Towards a just transition for workers in the built environment in Europe

Building materials and on-site construction sectors

Annex I: Country fiche - Ireland

ECORYS

Answering tomorrow's challenges today

Country Fiche

Ireland

Towards a just transition for workers in the built environment in Europe: Building materials and on-site construction sectors

1. At a glance[1]

Strengths and Opportunities

- Opportunities in construction sector:
    - Ireland's construction sector is in a recovery phase, supported by renewed government infrastructure investment and a projected 2-3% rise in domestic demand over 2025. New build output is expected to grow by around 5% in 2025, with at least 60,000 housing units needed annually to meet demand.
    - The sector has expanded steadily over the past fifteen years: construction enterprises grew by 13.1% between 2010 and 2020, and employment increased by 36%.
    - Strong national focus on upskilling and reskilling to align with decarbonisation policies, with the state agency for Further Education and Training, SOLAS, partnering with Centres of Vocational Excellence (COVEs) and Irish Education and Training Boards (ETBs) to deliver retrofitting and green skills training.
    - Labour rights have recently been reinforced through collective bargaining agreements between trade unions, the Construction Industry Federation, and the government, including increases to the minimum wage.
- Opportunities in the building materials sector:
    - Growing demand for low-carbon cement and concrete creates a stable and expanding market for low-carbon cement products.
    - Decarbonisation targets (including 80% fossil fuel replacement in kilns by 2030) incentivise investment in alternative fuels, clinker substitution, process optimisation, and emerging low-carbon cement technologies.
    - Replacing fossil fuels with local alternative fuels can reduce transport costs, improve resource efficiency, and support circular-economy value chains. It also reduces quarrying needs and avoids ash residues.

Weaknesses and Threats

- Challenges in construction sector:
    - Growing demand for housing and infrastructure is not matched by an adequate supply of skilled construction workers. Skilled tradespeople, site managers, and labourers are particularly in demand, and significant reliance on migrant workers is expected.
    - The industry is structurally fragmented, with a limited number of large house-building companies and a dominance of small firms. However, smaller companies face particular difficulties in adapting to decarbonisation demands, due to limited awareness of reporting requirements and compliance needs.
    - The workforce remains male-dominated, with women entering the sector slowly.

[1] The core construction sector is assessed in detail in all ten countries, while the depth of analysis varies in the building material industries, with the one or two biggest industries (measured by volume of material output produced in tons) analysed per country. For Italy, the Netherlands, Czechia, Denmark and Ireland, the analysis focuses on either steel or cement, depending on which material has the highest output. Germany, France, the United Kingdom, Poland, and Spain are subject to a deeper analysis, including steel or cement and an additional industry (either timber or glass) selected based on its importance in material output.

- Applying sectoral labour agreements remains challenging, particularly for subcontracted workers or those unaware of their rights.
- Challenges in the building materials sector:
  - Producers may face difficulties meeting emerging technical standards for low-carbon cement and concrete, especially as clinker substitution and alternative fuel uptake require significant adjustments to existing production processes.
  - Potential resistance from traditional manufacturers heavily invested in conventional cement technologies.
  - Limited just transition measures for the sector with no sector-specific mechanisms to support job security or skill transitions in the context of decarbonisation.
  - Risk of localised job losses, particularly in communities around the major cement plants.
  - A lack of publicly available information on worker age, gender, skill levels, and nationality constrains the ability to assess vulnerability and design targeted support measures.

