The Future of Green Skills

An Irish Perspective

SOLAS learning works

Deloitte.

Skills to Advance
boost skills - boost business

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Executive Summary

Executive Summary

This report highlights how climate and sustainability is driving the focus on green skills in organisations and provides some recommendations to close the current skills gap

Context

The Irish economy is transitioning to a greener economy.

Climate change is one of the defining issues in Irish society. Ireland has some of the most ambitious climate change targets of any country globally, working towards reducing greenhouse gas emissions by 51% by 2030, achieving net-zero emissions by 2050 - in addition to committing to move away from fossil fuel use at this year's COP28.

Our country faces huge challenges as we begin to address the impacts of climate change and ecosystem breakdown. However, there are also significant opportunities to develop new skills and capabilities to address green growth opportunities as Ireland rapidly transitions away from a fossil fuel dependent society. Ireland has identified capability-building as critical enabler of climate action and as one of the key means of implementation of the Climate Change Convention and the Paris Agreement[1].

This rapidly evolving landscape will continue to impact societies and economies around the world - but equally it will place new and increased demand on the skills and occupational requirements of the workforce. It will be crucial for organisations to ensure that their business and employees are best placed to adapt to these shifting needs and to ensure that the right skills, occupations and accountability are in place to capitalise on the emerging opportunities and inevitable challenges posed by the transition to a greener economy.

Approach

SOLAS and Deloitte have worked together to publish this report summarising the key green skills that are needed in the Irish market across priority sectors (biodiversity, transport and energy), key skill areas and key business functions. This report will support the Further Education and Training (FET) sector to continue to provide employees and employers with the necessary skills and career opportunities to thrive in the green economy.

This report employed a combination of qualitative and quantitative research methods, including a survey distributed to organisations across 10 sectors in Ireland, focus groups and interviews with Sustainability subject matter experts. Through these methods, this report identified the below:

- Key climate factors affecting the Irish workforce; particularly climate change, risk management and regulatory pressure, purpose, innovation, digitalisation and geopolitical drivers.
- Key findings on how the climate is affecting the Irish market under four themes; increased demand for green skills, leadership buy-in being imperative, regulation forcing organisations to sit up and act, and investment in Learning and Development (L&D) being insufficient.
- Key considerations and next steps that organisations of all sizes need to take to prepare the green workforce of tomorrow.

Executive Summary

This report highlights how climate and sustainability is driving the focus on green skills in organisations and provides some recommendations to close the current skills gap

Key Findings

Key findings that emerged within this report:

- **Increased demand for green skills:** There are new green occupations and skills emerging, and some occupations will need to be adapted to keep up with sustainability trends, particularly in business units such as Operations & Distribution. The demand for green skills and occupations is surpassing supply, and concerns are growing around an imminent shortage of green talent. It was noted within the interviews conducted that some functions are ahead of others (e.g. Finance, this being mainly driven by regulation). There is also a need for more general skills which will be required to support the transition around the measurement and understanding of ESG related information.
- **Leadership buy-in is imperative:** Sustainability is now considered both a governmental and leadership agenda. There is a need for leadership to invest in this area, be proactive and identify gaps. There is also a need for ownership in developing the skills and occupations. 75% of survey respondents believe that leadership are responsible for the implementation of sustainable skills.
- **Regulation is forcing organisations to take action:** Many organisations are making changes to prepare for new and emerging regulations, highlighting the need for a data literate and digitally savvy workforce. Regulation was discussed in both focus groups, highlighting a strong belief that regulation will be a key driver of organisation's sustainability agenda. 52% of survey respondents are impacted (either moderately or significantly) by government regulation with respect to skills development in sustainability.
- **Investment in learning and development is insufficient:** Irish organisation's need to invest in training to keep abreast of the evolving job and skills landscape. L&D teams are facing challenges in understanding where to start when developing a curriculum, as well as securing the required budget. Outputs from the interviews and focus groups show the necessity for sustainability to be incorporated into an organisations L&D strategy.

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Introduction

About SOLAS and Deloitte

This research report is a joint collaboration between SOLAS and Deloitte who both work with organisations to support them on their sustainability journey

About SOLAS

SOLAS is the Further Education and Training Authority responsible for planning, funding and co-ordinating Further Education and Training in Ireland. Its mandate is to ensure the provision of 21st century, high-quality, learner focused education and training programmes to school leavers, job seekers, employees seeking to upskill or reskill and other learners. SOLAS' core functions are to research, plan, fund and co-ordinate the delivery of over 300,000 Further Education and Training places across a range of programmes annually.

SOLAS is also responsible for the national apprenticeship system which spans further and higher education, and for a number of national initiatives, Skills to Advance and eCollege. Skills to Advance is a national initiative that provides upskilling and reskilling opportunities to employees with lower-level skills, to those currently employed in vulnerable sectors and those in emerging sectors.

The Further Education and Training (FET) Strategy 2020 – 2024 sets out a range of priorities across three core pillars: building skills; creating pathways and fostering inclusion. Two key strategic priorities for FET are focused on upskilling the workforce and on meeting Ireland's critical skills needs. FET is being shaped and influenced by its employers and deploys accessible labour market intelligence to underpin smart choices by employees and those who advise them. Climate change and sustainable development are critical areas of focus for FET, with a strong contribution to the Government's call to action by building on FET's strong capabilities around energy, building and the environment.

SOLAS has recently launched FET Micro-Qualifications, a new FET offering to address the skills needs of the Irish workforce. They were developed collaboratively with Education and Training Boards (ETBs) and strategic partners such as Enterprise Ireland, IDA, EPA, SEAI, Uisce Ireland, QQI and Regional Skills Fora. These FET Micro-Qualifications include Environmental Sustainability, Lean Practice, Resource Efficiency, Circular Economy and Sustainable Supply Chain Procurement.

More information is available at www.SOLAS.ie

About Deloitte

At Deloitte, we make an impact that matters for our clients, our people, our profession, and in the wider society by delivering the solutions and insights they need to address their most complex business challenges. In Ireland, Deloitte has over 3,200 people providing Audit & Assurance, Tax, Consulting, Risk and Financial Advisory services to public and private clients spanning various industries.

Deloitte has extensive experience in working with other public sector and representative organisations delivering ESG strategies. Our local experienced team combines ESG strategy and road map experience with knowledge of the Irish regulatory landscape, delivering engagements for a number of public and private sector bodies.

Our global team have worked with many of the world's leading and most complex public and private sector organisations. The strength and capability of our local and global teams is seen not only in the work we have delivered for our clients but also in the research and insights we have published to support organisations in sustainability and decarbonisation journeys.

Sustainability is Deloitte's global priority. This is reflected in our corporate strategies, our solution offerings and expertise, and in the individual beliefs and actions of our people. World *Climate* is our global strategy to drive responsible climate choices within our organisation and beyond. As part of this strategy, our carbon reduction strategy is in line with the ambition in the Paris Agreement. Deloitte are committed to achieving net-zero greenhouse gas (GHG) emissions by 2030 for our own operations. In addition, we calculate our carbon footprint annually, following the Greenhouse Gas Protocol, and publish this in the annual Impact Report which sets our approach.

More information is available at www.Deloitte.ie

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SOLAS is very pleased to introduce this report which has been commissioned by our Enterprise, Employees and Skills team. The report which identifies new and emerging occupations in sustainability and identifies gaps in skills will help to inform future programme development as part of the Skills to Advance offering.

This report has been compiled in partnership with Deloitte Ireland who bring a wealth of knowledge and experience in climate action research and strategy. Bringing together the latest data available from a wide range of national and international sources, the findings presented in 'The Future of Green Skills- An Irish Perspective'. will support the FET sector to continue providing employees and employers with the necessary skills and career opportunities to thrive in a green economy, but it will also play an important part in supporting the development of future skills that will be needed to meet national strategic challenges.

Reaching net zero goals is now an integral part of long-term business strategy in Ireland. Organisations are facing an increasing need to develop specific solutions for their businesses that will have an impact on climate change and other environmental issues. As a result, organisations must strive to achieve balance between growth and the integration of sustainability across their organisation. By integrating sustainable solutions, businesses can ensure that they are one step ahead.

As the state agency responsible for Further Education and Training (FET) in Ireland, SOLAS is driving the responsiveness, innovation, transformation, sustainability and success of the FET and apprenticeship systems. We are working with Education and Training Boards (ETBs) to progress the green transition in the FET sector and support climate action in Ireland, through the nationwide roll-out of a Green Skills suite of FET programmes. Later this year and building on this work, SOLAS working with the Department of Further and Higher Education, Research, Innovation and Science will be finalising a policy position and a strategy for the FET sector to deliver on skills for the green transition. Our aim is to ensure every FET learner is equipped with the skills to become agents of change in climate action.

