



Sustainable Futures

# The Sustainability Transformation

Assessing the Readiness of Irish Businesses

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# Introduction

## The Sustainability Transformation

The climate emergency is compelling enterprises to change their practices. Climate change is one of humanity's most urgent challenges, and this decade will be extremely important in terms of setting the world on a path to a sustainable and net zero future.

Climate change is adversely impacting on the environment globally, with major implications for society. Rising sea levels, increasing temperatures and severe weather events are consequences of our changing climate. All of these pose a risk to society by impacting on our health, economies, infrastructure and biodiversity. The Intergovernmental Panel on Climate Change (2021) highlights that the primary cause of global warming is greenhouse gas (GHG) emissions from human activities and climate change will only get worse if these emissions keep increasing over time. Global warming needs to be limited to 1.5°C above pre-industrial levels to mitigate the continuation and intensification of these catastrophic impacts.

The United Nations Sustainable Development Goals (SDGs) are a call to action to secure a sustainable and better future for everyone (UNDESA, 2022). Adopted by the United Nations in 2015, the SDGs outline 'a shared blueprint for peace and prosperity for people and the planet, now and into the future' recognising that nations must focus on issues such as human rights, improving health and education, reducing inequality and tackling climate change in addition to the pursuit of economic prosperity. As such, businesses will have a major part to play in achieving the SDGs and their targets, as governments around the globe develop and implement directives in line with these goals.

Concerns over environmental sustainability and a growing public and consumer awareness of climate change are pushing businesses to place sustainability and decarbonisation at the centre of their business strategy, operations and decision-making. Organisations must

break away from "business as usual" approach to adopt sustainable practices that equally consider the environmental, social and economic pillars of sustainability.

### Global and national initiatives emerge

The *United Nations Paris Agreement* is a legally binding international treaty on climate change which was adopted by almost all countries globally in 2016 (UNFCCC, 2022). One of its major goals is to substantially reduce global GHG emissions and limit global temperature increase in this century to 2°C while pursuing efforts to limit the increase to 1.5°C above pre-industrial levels. This commitment implies structural changes such as country-level policies, laws, and action plans to decarbonise economies.

The European Commission aims for Europe to reach carbon neutrality by 2050 and to cut GHG emissions by 55% by 2030 compared to 1990. The *European Climate Law* made reaching climate neutrality by 2050 a legally binding obligation for European Union (EU) countries (European Commission, 2022). To that end, the *EU Green Deal* is an action plan that specifies the necessary strategy for achieving a sustainable economy. The EU is also developing the '*Fit for 55*' package, which is a set of legislative initiatives aimed at laying the groundwork for the EU to meet its legally binding emission reduction targets by 2030 and 2050. This package seeks to reinforce existing legislation and introduce new initiatives across a range of policy areas and industry sectors including climate, energy and fuel, transport, buildings, land use and forestry. Furthermore, the *EU taxonomy* is a classification system and common language for sustainable economic activities, the aim of which is to direct investments towards sustainable projects and activities. This poses a significant incentive for enterprises to pursue sustainable business strategies and to comply with the aforementioned directives.

Ireland's *Climate Action and Low Carbon Development (Amendment) Act* is a legally binding framework that establishes a national emissions reduction target of 51% by 2030 and a climate-neutral economy by 2050 (EPA, 2022). *The Climate Action Plan* includes a comprehensive list of actions to be taken across multiple sectors in order for Ireland to reach its national emissions reduction targets. Three carbon budgets of

five years each have been agreed upon to assist Ireland in meeting its national climate objectives. These carbon budgets will directly impact on businesses across a range of sectors.

With the adoption of the *EU Green Deal* and Ireland's *Climate Action Plan*, Irish businesses are facing increasing pressure to mitigate the impacts of their business and operations on climate change and to measure, manage and report on those impacts. The forthcoming Corporate Sustainability Reporting Directive (CSRD) will mandate a set of sustainability related reporting standards for all large corporations that have more than 250 employees with a turnover of over €40 million. While micro, small and medium businesses may not be under the remit of the CSRD, those supplying goods and services to large corporations and public sector bodies will be required to understand and communicate their carbon footprint and emissions as it will affect the indirect (Scope 3) emissions of their clients. As such, there is an urgent need to understand how prepared Irish businesses are in relation to these reporting requirements.

### Digital technology to enable the sustainability transformation

There is significant opportunity for digital technologies to help transform society and businesses for a sustainable, net zero and equitable world. By harnessing digital technology appropriately, the digital revolution can be steered to advance large-scale environmental sustainability efforts.

The Irish Government's *Harnessing Digital – The Digital Ireland Framework* aims to position Ireland as a digital leader internationally and outlines an integrated approach for maximising the economic and societal benefits of digitalisation (Government of Ireland, 2022). A specific aim within this framework includes increasing the adoption of digital technologies by all businesses, in particular SMEs, to sustain Ireland's attractiveness as a location for leading digital enterprises. It also aims to maximise the benefits of the digital transition for the wider ecosystem, across productivity, innovation and competitiveness. The framework also highlights the imperative for businesses to harness the opportunities of the next phase of the digital transformation for achieving sustainability and climate targets.

While advanced capabilities in data analytics, digital platforms, cloud computing and artificial intelligence are rapidly transforming society, these technologies also offer potential to drive systems change and manage the sustainability and net zero transformation at scale (WEF, 2021). As digital technology can help to accelerate the transition to a sustainable, net zero and nature positive future for all, there is an urgent need to understand where Irish businesses are in their digital technology for sustainability journey.



# Research Overview

The overarching aim of this research was to understand the readiness of Irish businesses in terms of making the transformation required for a sustainable, net zero and nature positive future.

Specifically, the research sought to understand where Irish businesses were on their sustainability journey and their sustainability priorities. The research also sought to understand whether businesses had set sustainability and net zero commitments and targets in place and whether they measured and tracked performance on key metrics.

Another question that the research addressed was in relation to the use of specific sustainability standards, frameworks and directives within businesses. It also looked at sustainability skills and whether personnel were responsible for key sustainability initiatives and efforts.

Finally, the research aimed to gain understanding of the importance of digital technology to businesses in the sustainability transformation and their progress in terms of adopting digital technologies for sustainability and net zero efforts.

Survey responses included a nationally representative sample of 380 businesses in Ireland. This sample included survey responses from 280 Micro, Small and Medium businesses (MSMEs) and 100 Corporations from a cross-section of diverse sectors. The research respondents were owners, chairpersons, chief operations officers, managing directors, senior managers and sustainability directors or managers.

## About Sustainable Futures at University College Cork

Sustainable Futures at University College Cork is focused on climate action, environmental sustainability and achieving net zero in industry and enterprise. Our educational programmes and collaborative environment produces leaders who are equipped to lead the transition to a sustainable, net zero and nature-positive future. Sustainable Futures is funded by the Higher Education Authority's Human Capital Initiative Pillar 3. We conduct research in collaboration with the Future Sustainability Research Group which develops intelligent and technology-driven solutions for sustainable, net zero, healthy and liveable cities of the future. Sustainable Futures and the Future Sustainability Research Group are both led by Dr Marguerite Nyhan in the School of Engineering & Architecture and the Environmental Research Institute at University College Cork, Ireland.

## Acknowledgements

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# Key Findings

## 1 Sustainability Journey & Priorities

One in five businesses (**19%**) reported that they have not started their sustainability journey.

Over a third (**36%**) of businesses were in the early stages, one in five (**21%**) were making some progress while **15%** were making very significant progress.

A small proportion (**9%**) were either well advanced or truly sustainable and an exemplar of best practice.

Although most businesses have started on their sustainability journey, only two in five businesses (**43%**) have formulated a dedicated Sustainability Strategy or Policy.