Key organisations

- CONNECT: Connect is the largest Union of Engineers in Ireland, and represents all workers in technical, engineering, or electric employment, including in the Construction industry. The Union also covers other engineering or technical sectors, such as the transport, manufacturing, or pharmaceutical sector.
- UNITE: Unite is the largest trade union in the UK and is also present across the Republic of Ireland. It represents a variety of sectors, including the construction industry.
- Services, Industrial, Professional and Technical Union (SIPTU): Ireland's largest trade union, with over 206 thousand members, over 10 thousand of which belong to the construction sector. SIPTU plays an advocatory role in the Just Transition debate, with SIPTU representatives visiting construction sites to assess working conditions and to inform on-site workers of their labour and collective bargaining rights. They also provide workers information on pay and pensions schemes through awareness campaigns.
- The Construction Industry Federation (CIF): the representative body for the Irish construction industry, representing a variety of sub-sectors and trades through their regional bodies and associations, including: specialist contractors; demolition contractors; crane hirers; scaffolders; piling contractors; civil engineers; water services operators; home builders; master builders and contractors; mechanical and electrical contractors; heritage contractors; and off-site construction workers. CIF plays an advocatory role in policy debates, speaking on behalf of the construction industry to a variety of governmental actors. For example, CIF has contributed and been consulted by the Irish government's Just Transition Commission.
- The Irish Congress of Trade Unions (Congress): Congress represents the trade unions of Ireland and plays an advocacy and advisory role in the promotion of rights for the construction workforce in the Just Transition, by also organising awareness campaigns on the relationship between the Just Transition and labour rights. Congress's Energy Sector Group is also a founding member of the Just Transition Alliance.
- The Irish Green Building Council (IGBC): IGBC unites members intent on decarbonising the built environment and construction sector (including architects, engineers, contractors, Non-Governmental Organisations (NGOs) and energy companies). They provide training opportunities on topics such as embodied carbon, life-cycle costing, and green building certifications on their training platform.
- The Building and Allied Trades' Union (BATU), which represents Irish trades in the construction industry, including bricklayers, carpenters, stonecutters, tilers, or woodcutters.
- The Operative Plasterers & Allied Trades Society of Ireland (OPATSI), which represents workers in the plastering craft, including in the construction and the film industry.
- Forsa are the largest Irish trade union for the public service and Ireland's second largest union overall, representing workers in the civil service, education, health & wellness, local government, municipal employees. They are a member of the Just Transition Alliance.

Key initiatives and partnerships

- Just Transition Commission: Established in 2024 as an advisory body to the Irish Government, the Commission regroups 10 members and a chair who advise the Government on delivering Ireland's climate ambitions while ensuring no one is left behind. Five of the Commission's members are nominated by the Minister responsible for climate policy, according to the five "pillars of social dialogue", also referred to as the Agriculture; Business; Community; Environment; and Trade Unions pillars (these were determined by the Irish Government). The remaining six members are experts appointed through an open process. One of the Commission's core members is the head of Strategic Change at Forsa. As an advisory body to the Irish Government, the Just Transition Commission is active across multiple sectors (including the construction sector).

- Just Transition Alliance: The Just Transition Alliance grouped trade unions and environmental and civil society groups calling for an immediate establishment of the Just Transition Commission to develop a blueprint for the Zero-Carbon transition, build public support for climate action and ensure no worker is left behind. The members were: Congress, SIPTU, Forsa, Friends of the Earth, Stop Climate Chaos Coalition and the Think-tank for Action on Social Change (TASC). The objectives of the Alliance can be found in their Joint Declaration. While the Just Transition Alliance did not exclusively relate to the construction sector, its members included representatives of construction workers, including SIPTU, Congress, and Forsa.
- The Construction Sector Group: This is made up of representatives of key construction industry bodies and senior representatives of government departments to create dialogue between government and industry on how to best achieve a sustainable construction sector.
- Through stakeholder consultation with CIF and SIPTU, there appears to be a lack of partnerships or initiatives between trade unions and NGOs which specifically address the challenges related to the Just Transition for construction workers. Instead, most partnerships and alliances involve sectoral representatives and government bodies.