Key to supporting enterprise in Ireland is the Skills to Advance policy initiative which was developed by SOLAS in conjunction with the former Department of Education and Skills and in consultation with ETBs and enterprise stakeholders. It provides a range of upskilling and reskilling FET opportunities to employees in jobs undergoing change and to those currently employed in vulnerable sectors. Fundamental to its success is the close collaboration with small and medium-sized enterprises to help employers identify skills needs and invest in their workforce by providing free or heavily subsidised Skills to Advance upskilling opportunities to their workforce. In 2021, SOLAS commenced a green initiative in collaboration with industry partners, and the network of ETBs across Ireland. The result is a green skills suite of FET Micro-Qualifications spanning sustainability awareness, resource efficiency, circular economy, lean and supply chain procurement. – This new FET Micro-Qualification offer is designed to future-proof businesses, with short, targeted courses offering stackable, nationally recognised qualifications. These FET Micro-Qualifications are tailored to fit employees' work schedules and provided by ETBs at little or no cost to employers. Their flexibility means they are perfectly placed to meet the changing needs of enterprise by responding to and driving the demand for key skills areas in sustainability. National rollout of these FET Micro-Qualifications began in late 2022 through the ETB network. Further FET Micro-Qualifications in Sustainable Leadership, Sustainable Finance and Sustainable Reporting will be developed and rolled out as a result of the findings in this report.

We hope that this report will be a valuable and useful resource to plan future FET provision that responds to the sustainable/green skills needs of enterprise in Ireland. We look forward to continuing to work with our enterprise partners to provide skills-based training in sustainability. This will ensure that we have a resilient, dynamic and skilled workforce, that can meet the sustainable challenges and Environmental, Social, and Governance (ESG) reporting requirements facing enterprise today and into the future.

- Andrew Brownlee, CEO, SOLAS

Deloitte Foreword

As the Climate & Decarbonisation Lead at Deloitte Ireland, I am delighted to introduce this report on green skills in new and emerging occupations, which has been compiled in partnership with SOLAS. The report identifies gaps in green skills in the Irish marketplace today and provides recommendations to close these gaps, such as through Further Education & Training (FET) provision.

Deloitte recognises the urgent need for businesses to accelerate towards a sustainable future and sees an opportunity for a new skills base to support this transition. The fast-evolving sustainability regulation landscape is driving a need for new capabilities and skillsets and the need for employees to upskill in current roles. This is highlighted within the report's key insights, which shows regulation as a clear driver in many organisations' sustainability agenda, with 52% of survey respondents recognising a need for ESG skills development as a result of government regulation. There is currently a shortage of specialist ESG skills in the market. On the job and vocational training will play a key role in addressing this gap.

Ireland has some of the most ambitious climate action targets globally. The Climate Action Plan clearly documents ambitious climate action targets across all industries and each industry has its own path to decarbonisation that will require different skills and capabilities. Deloitte's research revealed that 80% of the skills required for the green transition already exist in today's workforce[1]. Organisations need to focus on upskilling and reskilling employees to build a new 'green collar' workforce that will drive the transition to a low carbon economy. The ETBs are uniquely positioned to help organisations in addressing these skills gaps, by providing targeted, stackable, nationally recognised courses to support these training gaps.

We welcome SOLAS's focus on credentials as way to practically support the move to the Green Economy and see the FET sector as a crucial player in providing the necessary upskilling and reskilling opportunities to employees. We are proud to work with SOLAS and other stakeholders to support the implementation of the Green Further Education and Skills Development Plan, whose goal is to provide learners with knowledge and skills related to environmental awareness and green practices, which can empower them to lead future change. SOLAS's green skills suite of FET Micro-Qualifications is an excellent example of how the FET sector can support organisation's in navigating the changing landscape of green skills requirements.

The ETBs will play a pivot role in helping learners gain the knowledge and skills needed to succeed in today's rapidly changing business environment. It is my sincere hope that this report will help the FET sector accelerate its focus on addressing green skills in the Irish marketplace ensuring that individuals and organisations have the knowledge and skills needed to deliver on Ireland's ambitious climate action targets.|

- Aoife Connaughton, Director, Sustainability & Climate, Deloitte

Section 2: Methodology

Methodology

Below outlines the methods taken to complete this research

A mixed method approach including qualitative and quantitative research was used to create this report.

1. The Deloitte team conducted extensive industry analysis across the Irish and international markets to understand emerging trends in green skills and occupations.
2. The Deloitte team conducted 8 interviews with Deloitte sustainability experts and professionals and facilitated 2 focus groups with representatives from relevant organisations, covering key themes and topics stemming from the latest global analysis of green skills and occupations to determine the relevant Irish context.
3. An online survey was hosted by Deloitte and distributed by Education and Training Boards (ETBs), Deloitte and other industry partners to gather quantitative data that could provide additional insight for analysis.
4. The survey data was analysed according to the priority areas and sectors as chosen by SOLAS (biodiversity, transport and energy) as well as business functions to understand the trends in green skills and occupations.
5. Finally, the data and research were synthesised further to extract information to support the report's conclusions.

Limitations

As with all forms of research methods, there were some limitations that have been noted as impactful to the delivery of this report.

- It is possible that those completing the survey may not have had full insight into the skill and occupation needs within their organisation and would therefore be limited in their responses.
- Given that sustainability is still an emerging focus area for many organisations, those that were only in their roles for a short period of time may have been limited by a lack of awareness into their organisations needs and strategic vision.
- Not all sections of the survey were mandatory to complete, and some respondents choose to negate answering some questions which may have skewed the results in some sections.
- Geographical spread, the survey was limited to Ireland and some counties had less representation than others.
- Representation across industries and sectors differed.

Methodology

Below outlines the methods used by SOLAS and Deloitte during this research

1 Industry Insights

- Deloitte conducted extensive industry research to gain a better understanding of the current trends in green skills and occupations across the Energy and Transport sectors.
- In addition, Deloitte also researched, the key skills and occupations across biodiversity and business functions both in Ireland and globally. The main drivers and barriers were examined behind green skills and occupations.
- The integration and the current measures being taken to improve the adoption of green skills and occupations were also investigated.
- A current state analysis of the current Further Education and Training (FET) provisions across the country to analyse the emerging gaps was conducted.

2 Interviews

- Deloitte conducted eight interviews with sustainability experts and professionals across the Deloitte Global Network from a range of backgrounds and sectors.
- Each of these interviews followed a similar structure and set of questions based on general trends in their specific business unit or sector of focus, current level of expertise, any particular skills or occupations they see emerging, and any specific courses they found useful for upskilling.
- These interviews provided an opportunity to gather insights, trends and influences on the talent needs of employees across the Irish market.

All four of these components contributed to the report.

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3 Survey

- 64 professionals across 10 sectors within the Irish market participated in a survey conducted by Deloitte to provide their views on the current state of green skills and occupations to further understand what the current gaps are in the FET sector.
- The survey included a deep dive analysis into the demand for specific green skills and occupations identified through the industry research across each of the business functions.
- The survey provided the opportunity for participants to share their thoughts on what can be done to support green skills and occupations development in their organisations.

4 Focus Groups

- The online survey was complemented by in-depth focus groups with representatives from relevant organisations selected by SOLAS. Key stakeholders from the Education and Training Boards (ETBs) and SOLAS themselves who are working in the sustainability space were invited to attend.
- Some of the topics and themes explored included the current level of awareness in companies of sustainability skills needed in their business and the integration of sustainability practices within Irish businesses.
- The second focus group was completed to validate the findings from the data gathered in the research, survey and focus groups. This step allowed for further extrapolation of rich insights from the data.

All four of these components contributed to the report.

Methodology

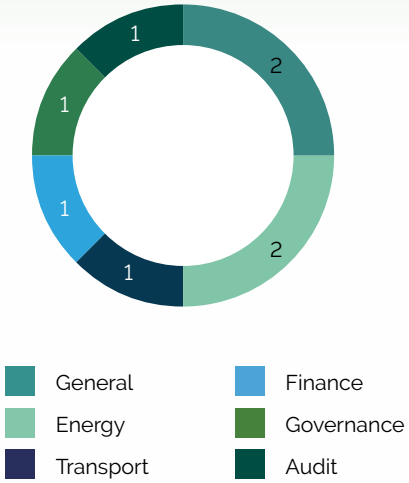
Below outlines the methods used by Deloitte and SOLAS during the research

Interviews

This stage involved interviewing Deloitte's sustainability experts and professionals across various industries.