In terms of environmental sustainability priorities, over half (**54%**) reported that Energy was key sustainability priority. Only one in five businesses (**20%**) reported that Carbon was key priority. A similar proportion (**19%**) reported that Biodiversity was a priority.

## 2 Sustainability Commitments & Targets

Our study sought to gain insights into the proportion of Irish businesses who had set commitments and targets in place for critical environmental sustainability issues.

One in five (**20%**) had no set commitments or targets for any critical environmental sustainability issues.

A large majority (**86%**) of businesses reported that they have no set commitments and

targets in relation to Carbon. Two thirds (**67%**) of businesses had no set commitments and targets for Energy while three quarters (**76%**) had no set commitments and targets for Pollution. Over four in five (**82%**) had no set commitments and targets for Biodiversity.

Concerningly, only one in five (**22%**) businesses have committed to reaching net zero, where net zero covers Scope 1, 2 and 3 emissions.

## 3 Sustainability Standards & Reporting

Regarding the use of specific sustainability standards, frameworks and directives within organisations, there has been an extremely low uptake.

For example, only one in five (**20%**) businesses have used the Global Reporting Initiative (GRI) and just over one in five (**22%**) have used the United Nations 2030 Sustainable Development Goals framework.

In terms of the awareness of Irish businesses of the Corporate Sustainability Reporting Directive (CSRD), over one third (**35%**) reported that they were “not at all aware”.

Only one in ten (**11%**) were “very” or “extremely” aware of this directive.

## 4 Sustainability Leadership & Skills

Concerningly, seven in ten (**69%**) businesses did not have someone tasked with developing and implementing a sustainability strategy.

A similar proportion (**71%**) did not have someone tasked with identifying environmental sustainability priorities.

Only one in five (**23%**) businesses had someone responsible for implementing environmental sustainability measures. Less than one in five (**19%**) had someone responsible for sustainability reporting.

Regarding specific sustainability skills in key areas, a majority of Irish businesses said they were either yet to develop the required skills or had basic competencies.

## 5 Digital Technology & the Sustainability Transformation

Our study sought to ascertain the importance of digital technologies to businesses in terms of supporting their sustainability transformation.

Four in five (**81%**) businesses stated that digital technology was “important”, “fairly important” or “very important” to their organisation in their sustainability transition.

However, almost two thirds (**64%**) of businesses stated that they had not adopted digital technologies or were in the very early stages of adopting technology for their sustainability efforts.

Of those who are embracing digital technologies for sustainability efforts, three in ten businesses (**29%**) reported using digital technology for reducing carbon emissions.

Over a third (**36%**) reported using digital technology for increasing energy or fuel efficiency.

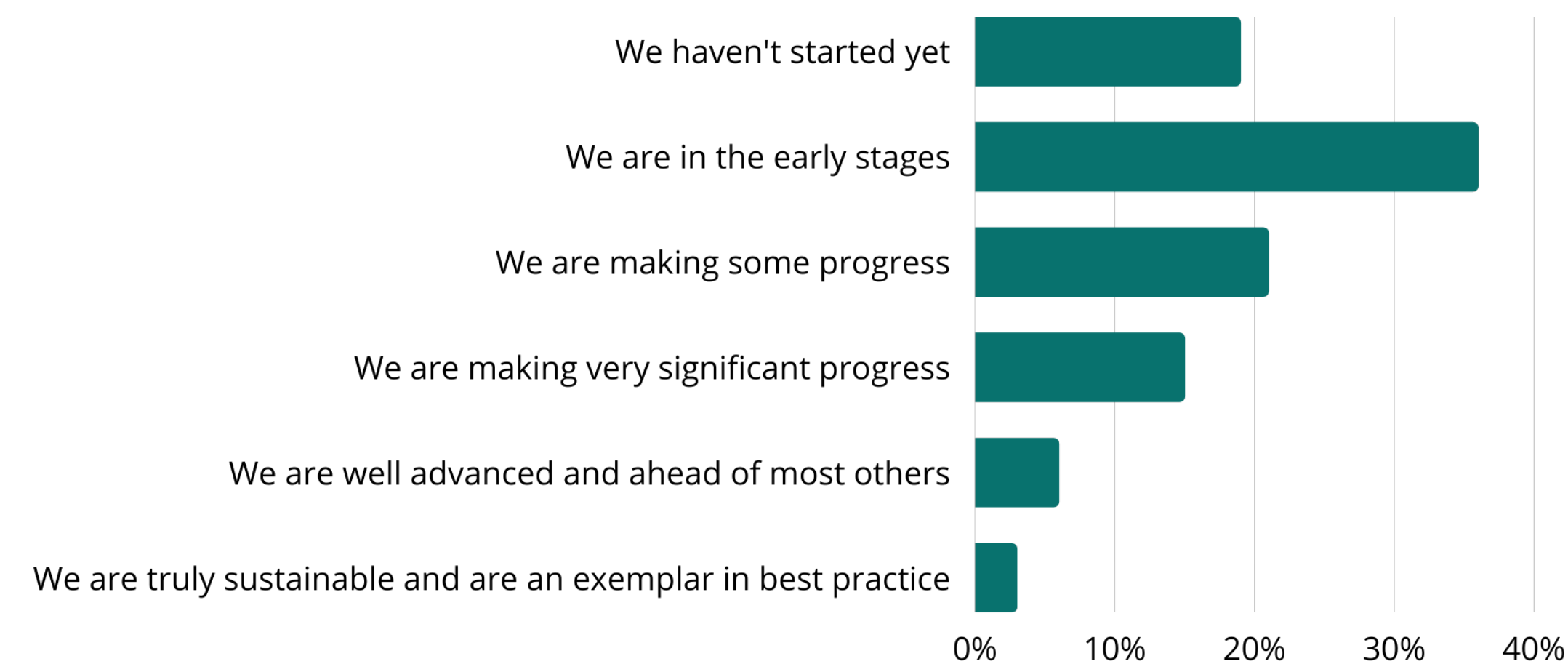
# Sustainability Journey & Priorities



## 1 The Sustainability Journey of Businesses

We asked businesses where they were on their sustainability journey at the moment.

