The Future *of Work*

How AI is impacting your workforce

HAYS

The Future of Work:
The megatrends impacting AI implementation

Why you need to read this report

The integration of Artificial Intelligence (AI) as part of your ongoing digital transformation efforts is the latest challenge in what I'm sure, currently feels like a *tsunami of change*. Iterative waves of technology – as we witness even more ambitious forms of innovation - will make this process feel increasingly complex.

Facing this ever-changing tide, you need the right vision, the right stakeholders, the right data and infrastructure and the right skills in place. Without these anchors, so much can – and will – go wrong.

If I can offer some reassurance, it's that most organisations are still on the starting line. A study by EY indicated that 90% of companies are still in the early stages of pursuing Generative Artificial Intelligence (Gen AI) maturity.

But make no mistake – many organisations don't plan on staying here much longer.

We know that you can't afford to be left behind. It's why this report is designed to help you navigate the year ahead. We'll give you a pulse point on the global tech talent landscape, sharing our data on job volume and the factors that are impacting supply and demand, specific to technology-focused roles.

With an understanding of the numbers, we'll work through our building blocks for successful technology implementation and adoption – to turn isolated use cases involving AI into enterprise-wide, technology-driven and strategically-focused efficiencies.

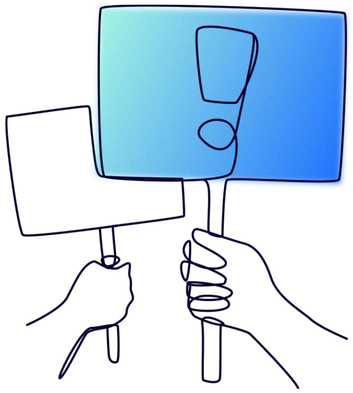
Leaning into the insights from experts from across the globe, we'll share actionable advice that ensures your workforce is ready for tomorrow's challenges.

Dirk Hahn

Dirk Hahn
Chief Executive Officer, Hays plc

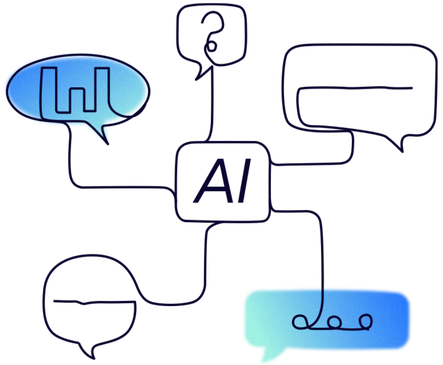
The megatrends that are preventing progress

The implementation and adoption of new technologies within an organisation's ecosystem do not occur in isolation. We've identified four trends that unite today's organisations, regardless of where they are on their transformation journey.



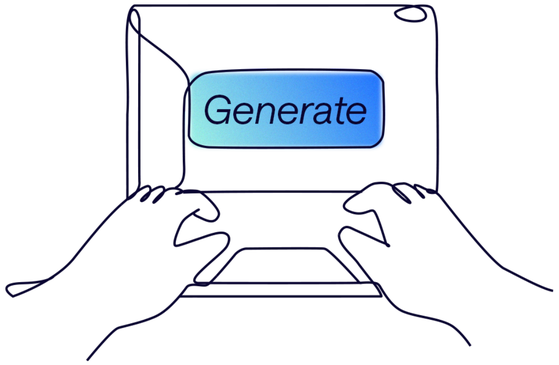
Anti-AI sentiment is growing

A study of nearly 2,000 students showed that while many are 'closely familiar' with Gen AI, it's failing to equate to enhanced trust and confidence. And it's a sentiment shared across generations. 'Pause AI' protests took place in 13 countries in 2024, calling for a halt in the development of new AI models until their safety could be 'thoroughly evaluated'.



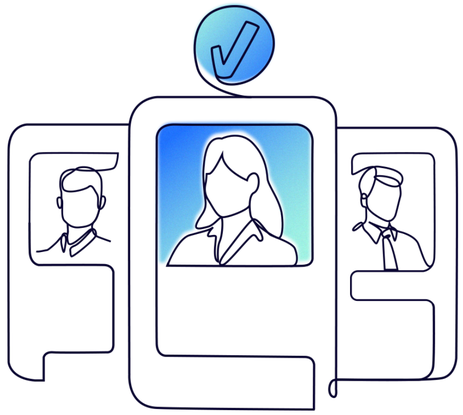
Everyone *appears* to be an AI expert

The relative 'newness' of AI means that experience is an ineffective indicator of knowledge. With so many experts sharing their insights and opinions, it can be difficult to filter the enormous volume of information and more importantly, determine what impact it will have on your business.



Talent shortages will stifle progress

Organisations are struggling to find the right candidates, with the right skillsets, in the right place and at the right cost. Add in new technologies, an ever-shortening shelf life on skills and a lack of training (a recent Hays survey found that 60% of employees do not feel their employer is helping them to prepare for the implementation of AI in the workplace), and a talent crisis becomes a very tangible reality.



Organisations are chasing small wins

In a bid to avoid being left behind, we're seeing a number of companies take very specific AI-use cases and implement them quickly. They'll move the needle for productivity at an individual level, but they aren't reflective of a strategy that will fundamentally transform how work gets done.

The Future of Work:
How AI is impacting the labour market

Global data on job demand

Battling the 'hype cycle'

Each new iteration of technology brings with it copious amounts of literature that declares the 'death' of some roles and the emergence of brand-new skills, often prompting global hysteria as organisations compete for a finite resource. We've watched the same story unfold time and time again – from the internet to robotic process automation.

Gen AI is disrupting the labour market. It's predicted to add immense financial value by heightening productivity and augmenting existing capabilities.

But the benefits will be distributed unevenly across roles and sectors, with multiple external factors including economic uncertainty and geopolitical instability causing further discrepancies in adoption.

Make informed decisions about your workforce

When it comes to the composition of your workforce, you need to make decisions that are driven by data.

In response, we've leveraged our global data on job volume. We compare the number of technology jobs registered across the globe to better understand the demand for key skills, as organisations look to develop their digital transformation roadmap.

