

Charting Ireland's Sustainable Future: Innovative Approaches towards Achieving the United Nations Sustainable Development Goals for Enterprises

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ENVIRONMENTAL PROTECTION AGENCY

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- Office of Radiation Protection and Environmental Monitoring
- Office of Communications and Corporate Services

The EPA is assisted by an Advisory Committee of twelve members who meet regularly to discuss issues of concern and provide advice to the Board.

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Charting Ireland's Sustainable Future: Innovative Approaches towards Achieving the United Nations Sustainable Development Goals for Enterprises

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by

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The EPA Research Programme addresses the need for research in Ireland to inform policymakers and other stakeholders on a range of questions in relation to environmental protection. These reports are intended as contributions to the necessary debate on the protection of the environment.

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Executive Summary

The Sustainable Development Goals (SDGs) are a call for change – a change to how we live, work, think and interact, both with each other and with our environment, to protect and secure our future and the future of the planet. To achieve radical progressive change in a broad range of interconnected areas (17 in total) across societal, environmental and economic domains, a whole-of-society approach to working towards the SDGs is required.

The role of the private sector in enabling the goals of Agenda 2030 to be achieved is critical. The SDGs can be viewed as a request to enterprises, first, to act more responsibly and, then, to use their resources to solve complex global issues through innovative, collaborative and inclusive approaches to help create a better world.

Collaboration is a central theme of the SDGs and one of the 17 goals is dedicated to partnerships (SDG 17). This is a recognition that successful sustainable development requires a collective approach between governments, the private sector and the wider society based on a shared vision and shared objectives. SDG 17 acknowledges that the public sector will need to play a lead role in ensuring that the potential that the private sector can bring to the SDGs is activated and nourished to deliver on this shared vision of a sustainable future.

Following an 18-month period of desk research and a process of national and international stakeholder consultations, this report captures the key recurring themes from Ireland's engagement to date with the seven environmental SDGs and its role in supporting the private sector to deliver impactful contributions to these SDGs. The report then outlines a series of recommendations based on global best practice across each theme on how the enterprise sustainability ecosystem must work in unison to achieve its targets by 2030.

Key findings from the research are as follows:

 Awareness of the SDGs remains low but is slowly growing within national enterprise agencies, within the private sector and among the wider public.

- Although Ireland ranks highly in a number of recent high-profile global indices linked to sustainability, its performance with regard to the environmental SDGs is average compared with European Union (EU) and Organisation for Economic Co-operation and Development counterparts.
- Ireland's key national enterprise strategies
 align with a number of the SDGs (mainly the
 economic SDGs); however, there is a lack of
 policy and strategy alignment with the targets of
 the SDGs that have been independently identified
 as challenging for Ireland to meet by 2030
 (particularly the environmental SDGs).
- Enterprise policy remains focused on key economic metrics such as job creation. If environmental sustainability is not an economic pillar on which policy is developed, it will not be a key target or incentive for national enterprise agencies and therefore will not form part of their service offering to clients.
- The landscape for sustainable development supports in Ireland is fractured and lacking real alignment with the SDGs, with a few notable exceptions. Currently, there is a very limited range of SDG-specific enterprise supports available to Irish enterprises.
- Both the national enterprise agencies and the private sector are struggling to understand, identify and convert the potential competitive advantage of environmental sustainability into economic opportunities. Greater synergies among key national sustainability stakeholders are required to ensure that Ireland leverages its resources to meet the 2030 targets.
- Best practice from across the EU identifies strong and non-politicised leadership on sustainable development, a "whole-of-government" approach to SDG implementation, policy coherence, transparent reporting on and accountability for the SDGs, and a willingness to work in partnership with the private sector and civil society as important factors in both driving and enabling SDG activity nationally.

 There are a wide range of innovative trends and approaches from around the globe that Ireland could consider adopting in promoting engagement with the private sector on the environmental SDGs.

Recommendations include:

 develop SDG awareness and skills within the national enterprise agencies (including building

- awareness of the environmental SDGs as a competitive offering);
- build an ecosystem of enterprise supports around the environmental SDGs;
- introduce SDG standards and benchmarking for the private sector in Ireland;
- measure the impact of national enterprise agency supports on the environmental SDGs.

1 Introduction

Launched in 2015, the Sustainable Development Goals (SDGs) are a universal set of goals, targets and indicators that United Nations (UN) Member States aim to use as a global blueprint for sustainable development and to frame their agendas and policies in order to achieve global transformation by 2030. As acknowledged by Danilovich (2017), the business community should look to the achievement of the SDGs as an economic imperative. Using a triangulation of perspectives methodology, this research report maps current levels of engagement with the SDGs in Ireland within the private sector, identifies the key stakeholders and SDG supports available to them, and identifies a number of recommendations to support Ireland in achieving its 2030 targets.

The main objectives of this desk study research were to:

- build on the existing knowledge base on enterprise development stakeholders at government, local authority and national enterprise agency levels in Ireland, their role in sustainable development and their support in the development of innovative approaches towards achieving the environmental UN SDGs, including those with environmental, economic and socio-environmental dimensions, for enterprises in Ireland;
- develop a clearer map of key national stakeholders (with a focus on national enterprise agencies and associated partners), their targets, and the programmes/interventions/supports that they offer to enterprises and how these are measured and aligned with the SDG indicator set in terms of activities towards achieving the seven environmental SDGs (SDG 6: Clean Water and Sanitation; SDG 7: Affordable and Clean Energy; SDG 11: Sustainable Cities and Communities; SDG 12: Responsible Consumption and Production; SDG 13: Climate Action; SDG 14: Life Below Water; and SDG 15: Life on Land).

The Sustainable Development Goals National Implementation Plan 2018–2020 (DCCAE, 2018a), launched on 25 April 2018, highlighted that a mapping

exercise at government departmental level had been carried out and indicated (1) the lead government departments and key stakeholders for each SDG and its targets and (2) the key national policy documents and key objectives that are relevant to the SDGs and their targets for the period.

The main outputs of this study focus on key stakeholder engagement at national enterprise agency level in order to determine the alignment of stakeholders to each other and to the SDGs with regard to their sustainability strategies, supports and targets.

For the purposes of this study, the authors used two definitions for determining the scope of an enterprise. For large enterprises, Enterprise Ireland's (2019) definition was used: "a company that employs greater than 250 employees, has either an annual turnover of greater than €50m or an annual balance sheet of greater than €43m". For micro, small and mediumsized enterprises, the authors used the following definition from the European Union (EU, 2003):

- business ventures and "for-profit" organisations involved in economic activity;
- indigenous or foreign-owned;
- engaged or not in international trade.

This chapter outlines the main objectives of the study, report structure and key outputs of the study. This chapter also provides a brief summary of the SDGs and identifies some of the key global challenges to achieving the SDGs by 2030.

Chapter 2 presents the findings of the review of the national sustainability landscape in Ireland, including the background, implementation challenges, key stakeholders and relevant enterprise support programmes and initiatives. The authors define the sustainability landscape as including all of the characters that generate, support or are on the receiving end of any impact relating to the seven environmental SDGs (see Figure 2.2) in either direct or indirect ways.

Chapter 3 presents the findings of the review of the international sustainability landscape, focusing on best practice examples of strategy and policy, supports, programmes and initiatives; and key tools and templates from global, regional and national perspectives. This chapter also presents a series of best practice case studies from across Europe relating to SDG activity.