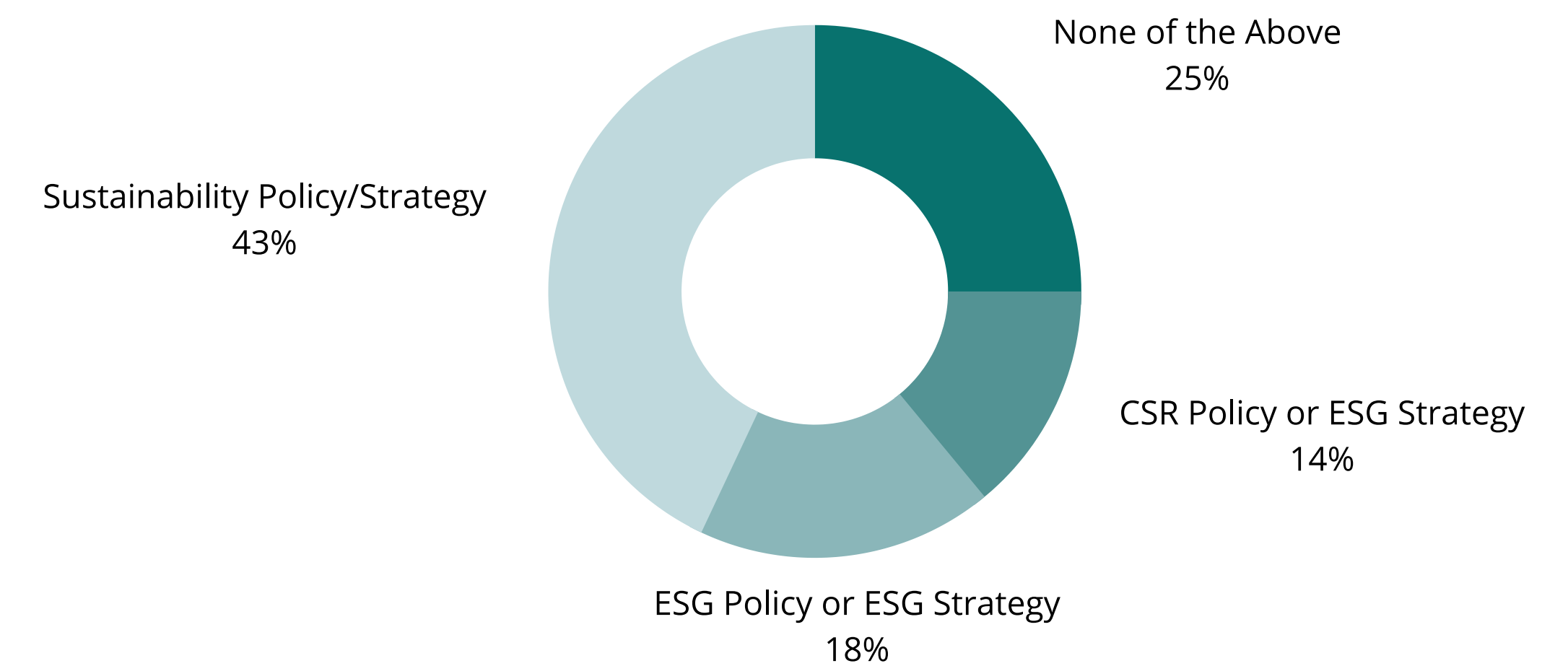
- Almost one in five businesses (19%) reported that they had not started their sustainability journey.
- Over a third (36%) of businesses were in the “early stages” of their sustainability journey.
- Just over one in five (21%) reported that they were “making some progress” while 15% were “making very significant progress”.
- A small proportion (6%) were “well advanced and ahead of most others”.
- An even smaller proportion (3%) reported that they were “truly sustainable” and were an exemplar in best practice”.



## 2 Sustainability, ESG and CSR Policies & Strategies

We asked businesses if they had Sustainability, ESG or CSR Strategies or Policies in place within their organisation.

- Over two in five businesses (43%) reported that they had a Sustainability Policy or Sustainability Strategy in place within their organisation. In contrast, almost three in five (57%) have not formulated a dedicated Sustainability Policy or Strategy.
- Almost one in five (18%) had an ESG Policy or ESG Strategy in place while 14% had a CSR Policy or CSR Strategy in place.
- One quarter (25%) of all businesses reported not having a Sustainability, ESG or CSR Strategy or Policy in place.

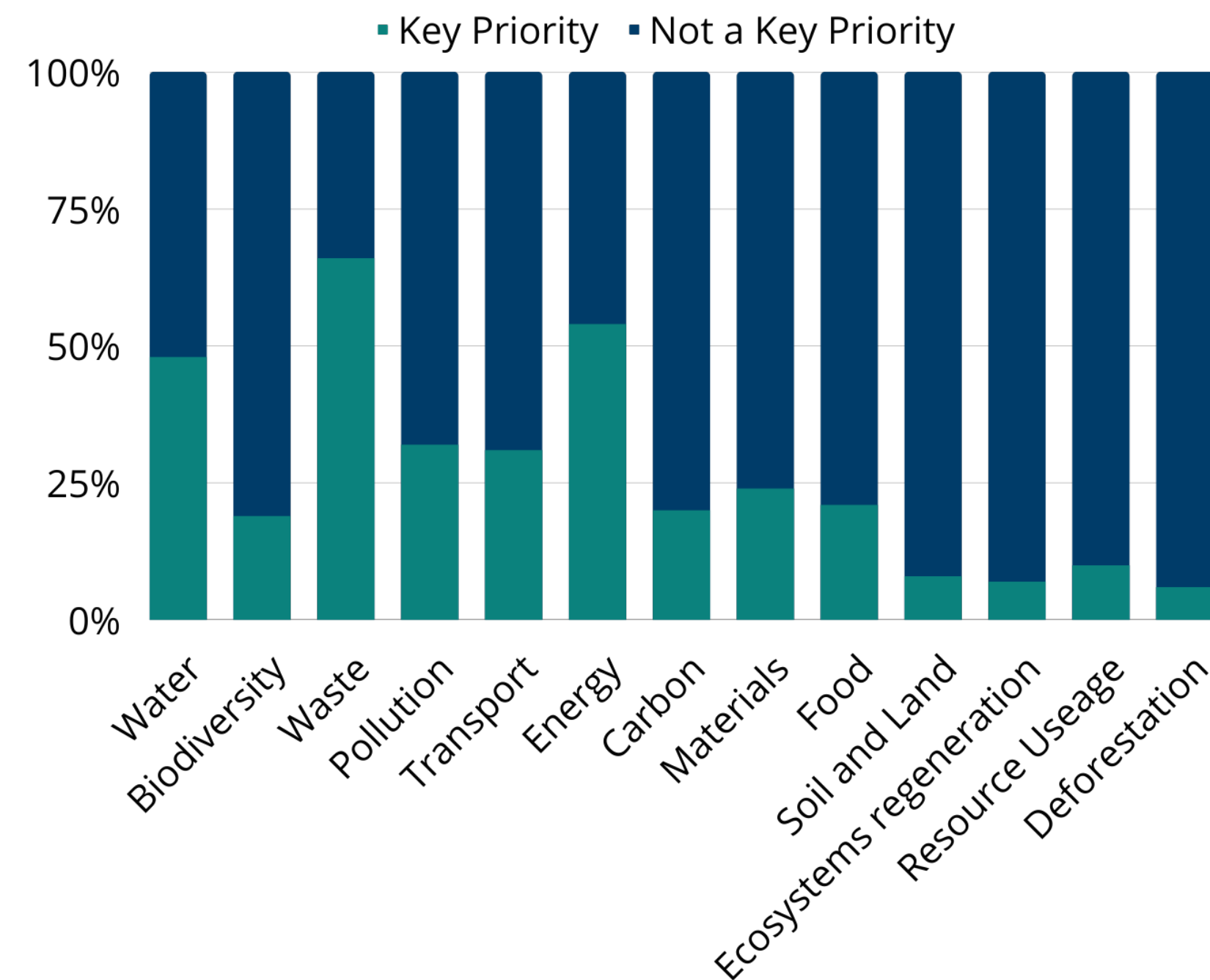




### 3 Environmental Sustainability Priorities

We sought to understand the key environmental sustainability priorities of Irish businesses.

- Two-thirds (66%) of businesses reported that Waste was a key sustainability priority within their organisation.
- Over half (54%) reported that Energy was a key sustainability priority. This was followed by Water (48%), Pollution (32%), Transport (31%), Materials (24%) and Food (21%).
- Only one in five businesses (20%) reported that Carbon was a key priority. A similar proportion (19%) reported that Biodiversity was a key priority.





# Sustainability Commitments & Targets

### 4 Commitments & Targets for Environmental Sustainability

Our study sought to gain insights into the proportion of Irish businesses who had set commitments and targets in relation to key environmental sustainability issues.