Hotspots of a Transition in the Construction Sector

Ireland

Legend

On-site construction:

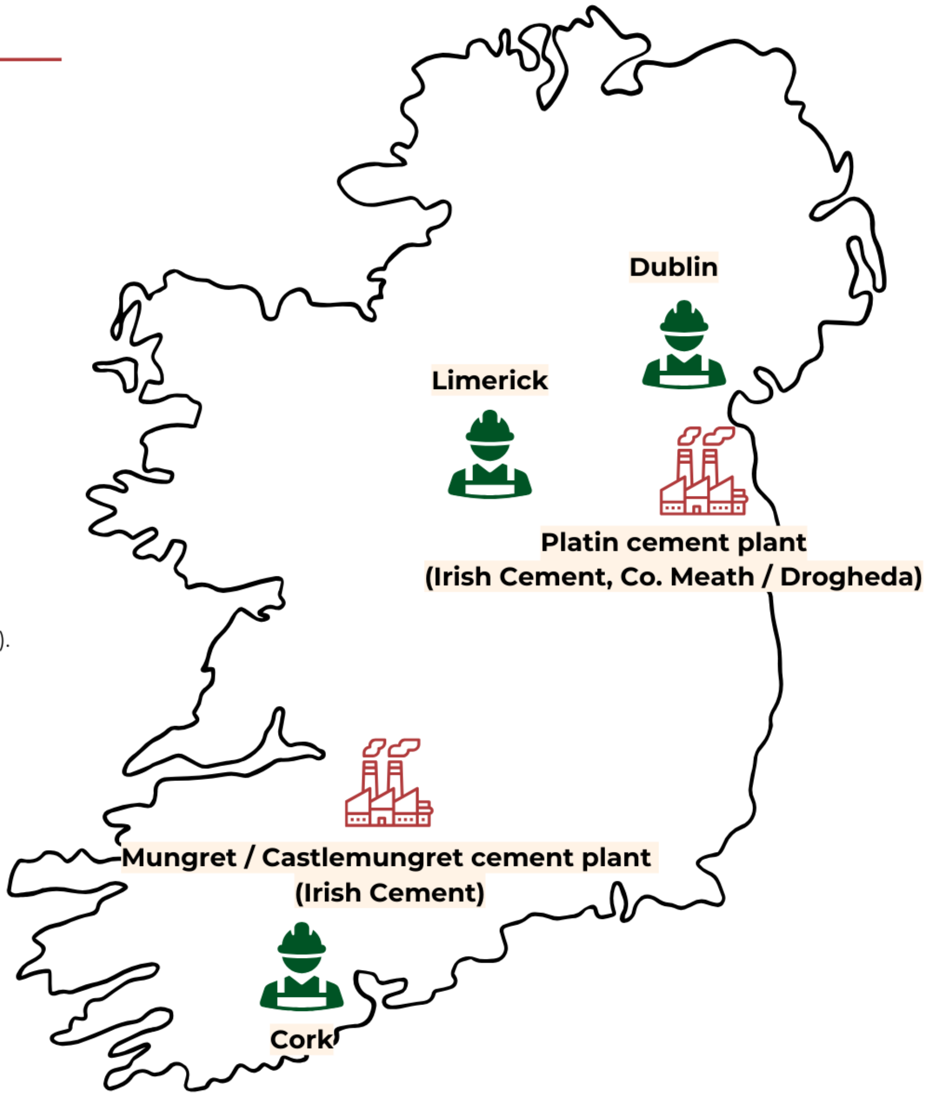
Expected job creation

Building materials:

Cement

Closure and/or repurposing with redundancy plans

Not covered in the analysis: timber, steel and glass (see footnote 1).



2. The broad construction sector

The construction sector today

Economic indicators (2023)	Employment (2023)	Workforce characteristics

Construction (NACE F):
• Number of enterprises: 65,387
• Average employment size: 2.9
• Value added (million € per year): 12,296 (2.4% of GDP)
• Net turnover (million € per year): 46,471
 	
