

## **Working paper**

# Decarbonising Ireland's building stock

How immigration policy can help solve workforce challenges

Claire Kumar with David Donoghue February 2024

#### Key messages

The scale of the challenge of meeting national retrofitting alongside Housing for All targets is immense. The availability of labour is now the single biggest barrier to delivering the Irish government's targets. New entrants, particularly craft workers (plumbers, electricians, carpenters, insulation operatives) are needed in substantial numbers. Recruiting elementary (manual) construction workers will also be a significant challenge, but is largely neglected in immigration-related discussions.

As numbers of Irish workers have declined, migrant workers have been solely responsible for driving increases in the construction sector workforce in the past year. All evidence points to a future of increasing reliance on migrant construction workers from non-EU countries. There is also clearly demand for more accessible labour, some of which is met by international protection applicants, such as the significant cohort of Georgians.

Immigration is already part of the government's approach to developing the construction workforce. However, the most proactive efforts have been skewed towards large construction firms (which require the least support) and professional occupations (with somewhat smaller shortages). The government needs immigration solutions tailored to the needs of the smaller firms that are critical for retrofitting and to refocus efforts at mid-skill and more elementary construction occupations.

This paper proposes five immigration policy options. These cover reforms to permit rules, how to make better use of the untapped pool of refugee talent already in country and at global level, and skills mobility partnerships to develop a pipeline of workers.

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## Acronyms

**BER** Building Energy Rating

**BIM** building information modelling

**CCAC** Climate Change Advisory Council

**CIF** Construction Industry Federation

**CSEP** Critical Skills Employment Permit

**DETE** Department of Enterprise, Trade and Employment

**DFHERIS** Department of Further and Higher Education, Research, Innovation and Science

**DT4E** Displaced Talent for Europe

**EEA** European Economic Area

**EGFSN** Expert Group on Future Skills Needs

**ESRI** Economic and Social Research Institute

**ETB** Education and Training Board

**EU** European Union

**FDI** foreign direct investment

**GEP** General Employment Permit

**HLI** heat loss indicator

**ICMPD** International Centre for Migration Policy Development

**ICT** information and communications technology

**OECD** Organisation for Economic Co-operation and Development

**QQI** Quality and Qualifications Ireland

**LOETB** Laois and Offaly Education and Training Board

**MMC** modern methods of construction

**NZEB** nearly zero energy building

**TBB** Talent Beyond Boundaries

**SEAI** Sustainable Energy Authority of Ireland

**SMEs** small and medium sized enterprises

# Executive summary

Under Ireland's Climate Action Plan, the government has committed to large reductions in emissions across sectors such as power generation, residential buildings, transport, and agriculture. Retrofitting residential buildings is considered to be one of the most important decarbonisation measures for the country. There are significant challenges given the nature of Irish housing stock and the fact that Ireland has lagged significantly behind other European countries on renewable heating.

The Irish government has committed to ambitious targets to retrofit 500,000 homes and to install 680,000 heat pumps in existing and new homes by 2030. A key challenge is how to develop the workforce required. This paper explores labour shortages and skills gaps in depth and asks a new question: how can Ireland most effectively use its immigration policy to support a rapid scale-up of retrofitting in the context of its decarbonisation targets? The report focuses primarily on the workforce for residential retrofitting, given the clear climate imperative of this aspect. However, it also takes into account the Housing for All strategy which seeks to address the chronic housing shortage in Ireland, given the interdependency of the workforces across retrofitting and building new homes. This research builds on ODI's previous work in this area, which has proposed that labour migration could support green transitions if governments act proactively and cooperate on green skills programmes.

The government has made progress under its National Retrofitting Plan. Stakeholders interviewed for this research reported significant positive developments, with increased grant funding, more certainty in public policy, and strong efforts to drive consumer demand and build the retrofit market. Gaps in policy, and particularly in financing, remain and will inevitably need addressing, but property upgrades are increasing rapidly, and the One Stop Shop model has helped to simplify the retrofitting process. Despite this progress, forecasts show that on its current trajectory Ireland will fall far short of its retrofit targets; for many stakeholders the availability of appropriately skilled labour is the single biggest barrier.

Workforce forecasts for the construction sector to meet retrofitting and Housing for All targets are considerable. Estimates range from over 50,000 to 120,000 additional workers, far greater than any other net zero area. While there is hope that modern methods of construction will increase the sector's productivity and reduce its demand for labour, this is mainly relevant to new builds; retrofitting largely requires more traditional methods and will remain labour intensive.

Research and forecasting exercises show that the top occupations in shortage are craft occupations (such as plumbers, electricians, carpenters, and insulation operatives). Estimates point to a range of 30,000 to 60,000 additional craft workers required before the end of the decade. Elementary (manual) construction workers are also critical, with a recent study predicting a shortfall of over 24,000 workers in this low-paid category. The consultation for this research

revealed that this group of workers risks being overlooked. The recruitment challenge is urgent, with the bulk of workers – particularly craft workers – needed by the end of 2026 to meet 2030 targets.

The government is making robust efforts to provide upskilling courses for retrofitting and to increase new entrants to the sector via apprenticeships. The new NZEB (nearly zero energy building) Centres of Excellence are appreciated for their strategic geographic spread, substantial capacity and well-funded courses. While enrolments are increasing, their main constraint is widely acknowledged to be in attracting learners. However, upskilling will not provide the new entrants that are so critical, and efforts to attract young people into the sector are fundamental. Government efforts via the new Careers in Construction Action Plan and to promote apprenticeships are significant. However, with the exception of electricians, registrations for craft apprenticeships are not increasing rapidly. Great concern remains around workforce challenges and there is a desire for quicker solutions.

Challenges need to be evaluated in the wider labour market context given Ireland's exceptionally low unemployment rate and chronic labour shortages across multiple sectors. The construction industry is particularly struggling given its legacy issues since the collapse of construction investment, output and employment following the global financial crisis. Over 100,000 Irish construction workers emigrated after the crash and foreign workers left in droves. While the industry is very much in recovery, with employment levels once again high, it still suffers from negative perceptions and is not seen as an attractive option for many school-leavers.

In line with industry growth, migrant construction workers are increasingly taking up construction jobs again. However, the profile of workers has changed. The traditional European Union (EU) workforce, from countries such as Poland and Romania, is now a less important cohort. The most recent data also shows a fall in the number of Irish construction workers and that foreign workers have been solely responsible for driving workforce growth over the past year.

It is clear that Ireland will not achieve its retrofitting objectives unless it makes more systematic use of its immigration system to attract more migrant workers. The government has already recognised the importance of immigration solutions, making multiple changes, since 2019, so that more construction occupations are eligible for employment permits. A number of highly skilled occupations are on the Critical Skills list, while most construction occupations are now eligible under the General Employment Permit category. This has achieved results, though these are limited when it comes to the key craft occupations most in shortage. Also clear from this research is that small firms, which dominate the sector, struggle to use the employment permit system given their low administrative capacity. The undersupply of affordable housing for workers was also frequently cited as a key constraint curtailing international recruitment.

The demand for more accessible migrant labour – and how this is being met through other routes – is also visible, though not widely discussed in workforce development efforts. Migrant

workers (particularly Brazilians) gain access to the construction sector via student immigration permissions when coming to learn English. Firms go directly to Direct Provision centres to recruit international protection applicants. International protection applicants and refugees (who are often overqualified) are also seeking out basic construction courses where programmes are accessible, as demonstrated by the experience of St Andrew's Resource Centre, documented below. However, Ireland has no strategic approach to facilitating international protection applicants' and refugees' access to the construction sector – a missed opportunity in light of chronic labour shortages.

In addition, there is anecdotal evidence that many Georgians are applying for international protection and taking up work on construction sites rapidly upon arrival in Direct Provision centres (i.e. before waiting six months to apply for a permit). Conservative estimates with the limited data available show this cohort may well be significant, especially when compared to the number of employment permits issued for the construction sector. It is increasingly clear that at least some international protection applications are driven by limitations in regular pathways for migration. The idea of establishing legal pathways for Georgians has been discussed between the Georgian and Irish governments. However, while Georgia has successfully developed bilateral agreements with a number of other EU countries, no progress has been made on any agreements with Ireland as yet.

Interviewees also reported that the government is increasing its efforts to support construction firms in their international recruitment, targeting South Africa in the first instance and looking for highly skilled professionals such as construction managers or quantity surveyors. Proactive efforts to recruit craft workers internationally are less evident. In addition, the implications of having less access to lower-paid construction workers via the EU workforce has not fully landed in workforce and immigration policy discussions. In the main, an outdated default position remains that third-country nationals are sought after for their high skills, while manual labour will be supplied by the EU. This is despite growing evidence that migrant construction workers will increasingly come from non-EU countries and in contrast to the European Commission's efforts to emphasise the need to attract migrant workers of all skill levels to support Europe's green transition.

The government needs immigration solutions tailored to the needs of small and medium sized enterprises (SMEs), and to enable recruitment of workers into mid-skill and more elementary construction occupations. Enterprise Ireland could act immediately to simplify international recruitment by offering exemption letters to construction firms so that the labour market test could be avoided. In addition, this paper proposes five immigration policy options for consideration (see Box 1). Importantly, any action taken to increase immigration into the sector should go hand in hand with explicit efforts to protect migrants' rights, monitor workplace conditions and ensure enforcement of labour laws.

#### Box 1 Immigration policy solutions

# 1. Put all craft occupations on the Critical Skills list or create an enhanced General Employment Permit for the construction sector

Putting the craft occupations that are most in shortage on the Critical Skills list would make migration more attractive for these essential workers given the enhanced rights under this permit. This proposal would require an amendment to the Employment Permits Regulations to include these occupations in the Critical Skills list and also because normally a degree qualification or higher is needed for eligibility if the remuneration is below €64,000. This amendment could include the stipulation that a trade qualification is sufficient for craft occupations to be eligible. Fortunately, these Regulations can be revised without parliamentary intervention, and they are commonly changed in the government's periodic reviews. Alternatively, an 'enhanced' general employment permit could be created for the construction sector alongside reforms to the family reunification and residency policy to attract more craft workers.

#### 2. Consider a 'job search' permit targeted at construction occupations

A 'job search' visa is already offered by nine Organisation for Economic Co-operation and Development (OECD) countries to allow highly skilled workers and/or those in shortage occupations to come in search of work. One benefit is that employers can meet prospective hires before committing, which is likely to be helpful to small construction firms. This new permit category could be the subject of a limited trial and tailored for craft workers. It may be attractive given a temporary permit could be issued, with the obligation that workers process a change of permit once they accept a job offer, hence maintaining the employer-led aspect at the centre of Ireland's employment permit system.

# 3. Support international protection applicants and refugees in Ireland to access construction jobs

Evidence shows that a strategy to promote and facilitate entrance into construction is likely to be attractive to some international protection applicants and refugees who see the sector as offering a viable livelihood or useful stepping stone in their career. The training infrastructure in place already offers practical opportunities for upskilling in retrofitting, which could be combined with English courses. There is also an opportunity to shape any new intervention for this group around new roles such as retrofitting assistants and to include efforts to match trainees with retrofitting subcontractors via a connection with the One Stop Shop network.

## Box 1 Immigration policy solutions (continued)

#### 4. Make better use of the untapped global pool of refugee talent

There is also potential to scale up construction sector recruitment under the Displaced Talent for Europe (DT4E) pilot that is already underway in Ireland. This pilot supports employers to recruit refugees via the employment permit system. The government could work more closely with DT4E partners to prioritise retrofitting, an attractive option given the potential refugee candidates include high numbers of craft workers. There is also scope for efficient international recruitment, using a cohort-hiring approach or roadshows in countries of origin using DT4E's already established networks of partners and identified talent pool.

#### 5. Develop mobility partnerships with upskilling in the country of origin

Focused intervention in skills mobility partnerships would create a pipeline of workers with the right skillset for retrofitting. A partnership with Georgia could move people from an international protection channel to a labour pathway. Georgia's well developed vocational and technical education infrastructure and successful experiences tailoring courses as part of bilateral partnerships make the country an attractive potential partner. In addition, the Irish government could consider a 'hire-train-move' model, where cohorts of refugees are upskilled overseas, with strong organisations already in place to work with to deliver this model.

The government is well placed to innovate, given its existing partnerships and well-developed training infrastructure, with capacity to expand. There is also a desire to move from a fragmented system to a whole-of-government approach on immigration. Pursuing tailored immigration solutions to achieve national retrofitting and Housing for All targets provides an ideal focus for coordinated cross-governmental efforts.

## 1 Introduction

Historically, Ireland has been a laggard in climate terms, with emissions per capita among the highest in the EU (Goldrick-Kelly and Nugent, 2019). Underpinned by legislation and sectoral carbon budgets, however, the country's Climate Action Plan aims to reduce emissions by 51% by 2030, and to reach net zero no later than 2050 (DECC, 2022). These plans assume large reductions in emissions across sectors such as power generation, residential buildings, transport and agriculture, with emissions ceilings in line with EU mandated targets.

This report focuses on residential retrofitting given that the bulk of greenhouse gas emissions are associated with residential homes and there is a clear climate imperative to address these (DECC, 2022). Taking into account 'embodied carbon'¹ as well as the emissions from operating buildings (i.e. heating, cooling and lighting), the emissions from the construction sector and built environment are 37%, which is as high as the agriculture sector² and far greater than transport (DECC, 2022; TUS et al., 2023). The scale of the retrofitting challenge is immense, with 90% of Ireland's housing built before the introduction of energy efficiency requirements, and the country lagging well behind the EU on renewable heating (Crosson, 2019; Coyne et al., 2022). In addition to the climate emergency, Ireland faces a severe housing crisis. The government has committed to a Housing for All strategy to address the chronic housing shortage the country is facing. As such, retrofitting the existing building stock must go alongside a very significant increase in new builds, which creates additional emissions and workforce challenges.

A key question is how the country develops the workforce to deliver its retrofitting and house-building targets. This report explores this issue, looking at labour shortages and skills gaps as two separate but interlinked issues. It particularly looks at how Ireland can best use immigration policy to support a rapid scale-up of retrofitting in the context of its decarbonisation targets. The scale of the challenge is significant and labour shortages and skills gaps are already affecting the pace of delivery. The Climate Change Advisory Council (CCAC) has warned that Ireland will not meet its targets unless action is taken immediately (CCAC, 2023).

This report builds on ODI's pioneering work in this area, which has comprehensively made the case that, with the right frameworks in place, labour migration could support rapid and just green transitions (Gençsü et al., 2020; Mason et al., 2022). While some skills can be provided by young people entering the workforce and by reskilling existing workers, in some sectors there will inevitably be gaps that cannot be filled due to demographic trends or competing demands within the economy (Gençsü et al., 2020). ODI's recent research in the UK identifies a strong rationale

<sup>1</sup> This refers to the manufacture, transport and installation of building materials, as well as maintenance, repair and disposal of buildings and infrastructure (IGBC, 2022).

<sup>2</sup> Compared to many European countries, the agriculture sector contributes a large share of greenhouse gas emissions because of the size of Ireland's beef and dairy industries (DECC, 2022).

to use immigration policy to support workforce development in the context of the UK Climate Change Committee's forecasts for low-carbon heating and energy efficiency, the high vacancy rate in construction, and chronic labour shortages (Kumar et al., 2023). This is a neglected area, but one that needs more attention given the unprecedented scale of transition required.

A comprehensive literature review and 26 key informant interviews, conducted between February 2023 and January 2024, form the basis of this study. Key informants included representatives from the government, private sector, research institutes and civil society. Anonymised quotes are included (in italics and block quotes) to illustrate the perspectives of stakeholders throughout the report. Section 2 lays out basic information on the retrofitting context in Ireland, including an overview of targets, progress and challenges. Section 3 looks in depth at workforce aspects, including forecasts for scaling up in the context of construction sector labour shortages, while Section 4 covers skills development initiatives. Section 5 looks briefly at the general immigration policy context, before Section 6 delves into immigration and the construction sector. Finally, Section 7 provides some options for immigration policy reform.

# 2 Retrofitting in Ireland

The government has been promoting energy efficiency measures and improving Building Regulations since 2006. All new buildings are now designed so that they do not require fossil fuels for heating, in line with the nearly zero energy building (NZEB) standard. Nearly all new buildings in Ireland now have heat pumps (95% of those built in 2023, for example – Department of Housing, Local Government and Heritage, 2024). As such, most of the challenge of reducing fossil fuels use for heating and to improve fabric efficiency is now concentrated on older dwellings (Coyne, 2023). Both heat pumps³ and district heating networks⁴ are expected to play a critical role (DECC, 2022; SEAI, 2022), with heat pumps considered particularly appropriate for the many rural homes that are not connected to the gas grid (Coyne et al., 2022). Rapidly deploying retrofitting and low-carbon heating systems is considered a priority for low-income households and in the worst-performing buildings (particularly those heated by coal and peat) (CCAC, 2022; 2023).