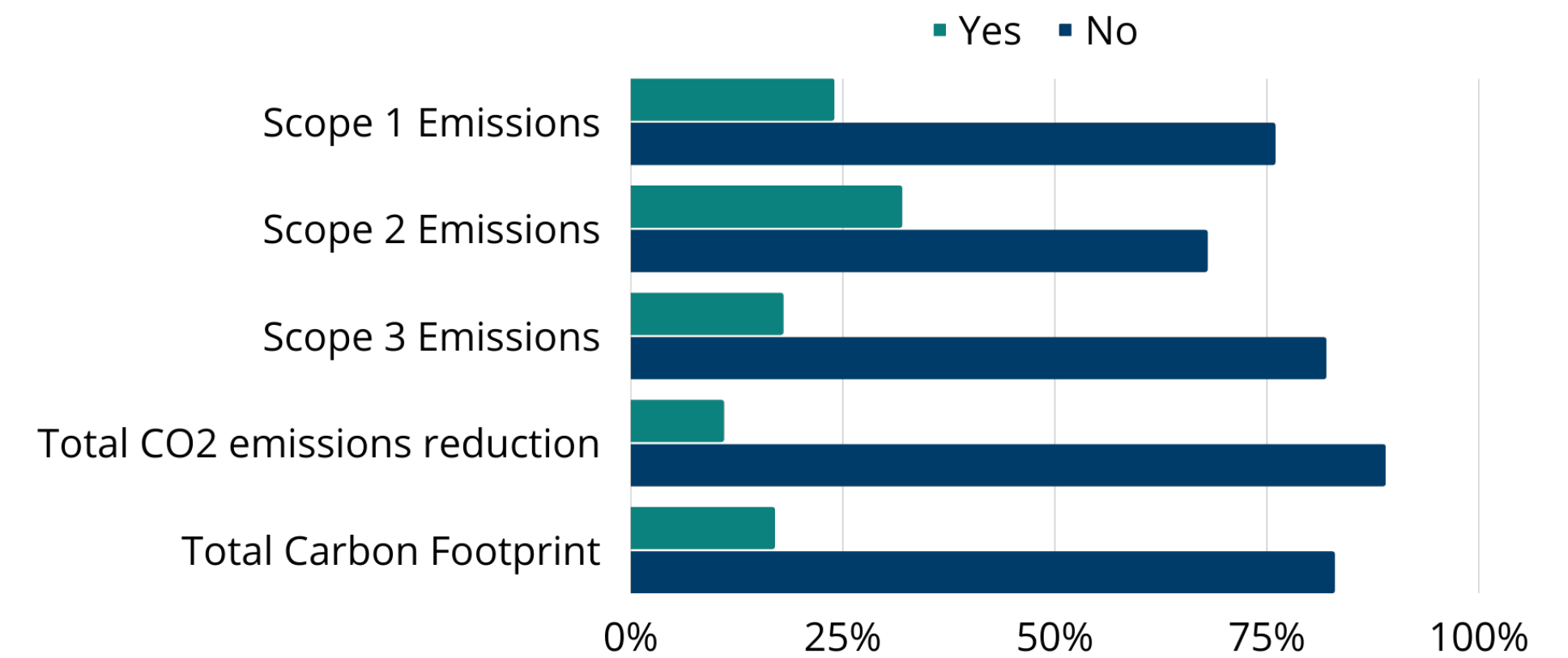
- A small proportion (14%) of businesses had set commitments and targets for Carbon, while 86% did not. A third (33%) had set commitments and targets for Energy use while two thirds (67%) did not. Almost a quarter (24%) had pledges and targets for Pollution while over three quarters (76%) did not. Almost one in five (18%) had set commitments and targets in place for Biodiversity and Transport while over four in five (82%) did not.
- Just under a half (46%) of businesses had set commitments and targets for Waste while 54% did not. While almost two in five (37%) businesses had pledges and targets in place for Water, over three in five (63%) did not.
- One in five (20%) businesses reported that they did not have set commitments or targets in relation to any of the environmental sustainability issues mentioned.



### 5 Tracking Progress on Scope 1, 2, & 3 Emissions

Our study surveyed whether Irish businesses were measuring and tracking performance on a number of carbon metrics.

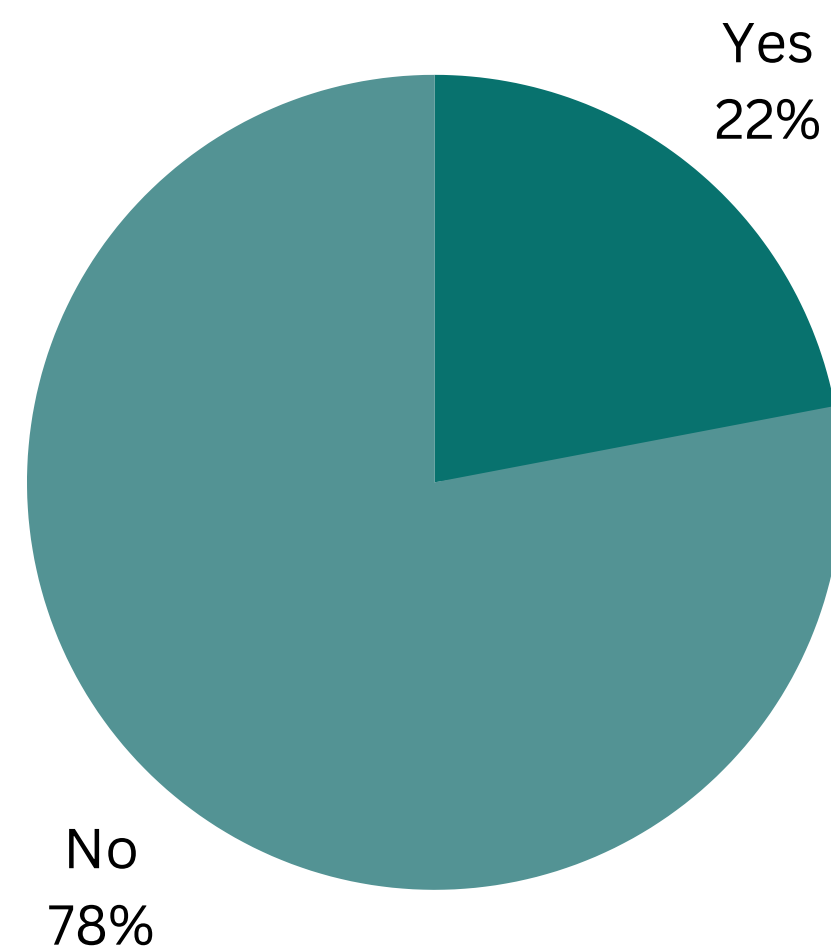
- Almost a quarter (24%) of businesses reported that they measured and tracked performance on Scope 1 emissions while 76% did not.
- Almost a third (33%) of businesses reported that they measured and tracked performance on Scope 2 emissions while more than two-thirds (68%) did not.
- Almost one in five (18%) measured and tracked their progress on Scope 3 emissions while almost four in five did not.
- Approximately one in ten (11%) of businesses measured and tracked performance on total CO<sub>2</sub> emissions reduction while 17% measured and tracked progress on their organisation’s total carbon footprint.



## 6 Commitments for Reaching Net Zero

Our study sought to understand how many Irish businesses had committed to reaching net zero.

- Approximately one in five (22%) businesses reported that they have committed to reaching net zero where net zero covers Scope 1, 2 and 3 emissions.
- In contrast, almost four in five (78%) have not committed to reaching net zero.



## Net Zero & Scopes Explained

<b>Net Zero</b>	Net zero refers to a balance between the amount of greenhouse gas produced and the amount removed from the atmosphere (Fankhauser et al., 2022).
<b>Scope 1</b>	Direct emissions created by your activities. Examples include the exhaust that comes from vehicles on your campus, natural gas that your buildings directly consume, and the generators you might run.
<b>Scope 2</b>	Indirect emissions from the consumption of the electricity or heat you use. Examples include energy sources that power your office buildings or your home.
<b>Scope 3</b>	Indirect emissions from all other activities in which you're engaged. This is by far the largest category of emissions and covers all parts of your value chain (upstream and downstream). Upstream examples include supply chain, materials in buildings, business travel, and manufacturing. Downstream examples include the electricity customers consume using your products. Scope 3 measurement poses a significant opportunity for improvement.