8 SME interviews

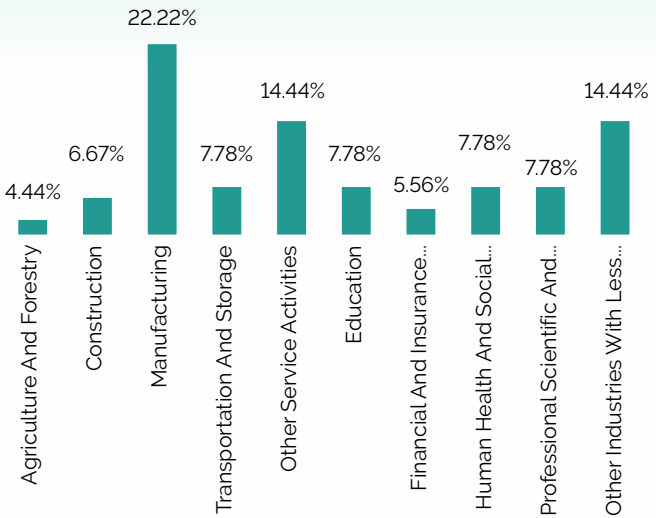
SMEs were spread across the following professions:



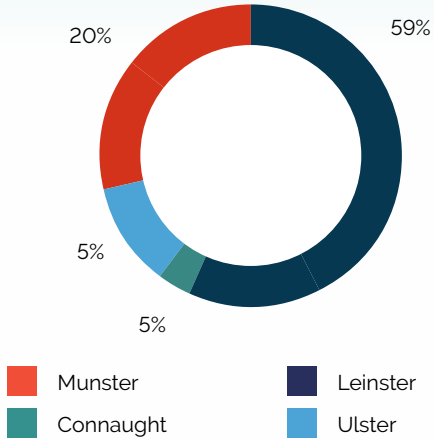
Survey

64 professionals participated in the survey on the current state of green skills and occupations.

Percentage of Respondents by Industry



Participants by Business Function



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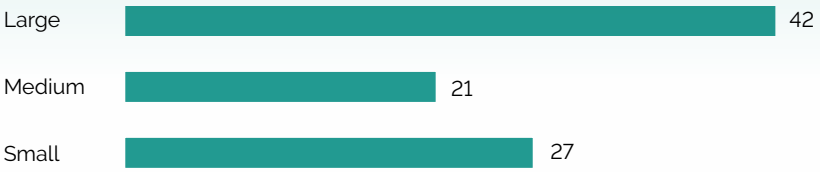
Survey

Participants by Organisational Size



Participants by Key Areas

Focus Group

Deloitte facilitated two focus groups with representatives selected by SOLAS from various organisations.

21 focus group participants

(across two sessions)

Above are samples of the organisations that were represented in the focus group

Definitions of terms in this report

Below outlines the terms used throughout this report

Green Skills

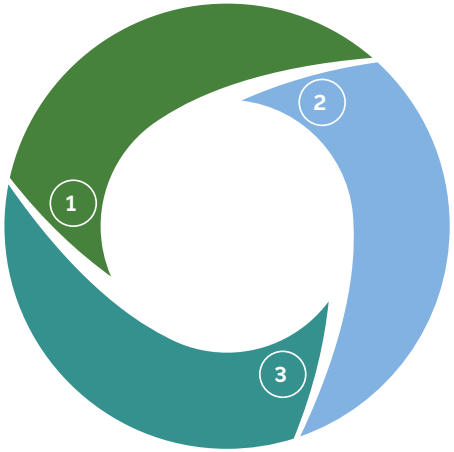
A skill refers to one's ability to perform certain tasks, whereas an occupation references a role that carries out similar tasks and duties. Whilst we still lack a unified definition of 'Green Skills', SOLAS defines green skills in line with the European Centre for the development of Vocational training (CEDEFOP) definition, which is **"the abilities needed to live in, develop and support a society which aims to reduce the negative impact of human activity on the environment."** These skills can be both generic to help build awareness or specific skills for the implementation of systems, processes or to assist with the development and implementations of green technologies such as renewable energies.

Green Occupations

Green occupations / occupations, according to Deloitte, are **roles that focus on specific domains or initiatives that have the aim of improving environmental outcomes for a business or the economy**. In this report occupations are based largely on the ONET system which contains hundreds of standardised occupation descriptors based on 1,000 occupations covering the U.S. economy. Descriptions have also been gathered using data from Indeed (for employers).

Zero Carbon / Green Economy

In Ireland, according to the Skills for Zero Carbon report published by the Expert Group on Future Skills Needs[3], the 'Zero Carbon Economy' or 'Green Economy' is not a defined sector or group but a term that refers to a broad collection of economic activities aimed at protecting and reducing negative pressures on the environment.



1. Jobs

The numbers of employed workers in an industry or economy.
Example: 10 million jobs in country X agriculture industry.

2. Occupations

The types of work employed workers do in an economy.
Example: 1 million crop farmers in country X agriculture industry.

3. Skills

The mix of skills an employed worker has in their occupation.
Example: crop farmers require skills in manual work and maintenance.

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Section 3: Key climate and sustainability factors affecting the workforce

Climate change & sustainability as a catalyst to new skills development in the Irish workforce

There are five key drivers that have mobilised sustainability efforts in organisations in Ireland and abroad

Sustainability, Targets & Policy

The scale and pace of climate threats mean that the rapidly deteriorating state of climate change itself is a key driver forcing change across skills and occupations. As such, Ireland has committed to halving its CO_2 emissions by 2030 and becoming climate neutral by 2050 in line with EU regulation, outlined in the **Climate Action and Low Carbon Development (Amendment) Act 2021**. The greening of the economy by 2050 in line with these EU targets will represent a huge challenge as well as opportunity for the Irish economy. Transitioning to net zero will both create new occupations and skill demands as well as increasing demand for those already in the market.

There are several national and international policies driving transformation. Ireland also has **emissions targets (sectoral emissions ceilings) across 6 priority sectors** e.g., transport and construction limiting the amount of carbon emissions from a particular sector over a set period. These targets will also exacerbate existing factors like occupation shortages in engineering or retrofitting across sectors including construction or renewable energy. At an EU level, the EU Effort Sharing Decision (ESD) and the EU Effort Sharing Regulation (ESR) set Greenhouse Gas reduction targets for 2020 and 2030 across all members states.

Risk Management/ Regulatory Pressure

Compliance with constantly evolving ESG reporting frameworks and potential regulations isn't a choice anymore. It's becoming an obligation, for both regulatory bodies and organisational stakeholders who want to see the impact of a business's sustainability efforts. Corporate Sustainability Reporting Directive (CSRD) and the Circular economy bill will also have an influence here.

Finance functions are already equipped to support reporting and will have an extended role to play in sustainability reporting and disclosure but also in supporting other functions such as operations to support more sustainable decisions making and disclosure procedures.

There will be a need for **better data and analytics capabilities** as well as a mindset shift that views reporting transparency as strategic not just operational. There is also a requirement for continuous upskilling to ensure constant compliance.

In addition there are a number of current and future regulations that will be significant pressure on organisations to improve their sustainability performance. More on which can be found on Deloitte's Regulation Sustainability Hub.

Societal Purpose

Companies across all industries are making strong purpose-driven commitments and strategic shifts to differentiate themselves in the market, recognising that it is not just the right thing to do, but also a driver of sustainable long-term value. Purpose is more than a company's CSR initiatives, or social and environmental investments, or a desire to do good in the world. Harvard Business Review explains corporate purpose as the "ultimate goal of the business, the essential reason why it exists, and how it contributes to the common good.[3]"

There is evidence of a "purpose premium," indicating that **more purpose-driven companies outperform their peers**[4]. Deloitte research has shown that this impacts brand (brands with strong purpose were 6x more likely to be protected in the face of negative publicity), operational efficiency (64% of companies with product sustainability programmes have lower logistics and supply chain costs) and talent (**78% of people indicated they would prefer to work for a purpose-driven company**, and 75% of millennial workers would take a pay cut to work at an environmentally responsible company).

Companies must think holistically about all the ways in which purpose can create value.

Innovation & Digitalisation

Innovation is an essential part of dealing with climate change, with many digital solutions already coming to the fore. The scale of transformation required is undeniable and innovation will be critical to achieving our goals, if the right support is provided.

The Global Digital Skills Gap report by Rand Europe says **rapid and widespread digitalisation has changed the nature of work, and digital and IT skills are now regarded as essential for the modern workforce**[5]. These digital and technical skills also offer businesses a faster path to Sustainability.

The need for a digitally proficient workforce is set to increase. In 2023, organisations are recognising that investing in technology not only helps address economic concerns but also offers opportunities to support sustainability and environmental goals by integrating eco-friendly practices and skills into their operations. **The rise of automation and digitisation is creating a significant skills gap that some sectors are currently underprepared for**.

The Irish governments approach to tackling the digital transition it outlined in "Harnessing Digital – The Digital Ireland Framework" which states that skills in data will be required across the board not only due to increasing digitalisation but also due to increased demands for climate reporting and disclosure[6].

Geopolitics

As many firms have globalised their market footprint and supply chains, this globalised business model are now exposed to an increasingly antagonistic geopolitical environment. Brexit, political unrest, wars, the pandemic and extreme weather events have all come to the fore in recent years, leading to geopolitical risk becoming a core challenge across the global economy.

Climate change is likely to drive scarcity of key resources across borders and the need for sustainable supply chains is clear. **Disruptions to supply chain operations are set to stay in 2024 and if tensions escalate, essential materials may be inaccessible, or major trade routes could be shut down**.

Fostering green skills and sustainability therefore becomes important to mitigate the risks associated with potential supply chain disruptions. Sustainability measures can help reduce the environmental impact of supply chain activities and promote resilience in the face of potential material shortages or closures. Functions such as procurement and supply chain are in most threat to geopolitical disruption. This will lead from the front of many organisations efforts to decarbonise and occupations and skills in these areas should become priority areas for development.

