidance to your champions, for example, on how to inclusively facilitate discussions and solicit questions and comments. Remind them that their own experience may not be reflective of the entire population.

Implementation team

Choose an implementation team that will provide a 360-degree view of the rollout and its impact. Include representatives from user groups, key business functions, industry bodies, unions and technology partners. As with earlier consultations, ensure key individuals outside the usual sphere are brought in to share 'how work gets done' across the business and check that the technology is not having unintended consequences in other functions. Be wary of 'siloing' expertise by creating a team that holds all the information exclusively – while that team's expertise gets deeper and deeper as they test and learn, the gap with the end user will get bigger.

Individual requirements and regular check-ins

Know your employee population and beware of differing levels of digital literacy or issues with accessibility. Adapt your training accordingly.

Be clear on processes you expect people to follow and establish regular check-ins to keep track of how the transition is going and for people to ask questions. One of the big challenges in deployment is often not the system itself, but the support framework for people on 'how do I do this?' Consider setting up an intranet forum for feedback and knowledge-sharing, FAQs or other troubleshooting measures.

Case study: Familiarise workers with the technology before implementation

MTR Elizabeth line (MTREL)

MTR Elizabeth line (formerly known as MTR Crossrail) is the operator of the Crossrail concession and is currently running TfL Rail services between Liverpool Street and Shenfield, Paddington and Hayes & Harlington, and Heathrow and Reading. Once the Elizabeth line opens, the company's operations will eventually cover all aspects of train and passenger service operations

While work started back in 2015, the project had been dogged by delays and the original opening date in 2018 had been continuously pushed back. This created an unusual set of circumstances when it came to training.

'The extended length of the project has presented us with challenges,' says Howard Pugh, Head of Operations Learning at MTREL. *'While we're already operational, we've trained 400 drivers in preparation for the opening of the full Elizabeth line. Training is ongoing so we need to ensure they remain motivated, their competence remains at a high level and their confidence is maintained.'*

One way of addressing this has been to develop a video library that drivers can access at any time to refresh themselves with recreated experiences. *'We felt that we could introduce something more engaging so started exploring augmented reality (AR) and mobile applications as a potential solution,'* Pugh said. *'Our key concept in investing in technology is about enhancing what we do. Can we make it better? Can we introduce tech that can improve performance? Can we reduce operational risk and incidents? Can we improve retention?'*

In such a highly regulated industry, there is a significant amount of compliance training, which tends to be classroom based. AR has given people an opportunity to learn and practise more than once. One app, for example, provides drivers with access to a virtual train, allowing them to 'play' with it whenever they want to refresh their learning on traction.

Before any technology is introduced, Pugh consults the trade unions and involves them in early testing. It is also tested on trainee drivers as proof of concept to provide additional opportunities for feedback.

The technology was only piloted when it functioned properly to prevent trainees focusing on the performance of the app rather than the training it was delivering. The company is now piloting for phase one delivery, after which it will gather further feedback before moving to phase two. *'What is important is not the app – it's the way the app is used. How does that get integrated into the way that we deliver training? What is the vision in terms of what you want to use the app for? Anything we develop in terms of technology is based around how our people can be professional or take performance control of their own safety. That's the human side of it.'*

Managing the change

Implementing new technology and the supporting work processes and behaviours needed to make it successful is ultimately an exercise in change management. The areas of focus are as follows.[16]

Relational leadership

Key to relational leadership is thinking about leading rather than imposing change, and as mentioned above, engaging workers early in discussions will be vital for getting their buy-in. Be conscious of the timing for any change project and the state of mind of workers involved in the change. During the pandemic, for example, employees were stepping up quickly to shift working practices and behaviours at pace. That having been the case, there would be a high chance that many are feeling fatigued. Adding another change programme could be costly to both business and employees.

Building trust

Successfully adopting change relies on building trust with and engaging employees. Transparency, as well as open and honest communication, is required to accompany leadership integrity and fair practices.