#### The fabric first principle

The various grant support schemes available operate according to a 'fabric first' principle. This requires households to improve the fabric insulation of a building – and reach a certain heat loss indicator (HLI)<sup>5</sup> – before installing a heat pump (SEAI, 2022). While aimed at protecting households from high bills if they installed a heat pump in a very inefficient building, concern has emerged that it is limiting the uptake of heat pumps (Lowes, 2022). The Sustainable Energy Authority of Ireland (SEAI, 2022: 4) has recognised that replacing fossil fuels in buildings would have 'a more significant and immediate emissions reduction impact than a fabric-first approach.' It has recommended a re-evaluation of the HLI and a trial is underway to evaluate heat pump performance in the Irish context and inform new policy in this area. This does not mean that energy efficiency measures are unimportant. The SEAI makes clear that fabric retrofit will continue to play a supporting role, not least to ensure comfort and to alleviate fuel poverty. Fabric efficiency will also undoubtedly remain important, as adequate insulation lengthens the time for heating to be switched off. This delivers the flexibility to avoid using energy during peak

In Ireland, air-to-water heat pumps are the most frequently installed given their suitability for radiator-based systems. Heat pumps are around 3–5 times more efficient than gas boilers (IEA, 2022).

<sup>4</sup> Less than 1% of heat demand in Ireland comes from district heating systems. However, analysis has found that up to 54–57% of demand for heat in buildings could be supplied through district heating networks. A number of pilot projects are underway in Dublin and district heating is expected to be a critical new infrastructure for urban areas (Coyne et al., 2022; DECC, 2022; SEAI, 2022).

This is the heat loss of a building per unit of floor area. In Ireland, heat pump grants are not available if homes have an HLI above 2W/m² (or 2.3 in some limited circumstances). This kind of requirement is not common in other countries (Lowes, 2022).

periods and enables the use of renewable sources as and when available (Pagliano et al., 2023). This flexibility will be critical in future as electrification advances and demands on the grid increase significantly.

### **Retrofitting targets**

In its Climate Action Plan 2023 the government committed to retrofitting (to the cost-optimal equivalent of a B2 Building Energy Rating (BER) standard) 120,000 dwellings by 2025 and 500,000 dwellings by 2030. There are separate targets for heat pump installations with aims to install 400,000 heat pumps in existing homes and an additional 280,000 in new homes by 2030 (DECC, 2022). The government has also committed to retrofitting 36,500 local authority homes to B2 or cost-optimal standard with a heat pump by 2030, though this has been criticised for being far too low (O'Connor, 2022), and CCAC (2023) has called for the government to adopt a target for *all* social housing to be upgraded to an energy rating of B2 or connected to a district heating network by 2030.

The National Retrofit Plan aims to make retrofitting more affordable and prepare industry and the workforce to meet increased consumer demand. In February 2022, the government announced a €8 billion investment (to 2030) for retrofitting (Department of the Taoiseach and Department of the Environment, Climate and Communications, 2022). The scheme is administered by SEAI, the main delivery body in charge of meeting retrofitting targets. As a result of the scheme, grant levels have been increased for deep retrofits, attic and cavity wall insulation and heat pump installations. The government also increased the budget allocation for the Warmer Homes Scheme to increase the number of households at risk of energy poverty who would receive free energy upgrades. A new network of 'One Stop Shops' offering start-to-finish project management services was also announced (see Box 2).

<sup>6</sup> For an overview of all schemes and grants, see SEAI (n.d.a).

#### Box 2 The One Stop Shop model

The One Stop Shop provides a single point of contact to a household and a fully project-managed service that aims to simplify the entire retrofitting process. It will assess the home, provide advice on options, do the application for the grant, manage the works, including all quality assurance, and claim the grant from SEAI on behalf of the customer (SEAI, 2023a). Certain eligibility requirements apply to access the service. A major benefit of the One Stop Shop model is that it brings together 'the fragmented supply side of the value chain, e.g. BER assessors, engineers, surveyors, architects, suppliers, installers, grants, and finance providers into one customer-centric offer' (Sustainability Works, 2020: 21). Quality and robustness of systems, including management and IT systems, are critical to become a One Stop Shop. A One Stop Shop can only use SEAI-registered installers and it will conduct midworks inspections and a final quality inspection. SEAI will frequently conduct its own physical inspections of properties as well as doing random desk audits of each One Stop Shop. By September 2023, 17 businesses had been approved to operate as part of the One Stop Shop network, with SEAI's aim to grow to 23 by the end of January 2024.

Source: Includes information provided in interviews

## **Retrofitting progress**

In 2021, the lack of long-term certainty and consistency in public policy, the slow, cumbersome and complex retrofitting grant system and the stop-start nature of government funding were cited as factors that were denting industry confidence in the sector (EGFSN, 2021b). This has evolved considerably, with stakeholders interviewed expressing more optimistic opinions:

There has been a significant increase in funding over the last few years and there is more certainty in the policy, including a multiannual budget, so there are many positive developments for retrofitting.

There is more confidence in the retrofit market overall. The SEAI programme with the One Stop Shops and the Warmer Homes scheme means that we are no longer seeing that stop-start approach. Now it is much more consistent: the application process is always open, which has really freed up the market, the grants are there and there is a real feeling that you can build a business around retrofitting.

<sup>7</sup> The home must have been built and occupied before 2011 and has to have an existing BER of B3 or lower.

Though optimism is clearly growing, competition with general house building remains a factor: 'there is more certainty that retrofitting is a serious policy issue,' but it is not yet 'at the level that means the sector is ready to hang their hat on retrofitting as a thing to plan their business around. It's not like general residential building, where demand is more consistent.'

In relation to specific retrofitting targets, there are signs of significant advances in uptake, with the impact of the increase in grant levels very clear: 'Last year we had a change to single grant measures so 80% of cavity wall and attic insulation is now covered. Demand went through the roof.' The impact is visible in the data with big year-on-year increases in the number of applications across all schemes and in the number of property upgrades achieved across all funding categories.8

#### **Retrofitting challenges**

Stakeholders are keenly aware that 'immense challenges' remain. Barriers for consumers are significant, including the high cost of both heat pump installations? and comprehensive deep retrofits.¹° On top of the grant infrastructure, options for low-cost loans and other financing solutions are a focus of policy debate. There is concern that policy measures are leaving some groups behind, particularly those at high risk of energy poverty (O'Connor, 2022; SVP, 2023). Stakeholders agreed there are significant gaps in retrofitting policy and financing. The misalignment of incentives between landlords and tenants¹¹ in respect of retrofitting is also frequently cited:

If you talk to a lot of people, they will say that the One Stop Shop is for the rich. For those unable to pay there is the Warmer Homes scheme, but of course it doesn't cover everyone. There are people who are unable to pay but who are simply not offered a scheme, and that is an issue.

We have concerns in relation to the criteria because you need to own your own property and so it excludes everyone in rental... and if you're on minimum wage and not getting any social welfare payments you would not qualify for a scheme, but you still can't afford a deep retrofit with the One Stop Shop model, so there is a gap in the system.

From 2021 to 2022, there was an increase of almost 140% in applications across all schemes and figures from the first quarter of 2023 also show a significant increase (172%) in home energy upgrades compared to the same period in 2022 (SEAI, 2023a).

<sup>9</sup> Coyne et al. (2022) cite estimates of heat pump installations costing in the range of €8,500 to €16,000, depending on the size and type of installation.

The SEAI Deep Retrofit Pilot Programme recorded an average total cost to upgrade a home from an average BER rating of F to an average A<sub>3</sub> rating was €60,814 euros (SEAI, n.d.b.).

<sup>11</sup> While landlords bear the cost, mainly tenants reap the benefits in reduced energy payments (Sustainability Works, 2020; CCAC, 2023). Though government has introduced a new tax incentive to encourage small-scale landlords to retrofit while tenants remain in properties, further measures are considered necessary to address this challenge (CCAC, 2023).

A government scheme for low-cost loans to help households with the cost of retrofitting had been described as imminent (Hunt, 2023). However, there was surprisingly no mention of it in the 2024 Budget announcement in October 2023.

SEAI's data also reveals other challenges. Of all property upgrades in 2022, 80% were delivered via individual energy grants compared to only 2.4% which fell under the One Stop Shop category, which delivers deeper retrofitting and more transformative measures (SEAI, 2023a). Essentially, retrofitting is frequently taking place to a lower standard than the desired B2 BER standard. The government will need to increase its transformative upgrades more than eight-fold to achieve the targets it must hit each year from 2026 through 2030 (SEAI, 2023a). In addition, heat pump installations are still not taking off: in the first nine months of 2023, heat pump installations were only included in 8% of the total number of property upgrades, the same share as in 2020 (SEAI, 2023b). Significant acceleration in this area is needed.

Further, while demand is increasing, progress converting that demand into property upgrades remains a challenge (see Figure 1). While conversion rates are improving, operational delivery capacity is a critical concern. A recent assessment shows that, on its current trajectory, Ireland will fall far short (reaching only 31%) of its intended 500,000 B2 retrofits by 2030 (TUS et al., 2023). By contrast, the assessment shows that new build housing targets will be met.

■ Number of applications received ■ Property upgrades — Property upgrades as % of applications 60,000 85% 81% 80% 50,000 75% 73% 73% 70% 40.000 66% 65% 30,000 60% 20,000 55% 54% 50% 10,000 45% 0 40% 2020 2021 2022 2023 (Q3 only) 2019

Figure 1 Applications received and property upgrades completed, Home Energy Upgrade Schemes

Source: SEAI (2023a, 2023b)

While there are multiple challenges, the SEAI has said: 'the biggest risk to achieving the 2025 and 2030 targets is having a sufficient pool of appropriately skilled workers to support contractors in scaling up the delivery of home energy upgrades' (SEAI, 2023a: 10). Long waiting times for the schemes are one of the most notable side effects of a shortage of workers with the right skills, with waiting lists of up to three years for the SEAI's free energy upgrade scheme (Friends of the Earth Ireland, 2023). These labour shortages and skills gaps are explored in detail in the next sections.

# 3 Workforce forecasts and labour gaps

#### **Workforce forecasts**

Analysis by the Expert Group on Future Skills Needs (EGFSN)<sup>12</sup> in 2021, looking at the demand for skills in renewable energy, residential retrofit and electric vehicle deployment, found the biggest workforce challenge pertained to residential retrofitting (EGFSN, 2021b). It projected the retrofitting workforce would need 17,400 workers by 2030 to reach the government's target. This forecast was rapidly revised to take into account the Housing for All Strategy.<sup>13</sup> The government now estimates that 50,831 new entrants will have to be recruited over the period 2023–2030: over 24,000 to build new houses, almost 23,000 for retrofitting, and the remainder for general repair and maintenance (DFHERIS, 2022). This recruitment challenge is considerable and represents more than doubling the employment in the residential building sector.

However, it is likely the challenge is greater still. The Build Up Skills Ireland initiative, <sup>14</sup> in its analysis using the most recent completion and expansion rates (and based on a 'business as usual' scenario), has estimated the construction sector would require 120,000 additional workers by 2030 (TUS et al., 2023). <sup>15</sup> There is significant hope, from both government and private sector, that the introduction of modern methods of construction (MMC) will transform the 'business as usual' scenario by increasing the sector's productivity and reducing the demand for labour. <sup>16</sup>

Stakeholders interviewed expressed substantial concern about workforce challenges:

The feedback we're getting from the industry is that skills and labour are the biggest challenge to achieving our targets. We have around 340 members and that includes the broad construction industry members – such as designers, architects, engineers, product

<sup>12</sup> The EGFSN is an advisory body which provides guidance to the Irish government on the future skills needed in the labour market.

<sup>13</sup> It commits to building 33,000 new homes per year until 2030 and includes funding for refurbishment of vacant homes.

Build up Skills Ireland (BUSI2030) is led by the Technological University of the Shannon (TUS), in collaboration with the Irish Green Building Council (IGBC), the Construction Industry Federation (CIF) and Laois-Offaly Education and Training Board (LOETB). In parallel to EU-wide efforts, it has a mandate to compile a National Upskilling Roadmap for the Built Environment to 2030+.

<sup>15</sup> This is based on an analysis of the Housing for All strategy as well as every action in the Climate Action Plan (though given the lack of information available, retrofitting of the public and commercial sectors are not fully included). This more expansive forecast also seeks to cover the new skills and new roles required as digitisation, circular economy and embodied carbon become important new priorities for the construction sector.

<sup>16</sup> MMC refers to the use of technologies to manufacture off-site factory built or modular homes. A move from cement to timber is also part of the discussion. These changes imply a smaller carbon footprint as these homes can be mass produced in a short space of time.

manufacturers, developers – as well as local authorities and social housing providers and some third level institutions. But this feeling comes from those wider than the membership.... Everyone is saying that this is really the biggest challenge.

As a One Stop Shop, we have always worked with energy efficiency contractors and they're able to do insulation and windows and a full suite of products. But they're too busy and at capacity so we went outside that to the building renovation space. They work in squads. Their squads have electricians, plumbers and plasterers and they go house to house, but we know they have a massive problem with getting people.... Generally, there are just no new people.

The single most limiting factor on our success is the capacity in the sector to deliver.... We don't have enough bodies and we're growing exponentially; we need diversity too.

An aggravating factor is the competition for workers between new build housing and retrofitting (Coyne et al., 2022; SEAI, 2023a). As one interviewee put it:

What's happening is people are getting workers from their competitors. So these are people already in the system who are moving from one place to another, possibly driven by getting extra money or better work life balance. But there are not huge numbers of new people entering the industry, so it's all about competition for workers. There's also great competition for workers between new build and retrofit and retrofit is trying to pull from new build and vice versa.

Interviewees also drew attention to the fact that Ireland's 'big infrastructure projects really suck staff out of the local economy' and that some of the 'enormous investments' (including data centres) are too little acknowledged in discussions around new build and retrofit labour supply. The Construction Industry Federation (CIF) has pointed to the competition with the large building projects of multinational corporations that often require thousands of construction workers and which offer high pay and attractive working conditions (Loughlin, 2022).

## The labour market context and construction sector shortages

Low unemployment rates in Ireland make increasing the construction sector workforce a daunting challenge. Quarter 3 of 2023 saw an unemployment rate of just 4.6% (CSO, 2023b). The chronic labour shortages experienced across many sectors are frequently referenced in national media, with multiple alerts around construction, as well as recent concerns highlighting teachers, social workers, hospitality, homecare and childcare (Bohane, 2023; Malone, 2023; Murphy, 2023). The National Skills Bulletin reports the country is lacking information and communications technology (ICT) professionals, engineers, and workers in healthcare, construction, hospitality and transport (McNaboe et al., 2022).

The challenges for the construction sector are particularly acute. The sector was hugely impacted by the global financial crisis and following deep recession in Ireland, when construction

investment, output and employment dropped dramatically (Department of Public Expenditure and Reform, 2020). While there were 240,000 people employed in the construction sector in 2007, this fell to only 81,000 in 2013 (Department of Business, Enterprise and Innovation, 2020). Many stakeholders interviewed referred to the impacts of the crash and the 'legacy issues' that had a severe impact, not least because 'so many families suffered... and people lost their livelihoods.' While the sector is in recovery and employment is increasing (reaching over 164,000 this year - TUS et al., 2023), the biggest concern of members of CIF is access to skilled labour; this has now overtaken the increasing cost of materials as a constraint for businesses (CIF, 2023b).

There are multiple drivers of the shortages in the construction sector. Recent surveys and focus groups conducted by the Department of Further and Higher Education, Research, Innovation and Science (DFHERIS) find the industry is seen as a financially unstable career option, more suitable for less academic school leavers, associated with on-site work only and a working environment that is more suitable for men (DFHERIS, 2023a). The gender disparity of the workforce is considered a major barrier to increasing recruitment. The poor uptake of apprenticeships – again linked to perception issues and a preference for university education – is also commonly cited as a contributing factor (EGFSN, 2021b; DFHERIS, 2022). Pay matters too: while roles such as engineers and architects are very well paid, less-skilled manual workers are paid below EU norms (Sweeney, 2021). Changing patterns of migration have also contributed to the construction sector's shortages. The sector suffered significantly from out-migration, with 100,000 Irish construction workers estimated to have emigrated after the 2008 financial crisis (EGFSN, 2020). The crash also led to the departure of important cohorts of foreign workers, particularly the Polish (as discussed in Section 6).

## Forecast by occupation

A variety of occupations are considered key for retrofitting progress. While forecasts differ in terms of exact scale, the top occupations identified as in shortage are craft occupations (see Box 3). The government estimates over 30,000 new craft workers are required before the end of the decade (DFHERIS, 2022); a more recent study estimates more than 60,000 (TUS et al., 2023). While new housing requires workers to replace those who retire, emigrate or transfer to another sector, the number of workers required in retrofitting is mainly driven by its expansion from a small base of existing workers as this 'new industry' develops (DFHERIS, 2022). For retrofitting, the lack of heat pump installers and plumbers was highlighted in the consultation as a 'particular pressure point.'

#### Box 3 Retrofitting skills and occupations

The occupations anticipated to be required for retrofit include plumbers, electricians, carpenters, and plasterers (classified as craft occupations) as well as roofers, glaziers, insulation and airtightness operatives (categorised by the government as non-designated craft occupations) (DFHERIS, 2022). These occupations do not require formal academic qualifications, and the main pathway is the apprenticeship system or a traineeship approved by SOLAS¹ (EGFSN, 2021b). The niche and emerging occupations in the retrofitting sub-sector include heat pump installers, insulation operatives, BER assessors, domestic solar photovoltaic installers, retrofit coordinators and retrofit engineers (ibid.). Across these occupations qualifications levels are mixed: a retrofit engineer will have a degree potentially in engineering or related disciplines (e.g. architect) while an insulation operative will not require an academic qualification but will need certification for external and cavity wall insulation, with training typically provided on the job.