High-level survey findings of sustainability skill and occupation demand across business function

Participants of the survey (across all industries) were asked to rate what the demand for sustainability related skills and occupations are across each of the ten business functions in their organisation which can be seen below. These skills and occupations were chosen through the qualitative research conducted by Deloitte and were identified as being important for future sustainability development.

Business Functions where demand for green skills is greatest

Operations, Distribution & Manufacturing

Top 3 in demand skills

- Management Skills
- Risk Analysis
- Data Management

Top **2** in demand occupations

- Marketing Operations Manager
- Operations Researchers

Finance

Top 3 in demand skills

- Data Analysis
- Risk Management
- Awareness of Climate Risk Disclosures

Top 3 in demand occupations

- Accountants
- Sustainability Skilled Internal Auditor
- Finance Manager

Research & Development

Top 3 in demand skills

- Communication Skills
- Compliance
- Digital Skills

Top 3 in demand occupations

- Automation Engineer
- R&D Engineer
- Digital Engineer

Supply Chain

Top 3 in demand skills

- Management Skills
- Risk Analysis
- Data Management

Top 2 in demand occupations

- Marketing Operations Manager
- Operations Researchers

IT/Digital

Top 3 in demand skills

- Management Skills
- Risk Analysis
- Data Management

Top 2 in demand occupations

- Marketing Operations Manager
- Operations Researchers

Legal

Top 3 in demand skills

- Regulatory Knowledge
- Problem Solving
- Ethical Judgement

Top 3 in demand occupations

- Solicitor
- Chartered Surveyor
- Environmental & Planning Lawyer

Human Resources

Top 3 in demand skills

- Data Analytics
- Stakeholder Engagement
- Talent Acquisition

Top 3 in demand occupations

- Diversity, Equity & Inclusion Manager
- L&D Manager
- Employee Experience Manager

Estates & Physical Assets

Top 3 in demand skills

- Waste Management
- Risk Management
- Sustainable Value Chain

Top 3 in demand occupations

- Construction Project Manager
- Facilities Engineer
- Quantity Surveyor

Marketing & Sales

Top 3 in demand skills

- Digital Marketing
- Social Media
- Sustainability Communications

Top 3 in demand occupations

- Social Media Manager
- Marketing Manager
- Chief Marketing Officer (CMO)

Customer Service

Top 3 in demand skills

- Ability to Influence Others
- Client Journey Design
- Conflict Management

Top in demand occupation

- Customer Service Representative

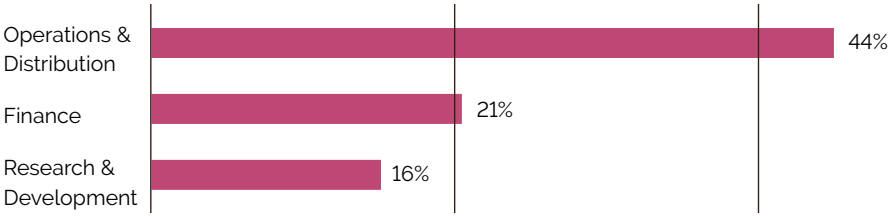
Section 4: Key findings – how climate and sustainability are affecting the Irish skills market

High-level survey findings of sustainability skill and occupation demand across business function

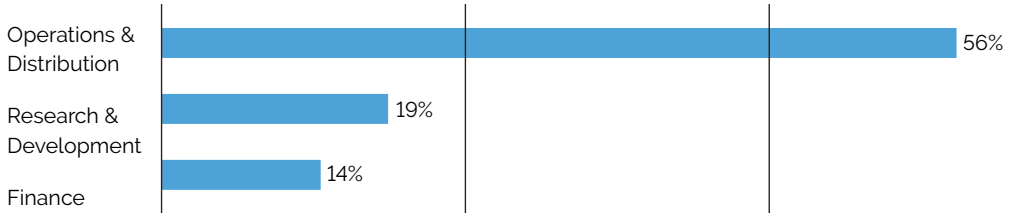
It's clear that some functions will be directly impacted e.g., **Operations & Distribution, Research & Development and Finance**, while others such as Legal or HR will be indirectly affected. Across the business functions, skills such as **regulatory knowledge** and **management skills** were rated as the highest in demand by participants. However, there were individual skills within functions that were also identified as important such as **data analytics** within HR and IT. Transversal skills was noted with highest demand within Research & Development and Customer Service - communications skills & ability to influence others, respectively. It was noted within the interviews that **some functions are further along than others e.g., Finance** (new regulations/standards mean they will need to upskill very quickly), and other functions will require greater research/ support to facilitate the efforts in supporting the green transition. The results demonstrated that **there is a readiness gap for the Operations & Distribution function** where demand is greatest for green skills however it is also the function that participants rated as the least developed.

However, efforts cannot be focused on one singular business unit, as transformation is required throughout an organisation's entire value chain. **No function will go untouched by the impact of climate change** and the need to consider the role of occupations and skills across all functions persists. There is also a **need for greater cross-functional collaboration** e.g., Finance, Distributions & Operations and Sales will need to collaborate to support ESG reporting and disclosures. Additionally, there will be a lot of general skills required to support the green transition around measurement and understanding of ESG related information. It's important to prevent silos of green skills and instead focus on building capabilities across teams and across organisations. Organisations need to upskill as well as reskill to prevent negative impacts to the workforce. In terms of where to start, organisations will have to first look at their core business activities e.g., production plant management or waste management to see how these areas can be 'greened' and then look to supporting functions such as HR and Finance etc. Therefore, functions responsible for core business activities such as Procurement and Supply Chain will lead from the front of many organisations' efforts to decarbonise. For this reason, occupations and skills in these areas should become priority areas for learning and development.

Top 3 Business Functions where demand for green skills is greatest



Top 3 Business Functions where Green occupations are least developed



Most in demand skills across the 10 business functions

1. Regulatory knowledge (Legal)
2. Management skills (Ops & Distributions)
3. Risk management (Estates)

Most in demand occupations across the 10 business functions

1. Accountants (Finance)
2. Supply Chain Managers (SC) / Programmers & software development professionals (IT)
3. Construction project managers (Estates)

Summary of Research

The research further identified four key themes and areas of focus for green skills and occupations development over the coming years

1 Increased demand for green skills

- While 80% of skills required in transformed and new net-zero jobs in the short-to-medium term are used in the current workforce[7], the remaining 20% creates new skills for workers to perform in the net-zero context, rendering other skills less relevant. This creates a critical need to understand where these gaps lie and address them
- New occupations and skills are emerging, and existing skills and occupations need to be adapted and adjusted
- Demand for data processing and analytics skills are set to rise as organisations will be increasingly required to monitor their performance in relation to a number of evolving ESG metrics

2 Leadership buy-in is imperative

- The role of leadership, governance & the government and the need for buy-in
- Accountability needs to be distilled and encouraged throughout the organisation as sustainability will impact all parts of an organisation
- Sustainability is now considered an executive level agenda item, as heard in both our focus groups.
- There is a need for ownership in developing green skills and occupations, with 75% of survey respondents saying leadership are responsible for the implementation of sustainability skills

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3 Regulation is forcing organisations to take action

- Many organisations are making changes to prepare for current and future regulations (e.g. CSRD), an item that was highlighted in both our focus groups
- New and updated regulations on businesses in Ireland are driving the skills and occupations demand
- 52% of survey respondents are impacted (either moderately or significantly) by government regulation with respect to skills development in sustainability
- Having a data literate and digitally savvy workforce is paramount to navigating sustainability regulation

4 Investment in learning & development is insufficient

- HR functions are under pressure to upskill employees as their companies transition towards net zero
- 54% of survey respondents cited sustainability skills as either core or becoming integral to their L&D strategy
- Yet, they are facing challenges on where to begin focussing on skills development, securing training budget (for smaller companies), and keeping up with the constantly changing sustainability skills landscape
- Continuous employee-centric learning is a key trend identified. It will be a useful and cost-effective way to upskill employees embed sustainability across organisations

Theme 1: Increased demand for green skills

Just as the type of work is changing, so too are the skills required to perform in a net-zero workforce. While there is a growing demand for sustainability skills in all organisations, skill supply remains inadequate. The good news is, **80% of skills required in transformed and new net-zero jobs in the short-to-medium term are used in the current workforce**[7]. These skills are currently performed in the economy and are unlikely to fundamentally change as economies decarbonise. However, the remaining 20% of skills arising from unique work and worker requirements creates new skills for workers to perform in the net-zero context, rendering other skills less relevant. This creates a **critical need to understand where these gaps** lie and address them to build maturity in skills and occupations. This involves conducting thorough skills assessments to identify specific areas where expertise is lacking and then tailoring training and development initiatives to fill these voids. Collaboration between public and private sectors, as well as educational institutions, is essential to create a robust pipeline of sustainability talent. In the survey conducted, 66% of respondents believed that developing sustainable skills and talents at their organisation was both urgent and important.

