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Skills Research Digest
Quarter 2 2023

The **Skills Research Digest** monitors recently published skills and labour market research relevant to the work of the Department for the Economy (DfE) and to the strategic and policy issues that we face in Northern Ireland.

In each case, we provide a short summary of the key points and web links to the full article or report*. A full list of sources can be found at the end of the publication.

Highlights this quarter include:

- Future skills needs, with a particular focus on the role and value of skills forecasting.
- More reports on the green skills and jobs urgently needed for transition to net zero.
- Evidence supporting calls to reform and broaden the apprenticeship levy from a growing number of sectors.
- A raft of reports on the importance for the economy and society of adult and lifelong learning: upskilling, reskilling, work-based and support for independent learning.
- Generative AI – the implications, opportunities and concerns.

** Links are correct at the time of publication, however it is likely that some will break over time. The list of sources has more general links, which should help the reader to track down the original report.*

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The research summarised here presents the views of various researchers and organisations and does not represent the views or policy of the Northern Ireland Executive or those of the authors.

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Preparing Young People for Work

16–19 EDUCATION

OECD published *Managing student transitions into upper secondary pathways*, a working paper exploring practices in different countries.

- It provides a policy framework for three main transition points, with key policy objectives and country practices, examples of countries and opportunities and risks:
  - **Entry into upper secondary education**: encouraging high transition rates; identifying and supporting struggling students; setting standards to guide learning in lower secondary
  - **Orientation and selection into upper secondary programmes**: responding to diversity in student interests; matching students, their aspirations and skills with education programmes
  - **Selection and orientation into subjects, levels and specialisations**: responding to diverse interests, knowledge and skills; providing choice; providing direct pathways into diverse jobs/alignment with labour market needs.

EMPLOYABILITY & CAREERS

The Learning & Work Institute (L&W) published *Understanding the impact of Covid-19 on young people across the UK: An evidence synthesis*, commissioned by the UK Social Mobility Commission and the Scottish Poverty & Inequality Commission.

- It summarises evidence across five broad themes: impact on education; digital exclusion; impact on employment; impact on health and wellbeing; and young people's voice and experiences.
  - The Covid-19 pandemic exacerbated existing disparities through its disproportionate impact on groups of young people at risk of disadvantage, including those: not in education, employment or training (NEET); care experienced; from ethnic minority backgrounds; with special educational needs and disabilities (SEND); and young women.
  - Measures of low social mobility (e.g. income inequality, youth unemployment and gaps in school attainment) that were poor pre-pandemic, have worsened.
  - There are concerns that there may not be adequate systems in place to tackle the 'substantial' impact of the pandemic on young people at risk of disadvantage.
  - Resolution Foundation analysis suggests that disparities faced by these groups will result in lasting impacts, especially in terms of employment prospects and pay scarring over the longer term.

The Northern Ireland Department for the Economy published *Closing the Skills Gap: Breaking Barriers between Career Explorers and Employers to Support 10X Economic Growth in Key Clusters (FinTech and Life & Health Sciences)*, by Work+.

- It draws on primary research with the supply and demand sides of the NI skills system as well as policy and practice in six SAEs (Denmark, Estonia, Sweden, Finland, Ireland and Scotland).
- Most of the 2032 workforce is in work now, but participation in adult learning in NI (18.2%) lags behind the UK average (25.3%), which in turn compares unfavourably with OECD averages.
- Government forecasts indicate that economic growth will be constrained unless there is a labour market shift towards jobs that are in demand e.g., priority clusters and at Levels 3–5.
- The 10X Skills Strategy identifies careers information, advice and guidance (CIAG) as critical to enabling businesses to find the right people to enable the economy to flourish; however, proportionately less public money is invested in career guidance in NI than in Scotland or Wales.
- Findings include:
  - The 'prize' of a perfectly balanced skills system in NI is £3.6b additional Gross Value Added (GVA) (+7.2%), a £2.1b increase in wages and 6,696 more people with higher qualifications by 2030.
  - Only 2% of NI employers have 50+ staff; small and micro businesses face particular barriers to recruiting and retaining talent, including struggling to access entry schemes such as internships and apprenticeships.
  - At the same time, 'career explorers' – young people, career changers and their influencers – can find it difficult to access appropriate career information.

- Employers in both FinTech and Health Sciences recognise the need to aggregate demand to increase the visibility of their sector and are keen to build collaborative networks, initiate skills programmes and take on apprentices but often don't know how to do this.
- Increasing digitisation of human resources and job specifications offers an opportunity to better communicate jobs in terms of transversal skills and aptitude rather than generic terms and qualifications.
- In all six SAEs, there is a high degree of commonality in CIAG in terms of purpose, target audiences and service features, including: starting young and encompassing all age groups and lifelong learning; increasingly technology based; operating across all education and training phases as well as public employment services; teaching career management skills at an early stage; using a place-based approach with Careers Hubs and strong connections with local labour markets and beyond, e.g. e-portals.

- Recommendations include:
  - Government departments with a skills responsibility should allocate budget based on working towards the 'prize' of closing the productivity gap and achieving skills balance.
  - Sector bodies and government should design an online CIAG marketplace around the career explorer, with a focus on individual aptitude, qualifications, interests and skills.
  - The service should provide: inspiration from those working in the sector; information about skills, qualifications and pathways; access to structured work experience opportunities; information posted by employers about careers support, work experience, apprenticeships, etc; a continuous flow of personalised and targeted careers information.

Skills Development Scotland published *Young People's Career Ambitions (YPCA) 2022/23: Key findings briefing paper*, based on 1,414 responses from 2020/21 school leavers in October–November 2022.

- Young people, particularly those from the most disadvantaged groups, felt supported and encouraged by the career services they received in school.
- Career aspirations are concentrated in a small number of job sectors, and there are clear demographic differences in the careers they aspire to.
- Key influences on career aspirations are: parents/carers (78%); interests/hobbies (76%); the need to earn money (74%); and the qualifications achieved in school (72%).
  - Those from the 20% most disadvantaged areas are more likely to be influenced by a wider range of people and the need to earn money.
- Females and those from disadvantaged groups were more likely to say not having enough self-confidence was a barrier to their future careers.
- 83% of young people were satisfied with what they were doing now – from 79% of those from the 20% most deprived areas to 88% of those from the least deprived areas.

The Economic & Social Research Institute (ESRI) published *Career decision-making among young people in Ireland*, a *Research Bulletin* drawing on Growing Up in Ireland data for 17/18 year-olds.

- The majority of all young people mentioned their parents as a source of information and advice, particularly those from more highly educated families and those working in professional jobs.
- Students in fee-paying schools were more likely to use individual sessions with a guidance counsellor as a source of information and have access to career talks in their school; they were also more likely to consult with their parents.
- Students in more disadvantaged settings or from families with lower levels of education were more reliant on school staff (e.g. subject teachers or class tutors) for advice.
  - However, this did not boost their intention to go on to HE, suggesting it was not sufficient to make up for the lack of insider knowledge of the education system among their family members.
- Additional guidance resources should be targeted towards schools serving more disadvantaged populations to help counterbalance the resources (within and outside school) available to their more advantaged peers.

The report was published in February 2023 but not available in full until Q2.

The Institute of Labor Economics (IZA) published *Stephen versus Stephanie? Does gender matter for peer-to-peer career advice*, examining gender stereotyping and the impact on high school students' academic and career decisions.

- A randomised controlled trial considered whether a sample of students in England aged 15–16 would recommend that a fictitious peer pursue different career paths simply because of their gender.
- Findings include:
  - Young people have established individual beliefs regarding gender stereotypes that cause them to give gendered advice to a fictitious peer.
  - For example, participants were 11ppt more likely to recommend a career path in corporate law to a male peer than one in civil rights law.
  - Students presented with a male fictitious peer also tended to recommend degrees that have lower shares of females to males.
  - Students with a father who works long hours were significantly less likely to recommend that a male fictitious peer pursue careers in corporate law or careers with high shares of men.
  - There are underlying beliefs among respondents that men are better suited to jobs with extrinsic motivations while women are more suited to jobs with intrinsic motivations.

EngineeringUK published *Rapid Evidence Review: Interventions to increase girls' aspirations for engineering and technology careers*.

- It presents findings on: programmes designed specifically for girls; role models and mentors; links to HE and careers; and summer camps.
- Recommendations include:
  - Start engaging girls with science, technology, engineering and maths (STEM) at a young age.
  - Learn about the needs, interests and preferences of girls when designing outreach programmes.
  - Role models that are a similar age can help to bridge the developmental gap.

OECD published *Career talks with guest speakers: A guide to delivering an effective career development activity*, on the impact of career talks in school on adult employment outcomes.

- The paper draws on the research literature and examples of practice in the UK, Spain and US to illustrate why and how career talks can be expected to benefit students.
  - The characteristics of more effective provision are: authenticity, quantity and relevance; making them mandatory in primary and lower secondary but voluntary in upper secondary; focusing on tackling disadvantage; creating a positive learning environment; preparation and reflection.
- It also provides a guide to the design of career talks in person and online, arguing that they are an easy and effective intervention that schools can introduce.

L&W published *Manufacturing excellence: How can young people acquire the world-class skills the UK needs to become a global leader in advanced manufacturing?*, commissioned by WorldSkills UK.

- 57% of 350 manufacturers surveyed cited challenges accessing a skilled workforce; 55% are experiencing shortages in advanced skills and 61% in traditional skills, e.g. fabrication and welding.
  - 63% believe that technologies and processes are currently impacting their skills needs, and 69% believe they will in the next five years.
  - 45% report an increased demand for higher technical qualifications and apprenticeships and 38% for degrees/degree apprenticeships, although demand at all levels is expected to increase over the next five years.
- 63% believe that young people don't have the advanced skills and 70% the traditional skills needed.
  - 51% aren't working with education or skills providers to try and ensure their skills needs are met.
- Skills providers report challenges keeping educators' expertise and training equipment aligned with changes in industry and the shifting skills demand these changes create.
  - Only 14% of manufacturers are supporting educators to gain industry knowledge and experience.
- 40% of young people are likely to consider a career in manufacturing (18% of females, 54% of males); many hold negative perceptions about the opportunities the sector can offer.

- 48% have never received information about the sector and 88% would find additional information helpful; 41% of employers aren't doing anything to inspire young people to consider a manufacturing career.

Think tank Demos published *The Employability Badge: Skills for life, work and a stronger society*, exploring the role of extracurricular activities, such as Scouts, in equipping young people with skills and experiences to enter the workforce and progress in their careers.

- The report draws on a survey of 500 employers and 3k people including 1k Scouts alumni, as well as in-depth interviews and focus groups.
- Employers are concerned about young people not being given opportunities for work experience or to undertake coursework that helps them develop skills such as speaking and listening.
- Employers also say that young people don't know how to effectively articulate their transferable skills during the hiring process.
  - With the future of work affected by automation, environmental sustainability, inequality and globalisation, 'future-proofing' skills will become increasingly important, with transferable skills setting people apart from artificial intelligence (AI).
- Taking part in extracurricular activities is strongly associated with several positive outcomes including employment status, career optimism and preparedness for work.
  - Most of those who attended extracurricular activities felt prepared to start work for the first time and were optimistic that they could get what they wanted out of their career, compared with 37% and 47% respectively of those who didn't attend any extracurricular activities.
  - Of those who felt extracurricular activities had helped prepare them for work: 54% had gained teamwork skills; 43% leadership skills; 42% emotional resilience skills.

The University of Edinburgh Centre for Educational Sociology published *Behind the numbers: Understanding how social inequalities in education and the labour market come about*, a briefing on results from two research programmes in Scotland.

- The studies used large-scale quantitative data to investigate the extent of social inequalities and the role of individual, family, school and area-level factors.
- Educational attainment and the type of curriculum studied in secondary school are two important factors in explaining social inequalities in education and labour market outcomes.
- Findings include:
  - In Scotland social inequalities in the labour market are mainly explained by differences in educational attainment between more and less socially advantaged young people.
  - The lower attainment and lower take-up of academic subjects by less advantaged pupils is a social justice issue but also a pedagogic issue: the focus should be on how to teach academic subjects to all young people, regardless of family background.
  - Graduates from disadvantaged backgrounds graduate later and from less selective universities, have more turbulent transitions and spells of unemployment and non-graduate jobs.
  - There are concerns for the limited availability of, and access to, high-quality quantitative data on education and youth transitions needed to guide education policies and practices.
  - The extent of inequalities stemming from family background is not fully captured by area-level indicators used in official statistics or by the limited parental information in survey and administrative data, which generally underestimate the family effect.

The Institutional Landscape

THE FURTHER EDUCATION (FE) & SKILLS SECTOR

England's Association of Colleges (AoC) and NCFE published *The Valuing Enrichment Project: Emerging findings and recommendations*, the interim report of a four-year research project with the University of Derby, based on data from 109 general, sixth form and specialist colleges in England and Wales.

- Enrichment is defined as: provider-supported activities that enhance and complement learners' study programmes and promote personal and social development.

- The best examples of enrichment extend and/or complement the learning outcomes specified by study programmes and enable learners to prepare for their next steps.

- Benefits to learners include:
  - Equips them with essential social skills and attributes that aid progression, e.g. confidence, teamwork, resilience, risk-taking, creativity
  - Gives access to new opportunities and resources and provides a safe space to express themselves
  - Increases their enjoyment and motivates them to stay at college
  - Facilitates the development of social communities outside the course or curriculum area; enables learners to experience citizenship and be part of collective local community networks
  - Supports the development of new skills outside chosen vocational areas.

- Benefits to providers include:
  - Collaboration with stakeholders, employers and partners in devising purposeful and real-life experiences
  - Development of local and national networks and ability to share common resources
  - Opportunities for partnership work and additional funding streams
  - Increased visibility with local community projects, elevating reputation and boosting recruitment
  - Opportunities to promote equality, diversity and inclusion
  - Reinforces a sense of community, impacting on student engagement, motivation, effort, attendance, retention and attainment.

The Association of Employment & Learning Providers (AELP) and Ufi VocTech Trust (Ufi) published *Future-Ready Vocational Education: Harnessing technology for success*, based on a survey of 71 UK independent training providers (ITPs)* plus interviews and discussions.

- 70% use a blended approach of remote and in-person learning; 13% rely solely on remote learning.
  - 76% frequently or always use learning technology, up from 30% pre-Covid.
  - Virtual classrooms (81%), videos (79%) and learning management systems (52%) are the most commonly used technologies.

- 92% see technology as positively impacting training by increasing accessibility and 94% by expanding opportunities, especially for those in remote areas or with disabilities.
  - 72% see remote learning as cost-effective for learners and tutors, although substantial initial and continuous investment is needed.

- 85% are open to adopting new technologies and 72% intend to use more within three years.
  - Barriers are a lack of digital skills (64%), devices (66%) and wifi (55%).

- Providers seek future technologies in four categories:
  - **Learning management system and tools**: demand is increasing, providing a virtual platform for learning and enabling access to materials and interactions
  - **Interactive and engaging learning tools** to overcome challenges: AI-powered apps for specialised occupations are gaining popularity
  - **Attendance recording and tracking**: streamlining to reduce workload and improve accuracy
  - **Accessible and integrated technologies**: drive the need for simplified processes and inclusive platforms, including exam-specific software.

- Providers are generally positive about AI, although the sector is still in the 'foothills' of AI learning technology.
  - It will support effective teaching and learning, offering virtual mentoring, supplementary information and the identification of knowledge gaps; however, learners need ethical skills and equitable access.

- To maximise the benefits of technology, ITPs must invest in infrastructure, allocate resources and enhance digital skills; however, investment must be shared by government.

**Includes two ITPs in each of Scotland and Wales but none in Northern Ireland.*

Jisc published *A review of research, policy and practice for planning digital and blended learning*, commissioned by the Welsh Government to inform planning for the FE sector as part of its Digital 2030 Call to Action.

- The Call to Action has four national priorities for FE: work collaboratively to widen access to learning opportunities; develop learner and staff digital capabilities and confidence for learning, life and work; maximise the potential of technology to empower, enthuse and inspire learners; embed agile, resilient and sustainable approaches to provision.
- FE institutions (FEIs) are asking many questions as part of their strategic planning, including:
  - How can they consolidate and build on the skills and understanding gained during the pandemic?
  - How can they recognise the unique value of in-person learning while exploiting online and blended approaches?
  - How do young learners continue to build on their digital strengths and how can FEIs help them to become more aware of and manage the risk?
  - How can FEIs shape then meet learners' expectations of their digital experience?
  - Which technologies: do learners and staff want FEIs to invest in and improve; provide the greatest benefits to learning, teaching and achievement; genuinely improve processes?
  - How are FEIs planning for likely futures and managing edtech opportunities and risks?
  - How do their investment choices support the local and regional economy and their learners as future digital workers as well as their workforce and values, including equality, diversity and inclusion (EDI) and sustainability?
  - How is the curriculum being renewed to ensure learners have appropriate skills for emerging occupations, industries and patterns of work, and what new opportunities are FEIs developing to support lifelong learning?
  - How are FEIs working with local/regional employers to identify and support emerging needs; how can they contribute to the 'national conversation' about the future of work and occupations?
  - How are FEIs building in resilience to support individuals and to deal with future system shocks?
  - What is the carbon impact of the digital estate and usage; how is it offset by carbon savings and what can they learn from other sectors to support ambitions for net zero emissions?
- The report suggests actions under six strategic themes: organisational leadership; EDI; curriculum renewal; digital capabilities; learning spaces; and digital infrastructure.