Transparency when consulting with people has already been mentioned, but this is especially important when it comes to less familiar technologies. When the TUC asked workers whether it was possible that AI-powered technologies were being used at their workplace without their being aware of it, 89% said either 'yes' or 'not sure'. This prompts the question about whether there is a lack of trust around the adoption and use of AI at work. The research also revealed only 28% of workers were comfortable with technology being used to make decisions about people at work.[17]

Regular and timely communication is crucial for bringing people on board. Use storytelling to provide context and justification, as well as reassurance and clarity about the change. Make use of different channels, media types and forums, rather than only one-way, top–down communication.

> *'No matter how much an organisation communicates with their employees, communication is commonly one of the biggest issues that is raised in engagement surveys. An effective approach is to ensure key messages are shared across multiple platforms, including via the actual technology you're going to be introducing. It sets a poor example if a new tech solution is communicated via "old school" methods.*
>
> *'Taking the time to explain how the tech will benefit employees and make their lives easier will also create more meaningful impact. Leaders also need to set the example in actively using the tech to encourage other users to also engage with it for themselves.'*
>
> Alison Bell, People and Culture Director, MTR Elizabeth line

Voice, dialogue, rethinking resistance

Consultation with people should already be happening, but particularly in the build-up to technology investment and implementation, continuous dialogue should be maintained. Help people gain a greater understanding of the implications of technology introduction so that, when the investment is made, there is less fear and more constructive conversation. One way to ensure everyone's views are represented is to have trade union representatives help facilitate this dialogue.

Allowing workers to familiarise themselves with the technology before full implementation (see MTR Elizabeth line case study above) can help explain the change and get useful early

feedback at the same time. It may be necessary to take people away from their day jobs to give them sufficient space and focus for internalising the change process.

When considering the blockers and enablers (see above), think about how resistance to change can be repositioned. By approaching resistance from an employee voice mindset, employers will encourage open communication, trust and better outcomes. For employers, enabling employee voice contributes to innovation, productivity and organisational improvement. For individuals, it often means increased job satisfaction, greater influence and better opportunities for development. For more on the subject, refer to the CIPD's factsheet on employee voice.

Emotion, energy and momentum

Technology adoption can be emotionally charged as it means changes to accustomed routines and ways of working, but particularly because it may mean job loss. It's important that leaders are equipped to manage this effectively.

Allocate appropriate time and budget up front to support workers to internalise the new ways of working with the technology. This includes freeing up time for workers to adapt to the change and time to fix problems. Be sensitive to change fatigue from past initiatives and cognitively overloading workers with even more changes or information.

In designing training and information, ensure resources will cater to different digital literacy levels and accessibility needs of workers.

Equipment and logistics

Acquisition and installation of physical equipment and the logistical arrangements in the process should of course be clearly directed and supported. Consider this step as a change management project in miniature. Leaders involved should focus on the same aspects, taking care in particular to maintain a two-way channel of communication throughout the operation. While people teams may or may not be directly involved at this stage, facilitating good cross-functional collaboration among various teams will be vital for success.

Feedback and iteration

Routinely conduct impact assessments during and after implementing the technology, considering performance and user experience. Discuss findings with workers to mitigate any adverse impact. While feedback and iteration are implied throughout the earlier stages of the process, that it takes place at this stage is perhaps the most important for ongoing success. It is only when technology has been in use for some time that the real and often unintended consequences of implementation can be seen.

A variety of mechanisms can be used to gather feedback. These include pulse surveys and analytics generated by the technology itself to measure uptime and engagement. Beware of your data protection obligations (see Stage 4: Addressing legal obligations and responsibilities) when it comes to using and storing this information and be sure to communicate to people that their feedback and data are being gathered to deliver the best user experience for them, not to monitor how they work. The feedback should include human factors, such as how the technology has changed their roles and their experience of work.