# Sustainability Standards & Reporting

## 7 Sustainability Standards, Frameworks & Directives

Our study also aimed to understand if Irish businesses used specific sustainability standards, frameworks and directives within their organisation.

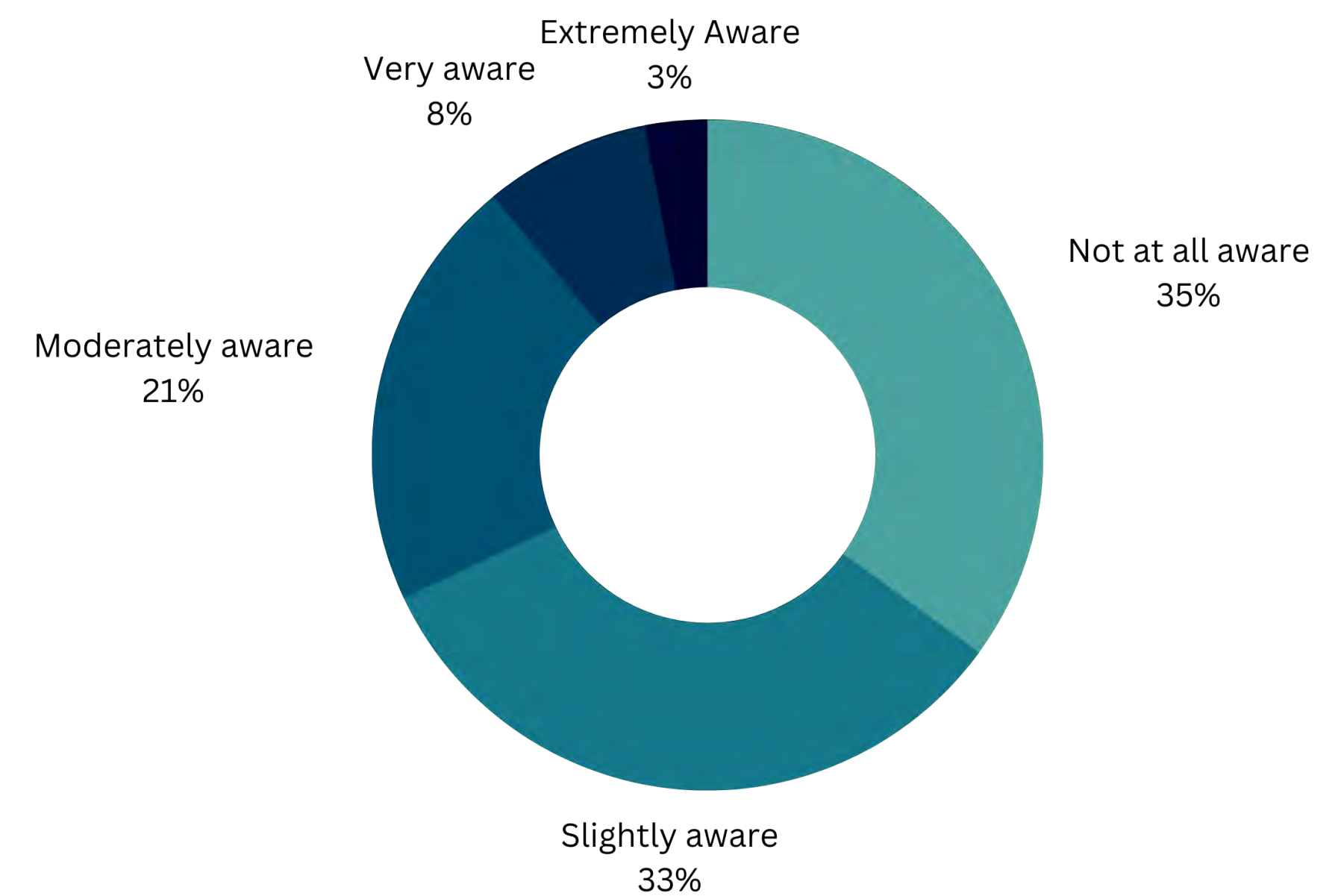
- One in five (20%) businesses have used the Global Reporting Initiative (GRI).
- Just over one in five (22%) have used the United Nations Sustainable Development Goals.
- Less than one in ten (8%) businesses used the Task Force on Climate-related Financial Disclosures.
- A very small proportion (6%) used Science Based Targets (SBTi).
- Over two in five (41%) businesses did not use any of the sustainability standards, frameworks or directives listed in their organisation.



## 8 Awareness of the Corporate Sustainability Reporting Directive

Our research aimed to understand if Irish businesses were aware of the Corporate Sustainability Reporting Directive

- In terms of the awareness of Irish businesses of the Corporate Sustainability Reporting Directive (CSRD), over one third (35%) reported that they were “not at all aware” of this directive.
- A third (33%) were slightly aware while one in five (21%) were moderately aware of it.
- Approximately one in ten (11%) businesses were very or extremely aware of the CSRD.



A photograph of a forest with large, mature trees. Sunlight is streaming through the canopy, creating a warm, golden glow. The trees have thick, textured trunks. The ground is covered in fallen branches and leaves.

# Sustainability Leadership & Skills

## 9 Sustainability Responsibility Within Businesses

We asked businesses if they had a person in their organisation who is tasked with any key sustainability priorities.

