



An Coimisiún um Chaidreamh san Áit Oibre
Workplace Relations Commission

Work and Employment Transformations in Ireland

A Review of Labour Market and Workplace Relations Challenges

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WRC

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EXECUTIVE SUMMARY

This report examines how four key developments – inflation, recruitment and retention challenges, technology (with a particular focus on remote work and artificial intelligence), and climate change – are impacting work and workplace relations in Ireland.

The report consists of four parts. The first introduces the context and purpose for the research and outlines the methodological approach. The second part is an extensive review of national and international research on the key implications of each development for work, employment, and workplace relations. The third part presents the findings of 30 interviews with 22 organisations including state bodies, employer organisations, unions, and other organisations with subject matter expertise. The aims of the interviews were to understand how each of the four developments are emerging in Ireland, how employers and workers are responding to the developments, and the extent to which employers and workers are prepared/preparing for future changes. The fourth part of the report, the conclusion, presents a summary of the findings and three potential scenarios of how the developments may evolve and impact work and workplace relations in the medium-term. The three scenarios - an anticipated positive scenario, a neutral or ‘status quo’ scenario, and a negative scenario – are based on the interview findings. None of the scenarios are static or definitive and all can be shaped and altered by policy choices but are a way of considering uncertainties and possible future risks. Considering the interview findings, the conclusion recommends areas for further research primarily relating to climate change and technology.

A summary of the key interview findings are as follows:

Inflation

- Inflation was viewed as having greater priority for employers and workers than the other issues examined in this report given its immediate impacts on business costs, incomes, and related, wage negotiations.
- Inflation was inextricably linked to recruitment and retention challenges with significant pay rises for certain roles with acute labour shortages.
- Interviewees expected inflation to be an ongoing issue for the medium term with some business closures and weakened economic growth but they also expected strong labour market activity in terms of the recruitment intentions of employers.
- There was little evidence to date of significant workplace conflict arising from inflation issues but there were tensions identified which could lead to some conflict arising from ongoing inflationary and wage demands.

Recruitment and retention

- Interviewees reported a prevailing tight labour market in Ireland with some sectors such as hospitality having particularly severe difficulties recruiting workers.
- Skills gaps were evident across all sectors but in general, interviewees noted a need for developing digital, interpersonal, and managerial skills.
- The availability and costs of housing, childcare costs, and cost of living crisis were identified as key challenges in recruiting and retaining workers from within Ireland and from abroad.
- Employers have implemented a range of strategies to retain workers including more flexible work arrangements and promoting a culture of respect in the workplace.
- International recruitment was identified as a means of addressing labour and skills shortages with the work permit schemes helping to some extent - although concerns were raised whereby certain jobs found it difficult to access the scheme. There were concerns about migrants' experiences of accessing and working in Ireland including paying high fees for work permits, inability to bring families to Ireland, and difficulties in changing jobs.
- There were concerns about the participation rate of persons with a disability and men over the age of 50.
- Some interviewees expected an increase in pay claims and disputes in the future while others believed that given a tight labour market, workers may be more likely to seek alternative work rather than pursue a claim.
- Interviewees shared a similar view of the need for greater social dialogue to address the key challenges.

Technology

- There were mixed views on the predicted impact of digitalisation and automation on job quantity. Some interviewees noted that there was little evidence of job loss to date whilst others felt that there was a real threat to jobs.
- The potential threat to jobs needed to be ameliorated by an emphasis on upskilling/reskilling. Achieving the outcome of upskilling remains somewhat complex.
- Technology and automation are viewed as having the potential to contribute to safer working environments, smarter ways of working, and increased leisure time for workers.
- Remote/hybrid working was cited as presenting many opportunities and challenges. There was a concern about the potential for a 'work life balance privilege gap' where those working under hybrid arrangements are more likely to have flexible working compared to those who do not work remotely.
- Of all the forms of technological change discussed, AI was most frequently cited as likely having the greatest consequences for work.
- Issues around GDPR and the potential monitoring of employees' work has the potential to engender mistrust and be a potential source of conflict.

- There were questions raised about the suitability of existing legislation for the workplace relations implications of technological change.
- Significant emphasis should be placed on creating opportunities and frameworks for dialogue between employer and employee representatives at national level and local levels in relation to technology planning, adoption, and implementation, as well as on remote working.

Climate change

- Interviewees recognised the importance of climate for societies and economies, and that the climate crisis will impact the labour market, jobs, and employment but strategic planning and action have tended to be limited.
- The workplace relations implications of climate change had not been given significant attention by actors with limited national level dialogue. Employers and workers are prioritising other ‘here and now’ issues that have immediate tangible consequences such as inflation.
- There is uncertainty over the wider workplace relations impacts of climate change, and these may take 10-20 years to emerge. Significant changes to the existence and nature of jobs because of climate change is expected and more upskilling and re-skilling is necessary, particularly building-related skills.
- There were concerns raised about the suitability of some climate change policy measures and ensuring access to employment for certain groups like women and persons with disabilities.
- Overall, there was no sense that significant conflict will arise from climate change, or from mitigation and adaptation measures, if there is adequate planning for job changes.
- Conflict is as likely between employers/workers and the state as between workers and employers with the state expected to play a significant role in managing the consequences of climate change.

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Section 1: Introduction

1.1 Research Context and Purpose

The world of work is influenced by societal, economic and policy changes and is also a driver of such changes. In recent years, organisations and workers have operated in a labour market impacted by major economic and social changes, leading national and international commentators to consider if a ‘transformation of work’ is taking place. Within the last two decades, Irish employers and workers have faced considerable challenges in distinguishable economic phases: an economic boom, a severe economic recession, an economic recovery, the COVID-19 pandemic with its associated restrictions on mobility, and a post-pandemic environment marked by the following: inflation, recruitment and retention difficulties for business, a shift to remote working, and advances in technology notably artificial intelligence. At the same time, climate change has increasingly impacted work, the economy, and society, and climate action has assumed greater policy importance in recent years.

Inflation, in many countries including Ireland, has risen to unprecedented levels over the last three years. This development has been driven by factors such as global supply chain disruptions induced by the COVID-19 pandemic, as well as rising energy costs fuelled by the war in Ukraine. Inflation is a major concern to policymakers and central banks due to its impact on the nominal incomes of households, and the subsequent effect on their standards of living. Higher inflation means people are able to buy fewer goods and services and, consequently, real (inflation-adjusted) incomes decline, and people are left worse off, if wages do not keep up with rising prices.

Effective recruitment and retention are important for organisational success. But recruitment and retention difficulties have caused major disruption in many organisations (Eurofound, 2023). Supply and demand in the labour market is shaped by numerous external factors including the prevailing economic, social, and political climates, the physical environment, legal and regulatory contexts as well as developments in technology (Taylor and Perkins, 2021). Changes in demographics, globalisation, migration, and technology have had a particularly strong impact on organisations’ ability to recruit and retain staff. While many of these developments were already occurring prior to 2020, labour shortages and recruitment and retention difficulties have been highlighted as particularly problematic in many sectors in the aftermath of the COVID-19 crisis (Fondazione Giacomo Brodolini (FGB), 2023). Other major developments such as Russia’s invasion of Ukraine and inflation have further exacerbated these difficulties for many organisations.

While the rate and pace of technological adoption and attendant organisational change that has taken place since the onset of the pandemic has been a global phenomenon, there are spaces for national and local policy choices that determine future trends and events. Temporal changes in working time and location have been among the most obvious changes with increasing use of digital technologies creating opportunities for more flexible working arrangements (Eurofound, 2023). Digital technologies that enable remote working are part of long-term

technological changes within organisations that have also included the automation or digitalisation of work processes, increased capacity for artificial intelligence and machine learning uses, increased capacity for monitoring of employees' work, and changes in how work is directed and measured through artificial intelligence work management (AIWM) and algorithmic management.

The forms of technological advancement that have taken place since the mid-2000s have typified the features of the fourth industrial revolution (or Industry 4.0), centring around the incorporation of automation and robotics into traditional manufacturing and production processes, changing how organisations are managed through the digitalisation of processes. Within Industry 4.0 the value drivers of labour are identified as including human-robot collaboration, remote monitoring and control, digital performance management, and the automation of knowledge work (McKinsey, 2016). Research indicates that automation adoption in firms leads to increased output and hours worked, increased incomes for non-routine production workers, but reduced incomes for routine production workers, with many in replaceable occupations and/or low-education workers facing possible job loss (Acemoglu, 2023).

The most recent iteration of industrialisation, Industry 5.0, emphasises sustainability, respecting the production limits of the planet and the use of new technologies to provide prosperity beyond jobs and growth. There is an elevated emphasis on the wellbeing of the worker amid the transition to a sustainable, human-centric approach to industry (European Commission, 2021). Work and organisational practices affect not only employees but also the human, social, and environmental context in which organisations operate (Rothenberg et al., 2017). Industry 5.0 appears to align much more closely with the UN Sustainable Development Goals with the deployment of technology and digitalisation having a role to play in enhancing sustainability goals (Aust et al., 2020; Stahl et al., 2020; Taylor et al., 2012). Digitalisation and sustainability are no longer viewed as discreet concepts on organisational agendas but as complementary, for example, Amárach Research (2021) found that half of Irish organisations expected digital technologies to play an important role in achieving their sustainability goals.

Technological change and climate change are often termed 'megatrends'. The International Labour Organization (2010: 121) has declared climate change as "one of the great – if not the greatest – challenges facing humanity in the coming decades". Regulation is likely to arise with the aims of mitigating and adapting to climate change. Put simply, "mitigation deals with the causes of climate change; adaptation deals with the impacts of climate change" (ETUC, 2020: 5). The EU and Ireland aim to be climate-neutral by 2050 meaning net-zero greenhouse gas emissions. The Irish Government (2020) has committed to a 51 per cent reduction in greenhouse gas emissions by 2030 and variable emissions targets have been set for certain sectors, such as transport, construction, and farming, while internationally, companies are increasingly expected to report on their carbon emissions. The UN (2016: 14) notes that countries will need to engage in significant mitigation policies to meet climate targets and that delaying this will mean more "severe impacts on the world of work". However, the complexity associated with a transition to a low-carbon (and digital) economy can, in NESCC's (2020: 40)

view, make it “very difficult for a business to take anticipatory action”. While many commentators acknowledge that climate change will have significant effects on workers, studies are limited (ETUC, 2020) and the impact of climate change on workplace relations has been “overlooked” in research (Goods, 2017: 670).

These developments have caused uncertainty for organisations and workers, and this is likely to continue. It is in the context of significant labour market change that the Workplace Relations Commission (WRC) commissioned research to capture ‘a moment in time’ in workplace relations in 2023 - to understand the dynamics of the workplace and how employers and workers are addressing challenging issues. Consistent with section 11(1)(e) of the Workplace Relations Act 2015, the WRC Strategic Plan commits the WRC to conduct research pertaining to workplace relations. The WRC sought evidence-based research from which some statements of reasonable projections could be formulated. Four key questions guided the research:

- What is the impact of inflation on workplace relations?
- What is the impact of recruitment and retention challenges on the labour market and workplace relations?
- What is the impact of technology (especially remote working and artificial intelligence) on the labour market and workplace relations?
- What is the impact of climate change on the labour market and workplace relations?

1.2 Methodology

The methodological approach consisted of two stages. The first was a detailed review of existing Irish and international academic research across multiple disciplines: industrial relations, human resource management, economics, law, sociology, psychology, and occupational health. The review also drew extensively from reports and policy documents of national and international government and non-government bodies. This secondary research review examined evidence on the relationship between inflation movements and wage bargaining, the workplace implications of recruitment and retention challenges, technological change with special attention on remote work and artificial intelligence, and climate change and its impact on work.

The second stage of the research involved qualitative semi-structured interviews with organisations/state bodies. Organisations with subject expertise or with an employer/worker representative role were invited to participate in the research and to nominate representative(s) for interview. Between September and December 2023, 30 interviews were undertaken with representatives of 22 organisations (Table 1). Interviewees were asked questions on three areas:

- Their views on the key implications of the four labour market developments (inflation, recruitment and retention, technology, and climate change) for work and workplace relations.
- Their awareness of emerging regulation/policy on the four labour market developments.

- Their experience of workplace conflict arising from each development and their views on the potential for workplace conflict.

Table 1: Interviewed Organisations

Organisation	Organisation Background
Chartered Institute of Personnel and Development (CIPD)	The CIPD is the professional body for HR and people development. CIPD in Ireland is established as a charity and engages with over 6,000 HR professionals and leaders.
Climate Change Advisory Council	The Council is an independent advisory body tasked with assessing and advising on how Ireland can achieve the transition to a climate-resilient, biodiversity-rich, environmentally sustainable and climate-neutral economy.
Data Protection Commission (DPC)	The DPC is the national independent authority responsible for upholding the fundamental right of individuals in the EU to have their personal data protected. The DPC is the Irish supervisory authority for the General Data Protection Regulation (GDPR), and has functions related to other regulatory frameworks.
Dept. of Enterprise, Trade & Employment	The Dept. of Enterprise, Trade & Employment advises on and implements Government policies of stimulating the productive capacity of the economy and creating an environment which facilitates employment creation and sustainability.
Digital Manufacturing Ireland (DMI)	DMI is an industry led national organisation that enables Irish based manufacturers to access, adopt and accelerate new digital technologies which solve real world challenges and drives their future competitiveness.
Disability Federation of Ireland (DFI)	DFI is a federation of member organisations working with people with disabilities to implement the UN Convention on Rights of Persons with Disabilities and ensure their equal participation in society.
Employment Bar Association (EBA)	The EBA is an association of Senior and Junior Counsel who practise or have an interest in employment, equality and labour law.
Employment and Recruitment Federation (ERF)	The ERF is a voluntary organisation whose membership consists of recruitment agencies in Ireland.
European Foundation for the Improvement of Living and Working Conditions (Eurofound)	Eurofound is a tripartite European Union Agency, whose role is to provide knowledge to assist in the development of better social, employment and work-related policies. It provides information, advice, and expertise on working conditions and sustainable work, industrial relations, labour market change and quality and life and public services, to

	support the EU Institutions and bodies, Member States and Social Partners.
Fórsa	Fórsa is the largest trade union in the Irish civil and public service with over 80,000 members.
Gay Community News (GCN) (nominated by the National LGBT Federation)	GCN is a free resource by the LGBTQ+ community for the LGBTQ+ community. It is a registered charity with a not-for-profit business model.
Irish Business and Employers Confederation (Ibec)	Ibec is Ireland's largest lobby and business representative group whose members employ 70% of the private sector workforce in Ireland.
Irish Congress of Trade Unions (ICTU)	ICTU is the largest civil society organisation on the island of Ireland, with 44 unions affiliated north and south of the border.
ISME	ISME is an independent representative association for Small and Medium Enterprises with over 10,500 members. ISME is owned, funded, and managed by SME owner-managers.
Migrant Rights Centre of Ireland (MRCI)	The MRCI is a national organisation working with migrants and their families in Ireland to promote justice, empowerment, and equality.
National Disability Authority (NDA)	The NDA is the independent statutory body, providing evidence-based advice and research to Government on disability policy and practise and promoting Universal Design.
National Economic and Social Council (NESC)	NESC advises the Taoiseach on strategic policy issues relating to sustainable economic, social and environmental development in Ireland.
National Productivity and Competitiveness Council (NPCC)	The NPCC reports to the Taoiseach and the Government on competitiveness issues and makes recommendations on policy actions required to enhance Ireland's competitive position.
National Women's Council of Ireland (NWCI)	The NWCI is the leading national representative organisation for women and women's groups in Ireland with over 190 member groups.
Nevin Economic Research Institute (NERI) (nominated by the ICTU)	NERI is a research organisation in economics and social sciences and is supported by unions affiliated to the ICTU.
Services, Industrial, Professional and Technical Union (SIPTU)	SIPTU is the largest union in Ireland representing over 180,000 members across sectors.
Skillnet Ireland	Skillnet Ireland is a business support agency of the Government, responsible for advancing the competitiveness, productivity and innovation of businesses operating in Ireland through enterprise-led workforce development.

Section 2: Review of National and International Research

2.1 Inflation

Introduction

This section is concerned with inflation and its primary impact on workplace relations - wage bargaining. To set wage bargaining issues in context, the section begins with a review of trends in inflation in recent years in the euro area and Ireland, noting the key drivers of rising inflation. It then considers the links between inflation, wages and wage setting dynamics before reviewing the economic outlook and concerns for Ireland in the medium term.

Definitions

Inflation refers to the rate of increase in the prices of goods (e.g. food and beverages) and services (e.g. haircuts) over a given period. It indicates how quickly prices are rising within the economy. The consumer price index (CPI), which measures the overall change in the prices of goods and services that people typically purchase over time, is a frequently used measure of inflation (CSO, 2023a). By tracking the cost of the frequently purchased basket of goods, it is possible to monitor changes in the cost of living faced by consumers over time. To facilitate the comparison of consumer price trends across different EU member states, the harmonised index of consumer prices (HICP) is computed for each member state (ECB, 2023). The use of similar methodology ensures that price data for one country is comparable with another.

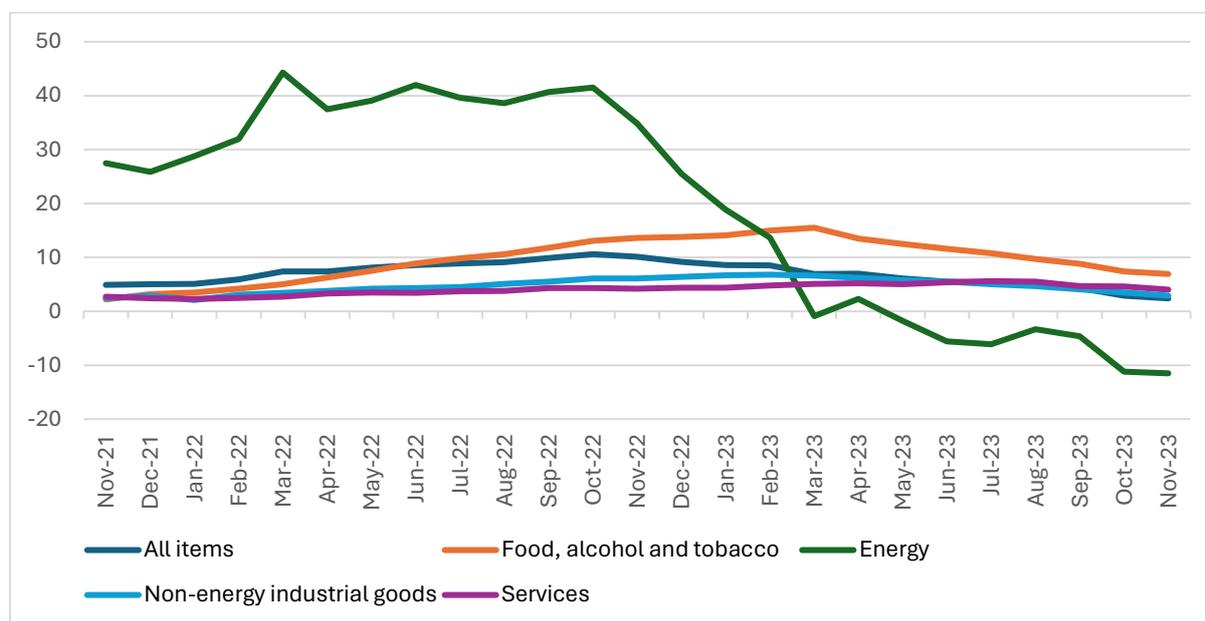
Scale of the issue

Inflation in the Euro area

Headline inflation (prices of all goods and services) and core inflation (prices excluding food, alcohol and tobacco and energy) in the euro area have risen substantially above the European Central Bank (ECB) target rate of 2 per cent since mid-2021. Indeed, the annual inflation rate in the euro area (measured by the HICP) rose to a peak of 10.6 per cent in October 2022, while energy prices peaked at 44.3 per cent in March 2022 (Figure 2.1). Recent Eurostat data, however, indicate inflation in the euro area is on a downward trend, albeit it remains above the ECB target rate. Headline inflation was 2.4 per cent in November 2023, a decline of 7.7 percentage points from November 2022, and the lowest level in two years. Similarly, euro area core inflation in November 2023 was 3.6 per cent, down from 5 per cent in November 2022, and a peak of 5.7 per cent in March 2023 (Eurostat, 2023). The highest annual change in headline inflation in November 2023 was found for *Food, Alcohol & Tobacco* (6.9% compared to 13.6% in November 2022), *Non-energy Industrial Goods* (2.9% compared to 6.1% in

November 2022), *Services* (4.0% compared to 4.2% in November 2022) and *Energy* (-11.5% compared to 34.9% in November 2022) (Figure 1).

Figure 1: Annual inflation in the euro area, November 2021-2023 (%)



Source: Eurostat ([HICP - monthly data \[annual rate of change\]](#))

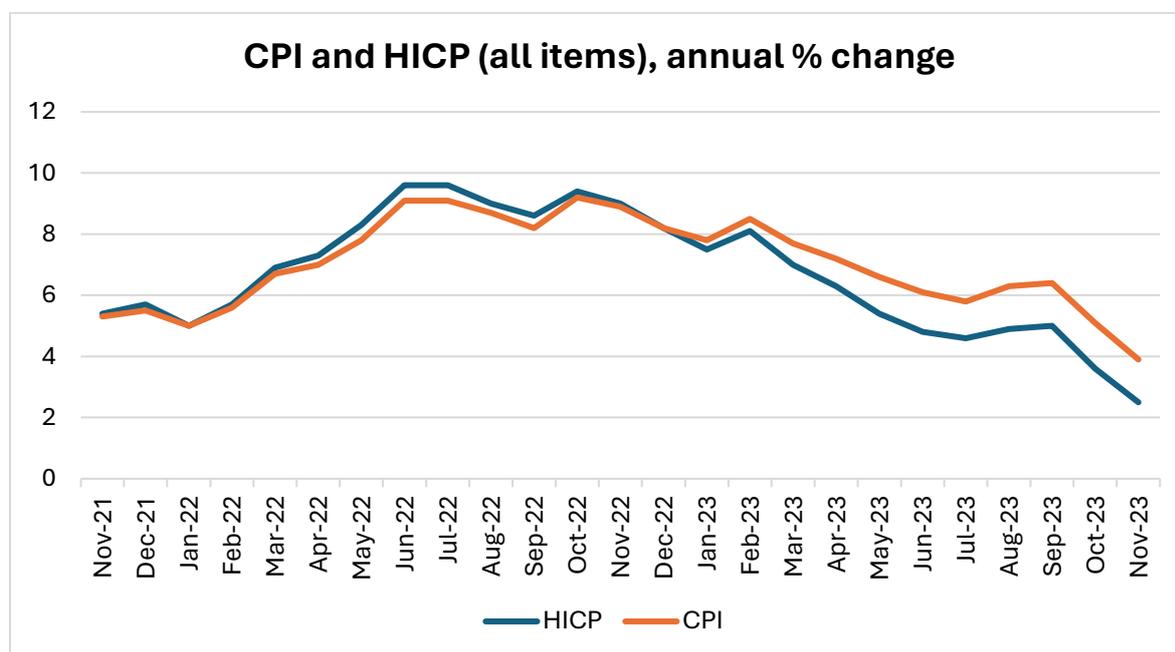
Inflation in Ireland

In its May 2023 CPI release, the Irish Central Statistics Office (CSO) noted that “... prices have been rising on an annual basis since April 2021, with annual inflation of 5.0% or more recorded in each month since October 2021” (CSO, 2023b). Furthermore, the annual rate of inflation (measured by the CPI) rose from 1.3 per cent in January 2020, to a peak of 9.2 per cent in October 2022 (CSO, 2023b).

In a similar vein to the wider euro area, the November 2023 CPI release from the CSO shows a significant easing in headline and core inflation in the Irish economy in the 12 months to November 2023. Headline inflation and core inflation (as measured by the HICP) increased by 2.5 per cent and 3.6 per cent respectively when compared to November 2022 (CSO, 2023b). These indicators are significantly down from their peak in July 2022. Eurostat data further shows that the annual change in Irish headline inflation (2.9%) is slightly higher than the euro area average (2.4%), whereas core inflation is at par in both areas.

Prices on average (as measured by the CPI) rose by 3.9 per cent in the year to November 2023 (Figure 2). Although this is the first month since September 2021 that the annual change in the CPI has been lower than 5 per cent, Irish inflation rate is still well above the ECB target rate. Figure 2 also shows trends in the CPI and HICP in the 24 months to November 2023. Notably, it reveals a divergence in the CPI and HICP, from January 2023. This can be attributed to the inclusion of mortgage interest in the CPI, while the HICP does not include mortgage interest (CSO, 2023b).

Figure 2: Annual inflation in Ireland, November 2021-November 2023



Source: Central Statistics Office ([CPM02- Consumer Price Index](#)); ([CPM15- EU Harmonised Index of Consumer Prices](#))

Close examination of the main components of inflation in Ireland reveals increases in all divisions and divergence in price growth, when compared to November 2022. The most significant increases were seen in *Recreation & Culture* (7.7%), *Restaurants & Hotels* (7.0%), *Food & Non-Alcoholic Beverages* (6.7%), *Alcoholic Beverages & Tobacco* (4.7%) and *Housing, Water, Electricity, Gas & Other Fuels* division (4.4%) (CSO, 2023b). A further breakdown of the annual change shows that positive price growth in *Housing, water, electricity, gas & other fuels* was mainly driven by increases in the cost of mortgage interest repayments (37%), rents (6.2%) and services for the maintenance and repair of dwellings (8.8%). This increase was somewhat offset by reductions in the prices of electricity, gas, and other fuels (CSO, 2023b).

Overall, while prices of consumer goods and services in Ireland and the wider euro area have fallen to their lowest levels since September 2021, inflation is still above the ECB's target rate. It, therefore, remains a crucial source of concern, particularly with regards to its effect on wages and wage bargaining.

Inflation and Wages

The adverse impact of inflation on households' purchasing power has implications for job quality, indicated by earnings. Inflation lowers the value of real wages, that is, the amount of goods and services individuals can purchase with their money wages. As such, workers looking

to preserve their real wages, may demand for higher nominal wages to compensate for rising prices during wage negotiations (Stiglbauer, 2023; Jordà and Nechio, 2023). Furthermore, under tight labour conditions, with low unemployment and a higher number of job vacancies, workers possess stronger bargaining power. Therefore, during periods of low unemployment (and high inflation), businesses must offer higher wages to attract workers and maintain competitiveness (Vermeiren, 2023). Higher wages impose additional operational costs on employers, exerting an upward pressure on consumer prices (Glick et al., 2022). Consequently, businesses and workers seeking to protect their price-cost markup and purchasing power respectively may trigger a wage-price spiral, by raising prices and wages (Alvarez et al., 2022).

In relation to wage bargaining, collective agreements characterised by the prevalence of inflation-indexed wage provisions may also foster the emergence of a wage-price spiral. Wage indexation clauses allow for the automatic adjustment of real wages to changes in inflation (De Spiegelaere, 2023; Romo, 2023). As previously noted, the inflation expectations of wage setters are a crucial factor in wage negotiations (Jordà and Nechio, 2023; Stiglbauer, 2023). As such, workers will demand wage increases when faced with higher-than-expected inflation. This, in turn, places an upward pressure on prices (Stiglbauer, 2023). Hence, inflation becomes a self-fulfilling prophecy. To illustrate, Conflitti and Zizza (2021), using data for Italian firms, find that a 1 per cent increase in negotiated wages results in a 0.2 per cent increase in firm's own prices. Similarly, Bobeica et al. (2018) observe a clear link between labour costs and inflation in the four largest countries in the euro area (Germany, France, Italy, and Spain). Furthermore, empirical evidence suggests that the pass-through of inflation expectations to wages is amplified during periods of high inflation (Jordà and Nechio, 2023; Conflitti and Zizza, 2021; Bobeica et al., 2018). However, a recent historical study of 38 economies by the IMF found little evidence of wage-price spirals. It examined episodes since the 1960s of accelerating consumer prices and nominal wages and concluded that “wage-price spirals, at least defined as a sustained acceleration of prices and wages, are hard to find in the recent historical record” and in considering the post COVID environment, it argued that, “... acceleration of nominal wages should not necessarily be seen as sign that a wage-price spiral is taking hold” (Alvarez et al., 2022: 18).

In addition to the above, inflation has further implications for wage setting dynamics. Rising inflation necessitates regular wage adjustments to match price increases in sectors with automatic wage indexation mechanisms. However, in the absence of such mechanisms, new wage negotiations are triggered, when actual inflation exceeds the inflation expectations of wage setters (Romo, 2023). Hence, the erosion of workers' purchasing power due to rising prices could lead to more frequent wage adjustments (Martins, 2015; Druant et al., 2012), and possible conflicts during collective wage negotiations (Romo, 2023).

Although there is no national database for pay agreements in Ireland, data obtained from several sources indicate pay rates have indeed risen since 2021. According to recent CSO earnings data, median weekly earnings rose by 4.1 per cent between 2021 and 2022, across all employments (CSO, 2023h). Similarly, Ibec's Pay and HR Trends Report shows that 65 per cent of respondent firms increased basic pay rates in 2021, with an average increase of 2.8 per

cent (Ibec, 2021). The number of firms reporting a pay increase has also risen steadily - 84 per cent of respondents implemented basic pay increases in 2023, with a 4.4 per cent average rate reported (Ibec, 2023). The Industrial Relations News (IRN) and Chartered Institute of Personnel Development (CIPD) Pay and Employment Practices 2022 Survey in the private sector found an increase in average pay settlements, with 72 per cent of firms implementing a pay rise (median rate of 3.5 per cent) in the 12 months to August/September 2022 (CIPD/IRN, 2022). Furthermore, 83 per cent of respondents increased basic pay rates in the 12 months to 2023, with an average pay rate increase of 5.06 per cent reported (CIPD/IRN, 2023). Wage pressures have also led to upward revisions of existing pay agreements (45 per cent of respondents), with 42 per cent of firms paying higher than planned basic pay increase in 2023 (CIPD/IRN, 2023). It is noteworthy that 64 per cent of respondents cited inflation as the second biggest driver of pay policy, after employee retention, while 31 per cent stated that pay increase was contingent on economic conditions (CIPD/IRN, 2023). The above cited data suggest that average pay rates in Ireland have risen since 2021 but pay increase rates remained well below headline inflation rates.

Ongoing concerns about the possible occurrence of a wage-price spiral in the euro area have triggered several hikes in the ECB's key interest rates since July 2022. In September 2023, the ECB decided to raise its three key interest rates (i.e. rates on deposit facility, main refinancing operations and the marginal lending facility) by 25 basis points, the 10th increase in a 14-month period. The most recent hike raised the key deposit rate (the rate the ECB pays on bank deposits) to a record-high of 4.0 per cent, the highest level since 2001.