What is also clear from the government's forecasts is that much of this recruitment challenge falls in the earlier part of this decade, with the bulk of workers (particularly craft workers) needed by the end of 2026, highlighting the urgency of the challenge (see Figure 2).

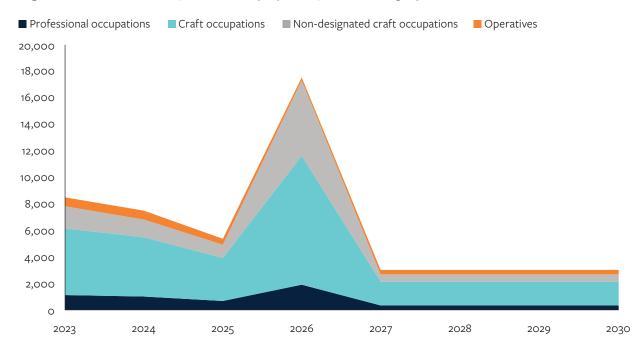


Figure 2 New entrants required annually, by occupational category to 2030

Note: These are the required new entrants taking into account Housing for All, retrofitting and the repair and maintenance categories of the residential building sector.

Source: DFHERIS (2022)

<sup>17</sup> SOLAS is a key actor in the Irish training and skills ecosystem, managing training and further education courses.

### **Elementary construction workers**

Stakeholders interviewed expressed mixed views on the topic of elementary construction (manual) workers and to what extent shortages exist:

We're not getting concerns raised by members when it comes to elementary occupations. It seems they can get enough for the basic skills and people are not in shortage.

I have not really heard anything from business on shortages at the basic manual worker level as the specific focus in our conversations has generally been on skills.

However, several interviewees were concerned:

A retrofit manager from a university is a level 8. How many projects need a retrofit manager? How many workers of this sort are needed? Probably not that many, but we will need a lot of operatives and assistants. We need to look at the lower level.

When we look at need across levels [for retrofitting], we are leaning towards the craft worker and the lower end of it... Our sense is that what is needed is in the middle range but also on the manual labour side.

It is clear elementary workers play a key role. The Build Up Skills Ireland assessment reports 32,200 operatives and elementary construction workers in the sector in 2022 (19% of the sector workforce) (TUS et al., 2023). According to EGFSN analysis on meeting housing targets, elementary construction workers will be the third highest construction occupation in demand to 2028 – more than plumbers, painters/decorators and plasterers, though less than carpenters/joiners and electricians (EGFSN, 2021a). A more recent study finds that elementary workers account for 20% of the predicted shortfall in the sector to 2030, with a requirement for over 24,000 additional workers in this category. In fact, according to this latest data, it is the category with the highest number of additional workers needed, when current expansion rates are taken into account across all occupations (TUS et al., 2023; see Figure 3).

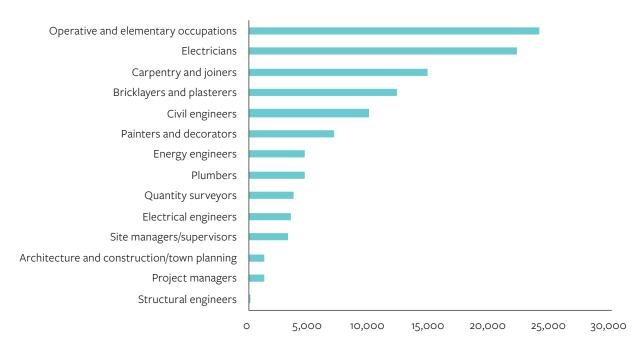


Figure 3 Construction occupations with highest number of additional workers required to 2030

Source: TUS et al. (2023)

#### Potential sources of labour supply

While Just Transition principles are embedded within Ireland's plans, it is widely accepted that workers are unlikely to come from industries suffering job losses as a result of the transition. As such, there is no doubt that new entrants will be needed in the construction sector. Most will come from technological universities and institutes, the apprenticeship system or other construction and vocational courses. An apprenticeship is required for craft occupations and generally takes four years. Analysis of the supply of apprenticeships from the period 2019–2022 makes clear the numbers of apprentices in plumbing, carpentry, plastering and painting will fall far short of what is needed to meet workforce targets (DFHERIS, 2022).

Action to attract new entrants into the industry is significant. Stakeholders drew attention to 'efforts by Engineers Ireland and RIAI (Royal Institute of Architects of Ireland) and others who are all trying to get the word out to sell construction and the broader built environment'. In addition, the government's efforts with the new Careers in Construction Action Plan were frequently mentioned (DFHERIS, 2023a). The government is approaching the recruitment of elementary construction workers mainly through efforts to engage the long-term unemployed. In May 2022,

The most high-profile area of job loss is Ireland's phasing out of the use of peat which has been an important source of employment in the Midlands, one of Ireland's most economically deprived regions (Goldrick-Kelly and Nugent, 2019). While government plans and funding did seek to support retraining including in retrofitting, already in 2021 it was emerging that few workers were suited or interested in roles in the retrofit sector (EGFSN, 2021b).

it announced the creation of the Housing for All Future Building Initiative, <sup>19</sup> aimed at working directly with the unemployed, supporting their access to training schemes, and matching them with construction sector employers (Department of Social Protection, 2022).

While building the domestic labour supply is rightly the main focus of government efforts, there is already recognition that construction firms will need to recruit workers from overseas. Recommendations have been made for information campaigns to be undertaken in EU Member States and in third countries to try to attract migrant workers, particularly plumbers, carpenters and bricklayers (DFHERIS, 2022). Private sector stakeholders have made clear they would like to see a 'unified approach that focuses on migration policy, labour activation policy and education and skills policy' (CIF, 2023a: 15). How international recruitment is faring and how the immigration system can work to attract these workers more effectively is discussed in Sections 6 and 7.

#### Conclusion

Recruitment of appropriately skilled professionals and tradespeople is routinely and universally highlighted as a major barrier (CCAC, 2022; CCAC, 2023). New entrants are needed in substantial numbers, along with additional diversity and inclusion in the sector, particularly to respond to gaps at the low and mid-skill end of the spectrum. There is a consensus that advancing efforts around MMC and efforts to address embodied carbon emissions will bring significant changes, including for workforce and skills, though this is a complex area that will require significant education, training and new commitments to become a reality (TUS et al., 2023). While MMC will likely lower demand for workers in relation to new builds, retrofitting requires more traditional methods; though project aggregation and retrofitting at scale can help, much of the work will remain labour intensive. The Irish government is taking a proactive approach, with frequent skills forecasting (with another analysis due in early 2024) and strong collaborative efforts to change the perceptions of the sector. But the need for elementary construction workers has been somewhat overlooked, an aspect that has particular implications for immigration policy discussions.

This is a cross-departmental effort between the Department of Social Protection and DFHERIS. The new unit is leading an 18-month pilot, financed under the Housing for All Implementation Fund.

# 4 Skills development challenges

### **Upskilling for retrofitting**

As well as addressing labour gaps, upskilling of the existing workforce is critical. The Build Up Skills Ireland assessment has pointed to the need for 164,000 construction workers and building professionals to be upskilled for the built environment sector (TUS et al., 2023).

A significant number of skills initiatives and programmes have been launched.<sup>20</sup> These include a Green Skills for Further Education and Training Roadmap 2021–2030, in which skills development for the construction sector is one of the three priority pillars. The roadmap includes action to incorporate green skills into construction apprenticeships and all construction programmes offered in further education and training colleges. It also commits to the creation of six NZEB Centres of Excellence, which provide starter programmes, conversion courses, upskilling and post-apprenticeship courses for the construction sector (SOLAS, 2022). These efforts complement the existing programmes that make up the Construction Skills Certification Schemes, whereby numerous approved training organisations provide training for non-craft workers in the construction industry (DFHERIS, 2022). It is notable that the government is giving high priority to upskilling in green skills, not least 'due to the engine of the Housing for All plan being led out of the Office of the Taoiseach' and the fact that 'apprenticeships are a ministerial and government priority'.

## NZEB Centres of Excellence and the National Construction Training Centre

A major part of the new training architecture is the establishment of NZEB Centres of Excellence. Five centres are now operational: Waterford and Wexford; Laois and Offaly; Cork; Limerick and Clare; and Mayo, Sligo and Leitrim. The sixth centre, in Dublin, is soon to be opened. These centres provide fully funded training courses in all areas of NZEB and retrofit.

The National Construction Training Centre (Mount Lucas), operated under Laois and Offaly Education and Training Board (LOETB), plays a key role in upskilling for retrofitting and housebuilding. It offers an extensive range of courses, including the shorter NZEB courses as well as trade-specific courses (for bricklayers, carpenters, electricians, plumbers and more). It runs the National Apprenticeship for Scaffolding and also supports the specialised outreach done in St Andrew's Resource Centre to increase the number of new entrants at the level of general operatives into the sector (see Box 4). There are efforts to ensure green skills are embedded, for example with craft apprentices passing through NZEB training in parallel to their apprenticeship activities (Cork Education and Training Board, 2023). However, more retrofit

<sup>20</sup> See TUS et al. (2023) for a comprehensive overview of all strategies and initiatives.

modules in apprenticeships are needed (TUS et al., 2023). DFHERIS (2022) recommended a new NZEB training course for retrofit assistants, a role that would reduce the burden of qualified crafts workers. While not fully in place yet, some progress has been made at the pilot stage (see Box 4).

#### Box 4 St Andrew's Resource Centre

St Andrew's Resource Centre runs a unique programme that provides training for jobseekers interested in working in the construction sector. In operation for over 10 years, it was set up after the financial crash to support the long-term unemployed find jobs linked to the redevelopment of the Dublin Docklands area. It is particularly targeted at those living in innercity Dublin. Clients of the programme include the long-term unemployed, former prisoners and the homeless. As the centre aims to maximise access for all, barriers to entry are minimal; applicants simply need to be over 18, unemployed, able to work and to successfully attend two short meetings before gaining a place on the three-week course. As such, non-Irish nationals can attend as long as they have a permit to work (which since the change in Irish law in 2018 is now available to international protection applicants after six months). The numbers of non-Irish nationals attending training courses has increased notably in the past two years (discussed further in section 6).

The course is designed to be rapid training on the basics in construction skills. It focuses on practical aspects, including those that are statutory obligations such as achieving the 'Safe Pass',21 manual handling, and working at heights. It also provides some additional aspects that are considered 'nice to have' (e.g. the basics of painting, block laying, plumbing and carpentry). Though the centre cannot offer a job guarantee or intensive job matching services for everyone, it does maintain relations with some construction firms and tries to help trainees find jobs. Trainees have mainly found employment with smaller subcontractor firms, though some have been taken on by large firms. Between 2017 and 2023, the centre trained 1,000 construction workers and achieved an impressive placement rate (62–65%) for the trainees.

The Safe Pass is a card that all employees on a construction site must have. Workers sit a one-day safety awareness training programme managed by SOLAS to qualify for the card.

## Box 4 St Andrew's Resource Centre (continued)

It is notable that the centre does not advertise and works mainly by word of mouth to reach targeted communities. The network effect is observed as strong with both Irish inner-city and migrant communities: 'If you get into a community then everyone talks to their mates and then we get a lot of people from that community. So that works around a block of flats, but also with the homeless, and with people in a Direct Provision centre. So, we had one Somalian man, then we had eight and then we got 12 Somalians.' Demand for the training is high and additional budget had to be secured to run extra courses. The centre is now planning to increase its target coverage for 2024 to 1,090 trainees, a major leap given that a similar level of coverage was reached over the last six years. However, staff are confident the pipeline of potential workers is there.

Plans are in place for NZEB standards to be part of the construction course from March next year. This is in view of the enormous amount of retrofitting expected to come down from Dublin City Council to the inner-city flats. St Andrew's is also piloting a retrofitting assistant course. It is currently being technically assessed by LOETB and will have a Quality and Qualifications Ireland (QQI) level<sup>22</sup> by March 2024. It is the only centre delivering this, but it will be available to other centres once it has the QQI level approved. It is clear that the partnership with LOETB has been immensely important, bringing not only secure funding but also consistent technical support and the space to innovate with new ideas for expansion: 'it was a marriage made in heaven... LOETB bring to us their expertise and we often go down to the Mount Lucas centre and have a look and steal their ideas. They have been fantastic.' For LOETB, the partnership also brings significant benefits, given that they have found it 'hard to recruit outside of the existing workforce'. As such, this outreach programme gives them 'access to more starters.'

Source: Information provided in interviews

Stakeholders interviewed recognised that NZEB centres are making an important contribution, offering attractive courses and increasing the accessibility of upskilling in retrofitting. In particular, their ability to deliver 'convergence' in skills related to insulation and airtightness was appreciated by those in industry. As centres are also well funded – particularly in the context of the surplus in the National Training Fund<sup>23</sup> – 'financing is not an issue'; indeed, 'there are suites of courses' that are free for learners.

<sup>22</sup> Quality and Qualifications Ireland (QQI) is the agency responsible for maintaining quality standards in Ireland's further and higher education system. It manages the National Framework of Qualifications.

<sup>23</sup> The National Training Fund, which receives employers' contributions via a levy on wages, has been reported to have a surplus of around €1.5 billion (CIF, 2023a).

The main challenge – universally reported by stakeholders – is demand for the courses:

The policy is there, and the money is there for the course, but industry uptake is a challenge as it is not mandated. So, a couple of businesses are embracing it as good practice... and they're seeing retrofitting as an opportunity and actually it's enormously successful for them on a commercial level, but it's not mandated. And so courses can still have poor uptake because everyone is just so busy in industry already and they're getting work anyway, so this is a real problem.

If demand is not high enough, we just move dates until we have a full group, so there is no percentage of unfilled places [to report] as such... So, it's not simple to say where we are regarding targets overall. But suffice to say that there are not enough people trained in the areas we need.

We know supply is not a panacea – you can't just put out lots of courses and make them free and that's all there is to it... We cannot march a barista into a construction job.

The challenge with demand is reflected in the data: the target for 2022 was 4,550 places, but enrolments only reached 2,034 across the centres of excellence (DECC, 2022; DFHERIS, 2023b). In particular, the difficulty in attracting participation in upskilling from SMEs has been noted (TUS et al., 2023).

The government is taking a careful approach, 'trying to maintain balance so if there is a step change in demand for training [if the demand for retrofit went up more] we can respond to it.' There is confidence that the skills infrastructure is there to respond to higher numbers of new entrants if the pipeline of learners increases. The need for financial incentives (in the form of paid education leave) to increase the take-up of courses has been noted, particularly to attract workers from SMEs, and may be implemented in 2024 (TUS et al., 2023).

Finally, it is important to note that 'the NZEBs have been mainly oriented towards reskilling or upskilling the current construction workforce', as explained by several government stakeholders. This was pointed out as a key limitation by private sector stakeholders:

The Centres of Excellence are places that our team will go to top up their technical learning. There has been lots of progress and lots of good work, but that training is not for creating plumbers and plasterers. It's about how to insulate an attic and how to understand airtight membranes. We're not creating electricians; we're taking existing electricians and showing them how a heat pump works, which is useful but it's not new. So, we're not bringing in a new cohort of workers... this is not brand-new people.

Attracting and adequately preparing new entrants to the sector remains a fundamental concern.

### **Apprenticeships**

The apprenticeship system is the main route into most craft occupations. Following a dramatic drop in entrants after the 2007 financial crash, the government has been working to expand apprenticeships, with some success (see Figure 4).

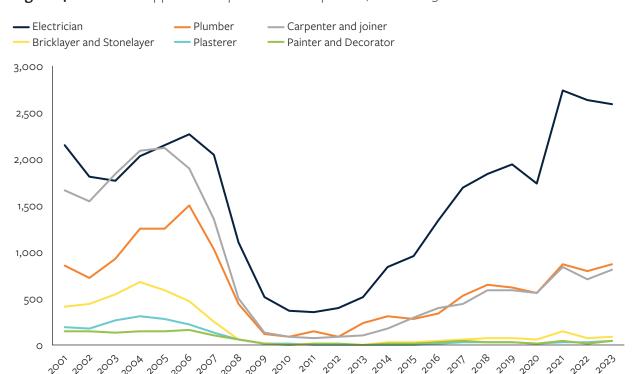


Figure 4 Numbers of apprenticeships in craft occupations, 2001–2023

Note: The numbers reported here correspond to actual intake, except for 2023, which is a forecast. Numbers are taken from three different sources to cover the time period.

Source: EGFSN (2019); EGFSN (2020); National Apprenticeship Office (2023)

Numerous changes have been made to the apprenticeship system, including the introduction of a new consortium-led apprenticeship model in 2016,<sup>24</sup> which has expanded apprenticeships to cover over 40 occupations, and has led to a big increase in apprenticeship registrations (National Apprenticeship Office, 2023).<sup>25</sup> Apprenticeship options were included on the Central Applications Office platform for school leavers in 2021 and a new National Apprenticeship Office was set up in January 2022. The first dedicated green skills apprenticeship (Wind Turbine maintenance technician) was also created in 2022.