Architectural and engineering activities; technical testing and analysis (NACE M71):
• Number of enterprises: 10,246
• Value added (million € per year): 4,136 (0.8% of GDP)
• Net turnover (million € per year): 12,823
	• Total employment in the construction sector: 187.008
	• The CSO Standard Classifications divide the Irish construction industry into three main groups: Construction of Buildings; Civil Engineering; Specialised Construction Activities.
	• The Irish construction industry is dominated by micro and small enterprises and high fragmentation.
		• Age:
		  ○ Low share of older workers: only 20% are aged 55+, in line with the national average (19%).
		  ○ Most workers (73%) are aged 25-54.
		• Gender:
		  ○ The sector is strongly male-dominated: only 5% of construction workers were women in 2023.
		  ○ A government survey found that 70% of construction companies recognise the need to attract more women.
		• Nationality:
		  ○ The share of non-Irish workers (15%) was slightly below the national average of 17%.
		• Specific recruitment of groups (women, youth):
		  ○ This includes the 2023 Working Group for the Promotion of Careers in the Construction Sector, launched under the revised “Housing for All” plan and led by the Department of Further and Higher Education, Research, Innovation and Science, which developed an action plan to boost recruitment into construction careers.

The legislative framework for decarbonisation and its impacts on workers

Decarbonisation policies and emission timelines and targets
• The Climate Action and Low Carbon Development Act 2021, which builds on the **2019 Climate Action Plan** (CAP): provides the legally binding framework for a net-zero economy by 2050. It sets a sector-by-sector approach, requiring buildings to reduce emissions by 44-46% by 2030, and includes targets to reduce embodied carbon in construction materials by 10% by 2025 and 30% by 2030. Actions include reducing concrete use, maintaining timber use, and leveraging State purchasing power to incentivise low-carbon construction. Public sector projects must follow best practice design to reduce embodied carbon, and large projects must produce whole life cycle GHG emissions assessments. It also supports retrofitting 500,000 homes by 2030, deploying district heating in urban areas, improving commercial building standards, and delivering 50,000 energy efficiency retrofits per year. • The Long-term Strategy on Greenhouse Gas Emissions Reductions: indicated pathways to achieving carbon neutrality by 2050. The measures include driving material efficiency in construction to reduce embodied energy in materials. • The National Energy and Climate Plan (NECP): includes retrofitting homes and buildings to improve isolation. The national target is to reduce 42% of GHG emissions by 2030. • Sector-Specific Working Groups: Includes the Timber in Construction Steering Group (promoting timber use) and the Cement and Construction Sector Decarbonisation Working Group (developing sectoral decarbonisation actions). • 2030 targets: o 44-46% reduction in building emissions (CAP). o 30% reduction in embodied carbon in construction materials. o 42% reduction in GHG emissions nationally (NECP). o Nearly-Zero Energy Building (NZEB) standard for all new dwellings. o 51% reduction in carbon emissions in public buildings. o 500,000 homes retrofitted; 50,000 energy efficiency retrofits per year. • 2050 targets: o Achieve a net-zero economy (CAP). o Carbon neutrality across the construction sector (Long-term Strategy).

Impacts on the construction industry
• **(Expected) impacts on the construction sector and investments:** o Reduction of embodied carbon: New standards for low-carbon materials, particularly sustainable cement, are driving the sector toward lower-carbon construction. While adaptation presents an opportunity for market leadership, meeting these standards poses short-term challenges for businesses. o Energy renovations and retrofitting: The government aims to retrofit 500,000 homes by 2030 to improve energy efficiency. High costs and logistical complexity of large-scale retrofitting remain significant obstacles. o Adoption of NZEB and ZEB standards: New buildings must comply with Nearly-Zero Energy Building (NZEB) standards by 2025 and Zero-Emission Building (ZEB) standards by 2030. Businesses are encouraged to adopt modular construction, use prefabricated components, recycle materials from demolished buildings, and optimise resource use to minimise waste. o Major programmes driving demand: Deep retrofitting of 500,000 homes and installation of 400,000 heat pumps by 2030 will require up to 30,000 skilled workers. Additional demand for 27,500-40,000 workers to deliver the government’s housing plans.