With the tightening of monetary policy (through successive hikes in interest rates), the ECB hopes to reduce inflationary pressures in the euro area. Higher interest rates raise borrowing costs, which should lead to reduced demand, lower investments by businesses, more job vacancies, and a weakening of workers' ability to bid up their wages (Vermeiren, 2023; Glick et al., 2022). Furthermore, during periods of high inflation, businesses expect interest rates to remain high, or perhaps rise, hurting their borrowing circumstances. Under these conditions, businesses should be less likely to lower their profit margins, thus favouring a pass-through of wages to prices (Conflitti and Zizzi, 2021).

Rising interest rates also have implications for mortgage costs, as households may face higher mortgage interest and repayment amounts. The pass-through of interest rates hikes to mortgage costs, however, depends on the rigidity of mortgage contracts. For fixed rate mortgages, there is no pass-through, for the duration of the fixed interest rate. A complete pass-through applies for tracker mortgages, with the mortgage rate varying with the key policy rate. In the case of variable mortgages, the pass-through of key policy rate changes is at the lender's discretion (Byrne et al., 2023).

Using Central Credit Register data from June 2022 to December 2023 to simulate the change in Irish mortgage repayments, Byrne et al. (2023) estimate that the average household in Ireland will experience an increase of 13 or 16 per cent in mortgage repayments under two scenarios: an increase of 350 basis points and 425 basis points in the ECB's key policy rates. The rise in

repayment amount is also affected by the exposure of the households to the interest rate risk. As such, in their simulation of mortgage interest repayments, Byrne et al. (2023) find that the most exposed category of borrowers is dominated by tracker and interest-only loans, with the most exposed fifth of borrowers facing increased repayments of 41 and 50 per cent. This implies that the impact of interest rate hikes on mortgage repayment costs in Ireland is likely to become more pronounced as many households come to the end of their fixed rate term.

The economic outlook in Ireland

Overall, the economic outlook for Ireland remains favourable. Although output (gross domestic product) fell by 1.9 per cent in Q3 2023, driven primarily by contractions in sectors dominated by multinationals (CSO, 2023c), the modified domestic demand (a broader indicator of domestic activity) remained unchanged in the same period (CSO, 2023c). The unemployment rate was 4.8 per cent in November 2023, up from 4.2 per cent in May 2022 and a historical low of 3.5 per cent in May 2023 (CSO, 2023d). Whilst average weekly and hourly earnings rose by 4.6 per cent and 6.2 per cent respectively in the year to Q3 2023, the job vacancy rate at the end of Q3 2023 was 1.2 per cent, down from 1.6 per cent at the end of Q3 2022, and slightly down from 1.3 per cent at the end of Q2 2023 (2023e). Heretofore, tight labour market conditions have increased workers' bargaining power, leading to higher wage demands, propagating inflationary pressures and inflation expectations. Additionally, successive interest rate hikes by the ECB have resulted in higher borrowing costs, with mortgage interest rising by 37 per cent in the year to November 2023 (CSO, 2023b).

With households facing higher mortgage interest payments, and increased wage demands arising from tight labour market conditions, further inflationary pressure is to be expected. However, these changes would be likely offset by decreases in wholesale energy and electricity prices, as well as wholesale food prices, as inflationary pressure induced by the war in Ukraine and supply bottlenecks eases. Wholesale energy and electricity prices have declined by 11.8 per cent and 14.1 per cent respectively (CSO, 2023f), while food prices fell by 8.8 per cent, in the year to November 2023 (CSO, 2023g).

Following double digit growth in 2022, Irish output is expected to grow by 0.9 per cent in 2023, 3.0 per cent in 2024 and 3.4 per cent in 2025, driven by higher external demand (European Commission, 2023). Modified domestic demand is predicted to rise by 2.3 per cent in 2023, 1.9 per cent in 2024 and 2.1 per cent in 2025. The labour market remained strong in 2023, with increased employment driven by higher female participation and inward migration. In its Autumn 2023 economic forecast for Ireland, the European Commission (2023) notes that while there was some easing in labour demand in recent months, employment is expected to grow in the remainder of 2023, and in 2024 and 2025. Wage pressure arising from a tight labour market is expected to increase, resulting in nominal wage growth of 5.0 per cent in 2023 and 5.5 per cent in 2024. As price cuts by domestic energy retailers take effect and the easing of commodity prices and supply chain disruptions lead to more moderation in food and non-energy industrial goods prices, it is projected that Irish inflation will reach 5.3 per cent in 2023, 2.7 per cent in

2024 and 2.1 per cent in 2025 (European Commission, 2023). Finally, with inflation projected to ease, the overall economic outlook for Ireland remains positive over the next few years.

Conclusion

This section has presented a review of the literature on the impact of inflation on wages and wage bargaining. The discussion outlined the implications of sustained price increases for earnings and wage bargaining processes. High inflation erodes the purchasing power of individuals, resulting in increased wage demands. This together with automatic wage indexation mechanisms can trigger a wage-price spiral, which further exacerbates inflation, though evidence on this is mixed. The demand for higher wages may, however, lead to frequent wage negotiations and possible conflicts during collective bargaining in the absence of wage indexation mechanisms.

The review of economic data for Ireland and the wider euro area shows that while inflation rose to unprecedented levels in both areas over the last few years, it has since fallen to its lowest levels since September 2021. However, energy prices and other components of inflation remain high in Ireland when compared to the previous 12 months. Furthermore, while the ECB has implemented several interest rate hikes to combat rising inflation, inflation remains above the ECB's target rate of 2 per cent. With many households coming to the end of their fixed rate terms, and as successive interest rate increases pass through to mortgage costs, inflation is likely to persist in Ireland in the near term. As previously noted, high inflation and worsening borrowing conditions favour the pass-through of wages to prices. Whilst a wage-price spiral and an upsurge in industrial disputes have yet to emerge in Ireland, these remain potential threats in the face of persistent high inflation, the longer wage growth fails to keep up with price increases.

2.2 Recruitment and Retention

Introduction

In this section, we examine the critical issues currently impacting recruitment and retention in the Irish labour market. We begin by defining key terms used and outlining recent trends, providing sectoral examples to illustrate the impact of recruitment and retention difficulties on organisations. Next, we review key data in relation to labour market participation and demographics and skills. We conclude with a summary of the important areas for employment relations and labour market issues that may potentially be sources of challenges/conflict into the future.

Definitions

There are numerous terms (often used interchangeably) that describe both the strategic approach and individual processes associated with ensuring that an organisation has the right individuals with the required skills, knowledge, and capabilities for particular roles. Human resource planning (Jackson and Schuler, 1990), talent management (Lewis and Heckman, 2006), employee resourcing and recruitment and selection (Cross, 2019) are all concerned with matching people with jobs in organisations. Employee retention (Darcy et al., 2019) refers to a strategic approach adopted by organisations to keep employees from leaving the organisation and seeking alternative employment. Regardless of nuances in definition, at the core of such processes is the understanding that they are some of the most important HR activities in any organisation. This is because ensuring that an organisation has the right quality and quantity of skills and knowledge is critical for organisational success and for the economy.

For the purposes of this report, we use the term ‘recruitment and retention’ to refer to any organisational activities that involve finding and keeping the right individuals in the right roles. We also refer to other factors that impact recruitment and retention and are particularly relevant to the current situation in Ireland. The key terms used throughout this section are summarised in Table 2 below.

Table 2: Definitions, Recruitment and Selection

Term	Definition
The Great Resignation	A phenomenon that describes record numbers of people leaving their jobs after the COVID-19 pandemic (Ellerbeck, 2022).
Labour market imbalances	A misalignment between the demand and supply of labour in an economy (FGB, 2023).
Employee turnover	The number of people who will inevitably leave the organisation and will need to be replaced to maintain production or service (Gunnigle et al., 2011).

Labour shortages	When there is a sufficient number of skilled persons, but an insufficient number of them take up employment in the occupation and location in question (FGB, 2023).
Skills shortage	When there is an insufficient supply of persons with the appropriate skills (FGB, 2023).
Potential additional labour force	An estimate of the number of domestic residents who have a stronger attachment to the labour force than the typical person who is not in the labour force (Labour Market Advisory Council, 2023).

There are numerous macro factors that shape supply and demand in the labour market and effect the capability of organisations to recruit and retain sufficient staff. COVID-19 was without doubt one of the most significant forces to disrupt all organisations in the past few years. COVID restrictions and economic changes caused major disruption for both employers and workers in terms of job losses and company closures, impacting the supply of labour to the market. It also accelerated changes already occurring in the workplace, particularly in relation to technology, and remote and hybrid working. For example, Ireland had one of the highest rates of remote working in Europe after the COVID crisis (Eurofound, 2020). Pandemic travel restrictions impacted immigration, reducing a potential source of labour for many organisations in certain sectors (Jones et al., 2021). Another important trend that emerged following the pandemic was a phenomenon dubbed The Great Resignation which has had a significant impact on recruitment and retention in many organisations.

The Great Resignation is a phrase coined in the US describing the large number of workers stating their intention to quit (or quitting) their jobs following COVID-19. Reports show between 20 and 40 per cent of employees in the US and the UK were considering leaving their jobs in 2022, while in Ireland, a survey by the Kemmy Business School of approximately 1,000 workers showed 40 per cent believed that their future career lay outside their current organisation (Kieran and O’Shea, 2022). Reasons cited for such unprecedented rates of turnover include pandemic burnout, a re-evaluation of priorities by workers as well as shift in demand for workers with various skills, particularly mid-career workers. While some commentators interpret the Great Resignation as a mass exodus from the labour market, the reality is more nuanced. The main effect was a ‘reshuffle’ of the labour market with many individuals changing careers, retraining, moving location or changing how they work. Pay, hybrid working, flexibility and meaningful work were shown to be priorities among those re-evaluating their work and career choices. Transferability of skills increased the potential for competition across sectors with recruitment and retention posing a major barrier to recovery for many organisations. For example, Fáilte Ireland (2022) research suggested that 30 per cent of 1,000 businesses surveyed in 2022 faced closure if they could not resolve their recruitment difficulties. The recruitment crisis in the hospitality sector was one that received much attention post pandemic.

Sectoral Example: Recruitment and Retention Crisis in the Hospitality Sector

The hospitality sector was one of the hardest hit by the COVID crisis given the widespread closures and reduced operating capacity that came with Government health restrictions. The impact on businesses was severe with many subsequently unable to operate at full capacity or closing permanently. When restrictions were lifted and businesses reopened, the recruitment crisis in the sector was widely publicised and attracted much attention and debate (Ryan and McMahon, 2021; Paul, 2022; Coleman, 2022). Labour shortages were widespread with organisations simply unable to fill vacant positions. For example, the Restaurant Association of Ireland said 70,000 people had left the sector since the onset of the pandemic and there was a shortage of 7,000 chefs (Healy, 2021).

Numerous explanations were put forward for the inability to recruit staff including the exodus of international workers (70 per cent of sectors serving food cited this as particularly difficult according to Fáilte Ireland, 2022) particularly among businesses in Dublin with 71 per cent being impacted significantly by this. Others cited the Pandemic Unemployment Payment (PUP) as problematic (Deegan, 2021). The original payment was 50 per cent higher than the gross weekly wage of the average minimum wage employee in the hospitality sector (€232.30) and some argued that many workers preferred to remain on the PUP rather than return to often challenging and low paid work in the sector. However, even after PUP was phased out, 42 per cent of workers did not return to their pre-pandemic employer (Fáilte Ireland, 2022) thereby reducing labour supply. Research by Curran (2021) showed that many recruitment and retention issues in the sector predated the pandemic with poor terms and conditions of employment, employment rights breaches, high turnover of staff and cultures of bullying cited by many workers as problematic.

Government support to businesses included tax breaks (lower VAT rates) and changes to work permits and visa systems for migrant workers to alleviate pressure in the short term. In the longer term, further measures are likely to be necessary to address the underlying causes of the recruitment and retention difficulties in the sector. These include addressing pay and terms and conditions of employment. Recently introduced legislation including the Employment (Miscellaneous Provisions) Act 2018 and the Payment of Wages (Amendment) (Tips and Gratuities) Act 2022 may go some way toward addressing issues around hours and pay. Better defined career pathways and advancement opportunities may help in retaining workers in the sector as identified by Fáilte Ireland (2022).

The hospitality sector is a significant contributor to the Irish economy employing over 170,000 people in Q1 of 2023 (CSO, 2023h). However, recruitment and retention difficulties continue to cause issues for many organisations. As employers and workers navigate through these issues and deal with the measures in place to address them, there is potential for employment relations conflict. This includes issues in relation to interpretation of legislation, disputes around pay and hours, as well as treatment of workers across the industry.

The hospitality sector is not the only sector facing recruitment and retention difficulties. The trade union Fórsa (2021) suggested that the community and voluntary sector would collapse due to the failure to create a more sustainable funding model and the “extremely high turnover of staff” from the sector. In the food sector, research from Love Irish Food (O’Halloran, 2023) showed that half of businesses surveyed said they were struggling to hire workers and warned that labour shortages threatened their businesses’ future growth. In the construction sector labour shortages have been particularly high with more than 50 per cent of managers reporting a deficit of labour in the last quarter of 2022 (Eurofound, 2023). Difficulties recruiting teachers in the education sector have been widely publicised with the General Secretary of the Teachers’ Union of Ireland (TUI) suggesting in April 2023 that the “failed policy of successive governments” was to blame for the continued crisis in the sector (O’Sullivan, 2023). Reports of increased emigration post-COVID has also affected the supply of teachers as better terms and conditions of employment have attracted them to countries including the Middle East and Australia with the problem exacerbated in areas such as Dublin where the cost of living and housing crises make it very challenging for teachers to make ends meet (O’Kelly, 2019). Recruitment challenges have also been cited across other areas of the public sector particularly nurses and other healthcare workers where high rates of attrition are due to career reorientation, (early) retirement or emigration (Barriball et al., 2015). In fact, research from the Chartered Institute for Personnel and Development (CIPD) (2022) suggested that 85 per cent of employers in Ireland contended with skill shortages and recruitment and retention difficulties.

These sectoral examples demonstrate the extent of the recruitment and retention crisis across the Irish economy. However, it is important to understand the nuanced causes of recruitment and retention difficulties for policy responses to be effective (FGB, 2023). Some have cited government welfare supports, the lack of skills, or the absence of an available (migrant) workforce for recruitment and retention difficulties, but closer examination shows the need to meet workers’ priorities and the importance of terms and conditions of employment, including career development prospects, in attracting individuals to work and remain in particularly affected sectors of the economy.

According to CIPD (2022), 75 per cent of organisations surveyed have begun employing a more diverse workforce in the past 12 months to deal with skill shortages. Other strategies include recruiting from wider geographical areas as well as developing talent in house (70 per cent). Over half of respondents used remote and hybrid working as a retention strategy. With an increasingly diverse workforce, it is important to explore in more detail the changing demographics of the labour market. In the next section we examine labour market participation rates in Ireland among key demographic groups and discuss the impact of these on recruitment and retention and employment relations.

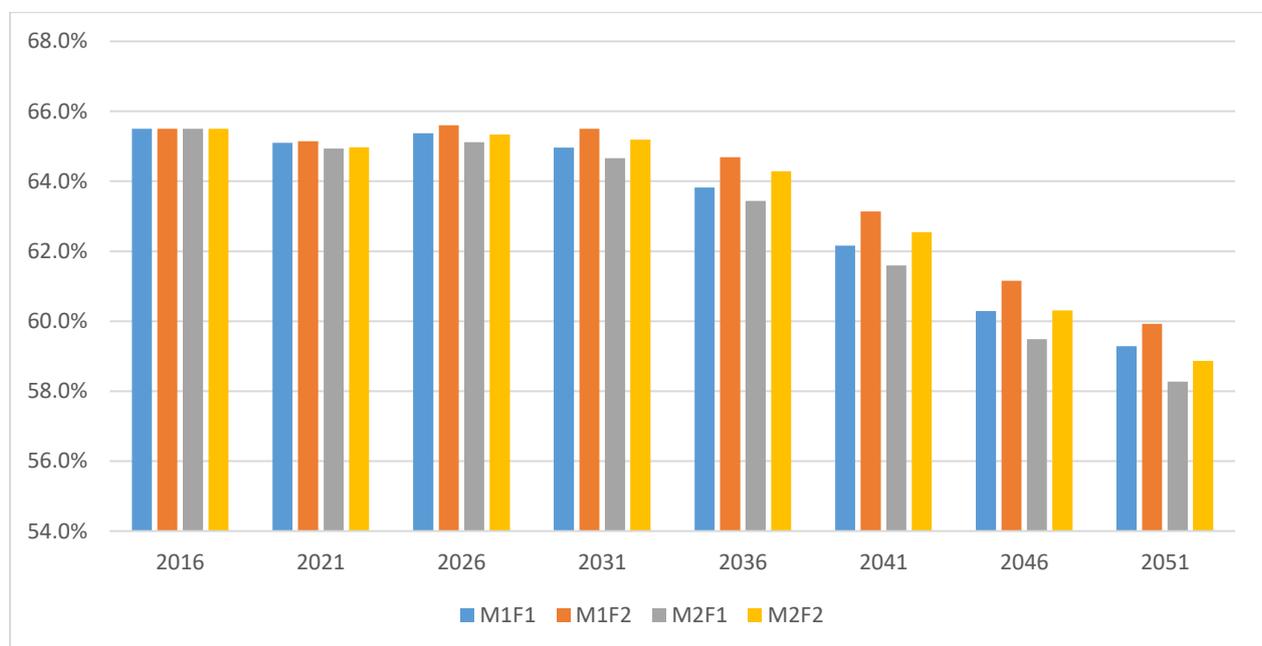
Labour Market Trends

Population

Ireland’s population exceeded the 5 million mark in 2022 for the first time in 171 years. In April 2022 there were 5,149,139 people living in Ireland. Whilst Ireland’s population has been

on the rise, it is also ageing. People are living longer in Ireland and fewer babies are being born. Drawing on the CSO - Population and Labour Force Projections 2017 – 2051 (2018), we can see the potential impact of Ireland’s ageing population on work. Whilst the size of the working population will increase, its relative share of the total population is set to decrease. In 2016, the relative share of the working population to the total population was 65.5 per cent and the CSO forecasts that this relative share in 2051 will decline to somewhere between 57.6 per cent and 59.3 per cent. The old-age dependency ratio in Ireland is predicted to nearly double from 24 per cent in 2021 to 47 per cent by the middle of this century and 53 per cent by 2070. To illustrate in another way, currently there are approximately four persons of working age to support each person aged 65 and over but this is predicted to decline to just over two persons by 2050.

Figure 3: Percentage of working population (15–64-year-olds), 2016-2051

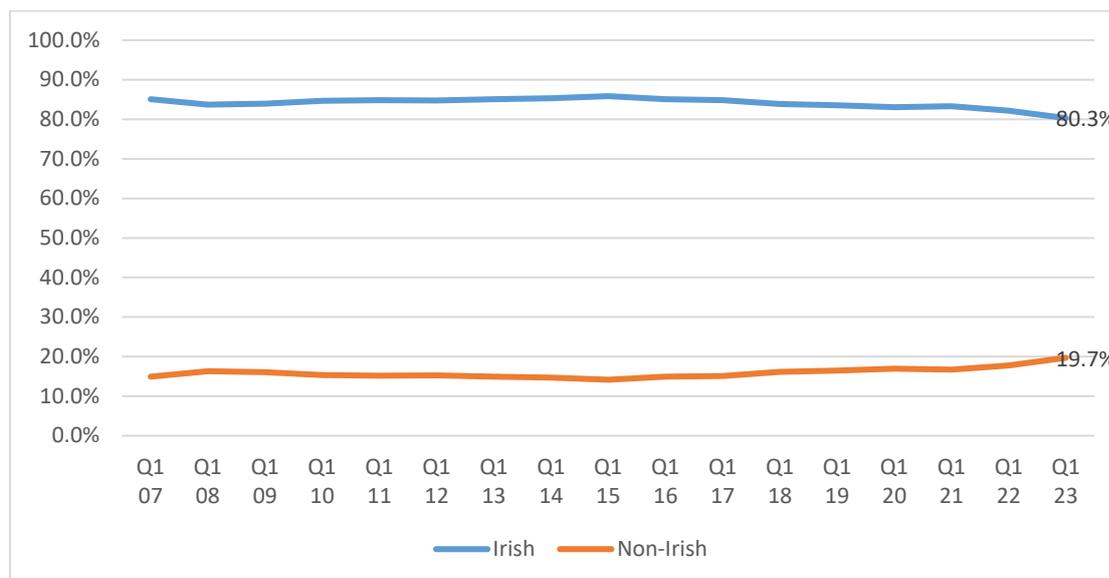


Source: Central Statistics Office (M1F1, M1F2 etc. refers to different prediction levels of migration and fertility)

Labour force

The labour force in Ireland in Q1 2023 stood at 2.7m persons. The labour force has been on an upward trajectory in Ireland with an increase from 2.4m in 2019. In terms of gender, in Q1 2023, males represented just over 1.4m while females represented just over 1.2m. The majority of the labour force is made up of workers between 25 and 54 years old representing 68.4 per cent of the labour force. In terms of nationality, Irish nationals make up 80.3 per cent of the labour force with non-Irish nationals accounting for 19.7 per cent of the labour force. The share of non-Irish nationals in the labour force has been steadily increasing since 2007 (Fig. 4).

Figure 4: Share of non-Irish Nationals in the Labour Force



Source: Central Statistics Office

Employment rate

The employment rate (ages 15-64) in Ireland in Q1 2023 was 73.6 per cent. This represents an increase from 2021 (65.6%) and 2022 (72.8%). The employment rate for males has increased from 70.3 per cent in Q1 2021 to 78.1 per cent in Q1 2023. For females, the employment rate has increased from 61.0 per cent in Q1 2021 to 69.2 per cent in Q1 2023. The employment rate is lowest for those aged 15-19 years (26.8%) and highest for those aged 35-44 years (84.6%). The youth employment rate amongst 15–24-year-olds stood at 47.2 per cent in Q1 2023. Comparatively, using data from Q2 2022, Ireland (at 73.2%) was above the EU27 average employment rate (70.1%) but lagged behind countries such as the Netherlands (82.2%), Malta (78.5%) and Germany (77.3%).

Unemployment rate

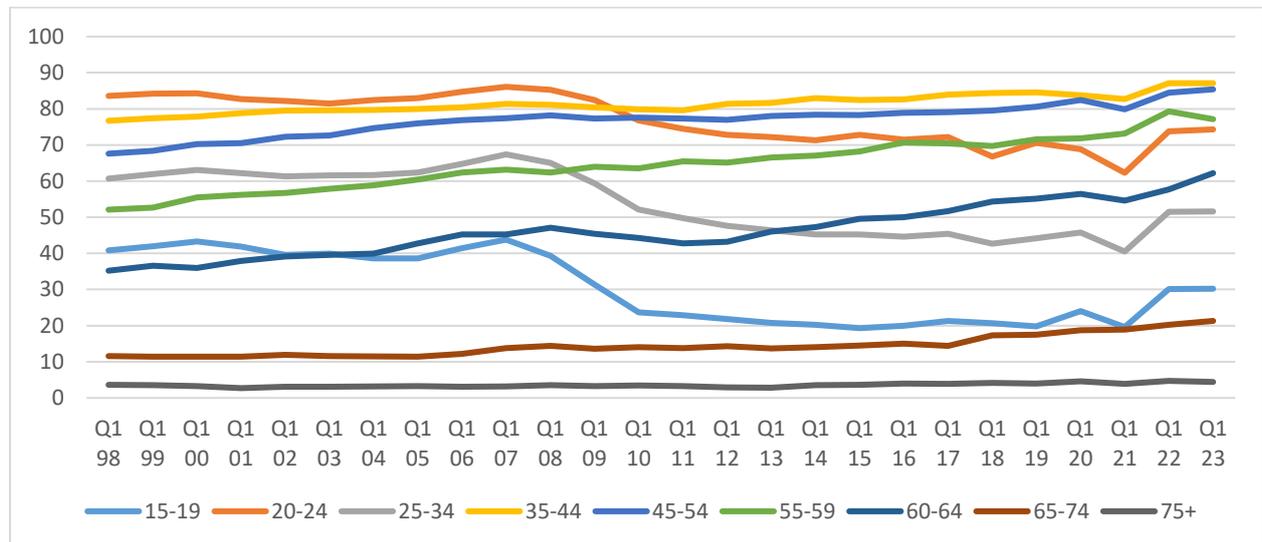
The unemployment rate (ages 15-64) in Ireland in Q1 2023 was 4.1 per cent. This represents a decrease from 2021 (7.1%) and 2022 (4.8%). It also represents the lowest unemployment rate since 2001. The unemployment rate for males decreased from 7.3 per cent in Q1 2021 to 4.4 per cent in Q1 2023. For females, the unemployment rate has decreased from 7 per cent in Q1 2021 to 3.8 per cent in Q1 2023. The unemployment rate is highest for those aged 15-19 years (11.2%) and lowest for those aged 35-54 years (2.9%). The youth unemployment rate for 15–24-year-olds stood at 8.6 per cent. Comparatively, using data from Q2 2022, Ireland's unemployment rate (4.2%) was below the EU 27 average (6.1%) due to strong employment growth.

Participation rates

Participation rates have recovered after a decline during COVID years. In 2023, the participation rate was 64.9 per cent, with male participation rates higher than female's participation rates (70.6% v 59.5%). This trend of higher participation rates among males is similar across the EU (for example, figures for 2022 point to a gender employment gap of

10.7%). Ireland is among nine countries that have a higher than the EU average gender employment gap. Participation rates are higher for those in the aged 35-54 age cohorts. A trend to note is that participation rates are increasing for those aged 60-64 and 65-74 cohort (Fig. 5).

Figure 5: Labour Market Participation Rates



Source: Central Statistics Office

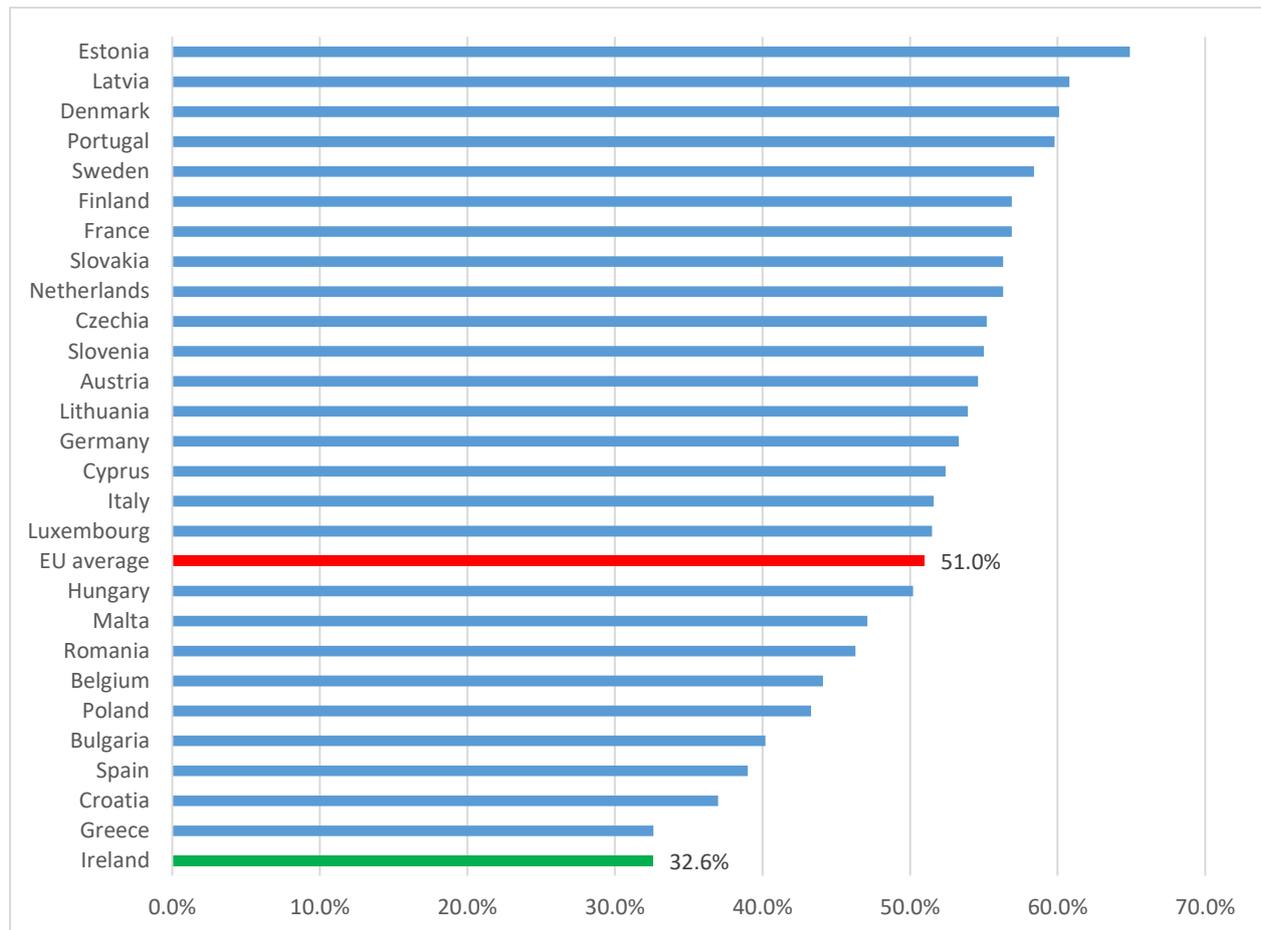
Comparatively, using data from Q2 2022, Ireland’s participation rate (64.6%) was higher than the EU 27 average (57.8%) but trailed countries such as the Netherlands (68.3%), Sweden (66.3%) and Estonia (65.9%).

Participation rate: persons with disabilities

Ireland performs very poorly when it comes to the participation rate for persons with disabilities. Data on employment rates for persons with disabilities can differ depending on methodologies, nevertheless, the same general picture emerges. For example, a report by the European Disability Forum (EDF) (2023) found that the average rate of employment for persons with disabilities in the EU is 51 per cent, compared with a rate of 32.6 per cent in Ireland (the lowest rank) (Fig. 6). Similarly, the National Disability Authority, drawing on Census data, report that the participation rate for persons with a disability in Ireland was almost half (49.7%) that for people without a disability (82.3%) (National Disability Authority, 2019). According to Eurostat figures, in 2020 Ireland has the largest disability employment gap (the difference between employment rates of persons with and without disabilities), of 38.6 per cent in the EU (European Disability Forum, 2023). A similar finding was also noted by the OECD outlining that the employment rate gap in Ireland is much larger than in most other EU-OECD countries. The OECD also raised concerns about the future of participation rates for persons with disabilities, particularly in the aftermath of the COVID-19 crisis. For example, the OECD (2021) note that persons with disabilities in Ireland tend to have lower levels of formal education, are under-represented in full-time employment, but over-represented in involuntary

part-time employment, and they tend to be over-represented in sectors that were hit hardest by COVID-19. These recent reports (e.g. European Disability Forum, OECD, National Disability Authority) illustrate the challenges for people with disabilities in accessing employment including discrimination and lack of supports in Ireland.