Chapter 4 presents a summary and analysis of the common emerging themes identified and discussed during the stakeholder consultations, which involved interviews with national enterprise agencies, the private sector and other national and international stakeholders.

Chapter 5 provides a series of recommendations based on the analysis presented in the preceding chapter with regard to the approaches that may be applied to alleviate barriers and challenges, enable drivers and influence the promotion of SDG activity in Ireland. This chapter also describes a sustainability maturity assessment tool to provide guidance to private sector enterprises on how to determine the maturity level of their sustainable practices and on increasing their overall sustainable maturity.

1.1 United Nations 2030 Agenda for Sustainable Development

1.1.1 Leave no one behind

The SDGs are a universal set of goals, targets and indicators that UN Member States can use to frame their national sustainable development policies in order to achieve global transformation by 2030.

The initiative encompassing the SDGs is *Transforming our World: The 2030 Agenda for Sustainable Development* (UN, 2015a), a plan of action for people, planet and prosperity. The 2030 Agenda sets out a supremely ambitious and transformational vision of unprecedented scope and significance. The key theme of the SDGs is to "leave no one behind", ensuring that development progress does not exclude those who lack the choices and opportunities relative to others in society (UNDP, 2018a).

There are 17 SDGs (Figure 1.1), consisting of 169 individual targets covering a broad range of critical development issues (each of the targets has between one and four individual quantifiable indicators on which

SUSTAINABLE GALS DEVELOPMENT GALS



Figure 1.1. The 17 UN SDGs. Reproduced with permission from https://www.un.org/sustainabledevelopment/. The content of this publication has not been approved by the United Nations and does not reflect the views of the United Nations or its officials.

annual progress can be scored). In total, 93 of the 169 targets relate to environmental concerns, with at least one environmental target in each of the 17 SDGs (Urevig, 2019).

Rather than representing the 2030 Agenda in its entirety, the 17 SDGs constitute pressure point areas that need a particular focus in order to build sustainability. Further background to the SDGs is provided in Appendix 1.

1.2 Global Challenges to Meeting SDGs

Although 193 countries have officially adopted the 2030 Agenda, some countries have expressed early concerns that the agenda is difficult to handle or implement, the brief is too wide and that there are too many goals (Ford, 2015).

Some of the key challenges to meeting the SDGs by 2030 are outlined in the following sections.

1.2.1 Complexity and interconnectivity: broad cross-linked nature of SDGs

The 17 SDGs were designed to encompass diverse policy areas and one of the positive side effects of the 169 wide-ranging targets is that this makes "siloing" of responsibilities and tasks next to impossible, as diverse targets for each SDG will invariably fall within the remit of different government departments, agencies and external stakeholders (UN, 2015a).

In 2015 the UN adapted and repurposed the three P's of the business "triple bottom line" (people, profit, planet) to create the five P's of the 2030 Agenda: people, planet, prosperity, peace and partnership (UN, 2015b). Adding two additional components – partnership and peace – was seen as necessary to clearly communicate the need for holistic thinking and to break down any attempts at siloed approaches to implementing the SDGs; by having five pillars the interconnectivity is clearer and the boundaries are blurred (UN System Staff College, 2017).

The first 16 of the 17 goals are deliberately designed to cross over into each other's terrain; they are interconnected parts of one socio-environmental problem: human interaction with the environment. The final goal, SDG 17: Partnerships for the Goals, focuses on strengthening global solidarity as a means

of implementing the overall global partnership for sustainable development, with targets including financial assistance; use of new technology; helping build capacity; trade links; systemic issues (e.g. policy and institutional coherence); and knowledge and resource sharing. An integrated approach is seen as being crucial for success across the multiple goals. The goals must work together as a set, supporting each other rather than creating a sense of competition (UN, 2015a).

This effort requires high levels of governance from participant states. Accountability and alignment are essential across government departments and agencies, stakeholders, organisations and sectors, and a "whole-of-government" approach is vital for successful implementation. Governance mechanisms are needed to ensure accountability across international, national and local levels. Shifting from mono-disciplinary lines of institutions and support to an integrated approach to policy coherence and alignment with SDGs has been identified as a challenge, but also a key requirement, in ensuring that the SDGs are met (Kingdom of the Netherlands, 2017).

The Sustainable Development Goals Report 2019 (UN, 2019a) indicates that, although progress is being made in some key areas, a much faster and more ambitious response is needed to achieve the SDG targets by 2030 and that progress has been uneven across SDGs, regions, urban versus rural areas, and other categories and demographics.

1.2.2 Political buy-in and leadership

According to the UN (2017a), it is crucial to gain high-level leadership in politics and develop new partnerships in order to sustain momentum. As noted under SDG 17 – "Strengthen the means of implementation and revitalize the global partnership for sustainable development" – achieving the goals will require an enabling environment for sustainable development at all levels and by all actors, coherent policies and a reinvigorated global partnership for sustainable development (UN, 2019b).

The SDGs are not legally binding. Therefore, to ensure political buy-in to the SDGs at the highest levels of national governments and encourage regular national reviews of progress, a High-level Political Forum (HLPF) for sustainable development was established. Relevant national ministers will meet annually at the

HLPF and heads of state or government will meet every 4 years to reaffirm their commitment to the goals, submit voluntary national reviews (VNRs) and discuss international progress (UN, 2019c). As of September 2019, over 140 VNRs have been submitted for review by more than 100 countries at the HLPF (UN, 2019d).

1.2.3 Data management and reporting

It has been emphasised that there is a great need for reliable, timely, accessible and disaggregated data to measure progress, inform decision-making and ensure that "everyone is counted" (UN, 2017a).

The 17 SDGs and their targets were selected by agreeing areas that require transformation. However, the ability to quantify these was deliberately not considered, as this may have influenced the selection of goals. This decision has created barriers to the collection, analysis and reporting of SDGs and their targets, as most countries do not collect data for more than half of the 244 SDG indicators (based on the 169 SDG targets) developed by the United Nations Statistics Division's (UNSD) Inter-agency and Expert Group on SDG Indicators (IAEG-SDGs) (UN, 2019a). A recent review measuring the progress of the SDGs has determined that, for 68% of the environmental indicators, there is "too little data to formally assess" (Urevig, 2019).

To counteract the data gaps, the IAEG-SDGs has developed an indicator tier system to clearly identify the completeness of each of the SDG indicators. As of May 2019, 15% of the SDG indicators are classified as tier III, meaning that they have no established methodology or standards (UN, 2019e).

Bizikova and Pinter (2017) suggest that, for indicators that lack agreed methodology, countries should use global indicators as a guide to structure comparable national data-gathering methodologies, building reporting capacities based on their existing measurement frameworks, so they complement global indicators with national metrics related to national issues.

The IAEG-SDGs agrees with this approach and has asked member nations to use existing regional mechanisms to ensure representation. Its *Guidelines on Data Flows and Global Reporting for Sustainable*

Development Goals (IAEG-SDGs, 2018) stated that national and international organisations could work together "to identify the most efficient, accurate and transparent mechanisms for reporting data from the national to the international level (in some cases this means developing new reporting structures) and should take into account the already existing reporting mechanisms from countries to regional and international organisations".