Jisc also published *Collaborative approaches in the Welsh post-16 sector*, six case studies on the successful collaborative use of digital tools and technology among Welsh providers.

- They offer an insight into the possibilities of collaboration and are exemplars of the national priorities *[see above].*

HIGHER EDUCATION (HE): APPLICANTS & ADMISSIONS

The Higher Education Policy Institute (HEPI) published *How do Admissions Professionals use the UCAS personal statement?*, drawing on a survey of 113 HE professionals from over 30 providers in January–April 2023.

- While the majority of personal statements are read, the average time spent on each statement is two minutes; 39% are read for one minute or less.
  - They are used to: assess interest in a course (88%); gain contextual information (65%); assess academic potential (40%); and assess work experience (29%).
  - Most professionals feel that decisions are made primarily on grades, although the statement is important for vocational or highly selective courses.
- The findings have implications for UCAS's plans to reform the personal statement to a series of short questions covering six themes: motivation; preparedness for course; preparedness through other experiences; extenuating circumstances; preparedness for study; and learning styles.
  - There is little evidence that 'preparedness for study' and 'preferred learning styles' are used in admissions.
  - There is little evidence to support the division of 'preparedness for the course' and 'preparedness through other experiences' into two separate questions: only 6% of personal statements for non-vocational subjects were used to assess transferable skills.

- There should be space within the UCAS form for applicants to discuss extenuating circumstances, as admissions professionals do consider this information.

- Just two questions are recommended, covering: motivation and academic potential; other activities and experiences.

UCAS published What do we do now?, the final collection of essays in its Journey to a Million debate in response to projections that, by the end of the decade, there could be up to one million students applying for HE (Level 4+).

The debate was launched in March 2023 – see details in Skills Research Digest Q1 2023, pp. 7–8.

IZA published *Preference-Choice Mismatch and University Dropout*, analysing the extent of the mismatch between occupational aspirations and chosen university majors, based on data from the German National Educational Panel Study.

- Mismatches between students' occupational preferences and their major choice are highly predictive of future dropout.
  - Students who choose university majors that don't match their occupational preferences before enrolling are more likely to drop out than those whose majors do match preferences.
- There are gender differences between the impact of preference-choice mismatch:
  - Female students are 13ppt more likely than males to drop out if they experience a mismatch.
  - Males with a mismatch are more likely to drop out in their first year than those without a mismatch, while no such pattern is observed for female dropouts.
  - Female dropouts are more likely to make an early adjustment to their university programme regardless of any mismatch, whereas males tend to drop out later but are more likely to make an early adjustment when they have a mismatch between their major and occupational preferences.
  - Males benefit from choosing broad majors when they have a mismatch or no clear preferences, while females only seem to benefit from broad majors when they have no clear preferences.
- The findings emphasise the importance of considering occupational preferences when designing HE policies, as mismatches can have significant consequences for student outcomes.
  - Adopting an admission system in which students choose their major *after* enrolling in the institution would allow students to explore their interests and abilities in a broader range of fields before committing to a major, potentially reducing the likelihood of a mismatch.

HEPI, Universities UK International and Kaplan International Pathways published *The benefit and costs of international higher education students to the UK economy*, in association with London Economics.

- The report updates two previous studies for 2015/16 and 2018/19, focusing on the cohort of 679,970 international students in UK HE in 2021/22, representing 24% of all HE students that year.
- Key findings:
  - Their total net impact was estimated at £37.4b across the duration of their studies, ~£3.9b of which was associated with EU-domiciled students.
  - The estimated total benefit was ~£41.9b, while the estimated costs were ~£4.4b – a benefit-to-cost ratio of 9.4.
  - The net economic impact per student was ~£125k for EU-domiciled and £96k for non-EU.
  - Numbers have increased 40% since 2018/19 and the net economic impact has increased 33% in real terms (from £28.2b); it is up 58% on 2015/16 (from £23.6b).
  - The impact is spread across the UK, with a £58m net economic contribution to the UK economy per parliamentary constituency, equivalent to £560 per member of the resident population.

HE: THE STUDENT EXPERIENCE

HEPI and Advance HE published *Student Academic Experience Survey 2023*, based on responses from 10,163 students UK-wide surveyed between January and March 2023.

- 76% feel that the cost of living crisis has affected their studies: 50% 'a little' and 26% 'a lot'.
- The number in paid employment has increased from 45% to 55% (34% in 2021).

- The average number of hours per week spent in class/fieldwork/studying independently is 33.4, up from 30.7.
- 37% said they received good/very good value for money – a slight improvement; there was a slight fall in those reporting poor/very poor value for money.
  - There has been little change in geographical difference: students from Scotland remain the most positive (51% good/very good) and those from Northern Ireland the least (31%); Wales is 37% and England 35%.
- Perceptions of poor value for money are driven mainly by cost of living concerns, now above tuition fees and teacher quality; industrial action is a new addition and is the sixth highest influence overall.
  - Priorities depend on the nation: cost of living is highest in Scotland (45%), Wales (42%) and England (41%), but tuition fees are highest in Northern Ireland (79%).
- 19% said their experience exceeded expectations, up from 17%.
  - Teaching quality, study support and feedback are the main reasons for them *not* being met.
- One thing their institution could address to improve their academic experience (in rank order): exam and assessment support; quality of teaching and learning; mental health support; the impact of strike action; communication; career development; and cost of living challenges.

Wonkhe published interesting analysis, finding that differences in students' experiences are becoming increasingly marked.

The Higher Education Statistics Agency (HESA) published *Degree attainment by socioeconomic background: UK, 2017/18 to 2020/21*, experimental statistics.

- Between 2017/18 and 2020/21, degree attainment levels – defined as the proportion of first degree qualifiers awarded a first or 2.1 – were highest in Northern Ireland and lowest in Wales.
- UK-wide, the gap in degree attainment between those from the most and least deprived areas narrowed by ~2ppts during the Covid-19 pandemic (87% of the sample are from England).
  - Scotland and Northern Ireland experienced greater reductions in the gap (both down 5ppt) – primarily as a result of improving degree attainment among the most deprived.
- The gap between the most and least deprived deciles is now widest in Wales; before the pandemic it was in England.

Jisc published *International students' digital experience – Phase one: A review of policy, academic literature and views from UK higher education*, an overview of key issues for HE institutions (HEIs) and international student agencies.

- While international students can have a wider range of digital skills than their UK counterparts, they can experience digital systems, tools and underpinning pedagogy very differently from domestic students.
  - Challenges include: engagement with online learning; assessment and plagiarism; unsupported software and hardware and adapting to new digital platforms and devices; using technology to stay connected with friends and family back home; and digital inequity.
- Recommendations for providers include: taking a strategic and integrated approach that works alongside an EDI strategy; creating online communities to foster a sense of belonging; providing regular inductions and training on digital learning and assessment.

The House of Commons Library published *Student support for undergraduates across the UK*, outlining student finance available in each nation and covering recent policy debates about the systems.

Students Organising for Sustainability (SOS-UK) published *Homes Fit for Study: Student experiences of living in the private rented sector 2023*, based on a survey of 800 UK students focused particularly on energy.

- 61% were satisfied/very satisfied with their current accommodation.
- 54% had experienced damp or mould on walls or ceilings in their current accommodation; 49% said it was poorly insulated/draughty.
- 70% limited the length of time they had their heating on to save money on energy bills; 12% had been unable to pay their energy bills at the final reminder.

- 59% had felt uncomfortably cold in their current accommodation, of whom 48% said it made them anxious or depressed.

Universities UK (UUK) published information and case studies on what universities are doing to support students through the cost of living crisis.

The National Union of Students (NUS) Scotland published *Cost of Living Crisis: International students*, a survey of 1,281 international students in November 2022.

- International students are facing comparable or worse levels of poverty to domestic students.
  - 21% had experienced homelessness since starting their studies compared to 12% of domestic students.
  - 29% considered leaving their course because of financial difficulties.
  - 29% have been unable to pay their rent in full.

GRADUATES & GRADUATE EMPLOYMENT

HESA published *The impact of the COVID-19 pandemic on Graduate Outcomes 2020/21*.

- 2020/21 graduates are more likely than 2019/20 graduates to be in full-time work and less likely to be unemployed or in full-time further study.
  - The 2020/21 full-time employment rate is the highest since the first Graduate Outcomes survey.
- There are no notable changes in the skill level at which graduates are employed, and very little overall change in graduates' reflections on their activities.
- After a dip in the first year of the pandemic, graduate subjective wellbeing has remained broadly stable since the second year of surveying.

Prospects Luminate published *Early Careers Survey 2023*, exploring the views of 4,483 Prospects website users on their career plans and navigating the changing world of work.

- Respondents include: school pupils (4%); sixth form/college students (9%); apprentices/trainees (2%); university students (30%); employed/self-employed (37%); and those who are NEET (15%).
- It includes findings on: the biggest challenges of the year; careers advice and guidance; work experience; gap years; career planning; jobs and apprenticeships; hybrid and remote working; study plans and experience.
- Managing finances overtook mental wellbeing as the biggest issue, with 52% identifying 'money' as their greatest challenge, then balancing commitments, mental health and staying motivated.
  - 50% had changed their career plans, 40% cited the pressures caused by the cost-of-living crisis.
- Among those studying, the highest levels of satisfaction were with face-to-face learning (87%), followed by online (76%) and hybrid study (63%).
- Student engagement with careers advice sessions dropped across all types of activities, with websites, family and friends the go-to sources of help.
  - However, careers professionals were second only to industry insiders as the most helpful guides.
- 25% of respondents hadn't done any work experience in the last year (down from 56%).
  - Among jobseekers, 56% said the biggest struggle was not having the required work experience.
- 35% of those looking for a job or apprenticeships said they felt not at all/not very prepared, rising to 42% for neurodivergent respondents and 44% for those with a disability.

No information is provided on where the respondents studied or where they are now based.

TASO (Centre for Transforming Access & Student Outcomes) published *The value of higher education: Rapid evidence review and initial data analysis*, focusing on disadvantaged young people.

- Those who had been on free school meals (FSM) earned £8,300 more in annual earnings 15 years after key stage 4 if they went into HE than those who didn't.
- However, disadvantaged graduates earn around 10% (£4k) less than non-disadvantaged graduates, even when controlling for other factors such as HEI attended and subject studied.

- Other factors – e.g. gender, ethnicity, prior attainment – don't appear to influence the outcomes of disadvantaged graduates.

- Graduates from low socioeconomic backgrounds appear to benefit from higher levels of measures linked to wellbeing, such as perceived financial prosperity.
  - Graduates also report higher average levels of life satisfaction and happiness than non-graduates, but this is not specific to disadvantaged graduates.
- HE can increase social and geographical mobility for disadvantaged young people; e.g. one study found that 22% of FSM graduates were in the top quintile of earners at age 30, compared to only 6% of FSM non-graduates.
- There is a lack of high-quality research on the impact of HE on self-actualisation and attitudes towards other people and communities.

Phase two of the project will involve further analysis of Longitudinal Education Outcomes data to assess the impact of specific education pathways and additional factors on long-term economic outcomes.

IZA published *Erasmus Program and Labor Market Outcomes: Evidence from a Fuzzy Regression Discontinuity Design*, based on a large sample of students from an Italian university.

- The study analysed the effects of students' international mobility across e.g. field of study, time spent abroad, degree level and quality of academic institutions.
- Findings, mainly driven by male and STEM graduates, include:
  - Participating in the Erasmus international mobility programme positively affects the probability of being employed three years after graduation and reduces the time spent searching for a job.
  - Spending a period of time studying abroad improves both proficiency in spoken English and graduates' academic performance – especially for students hosted in highly ranked universities – and tends to increase their willingness to move to find a job.

IZA published *Rich Grad, Poor Grad: Family background and college major choice*, based on data for US graduates.

- Students' family background is strongly related to the earnings paths of the major they choose.
  - Parental education explains more of the variance in students' course choices than parental income.
  - Students with more educated parents, especially those who are graduates, choose courses with lower early-career earnings but much faster earnings growth; they are also less likely to choose 'safe' courses with little early-career earnings.
  - Parental income has a weaker relationship with course choice and operates mostly through the type of institution the student attends.
  - The influence of family background, especially education, does not weaken as students progress through university; indeed, as students approach graduation and the labour market, family influence may grow in importance.

HE: TEACHING, RESEARCH & INSTITUTIONS

The Quality Assurance Agency for Higher Education (QAA) published *Student Engagement Guidelines: Learning from innovative practices introduced in response to COVID-19: A collaboration of ten UK modern universities* *[all ten universities are in England]*.

- The pandemic has:
  - disrupted the 'normal' way of engaging with learning and teaching, but also opened up avenues for engagement beyond traditional classroom experiences
  - impacted students' sense of belonging and increased the need to include both physical (campuses) and virtual (virtual learning environments) spaces as part of learner communities
  - created 'fatigue' among students to proactively engage with enrichment activities traditionally linked to campus life, student halls or student unions
  - caused many to feel isolated, often missing out on developing peer group friendships and relationships with academics, triggering an increased demand for mental health and wellbeing support.
- Other findings include:

- The complex needs of commuter students pose challenges for institutions to respond to growing demands for more accommodating campus environments to maintain student engagement.
- Students greatly appreciated the efforts universities took to digitise learning and teaching during the pandemic, while acknowledging there is still room for improvement.
- The rise of online/hybrid learning has caused a dilemma for students between their desires for flexible learning and the expectations associated with it.
- Students' views on engagement appear to have shifted towards a rising awareness that sole attendance is not sufficient to constitute a robust form of engagement.

The House of Commons Library published *Higher Education in the UK: Systems, policy approaches, and challenges*, a research briefing on the four UK nations.

- It explains how things work and considers where policy approaches align and diverge, noting some challenges facing the sector.
  - It includes: funding; teaching, learning and employability; and UK HE in an international context.

HEPI published *Size is Everything: What small, specialist and practice-based providers tell us about the higher education sector*, focusing on Great Britain.

- Small and special-focus universities represent 40% of providers in England and 15% in Scotland and are the key providers of practice-based education in Britain.
- Specialism is essential for vital sectors and small providers should be the key to dynamism, innovation and agility.
  - But they face resource scarcity, a hostile operating environment with diseconomies of scale and barriers to stability and growth.
  - Practice-based education is generally regarded as a niche pursuit in the UK but is part of a mainstream, whole-of-education approach in countries such as Germany.
- Issues include:
  - A lack of clear definitions: national policy doesn't define specialism or size, while regulatory and funding definitions are partial and subject to change at short notice.
  - Such providers need help to overcome diseconomies of scale, capital investment and research requirements.
  - Policymakers need a firmer grasp of size, specialism and practice-based education, as the sector broadens with new market entrants and access to degree-awarding powers.
  - Specific aspects of HE should be deregulated to address barriers to entry and growth for small providers and overlooked disciplines.
  - Mergers are a major risk to identity and specialism; small provider clusters need structural support for lower risk alliances, including shared services, managed networks, consortia, strategic alliances and joint ventures.

GuildHE published *Tackling the Climate Crisis: A view from smaller and specialist universities and colleges*, based on a survey of 31 of its members.

- In the 18 months since the last such survey (which received 24 responses) there appears to have been an acceleration and increased embedding of activities, including:
  - 68% have embedded environmental sustainable development in some or all of their courses
  - 60% have some engagement with their local community groups and businesses, with another 16% looking to expand activity.

The report includes 11 case studies.

QAA published *Maintaining quality and standards in the ChatGPT era: QAA advice on the opportunities and challenges posed by Generative Artificial Intelligence*.

- The report looks in particular at:
  - Developing institutional policies to support digital AI literacy; the impact of equity and accessibility for students; the need to change approaches to assessment in the long term; and the short-term impact on awards and progression.

Unesco published *ChatGPT and artificial intelligence in higher education: Quick start guide*, an overview of how it works and how it can be used in HE.

- It raises some of the main challenges and ethical implications and suggests practical steps that HEIs can take.

ENAI [European Network for Academic Integrity] Recommendations on the ethical use of Artificial Intelligence in Education **was published in the *International Journal for Educational Integrity*.**

- The recommendations focus on the importance of equipping stakeholders with the skills and knowledge to use AI tools ethically and the need to develop and implement relevant educational policies addressing the opportunities and challenges posed by AI in education.

QAA Scotland published *Micro-credentials in Scotland: Sector-wide survey*, based on responses from 34 institutions and organisations in January–February 2023.