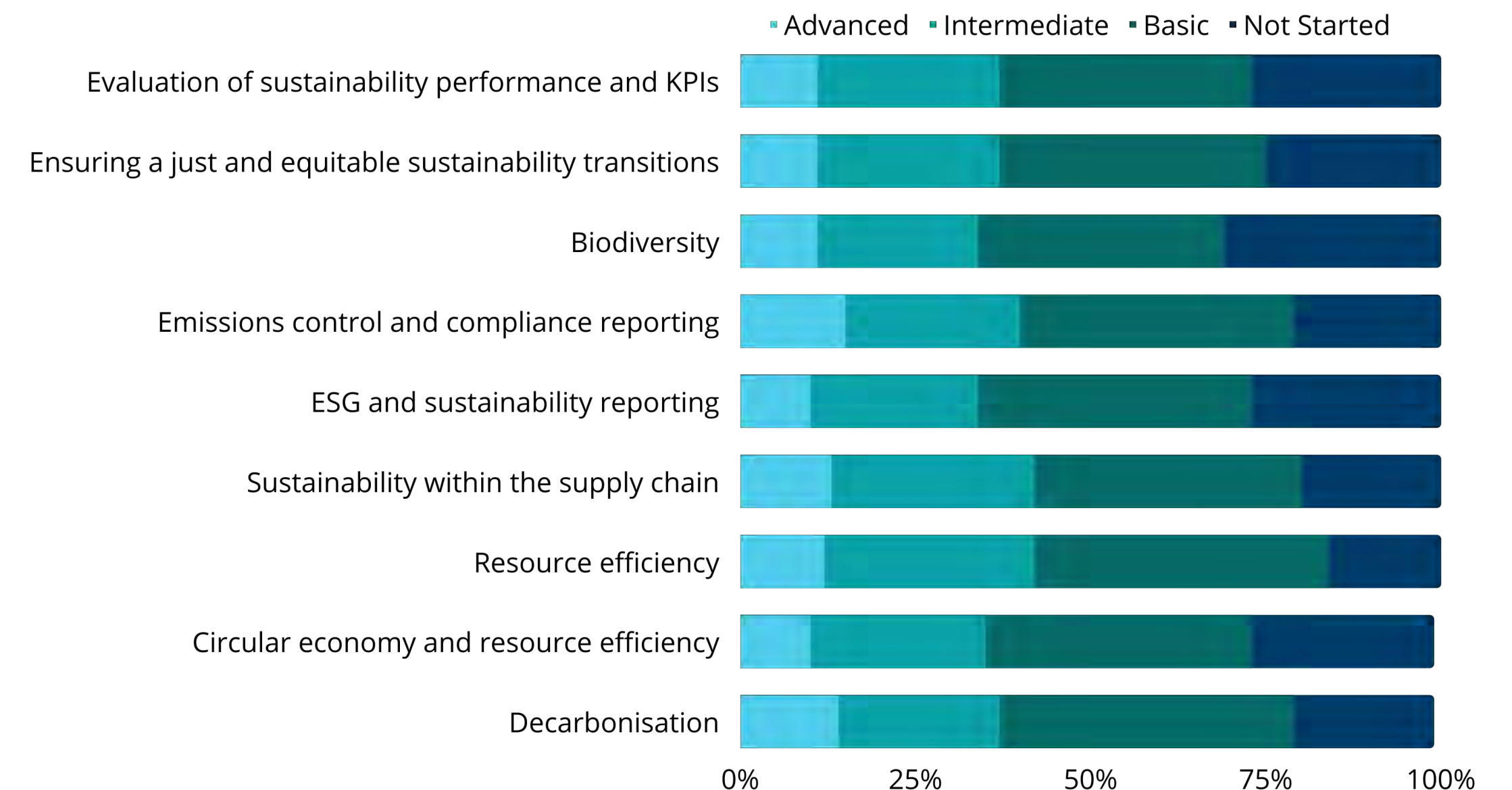
- Approximately three in ten (31%) businesses had someone tasked with developing and implementing a sustainability strategy while almost seven in ten (69%) did not.
- Again, approximately three in ten (31%) had someone tasked with identifying environmental sustainability priorities while almost seven in ten (69%) did not.
- Approximately one in five (23%) businesses had someone tasked with engaging with stakeholders in relation to environmental sustainability issues. A similar proportion was observed for implementing environmental sustainability issues.
- Less than one in five (19%) had someone responsible for sustainability reporting while 13% had someone responsible for benchmarking and tracking progress on environmental sustainability issues.
- Almost a third (32%) of companies did not have anyone tasked with developing any of the following: developing and implementing a sustainability strategy; identifying sustainability priorities; engaging with stakeholders in relation to sustainability; implementing sustainability measures; benchmarking and tracking progress on environmental sustainability metrics; and, sustainability reporting.



## 10 Sustainability Skills

How would rate your organisation's level of competence when it comes to the following activities that require sustainability skills?

- When it comes to key sustainability skills, a majority of Irish businesses said they were either yet to develop the required skills or had basic competencies in this area.
- For example, for sustainability within the supply chain, it was observed that 20% of businesses had not started and 38% had a basic level of competence.
- For ESG and sustainability reporting, 27% of businesses had not started and 39% had a basic level of competence. For decarbonisation, it was observed that 20% of businesses had not started and 42% had a basic level of competence.



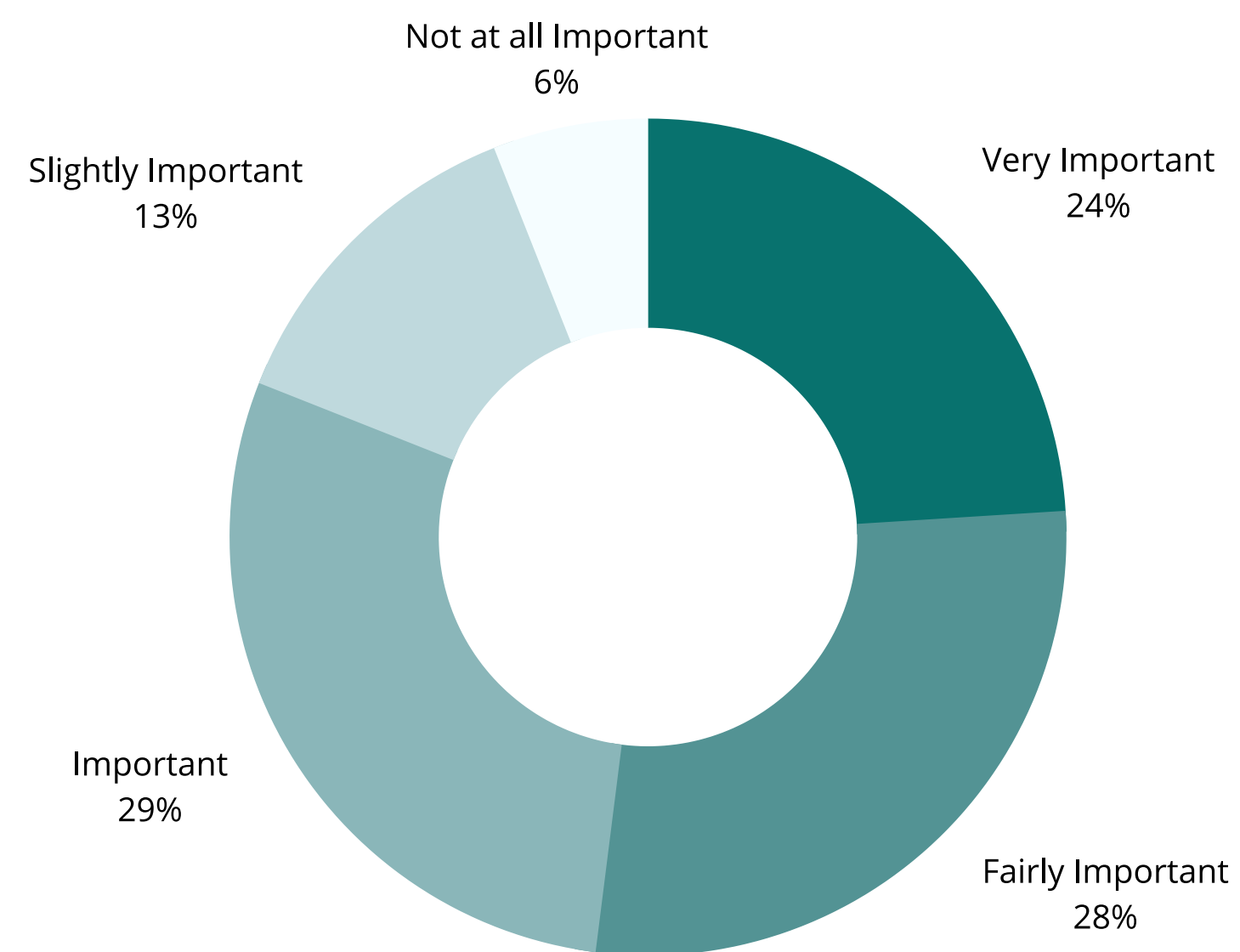


# Digital Technology & the Sustainability Transformation

## 11 Importance of Digital Technology in the Sustainability Transformation

Our study sought to understand the importance of digital technologies to businesses in terms of supporting their sustainability transformation.