<sup>24</sup> This model is industry led, with employers working closely with skills providers to design and deliver the apprenticeship.

New apprenticeships created include healthcare, IT, accounting, logistics, hairdressing, and hospitality. This move is in line with the government's general aim to rebalance tertiary education away from a purely academic focus.

Despite this progress, as Figure 4 shows, the outcomes for craft apprenticeships are less encouraging. With the exception of electrician apprenticeships, registrations are not increasing rapidly, and remain stagnant in the case of bricklayers, plasterers and painter/decorators. This large imbalance in critical trades is a major concern (TUS et al., 2023).

Low pay is an issue.<sup>26</sup> The wage differential between apprenticeships and general operatives has been noted as problematic (EGFSN, 2020). Stakeholders raised this issue, explaining that 'people opt for manual roles from day one because people want to be paid fully from day one'. From the employer perspective, affordability of the new apprenticeship system is an issue and was a major theme in a recent review of apprenticeship progress (QQI, 2022).

There is also a recognition that it is difficult to rapidly solve the skills gap for craft occupations as apprenticeships take four years to complete. Industry stakeholders pointed to the need for faster training options (such as traineeships): 'We feel that traineeships are more agile... People are coming out from these courses not in three to four years, these are 18-month programmes. So you can turn out qualified people relatively quickly.'

Others also felt there is high potential for innovation around shorter traineeships - 'more bitesized apprenticeships' – or that, with 'some thinking outside the box', these can be used to match the 'level of knowledge needed...to the real genuine skill need.' Specific options such as designing a shorter 'renewable energy plumber course' for heat pump installation, that could be completed in a shorter timeframe than a four-year plumber apprenticeship, were mentioned. There is also a need to regularly review apprenticeships to ensure courses are adapted in line with climate targets; as such, evolving skills and methods will remain a challenge (TUS et al., 2023).

#### Conclusion

There are clearly robust efforts to provide upskilling courses for retrofitting and to increase new entrants to the sector via apprenticeships. While NZEB centres are appreciated for their strategic geographic spread and substantial capacity, the main constraint is attracting learners. However, upskilling will not provide the new entrants that are so critical, and efforts to attract young people into the sector are fundamental. Great concern remains with the take-up of craft apprenticeships and there is a desire to find faster solutions.

<sup>26</sup> Apprenticeships are paid a percentage of the wage of craft workers, with their salary increasing annually through their four-year apprenticeship (CIF, 2023a).

# 5 Ireland's immigration system

#### **Labour mobility context**

A very clear feature of Ireland's migration history is that immigration and emigration closely track economic conditions. Immigration previously peaked in 2007 before dropping significantly after the global financial crisis. As the economy has recovered, immigration reached a 16-year high in the 12 months to the end of April 2023, with over 141,000 immigrants coming to Ireland (CSO, 2023c). It is estimated that 20% of the Irish population is foreign born (up from 17% in 2012) (OECD, 2023). While immigration from the EU was very significant in the past, it has remained fairly flat in recent years and the majority of arrivals are now citizens of non-EU countries (including a sizeable number of Ukrainians) (CSO, 2023c). There has been a large increase in employment permits issued, with the total number increasing from around 11,000 in 2009 to almost 40,000 in 2022 (though decreasing somewhat to just under 31,000 in 2023) (DETE, n.d.a.). This increase is not unusual in the context of other OECD countries that are also seeing unprecedented levels of humanitarian and labour migration (OECD, 2023).

Although immigration is increasing, many businesses report that labour shortages are a major issue. While there have been examples of targeted government efforts, such as international recruitment campaigns for healthcare workers in India and Pakistan (Quinn and Gusciute, 2013) and recent examples for the construction sector (see more on this below), Ireland has no history of entering into bilateral labour agreements with other countries. This may be changing, however, as the government is setting up a seasonal agricultural worker scheme which is likely to include one or two bilateral agreements with sending countries. In general, the government relies upon adapting its critical skills employment permit and ineligible occupations lists<sup>27</sup> in its effort to respond to labour and skills shortages (see Box 5).

## Box 5 Ireland's employment permit system

Workers from outside the European Economic Area (EEA), the UK and Switzerland are required to apply for an employment permit. The two most commonly used categories are the Critical Skills Employment Permit and the General Employment Permit, with high-skilled immigration prioritised (DETE, 2022b). An employment permit is only ever issued on the basis of a job offer, with the system described as 'employer friendly' and 'a less complex system' than in many other countries. After getting an employment permit from the Department of Enterprise, Trade and Employment (DETE), a migrant worker needs to apply for an entry visa if they are a national of a country that is visa-required.

The 'ineligible list' of occupations covers a wide range of categories (DETE, n.d.b.). It is not possible to apply for an employment permit for these occupations.

#### Box 5 Ireland's employment permit system (continued)

Occupations such as ICT, healthcare, engineering and finance are currently on the Critical Skills list; migrant workers are eligible to come for these jobs if their salary is at least €38,000<sup>28</sup> (DETE, 2022a; DETE 2023b). With a Critical Skills Employment Permit (CSEP), a worker can apply to bring family members immediately and family members are also allowed to work without applying for a separate employment permit. A worker with a CSEP also has a fast route to 'Stamp 4' permission after two years; this provides residence and allows free access to the labour market, making this a very attractive permit category.

The General Employment Permit (GEP) is available for all occupations that are not listed in the 'ineligible occupations' list, with a salary benchmark of €34,000 applied from 17 January 2024 (DETE, 2023b).<sup>29</sup> Workers cannot immediately bring their family members. In addition, family members are not able to automatically access the labour market. GEP holders only secure a right to work unsponsored, without a work permit (e.g. Stamp 4 status) after five years, compared to two years with a CSEP. Ireland essentially operates a tiered permit system that provides enhanced rights to one group of workers (MRCI, 2021). An issue of concern is the power imbalance between employees and employers, given the use of single-employer tied permits (Keith and Díaz-Bertrana, 2022).

The government has proposed significant immigration reform through a new Employment Permits Bill announced in July 2022 and expected in 2024 (DETE, 2022b). Its main aim is to enable a more agile response to changes in the labour market. Changes are likely to include: the introduction of a seasonal employment permit for agriculture, extensive revision of the labour market needs test, and the moving of certain operational criteria to regulations to give the Minister for Enterprise, Trade and Employment more discretion to change criteria. DETE has also announced that they may attach additional conditions to the granting of an employment permit, such as training or accommodation support for migrant workers in some circumstances. The Bill has received criticism in debates in the Oireachtas for its focus on increasing flexibility for employers, which several speakers argued is at the expense of ensuring migrants' rights are protected (Houses of the Oireachtas, 2022).

This increased from €32,000 on 17 January 2024 (DETE, 2023b). A migrant worker is also eligible if their job is paid more than €64,000 even if their job is not specified on the Critical Skills list, as long as it is not on the ineligible list or contrary to the public interest (and assuming a minimum two-year contract, which is a requirement for all Critical Skills Employment Permits).

<sup>29</sup> This threshold was previously set at €30,000.

### International protection trends

Ireland experienced a significant increase in international protection applications in 2022 compared to previous years, with applications remaining high in 2023 (IPO, n.d.; Cunniffe et al., 2022). In addition, the country has received large numbers of Ukrainian refugees; by October 2023 over 96,000 had arrived (CSO, 2023a).³0 The high numbers of international protection applicants in recent years are partly due to the after-effects of the Covid-19 pandemic, which suppressed migration, but is also driven by a complex mix of other factors including conflict and conditions in countries of origin, as well as social network effects, labour market shortages and positive perceptions of Ireland (Cunniffe et al., 2022). Researchers explain that given the huge increase in immigration to Ireland since the 1990s, it is likely that 'the power of networks' is 'playing an increasingly important role in destination selection to Ireland' (ibid.: 37). Georgia, Zimbabwe and South Africa all consistently figure among the top nationalities seeking international protection and are likely heavily influenced by network effects. It seems increasingly clear that at least some international protection applications are driven by limitations in regular pathways for migration (ibid.). This is relevant for the construction sector and particularly Georgian workers (as discussed in the next section).

Since 2018, international protection applicants have been able to apply for access to the labour market six months after their initial application, with few restrictions on the occupations for which people can apply. Research analysing the use of these permits since 2018 found that, despite high grant rates, only 45% of those who applied for permission were in employment, suggesting that in practice many are struggling to find jobs (Polakowski and Cunniffe, 2023). In addition, those in employment are often in lower-paid occupations with poorer working conditions, such as cleaners, warehouse operators and healthcare assistants (ibid.). This group is currently not considered within Ireland's Migrant Integration Strategy.

<sup>30</sup> This number does not reflect any Ukrainians who will have subsequently left Ireland.

## 6 Immigration and the construction sector

#### Foreign workers in the construction sector

Immigration has played a key role in Ireland's construction sector for decades, to the extent that analysis has shown a historic relationship between overall net migration and housing supply in the country (Egan et al., 2022). Migrant workers' contributions were well recognised by stakeholders, with immigration said to have 'provided the lifeblood of labour for construction'. In particular, the role of the EU workforce is recognised as having been 'hugely beneficial to the construction industry'.

The bulk of construction workers have traditionally come from the group of countries which joined the EU in 2004. For example, in 2007 – when 50,500 construction workers (22% of the workforce) were foreign nationals – 80% of foreign workers came from these EU countries<sup>31</sup> (EGFSN, 2019). After the financial crisis and collapse of the industry, foreign workers left in droves.<sup>32</sup> Stakeholders confirmed that the 'complexion [of the workforce] has changed from the middle of the 2000s'. There is a general feeling that Ireland is 'not getting the flood of immigrant labour as before', and the loss of the Polish workforce was particularly noted.

While the industry has experienced significant volatility, the workforce is again growing rapidly. Recently released Census and Labour Force Survey data reveal a new picture. Foreign citizens now make up 21% of the construction workforce<sup>33</sup> (see Table 1). However, while there has been some recovery in numbers coming from countries that joined the EU after 2004, they are certainly a less important part of the workforce than before. Further, the most recent data, from the last year, shows both a fall in the Irish workforce in the sector and a rapid increase in 'other foreign citizens' (i.e. citizens from *outside* the group of 13 countries that joined the EU since 2004)

Ten countries joined the EU on 1 May 2004: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia and Slovenia.

From a high of around 40,000 workers in 2007 from the ten 2004 accession countries, just under 5,000 were left in 2013 after the exodus (EGFSN, 2019).

Note this is not exactly comparable to the 22% share recorded at the peak of the construction boom. Both the Labour Force Survey and Census previously collected nationality data until a change in methodology in 2021 led to the recording of citizenship. It is unclear the impact this has had, given that people interpret these questions in their own way and may or may not make a distinction between their nationality and citizenship.

(see Table 1). While migrant workers in the sector are clearly a very significant cohort again, it is notable that the sector lacks ethnic diversity: 95% of construction workers are from a white background, compared to 86% of the labour force as a whole (CSO, n.d.).<sup>34</sup>

**Table 1** Foreign citizens working in the construction industry, 2021–2023

	2021	2022	2023	Change 2021- 2023	Change 2022- 2023
All countries	158,300	163,200	167,400	5.7	2.6
Ireland	133,600	135,000	131,800	-1.3	-2.4
All countries excluding Ireland	24,700	28,200	35,600	44.1	26.2
EU13 (countries that joined post 2004)	15,100	19,900	22,400	48.3	12.6
Other foreign citizens	9,600	8,300	13,200	37.5	59.0
% foreign citizens of total construction workforce	15.6	17.3	21.3	-	
% EU13 citizens of total construction workforce	9.5	12.2	13.4		

Note: The EU13 grouping (referred to in the Labour Force Survey data as 'EU15 to EU27') includes Bulgaria, Cyprus, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia and Slovenia. 'Other foreign citizens' covers workers from all other countries outside this grouping. Data from 2023 is from quarter 3 of the Labour Force Survey, while all other data is from quarter 4. Source: CSO (n.d.)

The growth in the number of Romanian construction workers is clearly visible in census data (see Figure 5). Lithuania and Latvia are also increasingly important origin countries, and there have been significant increases in Brazilian construction workers in recent years. However, analysing census data by occupation (e.g. 'skilled construction and building trades' and all 'elementary trades') across *all* industry groups, findings show workers from Poland, Lithuania and Latvia in decline (see Appendix 1).

See Table F7036 for recent Census data on the population aged 15 years and over in the labour force, including their ethnic or cultural background. Data is recorded for the following: White Irish, White Irish Traveller, Roma, any other White background, Black or Black-Irish (African), Black or Black-Irish (Other), Asian or Asian-Irish (Chinese), Asian or Asian-Irish (Indian/Pakistani/Bangladeshi), Asian or Asian-Irish (Other), Arab, Other including mixed background (CSO, n.d.).

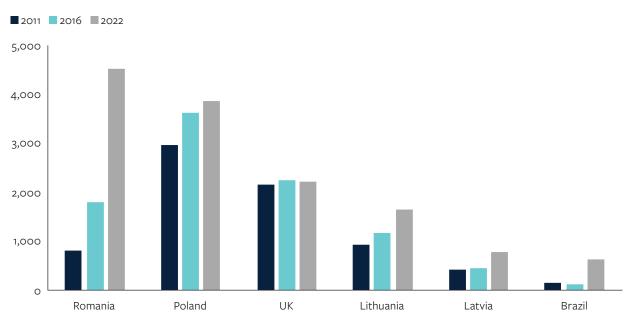


Figure 5 Foreign workers from selected countries working in the construction industry, 2011–2022

Note: The countries selected here are the top six that provide workers to the construction sector in Ireland, as reported in the census figures for broad industry group. Figures are taken from census tables FYo59 and EZo10 to cover the period reported here. Data from 2011 and 2016 is based on nationalities recorded, while data from 2022 is based on citizenship, given the change in the question applied.

Source: CSO (n.d.)

It is a well-accepted fact that, given improvements to their own economies, many EU workers are unlikely to come to Ireland in the same numbers as before. Also important is that these migrant workers have been 'disproportionately represented in the less-skilled occupations' (Sweeney, 2021: 20). While they previously arrived under free movement, all indications point to the fact that this EU country cohort will be a less important part of the workforce going forward, which has clear implications for the ease of recruitment of lower-paid occupations into the sector.

In addition, several interviewees pointed out that Ireland is not 'doing this in glorious isolation' and that 'other EU member states are facing the same challenge. Even in countries with high unemployment rates like Spain and Italy, they don't have people to do retrofitting, so this is very challenging.' Indeed, the European Labour Authority (2023) identifies occupations in the building trade as being among the most severe shortages across Europe, with bricklayers, carpenters and joiners, plumbers and pipefitters and electricians all figuring in the top 10 list of shortage occupations. There is a clear need to look beyond the EU/EEA to third-country nationals.

### **Employment permits issued for construction**

The government has taken action, including making multiple changes to eligibility for construction sector work permits. In 2019, a number of construction occupations were added to the Critical Skills list, including civil engineers, quantity surveyors and construction project managers. In

addition, a number of other occupations – including pipefitters, air conditioning and refrigeration engineers, glaziers and scaffolders – were removed from the ineligible list, meaning these workers could qualify for general employment permits (EGFSN, 2019). Another eight occupations – electricians, masons, roofers/roof tilers/slaters, plumbers/heating and ventilation engineers, carpenters/joiners, floorers/wall tilers, painters/decorators, construction and building trades supervisors – were removed from the ineligible list in 2021 (DETE, 2021). By October 2021, almost all construction occupations were eligible for permits under the general employment category. In December 2023 further changes were announced with occupations such as project engineer, Building Information Modelling (BIM) Manager and BIM Coordinator added to the Critical Skills list. These occupations are particularly important for new builds and accelerating the adoption of modern methods of construction.

Changes are having an impact, with the number of employment permits issued in construction in 2022 more than double that of the previous year (DETE, n.d.a.). However, the construction sector remains a comparatively minor user of the employment permit system compared to the healthcare and ICT sectors, and to some extent other sectors (see Figure 6). In fact, the construction sector has consistently accounted for only around 4% of all employment permits issued (compared to 25-35% for health and social work) each year over the past four years (ibid.).

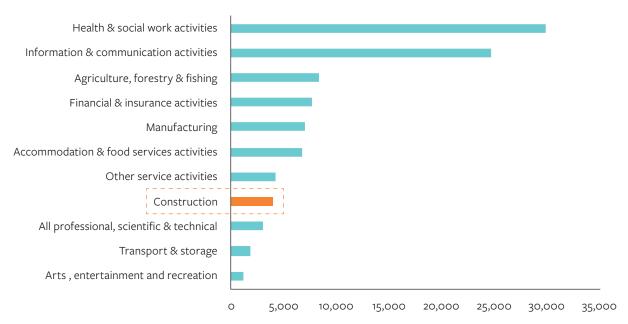


Figure 6 Employment permits issued, 2020–2023

Note: This shows the cumulative total for each year from 2020 up to November 2023.

Source: DETE (n.d.a.)