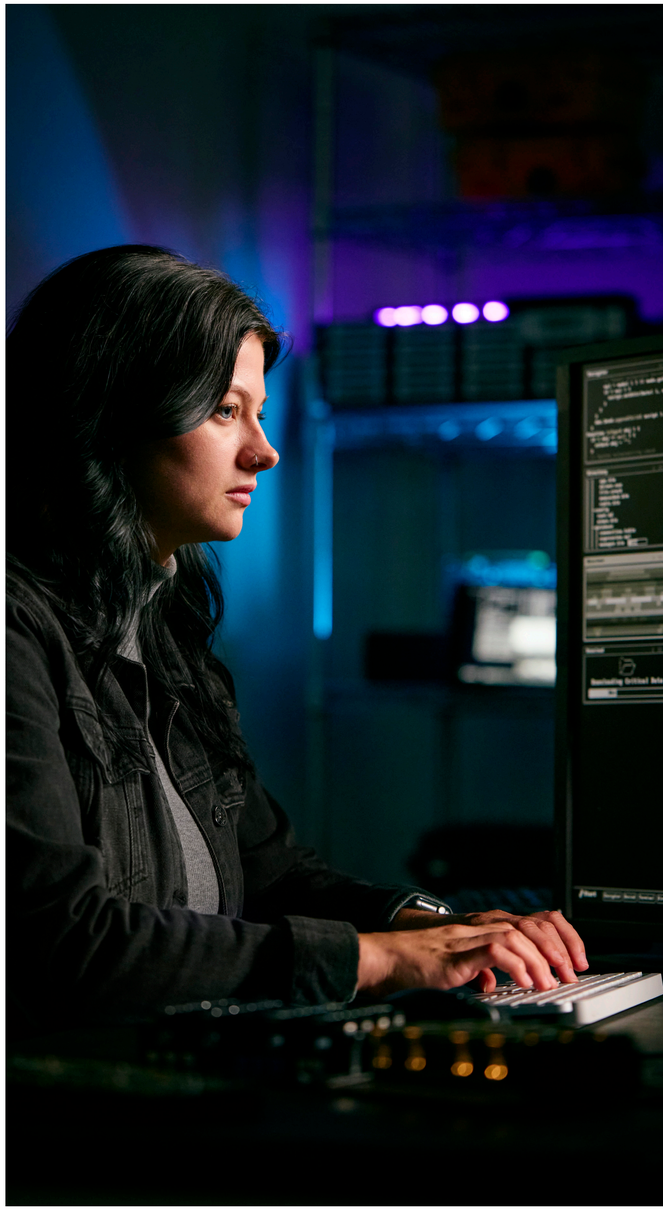
Our dataset ranges from early 2022 through to the end of 2024. This elongated timeframe has been deliberately chosen in order to better understand how the launch of Gen AI has disrupted the demand for certain roles. Fluctuations in the volume of jobs registered enable us to understand how organisations are adjusting their search for skills.

Diving into the data

We start by exploring some of the skillsets where the impact on jobs has been most evident – as demand both declines and persists across different skills areas. Then, we dig deeper into specific roles, splitting the contract types to better understand how organisations are engaging with certain skillsets to get work done.

Finally, we zoom out to give you a global perspective on demand, detailing the most sought-after skillsets, split by country. Our experts lend their insights to shape the story behind the numbers.

Here's what we found.



A snapshot of the tech talent landscape

Software Development

is the **most in-demand skills** area globally, although demand has **declined rapidly in 2024.**

The delivery of transformation is a key concern for organisations, with

‘Project Manager’ recorded as the most in-demand role for 2024.

Contractors become a key resource for organisations in 2024, with

21%

more contract roles registered, compared to permanent jobs.

Roles in ERP/CRM have witnessed a steady increase

in demand since 2022, largely avoiding the peaks and troughs faced by other skills areas.

Which roles are declining in demand?

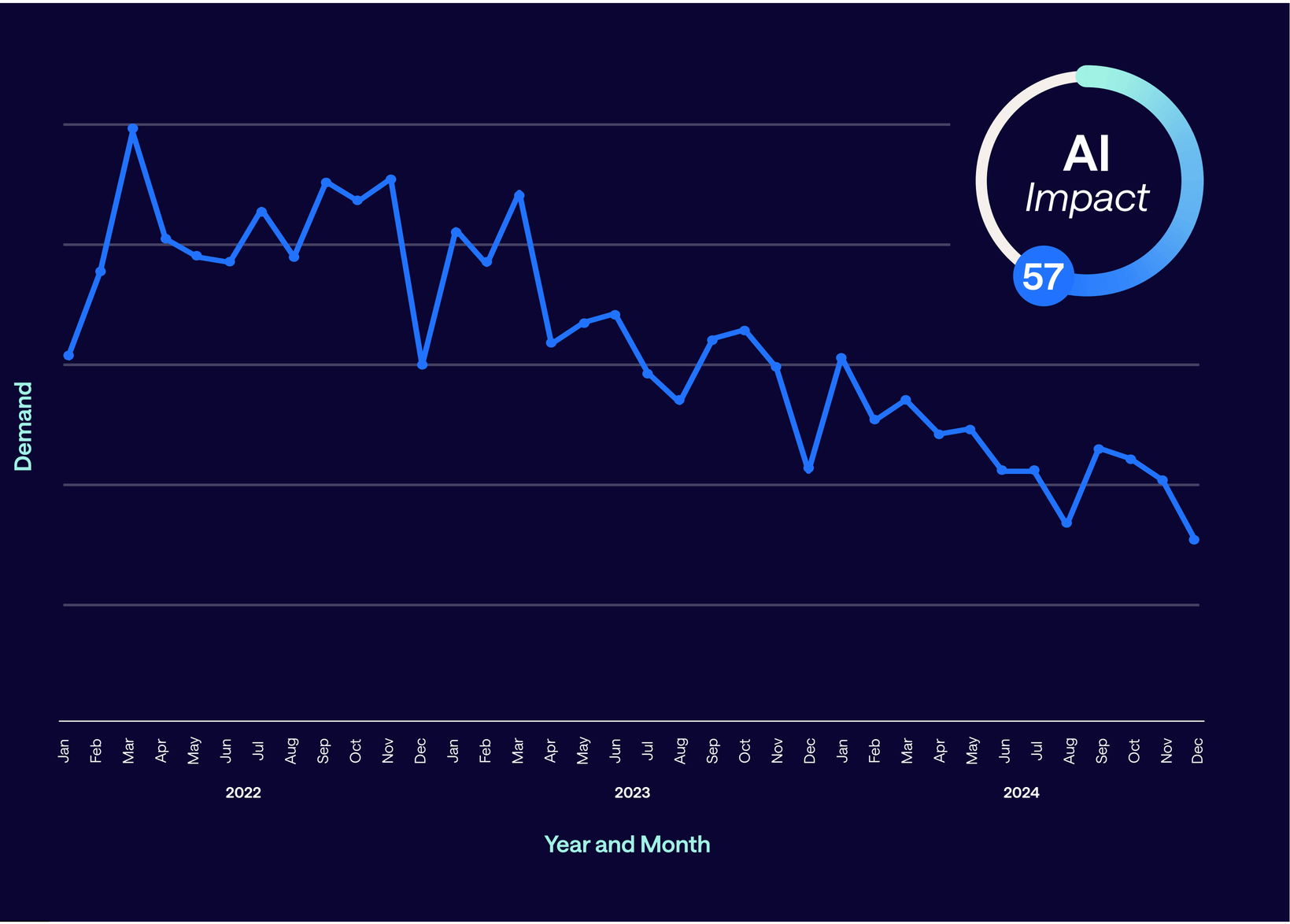
Software Developers

We've examined the volume of jobs we've registered within the 'Software Development' skills area, from January 2022 to December 2024. Our data tracks a notable decline in the number of jobs registered, mirroring a global reduction for demand.*

We've also layered in data on global growth, illustrating the tough economic backdrop in which organisations are operating - as they seek out ways to do more, with less resource.