Skills are the currency in which we can understand disruption in transition, minimise the impacts, and facilitate optimal employment pathways. Furthermore, **the development of data skills will be critical to help multiple sectors cope with increasing demand around ESG regulation and reporting**. Organisations will be increasingly required to monitor their performance in relation to a number of evolving ESG metrics and skills in data processing and analytics, which are only set to increase to support the transition. Within our survey, 'Data Analysis' was listed as the highest skill in demand across a range of business functions such as Finance, Human Resources and IT. Having a data-savvy workforce is vital for progressing with sustainability efforts as it enables organisations to assess their environmental impact, optimise resource usage, and make informed decisions on eco-friendly practices. Not only does it empower employees to identify opportunities for efficiency, innovation, and cost reduction, but it also facilitates compliance with environmental regulations, fosters transparency, and helps organisations communicate their sustainability efforts effectively to stakeholders. This was further echoed in our survey whereby external stakeholder requirements was the most important reason for developing sustainability skills.

In addition to newly created occupations, the integration of environmental sustainability into current occupations and its wider assimilation into the everyday operations of the workforce will soon become as commonplace as digital technology is to today's workforce. This will require the new generation of workers to have the necessary competencies for this transformation. Embracing green skill development alongside fostering a culture of environmental sustainability within the workforce will serve as a catalyst for innovative business models and imaginative strategies that deliver for people, the planet, and profit. Gartner research noted that 94% of employees believe that the organisation's goals and policies in sustainability are highly relevant to their work, but only 28% believe that the organisation's goals are embedded into daily workflow[8]. There is clearly a **huge demand for sustainability to be weaved across all roles and functions** when upskilling across the workforce, and our focus group findings show there is also demand for cross-functional sustainability upskilling, to allow understanding of sustainability in the context of other parts of the business, e.g., HR being aware of the ESG financial reporting that is required by the Finance function. This integrated, environmentally responsible approach to occupations can simultaneously boost business success while contributing to a healthier planet.

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Irish perspective

There is a global demand for highly skilled talent In Ireland. Chartered Institute of Personnel & Development (CIPD) found that accessing key skills in the Irish labour market is one of the main drivers of the people agenda in most organisations. There are also a number of national policies that are driving transformation across skills and occupations in Ireland, such the Climate Action Plan 2023 (CAP23), Project Ireland 2040 and Ireland's National Skills Strategy 2025, to name a few. As a result, Ireland has committed to halving its CO_2 emissions by 2030 and becoming climate neutral by 2050 in line with EU regulation. Ireland also has emissions targets (sectoral emissions ceilings) across 6 priority sectors e.g., transport and construction limiting the amount of carbon emissions from a particular sector over a set period. Not only will these policies and targets create new sustainable jobs in Ireland but will also require new skills to enter the Irish workforce. This will result in a more resilient and forward-thinking labour market, better equipped to address the challenges of environmental sustainability while fostering economic growth and innovation.

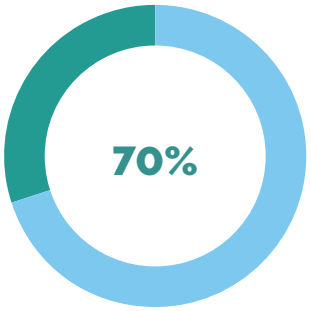
Global highlights

In Europe and the United States, demand for physical and manual skills in repeatable tasks is expected to decline by nearly 30% over the next decade, while demand for basic literacy and numeracy skills would fall by almost 20%. In contrast, the demand for technological skills (both coding and especially interacting with technology) is expected to rise by more than 50%, and the need for complex cognitive skills is set to increase by one-third[9]. Demand for high-level social and emotional skills, such as initiative taking, leadership, and entrepreneurship, is also expected to rise by more than 30%.

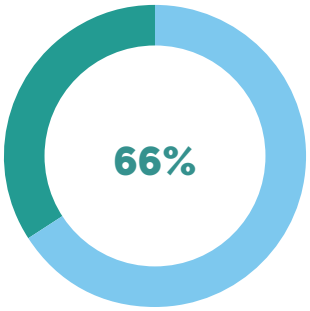
The impact on occupations is already being felt across the world, leading to the emergence of new job opportunities and reshaping of existing roles. Sweden has seen a rise in occupations related to sustainable transportation jobs, such as electric vehicle charging station operators and sustainable urban mobility planners, working to progress the concept of "e-roads," e.g., roads that are embedded with electric rails that charge electric vehicles while they are on the road[10].

Theme 1: Increased demand for green skills

Survey & Focus Group Findings

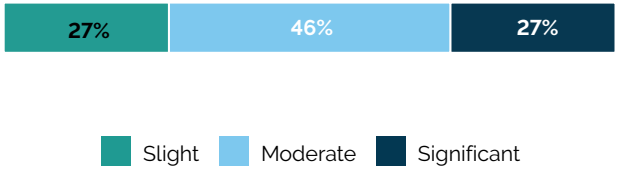


of respondents noted their organisation was **affected to some degree by skills shortages.**



of respondents believed that developing sustainable skills and talent at their organisation was both **urgent and important.**

The impact of sustainability skills shortages in surveyed organisations in 2023:



'The green transition is a lower priority for smaller companies, its not a regulatory requirement for them yet'
(Focus Group 1, Sept. 2023)

'Companies view the importance of skills but not the urgency'
(Focus Group 2, Nov. 2023)

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Theme 2: Leadership buy-in is imperative

Sustainability has profoundly impacted the role of leadership across various sectors by necessitating a shift towards responsible and forward-thinking practices. Leaders are now expected to integrate sustainability into their decision-making processes, corporate strategies, and culture and are being held accountable for ESG compliance. Regulation compliance particularly is a key driver for leadership to act.

Rather than there being a particular business function experiencing challenges to develop skills and occupations, **the biggest challenge can often be gaining leadership buy in**. Further, sustainability-specific business functions are not always in place in Small Medium Enterprises and getting leadership to adopt changes and convince them it is worth their time to do so can be a challenge. This challenge also applies to larger companies, however due to an increase in regulation in this area, it now tends to be part of reporting and corporate strategy.

Often when selecting a sustainability lead to support with combating climate actions in an organisation is advised, responsibility can fall to the person expressing an innate interest in sustainability when creating the role. However, this can lead to those in roles without qualifications. There is a **significant need for leadership development to address capability gaps when it comes to sustainability**, going beyond ESG reporting but also setting sustainability strategy and advising how to effectively embed it into operations and across the organisation.

The sustainability agenda needs to have buy-in and be led from the top, with the correct governance in place. The survey results showed that 75% of respondents said leadership are responsible for they implementation of sustainable skills. A Deloitte Global 2022 survey found gaps in climate governance and oversight among organisations, indicating that many boards need to step up and become more proactive. Among the more than 350 board audit committee members in 40 countries surveyed in Q4 2021 by the Deloitte Global Boardroom Program[11], nearly 60% said they don't regularly discuss climate change during meetings, and **nearly half said they lack the basic literacy in climate issues they need to make informed decisions**. There is a clear need for upskilling the leadership cohort in this area to breed confidence and secure further buy-in for climate change and sustainability topics as related to their business models.

Governments will also need to be the leaders on climate action. Without government leadership globally on targeted subsidies, establishing a carbon price and mandating training, limiting temperature rise will fail. The slogan at COP26 was 'if governments lead, finance will follow', highlighting the needs for government to make this a national priority so the right supports and resources can be established.

Irish perspective

The CEOs are calling on business leaders to make sustainability a central priority of their leadership and promote a low carbon vision across their operations, products and services to help Ireland achieve its international commitments under the Paris Climate Agreement.

Brendan Jennings, former Managing Partner of Deloitte Ireland, in collaboration with CEOs of Ireland's top companies, launched The Leaders' Group on Sustainability, a business coalition dedicated to addressing the most pressing sustainability priorities as well as future opportunities for Ireland[12].

Global highlights

Success is more likely when executives empower organisations to engage proactively and strategically with sustainability and hold them responsible for creating a measurable impact.

60% of leaders believe the lack of global reporting standards makes it hard to compare their organisation's progress against meaningful external benchmarks and 27% cite conflicting messages from investors who are simultaneously demanding long-term climate change adjustments without sacrificing short-term financial results[11].