While breakdowns by occupation are not published consistently by DETE, researchers from the Economic and Social Research Institute (ESRI) report increases in work permits between 2020 and 2022 for: carpenters and joiners, occupations in welding trades, bricklayers, masons, and plasterers (McQuinn et al., 2023). Other data confirms that some roles are more prevalent for

the issuance of work permits than others, with the numbers issued for plumbers and electricians, painters/decorators, floorers and roofers remaining small (TUS et al., 2023).<sup>35</sup> Of the 1,474 employment permits issued for construction in 2022, only 414 (28%) were for the eight skilled trades added to the general employment permit list in 2021, i.e. the group that includes the craft occupations forecast to be in greatest shortage (ibid.).

It is also clear that there is demand for more accessible labour that is being met through other routes. Stakeholders described how migrant workers access the construction sector through student immigration permissions that confer the right to work up to 20 hours a week (or 40 hours a week during defined holiday periods) for those who come to learn English. Brazilians are the top nationality of students attending English language schools (Wilson, 2023) and have been noted as a source of labour for construction firms:

Definitely for Brazilians there is a large percentage of that group coming in on student visas... It is a route to work cash in hand [on building sites]... We know this anecdotally and often English courses report that there is a lot of non-attendance.

Indeed, students working more than the maximum permitted working hours has been identified as a common feature of student immigration (Groarke and Durst, 2019).

### Is the construction sector able to use the employment permit system effectively?

Given its historic reliance on an EU workforce, the construction industry has not had to use the immigration system extensively and Irish firms are not necessarily well equipped to do so.<sup>36</sup> Several key characteristics of the construction industry in Ireland make dealing with the immigration system complex. The sector is highly fragmented, with a relatively high level of self-employment and a large number of SMEs (Department of Business, Enterprise and Innovation, 2020). Some of this is related to how the industry changed after the financial crash, with various stakeholders pointing to the fact that 'firms became more risk averse and they started to do more subcontracting' and given that 'most large companies actually contract out... the skilled labour is with the subcontractors.'

Stakeholders interviewed universally agreed that 'there is greater capacity in larger firms when it comes to importing labour from abroad' and that it is 'bigger companies that have developed

For example, no plumbers/heating and ventilating engineers were issued work permits in 2020 or 2021 and only 47 permits were issued in 2022. Similarly, electricians/electrical fitters received no permits in 2020 and 2021, and only 13 in 2022.

The same challenge confronts construction firms in the UK, in their case exacerbated by Brexit; this is considered one of the key barriers for using the immigration lever to support the UK's net zero targets (Kumar et al., 2023).

expertise with the immigration system... often using a third party to assist them.' Smaller firms, by contrast, 'don't have capacity to engage in anything apart from their day-to-day work. They are unlikely to have an HR or recruitment person to engage with immigration processes.'

This difference is borne out in a rudimentary analysis of the DETE firm-specific data related to employment permits issued. Those construction firms recruiting significant numbers internationally are very large companies, and often international Irish-owned businesses (e.g. BAM Building, Castle Group, DPS Engineering and Construction, John Paul Construction). Many construction firms recruiting internationally bring in very small numbers each year, with typically just one or two hires according to 2022 data.<sup>37</sup>

Stakeholders interviewed offered their own examples of small firms using the immigration system, with a number of barriers discussed. In particular the labour market needs test was highlighted:

We did deal with a smaller construction firm. They were struggling with the labour market needs test. They are finding talent overseas but find it really difficult to use the system... They find it tedious... If you don't meet specific requirements, regarding the wording, in your advertisement it will lead to a refusal by the government, and you will have to start the process again.

While there is expectation that the new employment permits legislation due in 2024 'will try to deal with the pain points of SMEs' and 'the labour market test should become much easier,' the government could immediately put in place an exemption from this test for construction firms. Employers who are clients of the Industrial Development Agency (typically foreign multinationals and often businesses operating in the IT, pharmaceutical or finance industries) can already benefit from this exemption in appropriate cases. The same mechanism exists for local firms with Enterprise Ireland granting the exemption in this case. Enterprise Ireland could be encouraged to take a more flexible approach to granting these exemption letters to small construction firms so that a labour market test can be avoided.<sup>38</sup> From the consultation, it appears these opportunities are not widely known.

The 50:50 rule has also been highlighted as a barrier.<sup>39</sup> CIF, in its most recent submission to DETE, has pointed out the limitations of this rule in the context of firms having 'exhausted efforts to recruit suitable staff within Ireland and the EU' and where firms are delivering 'high value,

<sup>37</sup> It should be noted this finding is based on a very basic search of DETE data on 6,626 employer titles, using key terms [such as architect, building, construction, ceilings, flooring, electrical, heating, plumbing, insulation, roofing and scaffolding] to identify firms using the permit system in 2022 (DETE, 2023a). Many construction firms that use family (or other) names in their title were not captured.

Apart from simplifying their recruitment processes this also speeds up the process markedly (given the 28-day wait involved in the labour market test).

<sup>39</sup> Under this rule, which applies to both critical skills and general employment permits, a company can only seek to employ a third country national if 50% of its workforce are EEA nationals.

strategically important projects for the state and FDI projects which may carry onerous penalty clauses for not meeting targets.'40 They have asked for an exemption to the rule when employers are working on projects that are strategically important for the delivery of government policy.

There are bigger concerns particularly around the integration and accommodation aspect. One stakeholder who works through a subcontractor network explained:

The couple of people I know who have done it [recruitment from outside the EU] have said they're not minded to do it again. They can't find accommodation for migrant workers and, overall, all the onus is on the small businesses. It's not easy for them – it's a huge emotional burden. They're looking all the way across the world to bring people in and having to house them and take responsibility for their integration. It's a massive job and it takes months to get them here.

These difficulties are also aggravated by the risk element:

You're also taking a total punt on people coming and hoping they will have a skills base. When you recruit locally it will take you about three to six months to figure out if someone has the skills, but with recruitment internationally, you spend months and it's expensive and then eventually you might discover the person doesn't have good skills.

All in all, it is clear that international recruitment is a risky, burdensome and fraught process for SMEs to engage in.

The scale of Ireland's housing crisis<sup>41</sup> was repeatedly highlighted as perhaps the key challenge by the vast majority of stakeholders:

When we talk to potential employers the lack of accommodation comes up again and again. The lack of accommodation is very off-putting for their potential hires.

The National Risk Assessment cites the undersupply of appropriate housing and the inability to increase the supply of housing as one of the critical risks facing Ireland, with implications for

<sup>40</sup> This information is taken from CIF's submission to the DETE public consultation in 2023 for the review of occupations lists for employment permits. It was provided directly by CIF but will be publicly available after the consultation has closed.

<sup>41</sup> Ireland faces monumental challenges regarding housing affordability. Waiting lists for social housing rose 24% between 2018 and 2022 and levels of homelessness are at the highest on record (McWilliams, 2023). This comes after longstanding failures to increase the supply of affordable housing (with the state almost completely withdrawing from the direct provision of housing) and poor policies that have encouraged financialised practices to dominate the housing market (Hearne, n.d.).

'Ireland's overall competitiveness and attractiveness as a place to live and work' (Department of the Taoiseach, 2023: 22). Indeed, the consensus view is that the housing crisis is a national emergency (TUS et al., 2023).

The barriers to international recruitment faced by small firms have serious implications for the growth of the retrofitting industry, as pointed out by one interviewee:

SEAI just wants us to grow our output. And can we grow our output? No. These firms were looking for immigration outside the EU, but it takes months and is very frustrating... So, people are saying "let's not grow, we're doing OK, we're making a good income, why bring more hassle onto ourselves?" So what you see is a stagnation of the willingness of companies to grow.

Some feel there is not enough of a conversation, within the industry and with government, on how to proactively address these problems for SMEs:

This is not a topic of conversation, in terms of how the government could help the industry to source internationally. We're at a point where the supply of labour has worked and has got us so far. So now it's the next jump... We're not necessarily looking at the solution to that yet.

#### International protection applicants and refugees working in construction

International protection applicants are finding work in moderate numbers across the construction sector, with social networks helping them access jobs (Cunniffe et al., 2022; Polakowski and Cunniffe, 2023). Stakeholders confirmed the industry is looking to employ international protection applicants living in Direct Provision centres:

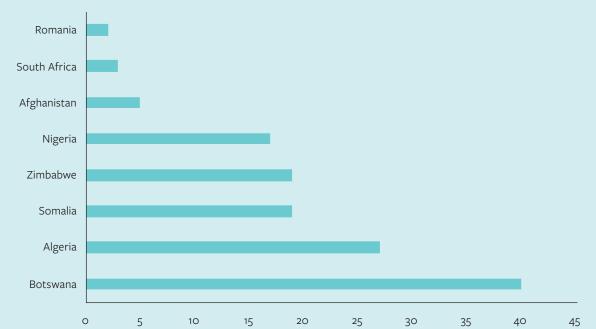
There is very generous access to the labour market for those in the asylum system and we have seen firms go to Direct Provision centres and run a bus to construction sites... so there seems to be more recruitment of migrants into the construction industry that way.

This is also borne out in the experience of St Andrew's Resource Centre, given the increasing attendance at their construction course by international protection applicants and refugees in recent years (see Box 6). In addition, Ukrainians are working in construction in increasing numbers: Central Statistics Office data shows 831 Ukrainians were working in construction in September 2023, compared to 607 in March (CSO, 2023a).

### Box 6 Non-Irish nationals attending St Andrew's Resource Centre

In the past 14 months the numbers of foreign nationals taking the construction course at St Andrew's 'has increased exponentially.' A representative also explained: 'Often we have a 50/50 mix of inner city people and foreign nationals... we have occasionally had a cohort that was 100% foreign nationals.' Based on 2023 data, people from 46 different countries engaged with the centre. The top nationalities who contacted the centre were: Afghans, Algerians, Batswana, Nigerians, Romanians, Somalians, South Africans and Zimbabweans, with citizens of Botswana the most likely to attend a course (see Figure 7). With the exception of Romanians, the top nationalities attending the centre all figure in the list of the top ten nationalities seeking international protection in Ireland in 2022 (Polakowski and Cunniffe, 2023).





Note: This table reports the numbers of those attending the course, based on the top nationalities that made contact with the centre. Due to the difficulty extracting records, attendance data was only provided for those nationalities that had registered more than 10 contacts with the centre.

The centre has observed significant differences between Irish and non-Irish cohorts of trainees. For example, the non-Irish trainees are often over-qualified for the course and may come already with professional qualifications (such as engineering, accountancy or teaching).

### Box 6 Non-Irish nationals attending St Andrew's Resource Centre (continued)

Often, migrant trainees view the construction course as an entry route into the industry after which they can demonstrate their skills on site and advance their careers. Foreign national women have also done particularly well on the course and, although only a small group have attended so far, they have a 100% placement rate. The ongoing demand for training from the migrant community is strong, with around 20 non-Irish workers currently on a waiting list for the next available course.

To maintain high levels of buy-in from local communities, the centre maintains a fast-track route for inner city residents. This ensures that the people that are in the area (and already engaged with state services like Intreo)<sup>42</sup> will always have rapid access to the next course. While this is an important policy to ensure no resentment arises around a lack of places, it was also made very clear at interview that 'having non-Irish nationals on the courses is not causing tension'. While there has been a high level of demand from non-Irish nationals, the centre has made no effort to be known within migrant communities. However, given that they are such an important part of training cohorts, it was made clear that in future 'if the numbers went down then we would look at it and we would reach out to the community.'

Source: Information provided directly at interview

Stakeholders pointed to significant numbers of Georgians who had applied for international protection, living in Direct Provision accommodation and working on building sites – and reportedly taking up work rapidly upon arrival, without waiting the six months to apply for a permit to work. As well-placed informants explained:

In the last 12 months there have been hundreds of Georgians passing through the reception centre. Most are going to work in construction... One thing they need is a Safe Pass. They need to do a course, but the Georgians can get these certificates. I definitely feel it's well organised with the Georgian network.

When it comes to those who work whilst in asylum accommodation, it would be very common for Georgians, and certainly more common with Georgians than other nationalities seeking asylum. They have a higher percentage of single males; normally that is the group that tends to work. There is anecdotal evidence that Georgians do not wait for the six months to pass before working and actually that they come with a job already lined up, or with knowledge and connections to a friend who can get them work on a building site.

<sup>42</sup> Intreo is the Irish Public Employment Service.

The number of Georgians making an application for international protection has been very high: 2,710 in 2022, or 20% of all international protection applicants that year (IPO, n.d.). Using an estimate that 67% of this group are over 18 and male,<sup>43</sup> it is likely that around 1,815 Georgian men arrived as international protection applicants in 2022. With a relatively conservative estimate that only half of these men were working in construction, this would mean around 900 Georgians on Irish construction sites. This is a very significant number compared to the 16 Georgian workers who were issued employment permits in 2022 or even compared to the total number of employment permits issued for the entire construction sector that year (1,472) (DETE n.d.a.). While only a small number of stakeholders were aware of Georgian workers in construction, there is a more general recognition that 'probably there's a lot of grey labour going on [on construction sites]'.

As part of efforts to relieve the pressure on the international protection system, a new regulation in November 2022 established an accelerated process for international protection applicants from 'safe countries of origin' (IPO, 2022). These countries include Georgia as well as Albania and South Africa.<sup>44</sup> It was expected this would reduce the numbers claiming international protection; indeed, numbers have more than halved in 2023. However, Georgia remained the fifth top country of origin of international protection applicants in 2023 (with 1,065 Georgians applying for protection in Ireland) (IPO, n.d.). It was pointed out by one interviewee that:

Because of the safe countries of origin designation and the drop in the number of Georgians coming, this change may have already negatively impacted on the construction sector. There may be less builders arriving and so less houses being built. But nobody will know this and this impact will not be visible.

Efforts are being made to find solutions and the idea of establishing legal pathways for Georgians has been brought up with the government. The topic was discussed between the Georgian and Irish governments during two high-level visits by Georgian delegations to Ireland during 2023. The Georgian government has also called publicly for such a scheme (McLaughlin, 2023). However, no progress has been made on either a general mobility scheme or a more targeted work permit scheme for Georgians seeking work in the construction sector. Georgia has had more success in crafting such agreements with other countries (see Box 7). While there is a fairly broad acceptance – including by the Georgian government itself – that many Georgians move for economic reasons (McLaughlin, 2023), this discussion should not diminish the fact that there are numerous complex reasons why people need to seek international protection, including in some cases complaints about human rights violations.<sup>45</sup>

This is based on immigration statistics from the first six months of 2022, the most recent period for which disaggregated data is available (DoJ, 2022).

Georgia has been officially designated as a safe country for some time, but this was the first time an accelerated procedure had been put in place to speed up the processing of their international protection applications.

For example, the Georgian government's opposition to the LGBT community and reports of far-right violence against LGBT activists have been reported (BBC, 2021).

### Box 7 Georgian migration to the EU

Since Georgia's visa liberalisation agreement with the EU in 2017, high numbers of Georgians have entered EU member states. Under this agreement Georgians can spend 90 days within a period of 180 days in EU countries without a visa (with the exception of Ireland, which does require one). It is known that many Georgians overstay their visa period and either subsequently apply for international protection or remain working but undocumented. Between 2018 and 2019, more than 40,000 Georgian international protection applications were submitted within the EU, or around 1% of the entire Georgian population (State Commission on Migration Issues, 2021). The overwhelming majority of applications (95% between 2017 and 2020) are rejected (State Commission on Migration Issues, 2021).

This is a topic of concern for the Georgian government, particularly given the political importance of maintaining the visa-free regime with the EU, as well as the potential impact on the country's candidacy for EU accession (McLaughlin, 2022; McLaughlin, 2023). As a result of EU pressure to curb these high numbers, the Georgian government is exploring alternatives, largely in the form of bilateral migration agreements. Georgia has signed circular migration agreements with four countries – France, Bulgaria, Germany and Israel – and maintains active negotiations with a number of others (e.g. Portugal and Switzerland).

Georgia's bilateral agreement with Germany provides for the recruitment of agricultural seasonal workers. Designed initially to recruit 500 workers, the quota was rapidly increased to 5,000 (Schneider, 2021). Demand for places on the programme has been very high (Lomsadze, 2021). With France, the bilateral agreement in place provides for the residency and employment of Georgians qualified across 50 professions, though it has not yet been implemented. This is partly a result of the lack of a dedicated agency on the French side to run recruitment, provide documents and approve residency permits. However, an interesting pilot scheme is now underway with one French region in relation to the manufacturing sector and particularly the recruitment of welders. 46 Under this programme, argon welding is offered in two vocational educational schools in Georgia, alongside French language training, before workers relocate.

<sup>46</sup> IOM Georgia are working with a community of communes (Communauté de Communes du Bocage Mayennais) in the north-west of France to support the recruitment of Georgian workers. The region in France is a big producer of wine and milk for which metal containers (and argon welding for their production) are essential.