- 79% have developed or approved microcredentials or small qualifications; seven have developed over 30 such courses since January 2021.
  - They have been developed or approved at Scottish Credit & Qualifications Framework levels 2–11, although most are at levels 5–7.
  - The main mode of study for microcredentials is 'blended', i.e. combining online and in-person delivery.
  - The current provision is aimed at new learners, employers and existing learners, although the predominant target audience differs for colleges and HEIs.
- Respondents were interested in connecting or 'stacking' of microcredentials to form larger awards or 'macrocredentials'.
  - However, it is not known whether this is due to learner requests, an ambition to support achievement through stacking, or simply respondents' wanting more information about them.

WORKFORCE ISSUES

SUMS Consulting published *Comparative Study of Higher Education Academic Staff Terms and Conditions*, commissioned by HEPI in autumn 2022.

- The report benchmarks different types of pay and benefits based on the seven drivers of 'Good Work', as defined by the Chartered Institute of Personnel & Development (CIPD) in its Good Work Index *[see p. 34]*.
  - The sector performs well compared with other sectors in the UK in terms of pay and benefits, but less well in terms of health and wellbeing benefits and poorly in terms of contracts.

Advance HE published *Leadership Survey for Higher Education*, undertaken as part of a year-long project exploring what works for leadership in HE.

- 553 academics around the world were asked to respond from the perspective of their own leadership ('leading') and their experience of leadership in their organisation ('being led')
- Key findings include:
  - 'Teaching and learning' and 'developing a positive and enabling culture' were selected as top priorities for both 'leading' (42% and 40%) and 'being led' (27% and 30%).
  - 76% of those leading and 77% of those being led highlighted that 'time to reflect on your leadership practice and impact' was 'very important'; however, only 11% of mid-level academics and 32% at executive level agreed they had time to reflect on their leadership role daily.
  - 58% definitely/mostly agreed that they were provided opportunities to develop leadership skills and competencies; 42% were neutral or disagreed.
  - Respondents broadly agreed on the importance of a number of leadership qualities, with most seeing their own capabilities more positively than those of others: adaptable (leading 53%, being led, 10%); collaborative (58%/10%); self-reflective (53%/5%); compassionate (58%/9%).

Advance HE published *Leadership and management development: What do the Australian and New Zealand higher education sectors want and need?*, based conversations with 20 respondents in roles across 18 organisations.

- Currently, routes into leadership and management: rely on self-recognition and self-promotion; are based on past achievements, evidenced in a limited way; thereby exclude those in informal, unrecognised leadership practices and roles and those with leadership potential.

- Formal opportunities are limited in availability and accessible to only a few; and leadership and management development is ad-hoc for most.

- Proposed changes include:
  - Structural-systemic changes: a roots and branch review of promotion criteria, evidence and pathways, including consideration of a robust, credible dual pathway approach.
  - Consider indigenous leadership practices in forming improved promotion pathways, encompassing many of the feminised, relational, distributed and grounded practices highly valued by staff.
  - Frameworks of expectations for the leadership and management practices needed and practised in all staff roles, to recognise, audit and direct career and performance development; also to enable succession planning and develop a leadership pipeline.
  - Frameworks that allow all leadership and management development activities to be mapped, recorded and seen as a more coherent collection.
  - On-the-job development through mentoring, coaching, sponsorship and reflection alongside peer networks and groups, immersive programmes and online units.
  - All leadership and management development to have equity and inclusion at the core.

IZA published *Gender and Career Progression in Academia: European evidence*, based on the responses of over 10k university researchers to the longitudinal Mobility Survey of the Higher Education Sector.

- The study analysed the determinants of career progression of researchers on average over more than 15 years.
  - It also quantifies the relative significance of influencing factors, besides family formation, such as those related to international mobility (work experience abroad) and institutional variables (e.g. the proportion of women in the workplace).

- Findings include:
  - Women have a lower probability of promotion but, conditional on a career advance, their career development proceeds at a faster pace than that of comparable male researchers.
  - Faster progression among women is positively influenced by the share of female researchers in the academic environment.
  - Higher salaries in sectors outside academia appear to reinforce the positive selection of women preferring to stay in academia.

The Workplace

APPRENTICESHIPS & TRAINEESHIPS

The National Foundation for Educational Research (NFER) published *Barriers to young people accessing intermediate and advanced apprenticeships: Perspectives from apprenticeship providers*, based on a short survey and a roundtable event with 27 English providers.

- After strongly bouncing back post pandemic, there has been a decline in the number of intermediate and advanced apprenticeship starts among 16–19 year-olds; the most common barriers include:
  - A lack of in-depth understanding of apprenticeships, including levels and progression opportunities
  - At the point of application: a lack of job-search skills and work readiness; low attainment in English and maths GCSE (or equivalent); low levels of psychological health and wellbeing; affordability; and some apprenticeships not being widely available.

- Consideration should be given to encouraging more employers, particularly SMEs, to take on young people who seem to be increasingly losing out to older, more mature applicants.
  - This requires a review of existing incentives, with increased financial aid for employers supporting young people to achieve Level 2 in English and maths, and who have other support needs.

Think tank Policy Exchange published *Reforming the Apprenticeship Levy*.

- The levy has had some success in helping to strengthen apprenticeship quality and stimulate the growth of degree apprenticeships.

- However, since its introduction, the number of apprentices has decreased sharply and remains significantly below pre-pandemic levels.
  - Since 2015–16, the number of 16–18 year-old starts is down 41%, 19–24s 31% and 25s+ 26%.
  - Starts in SMEs have fallen by almost 50%, while the number in large companies – typically levy payers – has fallen by only 19%.
- Over 40% of young people registered for UCAS indicated they would be interested in an apprenticeship – the problem is undersupply.
- Businesses regularly complain that too much of the levy is clawed back and not spent on apprenticeships; over the last five years, £4.3b was kept by or returned to the Treasury.
  - A survey of over 500 mid-sized companies found that the biggest barriers to using the levy were: an inability to use it for wider costs; programme burden and bureaucracy; a need for shorter and more flexible courses; and the lack of flexibility for off-the-job training.
- Barriers to apprenticeships for young people from disadvantaged backgrounds range from the requirement to pass GCSE-level maths and English to the fact that child benefit is removed from 16–19 year-old apprentices – this is not the case for A-level students.
- Reforms are proposed in three principal areas:
  - **Flexibility to support employer-relevant skills**: changing the levy to an apprenticeships and skills levy, to support immediate skills needs and potentially lead on to higher apprenticeships
  - **Greater support for SMEs**: more flexibility, a streamlined process and direct financial support to address market failures and enable SMEs to play their full role in the apprenticeship system
  - **Increased opportunity for young people**, including by: directly incentivising employers to take on young people; a fairer minimum wage; and removing the inequities on child benefit.

ScreenSkills published *ScreenSkills' Apprenticeship Pilots: Summary findings*, evaluating whether a limited agency-based apprenticeship model was effective for the project-based nature that is common in the film and TV production sector.

- Two pilots took place from 2020 to 2023 with industry partners including Amazon Prime Video, Netflix, Warner Bros Discovery and Sky, funded by England's Department for Digital, Culture, Media & Sport (DCMS) and Department for Education.
  - Both pilots allowed sector employers to use some of their unspent apprenticeship levy on training.
- Main findings include:
  - Enabling apprenticeship levy funding to be used in this way meant apprentices could gain significant skills and experience in production roles, particularly from their on-the-job training.
  - The pilots supported apprentices from diverse backgrounds to gain employment in film and TV production despite a lack of experience.
  - However, industry partners said that the external and internal costs of running the apprenticeship agency model as currently structured are unsustainable long term, particularly due to the resource required to identify sufficient suitable, continuous placements for on-the-job training at scale.
  - Industry partners said that the lack of relevance and low quality of some of the standards and off-the-job training make it poor value for money and therefore less viable for production companies, especially compared with other, more cost-effective routes for entry-level talent.
- ScreenSkills recommends reforming the current apprenticeship levy by:
  - Broadening its scope beyond apprenticeships to support a wider range and diversity of industry-recognised vocational training options
  - Enabling levy funding to be used to cover the additional employer costs of providing apprenticeships, not just the costs of the apprenticeship training
  - Removing the fixed minimum-length requirements of apprenticeship standards, so they can be better aligned to the duration of training required for the job.
- Other short-term recommendations include:
  - More industry-recognised specialist training providers, developed through close collaboration between industry and training providers
  - Tailoring apprenticeship standards to specific roles in the sector (rather than being contextualised) and identifying opportunities to develop specialist pathways within existing apprenticeships

- Assessing apprenticeship models in the sector including the viability of combining the portable flexible-job apprenticeship model with aspects of the agency model piloted by ScreenSkills and comparing their economic value with other existing non-apprenticeship training routes.

ScreenSkills published *Placements in UK film and children's TV*, a research study by SQW between July 2022 and March 2023 as part of the British Film Institute's Future Film Skills programme.

- The research explored: employers' attitudes towards placements; the number and type of placements offered; the benefits of placements for employers, trainees and trainee progression into other work; and the factors that affect the scale and effectiveness of placements.
- Employers agreed that all placements should be paid, that trainees should have a training plan and that a mentor or supervisor should be provided by the placement host or placement provider.
- Most mainly see placements as entry-level opportunities for those seeking experience in the industry.
  - Placements span a wide range of roles including: production; post-production; creative; financial; and technical areas.
- Some employers think placements can be a useful mechanism for those seeking a more senior role, to bridge skills gaps that persist in more senior positions.
  - However, although there are programmes to support mid or senior placements they are not frequently taken up.
  - Such placements need more preparation due to the perceived risk to production delivery associated with the higher level of responsibility given to the trainee compared to those at entry level.
- Benefits from placements include:
  - **To employers**: access to a wider crew base; building a talent pipeline; encouraging more diversity in the workforce; enhancing or safeguarding quality; enhanced staff retention; and bringing in new knowledge and energy
  - **To trainees**: enhanced career prospects via e.g. networking, skills development, confidence building and industry insight; and improved career progression.
- Barriers to placements include: financial support; capacity; guidance for placement provision; candidates; and EDI.
- 11 recommendations include placement providers to:
  - Work more effectively with partners to explore ways to increase the flow of candidates onto placement schemes and resource application screening and assessment
  - Explore the use of a proactive relationship management approach to connect employers with forthcoming placement opportunities with trainees looking for skills development.

England's Institute for Apprenticeships & Technical Education (IfATE) published reports on two commissioned pieces of independent research to inform its implementation of government ambitions for technical education:

- *The Big Conversation* by the Institute for Employment Studies, based on interviews and focus groups with 63 SMEs and large organisations that work in, use or rely on technical education and are engaged, semi-engaged or not engaged with IfATE.
  - Overall, respondents viewed apprenticeships positively and were impressed with quality improvements introduced by new standards.
  - Standards don't always match what is needed on the job, but it is also useful for apprentices to gain broad, transferrable skills.
  - There were general concerns about the reputation of new T levels compared with more established opportunities; the 45-day work placements were seen as feasible, but there were questions about what they would involve for employers and whether they need to be continuous.
  - Employers across the board were positive about the need to invest in green skills and jobs; some suggested including green skills and education in existing qualifications.
- *Employer Perceptions of Quality* by IFF Research, based on a survey of 292 employers exploring their knowledge of vocational technical qualifications (VTQs) and the wider vocational education and training (VET) system, as well as their views on quality.

- 97% had heard of apprenticeships, but only 30% had heard of all apprenticeships, higher technical qualifications (HTQs), NVQs, BTECs and T levels; 66% had good knowledge of at least one but only 2% of all.
- 27% had employed an apprentice in the last five years; 28% had engaged with the skills system in some way, rising to 91% among large organisations.
- 68% felt they understood how vocational qualifications (VQs) at different levels of difficulty build upon one another; 66% felt they could identify which VQs best suited their business need.
- Only 48% felt they understood the vocational education system, 23% didn't; 48% felt they understood which VQ offered better knowledge, skills and/or workplace behaviours, 24% didn't.
- 73% felt it was important/very important when considering qualifications to know they had been designed by employers.
- When deciding on a qualification's suitability, the most important factors were: relevant and up-to-date content (83%); recognised by a professional body/regulator (78%); content designed by employers (76%); suitably regulated (76%); employers had helped design the assessment (69%).

The resulting plans – set out in A Simpler Skills System *– are designed to produce a system that: gives employers what they need now and for the future; is clear and user-friendly; and is joined up.*

TRAINING & DEVELOPMENT

CIPD published *Learning at work 2023, based on a survey of 1,108 predominantly UK-based learning & development (L&D) practitioners working in a range of sectors and company sizes.**

- 79% of respondents were based in England, 7% Scotland, 4% Wales, 1% Northern Ireland and 9% the rest of the world.
- Findings include:
  - 20% said their organisation was prioritising growth, efficiency, productivity, talent retention and wellbeing.
  - 67% said that their company's L&D strategy was aligned with organisational and people priorities, down from 77% when the survey was last undertaken in 2021; 67% said leaders recognised the impact that L&D had on those priorities (81% in 2021).
  - L&D professionals are battling with a lack of capacity, a lack of priority from the business and a lack of insight about what is needed and what has worked.
  - Face-to-face learning continues to decline, while 48% reported an increase in digital learning.
  - Technologies that enable collaboration have seen the biggest rise year on year, with webinars, podcasts and social learning all being used more than pre-pandemic.
  - Those using a broad range of technologies were more likely to report strategic alignment with organisational outcomes, a more holistic learning process, opportunities to continuously improve and openness to experiment.
  - 51% said that line managers encouraged L&D, but only 39% felt that individuals were given time away from their day-to-day role to take part in learning.

**Previously known as* Learning & skills at work*.*

Business in the Community (BITC) published *Upskilling for All: No one left behind*, findings from a YouGov survey of 1,097 UK employees in February–March 2023, exploring their experience of learning and development at work.

- 66% of lower skilled workers have had no company-funded development in the past two years, compared with 38% of higher skilled workers.
  - Reasons may include that 33% aren't looking to develop any skills and only 25% agree that progressing their career is important, compared with 12%/60% of those with higher skills.
- Lower skilled employees are:
  - Less likely to feel their current job makes good use of their skills (55% vs 76%)
  - Less knowledgeable about the new skills they would need to progress their career (48% vs 70%)
  - Less likely to have been encouraged to gain skills for more senior roles (26% vs 57%)
  - Less likely to believe they have an equal opportunity to advance, regardless of personal characteristics or circumstances (45% vs 66%).

- Lower skilled employees were also far less likely to be offered: performance appraisals (14% vs 47%); regular line management meetings (13% vs 36%); management/supervisor feedback (10% vs 35%); objectives and development targets (7% vs 34%); and structured training programmes (10% vs 20%).

Open University (OU) Scotland published findings from a Censuswide survey of the views on skills and training of 200 SME owners and senior managers.

- 67% said skills shortages were impacting business growth and profitability – 83% of those with 10–49 employees.
  - People management (25%), finance (24%), digital technologies (22%) and project management (20%) were the top shortages.
- 90% recognised the positive impact of staff upskilling.
  - 85% planned to invest in 'green' training for staff, e.g. developing innovative and sustainable ways of working (37%), making business more sustainable (36%) and renewable energy (32%).
  - 66% were unaware of the Scottish Government's funded training support; 75% said they were now likely to consider accessing it in the next 12 months.

SKILLS GAPS & SHORTAGES

The OU and British Chambers of Commerce published *Business Barometer 2023: An analysis of the UK skills landscape*, based on a survey of 1,289 employers across the UK in April and May.

- 73% are currently facing skills shortages, rising to 86% of large organisations.
  - Northern Ireland: 68% overall; Scotland: 71%; Wales: 75%.
  - 72% believe skills shortages are increasing the workload for staff.
- The top five skills shortage areas:
  - Northern Ireland: accountants; medical; skilled/trades; customer service; and admin
  - UK-wide: engineers; sales; admin; chefs; marketing.
- 42% say they have been prevented from filling roles due to a lack of applicants.
  - Northern Ireland: 24%; Scotland: 42%; Wales: 43%.
- 78% of large organisations have implemented a plan relating to recruitment, their workforce or their wider impact, compared with 45% of micro-firms (<10 employees).
  - Northern Ireland: 56% overall; Scotland: 67%; Wales 59%.
- 54% overall say they don't have initiatives, skills programmes or adjustments for specific talent pools, including under-represented groups, rising to 65% of micro-organisations.
  - Northern Ireland: 36% overall; Scotland: 39%; Wales: 38%.
- 79% aim to train staff in the next year.
  - 44% intend to use short courses *with* certification, 35% *without*; 41% to use mentoring/coaching; 25% apprenticeships; and 23% industry accredited courses.
- Six **recommendations** include: preparing a skills plan; contacting schools, colleges and universities; and developing a lifelong learning culture and employee offering.

The report includes a breakdown of the size, nature, causes and impacts of skills shortages as well as data across a range of sectors.

The Edge Foundation published its latest *Skills Shortages Bulletin*, summarising recent research on the subject.

- It includes contributions from: ReWAGE, England's Department for Education, NFER, the British Academy and the House of Lords Communications & Digital Committee.
- A feature on green jobs and skills shortages includes a case study from Mitsubishi Electric.