- **(Expected) impacts on employment, skills and activity of on-site construction workers:**
    - Workforce shortages and skills gaps: The Irish construction sector faces shortages of skilled workers, particularly in green construction. Expertise in sustainable building techniques, energy-efficient design, renewable energy systems, retrofitting techniques, circular economy, lifecycle analysis, and digitalisation is essential. Additional training and continuous professional development (CPD) are needed to address these gaps.
    - Job creation: Analysis of CAP measures projects a net need for approximately 77,000 full-time equivalent (FTE) jobs by 2030 compared to 2020. This includes:
        - Direct jobs (~32,000; 40%): Roles such as designing and manufacturing heat pumps.
        - Indirect jobs (~25,000; 35%): Support roles, e.g., producing components for heat pumps.
        - Induced jobs (~19,000; 25%): Increased demand for services like retail and hospitality driven by wages spent by direct and indirect workers.
    - **Skill requirements:** Many new roles will require mid- to high-level skills uncommon in Ireland today. Examples include plumbers and construction workers needing expertise in heat pumps, electric boilers, district heating, low-carbon design, and new materials such as cross-laminated timber (CLT), but also training needs for building renewable capacity, constructing flood defences, and retrofitting homes.
    - **Challenges for training:** Many construction workers are self-employed, making investment in training costly and less attractive.

Towards a Just Transition for Construction Workers

Just transition vision in construction

- **Collective agreements**: Recognition of labour rights is ensured through collective bargaining between trade unions, industry federations (such as CIF), and the government, formalised by the Irish Labour Court. The Construction Sectoral Employment Order (SEO) sets statutory minimum pay, pension, and sick pay entitlements for workers, with regular updates (e.g., 3.4% pay increase in 2024). Challenges include: limited coverage of non-trade roles, lack of recognition for small "man and van" enterprises, non-compliance by smaller firms, and heightened vulnerability of migrant workers. Union-busting is an ongoing issue, addressed by the Action Plan to Promote Collective Bargaining 2026–2030, which strengthens union capacity, legal protections, awareness campaigns, and support for industrial relations institutions.
- **Country-level policies for just transition**: While Ireland does not have construction-specific just transition policies, the transition is integrated into broader strategies:
    - EU Just Transition Fund, with nine streams benefitting the Irish Midlands region and focusing on supporting employment in the peat-reliant communities.
    - Just Transition Commission, an independent advisory body established on an administrative basis by government decision of 30 April 2024. The Commission will provide the government with impartial, strategic, and evidence-based advice to inform policy planning related to a just transition across sectors and to support the government and wider societal stakeholders in managing this transition.

- Various policies have aimed to reinforce a Just Transition in the construction industry, especially through the increasing of up- and re-skilling opportunities. Construction roles have been added to the critical employment list for work permits, and there has been increased focus on apprenticeships. The Mount Lucas National Construction Training Centre provides courses to workers on green economy skills. SOLAS has adjusted content in its apprenticeships with a view to preparing people for the green economy, and Skillnet offers a variety of courses and resources on sustainable construction practices through their Modern Methods of Construction hub. SOLAS, as the State agency for Further Education and Training in Ireland, provides and manages a range of Further Education programmes, including apprenticeships, traineeships, up-skilling courses, and online courses. Skillnet Ireland are the national talent development agency, offering upskilling programmes to companies of all sizes across the country.

- **Just transition considerations in relevant policy debates:** Just Transition considerations in Ireland are well-developed, with trade unions, industry bodies, and advisory councils actively advocating for the integration of Just Transition principles into policy. Key priorities include promoting equitable and inclusive workplaces, protecting vulnerable workers, and integrating workforce development through upskilling and reskilling programmes for sustainable construction, offshore wind, and low-carbon technologies. Support is also provided to small enterprises and self-employed workers through training and practical tools offered by bodies such as CIF and IGBC. These efforts are embedded within broader sustainability policies, linking regional strategies on climate, energy efficiency, and circular economy to national skills and employment objectives.