Our 'AI impact' score indicates the extent to which AI could impact the specific skills area.** A score between 50-60 suggests the role is subject to moderate impact, with some tasks automated and upskilling required to reallocate resource.

Real GDP Growth (Annual percent change)	*2022*	*2023*	*2024*
	3.6	**3.3**	**3.2**



* Hays global data dashboard: Supply and Demand for roles in technology. Data correct as of 3rd February 2025
** Horsefly AI impact score. Data correct as of 3rd February 2025.

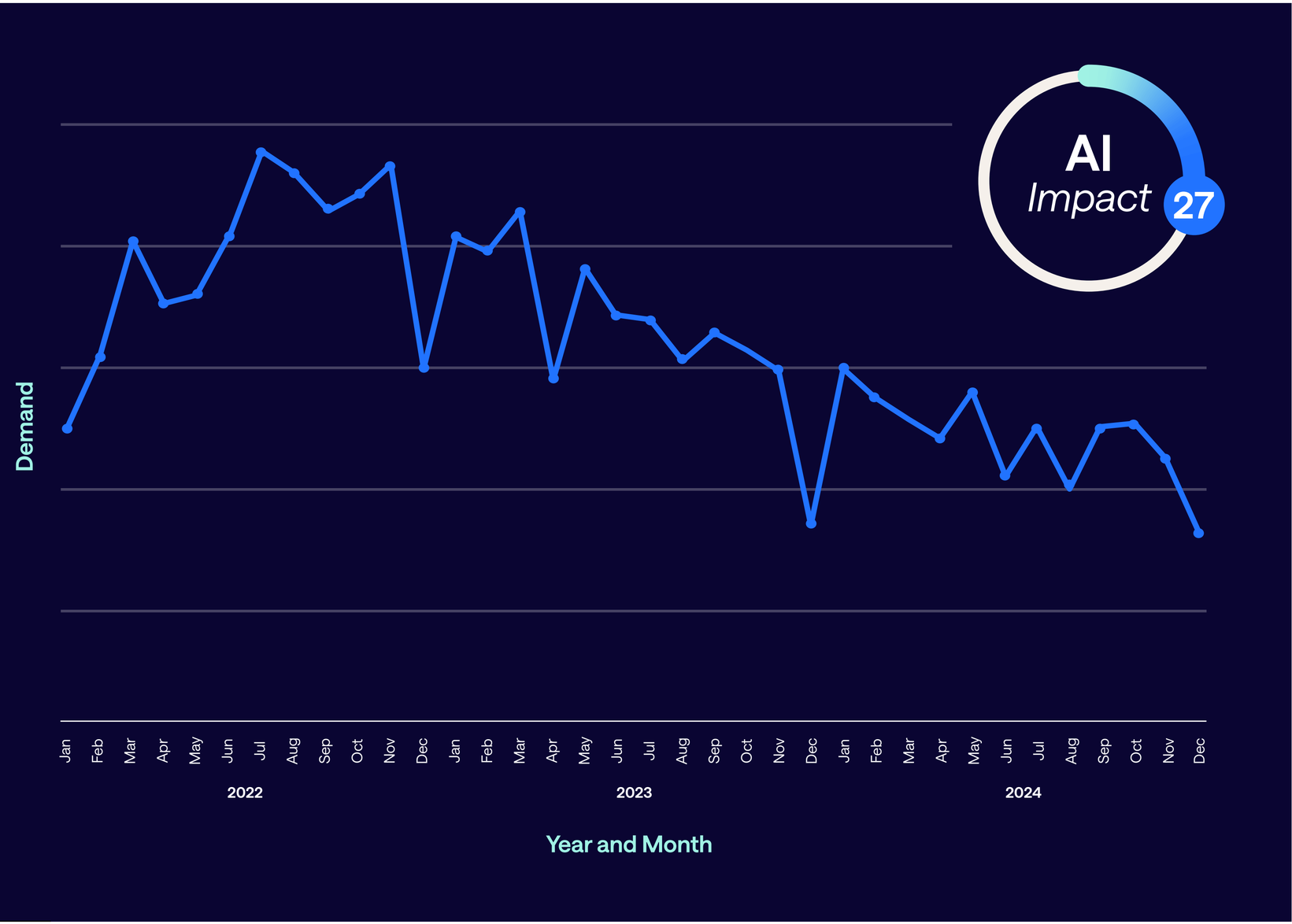
Which roles are declining in demand?

Infrastructure

Tracking our data on jobs registered illustrates another challenging period for 'Infrastructure roles'.* Despite a post-pandemic spike in 2022, a longer-term backdrop of stagnating global growth means the appetite for large scale investment and expenditure has reduced.

Our 'AI impact' score indicates the extent to which AI could impact the specific skills area.** A score of 27 indicates that elements of the role are subject to automation, with upskilling and reskilling recommended to ensure the 'core' elements of the role continue to add value, as AI automates some tasks.

Real GDP Growth (Annual percent change)	*2022*	*2023*	*2024*
	3.6	**3.3**	**3.2**



* Hays global data dashboard: Supply and Demand for roles in technology. Data correct as of 3rd February 2025
** Horsefly AI impact score. Data correct as of 3rd February 2025.

Reduced demand is a result of changing perspectives

With a relentless focus on productivity, the incorporation of technologies such as AI is no longer seen as 'cheating' or misleading. Instead, organisations are actively encouraging workers to utilise these technologies to reduce the time spent on repetitive or time-consuming tasks.

The guardrails vary between organisations, but given a green light to innovate, we've seen roles such as software developer 'build in' Gen AI capabilities that reallocate tasks, reducing the physical input required while maintaining the quality of output.

With fewer workers required to generate the same result, the demand for software developers has naturally declined.

Alongside automation, there is also an economic lens to this discussion – especially for more traditional support roles within 'Infrastructure'.

Jon Sampson Managing Director, Hays Americas: "From a US perspective, we've been in a prolonged period of realignment. COVID-19 created a 'boom' in demand – the decline we are seeing is partially a result of organisations readjusting to a new norm".

For many, this means budgetary pressures. Tech departments have been subject to the same squeeze, as organisations look across every function for opportunities to streamline costs.

"This has prompted a pause on many projects and a reduction in capital expenditure, which explains the steady fall in demand for 'Infrastructure' roles. We're seeing a lot of contract workers, particularly in the US, coming to the end of projects and being 'rolled off' rather than renewed", Jon explains.

Overall, it's important to see these declines as part of a broader shift in skills, rather than jobs just being lost to automation.

Let's take a look at how this talent is being redeployed.