Monitoring and reporting

The 17 SDGs expand on the previous eight Millennium Development Goals (MDGs) (see Appendix 1 for context on the MDGs), which were considered too narrow in focus, with limitations in the framework preventing successful outcomes from being experienced equally across the globe (Fehling et al., 2013). A key step forwards in the approach to ensuring successful outcomes from the MDGs will be monitoring across themes by finding methods to measure various overlapping or underpinning changes in parallel. With regard to reporting, the priority is now to move from developing the global indicator framework towards building the capacity to report; this puts the workload onto national statistical offices, such as the Central Statistics Office (CSO), as data from non-traditional sources (e.g. mobile phone usage data, satellite imagery) and also greater data disaggregation may be required. The United Nations Development Programme (UNDP) has developed a framework entitled Rapid Integrated Assessment (RIA) for national and local agencies to follow, to facilitate the mainstreaming of the SDGs within their agendas (UNDP, 2017).

1.2.4 Financing sustainable change

Sustainable finance can be defined as the capital required to tackle climate change and to deliver on the SDGs (Sustainable & Responsible Investment Forum, 2019). Public finance and aid will be central in supporting the implementation of the SDGs. Private sector finance will also be required to support the SDGs through an overhaul of financial practices, such as tax reforms and clamping down on illicit financial activities and financialisation. This is the "process whereby financial markets, financial institutions and financial elites gain greater influence over economic

policy and economic outcome" (Palley, 2007), which, according to the European Network on Debt and Development, not only makes us vulnerable to frequent crises, but also ensures that the economy is not equipped to deliver the broad-based and sustainable prosperity that is needed to meet the SDGs (Civil Society Reflection Group on the 2030 Agenda for Sustainable Development, 2018).

The Global Commission on the Economy and Climate has estimated that, over the next 15 years, the world will need to invest around US\$90 trillion in sustainable infrastructure (Gurría et al., 2015), i.e. the design, build and operating of structural elements in ways that do not diminish the economic, social and ecological processes required to maintain diversity, human equity and the functionality of natural systems (CRC Research, 2020). Nationally, it is estimated that Ireland's transition to a low-carbon economy will cost in excess of €40 billion (IBEC, 2019a). The World Bank has estimated that SDG 6 on its own requires funding of €28.4 billion a year (Kroll, 2018).

There is now an urgent need to enhance the ability of the financial system to mobilise private capital for sustainable finance as it is not possible for public funds alone to fund this transition (Sustainable & Responsible Investment Forum, 2020).

Identified financial challenges include:

- collectively tackling fundamental price distortions;
- strengthening policy frameworks and institutional capacities to deliver the right policies and enabling conditions for investment;
- transforming the financial system to deliver the scale and quality of investment needed in order to augment financing from all sources;
- ramping up investments in clean technology research and development and deployment to reduce the costs and enhance the accessibility of more sustainable technologies (UN, 2016a).

1.2.5 Awareness (and lack of awareness) of the SDGs

In January 2017, at a UN retreat organised by the President of the UN Economic and Social Council (ECOSOC), it was noted that most people outside the UN have never heard of the SDGs. The level of public awareness of the SDGs in Ireland, at 36%, is among

the lowest in the EU (Coalition 2030, 2018). The SDGs have been characterised by some diplomats as "the UN's best-kept secret", owing to the fact that there is a lack of awareness among global citizens, country and local officials and the private sector (Risse, 2017).

The challenge of bringing the SDGs and their targets closer to citizens and making them tangible enough to incentivise action has been identified by officials from leading SDG implementation countries as a key factor in the successful implementation of the SDGs (Risse, 2017). This issue was further magnified by a lack of awareness across the planet of related environmental challenges, such as climate change, at the time of launching the SDGs. A 2015 survey of 119 countries found that 40% of adults worldwide had never heard of climate change, which increased to as many as 65% in some developing countries (Leiserowitz and Howe, 2015).

1.2.6 Paradigm shift in behaviour

The global population continues to grow, meaning that more people will continue to demand more resources. It is estimated that the global demand for food will increase by 60% between 2006 and 2050 (Alexandratos and Bruinsma, 2012), while global energy consumption will rise by at least 48% between 2012 and 2040 (US EIA, 2016). Furthermore, the Organisation for Economic Co-operation and Development's (OECD) International Transport Forum forecasts that there will be 2.5 billion cars on the road by 2050, up from just over 1 billion today (World Economic Forum, 2017a).

Additionally, despite the MDGs, biodiversity loss has increased, global carbon emissions have risen overall by 50% compared with 1990 levels (Hayward, 2016), global temperatures are now rising at an unprecedented rate and natural resources continue to be extracted at unsustainable rates (NASA, 2019).

There is an urgent need for a paradigm shift in human behaviour on a global scale if the goals and targets of the 2030 Agenda are to be met. With the Earth being pushed closer towards its tipping point as a result of human activity, scientists have warned that the planet has already been pushed beyond four of nine "planetary boundaries", meaning that it could cease to be a "safe operating space" for humans (Steffen et al., 2015).

1.2.7 Ensuring that organisations embrace sustainable change

The delivery lead of the SDGs, the United Nations Department of Economic and Social Affairs (UNDESA), is unequivocal that the actions of governments, civil society and the private sector are crucial if the goals are to be achieved. This means that enterprises are critical catalysts for change in sustainable development and human prosperity (Verles and Vellacott, 2018).

The Sustainable Development Goals (SDGs) should be known within the business community as the "BDGs", the "Business Development Goals". And the reason for this is because the SDGs represent a clear economic imperative. Their achievement would mean greater productivity, increased employment, and stronger economic growth. (Danilovich, 2017)

Key findings from a 2018 survey of World Business Council for Sustainable Development (WBCSD) members and Global Network partners were that engagement with and ownership of sustainability is not a part of core strategic functions of businesses, and over 65% of companies have not conducted a detailed analysis of the 169 SDG targets (WBCSD, 2018). Furthermore, confusion over regulatory and policy developments is creating barriers for companies in terms of taking further action. A similar survey by the WBCSD in 2017 discovered that only 6% of organisations had aligned their strategy and targets to specific target-level SDG criteria and measured their contributions to key SDGs (WBCSD, 2017a).

Oxfam's Walking the Talk report, published in September 2018 (Oxfam, 2018), identifies a number of concerns regarding the level of SDG ambition that has been shown by businesses to date, including a failure to significantly change their approach to corporate sustainability and limited reporting on SDGs. An analysis by PwC has highlighted the issue of SDG reporting, with its research noting that only 23% of companies analysed disclosed meaningful key performance indicators (KPIs) and targets related to the SDGs (PwC, 2018a).

2 Review of the National Sustainability Landscape

2.1 Sustainability in Ireland

2.1.1 History of sustainable development in Ireland

Established in 1973, the National Economic and Social Council (NESC) advises the Taoiseach on strategic policy issues related to sustainable development across social, economic and environmental pillars and puts the topic of sustainable development on the agenda as an item for consideration for future government policies and initiatives (NESC, 2019).

The first national sustainable development strategy for Ireland was published by the Irish government in 1997 (Government of Ireland, 1997), leading to the consideration of sustainable development as a central theme across policy frameworks. Its main objective was to ensure that sustainability considerations were more systematically applied to economic policies and integrated into decision-making processes (Comhar, 2007).