Another useful way of capturing feedback is to ask users to keep written documentation or visuals (screenshots for example) that log and capture the 'warts and all', day-to-day experience of using the technology. Stuart Branch, executive member for HR, IT and business systems at Weetabix, recommends giving someone a clear 'pass' to call out

problems. *'That person's job is to attend every meeting, and whenever we say, "This is the way we capture training or learning," they call it out and say, "We don't really work like that. That's how you lot in HR think it happens. Let me tell you the reality." This person gives massive value to projects.'*

It is vital at this stage to look also at other objective data gathered to see whether the technology is adding value to the core business, but also enhancing people's roles – or at least not negatively impacting them. What may seem like a good idea in theory may not play out in practice. For example, US retailing giant Walmart, the world's largest private company, abandoned robots that scanned shelves for items in need of restocking after finding employees could handle the task in roughly the same amount of time.

8 Final thoughts and further resources

Technology investment may be large or small, vary in complexity and take place in organisations of differing sizes and resources. This guide is not intended to provide a prescriptive, one-size-fits-all solution, but rather, a framework for organisations to work through the various stages of the technology investment journey. As such, it will be important for people professionals and organisational leaders to adapt the broader principles outlined here to their specific situations. In so doing, our hope is that the exercise would prompt valuable conversations and encourage responsible decision-making around technology investment – ultimately to promote and further the development of 'good work' for all.

Artificial intelligence

One of the more controversial uses of technology is its use in making decisions about workers, especially when it can be consequential, such as who gets hired or promoted. It's sometimes known as algorithmic management, algorithmic decision-making, automated decision-making or – more broadly – artificial intelligence (AI).

The following are resources on using AI responsibly for people professionals and current policy developments to regulate its use.

Guides for people professionals

- **World Economic Forum. (2021)** *Human-centred artificial intelligence for human resources: a toolkit for human resource professionals*.

  The guide explains what AI is and how it is used in the people function. It describes how to strategically plan and implement AI responsibly. The steps involved include forming an assessment team, understanding the elements and risks of using it, and ongoing monitoring. There are also two checklists – one for assessing tools and another for planning.

- **Institute for the Future of Work. (2020)** *Artificial intelligence in hiring: assessing impacts on equality*.

  This report provides evidence of the need for a more comprehensive approach than technical auditing to safeguard equality in the use of AI for hiring. Among the report's recommendations is a call for organisations to integrate technical auditing into a wider equality impact assessment to help understand and respond to the different impacts

on equality. It discusses ways to reduce bias and reviews existing audit tools that can be used as part of ongoing equality impact assessment exercises. Annex 1 of the report provides a six-step process that can be used for conducting an equality impact assessment of AI-based software used in recruitment.

- **Institute for the Future of Work. (2020)** *Mind the gap: final report of the Equality Task Force*.

  The cross-disciplinary Equality Task Force, chaired by Helen Mountfield QC, makes a series of recommendations to ensure that algorithms are used in a fair and transparent way. The authors assert that AI is not a 'black box' – it is a product of people's design and implementation decisions. Therefore the decisions made by such systems aren't neutral.

  The report describes seven critical choices that people must make in the design and implementation of systems that use data to make decisions. While the choices aren't directed specifically at people professionals, it is a useful reminder of what to consider when designing and implementing such systems.

Regulating the use of AI in the UK

In Stage 4: Addressing legal obligations and responsibilities, we have highlighted the UK Government's plans to make impact assessments mandatory for organisations that use technology to automate decisions about workers. The following are policy documents for information on this topic.

- **Centre for Data Ethics and Innovation. (2021)** *The roadmap to an effective AI assurance ecosystem*.

  As part of the UK Government's 2021/22 work programme, it will publish an AI assurance guide to provide more details on how AI assurance will be delivered. This is the UK Government's roadmap for making AI trustworthy by growing the AI assurance industry to complement regulation and therefore use of AI in ways that benefit society and the economy.

- **Institute for the Future of Work. (2021)** *Building a systematic framework of accountability for algorithmic decision-making*.