### Efforts to promote international recruitment

While changes have been made to the employment permit system, the Irish government is also actively looking at how it can attract foreign workers to the sector. The creation of the Future Building Initiative in May 2022 is relevant here. While principally aimed at the unemployed, its mandate includes efforts to attract workers from across the EU/EAA to the construction sector in Ireland (Department for Social Protection, 2022). Stakeholders interviewed reported that this unit is also broadening its efforts to look at international recruitment from third countries. In June 2023, government representatives travelled with members of CIF to South Africa to scope out potential candidates for recruitment, as one interviewee explained:

We went to Johannesburg (and we also went to Manchester to do the same thing). In the South Africa case the engagement was with a number of companies who were clear about what skills they needed... [They] are looking for very niche skills like a construction manager or a quantity surveyor. So they are looking for senior people.

During the visit, the delegation met with the Department of Labour in South Africa, who were reportedly 'happy to engage', particularly given the very high unemployment rate in the country. There was also a South African delegation to Ireland in return, mainly to investigate aspects such as working conditions, contract terms, health and safety and welfare aspects. It remains to be seen what will come of this engagement.

Though immigration has been recommended as useful to respond to craft trades shortages, no similar outreach activity was reported to promote international recruitment for those occupations. Further, interviewees explained that: 'with elementary trades it's not really been part of the discussion from an immigration perspective'. This is certainly linked to the fact that the EU/EEA is traditionally seen as the source of manual labour; however, it is also driven by the default assumption that, 'when it comes to third country nationals, it's about skilled migration and that is the be-all and end-all. It's about maintaining the integrity of the EU and the EEA labour market.' Some stakeholders pointed to the limitations in this thinking:

It's grand to go to South Africa. Yes, we need more engineers. But we need four-fold when it comes to construction operatives compared to engineers. The government is looking more broadly but it must cover where the real deficit is. It's not just elementary but it's certainly closer to elementary.

Given shortages across all occupation levels, this imbalance has been noted:

Messaging on immigration is not always in line with the needs of the sector... Everyone is saying we need more people. In an environment of ubiquitous shortages, I do think elementary manual workers are where the biggest pinch point is, but messaging on immigration is not tied into that.

Indeed, the need for clearer messaging on immigration was a key message to emerge from the 'Building up Ireland' roundtable (CIOB, 2023).

#### International recruitment under the Displaced Talent for Europe pilot

Though not yet a dedicated focus of activity, more international recruitment for the construction sector could be promoted via the Displaced Talent for Europe (DT4E) programme (IOM Ireland, n.d.). This programme includes pilots in four countries – Ireland, the UK, Belgium and Portugal – and is funded by the European Commission under the Asylum, Migration and Integration Fund.<sup>47</sup> It is implemented by Talent Beyond Boundaries (TBB), the International Organisation for Migration (IOM) and Fragomen (the biggest international immigration services firm) in collaboration with the country governments. The programme provides a complementary pathway for refugees, outside of UN Refugee Agency resettlement programmes, and aims to enable employers to recruit refugees (and the forcibly displaced) using the employment permit system.<sup>48</sup>

To date, both the UK and Irish governments have agreed to provide priority processing and dedicated case management support to help address the various procedural and administrative barriers that refugees typically face. In the UK, the first pilot led to the recruitment of more than 230 nurses; so far, 17 refugees have been relocated to jobs in the tech, media, legal and construction sectors in the second pilot (Moussa and Sterck, Forthcoming). In Ireland, the programme is relatively new, though the team have already worked successfully with the Health Service Executive to recruit three refugees into its eHealth Division.<sup>49</sup> This cohort already has employment permits; visas are being processed and they will be arriving in Spring 2024.<sup>50</sup> In addition, two candidates are coming to take up ICT roles in the private sector with a telecoms company.

A key tool of the programme is TBB's 'Talent Catalog' which records details of refugees' (and displaced peoples') skills, education and work history, and is used by TBB to help employers identify potential candidates. The high calibre of candidates in TBB's talent pool was noted by a recent independent evaluation of the UK pilot (Moussa and Sterck, Forthcoming). Fragomen provides their expertise pro bono to advise TBB and IOM on the best approach from an immigration perspective and also to assist with employer outreach and government relations. Arrangements are then made for relocation of successful candidates, with IOM Ireland and TBB providing mentoring and cultural orientation, as well as support for settling in during the first

See European Commission (n.d.) for more details. Activity in Europe builds on successful pilots in Australia and Canada resettling more than 100 and 2,000 refugees respectively (Moussa and Sterck, Forthcoming).

<sup>48</sup> In Ireland's case, this programme is complemented with another pilot that offers education pathways for refugees (Nasc, n.d.). The EU Passworld programme is supporting Masters' students to come to Ireland under a community sponsorship approach. It includes local fundraising to cover students' costs and strong community integration support. Two students arrived in August 2023 to attend courses at the Faculty of Science and Engineering in the University of Galway. More university partnerships are on the way.

<sup>49</sup> This group is a mix of Syrian and Palestinian refugees who will be coming from Jordan and Lebanon.

<sup>50</sup> Conversations are also ongoing with the Health Service Executive and the Nursing and Midwifery Board of Ireland about bringing a cohort of nurses.

year in the country. In future, cohorts of refugees arriving under this programme will also benefit from Nasc's Welcome to Work programme, which will offer training to employers to welcome refugees into their workplace and support with community integration. Retention rates are high, with TBB reporting rates of 96% after one year in the UK, and 93% globally (Moussa and Sterck, Forthcoming).

As well as the healthcare sector in Ireland, the programme is targeting the IT, finance, biotech, energy and construction sectors to find interested employers. Engineers Ireland has shown interest in the programme, and a transport refrigeration company has requested support to recruit refrigeration engineers. There are clearly opportunities for the construction sector given the profile of candidates. The Talent Catalog records over 7,000 engineers, over 2,000 electricians, over 2,000 carpenters and woodworkers, over 700 plumbers and pipe fitters and over 11,600 other craftsmen (Talent Beyond Boundaries, n.d.).51 There is high potential for tailoring this programme to the retrofitting workforce in Ireland; a similar move has already been recommended to the UK government (Kumar et al., 2023).

#### Conclusion

Non-Irish nationals are once again a significant cohort working in construction, with migrant workers now solely driving increases in the sector's workforce. Workers from the EU remain important contributors, but increasingly other non-EU workers are important, including those who come to Ireland to seek international protection. While construction firms are using the immigration system, large firms are better placed to use it more easily, providing good packages and high salaries and arranging housing. Small firms find the system difficult to navigate, burdensome and risky. This divide 'further embeds the inequality between firms' and pertains especially to retrofitting, where SMEs are critical.

Government efforts are focused mainly on filling the more highly skilled posts that are in high demand. This is arguably unnecessary as 'the bigger construction companies are already ahead of the game' when it comes to using the immigration system. Efforts to attract craft workers using the immigration system are less evident. The lack of targeted initiatives to prepare and match international protection applicants and refugees to access construction jobs – despite chronic shortages and the likelihood of finding willing workers – is notable. This was recognised by many stakeholders who felt 'there should be a navigable route'. Although some efforts have been made in this regard, there has been little progress in practice.

The implications of employers having less access to low-paid construction workers via the EU/EEA workforce has not fully landed. An outdated default position remains that third-country nationals are sought after for their high skills, while manual labour will be supplied by the EU/EEA. This is

This is out of over 78,000 people who have registered in the database; 87% of those registered have intermediate or higher-level English language skills (Talent Beyond Boundaries, n.d.).

somewhat in contrast to the EU's own narrative, with the European Commission's representatives at the European Migration Network 2023 conference emphasising the need for attracting migrant workers of *all* skills levels from third countries to support Europe's green transition (EMN, 2023). There are clearly opportunities for the Irish government to do things differently and stakeholders were keen to see action in this area. Options for action are discussed in the next section.

### 7 Policy options

Given the scale and nature of the forecasted shortfalls, and the profile of the construction industry, Ireland needs immigration solutions that are tailored to the needs of SME subcontractors (particularly critical for retrofitting), while recruitment of workers into mid-skill and more elementary occupations needs to be enabled to support both retrofitting and new build. Such tailored solutions need as much careful thinking and purposeful action as the Irish government is showing in other areas. This section aims to fill that gap.

Ireland is of course not the only country which is grappling with these issues. Several OECD countries have made significant changes to their immigration rules, often with a focus on specific sectors and occupations (OECD, 2023). Many countries are realising immigration will be required to meet their net zero workforce goals and are exploring reforms and new partnerships (see Box 8).

### Box 8 Other countries' immigration reforms and partnerships to attract green skills

Germany is looking overseas to respond to its green skills shortages. Its solar industry association recently signed an agreement with the Skill Council for Green Jobs in India to secure workers (Kyllmann, 2023). To date, 51,000 workers have been trained in India, with many of these expected to contribute to photovoltaic expansion in Germany (Ernst, 2023). Germany's Public Employment Service is also working with the public employment agency in Colombia to recruit electricians. After an adaptation to the combination of technical courses taken at the national training institute to meet German standards, electricians are now directly recruited under a special pathway and can apply without any pre-travel process of formal qualification recognition. Germany is also involved in a two-year pilot with the International Centre for Migration Policy Development (ICMPD) currently focusing on green and digital skills development and migration from Kenya and Ghana to Germany (Huckstep and Dempster, 2024). Australia, already strongly dependant on migrant labour in its clean energy workforce, has also recognised the need for more migrant workers to achieve its net zero transformation. It is in discussion with India's Skill Council for Green Jobs and is undertaking active recruitment drives in the UK for roles including electricians (ibid.).

Five policy options are presented here. These cover reforms to permit rules, how to make better use of the untapped pool of refugee talent already in country and at global level, and skills mobility partnerships to develop a pipeline of workers.

<sup>52</sup> Information provided directly at interview.

A caveat from the outset: construction is a sector that needs to be approached with care in immigration policy terms given the precarious nature of employment in the industry and the well-established concerns about decent work for migrant construction workers (Keith and LeVoy, 2021). Any action taken to increase immigration into the sector should go hand in hand with explicit efforts to protect migrants' rights, monitor workplace conditions and ensure enforcement of labour laws.<sup>53</sup> A structured social dialogue with trade union representatives and migrant rights organisations should be an integral part of such efforts.

### Option 1: Put all craft occupations on the Critical Skills list or create an enhanced General Employment Permit for the construction sector

A recommendation to put craft workers on the Critical Skills list has already been made by ESRI researchers (Egan et al., 2022). Putting the craft occupations that are most in shortage on the Critical Skills list would make migration much more attractive for essential workers owing to the enhanced rights under this permit. The fact that there is no labour market test for critical skills occupations would likely help boost the participation of SMEs in international recruitment under this permit category. It should be noted that this proposal would require an amendment to the Employment Permits Regulations to include these occupations in the Critical Skills list, and also because normally a degree qualification or higher is needed for CSEP eligibility if the remuneration is below €64,000. As Regulations are secondary legislation, they can be revised without parliamentary intervention, and it is common that changes to the Regulations are made periodically based on labour market needs and industry feedback. These roles could be included in the Critical Skills list during one of these periodic reviews alongside a stipulation that a trade qualification is sufficient for craft occupations to be eligible for a CSEP.

An alternative measure would be to amend the family reunification and residency policy for General Employment Permit (GEP) holders in the construction sector, so that they have immediate family reunification rights, spouses can work unsponsored, and workers have access to Stamp 4 after two years. This would essentially create an 'enhanced' GEP for the construction sector. This, in combination with Enterprise Ireland support letters to waive the need for a labour market needs test in GEP cases, would also support increased international recruitment of craft workers.

### Option 2: Consider a 'job search' permit targeted at construction occupations

A 'job search' visa is already offered by nine OECD countries (Austria, Chile, Denmark, Germany, Japan, Korea, the Netherlands, Portugal and Sweden) that allow highly skilled workers and/or those in shortage occupations to come in search of work (OECD, 2023). Duration and eligibility

This does imply more responsibilities and resources for the (currently small) Workplace Relations Commission to bolster labour enforcement.

criteria vary. In Germany, the Skilled Immigration Act passed in 2023 expands visas offered under a 'potential' pillar; this will allow third-country nationals with relevant work experience (including two years vocational experience) to apply for an Opportunity Card. From June 2024, workers will be able to reside in Germany to look for work and to work up to 20 hours a week while there (Grunau, 2023; Keller, 2023). The criteria for eligibility include language skills, work experience and connections to Germany; applicants must also demonstrate financial independence.

One benefit of this option is that employers could meet prospective hires before committing, which would likely to be viewed as helpful by SMEs in the construction sector – not least because a demonstration of workers' technical skills becomes feasible. This new permit category could be the subject of a limited trial and tailored for workers with vocational qualifications and experience working in craft occupations. A temporary permit could be issued, with workers obliged to change permit once they accept a job offer, hence maintaining the employer-led aspect at the centre of Ireland's employment permit system.

### Option 3: Support international protection applicants and refugees in Ireland to access construction jobs

Ireland has no strategic approach to facilitate the access of international protection applicants and refugees to the construction sector. This is a missed opportunity. The need for a targeted approach for this group, particularly given their unique needs and tendency to fare worse in labour market outcomes, has already been established (Polakowski and Cunniffe, 2023). Data and evidence – including the experience of St Andrew's Resource Centre – show that a strategy to promote and facilitate entrance into construction is likely to be attractive to some who see the sector as offering a viable livelihood or useful stepping stone in their career. Ireland can also look to the experience of Germany, where there are several efforts to support refugees to find jobs in green occupations, such as in heat pump manufacturing and heat pump and solar installation (Huckstep and Dempster, 2024).

The infrastructure the government has put in place (e.g. NZEB Centres of Excellence)<sup>54</sup> already offers practical opportunities for upskilling. Education and Training Boards (ETBs) also offer English courses in conjunction with construction and retrofitting courses with a core mandate for diversity and inclusion; they are well equipped to respond in this area. This moment is timely given that the consultation for the new migrant integration strategy opened in October 2023. In any new initiative, there is also an important opportunity to build in training for new roles such as retrofitting assistants. The type of approach envisaged by St Andrew's in its strategy for 2024 (see Box 4) could be replicated in carefully selected locations in coordination with ETBs and based on LOETB's experience. There is also an opportunity to build in an introduction of course

In future, it is likely the existing NZEB centres will transition to become Zero Emission Buildings (ZEB) Centres of Excellence, in line with evolving targets and standards, with implications for course content.

trainees to retrofitting subcontractors, via a connection with the One Stop Shop network in some places, to ensure small retrofitting firms directly benefit. Involving SEAI directly in such pilots would help ensure these efforts directly support the retrofitting supply chain.

### Option 4: Make better use of the untapped global pool of refugee talent

There is also potential to scale-up construction sector recruitment under the Displaced Talent for Europe (DT4E) pilot, action that would be in line with the EU's recommendation that Member States increase complementary labour pathways for people in need of international protection (European Commission, 2023a). This is also being explored in the UK; the Scottish government in collaboration with Scottish Renewables is shaping its participation in the UK's pilot with a view to recruiting engineers for the renewable energy sector (Kumar et al., 2023). There are several clear areas for action:

#### 1. Work more closely with the DT4E pilot to target retrofitting recruitment

Individual construction firms can already benefit from the services offered by TBB and their implementing partners. However, learning from the UK Home Office's evaluation of its pilot, the Irish government could play a more enabling role in connecting the programme with potential employers. The government should enable wide collaboration with construction sector stakeholders, SEAI, the One Stop Shop network and their subcontractors, which would help to scale up this programme in support of Ireland's emissions reduction targets. There is also scope for a cohort-hiring approach, with employers working in consortium with TBB to more efficiently recruit internationally. Closer coordination could also take the form of a roadshow – not dissimilar to the South Africa experience but with much faster timeframes and reduced bureaucracy (given that TBB already has a network of partners in countries overseas and an identified talent pool). High retention rates and the fact that TBB and their partners provide a full service (including mentoring, orientation, and integration services) are also likely to make this a very attractive programme for SMEs given the burden (including the emotional burden) they usually shoulder in recruiting internationally.

Importantly, putting craft occupations on the CSEP list (or an enhanced GEP) would have a significant impact on the ability of the DT4E programme to recruit refugees, as noted in an interview:

It would make it much easier for us to recruit displaced talent for those jobs... From both an attractiveness and retention perspective, as well as a human rights perspective, we need to offer our candidates enhanced rights, the ability to be accompanied by family, and a more rapid pathway to a permanent legal status.

The recent evaluation concluded that the UK government could do more in driving employer demand and makes recommendations in this area (Moussa and Sterck, Forthcoming).

### 2. Build in retrofitting upskilling in Ireland as part of refugee recruitment under the DT4E pilot

With some small adjustments, the DT4E pilot also has the potential to be applied, combining upskilling in Ireland as part of the package. Construction workers recruited under the programme could be provided with upskilling in NZEB centres followed by placements in the sector. TBB, together with LOETB and Mount Lucas National Construction Centre (as well as the wider ETB network), could ensure this upskilling offer accompanies the issuance of an employment permit to any refugee recruited under the programme for construction sector occupations.

### Option 5: Develop mobility partnerships with upskilling in the country of origin

This is an attractive option that could be managed to ensure workers with the right skill sets are recruited, which would significantly reduce risks for small firms (see Box 9 for an introduction to skills mobility partnerships). Ireland already has well prepared curriculums and content via its NZEB Centres of Excellence and clear standards for training and certifications, though some adaptation would no doubt be necessary with cohorts of workers overseas. In general, the costs of training in countries of origin are lower than for training in destination countries (Clemens, 2014).