In 2012, building on the inaugural strategy, a new framework, *Our Sustainable Future: A Framework for Sustainable Development in Ireland*, was released (DCCAE, 2012). This framework tasked an interdepartmental group with translating the vision set out in the document into effective action and identified 70 measures to be implemented across government. *Our Sustainable Future* is an important component of Ireland's framework for implementing the SDGs (DCCAE, 2018a).

Involvement in development of the SDGs

Ireland has played a central role in the development of the SDGs. In 2014, the President of the UN General Assembly appointed Ireland's UN Ambassador, David Donoghue, to co-facilitate the final intergovernmental negotiations, placing Ireland at the centre of intergovernmental negotiations on the sustainable development agenda (Cygan, 2017).

Throughout 2015, Ireland, and co-facilitator Kenya, brought together all UN Member States, the private

sector, civil society and other stakeholders in a series of formal negotiating sessions and informal consultations and, in August 2015, Ambassador Donoghue and Ambassador Kamau of Kenya informed the gathering of all UN Member States that agreement had been reached, resulting in the resolution entitled *Transforming Our World: The 2030 Agenda for Sustainable Development* (UN, 2015c).

Ireland's appointment to this role was an acknowledgment of its standing internationally, particularly in relation to its excellent record on overseas aid and promoting human rights and long-standing participation in peacekeeping across the world (Irish Aid, 2019).

2.1.2 Current situation

In April 2018, the Minister for Communications, Climate Action and Environment launched Ireland's Sustainable Development Goals National Implementation Plan 2018–2020 (DCCAE, 2018a). The plan set out four immediate strategic priorities, with 19 specific actions to be completed over the following 2 years, so that Ireland would be on track to fulfil its part in the 2030 Agenda. The four strategic priorities are as follows:

- 1. raise public awareness of the SDGs;
- 2. give stakeholders the opportunity to participate in developing and implementing the national goals;
- foster public participation and support community and organisation efforts to meet the SDGs;
- 4. align national policies and the SDGs.

The 19 actions stemming from these key priorities, and to be completed by 2020, are outlined in Appendix 2.

National strategies linked to sustainable development

As outlined in the Sustainable Development Goals National Implementation Plan 2018–2020, 15 key strategies have been identified that align with Ireland's domestic implementation of the SDGs during the lifetime of the plan. These key national strategies are as follows:

- Rebuilding Ireland: Action Plan for Housing and Homelessness;
- Project Ireland 2040: National Planning Framework;
- Project Ireland 2040: National Development Plan 2018–2027;
- National Strategy for Women and Girls 2017–2020;
- Better Outcomes, Brighter Futures: The National Policy Framework for Children & Young People 2014–2020;
- Education for Sustainability: The National Strategy on Education for Sustainable Development in Ireland, 2014–2020;
- National Action Plan for Social Inclusion 2018– 2021 (see https://www.sinnfein.ie/contents/55184);
- 8. Healthy Ireland: A Framework for Improved Health and Wellbeing 2013–2025;
- 9. Enterprise 2025 Renewed;
- Towards Responsible Business: Ireland's National Plan on Corporate Social Responsibility 2017–2020;
- Realising Our Rural Potential: Action Plan for Rural Development;
- 12. National Biodiversity Action Plan 2017–2021;
- 13. National Mitigation Plan 2017;
- 14. Food Wise 2025: A 10-Year Vision for the Irish Agri-food Industry;
- 15. National Action Plan on Antimicrobial Resistance 2017–2020.

Additionally, the government's Climate Action Plan, released in June 2019 (DCCAE, 2019a), represents an important milestone in attempting to achieve Ireland's 2030 targets for carbon emissions. With over 180 actions, this plan reflects Ireland's commitment to the SDGs, and SDG 13 in particular. Future Jobs Ireland's 2019 "Transitioning to a Low Carbon Economy" pillar also aligns with the Sustainable Development Goals National Implementation Plan and

will play a crucial role in addressing key SDG-related challenges (Government of Ireland, 2019a).

SDG engagement activity

The Irish government submitted the report Compendium of Contributions from National Stakeholders in Ireland at the HLPF 2018 meeting to provide a voice to individual and organisational stakeholders across Irish society that are actively engaging with the SDGs (DCCAE, 2018b). These individual observations of stakeholders in relation to SDG implementation in Ireland act as a supplement to Ireland's 2018 VNR, giving national stakeholders the opportunity to present their independent observations regarding the SDGs, and Ireland's implementation of them, at the HLPF.

A number of platforms have been developed in Ireland to foster stakeholder engagement with the SDGs; these are outlined in the following sections.

National Sustainable Development Goals Stakeholder Forum. The establishment of a National Sustainable Development Goals Stakeholder Forum is a key commitment of the Sustainable Development Goals National Implementation Plan 2018–2020. Its main objective is to provide a channel for all stakeholders for meaningful participation, focusing on overall SDG co-ordination, implementation, communication and national reporting (DCCAE, 2019b). The forum met for the first time in June 2018 and is made up of sector representatives from across society. Stakeholders include communities, youth, businesses, trade unions, non-governmental organisations (NGOs), academia, the education sector, the private sector, the agriculture sector, local authorities, interested citizens and government departments (DCCAE, 2018a).

Corporate Social Responsibility Stakeholder Forum. The Corporate Social Responsibility Stakeholder Forum was established in 2014 as a mechanism to assist with achieving the objectives identified in the first National Plan on Corporate Social Responsibility (DBEI, 2019a). The forum will continue its activities to implement and support the key actions outlined in the second National Plan on Corporate Social Responsibility 2017–2020.

SDG Champions programme. In 2019, the Department of Communications, Climate Action and Environment (DCCAE) launched Ireland's first SDG Champions

programme. Twelve SDG Champions have been appointed to raise awareness of the SDGs and to demonstrate, through leading by example, that contributions to the SDGs can come from anyone across society (DCCAE, 2019c). Released in September 2019, the list of SDG Champions is provided in Appendix 3.

Voluntary national review 2018

Ireland carried out the first VNR of its progress towards the SDGs in 2018 (Government of Ireland, 2018a). Addressing each of the 17 SDGs, it outlined where Ireland is making significant progress, but also noted those goals for which it will fail to reach its targets if action is not taken to drive change.

Ireland's strong starting position was highlighted in the review, with the country placing highly across a number of high-profile global indices linked to sustainability, including the Human Development Index (2018 rank of 8th), the World Happiness Report (2018 rank of 13th), the OECD Better Life Index (2018 rank of 15th) and the SDG Index (2019 rank of 19th), leading to strong performance against seven of the 17 SDGs. However, performance among the remaining 10 SDGs is mixed, with the Sustainable Development Report 2019 (Sachs et al., 2019) determining that "major challenges" remain across a number of areas, including, but not limited to, achieving sustainable consumption and production, mitigating and adapting to climate change, and preventing biodiversity and habitat destruction.

Looking forward

As part of the Sustainable Development Goals National Implementation Plan 2018–2020 (DCCAE, 2018a), Ireland has developed a 2030 Vision, setting out an ambitious set of high-level commitments to address the 17 SDGs. This 2030 Vision will be reviewed on an ongoing basis as part of the process of developing each new Implementation Plan, to ensure that it remains challenging, ambitious and relevant.