Studies indicate that Gen AI can make the following processes quicker:

Develop Code
35% - 40%

Refactor Code
20% - 30%

Perform Code
45% - 50%

Source: 'A CIO and CTO technology guide to generative AI', McKinsey, 2023

Sustained demand for CRM skills

"We've seen a sustained demand for roles in ERP and CRM over the last 12 months, which reflects the difficult balancing act facing most organisations. Product and service offerings must be innovative and the customer experience deeply personal, but operating costs must be closely managed and streamlined wherever possible.

Running in parallel to this, we're seeing some large-scale providers bring legacy products to an end. Take the shift to SAP S/4HANA, for example. It's a cloud-based solution that aims to scale and flex at a rate that on-premises options simply can't compete with.

This transition will see maintenance and support for SAP ECC systems come to an end, forcing organisations to make the change and subsequently creating roles across both ERP/CRM and Cloud functions, to ensure readiness for deployment."

Adam Shapley
Managing Director for Technology Solutions
Hays, Australia and New Zealand

Cloud roles remain resilient

"The ongoing demand for cloud-based positions highlights how organisations are handling, processing and storing data. Although there was a brief increase and subsequent adjustment globally in 2023, the overall demand for these skills has remained strong and I believe it will stay like this, even with the advent of new technologies.

Interestingly, we see often a 'headquarters-style' mindset for cloud technology. While many organisations are comfortable outsourcing or offshoring tasks like coding or data entry, there is a clear preference to keep certain roles close to the central hub of operations.

Our data reflects this trend – the demand for permanent positions has remained relatively stable, whereas the number of contract roles has seen a slight decline."

Ulrich Krämer
Head of Strategy & Business Transformation
Hays, Alpine & Nordics

Security concerns create demand for cyber

"2024 was a tough year. But against a backdrop of ongoing economic uncertainty, political shifts and the subsequent 'Big Stay' , demand for roles in Cyber has remained resilient.

Any dips in demand we've seen are largely the result of lower churn rates amongst senior professionals – we've seen a smaller appetite for big career moves over the last 12 months.

The demand for mid-level roles has remained steady because organisations are still required – either by legislation or their own desire – to secure their data. Many of these new or evolving technologies, including AI, enable processes to be more efficient and scalable, but they also pose several dangers, if left unchecked.

Breaches to cloud technology, for example, could result in severe financial loss and reputational damage, so organisations need to ensure they have the skills in place to safeguard against attacks, regardless of the external cost pressures they face.

As more organisations adopt this 'cloud-first' approach, we'll see a rising demand for roles in Cyber and Data specialisms. It creates a triad of skills needs; you need cloud capabilities to create capacity for big data. Big data enables business insights and can shape business strategy, but this data is an asset and needs protecting. This requires cyber skills and roles.

Data, Cloud and Cyber – these skills areas are intrinsically interlinked. If an organisation sees them as separate entities, they will fail."

James Walsh
Business Director (Cyber, Data and Cloud)
Hays, UK&I

Demand surges for data and advanced analytics

"With budgets under pressure and organisations hyper-focused on productivity, data is an important tool in more strategic decision-making.

Overall, we're seeing demand for people who can shape a story from the numbers – from finance professionals to project managers. Machine output gives us perhaps 80% of the answer, but it requires skilled talent to polish this and make it fit for purpose.

Focusing specifically on tech roles, many companies are currently in the process of 'cleaning up' their data to heighten the quality of output. It's often a fixed-term, high impact project and we see this reflected in how organisations are strategically deploying talent - the demand for contract and temp workers remains largely resilient, while the number of permanent roles drops slightly."

Jon Sampson
Managing Director
Hays, Americas

Taking a deeper dive into the top jobs

	Contract		Permanent
01	Business Analyst	01	Project Manager
02	Project Manager	02	Data Analyst
03	Data Analyst	03	Business Analyst
04	Data Engineer	04	Data Engineer
05	Change Manager	05	Java Developer
06	Solution Architect	06	DevOps Engineer
07	Scrum Master	07	Software Developer
08	Network Engineer	08	Network Engineer
09	NET Developer	09	Solution Architect
10	Java Developer	10	Data Scientist

"It's no surprise that Project Managers are taking a podium position in both Contract and Permanent roles. Organisations are hyper-focused on getting themselves 'AI-ready', which is creating an array of project-based work as organisations look to level-up their ageing technology estates.

In the UK, this change has largely manifested in the shifts from 'on-prem' to cloud-based solutions, as companies seek more flexible, scalable and data-driven ERP/CRM systems – that's creating a knock-on demand for roles in Data Analysts and Data Engineers, as data integrity becomes a critical foundation for any automation-based project.

Software Developers are dropping down the list, although the severity of the drop-off is interesting. However, when you look at the growing popularity of Low-Code development platforms, it's not surprising; teams are equipped with the capability to design and configure functionality, without the need to 'hand-write' code.

Both permanent and contract job flow does feel more positive as we look ahead to 2025, and beyond. There is a new lease of life around technology and what it holds for organisations – and you can see this in the volume and quality of investments being made to spur on transformation efforts."

Amanda Whicher
Director - Technology Solutions
Hays, UK&I

Top Permanent Jobs
Click here

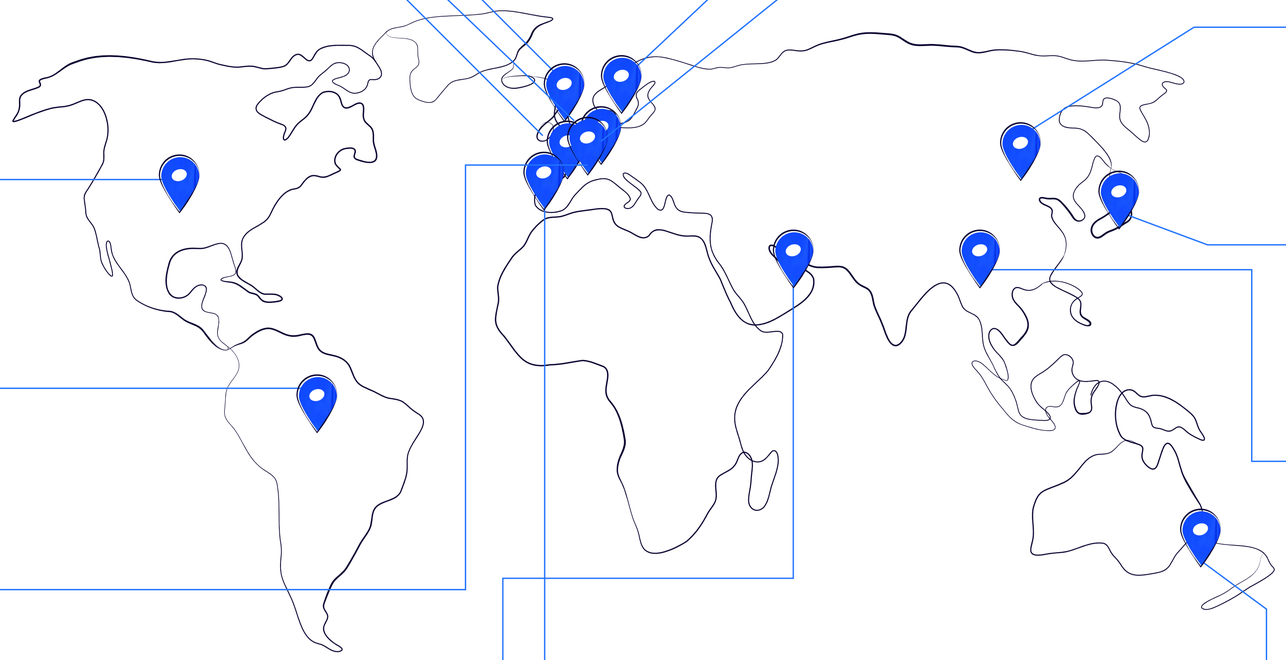
Top Contractor Jobs
Click here

Where will you compete for skills?