### Box 9 Skills mobility partnerships

Skills mobility partnerships involving governments and relevant public agencies seek to promote skilled migration in a way that benefits both countries of origin and destination countries, as well as both individuals and employers. Benefits include the alleviation of labour and skills shortages in countries of destination; the upskilling, employment and wages provided to migrant workers (and the remittances sent back to families and communities); and the training benefits received by wider cohorts of workers in countries of origin through skills development programmes implemented locally. Though not yet widely used, they have been implemented in healthcare, ICT and agriculture, with Germany and Belgium experienced in this area (EMN, 2022). These partnerships are notable for five components: formalised state cooperation, multi-stakeholder involvement (with a strong private sector role), training, skills recognition, and a mobility element (ibid.). They may also include vocational training in the country of origin or destination, internships in the destination country, or scholarships. The development of a training curriculum is essential, and strong involvement of private sector partners is desirable to elaborate the skills and training requirements. The key challenges are the costs of training and the complexity of organisational aspects given multiple stakeholders, language barriers, and the fact that these partnerships are often small-scale, niche initiatives (ibid.).

Multiple opportunities exist for these types of partnerships. Two are noted here:

#### 1. A retrofitting skills mobility partnership with Georgia

The need for a legal pathway for Georgian workers to come to Ireland has already been discussed. While a general legal pathway is an option, <sup>56</sup> it may be more feasible to establish a sector-specific pathway for the construction sector, based on a retrofitting skills mobility partnership with Georgia. This would include the upskilling of workers in Georgia before travel, taking advantage of Georgia's well-developed vocational and technical education infrastructure. <sup>57</sup> As noted above, Georgia has already successfully tailored and implemented courses to prepare argon welders to meet the needs of French firms. This is a result of the government's active efforts to mainstream mobility aims into their skills development efforts. It is likely the Georgian government would be interested in a retrofitting skills development package, given the high demand for these workers and skills across Europe. However, the need to ensure the same terms and conditions as the domestic workforce is paramount, and so any new initiative should involve Irish trade unions and monitoring of working conditions.

#### 2. A 'hire-train-move' model as part of efforts to scale up refugee labour mobility

A 'hire-train-move' model – where upskilling of cohorts of refugees takes place overseas – is a new model being explored by organisations working on refugee labour mobility at global level. It is an adapted form of a skills mobility partnership, with training taking place in the country where refugees are currently residing before they resettle. This approach could be initiated by a private sector consortium of construction firms independently or with the support of the Irish government. European Commission funds are available to support this type of experimentation under the Migration Partnership Facility of ICMPD, and although this particular model has not been trialled before, this is an ideal opportunity for Ireland to lead innovation in this area. Given the infrastructure already in place under the DT4E programme, there are strong organisations to work with to deliver the model, including established partners and training infrastructure in countries of origin.<sup>58</sup>

Although this would be unusual for Ireland, there are examples of preferential legal pathways for certain countries. For example, Germany's special Western Balkans regulation – covering Albania, Bosnia-Herzegovina, Kosovo, North Macedonia and Serbia – was designed precisely to move people from the international protection channel to a labour channel (Schneider, 2021). While the exact causal impact of the regulation is not clear, in the two years following its introduction work visas granted to Western Balkans' nationals increased significantly and there was a large drop in asylum applications (Bither and Ziebarth, 2018).

Vocational and technical colleges have good geographic coverage across the country, with a variety of construction courses on offer and language training for those seeking work abroad.

An example of an in-country partner that is part of TBB's network is Luminus Technical College in Jordan. Construction is one of its 12 areas of specialisation; it also delivers English language courses as a core part of its curriculum. Syrian refugee students are frequently part of their training cohorts, with the EU and other donors covering scholarships for refugees. The college has benefited from a major investment by the World Bank's International Finance Corporation (IFC, 2018).

Other options that were discussed during this consultation but are not being proposed at this time include a sector-based permit for construction and a visa for craft apprenticeships. Sector-based permits offer flexibility to change employers, which could have benefits, but are administratively difficult in the context of Ireland's existing system. The visa for craft apprentices would be in line with the EU's focus on the increased mobility of apprentices to address skills gaps (European Commission, 2023b). However, it was discounted due to the very low pay scale (which is only really appropriate for young people able to live at home) and the risk of exploitation it would entail due to both low pay and a tied visa over a four-year time period.

### Taking reform options forward

All five options presented here could be pursued in parallel. This would ensure permit options are attractive to construction workers and that firms would have a pipeline of suitably skilled workers, via new international partnerships or enhanced efforts with jobseekers in-country.

Changes to permit rules must be made soon, given the urgency of retrofitting targets. Reforms take time to yield results given the delay in waiting for workers to apply and for permits and visas to be processed. To stimulate a more rapid reaction to any changes, the government could seek to use networks to its advantage with a communications strategy targeting the social networks of important migrant groups already working in the sector (e.g. Brazilians). A local effort within migrant communities in Ireland would be an efficient first step to communicate the opportunities for specific workers in shortage. The government could also do more to convey the critical relationship between immigration and the construction sector in its communications efforts.

The opportunity for the Irish government to make better use of existing partnerships and infrastructure is clear. Given the confidence that the Mount Lucas National Construction Centre, under the leadership of LOETB, has the capacity to expand (DFHERIS, 2022), and with the space available within the NZEB training system, as well as the surplus in the National Training Fund, there is clear scope to explore new activities.

### 8 Conclusions

The scale of the challenge of meeting national retrofitting and Housing for All targets is immense, with the availability of labour the single biggest barrier to achieving the government's targets. While building new homes appears to be on track, retrofitting is far from meeting its targets. And while new build benefits from higher productivity using more modern methods of construction, much of retrofitting relies on traditional craft skills and will remain labour intensive.

The proactive efforts of the government around upskilling and apprenticeships are widely recognised and appreciated. However, new entrants are needed in very significant numbers. A combination of very low unemployment, generalised labour shortages, and the construction industry's unattractiveness to school-leavers, means there is simply not a ready pool of workers. The latest data shows that it is migrant workers that have solely driven increases in the construction sector workforce in the last year. While the traditional EU workforce remains important, all evidence points to a future of increasing reliance on migrant construction workers from third countries.

Immigration is not a silver bullet. It is just one piece of the workforce development puzzle. Fortunately, the Irish government has already recognised this and has made facilitating immigration part of its strategy. Its efforts to reform permit rules for the construction sector have yielded some (limited) results. So far, the most proactive efforts have been skewed towards the need of big firms to secure highly paid workers in professional occupations, an approach which combines those that require the least support with occupations that are less critically in shortage. Now is the time to rebalance that strategy. The government should look to immigration solutions that are tailored to the needs of the SME subcontractors that will be critical for retrofitting and refocus its efforts at mid-skill occupations.

It is the elementary construction worker that is most overlooked. This is a difficult area; the mismatch between the demand for lower-paid labour and their legal migration channels is an enduring feature of migration policy. Ireland's permit system has traditionally favoured highly skilled professional occupations over essential workers. If maintained, this bias is likely to undermine the ability of the construction sector to grow and for key targets to be met.

There is little room for complacency given that the latest assessments show that Ireland is likely to fall far short of its 2030 emissions target (O'Sullivan, 2023). Solutions are needed, and rapidly. Fortunately, there are opportunities to do things differently, with five potential options laid out here for consideration. Taking action in this area can also help Ireland align more with the EU on labour migration, increasingly a priority of the government. And while Ireland has traditionally maintained a clear departmental split across various migration-related areas (with DETE, the Department of Justice, the Department of Children, Equality, Disability, Integration and Youth and the Department of Social Protection all involved) there is 'an interest in looking more strategically

at migration' and moving from a fragmented system to a whole-of-government approach. Pursuing tailored immigration solutions to achieve national retrofitting and Housing for All targets provides an ideal focus for more coordinated cross-governmental efforts.

### References

- **BBC** (2021) 'Georgia: Tiblisi pride cancelled amid violent protests.' BBC, 5 July (www.bbc.co.uk/ news/world-europe-57720366).
- **Bither, J. and Ziebarth, A.** (2018) *Creating legal pathways to reduce irregular migration? What we can learn from Germany's "Western Balkan Regulation"*. Migration Strategy Group on International Cooperation and Development (www.bosch-stiftung.de/en/publication/creating-legal-pathways-reduce-irregular-migration-what-we-can-learn-germanys-western).
- **Bohane, J.** (2023) "Not one person has responded' to teaching ad Cork principals highlight shortage of teachers.' Echo Live.ie, 10 August (www.echolive.ie/corknews/arid-41201614.html).
- CCAC Climate Change Advisory Council (2022) *Annual Review 2022*. Dublin: CCAC (www.climatecouncil.ie/councilpublications/annualreviewandreport/Annual%20Review%20 2022%20Web%20Version.pdf).
- **CCAC** (2023) *Annual Review 202*3 Dublin: CCAC (www.climatecouncil.ie/councilpublications/annualreviewandreport/CCAC-AR-2023-postfinal.pdf).
- **CIF Construction Industry Federation** (2023a) Budget 2024. Construction Industry Federation Submission. Dublin: CIF. (https://cif.ie/2023/09/13/government-must-invest-in-the-planning-system-to-accelerate-infrastructure-and-housing-delivery-in-budget-2024-says-construction-industry-federation/).
- **CIF** (2023b) 'Construction Industry Federation Q2 Economic Outlook Survey: Positive growth in construction sector continues but 77% of companies cite access to labour as biggest concern.' CIF News, 8 September (https://cif.ie/2023/09/08/construction-industry-federation-q2-economic-outlook-survey-positive-growth-in-construction-sector-continues-but-77-of-companies-cite-access-to-labour-as-biggest-concern).
- CIOB Chartered Institute of Building (2023) Building up Ireland: professional insights from the construction sector in 2023. Dublin: CIOB (www.ciob.org/building-up-ireland-2023).
- **Clemens, M.** (2014) Global skill partnerships: a proposal for technical training in a mobile world. Washington DC: CGD (www.cgdev.org/publication/global-skill-partnerships-proposal-technical-training-mobile-world).
- **Cork Education and Training Board** (2023) 'Cork College of FET Bishoptown campus unveils centre of excellence'. Webpage (www.corketb.ie/cork-college-of-fet-bishopstown-campus-unveils-centre-of-excellence).
- **Coyne, B.** (2023) *Residential retrofit review*. Working Paper No. 18, Climate Change Advisory Council (www.climatecouncil.ie/councilpublications/councilworkingpaperseries/ Residential%20retrofit%20review%20report%20FINAL%20WEB.pdf).
- Coyne, B., Petrov, I., Ryan, L. and Denny, E. (2022) ReHeat: review of the Irish heat sector policies, technologies and best practice. Working Paper No. 9, Climate Change Advisory Council (www.climatecouncil.ie/councilpublications/councilworkingpaperseries/Working%20 Paper%20No.%209.pdf).
- **Crosson, K.** (2019) 'Skill shortage major challenge for retrofit plans.' Green News.ie, 11 July (https://greennews.ie/skill-shortage-retrofit-plans/).
- CSO Central Statistics Office (n.d.) Open Data Platform (https://data.cso.ie).

- **CSO** (2023a) 'Arrivals from Ukraine in Ireland. Series 11.' Webpage (www.cso.ie/en/releasesandpublications/fp/p-aui/arrivalsfromukraineinirelandseries11/).
- **CSO** (2023b) 'Labour force survey quarter 3 2023.' Webpage (www.cso.ie/en/releasesandpublications/ep/p-lfs/labourforcesurveyquarter32023/keyfindings/).
- **CSO** (2023c) 'Population and migration estimates, April 2023.' CSO statistical publication (www.cso.ie/en/releasesandpublications/ep/p-pme/populationandmigrationestimatesapril2023/keyfindings/).
- **Cunniffe, E., Murphy, K., Quinn, E. et al.** (2022) *Explaining recent trends in international protection applications in Ireland.* Dublin: Economic and Social Research Institute (www.esri. ie/publications/explaining-recent-trends-in-international-protection-applications-in-ireland).
- **Department of Business, Enterprise and Innovation** (2020) *Focus on construction: August 2020.* Government of Ireland (https://enterprise.gov.ie/en/publications/publication-files/focus-on-construction-2020.pdf).
- **DETE Department of Enterprise, Trade and Employment** (n.d.a) 'Employment Permit Statistics.' Datasets (https://enterprise.gov.ie/en/publications/?t=Employment+Permits).
- **DETE** (n.d.b) 'Ineligible list of occupations for employment permits'. Webpage (https://enterprise. gov.ie/en/what-we-do/workplace-and-skills/employment-permits/employment-permit-eligibility/ineligible-categories-of-employment/).
- **DETE** (2021) 'Minister Damien English announces comprehensive changes to the employment permits system in Ireland.' Department News, 28 October (https://enterprise.gov.ie/en/news-and-events/department-news/2021/october/20211027b.html).
- **DETE** (2022a) 'Critical skills occupation list'. Webpage (https://enterprise.gov.ie/en/what-we-do/workplace-and-skills/employment-permits/employment-permit-eligibility/highly-skilled-eligible-occupations-list/).
- **DETE** (2022b) 'Minister English to modernise the Employment Permits system.' Department News, 29 July (https://enterprise.gov.ie/en/news-and-events/department-news/2022/july/minister-english-to-modernise-the-employment-permits-system.html).
- **DETE** (2023a) 'Employment Permit Statistics 2022.' Dataset (https://enterprise.gov.ie/en/publications/employment-permit-statistics-2022.html).
- **DETE** (2023b) 'Review of the employment permits occupation list and roadmap for minimum annual remuneration thresholds.' Advisory Note users of the employment permit system (https://enterprise.gov.ie/en/publications/publication-files/advisory-note-users-of-employment-permit-system.pdf).
- **DFHERIS Department of Further and Higher Education, Research, Innovation and Science** (2022) Report on the analysis of skills for residential construction and retrofitting, 2023 to 2030 (www.gov.ie/en/publication/10ae6-report-on-the-analysis-of-skills-for-residential-construction-retrofitting-2023-to-2030/).
- **DFHERIS** (2023a) *Careers in construction: action plan.* Working Group for the Promotion of Careers in the Construction Sector. Government of Ireland (www.gov.ie/en/publication/2733a-careers-in-construction-action-plan/).
- **DFHERIS** (2023b) 'Ministers Harris and Ryan welcome record number of retrofitting enrolments for 2022.' DFHERIS Press release, 17 January (www.gov.ie/en/press-release/d9acd-ministers-harris-and-ryan-welcome-record-number-of-retrofitting-enrolments-for-2022/).

- **Department of Housing, Local Government and Heritage** (2024) 'Fossil fuel boilers effectively phased out in new dwellings'. Press release, 15 January (www.gov.ie/en/press-release/b368f-fossil-fuel-boilers-effectively-phased-out-in-new-dwellings/).
- **Department of Public Expenditure and Reform** (2020) *Construction Sector Group Building Innovation*. Government of Ireland (www.gov.ie/en/publication/827c7-construction-sector-group-building-innovation/).
- **Department of Social Protection** (2022) 'Ministers Heather Humphreys and Simon Harris launch new drive to recruit construction workers.' Press release, 5 May (www.gov.ie/en/press-release/a1167-ministers-heather-humphreys-and-simon-harris-launch-new-drive-to-recruit-construction-workers/).
- **DECC Department of the Environment, Climate and Communications** (2022) *Climate action plan 2023. Changing Ireland for the better.* Government of Ireland (www.gov.ie/en/publication/7bd8c-climate-action-plan-2023/).
- **DoJ Department of Justice** (2022) *Immigration in Ireland Statistics. 2022 Mid-year review.*Government of Ireland (www.irishimmigration.ie/wp-content/uploads/2023/01/Mid-Year-Review-Statistics-Booklet-2022.pdf).
- **Department of the Taoiseach** (2023) *National risk assessment 2023. Overview of strategic risks.* Government of Ireland (www.gov.ie/en/press-release/311d3-government-publishes-national-risk-assessment-2023-outlining-top-strategic-risks-facing-ireland/).
- **Department of the Taoiseach and Department of the Environment, Climate and Communications** (2022) 'Government launches the National Retrofitting Scheme.' Press release. Irish Government (www.gov.ie/en/press-release/government-launches-the-national-retrofitting-scheme/).
- **Egan, P., McQuinn, K. and Kenny, E.** (2022) *Increasing future housing supply: what are the implications for the Irish economy?* Dublin: ESRI (www.esri.ie/publications/increasing-future-housing-supply-what-are-the-implications-for-the-irish-economy).
- **EGFSN Expert Group on Future Skills Needs** (2019) *Skills for the construction sector:*Assessment of 2008-2018 strategies. Dublin: EGFSN (www.skillsireland.ie/all-publications/2019/construction-skills-assessment-of-2008-2018-strategies.html).
- **EGFSN** (2020) Building future skills: the demand for skills in Ireland's built environment sector to 2030. EGFSN and National Skills Council (www.egfsn.ie/all-publications/2020/building-future-skills.html).
- **EGFSN** (2021a) Labour demand estimates for Ireland's national housing targets. EGFSN and National Skills Council (www.skillsireland.ie/all-publications/2021/labour-demand-estimates. html).
- **EGFSN** (2021b) *Skills for zero carbon. The demand for renewable energy, residential retrofit and electric vehicle deployment skills.* Department of Enterprise, Trade and Employment (www.skillsireland.ie/all-publications/2021/skills-for-zero-carbon.html).
- **ELA European Labour Authority** (2023) EURES Report on labour shortages and surpluses 2022 (www.ela.europa.eu/sites/default/files/2023-09/ELA-eures-shortages-surpluses-report-2022.pdf).