Many of the measures, channels and mechanisms that Ireland will look to in achieving the SDGs can be placed in the context of a wider transformational programme for Ireland, Project Ireland 2040 (Government of Ireland, 2018b). Project Ireland 2040

is the government's overarching policy initiative to make Ireland a better country for all, placing the emphasis on social outcomes and values ahead of economic targets. Consisting of 10 strategic outcomes, Project Ireland 2040 is informed by the Programme for a Partnership Government 2016, the National Development Plan 2018–2027 and the National Planning Framework to 2040.

2.1.3 Current state of data

The CSO is responsible for the identification, development and management of a set of sustainable development indicators for Ireland under four domains: global, economy, social and environment (CSO, 2017).

With regard to greater availability and transparency of both sustainable development and environmental indicators, the CSO is making further progress towards statistical releases in the areas of green economy, fishery, water, forestry, waste energy use by non-domestic sectors, environmental transfers and environmental protection expenditure statistics (DCCAE, 2012).

European Union SDG indicator set

Ireland will utilise the EU SDG indicator set (EC, 2019a) as its methodology for monitoring SDG implementation. This set provides a comprehensive and relevant assessment of EU Member States' progress on the SDGs, which will allow Ireland to benchmark itself against its EU peers (Government of Ireland, 2018a).

Published in July 2017, the EU SDG indicator set contains 100 indicators distributed evenly across the 17 SDGs, covering social, environmental, institutional and economic pillars.

Monitoring and reporting

The CSO currently reports on the SDGs in its report series, "Sustainable Development Indicators Ireland", published on a biennial basis. These reports will monitor 95 of the 100 EU SDG indicators. The remaining five indicators do not cover EU Member State-level data, but rather the EU as a whole (Eurostat, 2019).

Ireland intends to use the data presented in its 2018 VNR as the baseline for its subsequent implementation of the SDGs (Government of Ireland, 2018a).

National hub for SDGs

In November 2017, Ireland launched its national hub for SDGs, an online platform collaboration between Ordnance Survey Ireland, the CSO and Esri Ireland that provides transparent, open access to integrated geospatial and statistical data relating to specific SDG targets (Government of Ireland, 2019b). Developed as part of a UNSD research exercise, Ireland is one of only seven countries to take part in the exercise, which has resulted in a visual and interactive tool that allows users to develop their own SDG-flavoured maps (UN, 2020).

Open data

The national SDG hub is a prime example of the government's efforts to improve the use of data. Publication of official non-personal data in open format is a core element of ensuring open and transparent monitoring and reporting of Ireland's implementation of the SDGs. The open data initiative is a key part of the government's reform activities. The Open Data Strategy 2017–2022 was published in July 2017 and great progress has been made in developing the Open Data portal, which, as of February 2019, linked to almost 4500 datasets from some 90 publishers (Government of Ireland, 2019c).

2.2 Sustainability Support for Enterprise

2.2.1 Introduction

Ireland is a highly developed country with a long-standing commitment to a peaceful multilateral system. It has one of the most comprehensive environmental legal and policy frameworks in the world and sustainable development is an underpinning theme across its national policies, while it is noted as an advocate across the globe on issues related to the SDGs, including human rights, poverty and climate (Government of Ireland, 2018a).

Sustainability landscape

Sustainability is a broad umbrella term that encompasses a wide range of activities across social, economic and environmental dimensions, from national to local levels. The authors define the sustainability landscape as including all of the characters that generate, support or are on the receiving end of any impact relating to the seven environmental SDGs, in either direct or indirect ways. In this report, the sustainability landscape includes the key stakeholders that either impact on or are impacted by developments in sustainable activity.

Sustainability activity occurring in Ireland can be (non-exhaustively) grouped, tagged and categorised, for example, as:

- Environmental Protection Agency (EPA)-led initiatives (e.g. National Waste Prevention Programme, Green Enterprise Programme, National Priority List);
- other national sustainability initiatives (e.g. National Planning Framework, Smarter Travel);
- research-focused initiatives [e.g. EPA Research Programme 2014–2020 Sustainability Pillar; Department of Agriculture, Food and the Marine's (DAFM) Research Stimulus Fund; Food Institutional Research Measure (FIRM) and Council for Forest Research and Development (CoFoRD) programmes; specific research studies such as the Roadmap for a National Resource Efficiency Plan for Ireland – Coakley et al., 2011];
- local community initiatives (e.g. Tidy Towns, Public Participation Networks);
- NGOs (e.g. Coalition 2030, Irish Environmental Network);
- enterprise agency advisory and grant supports;
- enterprise-led initiatives (e.g. enterprise strategy alignment to the UN SDGs, corporate social responsibility – CSR – initiatives);
- · "circular economy" activities;
- engaged citizens.

2.2.2 Stakeholder mapping

A comprehensive stakeholder mapping exercise was carried out to identify the key stakeholders involved in enterprise support in the sustainability landscape in Ireland to expand on the mapping exercise undertaken

as part of the Sustainable Development Goals National Implementation Plan 2018–2020 (DCCAE, 2018a).

Annex I of the National Implementation Plan 2018–2020 provides a map aligning each of the 169 SDG targets with the government department that is responsible for leading its implementation; Annex I also lists departments that are stakeholders in each of the targets (DCCAE, 2018c). Each department may be responsible for managing targets within several SDGs, and multiple departments have targets within each SDG. Annex II provides a matrix aligning each of the 169 SDG targets with its relevant national policies (DCCAE, 2018d).

Key stakeholders in the national enterprise support sustainability landscape, particularly with regard to SDG-related private sector activity, include groups from the following categories (Figure 2.1):

- government departments and local authorities
 Ireland has 17 state departments and 31 local authorities;
- enterprise agencies Ireland has 197 agencies, a number of which are dedicated to supporting enterprise through grants, supports, programmes and initiatives;
- others includes representative bodies, international organisations, the wider enterprise sector and civil society.

2.2.3 National sustainability landscape: enterprise supports and targets

As part of this study, the research team undertook an in-depth desk review of the national landscape in Ireland, identifying the key sustainability stakeholders in Ireland involved in enterprise development and

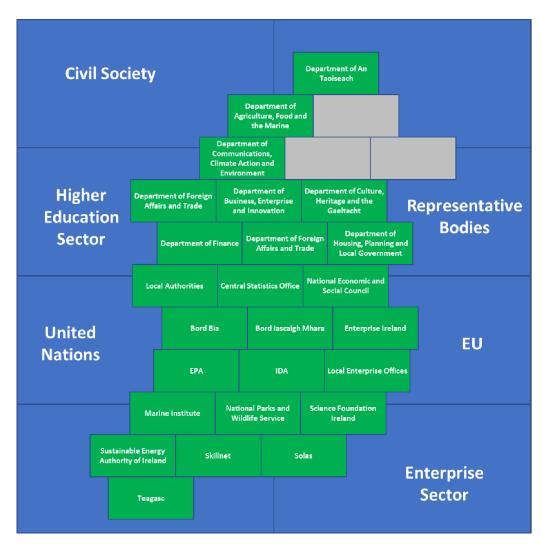


Figure 2.1. A selection of some of the key enterprise support stakeholders in the national enterprise support sustainability landscape in Ireland.

analysing the activities that they are undertaking to promote and contribute to sustainable enterprise development. This section provides a detailed analysis of the key stakeholders across government departments and enterprise agencies, with an emphasis on identifying the key targets, programmes, supports and activities available to enterprises and reviewing their alignment with the seven environmental SDGs (Figure 2.2). Furthermore, this section identifies the degree of alignment that the stakeholders have with each other with regard to achieving the SDGs, as coherence and collaborative behaviour across the whole landscape is critical to meeting the SDGs.