Cross-border hiring has become a key tactic for organisations struggling to access the talent they need in-country.

But understanding where key skills 'sit' is an ever-evolving challenge.

With visibility over a global dataset on job listings, we've identified which skills areas are in high demand across the globe. Armed with the latest data, you can decide where to compete for the skills you need.



Eastern Europe
1. Software Development
2. Projects and Change
3. Infrastructure

Central Europe
1. Software Development
2. ERP/CRM
3. Infrastructure

Nordics
1. Software Development
2. Infrastructure
3. Cloud

Belgium & Netherlands
1. Infrastructure
2. Data and Advanced Analytics
3. Projects and Change

UK&I
1. Projects and Change
2. Infrastructure
3. Software Development

China & Hong Kong
1. Projects and Change
2. Infrastructure
3. Software Development

North America
1. Software Development
2. Infrastructure
3. Projects and Change

Japan
1. Software Development
2. Projects and Change
3. Cloud

South America
1. Software Development
2. Infrastructure
3. ERP/CRM

Southeast Asia
1. Software Development
2. Projects and Change
3. Infrastructure

Germany
1. Projects and Change
2. Software Development
3. Infrastructure

UAE
1. Software Development
2. Data and Advanced Analytics
3. Cyber Security

France & Luxembourg
1. Software Development
2. Infrastructure
3. Projects and Change

Australia & New Zealand
1. Projects and Change
2. Infrastructure
3. Software Development

Discover more talent hotspots, deficits and emerging markets in 'The Workforce of the Future'.
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Understanding the global tech talent landscape

We predict that demand for roles in Projects and Change, as well as Data and Advanced Analytics, will continue throughout 2025. It's a reflection of the actions that organisations will need to take over the next 12-18 months in order to realise their longer-term AI ambitions – from collecting, cleaning and analysing data to understanding the volume and complexity of change.

While Software Development is a leading skillset across many countries today, over time, we expect to see demand continue to decline. Automation, attrition and redeployment will push these roles off the top spot. Organisations need to consider how they channel these foundational skills into new opportunities.

It's interesting to compare the distribution of labour across the globe. The country comparisons illustrate how project managers often sit in more economically established countries, while the execution is outsourced to different markets.

This is not coincidental. It reflects how work is strategically allocated to maximise cost savings, while keeping strategic and regulatory decision-making 'close to home'.

Countries including Malaysia and Romania are leading hubs for skills areas such as Software Development, available at a lower cost compared to regions such as Central Europe and Australia. Organisations that are currently outsourcing to these locations have a responsibility to ensure the continued development of these talent networks, especially as demand declines for some roles. Building long-term partnerships is not just a moral imperative, but also serves in the best interest of organisations looking to strengthen their pipeline of future talent.

Jobs are evolving – and so is demand

Our data tells a more balanced story, compared to much of the mainstream media, of how demand is shifting in response to technological advancements.

Evolving technologies, including GenAI, will certainly reshape job volume, but (as shown by the top jobs by country) it's not a shift we'll see overnight – and nor is it as simple as technology simply 'taking' jobs.

Of course, we are seeing a decline in demand for some roles, such as Software Developers, where the capabilities of technology can offload certain time-consuming or repetitive tasks.

While our data can only shine a light on technology-focused roles, this is a story that's reflected across all industries. Neil Khatod explores how many entry and mid-level roles are impacted by innovation

"Chatbots, Generative AI and some machine learning models are satisfying the initial triaging elements of some roles, such as Call Centre Operatives, for example. However, the implementation of technologies is nuanced. There are economic, legislative and moral considerations."

Neil Khatod
Chief Information Security Officer, Hays, Americas

The extent to which job roles are impacted will be unique to every organisation. However, there are three universally applicable recommendations we can draw from our data:

01

Restructure
Organisations need to be considerate in how they bring together human and machine intelligence most effectively.

A narrow focus on replacing, rather than restructuring, may deliver immediate cost-savings, but will damage performance in the long term.

As James Hutt (Consultant, Paradigm Junction) identifies, this is because a person's job is often much more than the tasks they complete.

"Many people do a lot more than is detailed on their job specification. If you try and automate a person out of existence, you're neglecting the innately human parts of their role. These responsibilities, such as monitoring team morale, supporting new starters or coordinating meetings, are vital in keeping the cogs turning for your organisation.

Nothing will get better by simply adding AI to existing workflow, or by treating AI separately from workers."

02

Reskill
We can't confuse a declining demand in some job roles with the wider talent landscape. Skills remain incredibly scarce.

Rather than competing for a finite number of external candidates, organisations should explore opportunities to reskill those in 'at-risk' roles.

Alongside a variety of technical and soft skills, these individuals also have a strong understanding of business processes. With the right support, they are well placed to identify opportunities for innovation and improvement.

03

Redeploy
As certain roles, enabled by technology, become more efficient, we will see a subsequent rise in demand across other areas of the organisation.

For example, a sales team utilises a Large Language Model (LLM) to facilitate more personalised interactions, translating into a higher conversion rate. This drives demand across the ecosystem, from onboarding teams to the procurement of goods or services to satisfy the initial sale.

Organisations need to consider how they facilitate internal movement to reflect changing priorities.

"AI can provide great functionalities, but it will mean the upskilling of all staff, not just technology teams. As we go forward, AI will become an embedded tool for all users."

James Walsh
Business Director (Cyber, Data and Cloud)
Hays UK&I

"People remain an incredibly powerful resource for organisations. Our strengths lie in being able to respond sensibly in unusual situations, perhaps that we've never seen before. An obvious example is a driver's response to a person who is crossing the road while holding a stop sign. It's why innovations such as autonomous vehicles continue to fall short of expectations. There are simply too many variables to consider."

James Hutt
Consultant,
Paradigm Junction

The Future of Work:
How to leverage AI in your workforce transformation

Your framework for building a digitally driven organisation

Any future-focused organisation, irrespective of industry or location, is prioritising their technological capabilities. Digital maturity may vary, but there is a universal push to achieve more with less – and technology is seen as the silver bullet.

Very few businesses are considered to be 'digital natives', but success in the year ahead will rely on the integration and deployment of technologies across your ecosystem.