Figure 6: Employment Rate of Persons with Disabilities in EU



Source: European Disability Forum (2023)

Job vacancies

The job vacancy rate, which measures job vacancies on the last working day of the quarter, is at a relatively low level in Ireland (Table 3). For example, in Q1 2023, estimates suggested a job vacancy rate of 1.4 per cent, down from 1.6 per cent in Q1 2022. The job vacancy rate remained relatively stable between 2016-2021, however, job vacancies increased since then. The trend in Ireland has mirrored that across the EU although the job vacancy rate in Ireland is considerably lower than the EU average of 2.8 per cent in 2023. Looking at job vacancies by sector the data shows that *Public Administration & Defence*, followed by *Professional, Scientific & Technical Activities* and *Financial, Insurance and Real Estate* are sectors which recorded the highest vacancy rates. This corroborates findings by Solas in their *Difficult to Fill Vacancies Survey (2021a)* which found high levels of vacancies in sectors such as life sciences, ICT, construction, health, and financial activities.

Table 3: Job vacancy rate by economic sector year (%)

NACE Principal Activity		2016	2017	2018	2019	2020	2021	2022	2023
B-E	Industry	0.7	0.6	0.8	0.7	0.6	0.8	1.1	1.1
F	Construction	0.4	0.4	0.5	0.5	0.2	0.5	1.4	1
G	Wholesale and retail trade; repair of motor vehicles and motorcycles	0.6	0.5	0.5	0.6	0.4	0.5	1	1.1
H	Transportation and storage	0.3	0.5	0.6	0.5	0.5	0.3	1.1	1
I	Accommodation and food services	0.7	0.8	0.6	0.8	0.2	0.7	1.2	0.6
J	Information and communication	2.4	1.7	2.1	1.5	1.6	1.7	2.3	1.2
K-L	Financial, insurance and real estate	2.6	2.1	2.1	1.8	1.8	1.5	3.5	2.5
M	Professional, scientific and technical activities	1.7	2.6	2.5	3.3	1.6	1.9	3.6	2.8
N	Administrative and support services	1.2	0.9	1.1	1	0.9	0.9	1.3	0.9
O	Public administration and defence	1.5	1.5	1.3	1.7	1.8	2.1	2.7	3
P	Education	0.3	0.6	0.5	0.4	0.7	0.8	1.2	1.1
Q	Human health and social work	1	1.2	1.2	0.6	0.6	0.7	0.7	1.1
R-S	Arts, entertainment, recreation and other service activities	0.8	0.8	0.7	1	0.3	0.8	2.1	1.8
All Sectors		1.0	1.0	1.0	1.0	0.8	1.0	1.6	1.4

Source: Central Statistics Office

Potential Additional Labour Force

The Potential Additional Labour Force (PALF) is the sum of the following two groups: (i) seeking work but not immediately available and (ii) available for work but not seeking work. Historically the PALF was quite steady between 1998-2008 and fluctuated between 2008 and 2017 with a sharp increase in 2017. The COVID crisis resulted in a sharp decline with the rate returning to some stability over the last two years. In Q1 2023 the PALF was 78,500 with most available for work but not seeking work for a variety of family and personal reasons.

Underemployment

Using CSO data, part-time underemployment peaked in 2013 (circa 159,000 Q1), declined to 2017 (96,000) but has stayed quite stable at around the 100,000 mark in recent times. There were 110,700 P/T underemployed in Q1 2023. Comparatively, Ireland's underemployed people working part-time rate was 3.9 per cent in 2022, above the EU 27 average of 2.6 per cent - Ireland was ranked joint 3rd highest out of 27. Underemployed part-time workers explained

20.8 per cent of the unmet supply of employment in the EU but higher in Ireland at 35.3 per cent.

Labour Market Slack

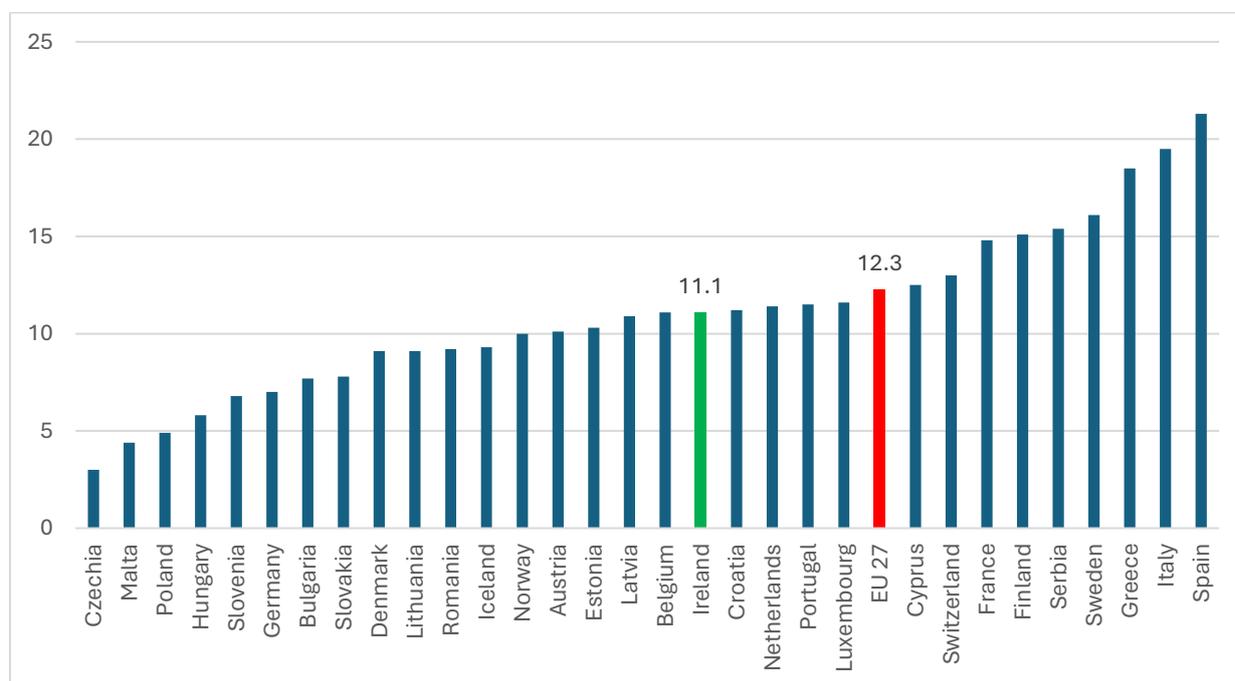
To get a broader view of unmet needs for employment, Eurostat developed a measure of labour market slack. This measure comprises of unemployment (ILO definition), underemployed part-time workers, people seeking a job but not immediately available to work and people available to work but not seeking. Ireland’s labour market slack rate was 11.1 per cent in 2022, slightly below the EU 27 average of 12.3 per cent (Figure 7).

Table 4: Labour Market Slack in Ireland Summary 2022 (%)

	Unemployed people (ILO)	Underemployed people working part-time	People seeking work but not immediately available	People available to work but not seeking	Labour market slack
Ireland	4.4	3.9	0.6	2.2	11.1

Source: Eurostat

Figure 7: Labour Market Slack in EU



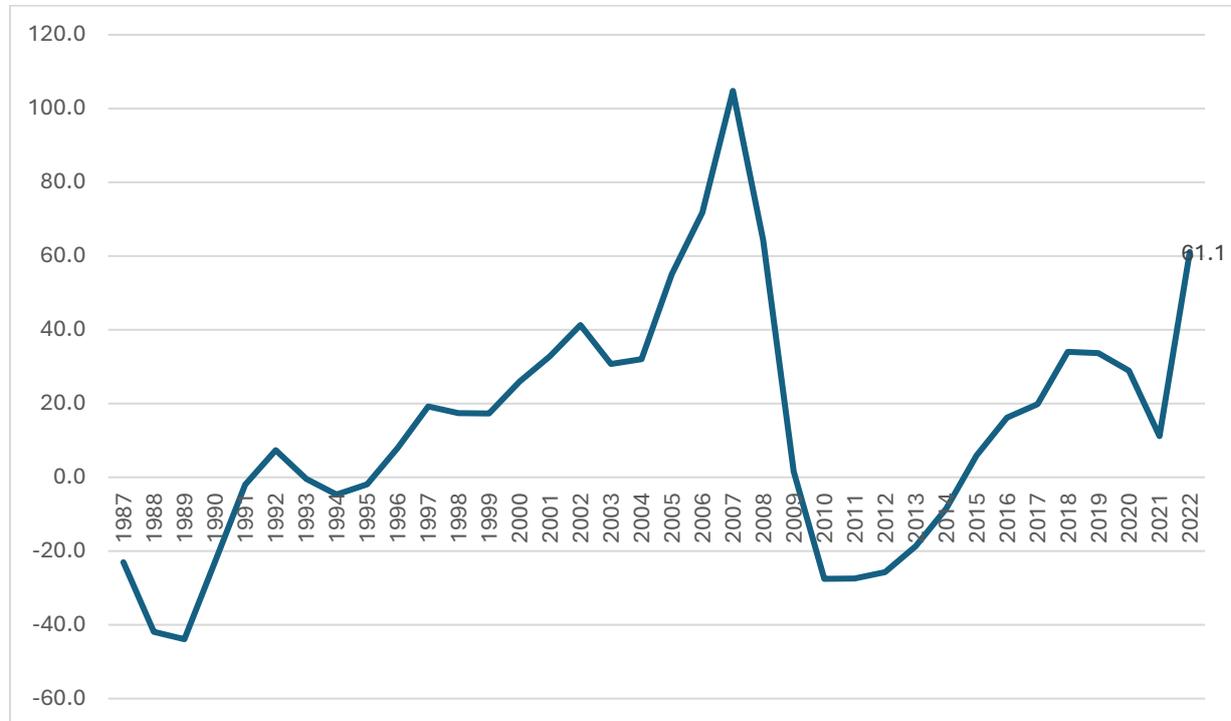
Source: Eurostat

Migration

Net migration in Ireland has been on an upward trajectory since 2010. As expected, travel restrictions associated with COVID-19 had a significant effect on migration levels, however,

net migration levels increased in 2021 and 2022. In April 2022 net migration stood at 61,100, while there were 120,700 immigrants into Ireland, the highest since 2007 (Fig. 8).

Figure 8: Net Migration Ireland 1987-2022 ('000's)



Source: Central Statistics Office

Ireland has witnessed a significant increase in immigration from nationalities outside of the EU and the UK which is also reflected in a rise in applications for employment permits. The number of employment permits issued (both new and renewals) increased from 13,398 in 2018 to 39,955 in 2022 (Department of Enterprise, Trade and Employment, 2022). Permits were mostly issued in the ICT, health and social work, agriculture, forestry and fishing sectors. In terms of origin, India is the largest nationality, and has been consistently over the last five years. Other countries such as Brazil, United States of America, South Africa, China, Pakistan and Philippines have all consistently featured in the top 10 nationalities in the last 5 years.

Skills shortages

The OECD (2023) notes that there are skills imbalances in the Irish economy. These skills imbalances are caused not only by skills shortages but also skills mismatches as well. Below provides a profile of skills shortages and skills mismatches in the Irish context.

Skills gaps

The OECD (2023) notes significant shortages of digital skills (e.g. software, coding, data analytics), STEM skills (e.g. engineering construction) and management skills (e.g. project management, change management, and leading multicultural teams), among others. While measuring skills shortages presents challenges, the OECD Skills for Jobs database shows some evidence of shortages for different types of skills, including medicine knowledge, training and education, scientific knowledge and more (OECD, 2022). The OECD report highlights concerns of workers in Ireland about their current and future skills levels, in particular their skill levels to adjust to future changes in the world of work. Drawing on an Accenture (2021) report, the OECD report highlights that just over a quarter of Irish workers (27%) feel that their skillset prepares them for future changes.

Despite Ireland's relatively high ranking in the Digital Economy and Society Index (DESI) (Ireland was ranked 5th out of 27 EU countries in 2022), the OECD report also raises concerns around Irish workers' basic digital skills which includes information and data literacy and digital creation among others. Furthermore, drawing on Accenture (2022), the report notes that workers with "comparatively weak socio-economic profiles (e.g. lower social classes, low education levels) self-report that their digital skills are below average" (OECD, 2023: 21).

The National Competitiveness and Productivity Council (NCPC) in their *Ireland's Competitiveness Challenge 2022* report identify three key areas where the issue of skills present a challenge within the Irish context (pages 59-61):

- Construction – the NCPC report referred to the Irish Government's National Development Plan (NDP) and the National Retrofitting Schemes as creating significant demand for construction relation skills in a variety of areas. The NCPC report is concerned with future skills shortages in the construction sector.
- Green economy – the NCPC report considered the availability of skills that are required to develop the green economy in Ireland. In particular, the report points to areas such as renewable energy and resource efficiency, sustainable manufacturing, eco-construction and environmental consultancy services as areas of concern.
- Digital economy – The NCPC report signalled the importance of digital skills as a means of promoting an "inclusive labour market and to spur innovation, productivity and growth" (2022:60). Drawing on an OECD report, the NCPC note the importance of the following skills – technical and professional skills; ICT generic skills; and ICT complementary "soft" skills, such as leadership, communication and teamwork skills. Management and leadership skills are essential to support the digital transition.

Skills mismatch

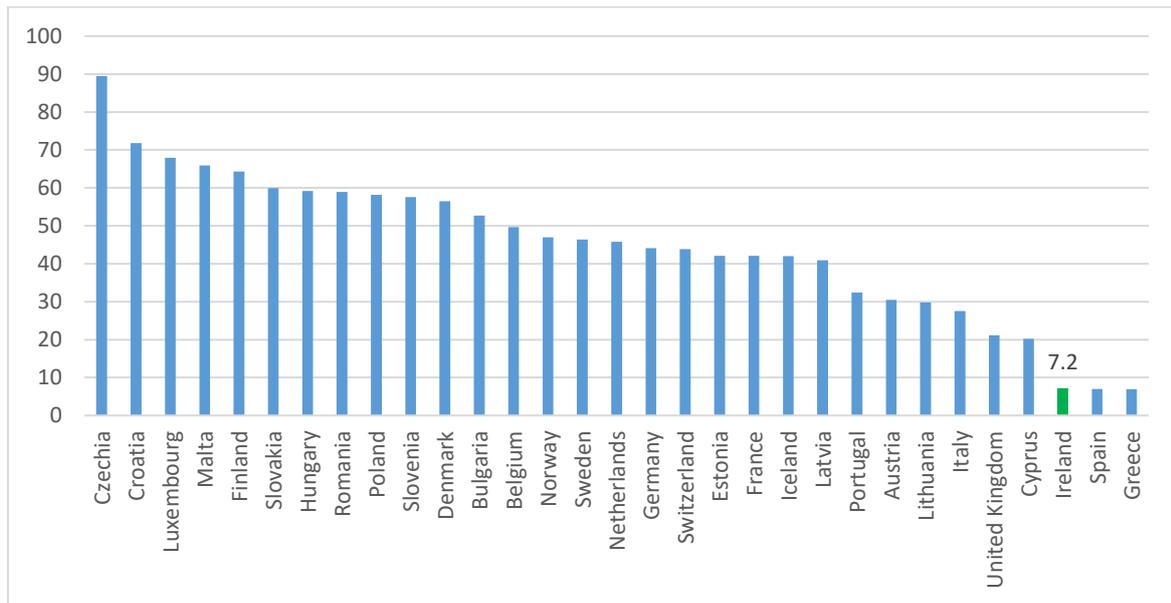
Skills mismatch is defined as the sub-optimal use of an individual's skills in their occupation, and it can be a source of both dissatisfaction for workers and a brake on productivity growth (Brun-Schamme and Rev, 2021). The European Skills Index provides a useful profile of skills in Ireland, particularly the matching of skills.

Skills mismatch is measured by the following three indicators: the over qualification rate (those with higher education that have a job that does not require it); low-waged workers (tertiary graduates that are low-waged earners); and qualification mismatch (the extent to which each employee's education attainment level matches the modal education attainment level for each occupation in each industry). The European Index ranks Ireland among the lowest performing countries when it comes to the over qualification rate. Ireland has one of the highest rates of over-qualification in the EU, with 28.6 per cent of Irish people working in occupations that do not require a third-level degree despite having one. The data show that women are more likely to be overqualified in their role as compared to men (30% v 27.7%), with the result that Ireland has one of the highest over qualification rates for women in the EU. A report by Solas (2021b) demonstrates that elementary occupations tend to have the highest share of persons employed who are classified as over-qualified (a finding not unsurprising given that the ILO's classification considers anyone in an elementary occupation with more than a primary qualification as over-qualified). Given Ireland's high performance in the educational attainment of Ireland's workforce over the last 15 years, high levels of over qualification are not a surprise. There is debate, however, over the impact of over qualification. For example, some would argue that over qualification is not necessarily negative and having high levels of educational achievement can have positive benefits more generally for an economy and society. In contrast, many studies point towards a negative effect of over-qualification on issues such as wages and lower levels of job satisfaction (c.f. McGuinness et al., 2018).

Ireland also scored quite poorly in terms of tertiary graduates that are low-waged earners. According to the European Skills Index, Ireland was ranked amongst the poorest performers when it comes to tertiary graduates that are earning a low wage.

Drawing on the measures associated with qualifications and earnings, the European Skills Index scores Ireland quite poorly overall, ranking 29th out of the 31 countries when it comes to skills mismatch (Fig. 9).

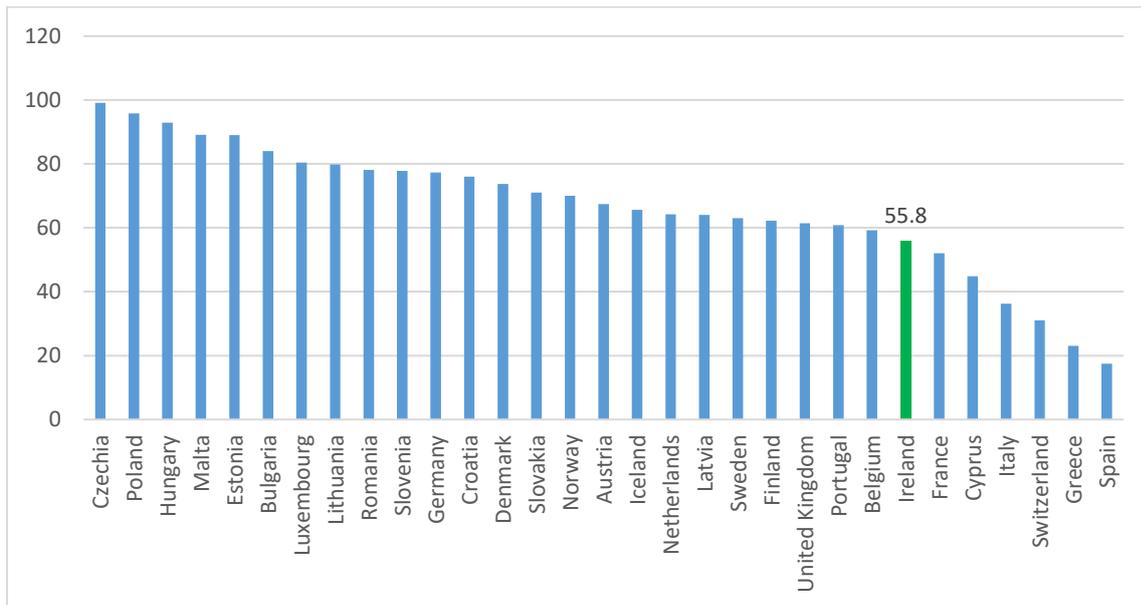
Figure 9: Skills Mismatch in Europe (%)



Source: European Skills Index

Skills utilisation is measured by the following two indicators: long-term unemployment; and the underemployment of part-time workers (those who declare that they work part-time because they are unable to find full-time work). According to the European Skills Index, Ireland was ranked among the average in terms of long-term unemployment. However, Ireland was ranked amongst the lowest group of countries in terms of underemployed part-time workers. Eurostat figures indicate Ireland had the joint 3rd highest level of underemployed people working part-time across the EU 27 countries. The CSO figures show that the number of people in part-time employment that were underemployed remained quite steady since 2018 with an increase from 2022 to 2023. Drawing on the measures associated with unemployment and underemployment, Ireland again performs quite poorly, ranking 25th out of 31 countries in terms of skills utilisation.

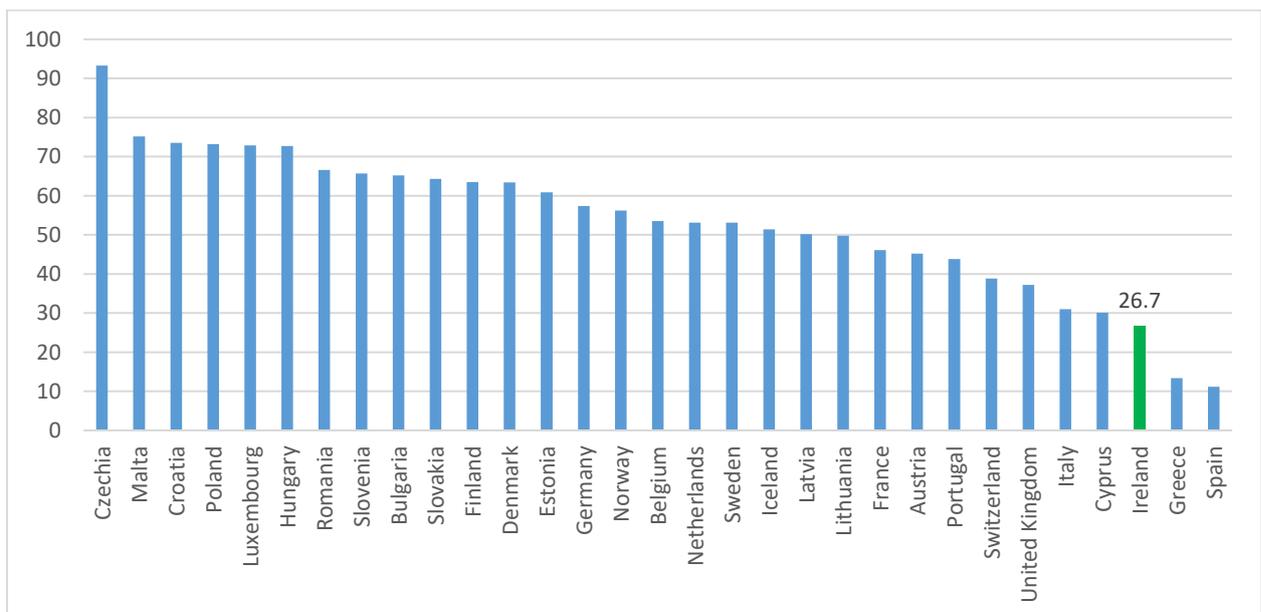
Figure 10: Skills utilisation Europe (%)



Source: European Skills Index

Using the measures of skills utilisation and skills mismatch, Ireland has an overall ranking of 29th out of 31 countries in terms of skills matching suggesting that skills matching is an area that needs significant attention in the Irish context (Fig. 11).

Figure 11: Skills Matching in Europe



Source: European Skills Index

Conclusion

Recent developments such as the legacy of COVID-19 and the impact of technology on work will continue to impact recruitment and retention for organisations. In the longer term, issues related to the green economy and sustainability will likely increase in importance.

The supply of labour is increasingly susceptible to external international developments, example, in relation to migration trends. Ireland is experiencing an increase in migration from non-EU countries which has implications for the employment permit system and increasing diversity of the labour market. Increasing labour market diversity is also occurring due to an ageing workforce which has implications for pension entitlement. Gender participation and participation of persons with disabilities in Ireland is lower than the EU average which provides both opportunities and challenges for recruitment and retention across organisations.

In 2023, there was almost full employment with job vacancies at a relatively low level compared to the EU average. Labour market slack was also slightly lower than the EU average demonstrating the tightness of the labour market. A major issue facing organisations has been workforce skills. Key areas of skills shortages are digital skills, STEM, and management. Ireland has one of the highest rates of skills mismatch in the EU while skills utilisation also ranked poorly.

Ireland's skills mismatch is explained by its high levels of overqualified employees, high levels of underemployment and high levels of low wage workers (relative to qualifications). Labour market skills is an area that requires attention in the Irish labour market to address the challenges faced by organisations in relation to recruitment and retention. There are opportunities for organisations to source skills and talent perhaps from labour pools not previously fully utilised. However, an increasing diversity of workers requires organisations to be cognisant of potential employment relations issues particularly in terms of ensuring integration of workers to the organisation and preventing discrimination.

2.3 Technology and Digitalisation

Introduction

Given the nature of technology and digitalisation, a large and diverse amount of literature has been produced by academics, stakeholder representatives, and governments. This section cannot sufficiently cover all aspects of technology and digitalisation in detail, but it endeavours to highlight key issues of importance for workplace relations actors by discussing key trends and the possible implications of technology for the number and quality of jobs and for industrial relations.

Definitions

When it comes to discussion of technological change, terms are often used interchangeably though they have distinct meanings: technology, artificial intelligence, algorithmic management, digitalisation, and digital transformation. These have become part of the lexicon of technological change and form the basis of much of our discussion (Table 5).

Table 5: Workplace Technology Terminology

Term	Definition
Technology	The application of new tools techniques, and systems that creates or alters products, processes, or services using a wide range of methods.
Artificial intelligence (AI)	A particular type of technology (computer system) designed to make decisions and perform actions autonomously.
Artificial Intelligence Worker Management (AIWM)	AIWM refers to a worker management system that gathers data, often in real time, from the workspace, workers and the work they do, which is then fed into an AI-based system that makes automated or semi-automated decisions, or provides information for decision-makers (for example, human resources managers, employers and sometimes workers), on worker management-related questions (Christenko et al., 2022:12).
Algorithmic management	The application of artificial intelligence, machine learning and automated decision making to monitor, control, and optimize workforce management within organisations with limited human intervention.
Digitalisation	The process of converting information from analog to digital form (e.g. images audio) using digital technologies to capture, store, process or transmit data so that it can be accessed, manipulated, and distributed.
Digital Transformation	A broad level organisational change leveraging digital technologies to reshape business operations and strategies.

Technological Trends

Berg et al. (2023) cite the European Company Survey 2019 to illustrate the growth in technology use. Half of European establishments used data analytics for process improvements, monitoring employees or both, and the use of robots was highest in industrial sectors (22 per cent). Anton et al. (2022) found that between 1995 to 2005 increasing robotics use led to higher work intensity but did not affect other working conditions such as the physical environment, skills, or discretion in the job. Georgieff and Hye (2022) found that over the period 2012–2019 no clear relationship between AI exposure and employment growth emerged across occupations. However, in occupations where computer use was high, AI appears to be positively associated with jobs growth.

According to the ILO (2022), the use of algorithmic management outside of platform (or ‘gig’) work is currently marginal. It is anticipated that algorithmic management will increase over time. One reason for this is the exponential increase in data available due to digitisation of economic processes. The sheer volume and manageability of data will in turn increase the economic imperative for the digitisation of management processes. As it stands the ‘internet of things’ is already widely utilized to generate and process data relating to a wide range of areas involving processes, products, and services and there is some evidence that this can be linked to employee performance metrics. Approximately 40 per cent of human resources departments in international companies use AI applications and 70 per cent consider this a high priority for their organisation, illustrating the extent to which the management of employees through digitalised processes is increasing (European Parliament, 2022).

Ireland has the second highest rate of hybrid working in Europe, with more than 40 per cent of job postings for professionals on LinkedIn offering hybrid working (Irish Times, 2023). A recent survey of 500 employers in the Dublin region found that 73 percent were utilising a hybrid approach and 11 percent allowed their employees to have complete choice about their work location (Dublin Chamber and Savills, 2023). Mulcahy and Anreeva (2023) identify two key qualifications regarding the survey. Respondents from the services sector, including technology and professional services, were strongly represented and they are less bound to on-site work (58 per cent) and data was not provided on which employees or what proportion of employees were allowed to engage in hybrid work. Research indicates that most companies require that employees be on site at least two or three days a week (Mulcahy and Andreeva, 2023). Internationally the prevalence of remote work has grown substantially, however, the reported impact on productivity has been mixed. For example, Morikawa (2022), based on a survey of workers in Japan, found that productivity when working at home relative to working at the usual workplace was approximately 60–70 per cent and that it was lower for employees who started remote work only after the spread of the COVID-19 pandemic.

Whilst levels of platform work tend to be low in general in both Ireland and the EU, they are increasing and a recent study found that Ireland had the second highest level of respondents (6.5%) within the EU countries reporting they engaged in platform work in the previous 12 months (Piasna et al., 2021). Irish platform workers generally engaged in lower skilled tasks

such as delivery and transport. On-location platform work, whilst generally at relatively low levels, was also more widely prevalent in Ireland (1.3% of respondents) than in other countries.

Key implications of technology for job quantity

Technology is invariably viewed as a threat to jobs. Research to date, however, indicates that job loss in an economy because of technology has largely not materialised; rather technology replaces tasks which lead to a change in the type of skills and jobs required in the economy (Mc Guinness et al., 2023). Exposure to AI is on average associated with an increase in employment in European countries, however, the effect was slightly negative in Ireland (Albenesi et al., 2023.) Whilst much of the literature differentiates between the displacement of routine tasks and jobs (more likely) and non-routine aspects of work, some writers argue that AI has the capacity to challenge human labour across a range of non-routine cognitive and high skill areas (Frey and Osborne, 2017).

Arguably, increasing technology use and digitalisation has coincided with an increase in precarious forms of work and the undermining of the standard employment relationship (De Stefano and Aliosi, 2018; Fudge, 2017). This has arguably contributed to a hollowing out of the labour market with greater polarisation between “lousy” jobs characterised by low pay and limited opportunities and so called “lovely” jobs with better benefits and secure career paths (Goos and Manning, 2007). Across Europe there has been evidence of job upgrading, for example, Hardy et al. (2018) found that the intensity of non-routine cognitive tasks grew in all countries, while the intensity of manual tasks declined because of workforce upskilling.