Government departments

This section provides a non-exhaustive list of government departments that support enterprise-related sustainable development activity in Ireland through related policies, targets, supports and interventions. The departments were identified through both desk research and consultations with national enterprise agencies and stakeholders from the private sector.

Table 2.1 indicates that, although there is a considerable amount of support available to enterprises, SDG-specific programmes and supports are limited, and any alignment with the environmental SDGs is typically by coincidence. Supports refer to the advisory and financial supports that are available to enterprises to increase their environmental sustainability capability and activity.

Enterprise agencies

A 2017 report for the Department of Public Expenditure and Reform (DPER) assessed the rationale, efficiency and targeting of enterprise supports (Reidy, 2017). This report, which outlined the state supports for 12 key enterprise agencies, noted that €1 billion was

allocated to 12 agencies in 2016, with half of that allocated to agencies under the Department of Jobs, Enterprise and Innovation (DJEI; now the Department of Business, Enterprise and Innovation – DBEI). Reidy (2017) identified climate change as a future enterprise policy consideration in the report's key messages, recommending that both Enterprise Ireland and the DJEI may have to adapt their processes and procedures to incorporate both the benefits and the costs of climate change. There is no reference to sustainable development in this document, although it is noted that climate change will have important implications for enterprise support in the future. The 12 agencies and their allocations are outlined in Appendix 4.

Public finance (including grant schemes) is central to implementation of the SDGs, but private sector finance is also required and, to achieve this, it is essential to engage with both the enterprise agencies and the private sector through the provision of supports.

Table 2.2 provides a non-exhaustive list of national enterprise agencies that support enterprise-related sustainable development activity in Ireland through related policies, targets, supports and interventions. As with the government departments in Table 2.1, Table 2.2 indicates that there is a considerable amount of support available to enterprises; however, currently, SDG-specific programmes and supports are limited and any alignment with associated environmental SDGs is by default, with the exception of a number of notable programmes.

Stakeholder input to key national strategies

This section provides an analysis of the government departmental, local authority and enterprise support agency stakeholder input into the key national strategies that were identified in the Sustainable Development Goals National Implementation Plan 2018–2020 as useful examples of Ireland's national















Figure 2.2. The seven environmental SDGs. Reproduced with permission from https://www.un.org/sustainabledevelopment/. The content of this publication has not been approved by the United Nations and does not reflect the views of the United Nations or its officials.

Table 2.1. List of sustainability supports and targets by government department

	Supports		Targets	
Key stakeholder	Support/intervention	Aligned environmental SDGs	Target	Aligned environmental SDGs
Department of Agriculture, Food and the Marine (DAFM)	Green, Low-Carbon, Agri- Environment Scheme (GLAS) European Innovation	1. SDGs 6, 13 and 15 2. SDG 14	Promote a sustainable, profitable and self-reliant seafood industry ^a Smart, sustainable and	1. SDGs 12 and 14 2. SDG 14
	Partnership for Agriculture Productivity and Sustainability (EIP- AGRI)		inclusive growth in rural development	
Department of Business, Enterprise and	 CSR hub – (links CSR with SDGs)^b Disruptive Technologies 	 All SDGs Projects across all SDGs 	1. Support relevant policy priorities responsible for implementing SDGs ^c	 All SDGs All SDGs
Innovation (DBEI)	Innovation Fund via Project 2040	SUGS	Promote the EC's Circular Economy Package ^d	
Department of Communications, Climate Action	 Green tenders^e SDG Stakeholder Forum 	 SDGs 7, 11, 12 and 15^f All SDGs 	Protect the environment and transition to a circular economy	All SDGs; KPI is to improve SDG indicator set
and Environment (DCCAE)	 Climate Action Fund Business support 	3. SDG 13 4. SDGs 7 and 13	Transition to a low- carbon, climate-resilient	
	programmes (ACA and Energy Efficiency Fund)	5. All SDGs	and environmentally sustainable economy 3. Manage Ireland's	
	5. SDG Champions programme 2019/2020	6. SDG 127. SDGs 12 and 13	geological resources in a sustainable and	
	6. Retail Action Group on Food Waste		productive manner ^g	
Department of Culture, Heritage	Climate Action Plan Enterprise support agencies such as	N/A	Grow and attract enterprise and jobs	1. SDG 11
and the Gaeltacht (DCHG)	Enterprise Ireland and IDA Ireland		Develop the renewable energy sector in rural Ireland	2. SDG 7
Department of Finance (DFIN)	 Finance Green Ireland Climate-KIC Accelerator 	 SDGs 7, 11 and 13 SDG 13 	Position Ireland as an international hub for group finance ^b	1. SDGs 7, 11 and 13
	and Climate Launchpad 3. Skillnet Ireland training	3. All SDGs	green finance ^h	
Department of	(All via Sustainable Nation) 1. Irish Forum for	1. SDGs 11 and 12	Targeted development	1. All SDGs
Foreign Affairs and Trade (DFAT)	International Agricultural Development (IFIAD) 2. New framework for	 SDGs 12 and 13 All SDGs 	measures and policy engagement to drive global delivery of SDGs	2. All SDGs3. SDG 13
	sustainable development ⁱ 3. Future Innovator Prize		Active engagement in whole-of-government	
	2019 (Box 2.1)		co-ordination for national implementation of the SDGs	
			Support scaling up of climate finance and policy	

Table 2.1. Continued

	Supports		Targets	
Key stakeholder	Support/intervention	Aligned environmental SDGs	Target	Aligned environmental SDGs
Department of Housing,	Climate Action Fund via Project 2040	1. SDG 13	Ensure sustainable regional development	1. All SDGs
Planning and Local Government (DHPLG)	Fidged 2040		(including reliable weather and climate information)	2. SDGs 6, 14 and 15
			2. Stimulate renewal and investment in the environment and innovation (provide a framework for the sustainable management of water resources)	

Note: SDG-specific supports and targets are in bold.

ahttps://www.agriculture.gov.ie/media/migration/publications/2017/StatementStrategyMainDoc030217.pdf (accessed 15 September 2019).

^bhttp://www.csrhub.ie/The-Relationship-between-CSR-and-Sustainable-Development-Goals/The-Relationship-between-CSR-and-Sustainable-Development-Goals.html (accessed 15 September 2019).

ehttps://dbei.gov.ie/en/Publications/Publication-files/Towards-Responsible-Business-Ireland%E2%80%99s-National-Plan-CSR-2017-2020.pdf (accessed 15 September 2019).

dhttps://dbei.gov.ie/en/Publications/Publication-files/Enterprise-2025-Renewed.pdf (accessed 15 September 2019).

ehttps://www.dccae.gov.ie/en-ie/environment/topics/sustainable-development/green-public-procurement/Pages/default.aspx (accessed 15 September 2019).

https://www.dccae.gov.ie/documents/Green%20Tenders%20-%20Action%20Plan%20on%20Green%20Public%20 Procurement.pdf (accessed 15 September 2019).