  This policy briefing proposes that the UK should establish a new corporate duty to undertake, disclose and act on pre-emptive algorithmic impact assessments (AIAs) before implementing systems and on an ongoing basis. The briefing analysed three AIA models – questionnaire, data protection impact assessment (DPIA) and public agency – and case studies to inform new regulation. The report identifies ten key decision-making points when using AI to automate decisions.

- **All-Party Parliamentary Group (APPG) on the Future of Work. (2021)** *The new frontier: artificial intelligence at work*.

  The group made five recommendations around the use of AI at work:

  1 Introduce an Accountability for Algorithms Act.

  2 Update digital protection for workers.

  3 Enable a partnership approach for trade unions or other bodies to exercise new duties on behalf of their members.

4 Expand enforcement powers to include, for example, the creation of certification schemes or ability to suspend use to complement regulators or industry-specific standards.

5 A human-centred AI approach that supports the principles of good work.

- **Trades Union Congress. (2021)** *Dignity at work and the AI revolution*.

  This manifesto highlights the values that should be adopted so that technology at work benefits everyone, and it presents proposals to amend UK legislation. The proposals centre on improving protections for people at work when AI goes wrong and improving transparency and understandability of the technology used to automate decisions. Proposals include:

  1 the right to request an in-person meeting when an important decision is being made about people at work

  2 a universal right to human review on important decisions about people at work

  3 a statutory duty to consult trade unions about deploying high-risk AI and automated decision-making systems in the workplace or through a third party.

9 References

1 Our partner, the Institute for the Future of Work, has a similar definition spread over ten principles of its Good Work Charter.

2 Shah, A. (2019) Factory workers become coders as companies automate. *Wall Street Journal*. 17 May.

3 See The 'human lag': how technology sets the pace at work. London: IPA.

4 Gifford, J. and Houghton, E. (2019) *People and machines: from hype to reality*. London: Chartered Institute of Personnel and Development.

5 Fair dismissal legislation outlines an organisation's duty to show it has acted fairly and reasonably in dismissing workers with two or more years' service. Dismissals based on inaccurate data, or unfair or opaque automated procedures, are likely in breach of this regulation.

6 Trade union and labour relations legislation requires organisations that recognise a trade union to disclose information on request that is essential for collective bargaining. This may include policies on planned changes in work methods or equipment. Failure to disclose such information can be escalated to the Central Arbitration Committee.

7 Information and consultation legislation requires organisations to set up information and consultation arrangements if at least 2% of the workforce formally ask for it. These arrangements can cover business information, such as plans to introduce new technologies in the workplace.

8 Health and safety legislation reinforces an organisation's duty to take reasonable steps to protect the health and safety of its workers at work. HSE regulations state employers should consult workers on the impact of new technologies on their health and safety.

9 Gonzalez, G. (2020) *Telework and the French 'right to disconnect'*. Washington, DC: Library of Congress.

10 TUC. (2021) *Dignity at work and the AI revolution*. London: Trades Union Congress.

11 Tánaiste signs code of practice on right to disconnect. Press release, 1 April 2021. Department of Enterprise, Trade and Employment.

12 Zuloaga, L. (2021) Industry leadership: new audit results and decision on visual analysis. *HireVue*. 12 January.

13 World Economic Forum. (2019) *HR4.0: shaping people strategies in the fourth industrial revolution*. Geneva: World Economic Forum.

14 Mayor, T. (2019) *Ethics and automation: what to do when workers are displaced*. Cambridge, MA: MIT Sloan School of Management.

15 Incentives might include bonuses, training opportunities, paid time off, and should be aligned with improving workers' job quality.

16 Adapted from *Landing transformational change: key action points for practitioners*, CIPD. See further, Balogun, J., Hope Hailey, V. and Cleaver, I. (2015) *Landing transformational change: closing the gap between theory and practice*. London: Chartered Institute of Personnel and Development.

17 TUC. (2020) *Technology managing people: the worker experience*. London: Trades Union Congress.

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