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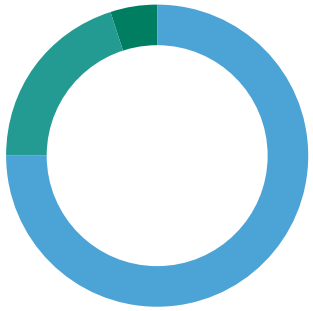
Theme 2: Leadership buy-in is imperative

When asked where responsibility lies to implement upskilling in sustainability:

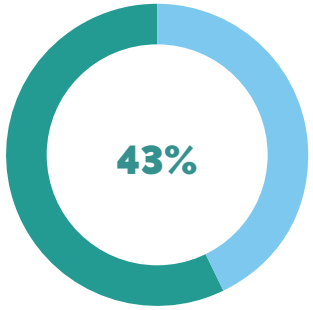
> **'Ireland is not good at engaging with management. We have to be better when aiming at this cohort as they are the decision makers'** (Focus Group 2, Nov 2023)

> **'There needs to be a top down approach from leadership'**
> (Focus Group 2, Nov 2023)



- 75% Leadership are responsible for the implementation of sustainability skills
- 20% All employees are responsible for the implementation of sustainability skills
- 5% Don't know who is responsible

75% of respondents **said leadership are responsible for the implementation of sustainability skills.**



of respondents said the top learning priority at their organisations was to develop a strategic approach to sustainability for the institution, including integrating sustainability into strategy, values, behaviours, operations, products and services.

Top drivers investing to develop sustainable skills over the next 10 years

Theme 3: Regulation is forcing organisations to take action

As mentioned, regulation compliance is a key driver for organisations, governments and leaders to sit up and act. **Skills demand will be increasingly related to regulation and policy** and demand for skills in disclosure and reporting alongside relevant knowledge of climate action and policies will continue to increase. **Leaders need to be aware of what the regulations and policies coming down the line are and prepare for them accordingly**. Many organisations voluntarily comply with a complex network of reporting regulations, ratings, and disclosure frameworks, but regulators globally are also moving toward requiring more disclosures for nonfinancial metrics.

The demand for skills in the Finance industry is highly related to regulation and policy with skills in disclosure and reporting increasing with further regulation with 60% of respondents in our survey reporting that **training and skills will be given a higher priority if regulation is implemented**. There are legal requirements coming into effect at both a national and international level that are impacting organisations e.g., European Union's Corporate Sustainability Reporting Directive (CSRD) taking effect from January 2024. It was noted that the real issue is the change in behaviour needed. It is believed that the extent that the governments regulation is impacting organisations with respect to skills development in sustainability is significant.

Targets are not clear, and the repercussions are not strict enough to push organisations to meet targets and this applies to all industries / sectors. From a small and medium enterprises perspective there is a barrier in relation to the CSRD reporting and understanding requirements. Multinational organisations seem to have a lot more awareness but there is a lack of clarity on the international requirements as they are still being set including the reporting expectations. This is causing a lack of clarity and confusion across all sectors.

Having a data literate and digitally savvy workforce is paramount to navigating sustainability regulation. These capabilities not only empower individuals to interpret and leverage complex environmental data but can facilitate informed decision-making and ensure companies can effectively adhere to and contribute to sustainability standards as they evolve.

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Irish perspective

As heard in our interviews, within the Irish renewable energy sector there are emerging and niche legal occupations as there is a need for highly-specialised legal professionals who can provide advice on legal and commercial matters pertaining to planning, contracts, taxation and energy regulation for renewables. The impact of transitioning to a low carbon economy on skills needs is predicted to come mainly from a shift of activities from less to more energy efficient activities but also emerging occupations coming from new regulation and technologies.

Global highlights

The development of data skills will be critical to help the sector cope with increasing demand around ESG regulation and reporting. Organisations will be increasingly required to monitor their performance in relation to a number of evolving ESG measures.

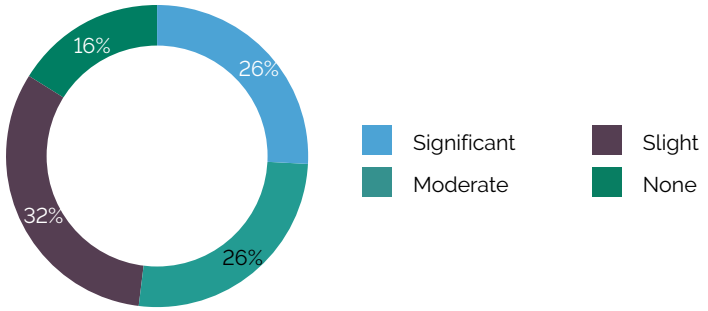
60% of leaders believe the lack of global reporting standards makes it hard to compare their organisation's progress against meaningful external benchmarks, and 46% cite the ever-shifting regulatory landscape as a key challenge[11].

Theme 3: Regulation is forcing organisations to take action

Survey & Focus Group Findings

52% of survey respondents are impacted (either moderately or significantly) by government regulation with respect to skills development in sustainability, stating that training and skills in this area will receive a higher priority / be progressed as a result of regulation.

To what extent is government regulation impacting your organisation with respect to skills development in sustainability?



Significant – training and skills in this area will be progressed as a result of regulation

Moderate – training and skills in this area will receive a higher priority if regulation is in place

Slight – training and skills in this area may receive a higher priority if regulation is in place

None – regulation will have no impact on training and skills

'This is where engagement happens because this is where people have to sit up and do something' (Focus Group 1, Sept. 2023)

'CSRD is integral – it will drive larger companies immediately, but for small and medium enterprises there is a barrier in understanding the requirements' (Focus Group 2, Nov. 2023)

'Regulation will be a key driver and focuses minds'
(Focus Group 2, Nov. 2023)

'The real issue is the behaviour change that's needed to respond to the changes in regulation'
(Focus Group 2, Nov. 2023)

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Theme 4: Investment in learning and development is insufficient

The HR function is already facing pressure to support their organisations as they commit to supporting the transition towards net zero, which will require an overhaul in investment in green training. The key is to train employees and encourage them to take action, either through internal training programs or by hiring professionals to provide independent support. The goal, in the long run, is to have employees do their jobs differently, with a sustainable lens. **As sustainability will soon become embedded into all roles in the future, effective training now is vital**.

However, the major challenges that face L&D teams are the rapidly evolving nature of sustainability practices, which requires up-to-date and specialised training programmes. This is further compounded by the breadth of sustainability topics – from environmental conservation to social responsibility – **making it a daunting space to navigate for companies to develop cohesive training programmes that adequately cover the full spectrum of sustainability**. Further, budget allocation and investment in sustainability training poses another hurdle, with **many (often smaller companies) having limited budget for extensive training programmes or advanced e-learning platforms**. Interviewees from previous Deloitte research found that early government guidance would prove confidence to alter curricula and to invest in training[13]. The CIPD has noted that 46% of L&D professionals do not have a handle on how much they spend per employee in the organisation in 2023[14].

For companies who are eager to progress sustainability learning within their organisation but are unsure where to begin, incorporating sustainability into '**learning in the flow of work**' (everyday employee-centric continuous learning opportunities) is an accessible and cost-effective place to start. This entails L&D teams seeking direct input from business units and employees about their learning preferences and the flow of their day-to-day work to develop user-driven learning environments. Sample initiatives to drive learning in the flow of work could be non-formal cross-functional sustainability stretch projects, monthly lunch & learn sessions hosted by internal subject matter experts, or a curated sustainability e-learning on learning management systems already utilised in the company. This can be done in tandem with external training providers and formal education programmes for a more holistic and effective approach to sustainability skill development. The survey results show that 63% of respondents have a plan that existing employees will be upskilled to contribute to sustainability skills and occupations within their organisation. The evolving job landscape accentuates **the need for modern, innovative education, with an emphasis on flexible and bite sized training and qualifications**. The adoption of new curriculums, learning methods, and technologies, could help to ensure learning is future-proof, adaptable, and inclusive. If the budget is available, the future of learning should leverage cutting-edge tech like simulators, virtual reality, and data analytics to revolutionise learning delivery, skills assessment, and the connection between learners, employers, and training institutions. Countries such as Slovenia, Denmark, Brazil and the UAE are leading the way in implementing green vocational training programmes to address the skills gap and adapt to emerging green jobs.[15]

Irish perspective

SOLAS's National Skills Bulletin[16] has shown that many Irish companies are currently focusing on staff retention rather than recruitment in a tight labour market, in which learning & development initiatives not only enhance job satisfaction and loyalty but also equip employees with the necessary skills to adapt to evolving roles.

However, Eurostat figures for 2022 show that only 11.8% of the Irish population aged 25-64 have participated in 'lifelong learning' (e.g., formal and non-formal learning to bolster professional development) in the previous 4 weeks, compared to 36.2% of the Swedish population[17]. It is clear that Irish companies need to transition to embracing continuous education & training higher on their agenda to build a more agile workforce and strengthen retention efforts.

Global highlights

A 2023 CIPD report on UK organisations noted that L&D resources have rebounded and increased after Covid-19 with respondents reporting a net increase in both headcount and budget since 2021 (by 4%). Further, the reliance on internal subject matter experts has increased (by 18%) while external consultants/suppliers has decreased (by 5%)[14].

It is clear that L&D functions are facing challenges in meeting the needs of their learners (with 53% noting their workload has increased form 2021), but embracing internal modes of learning can be a noteworthy and cost-effective way to drive cross-functional learning across the organisation when it comes to sustainability.