Labour implications of the decarbonisation agenda

- **Labour rights challenges**:
  - **Skills shortages and training gaps:** A shortage of skilled workers, particularly in the "wet trades" (i.e., trades which use materials mixed with water, such as concrete, plastering, interiors fitting, or brickwork), is compounded by low numbers of apprentices and negative perceptions of the sector (physical demands, job insecurity).
  - **Trade union membership has fallen significantly** over the past few decades, which can weaken collective bargaining power for construction workers.
  - New **green regulations could slow down planning and construction processes**, creating tension between environmental compliance and timely project delivery. Reductions in embodied carbon require changes in the supply chain and decision-making by design teams, including public sector projects.
  - **Data measurement and compliance challenges**: Measuring embodied and operational carbon on-site is difficult due to differences between predicted models and actual material usage, including diesel, and electricity,.
  - **Smaller organisations will struggle to invest the time and money** required to **measure their carbon emissions**, develop decarbonisation plans and take action. These organisations will need direct support in terms of finance, resources and clear guidance. This is critical as SMEs comprise a large portion of Ireland's construction sector.

- **Geographical distribution of the implications:** In the context of the cross-sectoral just transitions, the Irish Midlands are a primary focus due to their dependence on peat. However, the construction sector's transition does not follow the same geographic pattern. Job growth and losses are generally expected to concentrate in Ireland's major cities, where population density and construction activity are higher. Rural

areas may face greater challenges, as they often lack the infrastructure and skilled labour needed to support the transition.	
Benefits for workers brought by the green transition in the construction sector	**Disadvantages for workers brought by the green transition in the construction sector**
• Safer and more inclusive opportunities from off-site construction settings. • An increase in job opportunities in sustainable construction, heat pump installation, and MMC jobs. There will be demand for skilled workers in sustainable design, retrofitting, renewable construction technologies and energy consultancy.	• Skills gaps and shortage of green-skilled workers, who may be left behind if they do not adapt to labour needs of the construction market.
Ways to reinforce these	**Ways to reduce these**
• Awareness campaigns targeted at specific socio-economic groups, highlighting the inclusive nature and conditions of off-site construction. • Awareness campaigns encouraging youth to undertake training in sustainable or new construction methods. • Continuing to ensure safety and wellbeing on the workplace, building on existing mechanisms such as the SOLAS Safe Passes (required in order to operate on-site for construction workers) and on existing policies such as the 2013 Safety, Health and Welfare at Work regulations.	• Increasing the training and educational offer available to existing construction workers. • Increasing offer of lifelong learning and up- or re-skilling in green, renewable, sustainable construction methods. • Ensuring accessible education and up-skilling opportunities for all those in the construction sector.

Worker groups most affected	
• **Professional groups in the core construction business and supply-chain who have the highest environmental footprint and how these are affected:** Specific roles are expected to experience shortages due to Ireland's retrofitting and building plans. These include planners, project managers, surveyors (quantity and building surveyors), architectural technologists, and architects, as residential construction activity grows. Shortages already exist for plumbers, electricians, steel erectors, roofers, plasterers, tilers and insulation operatives. Civil engineers, wet trades (e.g., plasterers), and any occupation involving cement have the largest environmental footprint in the sector. • **Groups where most training is needed and what kind of training:** Many construction workers learn on-the-job and may lack the literacy skills to fully engage in formal green construction training, particularly older workers. Younger workers are generally more able to participate in upskilling opportunities. Recruitment challenges are especially acute in wet trades (plasterers, tilers), partly due to the physically demanding nature of these roles.	
Workers positively affected	**Workers negatively affected**
• Plumbers, due to high demand. • Construction workers with skills in retrofitting and NZEB standards. • General operatives benefiting from sustainable construction methods, including safer sites and less physically demanding conditions.	• Workers in the cement industry. • Workers lacking knowledge or skills in retrofitting and NZEB standards.