To help you navigate your digital transformation, we've collated the lessons learnt from leading change with hundreds of organisations, distilling this into four critical components.

Each element must be developed in parallel, creating a solid foundation for your digital transformation journey. Any fault lines in these foundations will become strategic challenges as you scale your ambitions.

- Strategy
- Stakeholders
- Structure
- Skills

Strategy

Without a defined strategy, your digital transformation will fail.

It may seem obvious, but research indicates that very few organisations have developed "a coherent strategy to create and capture value" from technology.

Characteristics of a successful strategy
Click here

Here's what's holding you back

Based on our work with clients across the globe, we've pinpointed a number of factors that are preventing businesses from developing their roadmap.

How technology is perceived

A recurring challenge we've identified is that many organisations begin from the perspective of seeing their digital transformation as part of a technology strategy, rather than the integration of technology into the business strategy. Ulrich Krämer advises that organisations do the necessary work to 'rebrand' their digital efforts internally. "The type of digital transformation we're undergoing with clients is not an IT upgrade, but a foundation for innovation across the workforce."

How innovation is driven

We're seeing a number of really impressive use-cases brought to life in organisations, as technologies are deployed to surpass the efficiencies of existing processes. The challenge our clients face is that these projects are often led by individuals who control singular value streams in the organisation. A 'top-down' approach is needed to facilitate cross-functional change.

How technology is organised

"Many companies have a scattered technology landscape", states Nadine Wirkuttis, Head of Channel Data/AI, Hays Germany. This means that leaders are unable to make data-driven decisions because they don't have total visibility over the business and how it functions.

"If you rush the development of your strategy, the technology solution you develop and implement may not be as effective. You're simply solving one challenge in this scattered landscape", Nadine adds.

Your strategy should be risk-aware, not risk-averse

One of the most common challenges our clients face is the management of new or heightened risks when developing their digital transformation strategy. For many, it's enough to bring their journey to a halt. Companies end up 'in knots' contemplating all the possible things that could go wrong.

These fears are legitimate. 'How' and 'by whom' technology is deployed can create new challenges for organisations. A study by EY found that the amount of corporate data funneled into chatbots by employees rose nearly fivefold between March 2023 and March 2024.

But organisations must have the confidence to acknowledge, manage and monitor risk, because blocking access to emerging technologies will result in missed opportunities.

Ulrich Krämer comments, "we're having tailored conversations with our clients that enable us to create a solutions-driven approach. Organisations need to define a clear governance structure for the use of technology."

James Hutt calls this the "risk cover" that an organisation grants its people in which to test and innovate.

"Take Copilot as a guarded form of OpenAI. Having parameters in place allows people to trial new concepts without fear. It's like the brakes on an F1 car. When you know they are in good working order, you're able to go much faster the rest of the time."

Stakeholders

You need the right people in the room.

But as your digital strategy shifts from being the focus of the technology team to a 'whole business' challenge, determining who gets a seat at the table becomes increasingly complex.

This will vary between organisations, but our experience indicates that alongside the CEO and Chief Technology/Information Officer, you'll need to ensure representation from the following functions:

Commercial	Identifying which technologies will move the needle on productivity, balancing immediate and long-term ambitions, plus the impact on cash flow.
Risk	Navigating an evolving risk landscape, from data privacy to growing cyber security threats, as well as responding to new legislation.
People	Understanding the skills that will be necessary as you progress in your digital transformation, and what impact these changes will have on organisational culture as change occurs.
Change	Unifying stakeholders behind the transformation, managing friction or resistance, maintaining open and collaborative streams of communication.

And the far-reaching impact of your digital transformation will require technical leads to "rewire" how they interact with the wider organisation, according to James Hutt.

"We often see tech teams deployed to solve a very specific problem. They implement the necessary technology, fix the bugs and present the solution to the organisation."

As technology becomes ingrained into the wider business strategy, organisations need to remove the silos between functions. For James, this means technical leads become responsible for "bringing everyone together and giving them the information needed to understand the capabilities of technology – that's when we can start solving big business challenges."

Stakeholders

Trust is vital to your digital transformation

You need to build and maintain trust across your organisation, from senior sponsors to employees, shareholders and your customers. Here, we've outlined three actions that foster an environment of trust.

Keep the conversation going: Identifying the challenge you're trying to solve as part of your digital transformation is just the first step.

Turning concept into reality will require an agile approach to change management, bringing your stakeholders back to the table at each stage:

Analyse

and evaluate impact of proposed changes to people and process.

Design

and implement enhanced process, communicating the change.

Monitor

results and fine tune, adjusting the balance of human and machine interaction.

Ensure transparency:

55%

of employees believe that their organisation will ensure AI is implemented in a responsible and trustworthy way.

50%

of consumers surveyed by McKinsey stated that they would consider switching brands if a company's data practices were unclear.

If you are a business operating on a global scale, it's worth remembering that aversion and engagement with new technologies is not uniform across cultures. A recent Hays survey in the US illustrated how in North America, just 36% of respondents were using AI in their jobs, compared to 48% of people surveyed in Latin America, indicating the need for differentiated strategies in building trust and encouraging adoption.

Acknowledge failure: With so much at stake, we often avoid difficult conversations.

"We don't usually talk about our failures, instead preferring to share success", comments Nadine Wirkuttis. "It shouldn't be that way, especially when we're implementing ever-evolving technologies such as AI. If we fail, we should talk about it. It builds trust."

And your external partners and providers play an important role in creating this safe space.

Ulrich Krämer adds; "we need to share the journey with our clients. The pace of technological innovation means that we are all trialing new concepts and pushing boundaries. Shared learnings – and failures – will be key in getting us all to the end goal much quicker."

Diverse voices will enhance your digital transformation
Click here

Structure

Your organisational architecture is a foundation that will need to support your digital transformation.

How you prepare existing systems, technologies, people and processes will have a tangible impact on the 'end state' of your digital transformation. A poor architecture will result in a slower change velocity, greater friction as this change occurs, and is likely to incur higher costs as time is spent revisiting or even redesigning critical elements.

Data will determine success

It follows the 'garbage in, garbage out' hypothesis. This states that "without an optimised and secure bedrock of data to power high-quality outputs... tools like chatbots will deliver worse output that might even hurt productivity."

Truthfully, it's where most organisations will need to spend considerable time and money, cleaning and organising data to ensure it is in the right format, and in the right place, to deliver the greatest impact.

"Data is the heart of any AI algorithm."

Nadine Wirkuttis
Head of Channel Data/AI, Hays, Germany

From mapping change to managing it

Central to the structure of your transformation will be the process in which technology is implemented, diffused and adopted.