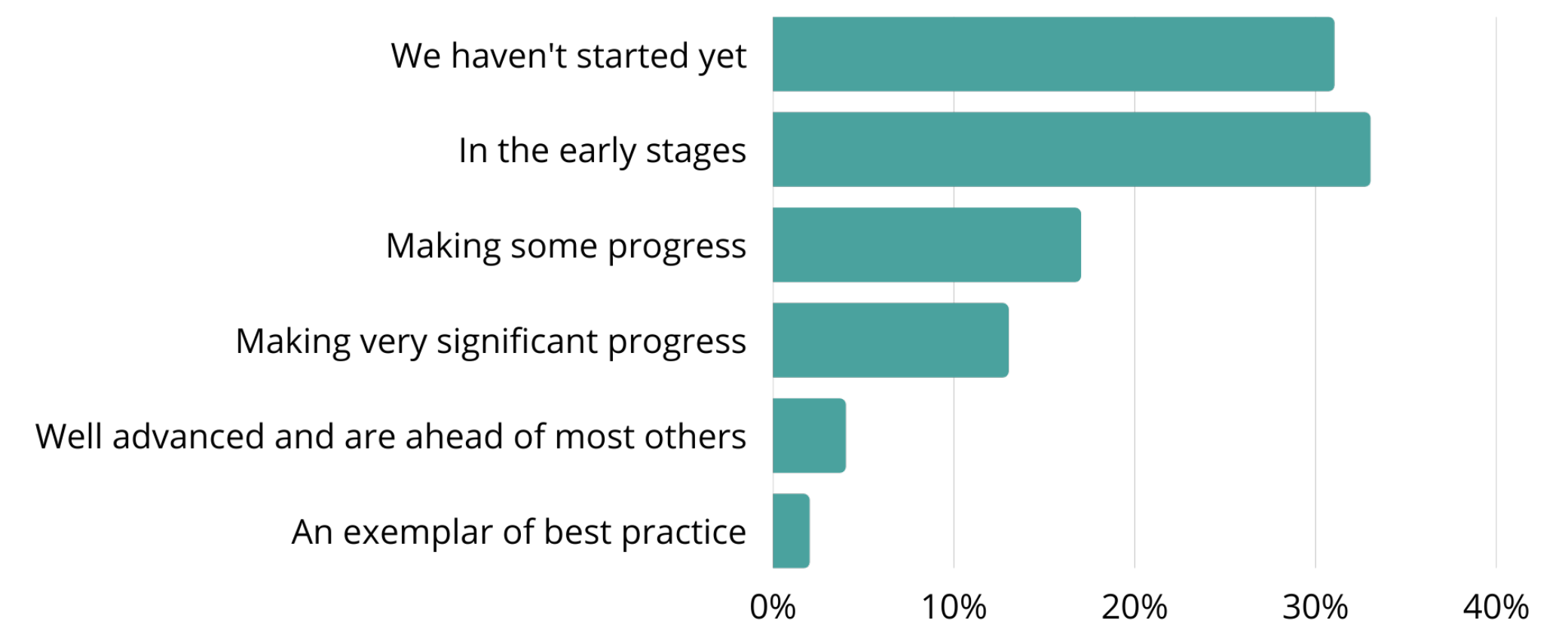
- Four in five (81%) businesses stated that digital technology was “important”, “fairly important” or “very important” to their organisation in their sustainability transition.



## 12 Progress in Adopting Digital Technology for Sustainability Efforts

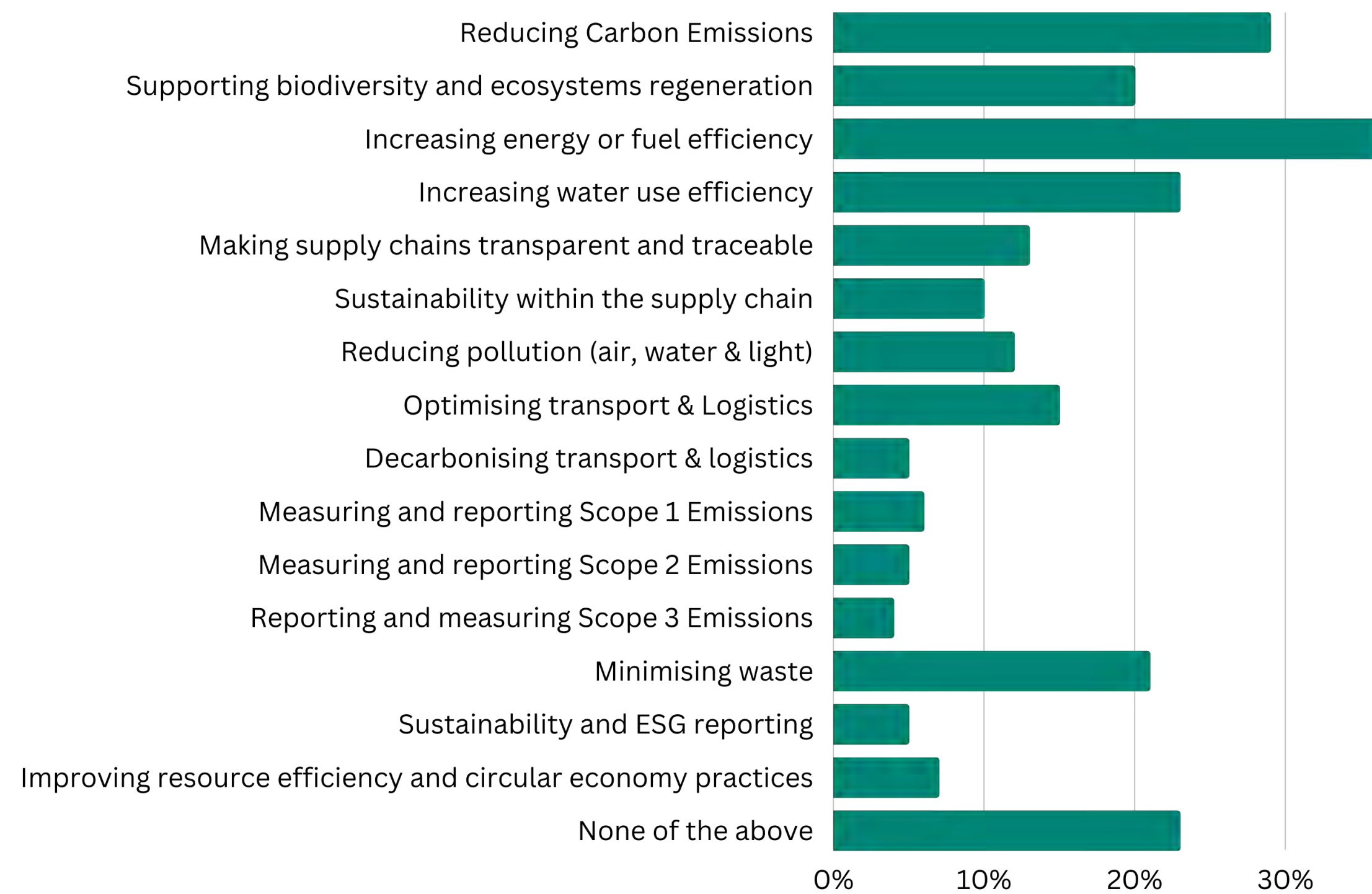
Many businesses are adopting, developing and evolving their use of digital technologies for sustainability efforts. We asked Irish businesses to think of their use of digital technologies for sustainability efforts and rate their progress.

- Almost a third (31%) of businesses stated that they had not adopted digital technologies for their sustainability efforts.
- A third (33%) of businesses were in the early stages of adopting digital technology to support their sustainability efforts.
- Almost one in five (17%) of businesses were “making progress” in this regard while 13% were “making very significant progress”. 4% of companies were “well advanced” and 2% considered themselves as an “exemplar of best practice”.



We asked if businesses are using digital technologies for any of the following sustainability initiatives, efforts or practices.

- Three in ten businesses (29%) reported using digital technology for reducing carbon emissions. Over a third (36%) reported using digital technology for increasing energy or fuel efficiency.
- A very small proportion (6%) of businesses were using digital technologies for measuring and reporting on Scope 1 emissions. 5% were using digital technologies for measuring and reporting on Scope 2 emissions while 4% were using them for measuring and reporting on Scope 3 emissions.