9https://www.dccae.gov.ie/documents/Statement%20of%20Strategy%202016-2019.pdf (accessed 15 September 2019).

https://www.sustainablenation.ie/wp-content/uploads/2017/05/SNI_Green_Finance_Ireland-FINAL-for-web.pdf (accessed 15 September 2019).

https://www.dfa.ie/media/dfa/alldfawebsitemedia/aboutus/DFAT-Statement-of-Strategy-2017-2020.pdf (accessed 15 September 2019).

http://npf.ie/project-ireland-2040-national-planning-framework/ (accessed 15 September 2019).

ACA, accelerated capital allowance; EC, European Commission; N/A, not applicable.

Box 2.1. Future Innovator Prize 2019

In focus: example of collaborative SDG-specific support: Future Innovator Prize 2019



The Future Innovator Prize 2019 is a joint initiative between the Department of Foreign Affairs (DFAT) and Science Foundation Ireland (SFI) that attempts to incentivise researchers based in Ireland to address global challenges around the SDGs, with a particular focus on countries at which Ireland's official development assistance is directed. Two challenge-based funding programmes [the Artificial Intelligence (AI) for Societal Good Challenge and the Zero Emissions Challenge] were

established by the SFI for 2019 that will directly contribute to delivering the SDGs, while the DFAT will fund two additional teams to participate in these challenges.

Challenge-based funding is a new approach to funding academic research that focuses on solving real-world problems (SFI, 2019).

Logo reproduced with permission from SFI.

Table 2.2. List of sustainability supports and targets by enterprise agency

Bord Bia Bord lascaigh Mhara	Support/intervention 1. Origin Green (Box 2.2) 1. Green Seafood Business 2. Seafood Processing Capital Investment Scheme 3. Sustainable Fisheries Scheme	Aligned environmental SDGs 1. All SDGs 1. SDGs 12 and 14 2. SDGs 12 and 14 3. SDGS 12 and 14 4. SDG 12	 Sustainable food production Lower environmental footprint Establish and drive a range of effective approaches to differentiate Irish seafood products beauty and approaches to approaches to differentiate Irish seafood products beauty and approaches to the seafood products and approaches to the seafood products approaches to the seafood products and approaches to the seafood products are seafood products and approaches to the seafood products and approaches to the seafood products are seafood products. 	Aligned environmental SDGs 1. All SDGsa 2. SDGs 13, 14 and 15 1. All SDGs through work programmes and collaborative
Bord lascaigh Mhara	 Green Seafood Business Seafood Processing Capital Investment Scheme Sustainable Fisheries 	1. SDGs 12 and 14 2. SDGs 12 and 14 3. SDGS 12 and 14	production 2. Lower environmental footprint 1. Establish and drive a range of effective approaches to differentiate Irish seafood	2. SDGs 13, 14 and 151. All SDGs through work programmes and collaborative
Mhara 2	Seafood Processing Capital Investment Scheme Sustainable Fisheries	 SDGs 12 and 14 SDGS 12 and 14 	a range of effective approaches to differentiate Irish seafood	work programmes and collaborative
	Sustainable Aquaculture Scheme		products, based on demonstrating their environmental credentials 2. Provide the sector with effective technical programmes that reduce the environmental impact and increase competitiveness ^b	projects 2. All SDGs
	SDG Geohive SDG Indicators Ireland	1. All SDGs 2. All SDGs	Provide and report on data for each SDG	1. All SDGs
	The Enterprise Ireland Green team works to assist companies in incorporating sustainable practices within day-to- day business operations ^c	No direct alignment on any one SDG across programmes, but programmes are all- encompassing	Support sustainable economic growth, regional development and secure employment	No directly aligned targets
2	2. GreenStart			
3	3. GreenPlus			
2	4. Lean Business Ireland			
Ę	5. First Steps to Green Competitiveness Guidebook			
EPA	Green Business Initiative/ Tree	 SDGs 7 and 12 All SDGs 	Deliver improved water quality	1. SDGs 6 and 14 2. SDG 13
2	Green Teams National Programme	3. All SDGs	Engage with other strategic partners to	3. SDG 15
3	Green Hospitality Programme	 SDG 12 All SDGs 	promote the development of a holistic national response to climate	4. SDG 12
2	4. LAPN (within the NWPP)	6. All SDGs	change	
Ę	5. Green Awards	7. SDGs 12, 14	Enhance air and radiation	
6	6. Green Enterprise (Circular Economy)	and 15 8. All environmental	protection 4. Engage with strategic partners to deliver	
7	7. Smart Farming	SDGs		
8	8. NWPP and LAPN		effective regulation of the waste sector ^d	
9	9. EPA Research Programme		waste sector	
IDA Ireland	1. GreenStart	No direct alignment on	Regional sustainability	No direct alignment
	GreenPlus Lean Business Ireland	any one SDG across programmes, but programmes are all-	and development	on any one SDG, but SDGs noted as overarching framework

Table 2.2. Continued

	Supports		Targets		
Key stakeholder	Support/intervention	Aligned environmental SDGs	Target	Aligned environmental SDGs	
Marine Institute	Marine Renewable Energy Services Marine Renewable Energy Portal (Ocean	 SDGs 6, 7, 13 and 14 SDGs 6, 7, 13 and 14 	Forecasting ocean and climate change ^e Advancing ocean and climate observation and	1. SDGs 13 and 14 2. SDGs 13 and 14	
National Parks and Wildlife Service	Energy Ireland) N/A	N/A	monitoring 1. Mainstream biodiversity into decision-making across all sectors 2. To promote awareness of natural heritage and biodiversity issues through education, outreach to schools and engaging with stakeholders	1. SDG 15 2. SDG 15	
Science Foundation Ireland	Challenge-based programmes – Artificial Intelligence (AI) for Societal Good Challenge and Zero Emissions Challenge Future Innovator Prize	1. All SDGs 2. All SDGs	Upcoming strategy may include specific SDG targets	Upcoming strategy may include specific SDG targets	
Sustainable Energy Authority of Ireland (SEAI)	 2019 SEAI Prototype Development Fund (temporarily closed) Large Industry Energy Network (LIEN) Business Grants (EXEED Scheme, Energy Efficient Equipment, Project Assistance, Dairy Farm, Lighting Support for SMEs) 	 SDGs 7, 13 and 14 SDGs 7 and 13 SDGs 7 and 13 	 Ireland's energy to be sustainable, secure, affordable and clean 16% of final energy use (all sectors) must be sourced from renewables by 2020 10% of energy use in the transport sector must be renewable by 2020 20% reduction on 2005 greenhouse gas emissions levels by 2020f 	 SDGs 7 and 13 SDGs 7 and 13 SDGs 7 and 13 SDGs 7 and 13 	
Skillnet Ireland	 Sustainability Skillnet Ireland Lean & Green Skillnet Ireland 	1. All SDGs 2. SDG 6	Support sustainable business growth in Ireland by embedding sustainable approaches within firms through the delivery of specialised training ^g	1. All SDGs	
An tSeirbhís Oideachais Leanúnaigh agus Scileanna (SOLAS)	N/A	N/A	1. Alignment with the skills needs of the green economy 2. Improved geographical spread of provision 3. Improved teaching staff capability within the sector 4. Flexible delivery modes to suit the needs of a broader range of learners	1. All SDGs	

Table 2.2. Continued

	Supports		Targets	
Key stakeholder	Support/intervention	Aligned environmental SDGs	Target	Aligned environmental SDGs
Teagasc	Sustainability Support and Advisory Programm	1. SDGs 6, 12 and 15	Support sustainable farming and the	2. SDG 15
	, ,	¹⁶ 2. SDGs 6, 12 and 15	environment ^h	
	Kildalton Open Source Sustainable Dairy	3. SDG 13		
	Demonstration Farm	4. All SDGs		
	3. Carbon Navigator	5. SDGs 12 and 15		
	Technology Transfer Office	6. SDGs 12 and 15		
	5. VistaMilk			
	Dairy Sustainability Ireland Forum			

Note: SDG-specific supports and targets are outlined in bold.

ahttps://www.origingreen.ie/globalassets/publications/origin-green-sustainability-report-2016.pdf (accessed 15 September 2019).