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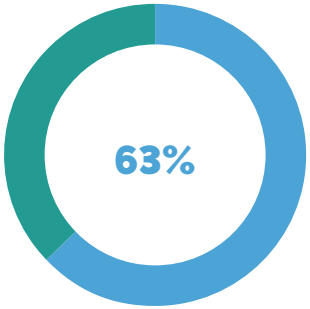
Theme 4: Investment in learning and development is insufficient

Survey & Focus Group Findings

Are sustainable skills core or peripheral to your organisation learning and development strategy?

> **'The questions that need to be addressed are where to get the training and then where to get the funding for the training'** (Focus Group 1, Nov 2023).



of respondents have a plan that **existing employees will be upskilled** to contribute to sustainability skills & occupations within their organisations.

When asked how they propose to meet skills needs:

- *Combination of build, buy, borrow strategies*
- *Using external skills providers & educational institutions*
- *Tailored training on sustainability for different departments*

> **'Sustainable skills need to be incorporated into the L&D strategy'**
> (Focus Group 1, Nov 2023)

> **'There is a time and cost associated with developing sustainability skills'**
> (Focus Group 2, Nov 2023)

> **'The challenge of access to training is not unique to sustainability it is the same for digitalisation – awareness is needed – it is not there'** (Focus Group 2, Nov 2023).

Section 5: Key actions for organisations to consider

Key actions for organisations to consider

For Irish organisations of today to move into the future and ensure they have the 'green' capability required to successfully deliver in this competitive and changing environment there are a number of key items and actions that they should consider.

These considerations are in response to the key insights from the survey, but also from feedback within our focus groups and SME interviews and the elements that were found to be lacking or require focus for the future.

Investing in the workforce in terms of upskilling existing talent will assist with the current capability gaps. Adapting the workplace and ensuring the right ownership, leadership and infrastructure exist to support and drive the sustainability agenda is fundamental.

The following two pages provide detail on each of our six recommended actions for organisations to consider.

1 Sustainability Strategy, Vision & Role modelling

Organisations need to create a strong Sustainability Strategy and Vision up front

2 Ownership & Accountability

Transformational change across all aspects of society and business is required to move to a zero-carbon economy

3 Building a Sustainability Culture

To operationalise sustainability across the organisation, a sustainability lens is needed in all processes and procedures

4 Understanding your Sustainability Skills Gap

It is paramount that companies are proactive in addressing current sustainability skills gaps to remain adept in a rapidly evolving landscape

5 Prioritising Sustainability Learning

Organisations need to create a culture that enables employees to keep up with evolving sustainability information and skills

6 Utilising Sustainability supports

Companies should actively engage with available resources and support mechanisms to propel their sustainability agendas forward

Key actions for organisations to consider

1 Sustainability Strategy, Vision & Role Modelling

Organisation's need to create a strong Sustainability Strategy and Vision up front

- Developing a bespoke vision and strategic roadmap for addressing environmental, social, and governance (ESG) objectives in your organisation should be your first port of call. This will ensure you are very clear on your companies sustainability goals and the specific initiatives detailing how you plan to achieve them and by when.
- The benefits of getting your strategy & vision right include: enabling transparency for sustainability-related activities and initiatives across the enterprise and also reducing risk exposure across multiple dimensions—including climate, employer brand, and compliance. Beginning with your 'North Star' vision in mind will support this process.
- Leadership must take ownership of the sustainability agenda within their company, serving as active role models for sustainable behaviours. When leaders visibly champion their organisations sustainability vision and strategy, it resonates throughout the entire company, at all levels.

2 Ownership & Accountability

Transformational change across all aspects of society and business is required to move to a zero-carbon economy

- The future is here; and every role is soon poised to incorporate sustainability in some shape or form (at the skill & task level), marking a paradigm shift where accountability for driving sustainability efforts extends across all functions.
- As highlighted throughout our interviews and focus groups, sustainable change hinges on collective efforts. It is no longer sufficient to confine sustainability responsibilities solely to specialised roles, rather, every individual in the organisation should contribute to the green transition.
- The Irish workforce is made up of 2.5 million people. The sustainability transition is not a one-off part of the business impact. From supply chain through to service provision, actions with a sustainability mindset are required.

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3 Building a Sustainability Culture

To operationalise sustainability across the organisation, a sustainability lens is needed in all processes and procedures

- As Punit Renjen (former Deloitte CEO) said: 'Climate change isn't about a choice, its billions of them'[18].
- Your ways of working need to focus on sustainable outcomes. Consider the choices your employees are making daily, both while at work (e.g., how get to work / what to eat for lunch / disposing what they had for lunch), and in the course of their work (e.g., procurement decisions / travel / event materials)
- Your policies need to nudge and influence people in the right direction until it becomes 'how we do things around here' and employees also need to be supported with the right tools.
- Leadership therefore plays a critical dual role in driving and operationalising sustainability agendas, carrying responsibility for the internal HR function as well as enabling the entire workforce.
- This dual role centers on designing holistic end-to-end initiatives that foster sustainable practices, policies, and processes within HR, while also driving behavioural and cultural shifts throughout the organisation.

4 Understanding your sustainability skills gap

It is paramount that companies are proactive in addressing current sustainability skills gaps to remain adept in a rapidly evolving landscape

- By conducting skills assessments and training needs analysis (TNAs) to understand where gaps lie, companies can begin to implement targeted training programs and ensure that their workforce is equipped with the requisite skills to navigate the changing demands of green occupations and sustainability-infused roles.
- Being proactive in this space not only future-proofs the workforce but also contributes to a more resilient and innovative organisational culture that aligns with the growing importance of sustainability in various industries.
- An organisation that is typically mature in its sustainability journey will have already devised a comprehensive talent model. In such a model, sustainability relevant competencies are embedded into professional development and recruitment efforts. By instilling a sense of responsibility for sustainability throughout the organisational structure – with key performance metrics to support this, businesses can foster a holistic and integrated approach to address environmental challenges and contribute meaningfully to a more sustainable future.

Key actions for organisations to consider

5 Prioritising sustainability learning

Organisations need to create a culture that enables employees to keep up with evolving sustainability information and skills

- The pressure on organisations to improve learning and development continues to intensify. Organisations need to include sustainability training in their learning strategy to ensure that all employees are up to date.
- Employees at all levels expect dynamic, self-directed, continuous learning opportunities from their employers, seen particularly in the 2016, 2018, 2019, 2021 Deloitte HC Trends[19]
- In today's business environment, skills development is an essential tool for engaging employees, attracting and retaining top talent, and developing long-term leadership for the company.
- However, it is not only about providing the correct learning opportunities, but also providing the time off to attend such courses. Encouraging employees to step away from BAU activities is key. Tying learning hours to objectives is often a way to showcase this culture of learning and encouragement of training and upskilling.

6 Utilising sustainability supports

Companies should actively engage with available resources and support mechanisms to propel their sustainability agendas forward

- It is imperative for companies to familiarise themselves with existing and future targets, regulations, and support initiatives related to sustainability. This involves staying informed about environmental policies, industry standards, and government incentives that encourage eco-friendly practices.
- Moreover, collaborating with relevant organisations (e.g., Sustainability Energy Authority of Ireland – SEAI), participating in sustainability networks (National Sustainability Summit), and leveraging available tools, certifications and courses through FET options such as SOLAS, AMTCE courses, part time university courses, codema training and other free training resources (MOOCs) can provide valuable support and guidance.
- By embracing these resources, companies not only ensure compliance and keep up with evolving environmental norms but also position themselves to continually capitalise on the benefits associated with sustainable business practices, including enhanced reputation, cost savings, and resilience in a rapidly changing business landscape.

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Conclusion

Across the world, we are seeing the growing need to decarbonise our economies and strengthen our commitments to protecting the earth's natural resources. The 2019 and 2021 Climate Action Plans represented a huge step up in terms of engagement with citizens and communities with a more solid mobilisation of structures to empower change. It is clear that the country is accelerating its fight against climate change, as inaction will see detrimental effects to economic growth and occupations.

It will be crucial to focus on achieving a fair and inclusive transition that safeguards vulnerable groups and individuals from the potential negative consequences. Although occupations globally are at risk from the negative effects of climate change, there is also opportunity as new occupations emerge across various industries.

Formal action to upskill and retrain employees in these areas can help to both ensure a fair transition for all but also help to realise the economic benefits that the green transition will create. As a result, there will be a need to evaluate the type and availability of skills and occupations across the Irish market. Reaching net zero by 2050 is a huge undertaking and will require new and enhanced occupations and skills to those already existing across industries undergoing such a large scale transition.

Understanding where your workforce is today in terms of green skills and occupations gaps needs to be at the top of every organisation's agenda. Providing your employees with the correct tools and learning opportunities to thrive in this new environment will soon become expected within every role.

Employees will look to their leaders, and to the government to lead the way through this green transformation. While the regulations will push businesses in the right direction, it's time to get ahead of the curve and ensure your workforce isn't left behind.

In conclusion, the current and future demand for green skills and occupations underscores a transformative shift in the employment landscape in Ireland and worldwide. As Irish companies navigate the complex intersection of economic progress and environmental responsibility, the symbiotic relationship between green skills, regulatory frameworks, leadership commitment, and ongoing learning efforts becomes apparent, forming the cornerstone for a sustainable and resilient future workforce.