# Emerging Themes

Climate change is one of humanity's most urgent challenges, and this decade will be extremely important in terms of setting the world on a path to a sustainable and net zero future. Businesses will play an exceedingly important role in the sustainability transformation and their actions will be imperative in our global effort to rapidly reduce emissions and mitigate climate change.

Irish businesses are facing increasing pressure to mitigate the impacts of their business and operations on the environment and climate change. In addition, many larger organisations will also need to measure, manage and report on key sustainability issues. However, most businesses in Ireland are underprepared for the sustainability transformation.

Our findings show that one in five Irish businesses have not started on their sustainability journey and have no set commitments or targets for any critical environmental sustainability issues. Along with this, only two in five businesses have formulated a dedicated Sustainability Policy or Strategy. The Irish Government has committed to halving emissions by 2030 and reaching net zero by 2050. However, just over one in five Irish businesses have committed to reaching net zero at some point in the future where net zero refers to Scope 1, 2 and 3 emissions. As such, there is large scope for businesses to define sustainability and decarbonisation commitments and targets, and implement sustainability and climate action plans to drive progress in this area.

Our research found that most businesses have not used common sustainability standards and frameworks. Larger businesses will be required to publicly disclose information on how they engage with environmental, social and governance issues as part of the Corporate Sustainability Reporting Directive. However, almost a third of businesses are not aware of this directive. Thereby, there is an urgent need to raise awareness and provide supports for businesses to pre-empt the challenges associated with sustainability reporting going forward.

In terms of personnel employed within businesses to drive the sustainability transformation, a major gap exists. A large majority of businesses do not have someone tasked with identifying sustainability priorities; developing and implementing a sustainability strategies; or sustainability reporting. Consequently, there is a need to boost and broaden levels of sustainability expertise and skills within organisations through, for example, sustainability education and training.

Whereas a large majority of businesses think that digital technology is important to their sustainability transition, almost two thirds have not adopted digital technologies to support their sustainability efforts. As digital technologies offer potential to drive systems change and manage, monitor and track progress, businesses should maximise the opportunities of the next phase of the digital transformation to achieve their sustainability and net zero ambitions.

# A Call to Action for a Sustainable Future

By taking the lead and harnessing the opportunity associated with the sustainability transformation, businesses will play an extremely important role in shaping a sustainable, net zero and nature-positive future for all.

**Sustainability Strategies & Net Zero Pledges:** There is an urgent need for businesses to define sustainability strategies with actionable sustainability and net zero commitments and targets. There is a pressing need to implement these and measure, monitor and track progress towards these commitments and targets.

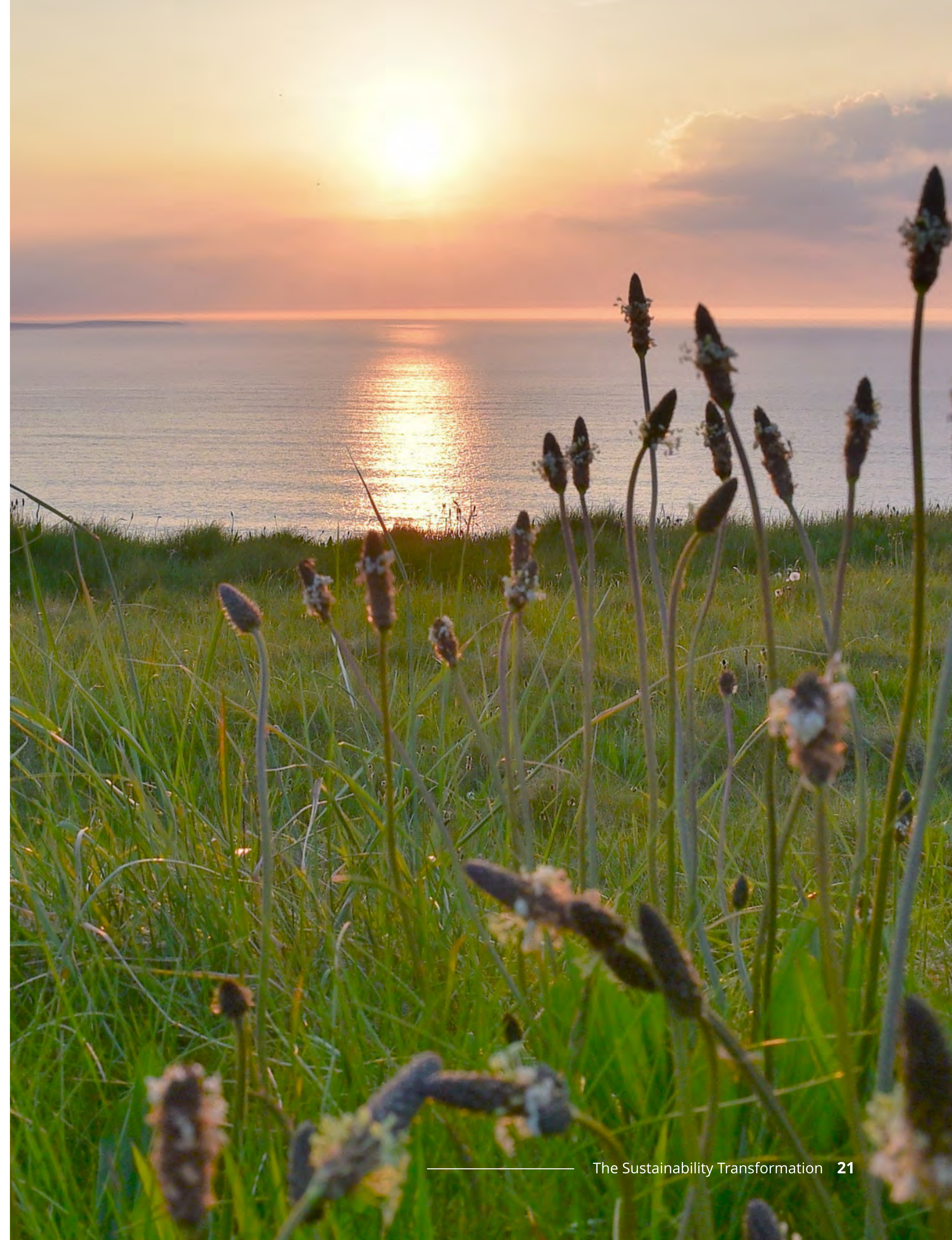
**Sustainability Leadership:** Businesses should prioritise sustainability leadership within their organisation in order to drive change and embed sustainability within all aspects of decision making and operations.

**The Business Case for Sustainability:** Businesses should aim to understand the economic case for sustainability within their own organisation. There are tremendous business growth opportunities associated with adopting sustainable practices. For example, businesses can gain a competitive advantage as they innovate and improve efficiencies in their supply chains and operations. Additionally, they can minimise future risk and are more attractive from an investment and financing perspective. Purpose-driven and impactful work also offers an opportunity for businesses to attract and retain talent in their organisation.

**Sustainability Reporting:** There is an acute need to raise awareness of sustainability standards, frameworks and directives, and provide supports for businesses to pre-empt the challenges associated with sustainability reporting going forward.

**Sustainability Education & Skills:** There is an urgent requirement to boost and broaden levels of sustainability expertise, competences and skills within organisations through, for example, sustainability education and training.

**Digital Technology as an Enabler of the Sustainability Transformation:** As digital technologies offer potential to drive systems change and manage, monitor and track progress, businesses should maximise the opportunities of the next phase of the digital transformation to achieve their sustainability and net zero ambitions.





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