The platform economy is an example of where sophisticated technological developments such as AI and algorithmic management have been viewed as revolutionary in disrupting existing sectors such as transport or hospitality and creating new forms of “work”, albeit that such work does not translate directly into employment. The platform or gig economy is therefore a useful example to focus on the use of algorithmic management (Box 2.2).

Algorithmic Management: the diffusion of digitalised practices associated with the platform economy

Online platforms digitally connect workers with individuals or businesses that require labour (Katz and Krueger, 2019). The ILO (2022: 8) define platformisation as the use of digital platforms in the form of apps, web, or any similar digital system to co-ordinate work processes. Piasna et al. (2022) explain that digital labour platforms are those that match supply and demand; provide a set of tools and services that enable the delivery of work in exchange for compensation; and set rules of governance, usually enabling one-off transactions and self-employment. Platform operators use algorithmic management systems which operate by tracking and evaluating worker behaviour and performance (Prassl, 2018). While the platform provider can set terms and conditions and exercise control over the work often through algorithmic management systems to track and evaluate worker performance,

digital platforms are viewed as labour market intermediaries rather than employers (Meijerink and Keegan, 2019; Prassl, 2018). The adoption of algorithmic management practices is growing outside of the platform economy in more standard employment, so the impact of the platform economy is evident in the design and management of work. Algorithms (automated decision making), rather than a human supervisor or manager, can dictate the pace, intensity, and monitoring of work tasks. Outside of the platform economy itself, practices associated with it contribute to changes in how work is directed and managed. For example, technologies can monitor worker performance and therefore algorithms can be used to issue disciplinary warnings or terminate a person's job (Murphy and Dundon, 2023).

The platform economy is high on European agendas given its potential economic and social impact. The proposed EU Platform Work Directive aims to improve the working conditions of people working through digital platforms. The development of the directive has received widespread attention from policy makers and interest groups in terms of the impact it will have on terms and conditions of employment in the platform economy. An element of the Directive that has received less attention relates to algorithmic management and transparency of how algorithms operate. Coupled with the Artificial Intelligence Directive, the aim is to extend protected rights and improve transparency around digital control and algorithmic management systems. Issues of concern include: safeguarding personal data, which can include how workers are monitored, or how personal data is re-used to assist future artificial intelligence programming (Murphy and Dundon, 2023).

Key implications of technology for job quality

While the move to remote working may have been driven by the pandemic-imposed restrictions, the trend has become embedded in many organisations and the government has supported it through a suite of measures including the “Making Remote Work: National Remote Work Strategy” (Department of Enterprise trade and Employment, 2021). Research indicates there are positive aspects of remote and teleworking, but also a blurring of boundaries between work and home life boundaries, a sense that work has intensified, and workers may feel an expectation to be more available to employers. This prompted the introduction of a statutory a Code of Practice for Employers and Employees on the Right to Disconnect in Ireland, which effectively reinforces working time rights in a digital context.

The automation of tasks and routine jobs within organisations can lead to a variety of outcomes. McGuinness et al. (2023) found that high skilled workers in jobs subject to skills displacing technology (SDT) experienced greater task variety within their jobs and were afforded opportunities to upskill. They found some evidence of higher pay but also increased insecurity and pressure for workers to remain current. The automation of lower skill jobs can give rise to concerns regarding polarisation of the labour market (McGuinness et al., 2023).

Digitalisation has driven a shift in work organisation and design, leading to more flexible, data-driven, and technologically enabled jobs. Automation and digitalisation present opportunities not only to optimise performance but also help to make jobs better (Gibbs, 2022) and they have

the “capacity to free workers from dull, dirty, difficult and dangerous work” (Walsh and Strano, 2018: 31). Research has emphasised the need for technological systems to be designed to meet the needs of organisations and employees “rather than simply keeping up to date within new technologies” (Parker and Grote, 2022: 1197).

A body of research has raised concerns about the increased use of technological monitoring and surveillance, referring to a return to “Digital Taylorism” resembling the principles of scientific management but through the use algorithms and data metrics to measure and optimize performance (Altenreid, 2020; Moorkens, 2020; Gautié et al., 2020). Persole (2023), in a report for the European Agency for Safety and Health at Work, found that 78 per cent of workers interviewed experienced some form of digital data-driven management determining their speed of work, task allocation, or work evaluation. The report found that the use of surveillance technologies and algorithmic management practices increased psychosocial risk and negative health outcomes for employees. A European Parliament Motion On Mental Health In The Digital World Of Work (2022) highlighted the need to protect workers in the use of algorithmic management, “including prediction and flagging tools to predict employee behaviour and identify or deter rule-breaking or fraud by workers, real-time monitoring of progress and performance, time-tracking software and automated behavioural nudges...”.

Table 6: Technology-enabled management practices

Tool	Use
Automated monitoring	Using software and sensors to track workers' activities and performance, such as tracking keystrokes or monitoring screen time.
Performance metrics	Measuring worker performance using data and metrics, such as tracking the number of calls handled by a call centre worker or the number of tasks completed by a software developer.
Gamification	Using game-like elements such as leaderboards, badges, and rewards to motivate workers and encourage higher productivity.
Metaverse	A shared, immersive, 3D virtual space capable of facilitating real time collaboration

Workplace disputes

The spectrum of what the word ‘technology’ encapsulates is broad. In this section we draw from our discussion above and identify several areas that have already given rise to disputes both collective and individual, nationally or internationally.

Remote working

Interest in, and incidence of, remote working increased exponentially during the recent pandemic and there has been discussion and debate around the ‘right’ to remote working. The effect of remote/hybrid working, it has been argued, has been to change working space from a purely organisational setting to a combination of home space, cyberspace, and organisational space. The greater the focus on purely remote working, the greater the dislocation away from organisational space towards home and cyberspace (Halford, 2005). There are many obvious advantages to remote working including the lack of commute, and flexibility for employees in managing their work life balance (O’Sullivan et al., 2022). Advantages for employers include higher productivity (Grant et al., 2019), access to more global and diverse workforces (Vias, 2022), positive recruitment and retention outcomes (Microsoft, 2021) and sustainability advantages (Eurofound, 2023a; CIPD, 2023).

Remote working can also give rise to tensions between employers and employees that may lead to increased disputes in the future. These include: isolation of employees, blurring of temporal boundaries between work and home (Gibbs et al., 2021), issues regarding health and safety in terms of ergonomic suitability of home space, the costs of the required equipment and who bears them (Eurofound, 2023a; Eurofound, 2020), monitoring issues, cybersecurity issues, and other issues around perceptions of inequity regarding progression and reward (Odom et al., 2022). The level of remote versus hybrid working can also cause issues. Research has shown that employers prefer a maximum allowable number of days per week rather than fully remote models and in some cases wish to be able to control which days are given (Mulcahy and Andreeva, 2023). The Dublin Chamber Business Outlook Survey (2023) found that the number of firms reporting that their employees typically spend two or three days in the office each week increased from 2022 such that now one-in-two employees spend two or three days in the office on a weekly basis. The survey also supports international findings that Monday and Friday are the most common days that individuals work from home (Barrero et al, 2023). In Dublin, Monday and Friday are the days with the lowest office capacity, with the majority of firms reporting 0-10 per cent office capacity for these days.

Eurofound (2023a) highlight the need for agreements between employers and employees around remote and hybrid work arrangements, and the provision of support structures for employees. It found that regulation was a key area of debate around hybrid work. Trade unions expected that legislation would be developed and enacted around risks, rights and obligations with employers preferring a company-level approach to be agreed with employees (Eurofound, 2023a: 19). Whilst there is no right to work remotely in Ireland, the Work Life Balance and Miscellaneous Provisions Act 2023 will give parents and carers the right to request to work remotely as part of the EU’s roll out of greater rights to flexible work while a Code of Practice on the Right to Request Remote Working is being developed by the WRC. Dublin Chamber’s (2023) survey found that 57 per cent of firms welcome the introduction of a code of practice, while only 12 percent believe it will be unhelpful. Dublin Chamber have highlighted they would like to see the code of practice include: the introduction of eligibility criteria for remote work requests; consideration for individual models of remote working already in place for

different companies; ensure that granting remote work requests does not negate the expectation that employees will attend the office when required. It was noted that business groups desired government grants and financial support for SMEs to navigate the costs associated with remote working arrangements, including technology infrastructure and training.

The opportunity to avail of remote working has increasingly become a key issue in employee recruitment and retention. McCarthy et al.'s (2023) survey found that 44 per cent of workers were willing to change roles even with a reduction in pay to ensure they have a role where remote working is facilitated, and this had increased from 30 percent in 2022. This may in part reflect the fact that more organisations are altering working arrangements and emphasising greater on-site presence. The survey revealed that for 72 per cent of respondents, their employers facilitated their preferences for remote/hybrid working.

The temporal boundaries of work and the right to disconnect

The issues of temporal boundaries of work and the importance of rest times are not new. There has been an implicit right to disconnect with the provisions for rest times that are contained in the Organisation of Working Time Act 1997. The Act sets out minimum requirements regarding daily and weekly rest breaks for employees. As technology enhances connectivity through the uses of devices such as phones and laptops, the demarcation line between working time and rest time can become blurred (O'Sullivan et al., 2022). This in turn can give rise to several issues including 'always on cultures' (Murphy et al., 2021) which of themselves can lead to work life balance and wellbeing issues such as 'technostress'. Intrusive working arrangements into employees' free time have the potential to escalate into disputes and/or legal cases on the grounds of health and safety or an employees' right to rest. For example, in *O'Hara v Kepak Convenience Foods Unlimited Company* (DWT1820), the claimant regularly dealt with emails outside of working hours. The Labour Court found against the company for not taking steps to curtail the complainant from working outside of hours and not having an explicit policy as per the terms of the Act.

The 2021 Code of Practice for Employers and Employees On The Right To Disconnect has been seen as a welcome introduction which provides employers/employees and their representatives with valuable guidance and it is also admissible in legal proceedings. The Irish approach, however, stops short of legislation which some commentators feel excessively delegates regulation of disconnection issues to workplaces (Bell et al., 2021).

Employee monitoring and surveillance

Technological surveillance refers to "management's ability to monitor, record and track employee performance, behaviours and personal characteristics in real time or as part of broader organisational processes" (Dandeker, 1990). Surveillance is not a recent phenomenon. For instance, monitoring of employee calls with customers to provide feedback and ensure continuous improvement has long been common practice in call centres. However, the scale and intensity has increased in recent years (Bales and Stone, 2020) alongside the increased emergence of platform/gig working and remote working. Data gathering with respect to

workers is now possible along an array of dimensions: tracking keyboard strokes, geolocation tracking, the use of wearables for employees (Bales and Stone, 2020), monitoring social media, email, through screenshots, and gathering and analysis of biometrics engage in things like attention tracking and demeanour (West, 2021).

Electronic monitoring and surveillance (EMS) presents many advantages in the workplace. A key example is harnessing data to inexpensively generate a wider breadth of factual data to enhance performance management systems, productivity, and overall organisational efficiency and strategic decision making (Brockbank et al., 2019). Employers can also utilise EMS to provide valuable factual evidence where performance is poor (Corgnet et al., 2021) or where a legal claim is made against a company.

EMS has however also been negatively linked to declines in workers' physical and mental health because of the use of real-time monitoring and tracking and automated behavioural nudges. Issues identified include technology-related stress (Dragano et al., 2020) and psychological overload and fatigue (European Parliament, 2022). EMS can also give rise to infringements of employees' privacy rights and a negative impact on perceptions of due process, fairness and trust. Ball (2021) refers to 'function creep' where data gathered through monitoring can be used for other purposes and they identify several key areas of concern including the boundaries of worker monitoring in respect of their private lives and that developments in technology enable monitoring to extend beyond the realm of performance management and into the behaviours and personal characteristics of the employee.

Apart from potentially eroding perceptions of justice and trust on the part of employees (Ball, 2021; Holland and Bardoel, 2016; Snyder and Cistulli, 2011), such developments can give rise to questions over the legality of some measures utilised. EU legislation does not explicitly address employee monitoring, but it does regulate privacy and data protection rights that may be impinged upon by employee monitoring (Eurofound, 2021). The most important piece of EU legislation in this regard is the General Data Protection Regulation (GDPR) (Regulation (EU) 2016/679).

Two cases of interest on privacy rights are the 2008 case of *Barbulescu v Romania* and the 2019 case of *Jimmy Lee vs Superior Wood* (Australia). In *Barbulescu*, the applicant had been dismissed from his job at a private company after disciplinary proceedings in which his instant messaging communications sent from a workplace computer were read by the employer to corroborate that he had used the company's property for personal purposes. The applicant brought a case claiming that his dismissal was unlawful given that his employer had violated his right to privacy by illegally monitoring his private communications. Whilst both the domestic courts and the lower Chamber of the European Court of Human Rights (ECtHR) found in favour of the employer, the final appeal to the Grand Chamber of the ECtHR found in the applicants favour on the basis¹ that the employers' actions amounted to a breach of his

¹ <https://globalfreedomofexpression.columbia.edu/cases/case-barbulescu-v-romania/>

right to respect for private life and correspondence under Article 8 of the European Convention of Human Rights (“Article 8”).

The *Lee* case is outside of European jurisdiction but may nonetheless be informative regarding the use of biometrics. In *Lee*, the claimant had refused to consent to the use of biometric data through fingerprint scanning for attendance monitoring at his workplace and was dismissed when the new system was introduced. The employee had noted his concerns around the use of the scanners and the data, and the lack of a guarantee that the data would be securely stored and not shared with third parties. Ultimately it was decided that the employers’ lack of a privacy collection notice and a privacy policy was unlawful. The Australian Fair Work Commission held that it was not “*reasonably necessary*” for the employer to have introduced the biometric scanners.

Consent obtained from employees and legitimate interest are sometimes used as justifications for the collection of data concerning employees. Legitimate interests must be proportionate and balanced against the rights of the employee and the issue of consent comes with the caveat that employees may never be truly in a position to give consent freely (Eurofound, 2021; European Commission 2017). In a 2020 case, the Dutch Data Protection Authority (Autoriteit Persoonsgegevens, the “Dutch DPA”) imposed a €750,000 fine on a company for unlawful processing of employees’ fingerprints for attendance taking and time registration purposes. The Dutch DPA ruled that employee consent could not be considered valid given the relationship of subordination between employer and employee and it was held that the necessity of data processing for authentication or security purposes can only be relied upon when buildings and information systems must be secured in such a way that this cannot be done without the use of biometric data (i.e., biometrics can only be used if there are no less invasive measures available). In this case, the Dutch DPA considered that even though the activities of the company must remain confidential, the use of biometrics for security purposes was not justified.

In Ireland, data protection legislation indicates that personal data regarding employees should only be collected by employers for specified, explicit, and legitimate purposes and not further processed in a manner that is incompatible with those purposes (Data Protection Commission, 2023).

We have already alluded to the GDPR legislation that exists in Ireland, but Irish workers could also be said to have a constitutional protection to a private life and have protection in this regard under the European Convention of Human Rights Act 2003, specifically under Article 8 relating to a ‘private life’. In addition to these rights some have called for specific regulatory measures to be introduced regarding workplace surveillance (FSU, 2023; European Parliament, 2022). The overarching message at a European level is for a negotiated approach between employers and worker representatives to ensuring AI solutions in the workplace are transparent and fair. A European Commission High-Level Expert Group (2019) established four basic principles that AI implementation should adhere to:

- Respect for human autonomy: a human-centric design that fosters humans' cognitive, social and cultural skills and should not manipulate, deceive or take away autonomy from them.
- Prevention of harm – AI systems should not bring physical, psychosocial harm or harm to nature.
- Fairness – AI systems should provide equal opportunities and not remove the freedom of choice.
- Explicability – AI systems should be transparent and provide as much information as possible on the logic behind their results for evaluation purposes.

Employment status of platform/gig workers and the law

For many years the issue of 'zero hours work' has exercised those in the sphere of labour law and has been the focus of cases and disputes (Adams et al., 2016; Deakin, 2020; Adams and Deakin, 2014; O'Sullivan et al., 2015). In more recent years the potential/actual legal impact of platform work from a labour law point of view has emerged as a particular area of concern. A core issue has been employment status which is contentious because it has implications for access by a worker to a raft of protections in areas such as redundancy, unfair dismissal, and paid leave. It is also of concern to the Revenue Commissioners for purposes of tax revenue. It has been the focus of a number of high-profile cases internationally including *Aslam vs Uber* case in the UK and *Postmates* case in the USA. A key issue distinguishing platform work from other forms of contingent intermittent work is the tripartite nature of the relationship whereby working allocation is ostensibly controlled by an algorithm rather than an employer. This can raise questions as to who controls the work done by the platform worker which in turn can affect questions of employment status. Cases concerning the determination of employment status involve the application of a complex series of tests examining areas such as control, mutuality of obligation, substitution rendering this a contentious area of labour law (Davidov, 2014). Whilst cases such as *Aslam* are of interest to Ireland, there is one key difference between both countries from an employment law point of view: the UK has an intermediate status category of 'worker' which Ireland does not. The litigants in *Uber* were deemed to fall into the worker category. The recent Irish case of *Karshan* would indicate that, given the more binary employment status divide in Ireland, the bar for workers (or indeed the Revenue Commissioners) may be higher and more difficult to surmount. One area that may likely raise more questions is the area of control. Whilst platform workers are for the most part legally defined as 'self-employed', research has shown that they can be subject to high levels of surveillance and data gathering and algorithmic management. Workers on online web-based platforms can be required to submit screenshots or enable software that monitors keyboard strokes per minute and takes random screenshots of the worker (ILO, 2021). As the platform economy grows it might be expected that more cases/disputes around the issue of employment status will occur.

The AI Act

The EU aims to have a legal framework which supports the development and use of AI while ensuring citizens' rights are protected (Proposal for an Artificial Intelligence Act, recital 5). Amongst the drivers for an EU Artificial Intelligence Act (AI Act) have been concerns about the risks of AI for citizens' fundamental rights and authorities' lack of legal powers to monitor AI use (European Commission, 2021). The aim of the proposed AI Act is to introduce regulation to manage the potential risks associated with AI. Examples of this in practice means introducing new restrictions on uses of technology associated with risk to citizens e.g. curtailing the uses of facial recognition software. The regulation will require the providers of AI systems to disclose more information about the operation of their programmes to fully understand potential risks and biases. The law will assign applications of AI to risk categories. Prohibited AI practices include the use of emotion recognition in the workplace but an exemption to this is where such a system is used for safety or medical reasons (Proposal for an Artificial Intelligence Act, recital 3). High-risk AI systems are those used in:

“employment, workers management and access to self-employment, notably for the recruitment and selection of persons, for making decisions affecting terms of the work related relationship promotion and termination of work-related contractual relationships for allocating tasks based on individual behaviour, personal traits or characteristics and for monitoring or evaluation of persons in work-related contractual relationships..” (Proposal for an Artificial Intelligence Act, recital 36).

AI systems are considered high-risk in these contexts because they can potentially lead to discriminatory outcomes impacting workers' careers, livelihoods, and rights (Proposal for an Artificial Intelligence Act, recital 36). High-risk AI systems are not prohibited but will be subject to specific rules including the need for a risk management system, transparency obligations, and deployers (person or body using an AI system under its authority) of such systems will need to ensure those with human oversight of the systems are competent and trained.

It is anticipated that the EU AI Act will be primarily enforced through national competent market surveillance authorities in each Member State (European Commission, 2023). Additionally, a European AI Office – a new body within the EU Commission – will take up various administrative, standard setting and enforcement tasks, including with respect to the new rules on ‘general purpose’ AI models². The European AI Board, comprised of member states' representatives, will be kept as a coordination platform and an advisory forum with civil society stakeholders will provide expert advice to the Board.

² A general purpose model “displays significant generality and is capable to competently perform a wide range of distinct tasks regardless of the way the model is placed on the market and that can be integrated into a variety of downstream systems or applications” (Proposal for an Artificial Intelligence Act, Art. 44(b)).

Conclusion

Several technology related aspects are likely to impact the workforce and contribute to employment relations challenges in the Irish labour market over the short, medium, and longer term. A much-discussed aspect of technological change is the emergence and adoption of more powerful AI and generative AI systems. The pace and scale of adoption is likely to pose concerns for worker representatives and employers alike in relation to changing skills demands. For workers, additional concerns arise from the capacity of AI systems to undertake routine and higher-level knowledge-based tasks which may considerably change the design of many existing jobs and occupations. Related to this is the potential for increased use of workforce management tools where a greater share of management tasks is replaced through AI and algorithmic decision-making, including selection, reward and retention decisions. In the short term, in the context of a strong labour market, the impact of changes may take time to become visible in workforce trends. In the longer term, some job displacement will occur, and what is unknown is the effect of this overall on employment, earnings, and skill levels.

The uptake of remote work since the COVID-19 crisis and the impact of technology on work will continue to contribute to employment relations issues in organisations, particularly regarding organisation decisions on levels of remote and hybrid working. In the longer term, organisations need to consider how they will use technology to meet the demands of the workforce with regard to flexible and remote working, particularly in light of enhanced regulations from the EU around providing workers with greater work life balance.

Related to this is the potential for increased monitoring of workers either on-site or remotely through increasingly sophisticated technologies. From an organisational perspective, having policies around the introduction and use of monitoring and surveillance may become more important.

2.4 Climate change

Introduction

This section focuses on the key implications of climate change for work and employment. Following a note on definitions, it reviews climate change markers in Ireland. It shows the extent to which firms in Ireland are developing climate plans and reviews the limited evidence on the consequences of remote work for emissions. The section then examines research on how climate change is expected to impact job quantity and quality and outlines the meaning and development of Just Transition principles. Lastly, the section considers how climate change is emerging in employment relations and employment regulation internationally.

Definitions

Table 7: Climate Change Terms

Climate change	“The long-term changes in the Earth’s climate that are warming the atmosphere, ocean and land. Climate change is affecting the balance of ecosystems that support life and biodiversity, and impacting health” (UNDP, 2023). The UN Framework Convention on Climate Change (UN, 1992) which Ireland has ratified, includes in its definition that climate change is attributable “directly or indirectly to human activity... which is in addition to natural climate variability observed over comparable time periods”.
Global warming	“An increase in the Earth’s average surface temperature that occurs when the concentration of greenhouse gases in the atmosphere increases. These gases absorb more solar radiation and trap more heat, thus causing the planet to get hotter” (UNDP, 2023).
Brown tasks	Tasks that inhibit “environmental protection, furthering unsustainable solutions, or performing activities that themselves have a large negative impact on the environment” (Bohnenberger, 2022: 4).
Green tasks	Tasks that improve, restore, protect the environment, or are concerned with enabling this (Bohnenberger, 2022).

Climate change and trends in Ireland

Levels of greenhouse gas emissions are comparatively high in Ireland. Compared to 26 other EU countries, Ireland ranked fifth worst in its total emissions in 2020 and second worst in per capita terms (CSO, 2022). Total emissions fell by almost 2 per cent between 2021 and 2022 but rose by 9.2 per cent from 1990-2022, and unless significant measures are taken, they are expected to rise given the projected future increases in population (EPA, 2023). The energy, transport and agriculture sectors accounted for almost three quarters of total emissions in 2022, with agriculture being the largest contributor (EPA, 2023).

Ireland is not a country that immediately comes to mind when thinking of extreme heat in terms of its weather. However, in line with global trends, Ireland's weather temperatures are increasing (by 0.8°C since 1900) (EPA, 2022). All parts of Ireland experienced increased temperatures and rainfall between the periods 1961-1990 and 1991-2020 (Met Éireann, 2023) with the wettest decade on record between 2006–2015 (Cámaro García et al., 2020). Yet, Ireland is also experiencing “the largest trend for increasing summer meteorological drought in Europe” with almost 1.8 million Irish people living “in areas of water stress – where the demand for water is not being met” (The Water Forum, 2020: 1). Average temperatures are expected to rise by between 1- 1.6 degrees Celsius by the middle of the century (EPA, n.d.). A global warming of 1.5 degrees in Ireland could lead to an increase in annual average temperature of .75 degrees, a decrease in rainfall in summers by more than 1 per cent but a rise in winter rainfall by over 11 per cent and these figures would be exacerbated with higher levels of global warming (Met Éireann, 2023).

Ireland has the highest share of land cultivated for agriculture amongst 28 EU countries (at 72%), and agriculture is predicted to be less negatively impacted by climate change than other EU regions especially Mediterranean countries (EEA, 2019). Ireland though is projected to have more regional droughts and more frequent flooding in some areas (Desmond et al., 2017). The Irish Climate Action Plan 2023 has identified the potential impacts of climate change, with a particular focus on extreme precipitation and heatwave events. The impacts identified include damage to transport, electricity and water infrastructure, and the spread of wildfires and invasive species (Government of Ireland, 2022).

Climate Change Preparation and Firm Size

Kren and Lawless (2023) examined Irish organisations' attitudes to the twin transitions of climate change and the digital transition from the 2020/21 Annual Business Survey of Economic Impact. Some key findings were:

- 21 per cent of firms had a business climate action plan.
- More digital-ready firms were significantly more likely to have climate action plan, measure CO₂ and have on-site renewables.
- There was a statistically significant link between having a climate and a digital plan.
- There was a strong relationship between firm size and measures of digitalisation and of climate action planning. A much greater proportion of large firms had a climate action plan and measured CO₂ emissions compared to small and micro firms. Smaller firms and Irish owned firms were more likely to indicate that climate action is important but not have a plan in place.

A study on Irish industry from 2008-2016 found that green investments did not have a significant effect on the performance of small firms, local firms, and firms in industries with high and medium technology intensity while such investment had a significant positive impact

on the performance outcomes of firms which were larger, foreign-owned, more productive, and in low-tech industries (Siedschlag and Yan, 2022). The ILO (2022: 1) has noted that micro and small and medium-sized enterprises face significant barriers to greening their business including “access to finance, limited technical skills (including digital, technological, and management), and insufficient information on how to leverage market opportunities”.

Remote Working and Carbon Emissions

International evidence on the links between remote working and climate change are not clear cut. Given transports’ contribution to carbon emissions, some studies have found that remote working significantly reduces commuting emissions (Sutton-Parker, 2021). This link is qualified by other studies which have found that transport usage, and therefore emissions output, can depend on factors such as the location of workers and the workplace, and on workers’ employment status (Akgüç et al., 2023). In addition, higher skilled and higher paid occupations are generally overrepresented in remote work, and while they have the capacity to afford mitigation measures such as energy efficient homes, their consumption patterns may lead to greater emissions (Akgüç et al., 2023). In addition, remote working is associated with increases in technological use. Even before the growth in remote working and technology use because of COVID-19, digital technology accounted for 4 per cent of global emissions in 2019 with the energy consumption for technologies expected to increase by 9 per cent per year (Efoui-Hess, 2019).

Climate change and job quantity

An important factor influencing how the labour market will fare is the extent to which countries take mitigating and adapting measures, and these may have varied effects. If no adaptation measures are taken, a 2014 study predicted that over 400,000 jobs would be lost in the EU by 2050, but with adaptation, 500,000 to 1 million additional jobs could be created (TripleE Consulting, 2014). At a global level, it is estimated that environmental policy measures will contribute net employment gains of 0.5–2 per cent (UN, 2016). Adaptation measures include policies that “seek to avoid job losses by changing the element in production affected by climate change (i.e. changing crops); and policies that create jobs by preparing the country for climate change, engaging in labour-intensive projects (i.e. large infrastructure projects)” (Rosemberg, 2010: 132).

Climate change can lead to job creation, job substitution, job elimination and job transformation (UN, 2016) but job shifts within and across sectors may not be realised if there are skills and labour shortages and a lack of awareness about job opportunities (Rosemberg, 2010). If mitigation measures are taken to reduce or prevent GHCs, it is likely that workers in the most polluting sectors will have a higher risk of displacement and the extent of this in specific countries will depend on the sectoral distribution of the workforce. In the EU, a small number of sectors employ a quarter of the workforce but are responsible for 90 per cent of emissions - electricity production, transport, manufacturing, agriculture and mining (European

Commission, 2019). Older workers in these sectors may face challenges re-entering the labour market, as education levels can be low and there may be few alternatives in rural areas (OECD, 2012). Construction, retail, and other services sectors employ more than 75 per cent of the EU workforce and produce less than 12 per cent of all CO₂ emissions (European Commission, 2019).

Much of the focus on employment growth has been on green jobs. The OECD (2012: 13) had cautioned assessments of the labour market impacts of green growth because of the lack of historical experience and debate over whether green jobs would lead to new jobs or redefined jobs (TripleE Consulting, 2014). The UN (2016) noted that green jobs were not an immediate policy response to counter job elimination as they can take longer to create than ‘conventional’ jobs. Green jobs can be of three types:

- “Green Increased Demand jobs are existing jobs that are expected to be in high demand due to greening, but do not require significant changes in tasks, skills, or knowledge.
- Green Enhanced Skills jobs are existing jobs that require significant changes in tasks, skills, and knowledge as a result of greening e.g. electric vehicle electricians.
- Green New and Emerging jobs are unique jobs created to meet the new needs of the green economy e.g. fuel cell engineers” (Bowen and Hancké, 2019: 20).

The think tank TASC (2023: 129) has recommended that the definition of a green job should be reconceptualised to include “decent work in all areas where labour contributes to caring for others and/or the environment”.

There is a gender dimension to discussions on climate change and jobs. The ILO (2022) notes that globally, climate change exacerbates pre-existing gender inequalities in work and there is a concern that adaptation measures may benefit men more than women as they are likely to focus areas such as construction where male employment is higher (TripleE Consulting, 2014). Recent evidence suggests there is a gender gap in green jobs. A study of the EU15 (inc. the UK) found green jobs were less likely to be held by females (Valero et al., 2021) while a study of 36 European countries found brown jobs had a better gender balance than green jobs (European Commission, 2021).

While some jobs are expected to be lost, and others gained, climate change has, and will, impact labour productivity. An estimated average 3.5 days were lost in 2016 in developed countries³ due to heat-related work productivity loss (Shuang et al., 2018) while daily average outdoor labour productivity could decline by 3.4 per cent in the EU under a high global warming scenario, with the UK and Ireland impacted to a lesser extent than other European regions (European Commission, 2018). The European Commission notes that the detrimental impact on labour productivity would be lessened in a lower emissions scenario.

De Bruin et al. (2019) has made projections on the sectoral and geographical implications for labour demand in Ireland arising from an increase in carbon taxes and removal of fossil fuels in electricity production. It has estimated that mining and transportation sectors will be the

³ These were the UK, Germany, Spain, USA, Canada, Australia.

most negatively affected in terms of labour demand while government-based sectors like education, public administration and health services are likely to be the most positively affected. These findings in turn will have regional implications so that those regions with more government-based jobs will see more positive outcomes such as in the West while regions more negatively affected will likely be Dublin and Westmeath.