Existing protection mechanisms
• **Existing mechanisms to protect or reinforce labour rights/conditions during the transition:** Existing protection mechanisms implemented in Ireland are centred around the up- and re-skilling of construction workers, as well as the recruitment of new talent in the construction sector. Examples of investments into training include: • Investments of 114 million EUR from the NextGenerationEU programme. This investment is going towards training programmes to equip construction professionals with the skills to build well-insulated homes and retrofit Irish houses with the latest energy-saving technologies, progressing Ireland's green transition and supporting climate action. • The SOLAS Green Skills Action Programme, or "Green Skills 2030", funded by the NextGenerationEU programme, aims to train Ireland's construction industry in making homes climate-friendly through training in NZEB, retrofitting, Certified Passive House construction and digital construction skills. • NZEB Centres of Excellence across Ireland have been implemented, providing starter programmes, conversion and upskilling courses. There was a national information campaign led by SOLAS with the centres of excellence, targeted at the construction industry, signposting workers to upskilling opportunities at local level. • SOLAS is also supporting Laois and Offaly ETB's collaboration with Saint Andrews Resource Centre to deliver construction skills and pathways to employment in Dublin's south inner-city. Together with partners in the Prison Education Taskforce and Laois and Offaly ETB, SOLAS has also developed a pilot programme aimed at supporting the rehabilitation and labour-market reintegration of individuals following their release.

Specific measure #1	Specific measure #2
Mobile NZEB Training Unit, Mount Lucas In 2023, the National Construction Training Campus at Mount Lucas, under the provision of Laois and Offaly ETB, launched the Mobile NZEB Training Unit, which travels to construction sites across the country bringing upskilling opportunities onsite, and providing easier access to those that need it most. The mobile unit is also travelling to secondary schools to introduce students to NZEB and MMC from an earlier stage. The National Construction Training Campus will be home to Ireland's first ever Demonstration Park for Modern Methods of Construction: this state-of-the-art facility will be key to ensure that we can provide the necessary critical construction skills for the future.	**Measures to assist CIF's members with green construction** CIF have implemented several tools to assist their members to adapt to the green transition in the sector, including: • A guide to Supporting Green Construction. • The CIF Carbon Calculator is an innovative carbon-measurement tool tailored to the needs of the Irish construction industry. It is available in two versions: the standard version supports companies in aligning their carbon reporting with their financial year. The enhanced, paid version offers additional functionalities suited to organisations working with large contractors or tendering for major projects. This includes the capacity to assess emissions across the full supply chain and to identify the sources responsible for the majority of a company's carbon footprint.

3. The construction material supply chain

<table>
<tr><th colspan="3">In focus: Decarbonising construction building material – cement</th></tr>
<tr>
<td>Irish Cement, subsidiary of CRH plc
3.5 Mt/yr
Turnover not publicly available
Mannok Cement:
1.4 Mt/yr
Turnover € 317 million (2023)
Breedon Cement:
1.5 Mt/yr in Irish branch
Profit: € 21.5 million (2023)
Turnover not publicly available</td>
<td>Irish Cement:
~175 employees. They are the leading supplier of cement in Ireland, with two production facilities (County Limerick, and County Meath).
Mannok Cement:
~800 employees. It distributes across Ireland and the UK and hold 25% of the Irish cement market.
Breedon Cement:
Over 3,500 employees across Ireland and Great Britain, with 18 sites in the Republic of Ireland. They provide clay bricks, tiles, and cement to a variety of contractors across Ireland and Northern Ireland.
The cement-manufacturing industry in Ireland consists of three companies operating four factories, while the wider concrete industry includes over 500 active quarries and 200 concrete-manufacturing plants.</td>
<td>Information regarding the age, gender, education levels, and nationality of workers in the cement sector are not publicly available.</td>
</tr>
</table>