The Federation of Small Businesses (FSB) in Scotland published *Big Small Business Survey: 2023 findings report*, based on 602 responses between January and March 2023.

- Over the past year, 67% of those in accommodation and food services and 62% in construction had insufficient staff to meet their needs.

- 42% of all businesses – and up to 64% of those in health and social work – are not confident that they have enough appropriately skilled staff to meet their future needs.

- 75% provide in-work training.
- Only 27% engage with schools, colleges or universities on careers and recruitment matters.
- Only 20% employ/have ever employed an apprentice; 40% have never offered an apprenticeship due to lack of finances.

FSB published *The Growth Belt: Supporting Rural Small Businesses*, analysis of survey responses from 5,100 businesses across the UK in 2022.

- There is a persisting urban–rural productivity gap, largely a result of poor infrastructure and insufficient skills provision in rural areas.
- 30% of rural small firms said finding appropriately skilled staff was their greatest barrier to future growth.

EngineeringUK published *Engineering skills needs – now and into the future*, by labour market analysts Lightcast, combining projections from past trends with job postings data.

- From October 2021 to September 2022, engineering occupations across all industries represented ~25% of all job postings in the UK; engineering occupations account for 19% of current UK jobs.
  - This suggests that engineering has a greater skills shortage than other areas and/or that employers are hiring for future growth.
- Engineering occupations are projected to grow by a further 2.8% by 2030, compared with the national average of all occupations of 2.3%.
  - Occupations related to ICT, skilled construction trades and civil engineering are expected to add the most additional jobs.
- Each engineering occupational group has its own unique composition of skill requirements, and the overall skills composition is extremely diverse and complex; on average, they are more skewed towards specialised and software skills than other occupations.
  - However, common skills do still play a key role, including: communication, management, customer service and problem solving.
  - Different levels of formal education seem to be required for different areas of engineering.
- The range of skills demanded by employers is becoming increasingly diverse, suggesting that the engineering profession is becoming broader.
  - At the same time, demand for specialised engineering skills is growing, with emerging fields such as 'chemical and biomedical engineering' and 'robotics' seeing the fastest rates of growth.
- 45% of engineering job postings required software skills, compared with 30% for all occupations; the most important are: automation and robotics; programming language; and computer aided design.
- On average, 27% of working time in engineering roles is spent on highly automatable tasks, in line with the national average.
  - Skilled construction trades, skilled metal trades and operative roles are among the most likely to have routine aspects of their work impacted by technological advancements.
- Albeit from a small base, the frequency of green job titles increased 55% in the past five years, and the number of postings mentioning a green skill grew by 48%.
- Engineering jobs overall are most heavily concentrated in London and the South East, but each UK region has its own unique make-up and relative strengths.

EngineeringUK also published a series of skills snapshots for the 13 engineering thematic groupings, and a discussion paper, considering some of the actions required to meet future skills needs in the sector.

The UK Department for Science, Innovation & Technology published *Upskill in Cyber Pilot Evaluation: Final report*, reviewing a ten-week virtual programme that aimed to identify and rapidly upskill individuals for roles in cyber security.

- 1,876 learners registered against a target of 1k, and 581 suitable candidates progressed to selection (target 250).
  - 63% of applications were from outside of London and the South East (target 50%).

- 27% were female (target 50%); 56% were from an ethnic minority (target 20%).

- There were significantly higher levels of knowledge, skills, awareness and career awareness after taking part, and participation accelerated some students' move into the cyber security sector.

- Employers reported: satisfaction from supporting people to get into the cyber industry; developing mentoring skills; welcome increased exposure as a cyber security employer; the opportunity to recruit a more diverse group of potential candidates.

- Recommendations include: considering additional support for employers looking to introduce entry-level cyber roles; and introducing more tailored support and guidance for career changers.

The UK Cyber Security Council (the sector's chartered institute) published The Diversity Process Flow: Ethnic minorities in cyber, setting out its role in helping to address the barriers to recruiting those from ethnic minority backgrounds.

ScotlandIS published *Scottish Technology Industry Survey 2023*, based on responses from 162 firms between December 2022 and March 2023, 39% with a base in the rest of the UK, 47% located only in Scotland.

- 83% expect to recruit in the next year (+7ppt on 2022): 81% of these expect to hire university graduates (+5ppt); 65% college graduates (+13ppt); 41% Graduate Apprentices (-6ppt); and 28% Modern Apprentices (-10ppt).
  - The most in-demand skills are: sales and marketing (78%, -6ppt); leadership (67%, -3ppt); cyber security (65%, -6ppt); data skills (63%, -3ppt); software and web development (61%, -12ppt); and AI/machine learning (46%, -11ppt).
  - The most in-demand technical skills are SQL, Python and JavaScript.

- 48% of firms expect to use upskilling and reskilling of staff to fill their vacant positions.

- 86% found that offering flexible working patterns helped with recruitment (+20ppt) and 57% (+11ppt) said offering part-time work helped; 56% said reviewing qualifications and experiences helped (+10ppt).

- 61% expect to host students on work experience (-6ppt).

In 2021, 87,200 people were working in digital tech firms in Scotland.

Scottish Enterprise published *Blockchain Industry in Scotland Landscape Overview: Companies, investors, influencers and trends* by Deep Knowledge Analytics.

- Blockchain tech could add £4.48b to GDP by 2030, including via e.g. education, manufacturing, finance and energy sectors.

- However, there is a shortage of skilled professionals who can develop, implement and maintain blockchain.

SKILLS POLICY

CIPD published *Migrant workers and skills shortages in the UK*, providing policy recommendations for the UK Government.

- The points-based immigration system introduced in January 2021 is broadly meeting its aim of enabling skilled migrants to live and work in the UK if they can meet identified skills shortages.
  - Improvements could be made to make the system less burdensome, but employers that have used the system are more likely than not to say it has helped them to address skills shortages.

- However, just 15% of employers have used it so far, despite 60% having hard-to-fill vacancies.
  - This is due to: sponsoring migrants requiring a level of internal resource and knowledge that many firms, particularly SMEs, don't have; many hard-to-fill vacancies are roles that fall outside of the criteria.

- Although policymakers hope that restricting migrants will incentivise investment in the UK-born workforce, employers that have sponsored migrants are more likely to recruit and invest in UK workers in different ways and much more likely to invest in technology as a means of addressing shortages.

- Overall, while the current system can only play a limited role in addressing systemic skill and labour shortages, many employers are not adapting fast enough to rising labour market challenges.

- Key changes to public policy are required, including:
  - Regularly reviewing the shortage occupation list
  - Extending the existing Youth Mobility Scheme to include EU nationals who could help address seasonal skills shortages
  - Urgently reforming the apprenticeship levy into a flexible skills levy
  - Providing high-quality local HR support to enable more SMEs to invest more in skills and to recruit and retain employees
  - Recognising that employer investment in and use of skills is affected by a wide range of interdependent policy areas including skills, innovation, growth/business support and labour market enforcement.

TechUK published *A UK tech plan: How the next government can use technology to build a better Britain*, based on feedback from its membership of businesses in the sector.

- One of five **challenges** that confront the UK tech sector is **skills and adoption** (the others are scale-up; investment; procurement; and data) – British workers are earning £5.69b less due to a lack of digital skills.
  - By 2030, 7m workers – ~20% of the total UK workforce – could be under-skilled for their job requirements.
  - Participation in adult learning has not increased significantly since the early 2000s: in 2022, 55% of adults had either not engaged in any learning since leaving full-time education or had done some post-education learning, but not in the past three years.
  - There is significant provision for digital skills retraining, e.g. industry sponsored routes or OU courses; however, 70% of those who had not engaged in learning for the last three years identified barriers to returning to education and training including cost, time and feeling too old.
  - The education system is not meeting the demand for digital and business skills across the economy, with 80% of employers believing graduates aren't work ready when entering the employment market.
  - There is a significant lack of awareness of the skills needed to think about data creatively.
- One of 18 **opportunities** is to 'plug the digital skills gap to boost pay, opportunity and national resilience', via actions including:
  - Make the apprenticeship levy more flexible – between 2020 and 2022 £2.6b of apprenticeship levy funds expired, due to the conditions placed on how the funds can be spent.
  - Build an online Digital Skills Toolkit (based on the current toolkit developed by England's Department for Education) to help individuals and employers identify accredited courses to boost their skills.
  - Require every student to undertake a computing qualification by age 16, and incorporate mandatory digital ethics education into the curriculum.
  - Review the case for a lifelong learning fund, or bursary, for adults and introduce provisions in a future Employment Bill to better support later-in-life learning.
  - In partnership with local authorities and devolved governments, deliver digital skills programmes that better target under-skilled and under-represented groups and boost local provision of retraining services.

The Creative Industries Policy & Evidence Centre (Creative PEC), led by Newcastle University, published *The State of Creativity*.

- Reflecting on policy over the last ten years and considering what is next, it includes essays and case studies from 24 creative industry thinkers from seven UK universities and across the creative sector.
- For the UK to fully realise the potential of its creative industries sector, priority areas for policymakers in the coming years include focusing on creative education in schools and universities.
- **Skills, jobs and education** is one of ten key areas for Creative PEC; others include R&D and innovation, and diversity and inclusion.
  - 95% of the creative workforce is working in highly skilled professional or managerial roles (vs 46% across the UK workforce as a whole) and 73% of those employed in creative occupations have a degree or higher level qualification (vs 44%).
  - Immediate and long-term priorities being addressed include: understanding skills evolution and future skills; advancing good work and the quality of management practices; addressing inequality

and maximising the value of diverse talent; tackling skills mismatches; valuing creative education; advancing professional development and lifelong learning; accessing international talent; and strengthening local talent pools across the UK.

Cedefop (European Centre for the Development of Vocational Training) published *The feasibility of using online job advertisements in analysing unmet EU demand*, a working paper presenting some insights from exploratory research using big data.

- Six potential approaches that offer options to understanding unmet demand are briefly discussed.
- No single approach is free of biases and challenges related to missing data or deficiencies in algorithms used to identify and classify information; all are therefore only a proxy for unmet demand.
  - However, despite all the challenges, careful use of these data might help support the shaping of migration policy based on a demand-led approach.

Eurofound published *Changing labour markets: How to prevent a mismatch between skills and jobs in times of transition: Background paper*, pointing to short- and long-term factors.

- The report explores how policymakers, employers and stakeholders such as sectoral organisations and social partners could promote, stimulate and facilitate opportunities for reskilling and upskilling to meet employers' skills demands.
- The rise in digital skills requirements, increasingly accompanied by a requirement for skills linked to the green transition, are contributing to labour and skills shortages in Europe.
  - The fight for talent is most acute in e.g. Austria, Belgium, Czechia, Germany and the Netherlands, although in certain sectors and occupations, shortages are evident in most EU member states.
- The occupations likely to be impacted by the green transition employ 20% of female but 50% of male workers, indicating that the scale of the impact will be different for women and men.
- Due to the fact that the green transition in production is highly knowledge and innovation driven, the transition is likely to be skills-biased.
- Ongoing monitoring and the involvement of all stakeholders is needed to establish appropriate curricula for education and for initial and continuing vocational training (IVET/CVET).
- Governments need to adapt the focus of active labour market policies and broader education and training measures.
- Sectoral social partners have a role to play in designing training and retraining measures; companies need to facilitate this by investing in training and organising work in a way that supports training and on-the-job learning.
- Policies that help to access untapped potential in the labour market are equally important, e.g.:
  - Increasing the attractiveness of shortage occupations and sectors by improving working conditions
  - Measures to address gender stereotypes and support labour market access for women, migrant workers and people with disabilities
  - Measures that stimulate labour mobility.

Cedefop published *Big Skills for Small Companies*, taking stock of recent policy instruments supporting employer-sponsored training in micro, small & medium-sized enterprises (MSMEs).

- There are two main categories of instrument:
  - Those that provide targeted support to MSMEs and are designed to help them meet training needs stemming from their current activities, work organisation and skill use
  - Those that offer mediated support and seek to increase the skills in use in MSMEs by encouraging them to innovate, potentially creating more high-skilled jobs and in turn more potential for CVET.

SKILLS FORECASTING

NFER published *An analysis of the demand for skills in the labour market in 2023*, the latest working paper in the Nuffield-funded Skills Imperative 2035 research programme.

- While the relative importance of skills will change, those that are most utilised today are set to remain fundamental for future employment, demonstrating the importance of transferable skills.
  - The top ten skills across all employment are: communicating with supervisors, peers and subordinates; organising, planning and prioritising work; interpersonal relationships; decision-

making and problem solving; getting information; updating and using knowledge; customer and personal service; identifying objects, actions and events; and English language.

- In 2035, the labour market will include more people in professional and associate professional occupations, which require higher levels of the top ten and other skills.
  - This highlights the need for a greater focus on developing these skills through education and training, both to increase their availability and support more workers to progress in their careers.
- Demand for many other skills outside the top ten is also projected to grow, but physical and sensory skills, which historically have been widely utilised, are set to continue their decline.
  - Changes in the composition of the labour market will also drive increases in the demand for certain specialist skills that tend to be important for particular jobs in specific sectors/industries.
- **Six Essential Employment Skills** emerge: collaboration; communication; creative thinking; information literacy; organising, planning and prioritising; problem solving and decision-making.

These six skills will be investigated further in the next stages of the research programme.

The Financial Services Skills Commission (FSSC) published *Reskilling Everywhere All At Once: Skills for the future of financial services 2023*, based on a small survey of FSSC members.

- There is increasing demand for 13 skills identified as critical for the sector's sustainable growth.
  - They are: data analytics; cyber security; software development; digital literacy; user experience; machine learning/AI; adaptability; coaching; relationship management; agile; creative thinking; empathy; and teamwork.
- Despite organisations increasing their focus on skills forecasting and upskilling, demand is ~20% short of supply for technical skills and 10% for behaviours, further widening existing skills gaps.
  - The highest technical demand is for data analytics, despite firms investing in this skill more than others; relationship management is the behaviour for which most firms see gaps.
- Ongoing skills shortages are increasing operating costs and existing staff workloads, impeding opportunities for innovation and growth across the sector.
- Over 80% are now forecasting skills needs, and investment in reskilling is having a positive impact, including speeding up processes and building better products.
  - Firms are using a variety of approaches to embed learning, including providing dedicated learning time for all staff.
  - However, with staff only given an average of three days' learning per year, and only 50% of members actively reskilling in 2022, the scale is not yet sufficient to close skills gaps.
- Recommendations include:
  - Ensuring skills are a strategic business priority
  - All firms developing skills forecasting practices as an essential component of each business planning cycle
  - Enabling all employees to augment their skills through dedicated time for learning in a supportive learning culture.

Cedefop launched its *2023 Skills Forecast* for the economy across the 27 EU member states (EU-27) offering quantitative projections of future trends by sector and occupational group, covering the period up to 2035.

- Electronics, electrical equipment and machinery equipment manufacture are among sectors where the green transition will have a positive employment impact.
- The digital transition will continue to impact employment across sectors, with demand in the telecoms and computer programming expected to grow across most member states.
- Employment is due to become more skills-intensive than in the past with demand for high-skilled occupations showing a drastic increase.
- Even though most job openings will result from the need to replace existing workers, there will be significant employment gains for occupational groups such as science and engineering, business and administration, and information and communications professionals.

Skillnet Ireland published *Where Digital Health Thrives: Future Skills Needs – Industry skills needs analysis 2023–2026*, identifying the skills and competencies required for the design, development and commercialisation of digital health products and services.

- Research was carried out with the Irish Medtech Association and Biopharmachem Ireland to:
  - Provide a benchmark of current digital health roles and associated skill sets
  - Provide insights on current and future skill demands
  - Inform the development and delivery of industry-driven training programmes.
- Findings include:
  - The skills expected to be in greatest demand over the next four years are: product design and user experience; software development, programming and coding; data science and AI.
  - In Ireland, the proportion of digital health roles in medtech and biopharma is currently low compared to the UK or US; however, the Ireland is an important testbed for innovation, with digital health primarily driven by small to medium digital health/technology companies.
  - A higher percentage of the current global digital health workforce is focused on implementation (commercialisation and enablement and support) than production.
  - 42% of Ireland's digital health workforce hold a postgraduate qualification; the top degree subject areas across the UK, US and Ireland workforce sampled are life sciences and management.
  - Rather than building specific digital health degrees, digital health modules should be woven into the core curriculum for relevant STEM university programmes.

Eurofound published *The future of telework and hybrid work*, exploring 'plausible and imaginable scenarios' for how these practices might have developed by 2035, and their implications for work.

- Line managers play a critical role, and their skills need to be upgraded.
  - Skills are needed for: managing work autonomy and dispersed teams; ensuring good communication; ensuring team cohesiveness and communication; safeguarding employees' wellbeing and organisational learning; and responding to crises.
  - Businesses will need to increase their investment in training and upskilling in these areas.

GREEN SKILLS & JOBS

Nesta and the Behavioural Insights Team (BIT) published *Green jobs: Rapid evidence review*.