The Expert Group on Future Skills Needs (EGFSN) has made projections on expected labour demand for skills in renewable energy, electric vehicles, and domestic retrofit as part of the drive towards a zero-carbon economy. It has estimated there will be significant labour demand for occupations in offshore wind, onshore wind, and grid-scale solar industries, and those in home energy retrofitting (EGFSN, 2021). In the area of car maintenance and repairs, it expects an average annual re-skilling requirement of just under 300 mechanics but overall labour demand for vehicle mechanics is expected to fall by 2030 as fewer mechanics are needed to repair electric vehicles than cars with internal combustion engines (EGFSN, 2021).

An issue which has received some considerable debate is whether climate change will lead to significant migration flows across countries and relatedly, how labour markets will be impacted. Keire Murphy (2023) of the ESRI has cautioned against assertions that climate events will lead to large increases in migration because “past predictions of mass climate-induced migration have not been borne out...”. She argues that predictions often do not consider the evidence that climate-related migration tends to be a domestic phenomenon rather than a cross-national one, and the projections may not consider government mitigation and adaptation measures (Murphy, 2023).

Climate change and job quality

There are potential implications of climate change for job quality, some of which are predictable and known, but many unknown. One immediate implication is many indoor workplaces could be poorly equipped to deal with increased heat in the workplace, resulting in health and safety hazards (Neildell, 2021). Workplaces with potentially greater risk of people working in increased heat temperatures include the likes of processing factories, production line facilities, and/or enterprises with heat generating machinery and high workforce population density. Other implications relate to lower productivity from workers in sectors such as agriculture, landscaping, and construction (Neildell, 2021). The addition of air-conditioning to mitigate high temperatures is not a straightforward solution as air-conditioning units add to greenhouse gases (Underwood, 2021).

Adverse weather can impact on the ability of employees to attend work. When an employee cannot attend work because of weather, they are not legally entitled to be paid. In Ireland, the WRC advise the need for companies to take a longer-term view, recognising such extreme adverse weather is beyond the employee’s control and yet can impact their welfare. Options might include allowing annual leave, providing discretionary days to mitigate loss of earnings. In other situations, for example where employer premises suffer flood damage, workers may be ‘laid off’ without pay (WRC, n.d.).

It is well known that climate change poses substantial risks to human health. Much research is related to the effects on the population at large, with some analysis concerning broad job transitions from polluting to less-polluting industries, with fewer studies devoted to the implications on specific aspects of jobs quality. Industrial relations job quality implications arise from workplace accidents as well as increased risk from disease due to climate change effects. Hooste and Van den Broek (2023) outline a schema developed by Schulte et al. (2016) to reflect how climate change can impact job quality. Seven categories of climate-related occupational hazards are summarised from related research in the Table below.

Table 8: Identified climate-related occupational hazards on job quality

Hazard	Risks (and further risk information)
Increased ambient temperatures	The immediate risks include ‘heat stress’ which can lead to stroke, heat exhaustion, rash (among others). It may be due to climate change as well as a person’s physical fitness, dehydration, or other personal health conditions.
Air pollution	Risks include health related effects from poor air quality. There is cyclical relationship: various pollutants lead to global warming and global warming intensifies air pollutants. Risks greater for outdoor workers in areas of rising temperatures.
Increased ultraviolet radiation	UVR risks to individuals: skin, eyes, human organs, especially for outdoor workers (Wittlich, 2022).
Extreme weather	People can be restricted from attending work e.g. may be no access or transport due to flooding. Those working outdoors are exposed to greater adverse weather risks including emergency service / response workers (Lusa et al., 2022).
Vector-borne diseases/expanded habitats	Some vector-borne diseases are climate sensitive because warmer conditions e.g. fungal spores, pollens, moulds. Outdoor workers are primarily at risk e.g. in construction, landscaping, forestry, farming.
Hazards from industry / job transitions (e.g. hazard from solar and wind energy production)	In new ‘green’ industries (or ‘circular / recycling’ economy) there can be traditional workplace risks (e.g. slips, accidents), but also unforeseen or as yet unknown risks from new technologies, chemicals or hazards in recycling maintenance. Personal anxiety and stress from possible job loss in traditional sectors and job transitioning is also a risk (European Agency for Health and Safety at Work, n.d.).
Hazards in the built environment	There are changes to buildings from climate change impacts. Workers in construction and landscaping at risk from new work design and materials. Also, more energy-efficient demands mean buildings are sealed and indoor workers at risk from less natural air (Hengel and Druspteen, 2022).
Mental health and wellbeing issues (e.g. stress,	Risk to individual mental health, wellbeing, anxiety from worry about climate change and adverse weather. Also, lower levels of performance

anxiety, substance abuse)	and lower productivity from lost days due to health-related absence (and potential substance abuse) (Hassard et al., 2020).
Economic burden of work-related disease	Climate effects that result in accidents can have wider social and economic cost on society, including increases in work and non-work related diseases and disabilities, defined by WHO metrics. Gender difference exists with more men employed in higher risked occupations of disease compared to women (Priha, 2022).

Additional (and overlapping) job quality implications from climate change issues include affects to the physical environment, working time changes, and effects on employee wellbeing. For example, Brooks and Greenberg (2023) conclude that the psychological impact on workers from climate events can heighten job tensions and lead to higher staff turnover, and stress about extreme weather may prohibit people from making essential work-related decisions. They conclude that “climate-induced mental ill-health could have negative impacts on the workplace if employees are not appropriately supported” (Brooks and Greenberg, 2023: 34).

Eurofound (2023: 16) has envisaged that the groups whose working conditions are most likely to be impacted by climate change are workers:

- “In specific sectors like agriculture, tourism, transport, construction, energy
- Affected by sectoral/occupational and task shifts
- In hot indoor environments; jobs requiring the use of personal protective equipment
- In occupations dealing with the environmental and societal effects of climate change such as in health services”.

Evidence on the quality of green jobs is growing internationally. The OECD (2012: 14) stated it was unclear whether a transition to a green economy would lead to a rise in skill demand and it expected that green growth policies would initially involve falling real wages. More recently, evidence on the renewable energy sector in Australia suggested job quality was low and there were concerns that the reliance on casual employment, outsourcing, and a lack of collective agreements may have a negative impact on investment in training and skills availability (ILO, 2022). A study of the EU15 (incl. the UK) found that green job workers tended to have higher skills and employees were more likely to be on permanent contracts (Valero et al., 2021). A study by the European Commission (2021: 54) found that the quality of green jobs did not differ systematically from those of brown jobs. The European Commission (2021: 44) found that in relation to working conditions (health and safety, work intensity, work autonomy and collective interest representation), only a small number of countries had green jobs with better working conditions than brown jobs and it concluded “...that institutionalisation matters. The formal and informal regulation of work through law, social partners and labour administration appears as a key background condition to understand different outcomes”.

Just Transition

A ‘Just Transition’ refers to “the notion that the transition process to a greener economy has to be inclusive of all stakeholders, and that the unavoidable employment and social costs of the transition have to be shared by all” (ILO, 2010: 122) while NESC (2020: 57) has defined it as “one which seeks to ensure transition is fair, equitable, and inclusive in terms of processes and outcomes”. The ILO (2018: 2) has emphasised that the outcome of a just transition should be decent work for all with the eradication of poverty while the process should be about “meaningful social dialogue” to ensure that “nobody is left behind”. Rosemberg (2010) argues that a Just Transition framework should incorporate policies on (i) sound investments in low-emission and labour-intensive technologies and sectors (ii) research and early assessment of social and employment impacts of alternative emission reduction scenarios on production systems (iii) social dialogue (iv) skills development (v) social protection and (vi) economic diversification plans. In a similar line of thought, a report proposing a roadmap for a just transition in Canada proposed the introduction of just transition legislation, a Just Transition Commission, a just transition benefit for affected workers, an economic diversification corporation, and a just transition training fund (Mertins-Kirkwood and Duncalfe, 2021).

The ‘just transition’ concept formed part of the 2015 Paris Agreement (UN, 2015) and the Irish Government has developed a Just Transition Framework as part of Climate Action Plan (CAP) 2021. Ireland’s Climate Action and Low Carbon Development (Amendment) Act 2021 (section 6) commits the Government to have regard to the requirement for a “just transition to a climate neutral economy which endeavours, in so far as is practicable, to maximise employment opportunities, and support persons and communities that may be negatively affected by the transition”. The CAP Just Transition Framework consists of four principles which emphasise the need for evidence-based research, the need that people have the right skills for employment, that the costs of the transition are shared, and that social dialogue must take place. The 2021 and 2023 Climate Action Plans committed to the establishment of a Just Transition Commission with the function of making recommendations to Government on how policy can further the Just Transition. In 2023, a Taskforce on Just Transition was established for an initial six-month period to progress the creation of the Commission.

Introducing climate regulations and achieving a Just Transition can be challenging. Rosemberg (2010: 136) argues that climate regulations will not be the only or even the most important factor affecting employment in sectors and that policy makers should be cognisant that communities may “fear that climate policies might add a burden to an already difficult situation” where they have experienced hardships arising from other developments such as automation, outsourcing and restructuring. In a study examining the transition to zero emissions on groups who experience structural disadvantage in County Clare, challenges to achieving a Just Transition in relation to work included poor public transport, a tourism model which contributed to housing problems and low paid precarious work, insufficient numbers of employers to host apprenticeship and challenges for marginalised groups to access apprenticeships (TASC, 2023).

Despite the centrality of Just Transition principles to laws and policies internationally, there is “little understanding of whether or how ‘just transition’ is being implemented in employment relations” (Goods, 2017: 673). Importantly, how employment relations institutions have functioned is against a backdrop of a fossil fuel economy and how they adapt to greener transitions is generally underdeveloped (Flanagan and Goods, 2022).

Climate Change and Workplace Relations

Union-Employer Engagement

Unions and employers can engage with each other on environmental issues through ‘green’ or ‘environmental clauses’ in collective agreements, referred to as climate bargaining (Goods, 2017). In Australia, environmental clauses were inserted in 2,500 in workplace agreements certified by the Australian Fair Work Commission (FWC) in the period 2011-2016 but many were vague and there was “limited evidence of concern for climate change specifically” (Markey, 2019: 94). A study of collective agreements in the UK, Canada, and Australia between 2006 and 2014 identified three types of ‘green clauses’:

- “The joint commitment by the parties to improving workplaces’ environmental impacts;
- Consultation via the establishment of an environmental committee or green representative rights;
- The implementation of specific workplace environmental actions” (Goods, 2017: 674-675).

Unions and employers can also engage with each other on environmental issues through workplace projects. Examples include:

- The British Trade Unions Congress’ (TUC) ‘greenworkplace’ projects were funded by government bodies and involved TUC and affiliated union members collaborating with organisations to achieve an environmental initiative in a workplace (Goods, 2017). The benefits, the TUC (2021) argued, were financial savings for organisations and the protection of jobs.
- In Australia, unions, employer organisations, universities and government collaborated on a green jobs project in a region with heavy reliance on coal and steel employment (Markey, 2019).
- The remit of works councils in EU countries has expanded to include environmental matters (Markey, 2019).

The Regulation of Work

There is a concern in research internationally that employment law has not kept pace with climate change issues. There has, it is argued, been inadequate attention on how labour law might contribute to climate change policy and on how climate change adaptation/mitigation policies might affect the regulation of work (Doorey, 2017; Zbyszewska, 2018). There are

though some examples of statutory regulations in other countries which relate to work and climate/environmental issues.

- Several EU Directives are relevant to climate change and protecting the health and safety of workers including Occupational Safety and Health Framework Directive 89/391/EEC and the Workplace Directive 89/654/EEC (European Agency for Safety and Health at Work, 2023).
- Several European countries have set maximum temperature limits for workers, sometimes in targeted ways such as at those working indoors/outdoors (Latvia, Montenegro) or those working with different levels of workload (Belgium, Hungary, Spain) (ETUC, 2022). In addition, the ETUC (2022) has called on the European Commission to introduce a directive with maximum working temperatures.
- In France, a law introduced in 2021 (Law on Climate Loi n° 2021-1104, 22 August 2021) provides that employers in companies with more than 50 employees must seek the opinion of the works council on environmental matters on any questions which relate to the “*management and economic and financial evolution of the business, the organisation of work, professional training and production methods*” (Rohsler, 2022). They must also provide information to the works council on environmental issues relating to the company's activity in three compulsory rounds of annual consultations and on an ad-hoc basis (Devernay et al., 2021).
- In Italy, since 2021, organisations with more than 100 employees and in regions with a population of over 50,000 inhabitants are required to have an annual ‘Home-work commute plan’ prepared and monitored by an in-house Mobility Manager. The purpose of the plan is to encourage non-car transportation and reduce transport journeys through smart working (DeLuca & Partners, 2021).

In Ireland, there are some examples of work regulation related to environmental issues.

- The Protected Disclosures Act 2014-2022 provides protections for workers from penalisation in their work who make a disclosure of relevant information where they believe/it comes to their attention that there has been wrongdoing and this includes where the environment has been, is being or is likely to be, damaged (section 5).
- The Safety, Health and Welfare at Work Act 2005-2014 and associated Regulations provide that every employer shall ensure, so far as is reasonably practicable, the safety, health, and welfare at work of his or her employees.
- The former Registered Employment Agreements (REAs) in construction under the Joint Industrial Council system provided that where a worker kept himself available for work throughout the normal working hours of each working day of the week, but was prevented by reason of inclement weather from working, then he was entitled to a payment in respect of time lost (Labour Court, 2011). The REAs provided that the employer had the right to make decisions on when work would be carried out, interrupted, and resumed, and whether some or all workers would work (Labour Court, 2011).

Some commentators have speculated on how climate change issues may arise in workplace disputes. James Davies (2021) from the global law firm Lewis Silkin notes that employers may face personal injury claims from staff who have suffered from a negligent failure to protect them from health and safety hazards, such as workplace temperatures. Workers' claims could include loss of earnings due to effects of adverse weather, exposure to heat stress, mental health problems and poor wellbeing. Davies also notes the relevance of equality legislation in disputes where the issue of employees' climate change beliefs arises such as the British Employment Appeal Tribunal (EAT) case, *Grainger v Nicholson* (2010).

Disputes

A review of global economic literature on the links between climate change and societal conflict generally (not specific to workplace conflict) concluded that "large variations in climate can have large impacts on the incidence of conflict and violence across a variety of contexts" but climatic conditions alone do not cause conflict (Burke et al., 2015: 610). Instead, "changes in climate can alter the conditions under which certain social interactions occur and thus have the potential to change the likelihood that conflict results" (Burke et al., 2015: 579). Changes in the climate especially related to temperatures and rainfall were associated with increases in intergroup conflict and interpersonal violence (Burke et al., 2014). Intergroup conflicts were those between collections of individuals and included organized political violence and riots while interpersonal conflicts between individuals included crime and non-criminal occurrences (Burke et al., 2014).

More specific to the workplace, job losses arising from climate change impacts and policies is likely to be a "source of potential industrial conflict" (Goods, 2017: 671). The ILO has advised that adaptation policies "need to take into account the labour-intensity of the output product that is being substituted, in order to avoid conflicts between workers' short-term income needs and mid- to long-term policies" (Rosemberg, 2010: 133).

A recent European Commission report identified a policy challenge in transitioning workers to a green economy. In its study of green and brown jobs in Europe, the Commission noted its surprise at the finding that workers generally perceived they had low levels of job and career security. The fact that workers may worry about their jobs in the context of two significant economic crises since 2008 may have implications for the green transition:

"... many European workers think of themselves as being in a precarious professional situation. These employees are not very likely to embrace the social changes associated with the green transition, which could make an already insecure situation even more so" (European Commission, 2021: 55).

The Commission advocated for policies which include social assessments that can evaluate the impact of greening on society and employment.

Conclusion

While Ireland has a temperate climate, it is not immune to the negative impacts of climate change and is expected to experience further rises in temperature and rainfall leading to more flooding and droughts. The international evidence is that with appropriate public policies on mitigation and adaptation, there will be net growth in employment. Some sectors will be impacted more than others not just because of mitigation measures but because climate change will impact individuals' ability to travel, their income, their health, and consumption habits. Irish research indicates that changes in job numbers due to mitigation measures will have spatial impacts depending on the sectoral distribution of jobs. Green jobs will grow but they bring challenges in terms of female underrepresentation and there is mixed evidence internationally on the quality of the jobs (terms and conditions) in comparison to brown jobs. Nationally and internationally, there has been very limited research undertaken on the workplace relations aspects of climate change. Climate change is beginning to drive new workplace regulation such as in relation to information and consultation in some countries and there are some examples of unions and employer organisation collaborating on workplace environmental projects. Just Transition principles have been included in national and international climate action plans but there is limited evidence yet on their operationalisation at workplace level.

Section 3: Interview Findings

3.1 Inflation

The Importance of Inflation

In interviews, inflation and recruitment and retention issues were strongly linked and these were identified as the priority issues for workers and employers. For union members, “*money money money is the issue*” (ICTU). One trade union carried out a survey among its members in Spring of 2023 with the cost of living reported as the key issue among the 20,000 respondents. Inflation was viewed as an immediate measurable issue with people experiencing real income cuts and businesses experiencing decreasing competitiveness compared to other issues such as technological change. For employers, the increased cost of living has fuelled wage expectations and inflation “*has had a pretty significant effect on employers in terms of cost competitiveness*” (Ibec) which is expected to continue. Much of the commentary by interviewees centred on how employers are responding to wage demands and recruitment and retention difficulties, which are explored in more detail in section 3.2.

Sources of inflation

Some interviewees discussed the sources of inflation. Trade union interviewees noted the role of profits in causing inflation and pointed to Central Bank research that suggested that “*profits make up 80% of domestically sourced inflation*”. The National Competitiveness and Productivity Council (NCPC) pointed to inflation being “*primarily imported*” largely driven by energy costs but it expects that the mechanisms underlying inflation may change in the medium term. A large proportion of homeowners with fixed rate mortgages had not to date been impacted by the ECB’s interest rate increases but the NCPC expected that a significant number of households will have fixed rates expiring over the next year and, in trying to reset their rate, or move on to a standard variable rate,

“...one would imagine their disposable income impacted quite negatively and that's going to feed through to their expectations around future wage demands.”

Inflation and wage bargaining

From unions’ perspective, it has been somewhat easier in recent times to negotiate pay increases with employers because of inflation and labour shortages. Interviewees noted that employers have responded to wage demands through extra payments and increased base pay, by compensating on social wage issues, such as offering money for childcare, by offering employees the opportunity to work an additional day from home or to have extra holidays instead of wage increases, or through “tailored” approaches in benefits packages such as lunch vouchers. A trade union interviewee noted that some organisations were trying to help workers

deal with the increased cost of living and vouchers were acknowledged as a useful means to help offset costs for workers without organisations embedding these costs into their payroll.

As companies realised that inflation was not going to be a short-term phenomenon, they began securing two/three-year pay deals with workers. Interviewees noted their experience of employers paying workers more in counter offers to retain them, but this has the potential for creating workplace relations issues because companies could be hiring people with less experience than existing employees, negatively impacting salary structures (Ibec). In terms of types of workers, the pay of general operative staff has probably risen 3.5-4 per cent but pay has increased significantly for people in specific skilled roles and in sectors with labour shortages such as transport and logistics (Ibec). Since the pandemic, workers have left jobs in the ‘experience economy’ (hospitality, retail, travel, food, drink, tourism, entertainment, events) or night shifts in manufacturing and “*inflation [has] added to the pressure on a lot of experience economy*” (Ibec). Inflation poses numerous difficulties in terms of increased costs, particularly for SMEs where labour costs can account for two thirds of cost of sales. It was recognised that this can create a vicious circle in terms of feeding into inflation and price increases.

“We’ve been grappling with doing pay rises of 2- 3% ... and we feed those price increases back in into the customer base ... we put our hands up ... we’re actually part of the inflation problem” (ISME).

Smaller charitable organisations such as Gay Community News are striving to pay the living wage ahead of statutory increases, but inflationary pressures have made this challenging. Its representative noted a crisis in the journalism and media sector arising from inflation, recruitment and retention problems (and technology), and this will lead in the short to medium term to a reduction in local newspapers, and some newspapers are considering cutting their print editions.

Employers have been confronted with cost of living rises and housing shortages when recruiting, leading them to provide support to new international workers to find accommodation and engaging with property management companies. Rising accommodation costs are fuelling wage demands and this is very problematic for small employers:

“If [an] employee is looking for a small employer to pay the average cost of rent on Daft which is now, I think €1600, then that’s small employers going I’m really sorry I can’t give you that money” (ISME).

The Disability Federation of Ireland noted that persons with disabilities have higher costs of living, and that being in employment does not necessarily negate this since individuals will sometimes incur additional costs to participate in employment due to inadequate infrastructure:

“I know, some people who actually spend money they earn to get taxis to go to work. So the value of their discretionary disposable income is being reduced significantly because of going to work”.

“Make it an even playing field between the person who's disabled and the person who's not in that they're not having to use their disposable income or income from work to buy things that relate to their disability”.

While increases in the national minimum wage were welcomed by the Migrant Rights Centre of Ireland (MRCI), it argued that this can lead to changes in work practices:

“The permit will say you have to earn a minimum of €23,000, let's say per year. It might go up now because the minimum wage is going to go up [in 2024] and the employer will still have to comply with that. But in order to get around that, they just make them work more hours.....but what ends up happening and we see it happening, they're running the conveyor belts faster, they are trying to get more out of the same amount of staff, OK”.

Forecasts

Employer bodies expect inflationary pressures will continue at least in the medium term given the government plan to increase the national minimum wage to a ‘living wage’ of 60 per cent median wages. Ibec commented that many employers benchmark their entry rate to the national minimum wage and they may not be aware of the extent of the increases that will occur to reach 60 per cent of median wages. If the median wage is around €15 per hour in 2026, that's €30,000 equivalent full-time salary so *“that's your 18 year old, 19 year old coming out of school into their first job on €30,000”* (Ibec). Currently, this is the salary paid to entry level supervisors in manufacturing or graduates so the rise in the national minimum wage and the knock-on relativity implications will, Ibec expects, have a significant impact on manufacturing and small services firms. Some businesses with warehoused debt coming out of COVID-19 will struggle with meeting the national minimum wage and pension auto enrolment, and may close, but Ibec does not expect to see significant rates of unemployment and half of employers in their recent survey indicated that they will be recruiting again in 2024. NERI expects a challenging business environment in 2024 as higher mortgage costs arising from increased ECB rates reduce domestic demand and make investment costs more expensive.

Addressing inflation and wage bargaining in the future

Trade unions pointed to several mechanisms that could help address cost of living issues. First, they noted the type of deals negotiated in Germany between unions and employers, supported by the government, including tax free lump sum payments and they viewed such deals as worthy of exploration in the Irish context. Second, they highlighted the potential role of modernised Joint Labour Committees (JLCs) to address cost of living issues for workers though they believed that legalism was a challenge for JLCs, both in the form of potential future legal cases against the system and the increasing role of legal rather than economic expertise influencing JLC negotiations. Unions argued for the need for greater financial transparency and financial information to assist with JLC negotiations.

Another means to addressing the big issues of recruitment retention, climate change, digitalisation, and cost of living, according to one trade union, is to push for policies to encourage 'good' companies. The 'good' company concept means treating workers well, investing in decarbonisation, negotiating the use of AI with workers and the view was that these companies should enjoy certain benefits such as public procurement contracts and special grant aid.

3.2 Recruitment and Retention Challenges

Introduction

The issues concerning those interviewed in relation to recruitment and retention broadly relate to macro level trends impacting the labour market which can create difficulties for recruiting and retaining key staff and consequently impact workplace relations. Such issues include inflation, skills shortages, and national social goods such as lack of affordable housing and childcare. The impact of technology both on jobs/skills and how people work also has an impact on recruitment and retention across sectors. Interviewees had some positive examples of organisations and stakeholders dealing with issues, for example, upskilling employees. At a general level, however, it was suggested that there is a need for more coordinated approach among stakeholders to address the key themes impacting the labour market such as workforce skills and technology and appropriate frameworks to facilitate and support such a coordinated approach.

Macro trends

Several interviewees emphasised that while Ireland's current rate of almost full employment is positive for individuals and society as whole, it does create a very tight labour market within which organisations are competing for employees. A union respondent acknowledged that there are challenges around recruitment and retention but said that the job vacancy rate does not point to any major concerns about recruiting staff. Job vacancy statistics though only provide a macro perspective and certain challenges make exist within a particular region, sector, or company size.

There has been a focus on challenges within the hospitality sector in recruiting workers though a union interviewee noted that this sector has a long history of high turnover rates and so:

“[The hospitality sector] should have years of experience of dealing with this, being able to deal with it and a lot of them do” (SIPTU).

While recruitment is difficult for some businesses, an interviewee believed there had been a lot of “hysteria” with a propensity to focus on worst case scenarios and they suggested that a better approach would be to focus on good or best practice in terms of recruitment and retention. SIPTU argued that Ireland's tight labour market is likely to change given the cyclical nature of labour markets as they fluctuate between labour shortage and over supply.

“There's a whole body of political economy literature that says capitalism will not suffer full employment....for too long” (SIPTU).

Recruitment activity is expected to remain strong in the medium term. As noted in section 3.1, almost half of employers who responded to Ibec's 2023 Pay and HR Trends survey indicated their plans to recruit in 2024. Ibec noted that it does receive queries from members about redundancy and rationalisation, but these have not been of an order to cause significant concern and employers are generally positive about employment activity.

Skills shortages

Addressing skills shortages in the labour market and the need for continuous upskilling was a common theme mentioned in interviews. Interviewees suggested there are skills gaps across multiple sectors and that many skills are now transversal (i.e. not unique to a particular job or role and can be used in a wide variety of work settings). Transversal skills can allow employers to access a wider potential talent pool but also makes employee retention more difficult.

It was also noted that there is a need to help certain workers to upskill and develop transversal skills so that they can transition to other sectors, for example, workers whose current jobs are at risk of automation. Interviewees suggested that skills gaps exist across all sectors and all types of roles. Sectors such as construction can find it difficult to recruit certain roles such as plumbers because they are not sector-specific and work across other employments such as data centres. At a macro level, it was suggested that there is a need to speed up the scale of upskilling everyone in the labour market with technology skills and there is a need for agencies and stakeholders to work together to provide insight into what the specific skills gaps are and share insights not just with MNCs but with smaller organisations.

“Entry level and mid-level digitalizing digital skills are the ones that are most critical and in demand” (Skillnet).

“Digital marketing came out as one of the highest ones in our study on the green technology sector” (Skillnet).

However, one respondent noted a worrying trend in terms of skills development was a fall in spending on training and development.

“...between 2020 and 2021, investment in training has fallen by nearly two thirds” (SIPTU).

Upskilling can provide accessibility to the labour market for more diverse groups of workers including, for example, the long-term unemployed. The costs associated with upskilling should not be prohibitively expensive for workers. Interviewees shared the view that organisations who invest in upskilling and development of their employees can reap the benefits in terms of organisational benefits - employee retention, innovation, and higher productivity.

Another key area noted by interviewees was the need for new management skills in terms of operating in new work contexts, including managing remote teams and regulations for new types of work arrangements.

“We have seen a rise in the amount of programmes that are being delivered in terms of developing leaders in how to manage remote teams” (Skillnet).

“The necessity to ensure that they have equipped managers with the right skills to successfully manage a diverse workforce, whether that be you know, age, ethnicity ... and it can be challenging” (Skillnet).

Digital communication and interpersonal skills are also critically important for managers and workers. Interviewees noted that onboarding new employees and managing probation in a

hybrid work environment can be challenging. Social interaction or lack of personal social interaction in the workplace can pose challenges for organisations as well as potentially leading to workplace relations issues.

“Over-reliance on electronic communication ... can lead to very strained interpersonal relationships in the workplace - People will say things to each other ... that they would never say if there were standing beside them at the coffee machine at the office” (ISME).

Managers need to develop knowledge in dealing with emerging issues at workplace level, particularly in terms of regulatory issues.

“Sick leave, domestic violence leave ... a lot of new regulatory interventions, you know, coming on the scene that you haven't had to deal with before that will take time for employers to get used to dealing with” (ISME).

To deal with labour shortages, Ibec expects employers *“will continue to do what they're doing now, which is reduce either service or staffing”*. New technology may allow for a reduction in staffing but in the ‘experience economy’, service is being reduced. For example, Ibec stated that restaurants and cafes are cutting their opening hours and hotels might reduce their months in operation leading to some job losses and this could impact Ireland’s attractiveness as a tourist location. Gay Community News is considering using technology to a greater degree as a way of addressing recruitment challenges and managing with fewer employees. In some sectors, there have been multiple responses to skills shortages. In construction, roles have been added to the critical employment list for work permits, there have been recruitment campaigns domestically and internationally, there has been increased focus on apprenticeships and there are opportunities arising from using modern methods of construction (see section 3.3). A concern was raised in some interviews that difficulties in recruitment were contributing to increased workload amongst remaining staff, causing stress and burnout.

Recruitment and Retention Strategies

Many of the issues impacting recruitment similarly impact retention e.g. transversal skills, and the ability to offer workers sufficient rewards in such a competitive labour market. There is greater acknowledgement within organisations of the need to focus both on the attraction and retention of workers. What may have been in the past separate functions, recruitment and retention now are more strategically linked.

“[The] two functions [talent acquisition and learning and development]...are coming more close together, so from a talent management perspective, I think there's a more holistic view” (Employment and Recruitment Federation).

Outside of direct wages, benefits such as pension and upskilling / career development opportunities can help aid retention. However private sector organisations as well as SMEs can find it difficult to compete with MNCs and the public sector on these issues.

“One of the big challenges that was identified was that some of the companies now ... would have amazing talent development and skills development units and plans and but some didn't” (Skillnet).

Several recruitment and retention strategies were identified in interviews. One area where employers can offer benefits to both potential and existing employees is to offer flexibility. This is particularly the case for SME employers who find it difficult to compete with the large MNCs on wages. One example is remote working/hybrid working models with many employees unwilling to join an organisation if such work arrangements are not present. However, for remote working to be successful there needs to be high levels of trust between workers and management. A second strategy was companies, particularly small technology firms, offering a four-day working week, and an interviewee cited an example of a company where applications for a position increased from 10 to 100 after a four-day work week was offered. In relation to retention, a union interviewee reflected on the importance of respect in the workplace citing a recent Fáilte Ireland report which found that a lack of respect was one of the key reasons for workers leaving their employment.

“There is no doubt when workers feel they are being respected...They are more likely to remain loyal to that company” (SIPTU).

However, the respondent did note that a key challenge in promoting respect is the difficulty of measuring such a construct.

“...unfortunately [respect is] not a tangible thing. We can measure wages. You can't measure respect, but damn it's an intangible that permeates businesses and sectors” (SIPTU).