The construction material supply chain

In focus: Decarbonising construction building material – cement
• **Title and main features of key decarbonisation policies:** ○ The **Climate Action and Low Carbon Development Act 2021:** describes a decrease in the use of concrete, and an increase in the use of timber. One of the ways this will be enacted is through the State's purchasing power, hoping to incentivise developers to reduce embodied carbon when tendering for public projects. Targets aim for Ireland's cement kilns to achieve 80% fossil fuel replacement by 2030. ○ **Reducing embodied carbon in cement and concrete through public procurement**: Ireland is introducing a set of green procurement measures to lower the embodied carbon of cement and concrete used in publicly funded construction. The approach is based on four pillars: reducing overall concrete use, increasing the uptake of low-carbon concrete, promoting lower-carbon cement, and integrating carbon-management requirements into public contracts. Key measures include the prohibition of high-emission CEM I cement in government-funded projects and a requirement to achieve a 30% clinker substitution rate in concrete for all public works by 2030. Since 2023, public bodies have also been required (where practicable) to specify low-carbon construction methods and low-carbon cement materials in all directly procured or supported construction projects. • **Existence of collective bargaining agreements:** Workers in the cement industry in Ireland are covered by the previously mentioned SEO for the Construction sector.
• **(Expected) impacts on the supply chain:** ○ Increasing demand for low-carbon cement and concrete alternatives. ○ Acceleration of innovation in low-carbon cement production technologies. ○ Short-term challenges in ensuring compliance with emerging standards for low-carbon concrete. ○ Potential resistance from traditional cement manufacturers in Ireland as production practices evolve. ○ Ongoing adaptation within the sector, including the gradual replacement of fossil fuels with alternative fuel sources.
• **Country-level policies for just transitions in the building material sectors:** Ireland's Just Transition policies do not explicitly mention the cement sector or the sectors surrounding other building materials. However, upskilling of cement workers is mentioned in the Government's plan to reduce embodied carbon in cement through public procurement (Green Public Procurement Strategy and Action Plan 2024-2027). For the concrete sector, adaptation to new materials and concrete types will result in investments into up- and re-skilling. However, the current approach focuses on requiring design teams to hold qualifications in low-carbon concrete design, which may limit direct training opportunities to those involved in the design phase rather than the wider concrete workforce. The Green Public Procurement Strategy will implement, across 2024-2026, training programmes for low carbon concrete solutions across procurement, design, and delivery teams, specifically targeting procurement teams, design teams, and construction managers.

- There does not appear to be movement of workers between the cement industry and the wider construction sector in Ireland.

- **Geographical distribution of the implications**:
    - Cement and concrete are locally produced in Ireland, supporting roughly 2,000 direct and indirect workers. Cement Manufacturers Ireland (CMI) have pledged to maintain these local jobs despite the current recession in Ireland, by adapting cement making processes to sustainability requirements. Cement Manufacturers Ireland (CMI) have invested in modern cement production technologies and research in order to reduce carbon, in line with the CEMBUREAU 2050 roadmap for carbon reduction.
    - Job losses in the cement industry could be expected in the communities surrounding Ireland's major cement plants: Kinnegad (Westmeath), Platin (Louth), Limerick (Limerick), Rakeelan (Cavan).

Key hotspot for transformation #1	Key hotspot for transformation #2
Mungret / Castlemungret (Irish Cement, Limerick): Irish Cement is implementing a multi-million-euro programme at the Mungret works to phase out fossil fuels and substitute alternative fuels (solid recovered fuels, biomass/tyres), upgrade kiln/cooling equipment and improve energy efficiency as part of its site decarbonisation plan; planning and EPA licences have supported these investments. Employees at Limerick have been part of the consultation and training loop (the company publishes training and H&S statistics for Limerick) and local public consultations / planning documents record engagement with staff, communities and unions during the permitting processes.	**Platin (Irish Cement, Co. Meath / Drogheda):** Platin is covered by the same corporate shift toward higher cullet use, fuel substitution and process upgrades (planning approvals historically allowed replacement of fossil fuels at Platin), with company documentation and planning records showing technical upgrades and environmental assessments. Worker involvement has included formal negotiation with representatives (historical settlements and ongoing union activity such as SIPTU engagement and public campaigns), and Irish Cement reports plant-level training and health & safety coverage across Platin staff as part of its sustainability performance.

- **Benefits for workers**: The use of alternative fuels in cement has several benefits, such as resource efficiency; reducing costs of transport by using local alternatives to fossil fuels; energy recovery; no residual ashes from cement production; reduced need for quarrying.

- **Existing mechanisms to protect or reinforce labour rights/conditions:** There are currently no protection mechanisms in Ireland specifically dedicated to workers in cement plants or working indirectly in the cement industry. These workers would be covered by the SEO for construction.