- To achieve its 2050 net zero target, the UK will need to undertake a green transition that is likely to transform the economic landscape.
  - Some jobs in traditional, carbon-intensive industries, such as oil and gas, will decline; other jobs will be transformed as green practices become more prevalent; a wave of new green jobs will appear.
  - Green jobs are also seen as a crucial way to plug the UK's productivity gap, which has been increasing at a faster rate than that of other G7 nations since the global financial crisis of 2008.
- The UK Government's ten point plan (2020) aims to create and support up to 250k green jobs by 2030; more recently, the government pledged to create 2m green jobs by 2030.
- Agreement is needed on what is meant by green jobs, where the gaps are and what policymakers and employers can do to fill them.
- Key conclusions include:
  - Top-down, sectoral approaches are easy to apply but risk under- or overestimating the number of jobs that benefit the environment; bottom-up, granular approaches allow for more nuance, but can be subjective and difficult to operationalise.
  - Four main types of barrier to people getting green jobs: the number available; awareness of roles; people's ability to fill the roles; and the attractiveness of such jobs.
  - Overall, the skill shortage is a crucial barrier; however, there are sector-specific nuances around barriers, with more research needed.
- Two promising types of intervention:

- Develop an index of green employers, filling a gap and: boosting workers' awareness of what a green job is; making a job potentially more attractive if it is accredited as green; incentivising employers to 'green' more jobs and improve environmental practices to raise their rankings.
- Work with employers to test the effectiveness of various framings designed to encourage the uptake of green skill training or education opportunities among current and future workers.

Nesta published *How to increase the appeal of green skills and training*, a summary of findings from research undertaken with the BIT.

- The research tested whether various message framings and financial incentives could increase interest in a hypothetical green skills training course.
  - The sample comprised 4k economically active adults and 4k recent A/T level students and university graduates in the UK.
- Five framings: dynamic social norm ('more people are gaining these skills'); social impact + pro-environmental impact; job security + demand; pride + future generations; a simple control.
  - Participants were subsequently re-randomised into one of four groups and offered: a grant; a loan; a subsidy; no financial incentive (control).
- Key findings:
  - Framings did not significantly increase interest, regardless of gender or employment status.
  - The dynamic social norm, social impact and pride framings were most engaging; those shown dynamic social norm were most likely to think other similarly skilled people would consider the course.
  - The financial incentives all significantly increased interest consistently across gender and group: the grant by 39.5ppt; the subsidy by 33.3ppt; the loan by 28ppt.
  - The percentage of participants interested in going on a course fell from 50% to 37.3% for the financial incentive control group, which received additional information that training costs had to be paid upfront; this is probably because participants hadn't initially considered the cost and who would be paying for it.
  - The most important considerations around taking up green skills training were related to financial factors (salaries after training and the cost of training) and to convenience.
  - 74% think green jobs are important but only 43% know what jobs are available and 42% where to look for them.
- Policy recommendations:
  - Highlight financial incentives upfront.
  - Consider the value for money or potential return from different financial incentives: e.g. loans may attract fewer people but at a lower cost.
  - Provide green career advice and bespoke green job-matching services.
  - Offer a range of training times and formats: 38% preferred online, 20% in-person, 35% hybrid.

A broad breakdown is provided, including by region, but findings aren't detailed geographically.

The Northern Ireland Department for the Economy published *Investigating the skills required for transition to an advanced zero emission, indigenous, diverse, energy secure & circular economy in Northern Ireland*.

- The research was led by Energy & Utility Skills and covered eight industries critical to the NI economy: large-scale energy production; infrastructure; domestic low carbon tech and energy efficiency; industrial processes; circular economy; transport; agriculture; and fisheries.
- The report offers detailed findings and recommendations in relation to:
  - The new skills that will be required by new and existing workers to allow for a successful transition
  - Whether existing education, skills and training provision is sufficient and relevant for transition
  - The specific skills gaps expected over the short, medium and longer term
  - The industries likely to offer transferable skills to new growth industries
  - How government can ensure a 'just transition'
  - How other parts of the UK and Ireland are preparing their respective education, skills and training provision for transition and whether similar provision is or should be in place in Northern Ireland

- How the NI government can ensure it has the right skills to implement any new energy schemes in the future.

A summary report and a summary of Northern Ireland's labour market were also published.

BITC published *Building Green Skills for a Just Transition to a Net-Zero, Resilient Future*, a 'route map' for businesses, published as part of its *Seven Steps for Climate Action Toolkit*.

- The framework focuses on: the current workforce; the future workforce; and workers most at risk in the transition, e.g. those with low skills, on low pay and/or who are part of a group more likely to be disadvantaged in the labour market.
- Understanding and developing skills needs across three categories involves:
  - The **mindset, attitudes and understanding** to translate the risks and opportunities of the climate crisis and the societal shift to net zero into action in their role, e.g. foundational climate skills, an understanding of the climate crisis and its drivers
  - The **essential and transferable skills** needed to move into different roles, e.g. critical thinking, collaboration, creativity, communication, self-management, leadership, teamwork and digital skills
  - The **technical skills** businesses will need to adapt to changing legislation and reporting requirements, and **hard skills** to support the transition, e.g. insulation, solar and heat pump fitting; circular product design/repairs; and nature conservation.

Two other route maps cover involving diverse stakeholders and embracing circular economy practices.

Eurofound published *Impact of climate change and climate policies on living conditions, working conditions, employment and social dialogue: A conceptual framework*, as part of its programme of activities on 'anticipating and managing the impact of change'.

- The paper maps the main empirical findings on the impact of climate change and the green transition on jobs, sectors, regions and countries, identifying the opportunities and risks to Europe's labour markets.
  - It also develops a conceptual framework to outline the relevant drivers, relationships and outcomes of climate change and policies to ensure the transition to carbon neutrality.
- It explores the impact on skills, and the access to and requirement for training, and considers the groups of workers most likely to be affected.
- Both the definition of green jobs and green skills and the empirical approach to operationalising these concepts remain contentious.
  - The main difficulty lies in separating green jobs from other jobs: often the distinction relies on either an output perspective (green jobs are those in companies and sectors with products that are environmental/relatively environmentally friendly) or a process perspective (green jobs cover employment that seeks to improve the environmental impact of companies that do not produce environmental goods in any sense).
- The education system will need to be reviewed and, if applicable, adapted to provide 'green curricula' to equip the (future) workforce with the required skills, and to create awareness among citizens.
  - The same is true of the vocational training system, with lifelong learning becoming increasingly important in the context of the twin transition to a globally competitive, innovative, climate-neutral and digital economy.

Cedefop published *From linear thinking to green growth mindsets: Vocational education and training and skills as springboards for the circular economy (Policy Brief)*.

- European Green Deal targets can't be met without the circular economy and the Circular Economy Action Plan aims to accelerate transition.
- More circularity means companies will need to balance potentially conflicting environmental and economic demands; it also shifts sectoral employment but results in net job creation.
  - 'Circular' jobs include: core (e.g. in repair or waste management); enabling (e.g. in education, design and digital technology); and indirect (e.g. in information services and logistics).
- Progress might lead to employment losses or skills obsolescence in some sectors, specifically for:
  - Jobs relying on single-purpose skills: low-skilled jobs in waste disposal; in extraction; middle-skilled jobs in marketing and retail

- Jobs in energy-intensive and polluting manufacturing sub-sectors with linear production processes (e.g. plastics production), including traditional industries that source raw materials from countries outside the EU (e.g. metal manufacturing)
- Low- and high-skilled jobs in the production of new products, e.g. textiles, plastics and toys
- Jobs in supply chains facilitating the import of materials (e.g. logistics, transportation).

- A blend of technical, transversal and soft skills will be essential, including in: product design; systems thinking; technical approaches; product and process design; multidisciplinary working; and data analysis.
- Obstacles may include skill shortages and gaps in: systems thinking; understanding of the implications of regulation; circular economy product and process design; and other technical skills.
  - Action to alleviate skill bottlenecks should go beyond education and training for young people to focus on potential shortages of trainers and teachers.
- VET systems can contribute social cohesion through local job creation and training for low-skilled workers, while training for managers will also be vital.
  - Systems thinking and other core circular economy skills should be part of the core curriculum.
- CVET priorities include:
  - Developing training for intersectoral and intra-sectoral transitions and increasing work-based training opportunities
  - Shaping CVET so that it contributes to expanding learning potential (learning to learn)
  - Ensuring close links and effective feedback loops between CVET and employers' skill needs and systematically reflecting local/regional needs in programmes and curricula
  - Stimulating employers to offer staff training and making available financial and non-financial support for workers (e.g. time allowances, credit, professional development plans).

The European Commission published *Vocational Education and Training and the Green Transition: A compendium of inspiring practices*, key lessons from practice across Europe.

- 'Greening' of VET can take place across every aspect, including the development of national strategies and plans, redesign of qualifications and programmes, and the upgrading of professional development opportunities for staff.
  - Practices include: understanding and identifying skills for the green transition; creating greener VET programmes and qualifications; adopting new ways of teaching and learning; developing teachers' and trainers' skills; and implementing networks and platforms for collaboration.
- Most countries don't have a specific strategy or planning document but address the skills as part of other strategies and/or planning for the environment or industry.
  - In **Denmark**, mapping of future competence needs for green transition took place in 2022 by focusing on the largest VET programmes for meeting climate goals.
  - **Finland**'s national development programme for sustainable development and the green transition in VET provides a strategic framework and develops methods and materials for green management and teaching skills for staff, students and workplace supervisors.
  - **Austria** is providing structural financial support to enterprises that train apprentices under the Digi Check for Apprentices scheme which was extended to promote and make visible green skills.
- Appropriate adjustments need to be made to VET programmes and qualifications available to young people (to support labour market entry) and adults (to support upskilling and reskilling).
  - Two broad types of skills need to be considered: technical skills specific to individual occupations; and transversal skills for the green transition that can be applied across all occupations.
- Most countries include or are developing common/core green elements in some or all of their VET programmes.
  - In **Luxembourg** core green elements are developed in IVET curricula based on sectoral skills needs; to date, transversal green skills are not part of all VET curricula.
  - **Belgium-Wallonia** is promoting environmental sustainability perspectives in training programmes via an interdisciplinary approach.
- There has been an upsurge in activity, leading VET in new or reinforced directions, including:
  - Increasing focus on transversal skills for the green transition in all programmes and qualifications

- Adopting new ways of teaching and learning e.g. blended/digital, project-based and games-based
- Developing solutions to environmental challenges as part of the curriculum
- Linking VET to business ideas, entrepreneurship and innovations including regional development activities
- Engaging with a wider range of stakeholders to bring in environmental expertise.

- Emerging success factors and possible ways forward include:
  - Promoting the role of social partners in the design and delivery of VET
  - Motivating and enabling teachers to take forward the green agenda by providing the space, time and training to do so
  - Motivating and incentivising companies to engage with the agenda, including through work-based learning offers or renting out or lending the latest equipment
  - Promoting synergies between green and digital transitions, e.g. by using digital technologies as learning tools to teach skills for the green transition.

AUTOMATION & AI

McKinsey & Company published *The economic potential of generative AI [genAI]: The next productivity frontier*.

- GenAI has the potential to change the anatomy of work, automating activities that absorb 60–70% of employees' time.
  - The increase on previous predictions of 50% is due to its enhanced ability to understand natural language, required for activities that account for ~25% of work time.
  - The impact will therefore be greater on knowledge work associated with higher skill/wage occupations.
- The pace of workforce transformation is likely to increase, with 50% of today's activities automated between 2040 and 2060, with a 2045 midpoint that is a decade earlier than previously predicted.
- Labour productivity could grow by 0.1–0.6% annually through 2040, depending on the rate of technology adoption and redeployment of worker time.
  - Combined with other technologies, automation could add 0.2–3.3ppt annually to productivity growth; however, new skills will be required and some workers will change occupation.
- GenAI could contribute substantively to economic growth and a more sustainable, inclusive world.
  - However, risks will need to be managed, including determining the new skills and capabilities needed and rethinking core business processes such as retraining and developing new skills.
- Overall, genAI could add the equivalent of $2.6–4.4t annually across 63 use cases analysed; this compares to the UK's 2021 GDP of $3.1t.
  - The impact will be felt across all sectors, with high tech, life sciences and banking among those impacted most.

IZA published *New Technologies and Jobs in Europe*, examining the link between labour market developments and new technologies such as AI and software in 16 European countries between 2011 and 2019.

- The report also describes how the link between labour market development and new technologies varies across skills and age groups.
  - There is no evidence of any significant changes in employment shares associated with potential exposure to AI for low- and medium-skilled workers; however there is a positive and significant association for high-skilled workers.
  - There is little evidence of a relationship between wages and potential exposure to new technologies.
- Only a few countries show a decline in employment shares of occupations more exposed to AI-enabled automation; this seems to be linked to the pace of technology diffusion and education, and to the level of product market regulation (competition) and employment protection laws.
- Overall, AI has a mildly positive impact on the labour market, although it is too early to foresee the scope and applicability of the newest wave of AI technologies.

- The negative effect on employment appears to be far smaller than the most pessimistic outlook for AI-driven job destruction often emphasised in popular narratives.

- There is a positive association between the potential exposure to AI and employment among young and skilled workers.
  - This suggests that the best way to accommodate new technologies without employment losses is to accumulate human capital and increase labour supply at the top of the skill distribution.

The World Economic Forum (WEF) published *Future of Jobs Report 2023*, based on a survey of 803 companies that collectively employ over 11.3m workers in 27 industry clusters and 45 economies across the world.

- 85% said increased adoption of new and frontier technologies and broadening digital access were the trends most likely to drive their transformation, along with broader application of environmental, social and governance (ESG) standards.

- Investments in green transition, the broader application of ESG standards and supply chains becoming more localised are most likely to drive net job creation.
  - Agriculture technologies, digital platforms and apps, e-commerce and digital trade and AI are all expected to result in significant labour market disruption.
  - AI is expected to be adopted by 75% of companies; 50% expect it to create job growth and 25% job losses.

- ~34% of all business-related tasks are performed by machines – just 1% higher than in 2020.
  - In 2020, it was estimated that 47% of tasks would be automated by 2025; this has now been revised to 42% by 2027, ranging from 35% of reasoning and decision-making to 65% of information and data processing.

- The fastest-growing roles are driven by technology, digitalisation and sustainability.
  - AI and machine learning specialists top the list, followed by sustainability specialists, business intelligence analysts and information security analysts.
  - Renewable energy engineers and solar energy installation and system engineers are relatively fast growing.
  - Jobs in education are expected to grow by 10%, leading to 3m additional jobs for vocational education and HE teachers.

- Analytical thinking is most likely to be seen as a core skill, followed by: creative thinking; resilience, flexibility and agility; motivation and self-awareness; curiosity and lifelong learning; technological literacy and dependability; attention to detail; empathy and active listening; and leadership and social influence.
  - ~44% of workers' skills will be disrupted in the next five years; cognitive skills are reported to be growing in importance most quickly, reflecting the increase in complex problem solving.
  - A sizeable minority of companies judge the following to be of declining importance: reading, writing and maths; global citizenship; sensory-processing abilities; manual dexterity, endurance and precision.

- 60% of workers will require training before 2027; 50% have access now to adequate opportunities.

- Companies rank AI and big data 12 places higher in their skills strategies than in their evaluation of core skills; design and user experience is ranked nine places higher; environmental stewardship ten places; marketing and media six places; networks and cybersecurity five places.
  - Investing in learning and on-the-job training and automating processes are the most common workforce strategies to achieve business goals, planned by 80% in the next five years.

- As part of their EDI programmes: 79% will prioritise women; 68% under-25s; 51% those with disabilities; 39% those from a disadvantaged religious, ethnic or racial background; 36% the over-55s; 35% those who identify as LGBTQI+; and 33% those from low incomes.

- 45% see funding for skills training as an effective government employment intervention, ahead of: flexibility on hiring and firing practices (33%); tax and other wage-improving incentives (33%); improvements to school systems (31%); and changes to immigration laws (28%).

OECD published *Not lost in translation: The implications of machine translation technologies for language professionals and for broader society* *[the findings are also relevant to other occupations]*.

- The working paper uses online job vacancy data to map demand and skill requirements for language professionals in ten countries from 2015 to 2019.
- Machine translation technologies can provide output cheaply and quickly and can tackle large volumes of data; human translators suffer from clear capacity constraints.
  - However, machine quality remains low compared to that of professionals, especially for translations from/to low-resource languages and text loaded with cultural significance.
  - In high-stakes settings machine translation tools remain inadequate.
- It appears that language professionals were not substituted by machine translation tools over the period; rather, the tools complemented their work.
- Analyses of the skills demanded of language professionals highlight:
  - The continued and growing relevance of transversal skills and knowledge skills that allow language professionals to provide high-quality translations that machine tools can't provide accurately
  - The key role played by digital skills, which have been important for language professionals since at least 2014
  - Skills, such as post-editing, which allow them to work alongside machine translation tools; 10% of vacancies required prospective applicants to have AI core skills.