Social goods and the impact on recruitment and retention

Interviewees referenced the impact of (insufficient) social goods on organisations' ability to attract and retain employees. In particular, the housing crisis, childcare costs and cost of living increases have put pressure on employers. These issues also constrain organisations' ability to attract / place international workers as well as Ireland's ability to continue to attract FDI.

“The social wage has to do a lot more 'heavy lifting' in times of inflation. So the social wage can deliver on, for example, affordable childcare” (ISME).

“...now the organisations that are coming here and we tell them a great story and they really like us... here's the bad news... there's nowhere for your staff to live... And if they do find themselves lucky enough to find a room, it's going to cost them through the nose” (Employment and Recruitment Federation).

Interviewees also noted the interaction between the social wage and organisations' ability to attract workers. For example, it was suggested that there could be more efforts to help those in long term unemployment back into workforce through supports for upskilling. The current

accommodation crisis in Ireland poses significant challenges for employers in terms of recruiting and retaining employees.

“...there are clearly massive recruitment problems and challenges particularly...get[ting] people to work in Dublin” (Fórsa).

Interviewees noted a lack of available accommodation and pressure on employers in supporting employees with the costs of accommodation. Small and medium organisations are particularly affected.

“They’re [landlords] not interested in the middle [of the country geographically] and the middle is where all our employers are” (ISME).

Given changes in demographics and the impact on accommodation requirements, interviewees suggested a need to address the type of housing provided such as less three bed semi-Ds and more apartments. For small charitable organisations like Gay Community News, it is very difficult to recruit people when it has limited funds, and it was concerned about accommodation costs especially in Dublin. A lack of adequate housing was viewed by interviewees not just as a workplace issue but also as an issue causing tension in the greater Dublin area and in fuelling far right sentiment.

ICTU took a broad view of the social wage so that it includes childcare, housing, school books, public transport and GP visits. They stated that government discounts such as the public transport subsidy for workers were very beneficial for workers, though probably more so for those in cities. Employer organisations were also concerned about the social wage. ISME called for greater state intervention in childcare, medical card access, GP and dental services to alleviate recruitment and retention difficulties. Unions and employer organisations, however, had some different perspectives on the social wage. Unions believed that employers wanted recognition in wage negotiations if they are contributing to health insurance and childcare costs, whereas unions want “European-style” remuneration packages where an employer is paying wages, pension, and sick pay (ICTU). Ibec was concerned that the social wage was not necessarily state-provided but has led to “... a huge amount of cost being levied on [employers]”, such as statutory sick pay, pension auto enrolment, and various types of statutory leave:

“There has to be an understanding of where all of that social payment comes from in terms of then moderating [wage] expectations and being able then to remain competitive while still actually have a really high performing economy”.

For NERI, a strong social wage particularly income related unemployment benefits can “reduce the trauma of losing a job”, facilitate creative destruction in the economy, which is in theory better for productivity and innovation and, in the longer term, enabling better skills matching in the labour market.

International Recruitment

In interviews, a skills shortage and labour shortage were generally distinguished by the length of training required to do a job. If a short intervention of employee training would address an employers' need, but an employer cannot find workers, it is referred to as a labour shortage whereas if an employers' need would require someone to undertake a length period of training, then it is classified as a skills shortage. Interviewees noted that employment permits are designed to address skills needs but they are being increasingly used for labour shortages such as for HGV drivers, healthcare assistants, and horticulture workers. From the perspective of the Department of Enterprise, Trade and Employment, the long-term government strategy is that the training and education system should produce enough people to fill labour shortages and that permits would be used to fill higher level skills gaps. It was recognised in interviews that many international workers have untapped potential and could fill skills gaps in higher level roles but can require support with developing local knowledge or language skills. Furthermore, issues like the housing crisis and cost of living also are creating challenges in attracting workers into Ireland. It is more difficult to attract international workers not just because of accommodation problems but also because there is work available to them in other countries, for example, in construction.

Numerous interviewees cited the importance of the Work Permit Scheme in attracting workers. Whilst acknowledging some recent changes to better streamline the process, there are still challenges in obtaining work permits.

"I know from some sectors that [there are] issues and challenges with getting job permits" (Skillnet).

"[The work permit scheme] significantly improved by simplification, modernization of the work permit and work authorization process" (Employment and Recruitment Federation).

International developments have changed the demographic of inward migration to Ireland. Improvements in other economies such as Poland and have seen workers return 'home' and so inward migration is now coming from different countries.

"A change in inward migration because other economies have 'taken off' – it's coming from the Balkans, not the Baltics - Slovaks, Slovenians, Croats, Bulgarians and Romanians" (ISME).

The CIPD identified increasing the available pool of talent to address recruitment issues include changes to work permit rules:

"There is a cohort of people here looking for asylum and in the asylum seeking process and there's something like 50,000 of them who could be given permission to work if the permits were got out" (CIPD).

The MRCI referred to an increasing phenomenon of workers from outside the EU paying very significant amounts of money to obtain a work permit in Ireland. It argued that typically, this

relates to those seeking a general work permit to come and work in sectors like meat processing, restaurants, and nursing homes. The sums of money being paid are significant ranging from €5,000-€40,000 and, given the employee wage levels, can take a significant period to repay. While in most instances the money is paid overseas, increasingly there are accounts of the money being paid in Ireland.

“Recruitment happens in many different ways, and what we're coming across, its growing, is how much people, you know primarily non-EU, we're talking about here are paying huge sums of money towards their recruitment and you might say, well, that's not legal, right. It's supposed to be the employer who takes the recruitment cost”.

“Around 2017/ 2018 general permits started to be granted again and we're now coming across it and now it's big business so we're that's an issue that we're coming across now.....It doesn't happen in all employment permit cases obviously and it's probably not even a majority but I would say it's a significant amount where you have people spending on average probably €5000-6000 towards their recruitment from outside of Ireland and that's a problem”.

The MRCI noted that trying to recoup the fees paid on behalf of workers is difficult as the legislation and enforceability is not clear given the nature of the transactions.

“So it's very hard to enforce that because we're asking the authorities here to try to enforce something that was paid in another jurisdiction. When it's paid here, we can go after people like we have, we've gone after employers and in most cases got them to pay the money back otherwise threatening reporting them to the WRC for violations of the Employment Permit Act”.

The MRCI also noted that many workers are in a situation where their families are unable to join them in Ireland due to the income thresholds required under the permit schemes to do so. It was noted that again this is a problem that tends to be experienced by general employment permit holders while critical skills visa holders are more readily allowed to have their family in Ireland. This is something which is also contributing to retention issues as people make the decision to leave where they cannot see a realistic possibility of family repatriation.

“They thought they could bring their family and they can't and they're just like, look, I'll do this for five years until I get my stamp for, you know, to get my residency. Or do I just leave and a lot of people just end up leaving. So you do see turnover of people kind of like cutting their losses” (MRCI).

Finally, the MRCI also referred to the level of power that employers hold over migrant workers due to the design of the permit system where changing employer, even within the same sector, is very difficult.

ICTU argued that the employment of migrant workers in Ireland raised fundamental questions such as the following:

- what is the cost to individual migrant workers who cannot bring their families with them because their wages in Ireland are insufficient?
- what is Ireland's contribution to problems in other parts of the world by causing a brain drain there?
- is Ireland facilitating 'bad jobs' through a reliance on migrant workers?

Ibec does not project a significant increase in inward labour migration and expects *"the labour force we have now is probably what the labour force is going to look like for the next 8 to 10 years"*. This is because the issues like housing and childcare availability makes Ireland a less attractive worker destination and this has affected workers at all income levels. For workers in lower paying jobs, *"their income is really chasing almost non-existent housing in local communities"* while there is also no accommodation easily available for an executive and their family to work in a multinational (Ibec). Both ISME and Ibec noted the trend of employers providing accommodation which might solve an immediate problem for them but could have other consequences in terms of employers trying to manage the everyday problems associated with renting houses.

Concurrently, interviewees cited the 'brain drain' of Irish workers from the economy in some sectors like health. Fórsa called for a need to attract Irish nationals who had left to return but the macro level issues cited earlier such as inflation and the accommodation crisis are barriers and are difficult for individual stakeholders to resolve.

"If you look at young graduates that are weighing up...the viability of getting on the housing ladder in Ireland...they're realizing actually [I can have] a brilliant career in London or I could have a great career in another European city or in Australia or New Zealand...and actually have a quality of life and be able to get on the property ladder" (Employment and Recruitment Federation).

Workforce Characteristics

While hybrid working was triggered by the COVID-19 pandemic, interviewees referred to longer-term trends in the nature of the workforce as drivers for the demand for flexible working arrangements. These trends include higher female participation, a greater desire amongst fathers to be more active in parenting, young professionals with children that want to remain in work and an older generation who have caring responsibilities and want to maintain employment. An ageing workforce, ICTU argued, will require changes to the workplace including in attitudes, for example, the view that people working longer were preventing career progression for younger employees. Overall,

"...work life balance does mean bringing the awkward bits of your life into work, whether that's menopause, whether that's ageing parents, whether that's ageing parents and children. The workforce has got more complex. And our employment relations have to be, you know, more flexible and more adaptable to that I think" (ICTU).

For ICTU, not all types of flexible working are suitable for all types of companies but there should be an attitude towards solution building and the forthcoming code of practice on the right to request remote work and legislation can help change mindsets.

Concern was expressed in interviews about the lower levels of employment of certain cohorts particularly persons with disabilities (discussed below), and men over the age of 50 with low levels of formal education who have not returned to the labour market since the pandemic. The NCPC commented that there could be many reasons for the lower employment of men over 50 - health reasons, or people reassessing their life goals - but research in other countries suggests the possibility that this may be *“the first sign of automation and digital shift in the labour market”* and this raises questions about this cohort that requires investigation:

“Is this telling us that what's happening then is when those men seek to return to the labour market, the type of jobs that would have been there in the past and would have been comfortable in doing our starting to become less plentiful or whatever the correct phrase for that might be, and that we don't really pick up with?”

From the Department of Enterprise, Trade and Employment perspective, there has significant policy focus, through the work of the Labour Market Advisory Council and the Department of Social Protection, on moving groups from the live register to employment. There have been state interventions such as JobsPlus with financial incentives to employers to hire people from more traditionally disadvantaged groups such as the traveller community and persons with disabilities, and more generally, the tax and welfare system is designed to make work pay and ensure that people do not experience traps (Department of Enterprise, Trade and Employment).

Persons with a Disability

Workforce participation can be important for persons with a disability not only in terms of income but in terms of engagement and belongingness in the community:

“Employment is a great barometer of people's involvement in their community, in society, and there's status going with this, there's opportunities going with it” (Disability Federation of Ireland (DFI)).

People with disabilities though can be reluctant to disclose their disability because they fear discrimination (National Disability Authority (NDA)) though some employers became aware for the first time that an employee had a disability or condition during the pandemic because the individual disclosed it for health reasons (DFI). While employment is one approach to improving the income of persons with a disability, there will be people who may never work, and they need to be supported also (NDA).

The DFI pointed out that the low employment rates for persons with a disability are in the context of an economy which boasts full employment and that there is still a considerable amount of progress to be made in terms of achieving a labour market that is *“oriented to including its people with disabilities”*. Public bodies have minimum statutory employment

targets rates for persons with disabilities, and these will increase from 3 per cent to 6 per cent by 2025. Employers are looking more at more diverse pools of the workforce but persons with a disability were considered an untapped resource. Ibec commented that *“more remote and flexible working is sort of opening people's eyes to the fact that there are other ways of looking at how you get the talent”*. Remote work might facilitate someone with a physical or medical disability where commuting may be a challenge. There has been little research undertaken on the impact of remote working on access to employment for people with disabilities, but an interviewee speculated that remote work could facilitate at least some groups with a disability given evidence that remote work is associated with presenteeism, that is, people working while sick, and with older groups.

Several areas were identified by the NDA as important to increasing the employment of persons with disabilities. The first is early engagement so that young people leaving school receive education and training or supports to go into employment. Solas and other educational institutions are providing more accessible courses. The second is about having appropriate state supports to help someone who has acquired a disability to return to employment because *“they are left on their own to figure out how to go back to work”* (NDA). There is a need for a vocational rehabilitation scheme to support people through the pathway back to work. There is a Reasonable Accommodation Fund operated by the Department of Social Protection. This fund was recently reviewed, and the NDA's submission focused on the need to make the Fund more accessible to employers and to provide supports in line with technological developments, for example, the reader grant could be replaced by a grant for screen reader technology. The NDA would like to see the *“technology goes with you”* principle so that software is issued to an individual not an employer, and this would lead to a more seamless process when a person moves jobs and would place them in a better position to have freedom to move jobs. Another state support is a Wage Subsidy Scheme so that an employer is not disadvantaged by a person's restricted productivity due to a disability. Employers might view this as necessary to support employment for persons with a disability, but some disabled people are unhappy because it means the individual must declare they have a certain percentage reduced capacity *“rather than a focus on my abilities of what I can do”* (NDA). A third area is employer engagement. There have been *“pockets of good practice”* such as Employers for Change which is part of the Open Doors Initiative but an OECD report in 2021 on Disability, Work and Inclusion in Ireland indicated that more work needs to be done on employer engagement (NDA). The NDA's view is that employers can be fearful of employing people with disabilities; they fear saying or doing the wrong thing and many employers are unaware of government supports for accommodating people with disabilities. Ibec too observed that employers can be nervous about dealing with disability issues correctly according to equality legislation so education and engagement on all sides is required.

While providing reasonable accommodations and tailoring a role to suit a person with disability is important, focusing on issues beyond the workplace and *“getting to the front door”* is equally critical (DFI), such as having public services and transport that are disability friendly to facilitate labour market participation. Similarly, the NDA referred to the social model of disability which focuses on how society and the environment adapts/is adapted to people with disabilities.

Once a person with disabilities gets a job interview, they many need supports and for “*some people, you know, the traditional interview process is not working*” (NDA) and this applies in particular, though not limited to, persons with a neurodiversity related issue such as autism. Organisations may have policies on reasonable accommodations, and it is important they are in accessible formats e.g. plain English and easy to read, and clearly outline the process people with disabilities/disabled people should engage to access employer supports. Organisations should have a universal design approach, so that workplace communication, products, services are accessible to everybody regardless of age, size, ability or disability, and technologies should meet the Web Content Accessibility Guidelines 2.2 (NDA).

Social Dialogue

There was recognition across interviewees that a coordinated approach from stakeholders is necessary when addressing big themes like recruitment and retention challenges. For example, social dialogue would create a framework to address issues of concern for all parties. NESC referred to their research on the role of social dialogue in supporting good jobs and cited Scotland’s Fair Work Convention and Wales Fair Work Commission in this regard. Whilst some structures currently exist – for example the Labour and Employer Economic Forum (LEEF) – one respondent felt that this was not enough and there was a need for social dialogue between Government, employers, and trade unions. It was suggested that there was a reticence on behalf of the Government to create or be involved in such a structure. While small employers who are members of the Small Firms Association (SFA) are represented on LEEF as part of Ibec, ISME was critical of the “*exclusion*” from LEEF of the small employers which it represents.

While SIPTU argued that sectoral level collective bargaining was “*the best way to stabilize issues of recruitment and retention*”, their view is that many employers are not interested in sectoral collective bargaining because they want to solve issues individually, there being a lack of trust in sectoral collective bargaining, a lack of confidence in employers’ ability to engage in sectoral collective bargaining and possibly a diminution of their power status. ICTU view the EU Directive on Adequate Minimum Wages as an opportunity into improve wage setting mechanisms and enhance collective bargaining. ISME observed that “*small employers in Ireland don't have the bandwidth or the train to engage in enterprise and collective bargaining*”.

Disputes

While a Fórsa interviewee believed that disputes that are partly driven by recruitment and retention issues were likely to become more prominent, Ibec were of the view that “*employers and unions have been pretty proactive*” in managing disputes about pay with some “*frank conversations*” especially in small businesses on the impact of employee wage expectations on the business and this has moderated demands somewhat. There may be some workplace relations challenges in the future arising from current practices, for example, employers having to make counter offers to employees to retain them and over harmonising pay rates between

“people who were hired in this market versus people who got hired in the market five years ago and probably on a different base salary, so that that does become problematic” (Ibec).

An interviewee from the Employment Bar Association noted the labour market has impacted the way in which disputes are potentially brought forward or handled, noting that employees may opt to leave an organisation rather than pursue a case or claim as they are confident of getting another comparable role in the short to medium term. Labour market dynamics therefore have the capacity to alter the number of cases coming before adjudicators. As employees and employers are aware of the importance of mitigating financial loss, a labour market conducive to finding alternative employment with relative ease may therefore deter cases from being brought forward by employees.

3.3 Technology

Introduction

A broad range of issues concerning the future impact of technology on work and workplace relations emerged in interviews. At the outset, the speed of changes in technology means it is difficult to foresee how technology will translate in the world of work – some emerging technologies become embedded and commonplace while others decline in use or relevance. While issues such as artificial intelligence (AI) and data obtained through monitoring employees were mentioned by the organisations interviewed, these issues tended to be seen as concerns for the future, while issues relating to the remote and hybrid working and changing skill requirements because of digitalisation (not necessarily AI) were viewed as more immediate concerns already creating tensions in some workplaces. The themes to emerge in relation to technology were the following: balancing organisational and employee expectations around remote and hybrid working environments, the need for upskilling and reskilling, increased monitoring of employees and the use of monitoring data, and the impact of AI on tasks, skills, and human interaction at work.

Of note is that many respondents signalled a view that technology is not in or of itself neutral or deterministic. There are choices over the uses and applications of technology and digitalisation that require human decision-making. ICTU, for example, argued: *“humans need to be ultimately in control. You can't have an algorithm hiring and firing ... regulate and promote the potential positives and mitigate the negative parts”*.

It was noted in interviews that Ireland is in a relatively unique position, as most of the global leaders in technology development and generative AI are based here and Ireland has the potential to be to the forefront in informing, designing, and implementing policy on the deployment and use of AI.

Technological change and SMEs

Large companies were considered by interviewees as more digitally aware than smaller companies. The Governments' Digital Ireland Framework has a target for 90 per cent of SMEs to be at a basic digital intensity level by 2030 but digitalisation adoption is slow, with approximately 30 per cent of SMEs digitalised. In interviews, a Department of Enterprise, Trade and Employment representative reported a considerable transformation of business and work since the pandemic. This has included a significant uptake in digital tools by small businesses, particularly in the retail sector, supported by the Trading Online Voucher Scheme. The Department noted initiatives to help small businesses in terms of digitalisation including the forthcoming launch of a digital portal which will provide a diagnostic tool to direct business to where they can get help or what kind of digital tools would be suitable for them. Ibec pointed to several challenges faced by smaller business. These include having the capacity to keep up to date on technological change, to understand their own technological needs, knowing how to invest in technology, being in competition with larger organisations for employees with technical digital skills, and accessing finance and supports to invest in technology.

Remote and Hybrid Working

In terms of trends, the practice of remote working rose dramatically during and immediately after the pandemic, and declined post-COVID, and levels continue to be much higher than pre-pandemic patterns for tele/remote/hybrid working generally. Eurofound data indicate about 1-in-5 people across Europe worked remotely before the pandemic, and the trend is about 1-in-4 currently. Interviewees noted that the longer tenure of workers in companies can help facilitate extended hybrid/remote working for office-based / middle-level / administrative occupations. There has also been an occupational change in those working remotely. Before the pandemic, remote workers were mainly professionals and managers but since the pandemic, more middle-level skilled workers such as in office administration are working remotely.

For the most part remote working continues to be viewed by interviewees as a positive in widening the talent pool and attracting employees to jobs, facilitating easier work life balance, and in addressing climate sustainability through reduced commuting. In addition, NERI pointed to opportunities remote working offered in terms of regenerating rural areas and spatial development of the economy, and for the civil service to rethink decentralisation:

“[Workers] buying from local shops in the Midlands or whatever it might be rather than buying from local shops in Dublin so, so that too is the fillip to demand and in less traditionally economically vibrant areas”.

Remote working also increases the opportunities of an all-island labour market where remote working can facilitate cross-border employment, but this can lead to some complex administrative issues. For example, if an employee lives in Northern Ireland but works remotely for an organisation in Ireland, there can be some uncertainty about which jurisdiction is the most appropriate for tax purposes. Remote working allows for a global labour market with web-based placeless companies having workers in any location and an emerging question is whether Ireland should be attracting such companies.

At a general level, interviewees believed there is, for the most part, a supportive approach amongst organisations towards hybrid and remote working, although this remains often informal. Some respondents believed there is a reluctance amongst employers to formalize this flexibility in terms of changing formal contracts, and not wanting to create an entitlement or expectation to remote working while others reported that companies they are aware of have introduced policies. At the same time, organisations can experience difficulties in sustaining a consistent approach and some managers can struggle with managing in a hybrid/remote work environment. Ibec noted managers face ongoing challenges, especially those who have operational roles to fulfil in addition to people management and managing people remotely requires more time, outreach, and ongoing performance management. Managerial challenges include getting a sense of individuals’ performances and setting KPIs, managing upskilling needs, and making sure *“that people feel properly connected, meet the right people, get the right networking opportunities”* for reasons of fairness but also for succession and career planning (Ibec).

Some areas of tension related to hybrid working were identified in interviews. There can be differences between workers and employers in their understanding of hybrid working. There was a view that some companies are reluctant to have a specific policy on remote/hybrid working because they are waiting for the forthcoming code of practice and legislation. While the jobs market is strong, there has been some tightening in the technology sector and workers are concerned that *“as soon as the tide is changing, that employer willingness to accommodate has gone”* and this increases the importance of a policy (ICTU). Ibec noted that many employers have a remote work policy and hope that the forthcoming code of practice will align with their policies. The Ibec representative had not seen significant levels of conflict arising between workers and employers because of remote work but believe this is partly because *“employers haven't pushed very hard, we do still have lots of employers who would say, you know, we're still struggling to get people to come back one or two days a week”*. Similarly, other interviewees observed that employees working under a hybrid model can be resistant coming back to the office. There can be challenges in pay bargaining when some cohorts of employees are working on-site, and some are working remotely in the same company, and the former group may feel that they are incurring the costs associated with in-person working such as commuting costs.

Respondents suggested that trust is an issue arising from remote and hybrid working. In part, the matter of trust relates to working time as, under remote working, there are incidences when extending the working day and/or the specific hours of work get blurred with private activities.

“There is a real risk of prolonging the working day, you know, working long hours ... if the worker has a big workload, of course they will put more hours and more hours, and this is what is happening” (Eurofound).

It was also suggested that managing workers in such an environment can pose challenges for workplace relations.

“I think industrial conflict is potentially now going to be talking about working from home and the right to disconnect” (ISME).

“Where there's that greater level of flexibility and autonomy of workers of when and how they work ... that impacts employer's liability ... how can they monitor these things? It still seems like there's a lot of questions in that area” (Skillnet).

It was suggested that employers' ability to deal with regulatory issues in new work contexts will only be seen when cases arise.

ICTU was concerned about a *“work life balance privilege gap opening up”* where people who work under hybrid arrangements are more likely to have flexible working compared to those who do not work remotely. While the Work Life Balance and Miscellaneous Provisions Act 2023 will give parents and carers the right to request flexible working, unions are arguing that all workers should have the right to request flexible working, not just remote working. ICTU recognised that not all jobs can be done remotely but it argued that workers who must have an in-person presence should be facilitated with flexible working arrangements such as split shifts, term time and flexi time. A key issue for ICTU is to ensure a *“level playing field for workers*

around remote working criteria". Ibec noted that the introduction of the right to request remote work and the right to request flexible work for carers and parents may lead to complications for employers in the future in terms of balancing requests with operational needs and regarding having employees on varying working arrangements on a long-term basis. Employees working in-person may feel their arrangements are not flexible enough and while employers are giving consideration to increasing flexibility such as changing shift patterns, this can be difficult where employee presence is required especially in the context of a tight labour market (Ibec). The issue of expanded rights of flexible work was also raised by an interviewee from the National Women's Council (NWC) who welcomed the right to request remote working but felt the emphasis should remain on broader aspects of rights in relation to flexible work such as expanded leave and benefits and relatedly the need for further developments in access to childcare. The representative from the NWC also felt that the push to get people back to the office reflected cultures whereby those who are present in the office would succeed to a greater degree and that this could mitigate against women and persons with disabilities.

A further argument made by ICTU was that new rights such as in relation to flexible working should not come at the cost of existing rights and it argued that employment laws "*probably need fresh eyes*" to ensure they are "*fit for purpose*" in an economy where there is extensive hybrid remote working". For example, some legislation such as the Organisation of Working Time Act 1997 is 30 years old and there are issues about rest breaks and maximum working time with remote work. Similarly, in relation to health and safety, issues such as whether workers have the correct chairs are important and ICTU states, there is a recognition about the health and safety issues of digital working. The Employment Bar Association commented that not many legal cases have yet arisen in relation to requests for remote working, but more cases will likely arise:

"The controversy I anticipate from a legal and litigation perspective isn't necessarily the question of whether they ought to have been facilitated or not been facilitated, but rather whether the process of making the determination was compliant or not compliant with the legislation. It's about the procedural right. And I think where employers might fall into difficulty is where they're not clear on the ground that they're using for the refusal"

The Employment Bar Association representative noted that the change towards more remote and flexible working is more challenging for employers with a rigid approach: "*employers who are used to saying I dictate the terms of where you work and you work from our office or you work from the workplace, that is changed. That's actually one area where I think employers can be in a difficult position if they take too rigid an approach*".

While remote working can be advantageous to a person with a disability, "*absolutely there are [advantages], but it's not that advantageous all of the time for everybody*" (DFI). Remote work can result in people losing out on the social benefits of workforce participation when they are not visiting their place of work: "*they lose the connectedness, the news, the chat.... you lose*

networks that that are actually not frivolous..... important for them to have a life outside their front door” (DFI).

Some interviewees expressed concern about the implications of remote working for young people. Remote work, along with the increased use of generative AI and task-based work, may lead to young workers missing out on learning human or soft skills. Ibec observed that there needs to be more focus on ensuring younger colleagues get sufficient learning opportunities because they may not be benefitting in-person observation and real time feedback on their work.

Working across national borders took on a new significance amid Brexit and the increased use of remote working during and after the pandemic. There is no harmonisation of social security systems across Europe, which can make working and living in different states complex for employers and employees. In Ireland, employer and legal representatives noted that employers for the most part tend to have policies restricting employees to working within Ireland to avoid complications around income tax. A new multilateral framework agreement on the application of Article 16 of Coordination Regulation EC 883/2004 in cases of habitual cross-border telework came into effect in July 2023. In brief, under this agreement, a person who carries out habitual cross-border telework will be subject to the legislation of the State in which the employer has their registered office or place of business, provided that the cross-border telework in the State of residence is less than 50 per cent of the total working time. So far 18 member states have signed this agreement though Ireland had not yet done so at the time of writing.

Finally, in relation to the Code of Practice on a Right to Disconnect, it was noted in interviews that it lacks specific reference to the use of monitoring tools and their use in home working, though it does include reference to the recording of working time. The DPC offer guidelines around working from home which focus on maintaining data privacy. While both sets of guidelines exist in tandem, there is a lack of clarity specifically relating to how technology can be deployed, and data gathered in the employee’s home.

Skills (Upskilling, reskilling, and future skills gaps)

According to the CIPD, employers are acutely aware of the importance of utilising skills. Technology is creating “*a different way of working*” where the focus of employers is more on skills and less on specific tasks relating to jobs and as a result “*we need to have a different frame which supports both the employee and the employer*” rather than the current focus on job descriptions (CIPD).

An interviewee from Eurofound also identified the increasing importance of transversal skills as routine task are automated.

“When work processes are automated it doesn’t eliminate communication- you need more between departments and then you are trying to connect all those different pockets. Small and medium companies can struggle with this”.

ICTU argued that workers need to future proof themselves and upskill when it comes to digitalisation, and they would like to see workers have a right to leave where they can avail of time off work to engage in training. Individual learning accounts are getting significant attention at the EU level and are about empowering the individual to arrange their own training and the account will record all training undertaken, but there is some uncertainty as to the source of financing for the training. Some interviewees argued that it can be challenging for people to access training during work but that there have been successful initiatives, for example, where Skillnet provide tailored training to sectors, and there will be greater availability of micro credential courses in the future. Ibec acknowledged that it can be a challenge for a medium or small sized business to block release somebody for education if no backfill is available, but its experience is that employers are investing in leadership skills, technology skills, and new skills for hybrid working like performance management. A significant concern for employers is the release of funds from the National Training Fund. Much of Ireland's state training is financed through the Fund, and it has a surplus of approximately €1.5bn, but significant resources have not been utilised because of caps on government expenditure.

NERI explained how skills and qualifications can be quite complex, with some elements of overqualification when people move in and out of roles mid-career, while in other areas such as retrofitting homes and new technologies for greener jobs in the future, there is a shortage of training and skills. The issues of skills and training around technologies can also be sector specific, for example, in construction many workers are self-employed and investment in training is expensive making it a less attractive option to build future skills.

An interviewee from the National Women's Council felt that certain unintended gender inequalities needed to be addressed with respect to reskilling and upskilling. It asserted that far more men than women are availing of labour activation schemes, and it reiterated the need for continued efforts to increase female participation in STEM-oriented education and careers, and for gender balance in apprenticeships.

Monitoring and Surveillance in the Workplace

While employee monitoring was not viewed as a pervasive issue by those representing the HR community, it was noted that the capacity to collect and analyse data at both an aggregate and individual level has greatly increased. In the main, organisations do not have strong analytics capacity with plans to bring together multiple sources of data for examination with an exception for situations of low employee performance.

The Data Protection Commission (DPC) noted that the capabilities of technology for surveillance of work have increased significantly:

“We've always had in the workplace, some form of surveillance. I'd worry that it will become more and more prevalent, and AI will probably bring it on even further”.

The DPC representative noted that this may give rise to *“a culture in certain workplaces, where surveillance is normal and to be expected.”*

“My concern would be that in light the digitisation of the workplace, hybrid working, the availability and affordability of these new technologies, it is very possible that the use of surveillance technology will become more prevalent and intrusive”.

“Also, whilst not an expert, working culture in Ireland appears to be significantly influenced by international companies who have set up here. These companies likely exhibit characteristics of their parent company in terms of culture, work practices. Do they have the same privacy and data protection concerns over the deployment of surveillance technologies?”

“Technology advances coupled with hybrid working arrangements (now seemingly here to stay) may see a push by organisations trying to justify increasing the deployment of technologies which monitors employees as they work from home.”

The DPC recognises there could be advantages to employers and employees in using such tools (i.e., improved performance, productivity, security, assisting with self-development) but also noted that its guidance is clear in terms of use - that ultimately the first consideration should be whether the level of monitoring is warranted:

“This is the key question and has to be addressed comprehensively and in consultation with employees”.