- EMN European Migration Network (2022) Skills mobility partnerships: exploring innovative approaches to labour migration. Brussels: European Migration Network (www.oecd.org/ migration/mig/2022-March-Joint-EMN-OECD-Inform-Skills-Mobility-Partnerships.pdf).
- EMN (2023) 'Shaping the future of EU legal migration: Where are we and where do we want to go?' EMN Spanish Presidency Conference, 16-17 November (www.emnspain.gob.es/en/emnspanish-presidency-conference).
- Ernst, R. (2023) 'Germany trying to attract "solar workers" from India'. pv magazine, 28 February (www.pv-magazine.com/2023/02/28/germany-trying-to-attract-solar-workers-from-india/).
- **European Commission** (n.d.) 'Asylum, migration and integration fund (2021-2027)'. Migration and Home Affairs (https://home-affairs.ec.europa.eu/funding/asylum-migration-andintegration-funds/asylum-migration-and-integration-fund-2021-2027\_en).
- **European Commission** (2023a) 'Commission Recommendation of 15.11.2023 on the recognition of qualifications of third-country nationals'. Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (https://single-market-economy.ec.europa.eu/publications/ commission-recommendation-recognition-qualifications-third-country-nationals\_en).
- European Commission (2023b) 'Proposal for a Council Recommendation 'Europe on the Move' - learning and mobility opportunities for everyone'. Erasmus+ (https://erasmus-plus.ec.europa.eu/document/proposal-for-a-council-recommendationeurope-on-the-move-learning-mobility-for-everyone).
- Friends of the Earth Ireland (2023) Still left out in the Cold. Dublin: Friends of the Earth (www.friendsoftheearth.ie/news/irish-households-still-being-left-out-in-the-cold/).
- Gençsü, I., Grayson, A.P., Mason., N and Foresti, M. (2020) Migration and skills for the lowcarbon transition. Working Paper. London: ODI (www.odi.org/en/publications/migration-andskills-for-the-lowcarbon-transition).
- Goldrick-Kelly, P. and Nugent, C. (2019) Matching skills needs with skills reserves. Protecting workers and communities for a just transition. NERI Working Paper Series, NERI WP 2019/65, Dublin: NERI (www.nerinstitute.net/sites/default/files/research/2019/working%20paper%20 series%20no%2065\_final.pdf).
- **Groarke, S. and Durst, C.** (2019) Attracting and retaining international higher education students: Ireland. Dublin: ESRI, Research Series Number 88. ESRI and EMN (www.esri.ie/ publications/attracting-and-retaining-international-higher-education-students-ireland).
- **Hearne, R.** (n.d.) 'Why fixing Ireland's housing crisis requires a change of policy'. Webpage. Maynooth University (www.maynoothuniversity.ie/research/spotlight-research/why-fixingirelands-housing-crisis-requires-change-policy).
- Houses of the Oireachtas (2022) 'Daíl Éireann debate Wednesday 12th October 2022: Employment Permits Bill 2022. Second stage.' Webpage (www.oireachtas.ie/en/debates/ debate/dail/2022-10-12/16/).
- Huckstep, S. and Dempster, H. (2024) Meeting skill needs for the global green transition: a role for labour migration. Washington DC: CGD (www.cgdev.org/publication/meeting-skill-needsglobal-green-transition-role-labour-migration)

- **Hunt, J.** (2023) 'How to retrofit your home and slash your energy bills.' Irish Times, 8 August (www.irishtimes.com/your-money/2023/08/08/how-to-retrofit-your-home-and-slash-your-energy-bills/).
- **IEA International Energy Agency** (2022) *The future of heat pumps. World Energy Outlook Special Report.* Paris: IEA (www.iea.org/reports/the-future-of-heat-pumps).
- **IFC International Finance Corporation** (2018) *Educating students for jobs, stability and growth. Luminus: transforming vocational education in Jordan.* Washington DC: IFC (www.luminuseducation.com).
- IGBC Irish Green Building Council (2022) Building a Zero Carbon Ireland: a roadmap to decarbonise Ireland's Built Environment across its Whole Life Cycle. Dublin: IGBC (www.igbc. ie/building-a-zero-carbon-ireland/).
- **IOM International Organisation for Migration Ireland** (n.d.) 'Displaced Talent for Europe (DT4E).' Webpage (https://ireland.iom.int/displaced-talent-europe-dt4e).
- **IPO International Protection Office** (n.d.) 'Statistics'. Webpage. IPO (www.ipo.gov.ie/en/ipo/pages/statistics).
- IPO (2022) 'What's new'. Webpage (www.ipo.gov.ie/en/ipo/pages/whatsnew).
- **Keith, L. and Díaz-Bertrana, C.** (2022) *Labour migration policies. Case study series: Ireland.* Brussels: Platform for International Cooperation on Undocumented Migrants (https://picum.org/wp-content/uploads/2023/08/Labour-migration-policies\_Case-study-series\_Ireland\_EN.pdf).
- **Keith, L. and LeVoy, M.** (2021) *Designing labour migration policies to promote decent work.*Brussels: Platform for International Cooperation on Undocumented Migrants (https://picum. org/wp-content/uploads/2023/08/Designing-labour-migration-policies-to-promote-decentwork-EN.pdf).
- **Kumar, C., Alvis, S. and Giritharan, A.** (2023) *Decarbonising the UK's building stock: can immigration policy help solve workforce challenges?* London: ODI (https://odi.org/en/publications/decarbonising-the-uks-building-stock-can-immigration-policy-help-solve-workforce-challenges/).
- **Kyllmann, C.** (2023) 'Skilled workers from India encouraged to fill gap in Germany's solar industry'. Clean Energy Wire, 27 February (www.cleanenergywire.org/news/skilled-workers-india-encouraged-fill-gap-germanys-solar-industry).
- **Lomsadze, G.** (2021) 'Germany's new gastarbeiters: Georgians'. Eurasianet, 19 March (https://eurasianet.org/germanys-new-gastarbeiters-georgians).
- **Loughlin, E.** (2022) 'Retrofit plan will go up in smoke if we can't find people to do the work.' Irish Examiner, 8 February (www.irishexaminer.com/opinion/columnists/arid-40802643.html).
- **Lowes, R.** (2022) 'Good COP/Bad COP: Balancing fabric efficiency, flow temperatures and heat pumps'. Regulatory Assistance Project, 30 November (www.raponline.org/knowledge-center/good-cop-bad-cop-balancing-fabric-efficiency-flow-temperatures-heat-pumps/).
- **Malone, E.** (2023) 'More jobs than workers: can Ireland's tight labour market be fixed?' Irish Times, 10 June (www.irishtimes.com/ireland/2023/06/10/more-jobs-than-workers-canirelands-tight-labour-market-be-fixed/).

- Mason, N., Gençsü, I., Feyertag, J., and Löwe, A. (2022) Migration for climate action: how labour mobility can help the green transition. Working Paper. London: ODI (www.odi.org/ en/publications/migration-for-climate-action-how-labour-mobility-can-help-the-greentransition/).
- McLaughlin, D. (2022) 'Surge in Georgians requesting asylum raises fears the country could lose its visa free travel status in Europe.' Irish Times, 30 July (www.irishtimes.com/ ireland/2022/07/30/surge-in-georgians-requesting-asylum-raises-fears-the-country-couldlose-its-visa-free-travel-status-in-europe/).
- McLaughlin, D. (2023) 'Georgians in Ireland: Why so many make the journey, and why one man went back home.' Irish Times, 10 December (www.irishtimes.com/ireland/socialaffairs/2023/12/11/georgians-in-ireland-why-so-many-make-the-journey-and-why-one-manwent-back-home/).
- McNaboe, J., Condon, N., Shally, C., and Hogan, A.M. (2022) National Skills Bulletin 2022. A report by the Skills and Labour Market Research Unit (SLMRU) in SOLAS on behalf of the National Skills Council (www.solas.ie/research-lp/skills-labour-market-research-slmru/ research/).
- McQuinn, K., O'Toole, C., Disch, W. and Kenny, E. (2023) Quarterly Economic Commentary. Summer 2023. Dublin: ESRI (www.esri.ie/publications/quarterly-economic-commentarysummer-2023).
- McWilliams, D. (2023) 'I'm pro-immigration. We need to have a conversation about housing.' Irish Times, 16 September (www.irishtimes.com/opinion/2023/09/16/david-mcwilliams-im-proimmigration-we-need-to-have-a-conversation-about-housing/).
- Moussa, N. and Sterck, O. (Forthcoming) Skilled worker visas for refugees. An evaluation of the UK's Displaced Talent Mobility Pilot (DTMP). University of Oxford.
- MRCI Migrant Rights Centre Ireland (2021) 'Opening remarks to Oireachtas Committee on Enterprise, Trade and Employment on General Scheme of the Employment Permits (Consolidation and Amendment) Bill - 12th April 2021.' MRCI Submissions (www.mrci.ie/ submissions/).
- Murphy, A. (2023) 'More than 850 posts vacant at Tusla, including hundreds of social work roles.' Irish Examiner, 11 September (www.irishexaminer.com/news/arid-41220556.html).
- Nasc (n.d.) 'EU Passworld. A complementary pathways project.' Webpage (https://nascireland.org/current-projects/eu-passworld-complementary-pathways-project).
- National Apprenticeship Office (2023) Progress Report 2022 and Plans 2023 (https://content.apprenticeship.ie/f/83224/x/17217314b4/nationalapprenticeshipoffice\_ annualreport2022plans2023.pdf).
- O'Connor, C. (2022) An examination of blockages to retrofitting and heat pump installation in Ireland. Dublin: Friends of the Earth Ireland (www.friendsoftheearth.ie/publications/ blockages-to-retrofitting-and-heat-pump-installation-in-irel/).
- O'Sullivan, K. (2023) 'Ireland to miss 2030 climate targets by wide margin, EPA predicts.' Irish Times, 2 June (www.irishtimes.com/environment/2023/06/02/ireland-to-fall-well-short-of-itsclimate-targets-and-exceed-carbon-budgets-up-to-2030-by-a-wide-margin-epa-predicts/).

- OECD Organisation for Economic Co-operation and Development (2023) International Migration Outlook 2023. Paris: OECD (www.oecd.org/migration/international-migrationoutlook-1999124x.htm).
- Pagliano, L., Armani, R., Erba, S. and Sangalli, A. (2023) Highly insulated buildings as a crucial element for smart cities, grid balancing and energy storage for renewables. Milan: Knauf Insulation and Politecnico di Milano – Department of Energy (https://pim. knaufinsulation.com/files/download/highly\_insulated\_buildings\_report\_may\_2020.pdf?\_ ga=2.226581531.745629247.1590391180-561944310.1578314172).
- Polakowski, M. and Cunniffe, E. (2023) Labour market integration of international protection applicants in Ireland. Dublin: ESRI (www.esri.ie/publications/labour-market-integration-ofinternational-protection-applicants-in-ireland).
- **QQI Quality and Qualifications Ireland** (2022) A review of consortia-led apprenticeships in Ireland. Dublin: QQI (www.qqi.ie/news/new-report-review-of-consortia-led-apprenticeshipsin-ireland).
- **Quinn, E. and Gusciute, E.** (2013) Attracting highly qualified and qualified third country nationals: Ireland. Dublin: European Migration Network Ireland and Economic and Social Research Council (www.esri.ie/publications/attracting-highly-qualified-and-qualified-thirdcountry-nationals-ireland).
- Schneider, J. (2021) Beyond Talent Partnerships: Boosting legal mobility under the new EU migration pact. IEMed Mediterranean Yearbook 2021 (www.iemed.org/publication/beyondtalent-partnerships-boosting-legal-mobility-under-the-new-eu-migration-pact/).
- SEAI Sustainable Energy Authority of Ireland (n.d.a) 'Home energy grants.' Webpage (www.seai.ie/grants/home-energy-grants/).
- SEAI (n.d.b) 'Key findings.' Webpage (www.seai.ie/grants/home-energy-grants/deep-retrofitgrant/key-findings/).
- **SEAI** (2022) Net Zero by 2050. Key insights, evidence and actions. National Heat Study. Government of Ireland (www.seai.ie/data-and-insights/national-heat-study/).
- SEAI (2023a) National Retrofit Plan. Quarterly progress report full year 2022 (www.seai.ie/newsand-media/home-energy-upgrades-2022/).
- **SEAI** (2023b) National Retrofit Plan. Quarterly progress report quarter 3, 2023 (https://www.seai.ie/publications/SEAI-Retrofit-Quarterly-Report-Q3-2023.pdf).
- SOLAS (2022) Green skills for FET 2021-2030. Dublin: SOLAS (www.solas.ie/f/70398/ x/o6922e8fb4/greenskills-for-fet-2021-2030.pdf).
- State Commission on Migration Issues (2021) 'Migration profile of Georgia' (https://migration.commission.ge/files/mmp21\_eng\_web3c.pdf).
- Sustainability Works (2020) Financing energy efficiency in Ireland: A handbook on the residential sector. SEAI and Sustainability Works (www.sustainabilityworks.ie/initiatives).
- SVP Society of St. Vincent de Paul (2023) Warm, safe, connected? Priorities to protect households in energy poverty - policy, practice and regulation. Dublin: SVP (www.svp.ie/wpcontent/uploads/2023/03/Warm-Safe-Connected-Summary-1.pdf).

- Sweeney, R. (2021) Job quality in the Irish construction sector. Dublin: The Chartered Institute of Building (CIOB) and Think Tank for Action on Social Change (TASC) (www.ciob.org/industry/ policy-research/quality-irish-construction-sector).
- Talent Beyond Boundaries (n.d.). 'Talent snapshot'. Webpage. Talent Beyond Boundaries (www.talentbeyondboundaries.org/talent-snapshot?).
- TUS Technological University of Shannon, Irish Green Building Council, Laois-Offaly Education and Training Board and Construction Industry Federation (2023) Build Up Skills – Ireland 2030. Analysis of the national status quo (www.igbc.ie/wp-content/ uploads/2023/10/Analysis-of-the-National-Status-Quo-Ireland.pdf).
- Wilson, J. (2023) 'Why is Ireland's Polish community returning home.' Irish Times, 3 June (www.irishtimes.com/life-style/people/2023/06/03/changing-face-of-ireland-property-priceshere-are-much-too-high-the-difference-for-what-theyd-get-in-poland-is-mad/).

# Appendix 1 Additional census data on foreign workers in construction

2011 2016 2022 5,000 4,000 3,000

Figure 8 Foreign workers in the skilled construction and building trades, 2011–2022

Note: The countries selected here are the top eight foreign nationalities working in the 'skilled construction and building trades' in 2022 across all industry groups. Figures are taken from tables F7045 and EB052. Data from 2011 and 2016 is based on nationalities recorded, while data from 2022 is based on citizenship, given the change in the question applied in the latest census. People with dual citizenship are included here (e.g. Irish-Romanians are included in the count of Romanian workers).

Lithuania

Latvia

Brazil

Moldova

Croatia

UK

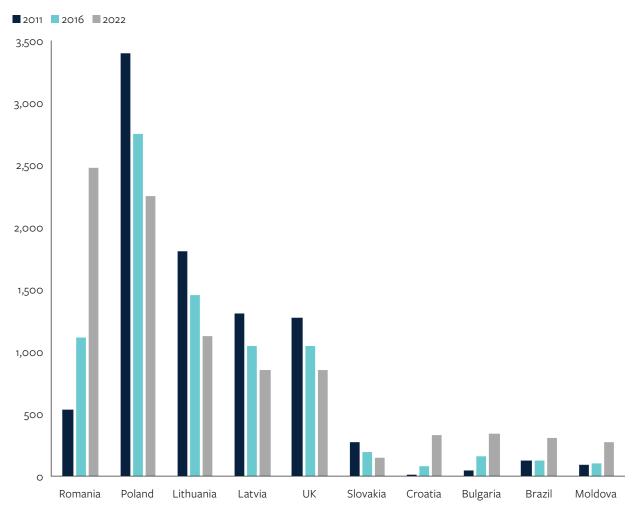
Source: CSO (n.d.)

Poland

Romania

1,000

Figure 9 Foreign workers in the elementary trades and related occupations, 2011–2022



Note: The countries selected here are the top ten foreign nationalities working in the 'elementary trades and related occupations' in 2022 across all industry groups. This group includes elementary agricultural occupations (e.g. farm, forestry, horse-racing, fishing), elementary construction occupations and elementary process plant operations (e.g. industrial cleaning, packers, bottlers). Figures are taken from tables F7045 and EB052. Data from 2011 and 2016 is based on nationalities recorded, while data from 2022 is based on citizenship, given the change in the question applied in the latest Census. People with dual citizenship are included here (e.g. Irish-Romanians are included in the count of Romanian workers).

Source: CSO (n.d.)