ADULT & LIFELONG LEARNING

L&W published *Time to learn: Increasing participation in learning*, providing a detailed snapshot of who is investing in learning, how much they're investing and existing inequalities.

- Overall, people invest £7.3b of their own money and £55b worth of time in learning each year, more than employers (£42b in time and money) and government (£6.8b on tax reliefs and provision).
- It amounts to £323 and 225 hours per year per adult learner; however, the figures hide significant disparities.
  - 19–24 year-olds invest £3,900/413 hours, compared with £1,300/124 hours for over 50s.
  - Participation is highest in London (56%) and lowest in the South East (36%).
  - Investment per learner is highest in Northern Ireland (£3,300), West Midlands (£2,500) and London and Yorkshire & the Humber (£2,200); it is lowest in Scotland (£1,600) and the North East (£1,750).
- Motivations to learn include: interest in the subject (37%); developing as a person (36%); and to improve job skills (25%).
  - The most common reasons for not taking part are: not wanting to (29%); cost (29%); feeling too old (28%); and time pressures (16%).
- Most policy is focused on tuition costs and cost barriers, but learning needs to be tailored to individual motivations and be more accessible and affordable.
- Recommendations include:
  - **Learning places**: promote learning and make everywhere a learning place, based on diverse motivations to learn and the 'tipping points' that affect people's decisions.
  - **Informed choices**: government should publish data on the economic and social outcomes of learning, develop clear career pathways and build local careers networks of trusted institutions like housing associations.
  - **Help with course costs**: England's new Lifelong Loan Entitlement (LLE) *[see below]*, based on level of learning or income, could simplify communication of current complex entitlements; all adults should have a Learning Account with a universal entitlement of £5k, targeted top-ups and co-investment by people and employers.
  - **Help with living costs**: support below HE level is limited and patchy; the LLE should include strengthening the Right to Request Time to Train, extending it to all firms, and including a right to time off at large firms, to include entitlement to a maintenance loan.
  - **Flexible learning**: build on the flexible learning revolution and support, encourage, incentivise, test and trial new forms of learning that better fit around people's work and home lives.

HEPI and the OU published *Does the Lifelong Loan Entitlement meet its own objectives?*.

- England's LLE, due to start in 2025, is a major improvement on how its student support system enables lifelong participation in HE; it has five main objectives including:
  - To enable greater parity of access between technical and academic courses
  - To fund modules regardless of whether they are provided by colleges or universities
  - To ensure that credit-bearing provision supports flexible, lifelong learning
  - To enable learners to study, train, retrain or upskill at any stage in their lives and in response to changes in labour markets and employment patterns.
- However, some aspects perpetuate the inequities of the current system and limit its impact.
  - Credit transfer is critical to flexible lifelong learning but creates questions around: parity between providers; transferability between the UK's four nations; oversight of the make-up of modular degrees; responsibility for regulatory compliance; financial viability; and whether a 30-credit minimum for a module is too large.
  - Part-time students will benefit from being able to register for a single module; however, assuming they have to complete a course within a 'course year' and that the 30-credit minimum is 25% of a full-time degree, they will not receive any more support than they do at present.
  - More importantly, there is no access to maintenance support for distance learners, whether studying full or part time – distance learning is critical to enabling people to study at any stage in their lives.
  - Funding is only available up to age 60, despite the Government being keen to re-engage the over-55s in the workplace and the state pension age already being at 66 and rising.
  - The need for all modules to be part of an overall parent course could hamper flexibility and responsiveness.

The paper includes policy recommendations for the Government and the Office for Students (OfS).

Ufi and L&W published *VocTech Challenge: Skills for an economy in transition – Green Paper*, summarising UK-wide research to date.

- Six research findings:
  - A **continued lack of investment in skills** by governments and employers prevents the system adapting to economic needs; unequal investment means those with lower levels of qualifications and in less well-paid sectors won't have the chance to benefit from learning.
  - The **fragmented and complex skills system** inhibits access to learning: people are unsure of where to look for learning opportunities and which opportunities are best suited to their needs; it also prevents collaborative working to address systemic barriers and meet employer and learner needs.
  - In order to meet the **evolving skills needs of an economy in transition**, qualifications and assessment need to be flexible and use the right language, focusing on core skill sets.
  - **Pervasive learner barriers** remain unaddressed: there is a failure to speak to real motivations and confidence to learn, as well as to address practical barriers such as cost, time, transport and childcare.
  - The **digital divide** is impacting individuals, trainers and organisations; while the pandemic widened access to online and blended learning, accessible technologies are needed, building confidence and digital skills.
  - The **true value of adult learning is still not understood** by individuals or employers; providers and policymakers don't have access to methodologically rigorous evidence of what improves learning outcomes; individuals and employers must be motivated to invest in learning.
- Three problem statements set out from an individual and system point of view how to:
  - think differently about learning and skills
  - address the fragmentation of the system and insufficient join-up with other public policy areas
  - develop and deploy the digital solutions that will make a difference to adult participation.
- A subsequent White Paper announced a £3m programme of work and funding to bring about a step-change in the number of adults participating in learning and to address skills shortages.
  - A co-created programme of place-based collaboration in four UK locations will take a whole-system approach to tackling adult participation in learning.

- An open grant call will seek vocational technology solutions to the biggest barriers to adult learning identified and scalable solutions will be supported with venture investment.
- The collaboration will be evaluated to demonstrate the impact of the interventions and there will be an advocacy campaign to make the case for increasing adult participation in learning.

The Centre for Progressive Policy (CPP) published *Fair Growth: Opportunities for economic renewal*, analysing and comparing the UK's drivers for fair growth at local, national and international levels.

- A new model brings together a ten-year dataset on the potential drivers of local authority (LA) productivity.
  - Scenarios show the economic gains that could be achieved by improving skills and health in areas currently below UK average and by closing gender workforce participation gaps for all places.
- Among the findings:
  - If all lagging LAs matched the national average proportion of people skilled to Level 4+, economic output would increase by £28b (1% of GDP); for Level 3 it would increase by £25b; for Level 2, £28b.
  - If LA gender employment gaps were closed, economic output would increase by £23b.
  - If all scenarios were realised, the UK could generate an estimated additional £160b – 7% of GDP.
- Achieving fair growth requires a dedicated focus on the drivers of productivity in left-behind places, and a reprioritisation of the current approach to social and economic policy.
  - This includes both FE and HE – life chances are still determined by school results.

The Scottish Government published *Adult lifetime skills: A literature review*, focused on adult work-based learning and the retraining opportunities for those in work.

- Lifelong learning has many benefits – economic, social and wellbeing related.
- Barriers to adult learning are described as: **dispositional** (where participation is limited by attitudes and expectations); **situational** (limited by personal circumstances, e.g. being unable to afford training); and **institutional** (limited by structural and organisational factors).
- There is limited evidence on the strengths and weaknesses of the Scottish skills system, however:
  - Strengths include a flexible FE system, and the apprenticeship system
  - Weaknesses include its emphasis on young people, low productivity and wider challenges, e.g. automation and an ageing population.
- Evidence on the place of microcredentials is only just emerging and is mixed, but it highlights the importance of ensuring a consistent, high-quality framework.

Includes examples of workplace training in Denmark, Estonia, Finland, New Zealand and Singapore.

The Centre for European Policy Studies (CEPS) published *Working Paper on an analytical framework on industrial relations and social dialogue for adult learning in a changing Europe*, the first deliverable of the SKILL project.

- The promotion of adult learning has been a key part of EU policy since the 2000 Lisbon Strategy; an expanded framework emphasises the right of all individuals to high-quality, inclusive education, training and adult learning.
  - A July 2020 communication on sustainable competitiveness, social fairness and resilience included 12 flagship actions to be achieved by 2025, mostly relating to skills.
  - The EU has introduced many initiatives, rules and directives to support the 'twin transitions' to a digital and a green economy and social fairness is seen as crucial for public acceptance of the efforts and adjustments required.
- The paper identifies different types of measure that support adult learning, and outlines governance structures and actors in the design, implementation, monitoring and evaluation of such measures.
  - It looks at how six member states – including Belgium and Denmark – have designed measures that address their adult learning needs and provides a critical review of the learning schemes.
  - It focuses on the role of social dialogue and industrial relations and investigates the circumstances that enable adult learning to flourish in a fast-changing economy by examining social partners' activities in support of equitable access to adult learning.

- Among the conclusions:
  - Social partners can foster adult learning through many channels, but there are several obstacles; social dialogue is not always strong, and it has been under severe pressure in the past few decades.
  - Training is not always a priority for trade unions or employers' organisations, and collective agreements don't cover all workers, nor all companies; social partners don't always have a strategy or policy for it.
  - Trade union presence is often mostly restricted to larger companies; this leaves micro and small companies in particular without any presence and with weaker social dialogue overall, while their employees face more constraints in upskilling and reskilling.
  - Upskilling and reskilling are now more important than ever, and formal education will likely no longer be sufficient; meanwhile, other forms of training and learning have gained prominence.
  - This opens up a critical role for social partners to support both workers and companies.

Cedefop published *European guidelines for validating non-formal and informal learning*, setting out, in a simplified way, the main common elements of the process.

- Validation is about how to make visible the outcomes of non-formal and informal learning and how to attribute appropriate value to those outcomes.
  - For validation to facilitate lifelong and life-wide learning, its results must be trusted across institutions, sectors and countries; validation without transparency and transferability adds little value to the individual end-user.
- It is critical to place the individual at the centre of the process: the purpose of validation must be clear and aligned to the interests and needs of these end users, and not be dominated by the needs and interests of the providers.

Cedefop published *The future of vocational education & training in Europe Volume 4: Delivering lifelong learning: The changing relationship between IVET and CVET*.

- The study takes a holistic approach to investigating how VET providers in different EU member states support adult learning and how national policies support VET providers either to play a greater or lesser role in lifelong learning.
  - It provides a systematic comparison of the way IVET and CVET sub-systems interact in supporting lifelong and life-wide learning.
  - National case studies (Denmark, Finland, Germany, Lithuania, Netherlands and Portugal) allow for an in-depth, qualitative comparison and analysis of practices and policies.
- There are four ways in which IVET providers can play a role:
  - VET leading to acquisition of vocation/occupation-specific skills but not to a formal qualification
  - VET leading to a formal qualification
  - Basic skills training
  - General education tracks (academic tracks and second chance).
- In some countries (Ireland and Finland) IVET providers are active in all four areas; in others (including Czechia and Estonia) they mainly offer formal programmes in both VET and general tracks.
- Overall, while there is a considerable role for IVET providers in upskilling and reskilling, it cannot be concluded that they are a dominant player or will become more prominent.
  - However, IVET providers can be involved in different types of adult learning and are not necessarily confined by national traditions.
  - There are opportunities to open up more to adults, with more, different and tailored adult learning programmes, including in partnership with other organisations.
- Cross-cutting aspects of policy and reform provide: an increased emphasis on modularisation and learning outcomes; greater emphasis on validation processes, in order to shorten and tailor provision to the individual; the establishment of guidance structures.

RISE (Research Institutes of Sweden) published *What's the Deal with Microlearning?*, a literature review as part of the Microlearning in Video Format project initiated by TikTok Sweden.

- Microlearning is a relatively new form of teaching method, and there is no established conceptual description.
  - However, the evidence suggests that it is characterised by high accessibility, that it should be digital and that it should take no more than ten minutes to consume.
- Microlearning has been shown to be an effective way to learn when time is short or in the context of professional activities, where there are resource constraints or financial limitations.
  - It has the potential not only to enhance learning but also to increase motivation, contribute to more confident students and encourage self-reliance.
- Learning can take place through a variety of formats: e.g. text, images, audio, video and games.
  - For video, a maximum length of 5–6 minutes is recommended to maintain focus and ensure learning.
- Microlearning is most effective if each item consists of only one learning goal and is complemented by an opportunity to test knowledge through an interactive exercise or to participate in a discussion forum.
  - When designing and using microlearning, it is important to ensure that materials are created according to the individual's circumstances and learning needs.

WEF published *Global Gender Gap Report 2023*, tracking gaps in economic participation and opportunity, and educational attainment, as well as health and survival and political empowerment in 146 countries.

- The overall global gender gap score improved by 0.3ppt and is 68.4% closed, rising to 68.6% for the 102 countries covered continuously since 2006.
  - The score is back to pre-pandemic levels, but progress has slowed; at the current rate, it will take 131 years to achieve full parity.
- Iceland is top again (91.2%), followed by Norway (87.9%), Finland (86.3%), New Zealand (85.6%) and Sweden (81.5%).
  - Ireland has dropped out of the top ten, from 9th to 11th (79.5%); the UK is 15th (79.2%).
- The educational attainment gap is closed by 95.2%, just behind health and survival (96%), but ahead of economic participation and opportunity (60.1%) and political empowerment (22.1%).
  - At the current rate of progress, it will take 16 years to close the educational attainment gap and 169 years for economic participation and opportunity.
- There are increasing calls for policy focus and financial investment in adult education, training and lifelong learning and the emergence of online learning has brought an array of new solutions.
  - However, the persistent digital divide means women don't have equal opportunities and access.
  - Even when they do use these platforms, there are gender gaps in enrolment, attainment and efficiency in acquiring skills that are expected to grow in importance.
- Online provider Coursera saw its highest year-on-year increase in enrolments for both men and women in 2020, but persistent gender disparities are seen in every skill category.
  - Creative thinking (64.3% parity), analytical thinking (52.7%) and systems thinking (55.6%) are all projected to become increasingly crucial in the next five years; technological literacy (43.7%) and AI/big data (33.7%) have seen sluggish progress since 2015.
  - However, there is a more positive outlook for critical attitudes and socio-emotional capabilities, where companies place great emphasis: curiosity/lifelong learning (87.6%); resilience, flexibility and agility (77.1%) and motivation and self-awareness (86.8%).

A summary, infographics and economy profiles are here, plus a press release providing commentary.

British Council published *The Future of English: Global perspectives* as part of a research programme on 'the trends driving the use of English as a global language' to inform policymakers, educators and researchers.

- Findings include:
  - There is a strong connection between the desire to learn English and the need for teachers, even with new technologies.
  - The quality of some private language education provision is variable; greater collaboration is needed with public providers.

- Recommendations include:
  - Policymakers should continuously review the approach to assessing English proficiency to ensure assessment practices stay relevant.
  - Technology could help more students access language learning; however it could also widen the gap between those who have access to technology and those who do not.

British Council also published findings from a Censuswide poll of 2,500 working adults across the UK about their use of English at work; 51% regard English as the most important for future international business, followed by Mandarin (22%) and Spanish (18%).

QUALITY OF WORK

CIPD published *Good Work Index 2023*, its latest annual survey of 5k UK workers across different sectors and occupations.

- The index has seven dimensions: pay and benefits; contracts; work–life balance; job design and the nature of work; relationships at work; employee voice; and health and wellbeing.
- Despite the disruption of the last five years, the UK labour market has changed little.
  - The share of insecure work has increased slightly but is virtually unchanged since 1992.
  - People are spending the same amount of time on average in a job.
  - Zero hours and the gig economy remain marginal.
- There have, however, been two significant changes; the emergence of large-scale labour shortages; and the shift towards working at home.
- While many indicators show no significant improvement over the last four years and some have declined, there have been some improvements, notably in human capital development:
  - More people have opportunities for skills and career development.
  - Relations with managers and colleagues remain positive.
  - People are more confident they could find another good job.
  - Flexible working has increased.
- Overall, there has been a lack of significant progress on improving job quality since the 2018 *Good Work Plan*.
  - There needs to be a renewed focus on improving job quality supported by reforms to policies including skills.
  - These should underpin the workforce element of a new industrial strategy focused on raising productivity and living standards across the economy.

CIPD also published Working Lives Scotland 2023, adapting the Good Work Index to the Scottish Fair Work Framework, which captures data on five dimensions of job quality: respect, security, opportunity, fulfilment and effective voice.

McKinsey & Company published *The State of Organizations 2023*, drawing on a survey of 2,500 leaders – including 304 in the UK.

- The most important shifts facing organisations include:
  - **Increasing speed, strengthening resilience**: 50% of organisations are unprepared to react to future shocks.
  - **Making way for applied AI**: companies are already using AI to create sustainable, long-term talent pipelines and improve ways of working; they need to focus on embedding it in their culture.
  - **New rules of attraction, retention and attrition**: employees seek a combination of money, work–life balance, professional development and purpose; organisations must tailor their responses.
  - **Closing the capability chasm**: only 5% have the capabilities they need.
  - **Walking the talent tightrope**: the highest performers are 800% more productive than their average peers; organisations need to focus more on matching top talent to the highest value roles.
  - **Leadership that is self-aware and inspiring**: only 25% say their leaders are engaged and passionate and inspire employees to the best possible extent.

- **Making meaningful progress on EDI**: 70% have transformative aspirations, but only 47% have the infrastructure to realise them.