The DPC commented:

“.....anything that can assist an employee in getting the job done is great but at the same time, if that's going to override individual privacy rights where employees feel like they're being constantly monitored well, then that's not necessarily a positive outcome for either party and may actually have an undesired outcome in terms of performance, productivity, creativity etc.”

“So you may inadvertently have this race to the bottom where surveillance becomes the norm and employees do not work effectively. That's quite a worrying scenario and this risk increases as the technology becomes more common place in work and begins to impact and influence working norms.”

“Surveillance technology and its use in the workplace is likely going to increase. It's important to take a step back to go well, why do we want or need this technology? And this goes back to your question, the implications, because I think there can be too much of a focus on the specific purpose of using the technology rather than taking a more holistic assessment of the wider (and potentially negative) implications of its use.”

The negative impact of monitoring of employees on trust is an issue highlighted by research. For example, an interviewee from Eurofound observed:

“Where you utilise AI/tech just to monitor or surveil workers it can be counterproductive. It doesn't increase productivity but it does damage trust. In the end people will leave the organization. With labour shortages it's not just about 'looking after' employees but about respecting them”.

The DPC was also keen to stress the importance of consultation with employees:

“Whether you're an employee, for example, have you been consulted in terms of whether you feel this technology is appropriate, reasonable, or proportionate and there potentially is a lack of consultation around some of the implementations and deployments of this technology. Are employees aware they're being monitored and for what purpose?”

The DPC made the point that organisations should first identify a justification for monitoring technology and that this should be addressed and clear before any issues of design and deployment are considered and consulted upon.

“Is its use reasonable and proportionate and perhaps it's not? Are we clear on the issue the technology aims to address? Will the technology address the issue? We would always from a data protection point of view advocate less intrusive measures in first instance. Data protection law requires organisations that hold personal data to demonstrate compliance. In this context organisations would need to demonstrate that less intrusive measures were not appropriate to address a legitimate interest of the employer”.

The level of connection and possible work intensification through ‘always on’ cultures emerged as an ongoing issue arising from technology. Despite the introduction of the Code of Practice For Employers and Employees On The Right To Disconnect, some organisations are still finding it challenging to constrain work activity to working hours.

“And so there's there is pushback in an organisation, sometimes from HR, into leadership teams to say ‘look if we don't role model this, actually stop sending out emails on Friday at 5 o'clock’” (CIPD).

Technology and the acceptance that it is causing an intensification of work is partly a reason why some organisations are considering other alternative ways of working:

“Practices out there like the nine-day fortnight and things like that and there's a lot of interest in the four-day working week, now very few people are doing it or considering doing it, but at the same time you know it does beg a question actually could we do it?” (CIPD).

Gay Community News noted that in media, work intensification can emerge through the increasing prevalence of technology in production tasks. While technology has reduced mundane tasks so that staff are not spending as much time proofing work, employees have to spend more time than “figuring out the distribution paths to hit all the various technologies that just pop up and you know, Twitter or X could be gone tomorrow and it'll be something new in its place that we all have to learn how to use”. In this context, employees can feel that the change is happening very fast, and they can struggle to keep up. There was a view that younger employees may be more accepting and less cynical about workplace technology, and this may it has become normalised for them, or they feel too junior in the organisation to question it.

The forthcoming EU AI Act acknowledges that recruitment and work management are ‘high risk’ areas, but an interviewee felt that workers and their representatives have been left out of the equation and there is no mechanism in the Act to empower workers, for instance, to clarify that information being gathered is being used fairly.

The Employment Bar Association interviewee referred specifically to the issue of monitoring in relation to home working:

"I think it is relevant to the employment world, is the use of surveillance in a home working environment. There is a curious kind of dichotomy here because we have the right to not be surveilled generally under the Data Protection Act but at the same time, there is an obligation on an employer to monitor their employees and to observe their employees and to ensure their employees are not doing things that they ought not to be doing. And in a home working environment, it is difficult to do both of these things at the same time."

The representative pointed out that accurate recording of working time continues to pose a problem in this regard:

"I approach this personally as a lawyer from the context of the Working Time Directive ... and the Organisation of Working Time Act, because employers, almost as a rule, do not keep the records required by European standards under that Act, that is to say, employers do not keep records which detail the quantity of hours worked each day and allow the employer to ensure that employees are taking rest breaks over the course of the day. They don't keep records and it would be my legal opinion, although it might be a bit extreme that you need to keep a record of start times and end times in order to accurately do this. And very few employers do this, and this becomes particularly a problem when you then have an employee who is working from home and you're saying, well, we like to allow our employees to work flexibly. But to allow an employee to simply log in and log off at any time is in violation of their obligation to keep accurate records of their working time. But if you automatically keep those records of working time, you then are getting in the place where are you logging their keystrokes. So it's a conflict which I don't think has a clear resolution, but it's an interesting one. It's one of those situations where doing so is not only difficult for the employer and costly in terms of the technology required".

Apart from internal monitoring of employees, some interviewees expressed concern about forms of external monitoring of organisations and their staff. A Gay Community News representative stated that the organisation has been targeted on social media, so it has introduced greater physical and cyber security measures. Cyber security has also become important because of frequent hacking notifications, which Gay Community News receives approximately once every 10-14 days. In this context, disinformation online and journalist safety were identified as immediate concerns for Gay Community News while they were uncertain about how workplace technological developments will evolve.

Digitalisation in construction

The interviews pointed to two mechanisms through which digitalisation is increasingly pervasive in the construction sector. One is through building information modelling (BIM) which is a process for managing information on a construction project through all stages including design, planning, the building process, site management, and managing buildings including environmental monitoring. The Office of Government Procurement has introduced a building information modelling mandate for large public projects. Having a coherent digital framework should create efficiencies and greater accuracy and will be important for climate change as environmental considerations rely heavily on measurement. The model will be the source of information on how buildings perform and will help inform building design decisions.

The second mechanism is the growth in ‘modern methods of construction’ which essentially means industrialized construction or offsite manufacturing. According to interviewees, this has been driven by market demands for more housing, the greater availability of new technologies, and public policy initiatives under the Housing for All Government strategy. Off-site construction can help efficiencies as the same design is produced multiple times and this allows for improved quality control and reduced wastage. It does require economies of scale to realise advantages. More off-site building may mean that it becomes more like a manufacturing environment than a construction one and this might influence working conditions, for example, interviewees speculated that off-site work might be lower paid but more secure than traditional craft construction jobs and there are questions as whether people will need the same level of qualifications and skill for a manufacturing-type environment as for construction craft jobs. Interviewees expected that off-site construction may become an attractive option for people not in trades and for a broader cohort including women. The experience of modular construction in Sweden was cited as involving clean, warm factories and a high level of automation and digitalisation.

Although there is much discussion in some sectors in relation to how AI and technology can improve job quality, in many of the low pay sectors where migrant labour is common, the MRCI was sceptical that technology would be implemented to make work safer or less difficult with its representative arguing that health and safety has not improved significantly in these sectors to any great degree: *“the level of injuries, although I can't quantify it for you, is extremely high, I've been doing this for 20 years.”* In their view, technology has in some ways made the work more difficult as conveyor belts can be sped up and output expectations increased.

“It's difficult work. People are being asked to do more and more with less, jobs that used to be done by two people” (MRCI).

Artificial Intelligence

Digital Manufacturing Ireland (DMI) stated that *“AI definitely seems to be something that is a buzzword right now, and but I think it's almost like it that needs to be broken down so much into the different types of AI and actually how it's used”*. Two categories of AI were identified in interviews. The first is ‘narrow’ AI, which is the type available until 2022 and describes very advanced computer systems and these have been used extensively in so-called “future manufacturing” such as in drug discovery. The second type is generative AI such as ChatGPT.

The general view amongst interviewees was that new technologies and AI were well established in larger manufacturing and technology firms, and these had a *“training and upskilling mentality all of the time”* (Ibec). In smaller organisations, AI is *“creeping in”* and viewed as *“still really a developing area”* that is *“is coming at us rather than having arrived”* according to CIPD. Ibec noted that new technologies are a challenging issue for many firms because of investment costs, training costs, and people's willingness to continuously learn. It was concerned about the negative coverage surrounding AI and believed that it can provide *“lots of opportunity for organisations to do things better, to do things differently, to take out a lot of the routine and unfulfilling work and actually bring people up to do higher order, more interesting and more creative tasks”* (Ibec). The CIPD highlighted concerns about the risk of bias and exclusion in the use of AI in recruitment and selection processes, but Ibec argued that *“if it's well constructed, it can actually be entirely unbiased”*. Department of Enterprise, Trade and Employment representatives commented that new technologies have the potential for positive applications, such as removing *“some of the drudge work”* in people’s jobs, improving public services such as screening applications in social welfare and patents as well as healthcare and education delivery, empowering groups such as persons with a visual or hearing disability, and improving the safety of workplaces where AI tools could be used to undertake dangerous work e.g., maintenance of bridges.

Interviewees recognised the potential for job loss and job creation as with previous technological breakthroughs but it is difficult to predict the long-term outcomes of technology and AI. Some respondents suggested that AI will result in job gains and both CIPD Ireland and the Department of Enterprise, Trade and Employment cited a lack of evidence to date of job threats arising from AI use. There was speculation that generative AI could have widespread application in professional services, such as legal, insurance, marketing and accounting over the next 10 to 15 years, but there was little sense of widespread adoption yet because it is a quickly evolving technology. Previous industrial revolutions generally involved the destruction and creation of blue-collar jobs, while technological changes in the future may affect white-collar jobs to a greater degree and there was optimism in interviews that economies could generate more new value added jobs.

Organisations still have a degree of uncertainty regarding what to invest in and what to trust as there is still a lack of clarity around governance. This was a sentiment echoed by Digital Manufacturing Ireland who mentioned that many organisations are unsure on what AI investments to make.

“Anxiety around are they choosing the right technology that will actually advance them they are they choosing something today that tomorrow isn't the latest technology”.

“As I see it right now, digital technology has probably been introduced in pockets as opposed to in, you know, widespread across organisations”.

Eurofound reflected on the potential to leverage data collected on employees, but many companies do not have the capability to do this yet and there may be a concern as to what might happen when this capability is realised. Currently, AI is being used for narrow processes such as in the automation of tasks and maybe this has resulted in marginal gains but there is such powerful potential in AI to do things which humans cannot yet do.

For those companies that are investing in AI and technology, DMI referred to the sense of responsibility that brings in terms of employees:

“There's a huge ask there right now with regards to how are they upskilling their employees. How are they ensuring that they have the digital literacy needed for the future of work? So some are introducing technologies like AR [augmented reality] and VR [virtual reality] to help in the training space, but others are really starting that journey”.

One interviewee proffered an interesting view on the issue of automation and genderised work. They felt that some highly genderised sectors associated with emotional labour such as care, hospitality, and teaching run the least risk of being automated and potentially offer greater job security but jobs in some of these sectors are low paid, offer poor career paths and some might be operated on a platform basis.

Sustainability and technology were viewed as interlinked. While technology can in some ways combat climate action and enhance sustainability, organisations are also cognisant of the impact of job losses on sustainable work and employment. For instance the CIPD representative stated that *“there is more consciousness around employment and reduction, employment versus sustainability..... so when you hear organisations are strong on sustainability and then have redundancies, it's very clearly seen to be mixed messaging”.*

For organisations, planning how technology will be integrated with roles is an important issue. According to DMI *“actually looking at putting the person at the centre of that work and so almost how technology serves the employee as opposed to the other way around”* is the preferred approach.

The CIPD urged organisations to ensure that they are fully aware of how particular programmes are designed and the data they are based on: *“companies need to be taking ownership of what data the decision making is based on”.* DMI also noted that *“there's so much data and companies don't know what to do it or aren't doing anything with it right now.”*

To some extent digitalisation and technology are not new for unions – they have always dealt with issues arising from automation. Unions themselves noted they have not grappled properly with issues of digitalisation and they did not believe they are being addressed by stakeholders at a national level. Digitalisation and AI are emerging as important for union members in the

public service as research internationally has indicated that public administration jobs are likely to be affected by digitalisation. A report by Goldman Sachs has estimated that in the Euro area clerical and support workers had the highest exposure to AI automation (at 45% of employment) while craft trades had the lowest exposure at 4 per cent. A key concern for trade unions is that any changes related to automation and technology cannot work for the economy or society without the agreement of workers and they called for collective bargaining frameworks to deal with these issues.

Regulation

Several interviews argued that employment legislation is not necessarily keeping pace with technological developments:

“Existing legislation may have a place/use- there are bits that are relevant. Such as data protection and others. But in many countries labour legislation is not keeping pace with technology” (Eurofound).

“The government wants us to have more jobs and have more tech jobs.....the employment legislation isn't fit for that world...A piece of work around that whole employment legislation to make it fit for this more agile, flexible and skills based role” (CIPD).

“I think that there's an academic argument to be made that the institution of employment itself, as constituted in the 20th century, is not an institution which really makes sense in the 21st century” (Employment Bar Association).

It was noted in interviews that EU legislative processes are moving at a quicker pace than in the past and, from a policy perspective, this requires a substantial amount of work on domestic legislation and in making businesses aware of regulation. There is a significant amount of new or proposed EU regulation concerning technology including the Digital Services Act, the Digital Markets Act, the Data Act, the Data Governance Act, the AI Act, the AI Liability Act and the Platform Directive. The Department of Enterprise, Trade and Employment expect that with the new AI Act, any use of AI that *“could affect people's wellbeing or livelihood is likely to be high risk”* and will entail regulatory requirements. Employers have varying levels of awareness of the forthcoming AI Act and some, especially small employers, can feel overwhelmed by the number of new regulations including carbon requirements and employment rights legislation, and they have *“competing issues that are more urgent”* (Ibec). Ibec reported that businesses that use platform workers (which includes not only delivery drivers but also professional services such as in technical design, advertising, and website development) were concerned about the proposed Platform Directive's proposal on employment status – on the presumption of employment – and this differs from the approach of existing employment legislation.

The DPC noted that in so far as existing legislation and regulation applies to generative AI and to monitoring and surveillance tools, that organisations should be conducting appropriate assessments to ensure that they are compliant with General Data Protection Regulations.

In some instances, organisations approach the DPC voluntarily for guidance:

“There's only limited conditions [under the GDPR] where they have to consult with us, but some organisations informally consult with the DPC and we're more than happy to review what they are contemplating and give recommendations on what they need to consider.”

This can include companies that develop technology and sell it to other companies:

“They want to obviously ensure they are meeting data protection requirements because that's one of the first things that's checked by a prospective purchaser. However a company that procures this type of technology should not assume the product meets all GDPR requirements as it is a matter for it, as a data controller, to ensure they have conducted separate data protection assessments on the use of the product prior to deployment” (DPC).

Disputes

In disputes relating to technology, data protection issues remain a significant concern (Employment Bar Association). Even the most basic forms of technology, such as CCTV, continue to cause disputes where the data is used for purposes other than those intended. The Employment Bar Association cited *Data Protection Commissioner v Doolin* which centred around an employee taking unauthorised breaks. Mr Doolin complained to the DPC that his employer, while having had legitimate reason for viewing CCTV footage to investigate an incident, subsequently used that same footage for disciplinary proceedings in relation to working time. The DPC rejected the complaint as the employer had engaged in “a limited viewing of the relevant CCTV footage, without downloading or further processing of any kind”. However, later the Court of Appeal ruled that if an employee’s personal data contained in the footage is originally captured for the purposes of security, any further processing must be compatible with that original purpose for processing. For employers a lesson from the case is to ensure that employees are made aware of all purposes for which the CCTV footage may be used and that all policies in place reflect this. While this case pertained only to CCTV, a similar case could occur in relation to more sophisticated technologies.

There has been few legal disputes around AI: *“I think it's been more theoretical..... I haven't seen cases where AI has been used and that's been an issue in dispute”* (Employment Bar Association). In the future issues could arise on how employees use generative AI in the workplace and where its use is permissible: *“the concern of employees using different AI products to generate work or to make work easy, and the lack of care in divulging data”* (Employment Bar Association).

While issues of jobs being replaced by AI may or may not become issues of conflict, they are unlikely to require WRC intervention in the short to medium term. Indeed, the “battles” around technology will likely be around state policy particularly educational, lifelong training, and building “a proper social insurance system” (NERI).

On a national level, there was concern that Ireland had not yet embraced deep social dialogue and, in regard to AI and automation, the Danish Disruption Council was cited as an example in this regard. The Council, composed primarily of ministerial, employer and union representatives, was established to present proposals for how the country should address the opportunities of technological developments. Outside of employment relations, an example of positive social dialogue cited in Ireland was the Commission on Taxation and Welfare.

3.4 Climate Change

Introduction

Interviewees recognised the importance of climate change as an issue for society and workplaces. Even if jobs are in an industry not directly affected by climate change in terms of the nature of the job, climate change could impact workers' quality of life. Some acknowledged climate change to be *the* issue facing society and the planet. However, in terms of work and workplace relations, they did not see it being treated as a pressing issue owing to other day-to-day labour market challenges such as the cost-of-living, housing, labour shortages, and demands from new technology.

Several themes emerged from the research in relation to climate and employment issues, including: (i) how prepared stakeholders were around climate impacts on work, employment, and the labour market; (ii) mitigation and adaptation; (iii) barriers to adaptation for particular groups (iv) Just Transition; (v) social dialogue; and (vi) disputes and tensions related to climate change.

Preparedness for Climate Challenges

The Department of Enterprise, Trade and Employment noted that a key challenge is equipping employers and workers for change. There were mixed views amongst respondents on the level and scale of preparedness around climate change as an influence on the future of work. The Climate Change Advisory Council's work is focused on those sectors where climate change will have immediate impacts and where there are carbon targets such as in the energy sector. The NCPC consider that bigger firms, such as owned by farm shareholders or who operate as multinationals, are more proactive in preparing for a green and digital transition and are driving it internally because there is a cost benefit payoff to them by switching to renewables, and their customers and supply chain expect it. There are also new startups which have been established in an era where climate change is an important issue, and their young founders view climate change as part of their business agenda, or they are providing solutions to climate change problems. This leaves a "*very big block of firms in the middle*", including SMEs where the owner is fulfilling multiple roles and they may feel they need to prioritise immediate operational activities rather than longer-term issues such as the climate impact of their business (NCPC). For small employers, the cost of compliance and capital expenditure needed for climate mitigation such as deep retrofitting "*far exceeds post the short-term payback*" (ISME). NERI projected there will be substantial impacts in sectors that are unorganised, where workplace relations are dealt with in small establishments or among those who are self-employed: "*the big issue actually won't necessarily involve unionised workers, is probably going to involve agriculture and farmers*".

Representatives of several organisations suggested a need for better 'climate literacy' or awareness amongst workers generally and believed this would help workers to understand why their job might change or why reskilling is necessary. The CIPD, though, said employees are becoming more aware of climate change and are expecting employers to take some actions to

mitigate adverse environmental impacts, and therefore climate action is becoming an important aspect of employer branding.

Climate change issues are emerging in organisations through higher energy costs, through employers becoming focused on their environment, social and governance (ESG) performance and ensuring they have the legal capacity to deal with ESG reporting. There will be greater obligations placed on organisations to report the risks for them from climate change and the impact of their operations on the climate arising from the forthcoming *Corporate Sustainability Reporting Directive and the Corporate Due Diligence Directive*. In terms of workforce-related practices organisations are taking, measures identified were curtailing international travel, introducing remote working, and varying working hours to reduce commute times. Climate change is being used as a rationale for such changes, according to the CIPD: *“it's been used internally as a reason for flexible working or varied working hours and things like that”*. Smaller community and charity bodies, such as Gay Community News, have taken measures to reduce organisational energy costs but for them and their readership, issues other than climate change are of more immediate concern. There was a view that businesses can feel overwhelmed about what climate change might mean for them, how it affects workers or their customer base. Interviewees noted that the government and state agencies provide supports including heavily subsidised or free training, the services of local enterprise offices, and the ‘Climate Toolkit 4 Business’, which can help firms to generate a plan and advise them on making changes, but an interviewee speculated that a lack of awareness of available state supports can be mistakenly viewed as no support.

Mitigation and Adaptation

With a degree of mixed preparedness there are also differences between ‘mitigating’ the causes of climate change and ‘adapting’ to future challenges of climate on work. A Climate Change Advisory Council interviewee remarked there are difficulties in obtaining estimates of the numbers of jobs that will be gained and lost, but in its view, sectors of the economy that are going to be strongly impacted by carbon targets and the development of the green economy should be preparing to adapt now. There was a general sense of uncertainty from interviewees about the impact of carbon emissions on employment. A Eurofound respondent pointed out that *“policy variables ... are going to impact on the final employment outcomes”* and Eurofound’s recent research has forecasted marginally positive employment impacts arising from the implementation of the EU’s package of policies to reduce emissions by 55 per cent by 2030.

In the energy sector, the expectation is there may not be significant job losses in aggregate terms but there will be job transformation. The sector overall is going to transform with the ending of fossil fuels and growth in renewables and the Climate Change Advisory Council expects this will lead to demand for higher skilled jobs, many of which will require new skills. Other sectors may not be as prepared to adapt as the energy sector. For example, in transport, there will be an expected impact on jobs arising from the shift to electric vehicles, including in public transport. Respondents queried whether the country overall is ready for such changes in

transport, in terms of having the necessary range of new skills around battery technologies and preparing for job losses amongst combustion engine mechanics.

The widespread view amongst interviewees was that the demand for building-related skills will be substantial to construct wind turbines, to build renewable capacity, to build flood defences, and to retrofit buildings, but as it stands, construction employment in Ireland and the EU is below 2008 levels. It appears that a large part of craft jobs in energy and related sectors will remain, although an issue is the processes for adapting to new tasks and preparing for training for newer skills. Adaptive responses were identified: the Mount Lucas National Construction Training Centre provides courses to workers on green economy skills, Solas has adjusted content in its apprenticeships with a view to preparing people for the green economy, and Skillnet offers education to job seekers in wind energy, and the view of interviewees is that universities will need to similarly adapt programme offerings. Notwithstanding this, several respondent bodies expressed concern at the scale of future training and skills adaptation required to advance the requirements of the construction industry. For example:

“...very significant demands if we want to install air to water heat pumps in a million homes, ... we will need to be reskilling and employing a lot more construction workers ... in terms of giving them the skills to do this particular job, because many of them don't have the relevant skills” (Eurofound).

“We don't have those [construction and engineering] skills in the labour market yet and we would see that as a huge, huge, huge capacity issue at the moment in the labour market...throughout Europe there is a general undersupply of those type of skills everywhere really ... at the moment it's challenging to bring them in and even if we could bring them in from abroad, we have nowhere to house them” (NERI).

Other factors compound the impact of environmental challenges on jobs, skills, training and how the labour market can function. In construction, for instance, an issue is that many workers are self-employed and there was some concern expressed about “bogus self-employment”, which unions argue mean workers can have lower employment standards and protections compared to those on a contract of employment and there is less of a personal incentive for people to adapt new skills required to transition to greener jobs.

For NERI, “*the green jobs of the future are people who aren't even in the labour market yet*” and there are significant skills mismatches in the economy,

“So we think that is enormous scope to recalibrate the labour market or at least labour supply to achieve the kind of goals that we want to achieve over the next 20 years. We think we can actually do that, but it has implications for education policy, for tax policy and for industrial policy and we're not sure that that kind of joined up thinking is there yet”.

In agriculture there was more specific concerns, where the focus has been primarily on mitigation rather than adaptation, with a consistent view from respondents of the need for a stronger transition plan. An interviewee noted that farmers are concerned about future incomes and maintaining their lives on the land and their support is necessary for the green transition to achieve policy targets, for example growing more trees for timber-built housing. The view was

there has been little economic incentive for farmers to change land use and that policymakers will need to offer positive incentives to them for green services.

The NCPC raised the hypothetical scenario where a sector provides few jobs and little value added through wages or corporation tax but has an outsized carbon emissions footprint. If a firm in such a sector in a regional location needs state assistance, then that presents a mitigation policy problem: *“on the balance of risk, ... should we be trying to sustain some industries?”*. It may be that climate targets will take on greater policy weight than in the past in such scenarios.

In several sectors interviewees explained how the demands for newer green economy jobs impact those who are currently in lower skilled and/or lower paid jobs, especially in industries with less labour mobility. For example, there was a concern that the mostly low paid workforce in meat factories do not possess easily transferable skills and they are vulnerable if beef production declines in the future. In addition, it was felt that a greener jobs transition will negatively affect older workers more than young population.

There were positive and critical suggestions regarding opportunities for skill and regional economic transference. For example, some experts (NERI) reflected on the scope to position Ireland as a “single labour market” for some sectors and jobs given the country’s small size and the growing use of new technologies for remote working and digitalisation. Such a strategy can generate economic activity across regional areas, as people live in one part of the country, while employed for an employer based in another location. Local economies outside of the employing urbanised spaces can benefit from trade and activity. As one respondent remarked:

“Ireland is so small that it's not realistic to describe Ireland as having multiple labour markets ... the greater Dublin area is obviously dominant ... but there are no barriers to movement, outside of housing, the distances are very small. You can get anywhere on the island of Ireland within a few hours” (NERI).

Notwithstanding this, the constraints identified to such market flexibility and forward-looking benefits related to poor transport infrastructure, skills, and difficulties for accommodation and housing.

While skill adjustment and impacts vary across sector, Eurofound noted that job growth across Europe has generally occurred at the higher wage distribution quartiles over the last 10-15 years and that the skills and types of jobs required in the future to meet green transitioning will be in construction, which occupy the mid-level to lower-mid level in the wage distribution.

Adaptation and Barriers for Cohorts of Workers

The NWCI representative welcomed the growing societal concern about climate change and the emphasis on a green transition but noted a lack of consideration of the infrastructure required for some cohorts of society, such as women and persons with disabilities, to engage in work and social activities. They cited the focus on encouraging people to use more public transport but there are several barriers for certain groups. In their view, public transport does not cater effectively for equipment such as buggies and wheelchairs:

“...public transport also isn't necessarily always designed in a way that that that engages with different forms of movement”.

They cited an instance where an independent living group who were staging a play had to travel to Dublin but they experienced transport problems:

“...and they had to wait for a number of buses because they couldn't all get on one bus because there wasn't the space for; you know, two people with wheelchairs”.

The NWCI commented that women with childcare responsibilities tend not to travel directly on radial routes offered by public transport and families/women in rural communities did not have adequate public transport options if they were not on direct routes. There was a concern that a reduction in safe parking for employees to encourage them against car use might negatively impact women.

“But if you're a nurse or a doctor or you're coming off, you know, a late night shift, you know, it is a real issue..... their solution to it might be to say, 'oh well, we'll put on a whole lot of like night buses' or whatever but if you don't feel safe taking a night bus and on depending on where you're going from and to, or the basic lighting infrastructure, it's like it's you know, 100% that it's just not going to be an option”.

A Just Transition

A Just Transition was viewed by respondents generally as being concerned with income replacement for workers and about effective opportunities for workers to re-skill and/or upskill. In this regard the Nordic system was cited where supports are in place quickly for workers to reskill after job loss. At the time of interviewing, respondents noted that the Just Transition Commission had yet to be established and they considered it would be an important vehicle for:

- progressing just transition principles politically
- serving as a focal point for engagement between employers and unions
- advocating for the maintenance of skill levels particularly amongst occupations where there are labour shortages.

An interviewee argued that there needed to be strong administrative capacity in the public sector to support a Just Transition, not only in Ireland but also in other European countries. Public capacity was referred to as including state institutions and bodies in addition to employer groups and trade unions being aware and tuned in to the scale, scope and size of the resources needed for suture green transitions across the labour market.

Social Dialogue

Given the uncertainty amongst labour market actors about the outcomes of climate change on jobs and businesses, it is important that there are *“institutional arrangements that allow you to explore those uncertainties”* (NESC). Interviewees pointed to the need for dialogue between

policy makers, employers, and workers to avoid workplace conflicts, but a general view was that while dialogue exists in some areas, it is mostly fragmented and disjointed among stakeholders. The Climate Change Advisory Council has sectoral engagement with a focus on preparing for the transition to a green economy and Ibec engages with government departments on climate change issues, but there is less focus in other areas; for example, the Labour Employer Economic Forum (LEEF) does not have a special focus on climate change and its relationship to work and employment.

From Ibec's perspective, industry and jobs have always changed but organisations have a shorter lifespan now than say in the 1960s, and this means being cognisant of future developments is important and that there is a "*broader social responsibility...through social dialogue*" to ensure the next generation have skills and work. There were concerns, especially from trade unions and ICTU, in relation to the scope and extent of social dialogue. Specific concerns related to how companies engage in "good faith" bargaining and the fragmented nature of any sectoral based system for social dialogue around longer-term issues such as climate and just transitions.

Trade unions reported that they too must have a better understanding of climate change issues, including the need to have their own experts that can present a worker perspective in debates. ICTU noted that there can potentially be tensions between unions' recognition of climate change as an important issue that must be addressed and their representation role of workers in firms/sectors that could be negatively impacted by mitigation policies.

Interviewees surmised on the reasons for the lack of opportunities to discuss and prepare for the consequences of climate change on jobs and businesses. First, there was a sense that labour market actors did not feel pressured into action because they felt it was unlikely that thousands of jobs will be lost easily in certain companies/sectors as part of mitigation strategies for political reasons, that is, it would be politically unpalatable for such a scenario to arise. Second, as noted earlier, there was a view that only a limited proportion of organisations were preparing for climate change. For example, despite the policy focus on emissions from farming, an ICTU interviewee was sceptical that related businesses such as meat processing had really considered the possibility that they will be impacted by climate change mitigation measures in the future. From a slightly different perspective, Ibec noted that smaller business can perceive climate change as being "*so big and so unquantifiable*" that they can find it difficult to make predictions and know how to plan. Third, ICTU was sceptical about the potential for job creation in certain types of green businesses. For example, in relation to wind farms, there are jobs in constructing them and producing wind turbines, but there are not necessarily many jobs required for their operation.

Climate and Disputes

In terms of potential workplace conflict that might arise from climate change issues, there was significant uncertainty amongst interviewees. There was a sense that there will be closures of certain industries or parts of industry, and problems if employees do not have the skills to take up other roles within their own or other sectors.

For interviewees, there was little evidence so far of conflict arising from climate change because (i) there has not yet been much change in labour market composition or changes outside of the energy sector (ii) extreme events like flooding have been localized to date and (iii) Ireland is not projected to experience hugely catastrophic events outside of flooding. When it comes to an awareness of the need for specific actions around climate changes, some companies were viewed as being ahead of others, largely through necessity as it impacts them as a firm directly. For example, the CIPD referred to companies in transport, distribution, and food as areas that tend to be more advanced in their policies and processes around climate change actions. That said, the link between these actions and jobs and specific industrial relations conflicts and/or issues remains tangential, if realised at all:

“...what we found through our skillnet is they're not looking necessarily at the people side, but they're looking at the environmental side, financial side, on the investment side” (CIPD).