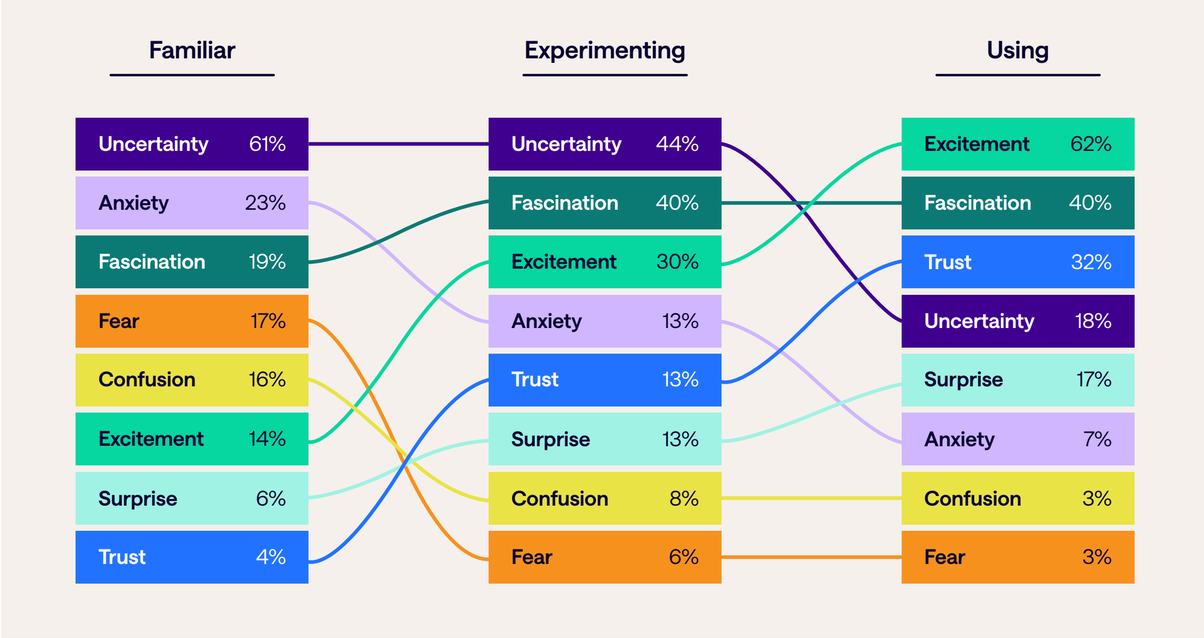
Jon Sampson highlights that in most organisations, "many technologies have been rolled out, but they haven't been fully understood, fully trained and fully embraced." The result is a failure to take advantage of the full spectrum of opportunities offered by the new technologies.

Organisations need to be actively managing the process of change, including:

Accessible and regular training: A study by Deloitte illustrated how frequent exposure to emerging technologies, such as AI, helped to reduce feelings of anxiety and uncertainty.

Given the fear of displacement that has plagued much of the integration of new technologies into the workforce, equipping individuals with knowledge, perhaps in a format of 'micro' or 'burst' learning sessions, will help to reduce the negativity that surrounds implementation.

What's more, a greater understanding of new technologies will allow people to consider how they can combine their uniquely 'human' traits and skills in their specific role, with the scope of smart technologies - opening up avenues that you may not have even considered.



Deloitte, 'Earning trust as gen AI takes hold', 2024

A platform to be heard: You need to ensure that feedback loops are built into your infrastructure. While your decision-making stakeholders (see Section 2) are vital in shaping the vision, it's the teams 'on the ground' that will determine success. Nadine Wirkuttis adds that "everyone should feel like they have the ability to contribute to the bigger picture, that their voice has been heard".

Two-way communication channels may add time and complexity, but they empower your people to feel informed and that they are playing an active role in the decision-making process.

The result? A workforce more aligned to your digital transformation.

Skills

Jobs are being created and eradicated at a pace that organisations are failing to match. Titles are modified to reflect changing priorities; new technologies render experience an ineffective yardstick, and AI is automating some tasks out of the to-do list entirely.

How do you search for skills when the parameters are always changing? You need the right people, with the right skills, in the right place to make your digital transformation a success.

It's why the fourth critical component focuses on skills.

01

Define your need

There are multiple stages to your transformation journey. And yet, we often encounter organisations searching for a single candidate, or type of candidate, that can fulfil each component.

Cleaning your data, devising your strategy and implementing new technologies will require vastly different skillsets.

Rather than searching for a 'unicorn' candidate, likely at a high cost in exchange for the breadth of skills, consider how a blend of high-skill contract workers and permanent employees, (equipped with an extensive knowledge of your organisation) could be deployed.

02

Rewire your recruitment process

As Neil Khatod summarises, "the old way of hiring is not going to work."

Candidates expect the same hyper-personalised experiences that they receive as a consumer. A drawn-out hiring process may be necessary for organisations trying to identify changing skills and aptitudes, but the loss of interested applicants will be costly.

The good news is that technology can be deployed to support organisations in their search for key skills. Here at Hays, we've conducted a detailed review of the process with many of our clients, from initial contact to the first six months following placement.

We've identified multiple opportunities for technology to add value, including how chatbots can be used to solve the global challenge of 'ghosting', as organisations fail to keep pace with surges in their recruitment processes.

And it's worth noting that while there are productivity challenges that you can use technology to help solve, human interaction and oversight remains critical.

Louisa Benedicto (Senior Vice President, Hays Canada) reflects on how the integration of technology could replicate unjust outcomes, if left unchecked.

"We need to be really clear with candidates on when and how we're deploying technology to support the recruitment process. For example, using GenAI to write a job description will result in an intrinsically biased outcome, given that it's based on historic data that champions a limited demographic."

For many organisations, an overreliance on technology is due to a lack of resources. The engineering team are searching for a replacement for a role that's changed enormously in the last two years, while the hiring team are working with an outdated job description and a patchy understanding of the skills needed.

Outsourcing this search avoids falling into the 'technology trap', bringing together specialist sector knowledge and recruitment capabilities.

03

Champion soft skills in times of change

A common thread that links a number of our clients in the early stages of their digital transformation is that they have a defined set of technical skills they need.

However, very few have applied the same attention when detailing the personalities needed to pull this together.

What makes this more difficult, especially in rapidly evolving sectors such as Technology or Life Sciences, there isn't always a 'playbook' that defines a successful candidate.

Organisations need to identify individuals who are comfortable with ambiguity, given the extent of change. Other soft skills essential to your digital transformation include:

Communication

Negotiation and influencing skills

Self-awareness

Emotional intelligence

Skills

04

Broaden your horizons

With experience no longer a reliable indicator of success, you'll need to consider a wide array of candidates to support your digital transformation journey.

Internal: Given the scarcity of talent in many countries, as well as ongoing economic uncertainty, the redeployment of internal talent is an increasingly popular solution for plugging skills gaps.

And you can use technology to assist your efforts. There are a number of scraping tools that can source the data to shape a company-wide skills matrix, enabling hiring teams to more easily identify suitable candidates, for example.

Once in the role, e-learning platforms can enable on-ramp training to increase time-to-productivity. Internal chatbots could act as the first 'port of call' for many common questions, reducing the burden on already-stretched teams.