EQUALITY, DIVERSITY & INCLUSION (EDI)

ScreenSkills published *D&I Targets Playbook* based on a review of the film, television, VFX (visual effects), animation and games sector by the University of Glasgow.

- UK screen industries run many interventions to improve inclusion, from mentoring and staff networks to training in inclusive practice or diversifying on-screen portrayal.
- However, a lack of D&I is contributing to the sector's acute skills shortage; in particular, there is a lack of:
  - Clarity in the language used to talk about D&I targets
  - Consistency in the data used to set targets
  - Transparency in how or why particular targets are set
  - Industry-wide sharing of learning and good practice.
- Recommendations are provided to create, support and retain a more inclusive screen sector workforce, including support for fair and equal access to training.

The Young Women's Movement published *Young Women Code*, a review of the CodeClan digital skills academy in Scotland, identifying the challenges for women entering and progressing in the sector.

- Women currently represent 23% of the digital tech workforce in Scotland; review findings include:
  - Gendered 'norms' around STEM create a stigma that pushes women away from tech.
  - Women feel measured by a different standard to their male peers in the tech job market.
  - Women value flexible, remote and part-time working opportunities, as well as mentorship.
  - Only one of CodeClan's courses had more than 27% women students – a part-time software development course, which had 58% women.
  - Students want to be taught by more women: only 22% of CodeClan's teaching staff are women, and they are working in largely supporting roles.
- Recommendations include: increasing outreach to schools to help break stigmas early on; providing bursaries and funded places that are ringfenced for women; and offering more part-time courses.

The Royal Academy of Engineering (RAEng) published *Inclusive Cultures in Engineering 2023*, a commentary, presenting key highlights and themes from a full report published in March.

- 75% of engineers felt that inclusion in the profession has improved since previous RAEng research in 2017; those who identified as transgender had seen the most improvements.
  - Those working in large companies felt the effect of company policy in creating inclusive cultures more than those working in SMEs.
- The profession generally felt that the culture was inclusive, but those under-represented were less likely to agree.
  - Engineers used words such as 'solutions oriented', 'innovative' and 'collaborative', describing a culture that allows inclusivity to flourish; however, some – particularly women – saw the profession as 'slow to change', 'siloed' and 'hierarchical'.
  - A masculine, macho culture persisted in the form of offensive 'banter' and 'mickey-taking', which engineers were expected to be resilient to; this was particularly on site rather than in the office.
- The behaviours valued tended to relate to problem solving, collaboration and delivering to time and budget; 'creativity', 'speaking up' and 'taking a stand' were reportedly less valued.
- Under-represented groups continued to report experiences of bullying, harassment and other forms of discrimination, with higher rates for those from multiple under-represented backgrounds.
- Engineers reported having a good work–life balance, being able to be authentic at work and being open with colleagues about their lives; however, many – particularly from under-represented groups – felt isolated.

OECD published *Joining Forces for Gender Equality: What is holding us back?*.

- There has been progress in some policy areas, such as paternity leave, pay transparency, flexible work opportunities and higher representation of women in leadership roles.
- However, even in countries that have been at the forefront of gender equality policy, major challenges remain, including:
  - The need to boost girls' participation in educational fields promising better job opportunities
  - Barriers to entrepreneurship and self-employment
  - Lower wages and gaps in lifetime earnings and pension income
  - Women's under-representation in politics and government leadership positions.
- Attention to gender inequalities has extended to more policy areas, including foreign direct investment, the environment, energy, nuclear energy, trade, and transport.

Country-specific notes are published in English for: UK, Australia, Canada, France, Germany, Italy, Japan and US.

MANAGEMENT & LEADERSHIP

CIPD published *The importance of people management: Analysis of its impact on employees* focusing on a line manager sub-index to the Good Work Index *[see p. 34]***.**

- Managers who treat people fairly and provide effective feedback and support, while also developing their staff and helping them work together, are likely to have happier, healthier and higher-performing teams.
  - Employees who rate their managers highly on these measures are more likely to report they are motivated by their organisation's purpose and to say they meet their objectives and are fully competent in their job.
- Managers with highly rated people management skills are more likely to have staff who say they will 'go the extra mile at work'.
- There is a strong link between management quality and employee health and wellbeing, particularly their mental health and whether they are likely to be looking for a new job.
- Only about 50% of managers think they receive the training and information they need to manage their colleagues well or have sufficient time for this.

Cedefop and Eurofound published *Fostering skills use for sustained business performance: Evidence from the European Company Survey*.

- Managerial approaches fostering ability, motivation and opportunity are positively associated with company performance; approaches that foster motivation have the greatest impact.
  - The findings hold across countries, sectors and sizes of organisation, although they are affected by other environmental factors, e.g. corporate competitive strategy and market predictability.
- Businesses that invest more in their employees in other domains – including training practices – have in place more extensive practices around ability, motivation and opportunity and also perform better.
- People-centred managerial approaches harnessing workplace wellbeing underlie the link between human capital utilisation and business outcomes.
  - Promoting workplace wellbeing is not only in the interest of employees but should be seen as an important component in transforming their skills into favourable company economic outcomes.
- Managerial approaches fostering opportunity (autonomy and involvement) have a particularly strong link with establishment performance when there is great uncertainty in the business environment, as was the case during the pandemic.
  - In these circumstances, managerial approaches that cultivate opportunity helped organisations counteract the negative effects of the crisis.
- The conclusions not only suggest that policy should push for better use of human resources, but also that supply-side and demand-side policies complement each other.

Eurofound published *Hybrid work in Europe: Concept and practice*, summarising the main debates, challenges, benefits and opportunities of the practice.

- It will be critical for policymakers and social partners to reach agreement on the conditions under which hybrid work should ideally be performed, including on aspects relating to the leadership and management skills required to put it into practice.

CIPD published *Flexible and hybrid working practices in 2023: Employer and employee perspectives*, based on surveys of 2k UK employers and 2k employees.

- 66% of employers believe that it is important to provide flexible working as an option, up from 56% last year; 71% feel that this has become more important following the pandemic.
  - 16% will be taking steps over the next six to 12 months to increase provision of other forms of flexible working, most likely informal flexibility, flexitime, part-time hours or compressed hours.
- Key reasons include attracting/retaining staff (60%) and motivation/productivity (54%).
  - Issues faced as a result of the shift to home/hybrid working include managing remote teams and the impact on collaboration and creativity.
  - 39% of employers are concerned that remote workers might be treated differently, including in relation to career development and progression; the figure is down from 48% in 2021; 20% of employees have the same concern.

International Comparisons

The European Commission published two comparative reports for the 37 Eurydice network member countries – the EU-27 plus Albania, Bosnia & Herzegovina, Switzerland, Iceland, Liechtenstein, Montenegro, North Macedonia, Norway, Serbia and Türkiye:

- *National Student Fees and Support in European Higher Education 2022/2023*, the first interactive version of its biennial update comparing data from June to September 2022 for 39 education systems.
  - Comparative analysis covers the student fee and financial support policies, with national information pages providing details on the policy context and measures applied.
- *Mobility Scoreboard: Higher education background report 2022/2023*, monitoring progress made in promoting, and removing obstacles to, learning mobility.
  - Updated information is provided on six 'scoreboard indicators': information and guidance; foreign language preparation; portability of grants and loans; support for disadvantaged learners; recognition of learning outcomes through the European Credit Transfer & Accumulation System; and recognition of qualifications.

The European Commission published the first set of digital skills briefings for individual countries on its Digital Skills & Jobs Platform, providing an overview of population skill levels, national strategies and initiatives, including the following small advanced economies (SAEs):

- **Austria**:
  - 63% of the population have at least basic digital skills, above the EU average of 54% – the EU target is 80% by 2030; it performs better than the EU average in almost all indicators, except the percentage of enterprises providing ICT training (18% vs EU average of 20%).
  - The Digital Skills Offensive started in February 2023, including quality-assured teaching of basic skills for the general population, ICT experts, those in education, in business and the public sector.
- **Czechia**:
  - Ranked 19th of the EU-27 in the 2022 Digital Economy and Society Index (DESI).
  - The Czech National Coalition for Digital Skills and Jobs was set up in 2016, involving over 200 organisations from education and ICT business.
- **Denmark**:
  - Fifth of the EU-27 in the 2022 DESI; around 30% of businesses provide ICT training, however 58% of businesses seeking ICT specialists report difficulty filling vacancies.
  - The Danish Digital Skills and Jobs Coalition aims to address the digital skills gap, promote lifelong learning, and develop the skills and expertise of IT users and professionals.

- **Estonia**:
  - 56% of the population have at least basic digital skills, just above the EU average (54% – the EU target is 80% of the population with at least basic digital skills by 2030); the highest percentage of ICT graduates (8.4%) in the EU.
  - National strategies include EdTech Estonia Strategy 2023–2027, to create opportunities for new start-ups and a supportive environment for the rapid growth of companies.
- **Finland**:
  - 79% of the population have at least basic skills; it is first of the EU-27 in the 2022 DESI; ICT graduates account for 7.5% of all graduates.
  - The share of companies providing ICT training to their employees is almost double the EU average.
- **Republic of Ireland**:
  - 70% of the population have at least basic digital skills, third in the EU; 6.3% of employees are ICT specialists (EU average 4.5%); 8.6% of graduates are studying ICT.
  - Among numerous initiatives are: the Irish Coalition of Digital Skills & Jobs, involving 50 partners aiming to strengthen the workforce and enhance the digital inclusion of all citizens; 'Addressing the digital divide and enhancing digital skills reform', to support the digital transformation of education and training at all levels.
- **Sweden**:
  - 67% of the population have at least basic digital skills, fourth highest in the EU.
  - The Swedish National Digital Skills & Jobs Coalition, formed in 2018, is a multi-stakeholder partnership actively involved in promoting digital skills and competence.

Government

The UK DCMS published *Creative Industries Sector Vision: A joint plan to drive growth, build talent and develop skills*, setting out objectives for growth in the sector across the UK by 2030 developed with the devolved governments.

- One of three goals is to 'build a highly skilled, productive and inclusive workforce… supporting 1m more jobs across the UK', with education, skills and job quality objectives.

NORTHERN IRELAND

The Northern Ireland Statistics & Research Agency published *Skills Mismatch in Northern Ireland 2022*, exploring the self-reported skill levels of adult employees.

- 51% reported that their present skills corresponded well with their duties vs 49% in the UK.
  - NI employees were significantly less likely to lack some skills required in their current duties.
- When comparing by sex, age and industry, there were few differences in reported skill levels.
- At most qualification levels, a higher proportion reported that they had the skills to cope with more demanding duties than employees with no qualifications.
  - The proportion was highest for those with A levels or equivalent qualifications.

ENGLAND

Think Tank EDSK published *Examining exams: Are there credible alternatives to written examinations?*, analysing the dominance of written exams in England and whether alternatives could and should play a greater role in upper secondary.

- Written exams have limited value in building useful skills, but are low-cost, standardised, impartial and at low risk of malpractice or inconsistent grading.
  - The advent of ChatGPT makes it unwise to increase the proportion of coursework or similar assessments in a high-stakes system; the burden on teachers of switching to more internal assessments should not be underestimated.

- Written exams should therefore continue to be the main method of assessment.
  - However, 16–19s taking classroom-based courses should be required to take one additional AS-equivalent subject in Year 12 that would be examined entirely orally.
  - At the same time, the Extended Project Qualification should be made compulsory as a low-stakes method of developing research and extended writing skills.

The report includes an overview of the history of exams in England and how they have become central to its school accountability system and the competitive HE application process.

The House of Commons Education Committee published *Careers Education, Information, Advice & Guidance [CEIAG]*, the report of its inquiry into provision in England.

- Among the findings:
  - The Gatsby benchmarks framework is broadly in place, but an overarching strategy is lacking; schools/colleges are making progress but are only meeting just over 50% of benchmarks.
  - There is positive feedback on the impact of careers hubs and careers leaders; however, almost 50% of careers leaders have less than one day a week allocated to the role.
  - The National Careers Service website is theoretically available to 13–18s, in practice, it is neither targeted at nor used by them.
  - A lack of coordination and alignment between organisations providing careers support and services is resulting in duplication and confusion.
  - Funding for CEIAG from existing school/college budgets is causing significant disparities in provision; schools are apparently only spending on average £2 per pupil.
  - Careers & Enterprise Company expenditure is currently around £5k per school; £38k–£76k is needed to implement all benchmarks.
  - In 2021/22, 70% of schools/colleges fully achieved the benchmark for embedding CEIAG in the curriculum, up from 38% in 2018; however, high standards are much more likely in colleges.
  - 88% of teachers feel that their training didn't prepare them to provide CEIAG; the curriculum does not contain explicit links to relevant careers.
  - There are concerning gaps in access to high-quality work experience, especially outside major cities; only 30% of Year 13 pupils have taken part in placements arranged through the school.
  - Schools are still prioritising guidance on academic routes over vocational and technical routes; the Baker Clause has low compliance and no accountability mechanism.
  - Disadvantaged pupils, those from minority ethnic backgrounds, care leavers and young carers are the least likely to receive high-quality CEIAG, while pupils with SEND need tailored support.
- **Recommendations** include: publish targets for Gatsby benchmarks in an updated Careers Strategy; task Ofsted with maintaining a strong focus on CEIAG, the benchmarks and provider access legislation; make careers part of teacher training; develop a toolkit for 'meaningful' work experience and a national work experience platform, including virtual placements.

OfS published two independent research reports on its Uni Connect programme, which brings together partnerships of universities, colleges and schools to improve awareness of and access to HE:

The benefits of and barriers to collaborative access activity by higher education providers

- **Collaboration** enables providers to:
  - Identify 'cold spots' where schools/colleges are not being targeted by individual providers and/or are not actively engaging with the access activities on offer
  - Understand region-specific needs and the barriers to HE
  - Share ideas and evidence of good practice to develop an innovative offer
  - Engage harder-to-reach groups, particularly those that are small in number
  - Reduce duplication and provide activities more efficiently
  - Extend the reach of individual partners, particularly those with more limited resources
  - Streamline communications and provide a more joined-up, sustained, progressive, impartial offer
  - Ensure greater synergy between a provider's goals and the strategic priorities of their partners
  - Evaluate a wider range of access activities and produce more robust evidence of impact.

- It also: expands colleges' capacity and reach; raises awareness of alternative routes into HE; helps address objectives for local economic growth; helps young people make better informed decisions; and helps to level the playing field for those aspiring to selective and research-intensive universities.
- **Barriers and tensions** include: competing internal priorities; tension between FE colleges (FECs) and HEIs; difficulties securing buy-in to collaboration; underestimating the time needed to build and maintain partnerships and demonstrate progress; and inadequate levels and longevity of funding.

Fifth independent review of impact evaluation evidence submitted by Uni Connect partnerships

- Findings include:
  - Uni Connect is succeeding in its aim to support informed decisions about future education options.
  - Most interventions can have a positive impact on interpersonal skills, attributes and self-belief.
  - Limited evidence so far shows some interventions can impact grades and improve motivation to achieve and willingness to engage in schoolwork.
  - Sustained and progressive support increases the likelihood that a participant will apply to HE.

Evidence is also available on the impact of: summer schools, masterclasses and skills and attainment workshops, mentoring, campus visits and multi-intervention approaches.

The Institute for Public Policy Research (IPPR) published *Join the Dots: The role of apprenticeship intermediaries in England*.

- The transformative potential of apprenticeships for learners and businesses is not being realised, partly due to a fall in apprenticeships offered by SMEs since 2017.
  - SMEs cite barriers including a lack of high-quality information and practical support and challenges navigating apprenticeship funding and accessing suitable provision.
- An organic and diverse network of intermediary support has developed in England, providing smaller organisations with support in navigating systems and funding, and aggregating employer demand.
- Four recommendations aim to make such intermediaries an integral part of the policy solution:
  - Guaranteed access for SMEs to high-quality intermediary support via a national network
  - Government to establish Apprenticeships Support England (ASE) – an arm's-length umbrella body to ensure quality, consistency and economies of scale
  - Funding redirected from levy top-ups to provide core funding for ASE and seed funding to fill gaps in intermediary support
  - Formal government evaluation of intermediaries to build a robust evidence base on 'what works'.

IPPR also suggests that the findings and recommendations apply more widely across the skills offer.

The House of Commons Library published the following briefings on learning and skills:

- *Further Education Funding in England*: explains the different systems, examining recent announcements and trends and considering some of the issues facing the sector.
  - Includes information on the Multiply programme, Maths Hubs, the Prime Minister's advisory group, and responses from other political parties and education sector organisations.
- *Student mental health in England: Statistics, policy, and guidance*: explores the prevalence of mental health issues, whether universities have a duty of care to students, Government policy, sector guidance and support and university support.
- *Sharia-compliant alternative student finance*: explains where the Government has got to since 2017.
- *The Lifelong Loan Entitlement*: explains the Government's plans and considers reaction and issues raised by the education and employment sectors.
  - Includes a commentary on: the impact assessment and equality analysis; demand for the LLE; the regulatory and administrative burden; the cost to providers; and communication of the policy.