In terms of predictions, a Climate Change Advisory Council interviewee did not expect levels of disputes related to climate to be any higher than current levels, for several reasons. First, this prediction is dependent on good preparation in place for the green transition. Second, they believed Ireland has an effective industrial relations framework even in very intractable disputes. Third, and somewhat conversely to the second, it is expected that new international players will enter the Irish labour market such as in wind energy and they may have little union representation and or strong dispute resolution systems so it is possible that disputes in such organisations will not reach the WRC. In Ibec's experience, however, there is no evidence of significant levels of conflict in non-unionised firms that would suggest conflict is not reaching the WRC.

The only example cited by interviewees of climate-related job loss concerned a pet extraction company and there were mixed perspectives on the outcomes. Some viewed the experience as negative, arguing that workers were not adequately prepared for the job loss and that their skills were not easily transferable for re-employment while others reported the workers' skills were transferable and workers adapted to new employment with little necessary re-training. Some of the workers involved were of an age where they chose retirement rather than seeking further employment and this is likely to differ from future developments where younger workers will be impacted by climate change.

There was little other direct experience of job transitions or conflict due to climate issues. There was a general view that job transitions need to be planned and coordinated with relevant actors, so that people who are losing jobs have alternative employment and replacement income. For the Climate Change Advisory Council, people can become disconnected from workplaces quite quickly after losing their jobs, with potentially wider societal and social concerns in a community, so there needs to be a continuation of employment and people need to be ready for work. Workers will be concerned about earnings, how they can upskill and have more viable options in terms of income replacement. Industrial relations difficulties were not expected in sectors where companies have a history of dealing with workplace issues and conflict and were preparing for the future.

In relation to working conditions, questions were raised over whether workers will be able to transition into jobs that are on terms and conditions as good as existing firms, but these issues will take time to emerge with the transition to green-oriented jobs.

There was a view amongst some that employment contracts in the future will need to consider worker protections in a context of extreme weather events which may affect peoples' ability to attend normally in the workplace, or for outdoor workers working in rising temperatures. The Employment Bar Association noted that while conflict relating to climate change is not commonplace, the issue of health and safety for workers amid climate change is likely to increase in the future:

“Environmental conditions and work are something which or are worth considering as well, and that could be impacted by climate change and making sure that folks are being protected in that environment. You know something as simple as humidity levels within a workplace and temperature levels with the workplace, those can be increasingly difficult to manage”.

Others though, such as Ibec, reported that employers already have experience of dealing with workplace relations issues arising from weather events such as snow days or storms and that larger employers tend to have policies in place. For short-lived events, organisations might pay employees or use banked hours, but if the event has longer term consequences, employees can be laid off and may avail of social protection. Conflict can emerge in situations where employees attend work but must be sent home where, for example, the electricity is not working in the business and in such instances, organisations would ordinarily be expected to pay employees at least in the short-term. NERI did not predict workplace conflict related to climate change would *“arrive at the WRC's door anytime in the next two or three years”* and instead could emerge over the next 25 years.

There was a view that conflict at present was less about the employer-worker relationship and arguably more about workers/employers against the state and state policy. In addition, interviewees expect a strong role for the state in the future in managing the consequences of climate change on workers/employers. In Ibec's view, climate change may increase the frequency of problems from extreme events, and this means that *“much bigger state intervention [is] needed”*. Policy issues include the number of times state aid is granted to businesses to refurbish in an area that floods frequently versus an area that sees once in a decade flooding. For Ibec, it is difficult to anticipate the sort of workplace conflict that could emerge when extreme events are neither the fault of the employer nor employee and, as all parties are negatively impacted by such events, these become matters for the state and social protection. In a similar vein, NERI commented that *“to extent that the disputes will be there, it's more between the sector and society and societal goals overall, not necessarily between the employers and the workers”*.

Section 4: Conclusion

Introduction

This section has three parts. The first part synthesises the key findings from interviews. The second part poses, based on the interviews, three potential scenarios of how the four labour market developments may evolve and impact work and workplace relations in the medium-term. Kay and King (2020: 424) argue that “good strategies for a radically uncertain world acknowledge that we do not know what the future will hold” and such strategies can include identifying plausible alternative positive and negative scenarios. These are collated and summarised in three ways: an anticipated positive scenario, a neutral or ‘status quo’ scenario, and a negative scenario. No one scenario is reflective of the authors’ views but merely reflects potential pathways for the labour market and workplace relations that are primarily based on the positive, neutral, and negative views expressed by interviewees, and with some reflections from literature. None of the scenarios are static nor definitive and all can be shaped and altered by policy choices. Uncertainties remain but rather than being a barrier to actions, these uncertainties should promote consideration of possible risks and the use of appropriate management tools that are designed to deal with risk (Kay and King, 2020). The scenarios are predictive and to some extent inevitable hypothetical future-looking pathways. Yet each can be real. The final part of this section presents, based on the interviews and literature review, issues that warrant further inquiry.

Summary of Interview Findings

Of all the sections in this study, the one relating to climate impacts and labour market issues is both the most urgent for reasons of environmental protection and sustainability. Interviewees acknowledged how important the climate is for societies and economies, and that the climate crisis will impact the labour market, jobs, and employment but strategic planning and action have tended to be limited to certain types of organisations. The workplace relations implications of climate change had not been given significant attention by actors, including employers, trade unions, state policy bodies, as well as academic scholars, with limited national level dialogue. There was no one specific reason for this but there was a sense from interviewees that the impacts of climate change on jobs and work are not imminent in the short to medium-term for many sectors and that employers and workers are prioritising ‘here and now’ issues with tangible consequences such as inflation, and this is reflected in the activities of unions and employer organisations. The general view of interviewees is the impact of climate change and actions on the labour market may take 10-20 years to emerge.

In the literature section it was noted, from Flannagan and Goods (2022), that much thinking about climate and employment relations has been shaped by a ‘fossil capitalist inertia’. By that they mean the origins of labour market institutions have been created to ensure better employment quality in a fossil led economy, and as such there is little critical reflection on how employment matters around recruitment, pay and benefits, skills and training, equity and consultation and voice at work can be adapted to a new era shaped by environmental instability.

Overall, interviewees speculated that there would be significant changes to the existence and nature of jobs because of climate change and feel that more upskilling and re-skilling is necessary, particularly building-related skills. There is uncertainty over the wider workplace relations impacts of climate change, for example, there were differing views on whether climate change warrants greater consideration in employment contracts.

Evidence of any climate induced conflict was lacking given the absence of large-scale job transitions in Ireland to date. There were mixed perspectives on the future potential for workplace conflict arising from climate change and mitigation and adaptation measures, but overall, there was no sense that significant conflict will arise if there is adequate planning for job changes. There were concerns raised about the suitability of some climate change policy measures for ensuring access to employment for certain groups like women and persons with disabilities. Conflict is as likely between employers/workers and the state as between workers and employers with the state expected to play a strong role in managing the consequences of climate change including policy choices on the recipients of state supports with expected higher frequency of extreme climate events.

Inflation was viewed by interviewees as having greater priority for employers and workers than the other issues examined in this report given its immediate impacts on business costs, incomes, and relatedly, wage negotiations. Inflation was inextricably linked to recruitment and retention challenges with significant pay rises for certain roles with acute labour shortages. Employers have facilitated employee demands and become more attractive to new hires through various incentives. Interviewees expected inflation to be an ongoing issue for the medium term with some business closures and higher mortgage repayments for those with expiring term mortgages but the labour market activity in terms of recruitment intentions of employers were expected to be strong. There was little evidence to date of significant workplace conflict arising from inflation issues but there were tensions noted which could lead to some conflict arising from ongoing inflationary and wage demands, such as the salaries being offered to new, less experienced hires when compared to existing staff. There were some suggestions made by unions about addressing inflationary pressures such as through the Joint Labour Committee system.

There were mixed views on the predicted impact of digitalization and automation on job quantity. Some interviewees noted that there was little evidence to date of job loss whilst others felt that there was a real threat to jobs. All respondents agreed that the potential threat to jobs needed to be ameliorated by an emphasis on upskilling/reskilling. Achieving the outcome of upskilling remains complex in terms where responsibility lies for the costs and time commitments associated with workers undertaking upskilling/reskilling, and how these are balanced across employers, employees, and the state. Of all aspects of technological change discussed, interviewees considered AI to have the greatest potential consequences for work. Issues around GDPR and the potential monitoring of employees' work was raised by some interviewees as having the potential to engender mistrust and be a potential source of conflict.

On a positive note, interviewees considered technology and automation as having the potential to contribute to safer working environments, smarter ways of working and increased leisure time for workers. The increased capacity for remote and hybrid working was cited as presenting

many opportunities, positively impacting work life balance, recruitment and retention, engagement, and potentially increasing access to work for more marginalised groups. Some interviewees, however, included the caveat that remote working can present challenges and that opposing perspectives between employers and workers may be a source of conflict. There were questions raised about the suitability of existing legislation for the workplace relations implications of technological change. A theme of the interviews was that significant emphasis should be placed on creating opportunities and frameworks for dialogue between employer and employee representatives at national and local levels in relation to technology planning, adoption, and implementation.

In relation to recruitment and retention, respondents reported a prevailing tight labour market in Ireland with some sectors such as hospitality having particularly severe difficulties recruiting workers. Skills gaps were evident across all sectors but in general, respondents noted a need for digital, interpersonal, and managerial skills. Respondents identified high housing costs, childcare and the cost of living crisis as key challenges in recruiting and retaining workers both from within Ireland and from abroad. It was reported that employers have implemented a range of strategies to retain workers including more flexible work arrangements (e.g. remote or hybrid working), a four-day work week and promoting a culture of respect in the workplace. International recruitment was viewed by respondents as a means of addressing labour and skills shortages with the work permit scheme helping to some extent - although there was some concern that certain jobs found it difficult to access the scheme. Relatedly, there was unease about some migrant workers' experiences of accessing and working in Ireland including paying high fees for work permits, being unable to bring their families to Ireland, and facing barriers to changing employment. Respondents spotlighted the lower participation rates of persons with a disability and men over the age of 50. Some interviewees noted a likely increase in pay claims and disputes while others thought, given a tight labour market, workers may be tempted to seek alternative employment rather than pursue a legal claim. Finally, all stakeholders shared a similar view of the need for greater social dialogue to address the key challenges.

Medium-term Scenarios

A positive scenario

In the positive scenario, inflation figures would continue to decline as predicted by the European Commission (2023), easing pressure on business costs and worker incomes and there would be a fully functioning, efficient and productive labour market in Ireland. This involves a sufficient supply of necessary labour for employers and opportunities for workers. It includes high levels of skills matching whereby workers skills are matched with the requirements of employers. Whilst there are difficulties predicting the future, the skills system should be prepared to address future skills gaps and needs involving better prediction models and subsequent policies to address these. As the labour market evolves, workers should have the necessary skills to adapt. Having better skills matching with jobs may also prevent the problem of brain drain and may also encourage labour (that previously emigrated for a variety of reasons) to return to Ireland. Where skills gaps exist, these gaps can be addressed via an efficient and simple employment permit system which allows employers access required skills and talent in a fast and efficient manner. Furthermore, bodies charged with education and skills training would have the resources and capacity to develop skills within the labour market within an appropriate time frame. Extensive resources for training, learning, and upskilling would be provided at micro, meso and macro levels.

A range of policies and processes would support high labour market participation rates. These include the provision of social goods and adequate supports to attract groups for persons with disabilities, the long-term unemployed and those with responsibilities that may prevent labour market participation. The trends of organisations employing a more diverse workforce, recruiting from wider geographical areas, and in-house learning and development programmes will continue to positively impact recruitment and retention (CIPD, 2022). Employers would offer a range of flexible work arrangements. Such work arrangements would include consultation with workers and their representatives and build on the high rates of flexible working arrangements found in Ireland post-COVID (Eurofound, 2020). Ireland's supply of skilled labour continues to act as a strong incentive for the attraction and retention of FDI. To achieve this positive scenario, there would be extensive social dialogue to address key challenges associated with the labour market, and more importantly to implement policies that will ensure that Ireland's labour market is inclusive, highly skilled, competitive, and highly productive.

A positive scenario is one in which AI would generate more jobs than it displaces, but with the caveat that education and skills keep pace with changes, and the EU initiative for individual learning accounts for workers may be a positive step in this regard. Organisations would be provided with training and guidance on the legislative and ethical use of AI tools and processes in the workplace (Eurofound, 2023b). Organisations would carry out risk analyses and introduce clear governance frameworks to ensure positive outcomes when engaging in digitalisation or adopting AI solutions. Digitalisation and automation have the potential for creating safer, more efficient workplaces, freeing up employees from 'drudge work' to engage in more interesting, creative work and supporting greater inclusivity and these perspectives are in line with international research (Christenko et al., 2022; Marinaci et al., 2023). Smaller

organisations would increasingly adopt digitalisation, where it meets the needs of organisations and workers, and would be supported in doing so, providing a more level playing field across firms and facilitating growth and employment.

Organisations would retain technology-enabled remote and hybrid working as a form of workplace flexibility with positive outcomes regarding widening the talent pool, facilitating inclusivity and retention, and reducing commuting times. Remote and hybrid working also has the capacity to contribute to rural regeneration as people relocate away from central hubs like Dublin. Stronger social partnership/dialogue at early stages in the process the integration of AI/digitalisation and remote work policies would facilitate the more successful and sustainable adoption of technology and address potential workplace conflict.

A further potential positive of increased digitalisation and more sophisticated technologies is the potential for greater labour market opportunities for diverse groups. For example, the participation of persons with disabilities would be enhanced through the availability of appropriate technologies combined with reasonable accommodations and supportive transport infrastructure. Indeed, the use of technology and remote/flexible working can reduce the costs incurred by employers in putting in place reasonable accommodations in some situations.

There are some risks associated with technology in the positive scenario. While more widespread adoption of digitalisation could have positive impacts as noted above, there is mixed evidence internationally on the consequences of remote work for climate change and evidence suggests digitalisation can be negatively associated with emissions so further evidence in this area is required.

In relation to climate change, the ‘things can only better’ future scenario envisages a situation where state agencies, government, and stakeholder groups connect within and across sectors. Examples from Scotland, Wales and Nordic countries cited in interviews signal a possible template to consider in terms of a better coordinated consensus towards a green work-ready future. The Just Transition Commission would be established and together with LEEF would form the institutional drivers for deep social dialogue and planned adaptation.

There would be a sector-level coordinated model. For example, while government plans for reducing carbon emissions are real and important, there would be a proactive realisation for evolving skill needs and labour supply requirements in sectors, including transport, hospitality, construction, agriculture, and the public sector (among others). The scenario signals better integration across industry and state bodies, trade unions, training providers and employers. Examples might be the role given to third level institutions, SOLAS and Skillnet for new green skills on a sector basis. Other state bodies may facilitate coordinated planning on skills training, perhaps through a re-invigorated role for Joint Labour Committees (JLCs).

In addition, the scenario may predict some form of overarching multi-level coordination, say (macro) national, sector (meso) and workplace/firm (micro) level fora. This scenario may see Ireland promoted by agencies such as IDA globally as place for new green sectors (e.g. wind energy – among others), which open pathways for future inward investment as fossil-led sector diminish over time. At the workplace level, employers engage collaboratively with workers/unions on green projects and meaningful green clauses in collective agreements.

In this scenario, coordination at different levels facilitates planning on the operationalisation of a Just Transition as well as providing mechanism in place to address income maintenance and business supports in extreme climate events, and new climate related employee policies and or/contractual terms if needed.

There risks are, however, substantial. For example, workers in less environmentally friendly industries may fear a substantive Just Transition without guarantees and resist, or green plans would be introduced within organisations without commitments to decent work conditions as advocated by the likes of the ILO.

A status quo scenario

In the status quo scenario, the current picture regarding inflation would continue. While official inflation figures are reducing, some interviewees expect costs will rise for employers leading to some business closures amongst small service and manufacturing firms, but the expectation is of continuing strong recruitment in the medium term. The labour market will generally operate effectively and efficiently but there will be challenges - likely occupational, sector or location specific - rather than a larger problem for the labour market. Despite prediction models, the challenges associated with predicting future skills and labour shortages may mean that there are certain occupations where recruitment and retention remains difficult. These difficulties are likely to apply to a small percentage of the labour force, be short term in nature, and will vary depending on the demands of the labour market.

Challenges may also remain depending on the sector unless there is a radical or fundamental change within that sector. Sectors where there are concerns around the quality of jobs may continue to face labour shortages and business closures (Fáilte Ireland, 2022). There is likely to be a lag effect associated with COVID as certain sectors such as construction and skilled trades need time to readjust. To ensure sufficient recruitment and retention, employers will offer more flexible work arrangements, but these are unlikely to be offered to all workers and likely to be occupational/skill specific.

Finally, challenges may remain by location such as Dublin with the high cost of living creating challenges for employers to recruit and retain workers. Given that Dublin is the capital city it is plausible that the cost of living will continue to remain high there relative to other parts of the country. Employers in the Dublin region may struggle to recruit and retain workers, particularly in jobs that are low paid. In this case, recruitment and retention becomes a problem within the Dublin region, but less so everywhere else in the country.

Where skills or labour gaps exist, the employment permit system could help to address many of those gaps. Improvements to the permit system will facilitate employers and workers access to the labour market but some challenges and inefficiencies may remain, for example, getting certain types of skills listed on the critical skills list.

The medium-term prospects for persons with disabilities remains uncertain. It may be the case that policies and processes within the workplace will not achieve sufficient provision to significantly increase participation of disabled people. Alternatively, as a result of various

policies at micro, meso and macro level, disabled people will have greater opportunities for participation in the labour market but challenges are likely to remain – for example it may be the case that barriers to participation within the workplace are addressed but barriers outside the workplace (e.g. transport) may still hinder labour market participation.

Remote working would generally remain a strong feature of workplaces especially while a tight labour market continues but some organisations might revert to more rigid on-site rules when labour market conditions change. While remote work remains advantageous in many ways as indicated by both the findings in this report and existing research (CIPD, 2023; Microsoft, 2021), people who choose remote or hybrid work may miss out on positive aspects of working on site such as social interaction, the development of soft skills particularly among younger workers and better visibility for progression and promotion. The neutral scenario views managers in some organisations ‘getting by’, though not feel fully equipped, to manage performance, engagement, skills development, progression, and well-being issues in a remote work environment. The raft of legislative developments around remote and flexible working both in train and already enacted may have a neutral impact in how remote working is implemented.

The debate around AI as a negative force or one for good continues apace (Christenko et al 2023). In the status quo scenario, AI would continue to evolve and lead to new workplace innovations but with little formal consideration of the impact on employees at workplace or national levels, leaving open the possibility for conflict if workers feel ‘out of the loop’ and fear job loss, job change, or work intensification.

A middle ground scenario on climate change gravitates between new climate action ideas and objectives and has in place official bodies endorsing global environmental plans, but with insufficient cohesion or integration across stakeholders and labour market institutions. The scenario predicts a situation of good-intentions and a series of strategies to support adaptation measures to switch towards greener sectors, including training and upskilling for people to transition. The middle-level future scenario will likely see positive adaptation measures particularly new green jobs, with formulated ideas around a Just Transition plan, but little planning for the positive and negative impacts of climate policies on work and workplace relations. Some companies will enhance their mitigation measures driven by energy costs and ESG reporting requirements and may continue to view and implement remote working as a climate mitigation measure (though the international evidence on the consequences of remote work for emissions are somewhat mixed).

However, wider constraints can damage climate mitigation and adaptation measures with infrastructural barriers negating positive actions, such as a lack of affordable housing, inability to attract people with the right skills into Ireland, costs of living pressures, and consequential difficulties around recruitment, and continued labour market marginalisation of groups such as persons with disabilities. Some of these constraints may be global and exogenous to firms based in or operating from Ireland.

There are identifiable risks with the status quo scenario. For example, funds to expand retraining and upskilling for individuals (school-leavers, apprentices etc), along with limited

support to equip third-level learning institutions, means future objectives may not be met or partially delivered, with insufficient supply to meet demand. It may be that some (large) corporations invest in upskilling for their own staff, with a risk that this has a polarisation effect with select occupations gaining the opportunity to access new training. A lack of reskilling for some cohorts such as those in low paid jobs with non-transferable skills may make particularly vulnerable to climate mitigation measures. Larger firms continue to invest in climate adaptation measures to a significant degree and reap the benefits of associated positive performance outcomes while smaller firms get increasingly left behind, resulting in a widening gap in productivity between the two groups.

Technological advances progress the creation of green jobs, such as modern methods of construction, which may be more attractive to groups with lower representation such as women and non-craft workers. There is uncertainty about the skill levels and pay associated with jobs related to modern methods of construction. A further risk, however, is that newer green sector jobs that emerge may not all be higher quality jobs and there is a risk of polarisation in terms of underrepresentation of women in green jobs.

In workplace relations, there will be significant variance in the extent to which firms develop employment relations policies/adapt employment contracts for the potential negative impacts of changing climate conditions and climatic events. Some workplace conflict may emerge in those firms without planning but is generally quite limited to those in small, localized areas vulnerable to flooding, or in a relatively small number of industries where changing climate conditions are important to the work environment such as construction.

In the status quo scenario, involvement and social dialogue that does exist is regarded as consultation with a lower capital 'c'. The social partners would use social dialogue fora such as the Labour and Employer Economic Forum (LEEF) to address the challenges within the Irish labour market but some representative groups may still not be involved leading to continuing tensions amongst stakeholders and there is some degree of inconsistency around aspects of inclusion and consultation, both across state bodies (e.g. LEEF does not have a climate remit), and between state regulators and industry/worker representative groups.

A negative scenario

In a negative scenario, inflation would stay above ECB rates or would even increase further due to new and currently unknown sources (in much the same way that Ukraine war was unexpected) placing continuing cost of living pressures on business and workers. The impact of inflation will be exacerbated for households with expiring fixed-rate mortgages who face increased interest rates repayments and for businesses with warehoused debt from COVID-19. These could lead to more difficult wage negotiations and possible conflicts.

A negative scenario for the Irish labour market and stakeholders would be a situation where there are many difficulties in recruiting and retaining workers, leading to labour market imbalances (FGB, 2023). This scenario will be influenced by the following trends noted by respondents - lack of skills and poor skills matching within the labour market, an ageing

workforce, lack of affordable housing, an ineffective employment permit system and lack of flexible work arrangements for workers. The provision of skills to match the requirements of the labour market will continue to be a major concern for employers and the economy in general. In this scenario, digital and transversal skills would be poorly developed among the labour force. Furthermore, continued skills mismatches, in particular issues like over qualification, will negatively impact wages and lower levels of job satisfaction (McGuinness et al., 2018) and could act as a brake on productivity growth (Brun-Schamme and Rev, 2021).

The relatively low labour market participation amongst disabled persons would continue. An ageing workforce will mean that the labour pool will decline in Ireland, but also older workers will need to work longer than previous generations creating pressure on people to extend their working lives. Unless social goods such as housing and childcare are addressed these will continue to have a negative effect on labour market participation. A lack of affordable housing will make it difficult for workers and will likely result in a brain drain from the country. Young graduates faced with high housing costs in Ireland choose to emigrate to other countries where they can enjoy a better standard of living and quality of life.

In relation to the employment permit system, the negative scenario would involve an inefficient and ineffective system. It would be hampered by complexity and stakeholders would find it difficult to navigate, leading to problems for both workers and employers in terms of accessing the Irish labour market and addressing the skills shortages. In the negative scenario, the permit system does not help to address those gaps with employers unable to add certain skills to the critical skills list or the permits do not match the needs of migrant workers. Relatedly, high costs of housing, childcare and general cost of living will mean that workers will not be attracted to Ireland and shortages/gaps will remain.

Inadequate flexible working arrangements to meet the needs of an ageing workforce and those with caring responsibilities, or non-existent/ineffective policies to manage such arrangements will lead to problems of recruitment and retention. Such a scenario would involve a failure to recruit and retain workers and talent; it may also involve ineffective management of such flexible arrangements that may lead to conflict within organisations. For example, certain cohorts of workers may not be offered such work arrangements leading to disputes. Overall, such trends will have a negative impact on competitiveness of the Irish economy.

Any challenges to the Irish labour market are also likely to have a negative impact on the attraction and retention of FDI. A lack of available talent will likely lead to challenges in both attracting FDI but also retaining existing FDI in the country. One respondent noted that whilst Ireland had a good story to tell potential inward investors, that story is more difficult to tell when there are challenges around housing and cost of living. Another impact of challenges in relation to recruitment and retention would include greater work intensification as workers will be expected to do more with less people potentially leading to higher levels of turnover and mental health issues.

This negative scenario is more likely to come about due to lack of social dialogue and engagement between the social partners. Many of the issues noted above require many institutions to engage to address the challenges, however a lack of engagement or structures to

engage will mean that there is no joined up thinking or approach to addressing the key challenges faced by workers and employers within the Irish labour market.

On technology, the capacity for monitoring employees would increase but there would be little formal or widespread collaboration between employers and employees on its possible introduction. There would be significant potential for conflict with industrial relations and legal cases relating to the organisational collection, management, and usage of data in decision-making on workers. There could also be conflict at a public policy level over whether existing or proposed legislation (such as the AI Act) would be sufficient to regulate AI usage in the workplace.

With respect to remote/hybrid work, conflict could intensify over employer demands for workers to return to the office. There would be an escalation of legal claims related to remote working concerning issues of equality, health and safety, and the right to disconnect. Within the workplace, regular and long-term remote working could negatively impact employee collaboration and opportunities for team-based innovation.

The threat of digitalisation and automaton of work with respect to job losses, demand for upskilling/reskilling and polarisation of labour markets has been widely identified in existing research (Mc Guinness et al., 2021). Predictions on job displacement vary widely with some commentators asserting that the greatest threat is to low skilled more routine tasks and jobs and other research concludes that AI has the capacity to challenge human labour across a range of non-routine cognitive and high skill areas (Frey and Osborne, 2017). In the negative scenario, there is the potential for job losses arising from digitalisation affecting lower skill jobs and white-collar jobs in professions such as law, accounting, marketing, and insurance. However, the general view of interviewees stopped short of predictions of large-scale unemployment through job destruction.

One of the outcomes of digitalisation identified by research is the impact on skills and professions. It has been predicted that ‘skills churn’ will increase in pace (Mc Guinness et al., 2023). This in turn will lead to the necessity for workers to constantly update skills to maintain employability leading to potential areas of tension between workers and employers centred on the following questions: who would have responsibility for funding of upskilling/reskilling? Would employees be expected to engage in necessary upskilling in their own time? If employees were released during working hours, what impacts would there be for employers to maintain operations and productivity in a continuing tight labour market? If the EU’s Individual Learning Accounts initiative progresses, who would fund these?

Regarding climate change, a pessimistic scenario may envisage life being unpleasant for most people where insufficient mitigation measures are taken and carbon emissions and global warming continue to increase, leading to increases in temperature, rainfall, and drought and threats to business, jobs and people’s mobility and incomes. There would be little or no forward planning for the impact of climate change on workers and businesses or any such planning that does exist is inadequate, haphazard, short-lived and too late in the day to be effective. In this scenario, adaptation opportunities are not maximised and there is little or no development or investment in Just Transition policies which might include an assessment of social and

employment impacts of alternative emission reduction scenarios, social dialogue, skills development, and social protection (Rosemberg, 2010). In the pessimistic scenario, there is little meaningful social dialogue between policy makers, unions, civil society organisations and employer organisations as discussions on climate change get sidelined on an ongoing basis by economic issues considered more urgent. There is little provision and take-up of re-skilling and up-skilling programmes to prepare workers for job loss or change. Workers whose jobs may be lost or changed due to mitigation measures may resist such measures in the absence of alternative sources of income, upskilling and/or poor climate literacy. Smaller firms do not make green investments as they perceive that the benefits are negligible relative to the costs and believe there are inadequate supports and financing options.

Regarding employment relations, there may be greater conflict between workers and employers where there is little or no preparation for the potential impact of changing climatic conditions or more frequent climatic events on terms and conditions of employment and incomes, for example, where work environments are impacted by rising temperatures or where regions experience more flooding. Conflict may arise where job security or terms and conditions for workers are threatened by business reduction or closure. In addition, in the absence of planning, there may be greater conflict between workers/employers and the state, where increasing numbers of the workers/employers demand greater support for incomes following climate events.

With a lack of planning, varying levels of preparedness amongst businesses and workers, and the lack of green investments amongst small firms, the worst-case scenario envisages labour market and societal polarisation as workers and businesses incomes are negatively impacted by climate events, a lack of adaptation to lower-carbon investments, and a lack of adequate social protection. Younger age workers in high-emissions sectors will not have the option of retiring upon job loss could lead to workplace conflict and problems of funding an aging population with little adaptability to newer green sectors will result in wider political instability across societal groups.

Negative knock-on effects could be expected in areas like hospitality and general services as people's incomes and mobility are restricted and infrastructure is damaged. As the economy shrinks, or remains static around older industries, other sectors will be negatively impacted as Ireland becomes a less attractive destination, for visitors and potentially foreign investments.

Potential Future Research Areas

Having completed this research, several unknowns remain which are worthy of future investigation or research as the trends examined in this report evolve. Below are suggested issues for research:

1. The awareness of workers around climate issues in their job, company, and sector.
2. Attitudes to re-skilling for greener jobs amongst workers in fossil-led industries and those in predominantly brown jobs.

3. The financial costs and models of funding available to employers associated with the implementation of climate related changes and technology infrastructure.
4. How stakeholder organisations (companies, unions, NGO bodies) develop and design their Environmental Social & Governance (ESG) policies to sustain climate issues and employment.
5. Assessing job quality in newer green jobs / sectors.
6. The impact of digitalisation on job design and skills in the Irish context.
7. The impact of remote working for the development of young workers' skills.
8. Assessing the relationship between technology and labour force participation of marginalised groups of workers.
9. The impact of remote work on worker representation and voice in the future.
10. The take-up of remote and flexible working arrangements and the development of organisation policies following the introduction of the Work Life Balance and Miscellaneous Provisions Act 2023 and Code of Practice on the Right to Request Remote Work.
11. The role of local arrangements between management and employees or collective agreements in the introduction and implementation of technology-related and climate-related work practices.
12. The aptness of existing employment legislation given developments in technology and climate change.
13. Possible frameworks for social dialogue for the purpose of coordinating and planning for future labour market disruptions at a macro level.

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