In addition to being a more cost-effective solution than simply 'buying in' the skill set, there are multiple benefits to businesses, including:

- Stronger tenure, as individuals benefit from new opportunities.
- Retention of critical knowledge and processes.

External: Your digital transformation will likely require an injection of 'outside' talent.

But the battle for skills is fierce. In-demand candidates are aware of their value – and will require financial compensation, a strong purpose and an ambitious culture to keep them engaged.

Struggling to source the skills you need? Consider some of these alternative search models.

Hire-Train-Deploy models: These intensive training programmes develop technical skills for a specific need.

Uncovering hidden talent networks: New challenges require new perspectives. Many organisations have previously been unwilling to explore alternative talent sources. Given the pace at which skills turnover, these attitudes will need to adjust.

We need to be willing to find talent and overcome our biases while doing so.

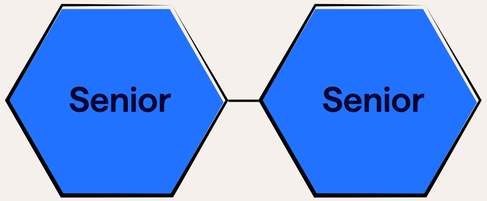
Customised teams for customised challenges: Many organisations can't afford to inflate salaries to keep pace with their competitors. Neil Khatod explores how custom-built teams could provide the answer, without breaking the bank.

"A pyramid structure balances experience with a healthy appetite for learning. Instead of contracting two senior architects, an organisation could deploy one mid-level professional, alongside two more junior candidates.

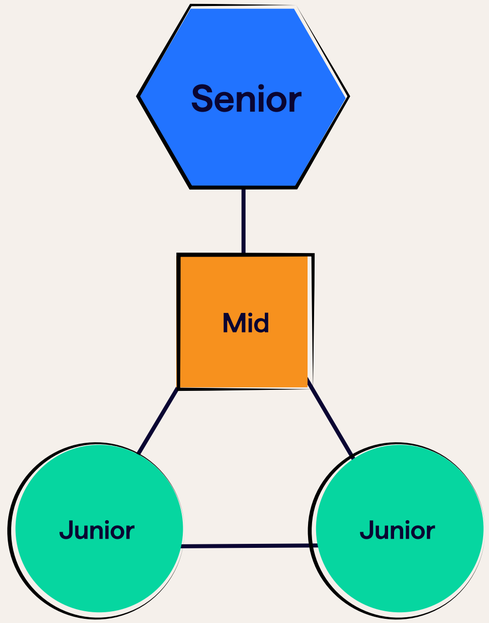
It's a delicate balance to ensure that teams are formed with the right skills, as well as the capabilities to coach other individuals. It undoubtedly requires more effort, but it's a more affordable and achievable method that will deliver a higher-performing team – if you're ready to put in the legwork."

Neil Khatod
Chief Information Security Officer, Hays, Americas

Today's team



Tomorrow's matrix



Take a look at how we're leveraging important partnerships to uncover hidden talent across the globe

Defra *Click here*

Solve Transition *Click here*

Her Tech Circle *Click here*

Twelve months to define *the future of your organisation*

2025 is the year that will see us move from siloed, AI-enabled efforts that improve individual outputs, to enterprise-wide technology solutions that fundamentally reshape how work is done.

This transformation will stretch far beyond 2025. I'd estimate that for most businesses', the process of fully implementing and leveraging AI will take anywhere between five and ten years, based on the size, complexities and legacy infrastructures of the organisation.

You'll need to determine which technologies to invest in and how they will move the needle for your organisation. You'll need to define what success looks like – from individual productivity levels to your profit margins.

Risk will evolve as you integrate more power into your processes – you'll need to stay ahead of both changing legislation and the malicious actors who are eager to take advantage of any weak links in your expanding digital estate.

You'll need to understand what impact these technologies will have on your hiring strategy as professions rise and fall in a matter of years, as well as the key skills you'll need to build, borrow or buy in order to turn your 'digital vision' into a reality. Navigating these challenges will require the efforts and involvement of the entire organisation, not just the technology function.

The quality, integration and return on investment delivered by technology will be the direct result of the foundations you put in place over the next 12 months.

Are you ready to shape *the future of work?*

James Milligan

James Milligan
Global Head of Technology, Engineering and Contracting, Hays

Understanding our data sources

Hays Global Data Dashboard

An extensive global dataset has been used to compile the insights in this report. The data was collected in February 2025 from 33 countries (Australia, Austria, Belgium, Brazil, Canada, Chile, China, Colombia, Czech Republic, Denmark, France, Germany, Hong Kong, Hungary, Ireland, Italy, Japan, Luxembourg, Malaysia, Mexico, the Netherlands, New Zealand, Poland, Portugal, Romania, Singapore, Spain, Sweden, Switzerland, Thailand, United Arab Emirates, the United Kingdom and the United States).

The data presented in this report is derived from a proprietary dashboard developed by Hays. This dashboard meticulously records job volume and fill rates across ten sub-specialisms within the technology sector. Data entry is performed by our consultants, ensuring accuracy and consistency. The dashboard serves a dual purpose for our business: it acts as a quality checker and provides an indicator of evolving market demand.

It is important to note that this data is exclusive to Hays and is therefore reflective of client demand, specific to the roles we hire and the countries in which we operate. While it offers valuable insights into market trends, it represents a part of the broader market landscape.

Horsefly 'AI impact' feature

Horsefly collates and aggregates data from hundreds of thousands of third-party data sources, including 1.2 billion merged and de-duplicated social profiles and millions of de-duplicated job adverts.

The AI Impact Score indicates how AI could impact specific skills areas and job roles. Skills are categorised into three groups:

- AI Promoters: Skills likely to be enhanced or replaced by AI.
- AI Neutral: Skills that might see some AI influence but won't fully change.
- AI Detractors: Skills unlikely to be affected by AI.

The model is fine-tuned to focus on AI disruption, using the latest research, news and studies. The data is fully up to date and mapped to job titles and skills in real-time. The final score uses a method similar to the Net Promoter Score (NPS). Roles are classified based on their mix of Promoters, Passives, and Detractors. This creates a score from -100 to 100.

Interpreting the Score:

- -100 to 0: No major AI impact. These roles are stable and unlikely to change soon.
- 1–20: Minimal AI influence. The role remains mostly unchanged.
- 21–40: Some tasks may shift, but the core role is unaffected.
- 41–60: Moderate impact. Certain tasks could be automated, requiring upskilling.
- 61–80: High impact. Many tasks may change, so early planning and adaptation are key.
- 81–100: Severe impact. The role or key tasks could undergo significant transformation soon.

Contributors

We would like to express our appreciation to the following contributors.
Your expertise and insights have been instrumental in shaping this report.

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Let’s shape your technology transformation, *together*

From Silicon Valley to Hong Kong SAR, in today’s market there are no boundaries for tech talent. We offer a world-class customer experience, designing hiring strategies to meet your digital ambitions.

Discover *our global network of expertise*

HAYS