SCOTLAND

The Scottish Government published *Fit for the Future: Developing a post-school learning system to fuel economic transformation: Skills Delivery Landscape Review*, the final report of an independent review of the post-16 skills system in Scotland by James Withers.

- The following themes were identified, pointing to the need for 'substantive, structural reform' and clarification and/or rationalisation of the roles and remits of national bodies:
  - Significant tensions, e.g. between national agencies, and national and local level delivery
  - A lack of strategic direction, shared narrative and measures of success
  - A complex and fragmented funding environment
  - Incoherent, disjointed pathways and a failure of language
  - An absence of national prioritisation and regional flexibility
  - Inconsistency of careers advice and education
  - A complicated business interface and clarity of expectation from employers.

A separate report by Craigforth Consultancy & Research provides analysis of consultation responses.

The Scottish Government published *Purpose and Principles for Post-School Education, Research and Skills*, a new 'blueprint' detailing key reforms and actions in response to the above Withers report, including accepting a number of its 15 recommendations.

- Plans include:
  - Developing a new national model of public funding for FE, HE, apprenticeships and training.
  - Investigating options for a single funding body, including for tuition and living cost support.
  - The new national qualifications body that is due to replace the Scottish Qualifications Authority to oversee all publicly funded post-school qualifications, except degrees.
  - Reviewing student support for part-time learners.
  - Considering options for future national careers services.
  - The Scottish Government to take over responsibility for skills planning at a national level.
  - Piloting an international mobility programme to replace Erasmus+.
  - Enhancing and embedding the role of employers in shaping system planning priorities, pathways and provision.
- An additional paper sets out *Initial Priorities* under five principles: transparent, resilient and trusted; high quality; supportive and equitable; globally respected; and agile and responsive.

The Scottish Government published *The Entrepreneurial Campus: The higher education sector as a driving force for the entrepreneurial ecosystem*, a ten-year 'blueprint'.

- It outlines steps to achieve attributes 'vital for entrepreneurial success' under ten themes, including:
  - Teach practical entrepreneurial skills as part of the wider university and college curriculum; all students to take credit-bearing courses in support of entrepreneurial development.
  - Encourage collaboration between education institutions by strengthening global networks.
  - Attract alumni and experienced entrepreneurs as practitioners and mentors.
  - Establish institutional policies that support the development of an entrepreneurial mindset.
  - Develop a pre-16 domestic talent pipeline and attract entrepreneurial international students.

Produced as an action from the National Strategy for Economic Transformation *published in March 2022.*

The Scottish Government published *Scotland's National Innovation Strategy*, a ten-year plan to make Scotland 'one of the most innovative small nations in the world', 'alongside Denmark, Norway and Finland'.

- Four programmes of action include: innovation-led entrepreneurship and commercialisation, including in universities; and building innovation clusters on energy transition, health and life sciences, data and digital technologies, and advanced manufacturing.

WALES

The Welsh Government published *Evaluation of Personal Learning Accounts [PLAs]*, an Employability Plan commitment that was urgently rolled out during its pilot phase due to the onset of the pandemic.

- Rather than offering actual personal accounts, FECs determined and resourced appropriate provision.

- PLAs: targeted employed adults only; aimed to boost the earnings of low earners through career progression or transition; fully funded the courses; were run through FECs, with upfront funding supporting flexibility in what, how and when training was provided.

- Among the findings:
  - The funding model enabled FECs to: trial new activities without risk, be more responsive to learner demand and be more innovative in their provision; however, there were concerns that it led to inconsistency in funding levels for similar courses.
  - Competitive bidding rounds to respond to national priorities were seen as an effective, rapid response to emerging sector-related issues and opportunities.
  - Assessing the likely demand for new courses was challenging and national labour market intelligence combined with evidence from employer and sector groups might enable more consistency in determining need and embedding an intersectional focus.
  - A necessary transition to more online learning was maintained and there was some flexing in course timing, although this was constrained by staff contracts; online courses suffered from higher rates of non-completion, as did those run at weekends.
  - A particular strength was the widening in eligibility for funding, particularly the inclusion of vendor qualifications, which helped providers adapt provision to learner and employer needs.
  - 'Gender budgeting' was introduced after the pilot had been designed but there was a lack of shared understanding of its aims and objectives and how it could work in practice.
  - 46% of learners said they wouldn't have undertaken training if PLAs hadn't existed; across most sectors, women were more prevalent on PLA courses than in post-16 provision generally.
  - Learners reported increased self-confidence and self-motivation, felt more independent and had clearer career aspirations; most are pursuing further learning, although they were already more engaged than a typical adult.
  - 40% of those who completed or left after completing at least half their course are now in a different career or have secured a pay rise as a result of PLAs; the programme is relatively expensive to run but appears to offer acceptable value for money.

The Welsh Government launched a new *Cyber Action Plan for Wales*, with cyber resilience and security at its core, and setting out how cyber offers economic opportunities as a leading growth sector.

- Building a pipeline of cyber talent is one of four priority areas, with Wales already having a strong track record on cyber skills; there are measures at all levels of the education system, including:
  - Initiatives like Cyber College Cymru that help to prepare students for a career in cyber, with training from experts; there are also numerous cyber security apprenticeships.
  - Cardiff University is as an Academic Centre of Excellence in cyber security and the Welsh Government works closely with the National Cyber Security Centre to enhance HE/employer links.
  - The Cyber Innovation Hub offers a coordinated approach to skills, innovation and new enterprise creation, and the Thales Group National Digital Exploitation Centre's education and outreach activity enhances local skills and knowledge.

- New activity will focus on:
  - Exploring ways to develop a cyber education journey that aligns with cyber career frameworks
  - Maximising partnerships and retraining programmes – e.g. Jobs Growth Wales+, PLAs, Flexible Skills Programmes – to address short-term and longer term needs
  - Using existing programmes and work with industry partners and schools to improve diversity in the workforce, building on interventions such as Women in Cyber Wales and Cyber First Girls.

The Welsh Government published *A manufacturing future for Wales: Our journey to Wales 4.0*.

- The refreshed plan focuses on priorities including:
  - Decarbonising the sector in Wales, underpinned by circular economy methodology
  - Identifying and developing the necessary leadership and workforce skills
  - Embedding 'fair work' employment principles and promoting inclusivity and security.

REPUBLIC OF IRELAND

OECD published *Skills Strategy Ireland: Assessment and recommendations*, the report of a project reviewing how Ireland's National Skills Strategy 2025 might need to be adapted to ensure it is still fit for purpose.

- Significant labour shortages are apparent; regional inequalities have been rising and several sectors have not experienced growth in labour productivity in recent years.
- Four priority areas are identified to enable the skills ecosystem to take the necessary leap forward:
  - **Securing a balance in skills through a responsive and diversified supply of skills**: improving information and guidance; strengthening learning and career pathways over the life course; making education and training provision more responsive to changing skills needs
  - **Fostering greater participation in lifelong learning** in and outside the workplace: strengthening incentives to participate for both individuals and employers; making lifelong learning more flexible and accessible
  - **Leveraging skills to drive innovation and strengthen firm performance**: better utilising research talent and the public research and innovation system to drive innovation within firms; promoting the continuous improvement of leadership and management skills; incentivising and enabling enterprises to make better use of workers' skills through innovative workplace solutions
  - **Strengthening skills governance to build a joined-up skills ecosystem**: promoting a whole-government, strategic approach to skills policy; supporting effective engagement with stakeholders throughout the skills policy cycle; strengthening the collection, exchange and use of skills information.

The Department of Further & Higher Education, Research, Innovation & Science (DFHERIS) published *A Summary Comparison of Structures to Support the Knowledge Economy*, comparing the impact of governance approaches by SAEs on research, innovation, education and training.

- The RoI and other SAEs are strengthening investment in knowledge, skills and innovation capabilities to support competitiveness and increase productivity, providing labour mobility across the economy.
- DFHERIS was created in 2020, coalescing FE and skills, HE, research and innovation portfolios.
  - Increased integration across the tertiary sector facilitated by the single department provides an opportunity to achieve greater lifelong engagement with education and training.
- Comparisons with other country governance structures include:
  - Six SAEs that score higher than the RoI on the Innovation Scorecard show a greater balance between lifelong learning and tertiary qualifications for 25–34 year-olds.
  - Six EU member states (Denmark, France, Italy, Luxembourg, Poland and Portugal) have ministries whose sole remit is to support their HE and science sectors; all six have seen marked growth in the proportion of their population with a tertiary qualification since 2000.
  - In contrast, Northern Ireland has a single department responsible for overseeing HE, FE and training.
  - New Zealand's governance structure is comparable to the RoI prior to development of DFHERIS.

SMALL ADVANCED ECONOMIES (SAEs)

Includes relevant items by/about the following SAEs chosen by the DfE Northern Ireland for comparative purposes as part of its vision for a 10x Economy: Austria, Belgium, Czechia, Denmark, Estonia, Finland, Iceland, Israel, Luxembourg, New Zealand, Norway, Sweden and Switzerland (in addition to Scotland, Wales and the Republic of Ireland, covered above).

Czechia

Cedefop published *Czechia: Aligning job descriptions and VET curricula to labour market needs*, a news report.

- In December 2022, the four-year Skills 4.0 project was successfully completed by a consortium of the Confederation of Industry, the Chamber of Commerce and the consultancy company TREXIMA.
  - The main objective was to develop a tool predicting the competences required by the labour market in the near future.

- The New Skills Monitor identified over 1,700 new skills in ten selected sectors, including: energy; ICT – cybersecurity; creative industries – gaming; and modern industrial manufacturing/engineering.
  - 'Sectoral competence pyramids' provide hierarchical and systematically classified competence sets for each sector.
  - 20 sample profiles of new occupations have been created, combining the skills currently required with new skills from 'sectoral competence pyramids'.
- The tools will be used to update the National Register of Occupations, which is used by the Labour Office as well as by school career counsellors and organisational HR specialists.
  - They are seen as an important starting point for developing upskilling and reskilling programmes, as well as updating secondary VET curricula and model school curricula as part of Czechia's Education Strategy 2030+.

Estonia

Cedefop published *Estonia: Skills and professional qualifications systems reform*, a news report.

- A large-scale project has been launched to integrate the current jobs and skills forecasting system (OSKA) and the professional qualifications system into a single skills and professional qualifications system – OsKuS.
  - 20 years on from its creation, OSKA is now considered too rigid to respond quickly to changes in the labour market and society and adapt to new flexible learning options such as microcredentials and non-linear pathways.
- Rather than a profession-oriented system, OsKuS will be based on universal skills and their development.
  - It will provide digital solutions for those making work or study choices, as well as for employers, trainers, curriculum developers and study and career counsellors.

Finland

OECD published *Well-being in Finland: Bringing together people, economy and planet*, part of its Well-being & Inequalities series, based on a dashboard of headline indicators.

- Finland is an established international leader in wellbeing and sustainability; however, several challenges remain to be addressed in a comprehensive, balanced and inclusive way; these include:
  - Finland's strengths in wellbeing and sustainability require forward-looking investments to stop the decline in skills and R&D, and to improve stagnant performance in key environmental areas.
  - As the country takes necessary steps towards a green economy, short-term trade-offs must be managed to support an inclusive transition.
  - Finland is an inclusive and equal society, but important challenges remain regarding gender equality and a few persistent gaps between different population groups.

Israel

OECD published *OECD Economic Surveys: Israel 2023*, including insights focusing on skills.

- A particular concern is closing employment gaps among Haredim *[strictly orthodox]* and Arab-Israelis and ensuring gender equality in the workplace – the gender pay gap is one of the highest in the OECD, second only to South Korea.
- Skills mismatch is high with over 30% of workers over-qualified – only New Zealand has a higher percentage in the OECD.
  - Incentives for undergoing retraining should be further strengthened, particularly alongside current reform in financing VET providers, which should increase the quality of training.
- The implementation of adult training is fragmented across the Ministry of Economy, the Employment Service, the Ministry of Social Equality (for the Arab sector) and local training institutes.
  - Improved coordination and mutual recognition of training is needed, even while competition between providers is encouraged.
- While the share of young Israelis with tertiary education is around the OECD average, their level of skills lags behind other OECD countries, largely the result of particularly low skills in certain population groups.

- Improving the equity of the education system and closing skills gaps at all stages of the learning cycle is therefore a key pre-requisite for narrowing later gaps in the labour market.

- Many university students major in STEM subjects; women are under-represented in STEM, although rates are higher in Israel than in many other OECD countries.

- Business R&D spending is the highest in the OECD and the pandemic has accelerated the digital transformation, but firms lag in the adoption of advanced digital technologies, especially in traditional sectors.
  - Digital skills are comparatively low among Israeli workers and need to be strengthened for a large part of the population.

New Zealand

The Ministry of Business, Innovation & Employment published *Digital Technologies Industry Transformation Plan [ITP]*, one of eight ITPs created to increase productivity and performance in key sectors of the economy.

- **Enhancing the skills and talent pipeline** is one of four immediate focus areas, equipping more New Zealanders, from broader backgrounds, with the technical and soft skills needed for the sector.
  - There is currently a particular lack of skills in emerging technologies (e.g. AI, cyber security, data science and blockchain) and in soft skills needed to grow and operate digital businesses.

- Projects and actions include:
  - Enhancing awareness and understanding of digital tech roles and skills
  - Building and improving pathways into digital tech careers
  - Growing the maturity and professionalism of the digital tech workforce
  - Implementing the global Skills Framework for the Information Age in education, training, employment and career development.

Norway

The Norwegian Government published *The Perspective Paper*, a white paper on the need to make its secondary and tertiary education more relevant to the labour market *[via Eurydice]*.

- The main challenges include:
  - The skills gap and recruitment problems are largest in technology, crafts, health and education sectors.
  - The need for skilled workers in the health sector will increase due to the ageing population.
  - 44% of adults not in work have only completed primary education.

- People need skills for the green transition, a highly productive working life and good welfare services; proposals include:
  - Steering young people's educational pathways in line with labour market skills needs
  - Improving the supply of flexible and decentralised tertiary vocational education and HE
  - Improving cooperation between labour market authorities and local governments responsible for secondary education.

Sweden

OECD published *OECD Economic Surveys: Sweden 2023*, including insights focusing on skills.

- Sweden's labour force participation and employment rates are very high, including for women and the elderly, but a compressed wage structure raises demand for productivity and makes it hard for low-skilled people to find jobs.
  - Most of the long-term unemployed are low-skilled, foreign-born or have disabilities, and an increasing share are older, Swedish-born men.

- Skills mismatches have increased in the past decade, making it hard for productive firms to recruit skilled staff and forcing companies to devote more resources to internal training and recruiting.
  - 78% of Swedish companies mention availability of skilled staff as a long-term barrier to investment.

- The lack of ICT qualifications is particularly worrisome, as Sweden ranks among the top OECD countries when it comes to ICT-intensive occupations and investment in intangible capital.
- There are indications that they are beginning to lag behind OECD top performers in the use of advanced ICT tools such as big data analysis, AI and 3D-printing.

- The green industrial revolution depends on skills, which is a challenge for northern regions and municipalities, which already suffer labour shortages.

OECD published *Public research funding in Sweden: Optimising the system in response to multiple demands*, as part of a national review.

- The report is organised under five inter-related pillars: university excellence, taking risks and addressing societal needs; research infrastructures; supporting societal transitions and resilience; science, technology and innovation strategy; and governance and structures.
- It provides options for consideration, taking into account a 2016 OECD review of innovation policy in Sweden and is supported by relevant international examples, including from New Zealand, Finland, Norway, Ireland and the UK.

The Resolution Foundation Economy 2030 Inquiry published *Institutional Reform for Economic Growth: Lessons from Germany and Sweden*, exploring three examples of inclusive growth strategies, including Sweden's *Yrkeshögskolor* (YH).

- YH are targeted training institutions that offer second-chance opportunities to adults wishing to or forced to upgrade their skills in response to technological or other changes.
  - They offer training that combines theoretical and practical studies open to applicants of different backgrounds and ages, with generous entry requirements.
- They involve collaborations between public or private education providers and employers to address specific regional skill bottlenecks.
  - Programmes are agreed for an initial two-year period and can only be renewed if the provider demonstrates sufficient continued demand; programmes are targeted and specialised, typically only accepting ~30 students.
  - Employers play a major role in planning and implementing the programmes, including in determining how many and which students are accepted; students spend at least 25% of their time at a work placement site.
- Students are supported through government-financed student assistance and tuition/course fees are not permitted.
- The efficient and flexible programme has proved enormously popular and has grown from around 25k students in 2005 to almost 90k in 2022.

Cedefop published *Sweden: Increasing quality and attractiveness of VET through regional networks*, a news report.

- Following a successful pilot in November 2022, the Swedish National Agency for Education is rolling out regional vocational education networks.
  - They are mainly targeting: education providers; study and career guidance counsellors; work-based learning coordinators; upper secondary headteachers and teachers; stakeholders and social partners.
  - The aim is to: provide a platform for networking; create a consensus on VET issues; and promote the development of VET.

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