Thank You

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The results from this report were collected from the completion of surveys from both of these networks, as well as interviews with Deloitte SMEs and two focus groups with SOLAS and strategic partners.

This input will have a significant impact on the future of sustainability and will help inform future decisions in upskilling and reskilling opportunities in FET.

Thank you to all those who participated in the interviews, focus group and surveys.

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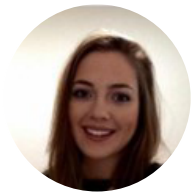

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Glossary

Glossary of Acronyms –
Alphabetical list of words relating to specific acronyms used

AI	Artificial Intelligence
CAP	Climate Action Plan
EGD	European Green Deal
ESG	Environment, Social and Governance
ETB	Education and Training Board
EU ETS	European Emissions Trading System
EU	European Union
EV	Electric Vehicle
FET	Further Education and Training
GHG	Green House Gas
GIS	Geographic Information Systems
HEI	Higher Education Institutes
HGV	Heavy Goods Vehicle

ICT	Information, Communication and Technology
IoT	Internet of Things
MMC	Modern Methods of Construction
NBP	National Biodiversity Plan
NZEB	Nearly Zero Energy Building
PV	Photovoltaic
R&D	Research and Development
SDGs	Sustainable Development Goals
SEC's	Sectoral Emission Ceilings
SME	Small Medium Enterprise
SOLAS	An tSeirbhís Oideachais Leanúnaigh agus Scileanna
UN	United Nations

Key International ESG Regulations Impacting Financial Organisations

	Regulation	Effective From	Useful Links
TCFD	Task Force on Climate Related Financial Disclosures	Currently Optional	Understanding TCFD and UK reporting requirements | Deloitte UK What is the TCFD and why does it matter? (deloitte.com)
TNFD	Taskforce on Nature-related Financial Disclosures	2023	TNFD and nature-related financial disclosures (deloitte.com)
MiFID II	Markets in Financial Instruments Directive 2014	2018	Navigating MiFID II | Deloitte Malta | Financial Services
SFDR	Sustainable Finance Disclosure Regulation	2021	Sustainable Finance Disclosure Regulation (deloitte.com)
NFRD	Non-Financial Reporting Directive	2020	Non-financial Reporting Directive (europa.eu)
CSRD	Corporate Sustainability Reporting Directive	2024	Corporate sustainability reporting (europa.eu)
EU Taxonomy	Framework to support sustainable investment	2020	EU Taxonomy - EUROSIF
UCITS	Undertakings for the Collective Investment in Transferable Securities	2011	https://www.centralbank.ie/regulation/industry-market-sectors/funds/ucits
Solvency II	regime for insurance and reinsurance undertakings in the EU	2016	https://www.eiopa.europa.eu/browse/regulation-and-policy/solvency-ii_en#:~:text=Solvency%20II%20is%20the%20prudential,protection%20of%20policyholders%20and%20beneficiaries.

*Over half of the approximately 400 policy and regulatory measures on green and sustainable finance currently in place require some sort of disclosure. The increasingly complex landscape of current and future initiatives and their relevant disclosure obligations will reshape how the financial services industry assesses and communicates sustainability-related risks and opportunities. Companies need to consider how they are or will be affected by current and upcoming legislative changes at both a national and regional level.

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Key International ESG Reporting Frameworks that speak to Biodiversity

	Regulations and Frameworks	Effective From	Useful Links
TCFD	Task Force on Climate Related Financial Disclosures	Currently Optional	Understanding TCFD and UK reporting requirements | Deloitte UK What is the TCFD and why does it matter? (deloitte.com)
TNFD	Taskforce on Nature-related Financial Disclosures	2023	TNFD and nature-related financial disclosures (deloitte.com)
CSRD	Corporate Sustainability Reporting Directive	2024	Corporate sustainability reporting (europa.eu)
EU Taxonomy	Framework to support sustainable investment	2020	EU Taxonomy - EUROSIF
NCP	Natural Capital Protocol	N/A	Natural Capital Protocol – Capitals Coalition
GRI	Global Reporting Initiative	N/A	GRI - Home (globalreporting.org)
NRL	Nature Restoration Law	2022	The EU #NatureRestoration Law (europa.eu)

Business Functions

Business Function	Definition
Finance	Management of cash flow forecasting and mobilising investment in clean and resilient growth
HR	Workforce planning, management, recruitment and development
Legal	Proactively reduces legal liability, enforces compliance with regulation standards and policies
IT, Digital and Data	Developing, securing, and storing electronic data, maintenance of software and equipment
Customer Service	Gives customers information about products and services, takes orders and processes returns
Marketing and Sales	Researches and shapes customer demand, analyses sales and communicates the company brand
Operations, Distribution and Manufacturing	Processes raw materials, manages activities to produce and deliver products and services
Supply Chain (Including Procurement)	Manages the procurement of resources, storage of inventory and value generation
Leadership	Shaping mission, vision and future of the organisation
Research and Development	Generates competitive advantage by developing new/improved products, services and processes
Estates and Physical Assets	Management of buildings, assets and health and safety

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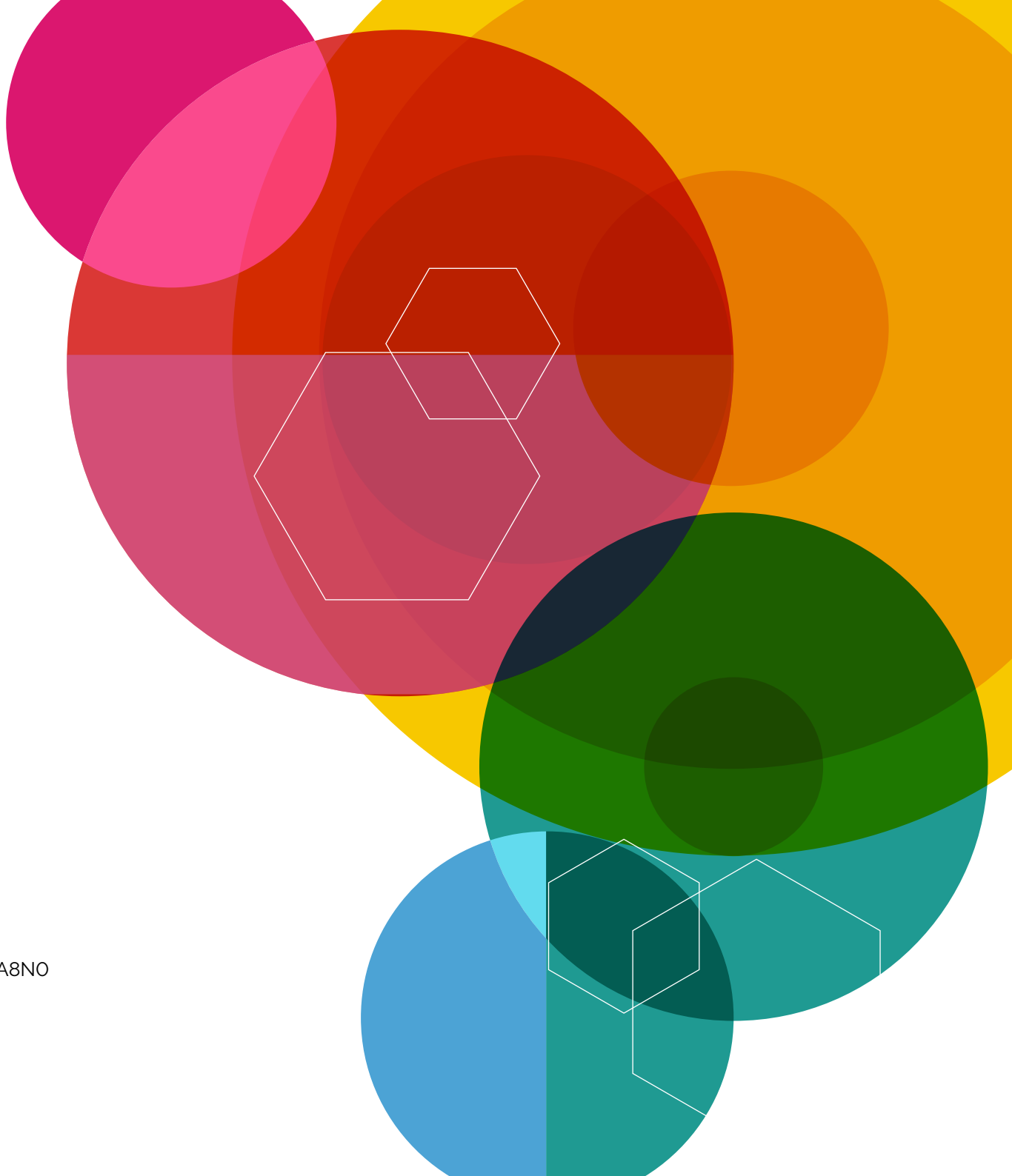
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