^bhttp://www.bim.ie/media/bim/content/publications/corporate-other-publications/BIM-statement-of-strategy-2018-2020-enabling-sustainable-growth.pdf (accessed 15 September 2019).

ehttp://www.enterprise-ireland.com/en/Productivity/Build-a-green-sustainable-Business/ (accessed 15 September 2019).

dhttp://www.epa.ie/pubs/reports/other/corporate/EPA_StrategicPlanWeb_2018.pdf (accessed 15 September 2019).

https://www.marine.ie/Home/site-area/about-us/corporate-strategy (accessed 15 September 2019).

https://www.seai.ie/about/irelands-energy-targets/ (accessed 15 September 2019).

9https://www.skillnetireland.ie/networks/sustainability-skillnet/ (accessed 15 September 2019).

https://www.teagasc.ie/media/website/publications/2018/Teagasc-Annual-Report-2017_English.pdf (accessed 15 September 2019).

EXEED, Excellence in Energy Efficient Design; LAPN, Local Authority Prevention Network; N/A, not applicable; NWPP, National Waste Prevention Programme; SMEs, small and medium enterprises.

Box 2.2. Origin Green

In focus: example of collaborative agency-led and SDG-aligned support: Origin Green



Launched in 2012, Origin Green is Ireland's food and drink sustainability programme. The voluntary programme currently has 342 members from across the food industry, who have come together through the common goal of sustainable food production. Origin

Green sets sustainability targets for its members to achieve and all members are independently audited and verified. Led by Bord Bia, the programme has mapped its charter to the SDGs and the organisation states that, as of September 2019, the programme is now aligned with 16 of the 17 SDGs (Origin Green, 2019a; logo reproduced with permission).

implementation of the SDGs during the lifetime of the plan (DCCAE, 2018a).

At departmental level, this analysis identified strong collaboration between government departments in the development of the key national strategies that relate to the SDGs (Table 2.3). Table 2.3 identifies the departments that were outlined in each report as

having been involved in the stakeholder consultant process. The percentage score for each department refers to the proportion of the 15 strategies for which the department provided input. For example, the Department of Housing, Planning and Local Government (DHPLG) has provided input into 80% (or 12) of the 15 strategies.

Table 2.3. Matrix of key national strategies and level of input into each strategy from key stakeholders across government departments

Kon national strategies or solution to	Government departments	ent dep	artments		and local authorities	es										
the Sustainable Development Goals	Lead	i d	Ī. C	\$30	L								6	Dept of An	1	Local
Implementation Plan 2018–2020	aepr	N P	UBEI	DC YA	DCCAE	פֿבּ	DES L	DEASE	DFIN DFAI	HOO IN	UHPLG		DPER A	Iaoiseacn	DI IAS	authorities
Rebuilding Ireland: Action Plan for Housing and Homelessness	DHPLG			>		>	`	>		>	>	>	>	`	>	>
Project Ireland 2040: National Planning Framework	DHPLG	>	>	>	>	>	` `	`	>	>	>	>	>	`	>	>
Project Ireland 2040: National Development Plan 2018–2027	DPER	>	>	>	>	`	>	>	>	>	>	>	>	`	>	`
National Strategy for Women and Girls 2017–2020	DJEI	>	>	>	>	>	` `	,	>	>	>	>	>	`	>	>
Better Outcomes, Brighter Futures: The National Policy Framework for Children & Young People 2014–2020	DCYA			>	>	>	` \	,		>	>	>	>	>	>	`
Education for Sustainability: The National Strategy on Education for Sustainable Development in Ireland, 2014–2020	DES						` \	,	>		>			>	>	
National Action Plan for Social Inclusion 2018–2021 (upcoming)	DEASP							>								
Healthy Ireland: A Framework for Improved Health and Wellbeing 2013–2025	рон							`		>	>	>	>	>	>	
Enterprise 2025 Renewed	DBEI	>	>		>		>	>	>		>	>	>	>	>	
Towards Responsible Business: Ireland's National Plan on Corporate Social Responsibility 2017–2020	DBEI		>		>		`	`	>		>					
Realising Our Rural Potential: Action Plan for Rural Development	DCHG	>			>	>					>					>
National Biodiversity Action Plan 2017–2021	DCHG					>										
National Mitigation Plan 2017	DCCAE	>	>	>	>	>	`	<i>></i>			>	>	>			
Food Wise 2025: A 10-Year Vision for the Irish Agri-food Industry	DAFM				>		,	,	>				>		>	
National Action Plan on Antimicrobial Resistance 2017–2020	DoH									>	>	>	>	`	>	
% of national strategies that stakeholder is involved in		40	40	40	09	53	9 99	60 5	53 40	47	80	09	99	09	99	40

DCHG, Department of Culture, Heritage and the Gaeltacht; DCYA, Department of Child and Youth Affairs; DEASP, Department of Employment Affairs and Social Protection; DES, Department of Education and Skills; DFAT, Department of Foreign Affairs and Trade; DFIN, Department of Finance; DoH, Department of Health; DTTAS, Department of Transport, Tourism and Sport. Note: strategies in bold relate to at least three of the seven environmental SDGs (see Table 2.5).

An SDG interdepartmental working group, chaired by the DCCAE and consisting of representatives from all departments, has been set up to co-ordinate a collaborative approach to ensuring that the SDGs are embedded in future national policy and strategy, as well as ensuring engagement with all departments on the preparation of SDG reporting (House of the Oireachtas, 2018).

Input from enterprise and environmental support agencies is more varied, with export-focused agencies such as Enterprise Ireland and Bord Bia, which are heavily involved in export promotion, providing input into a wide range of strategies. Other agencies such as Bord Iascaigh Mhara (BIM), the Marine Institute and the National Parks and Wildlife Service (NPWS) provided input into a small number of strategies, despite their key roles in supporting the achievement of the environmental SDGs (Table 2.4).

2.2.4 Alignment among stakeholders and to SDGs

Tables 2.3 and 2.4 highlight the interconnectedness of the key stakeholders – both national government departments and the enterprise and environmental support agencies – involved in the development of key national policy and strategy documents relating to SDG implementation in Ireland.

Alignment at a policy and strategy level between departments and enterprise agencies appears to be strong, although direct alignment among the key national strategies to the SDGs is weak, as identified in Table 2.5. Some of this can be attributed to the launch dates of the key strategies that precede the SDGs. Table 2.5 identifies those key strategies where alignment exists between their strategic action and the 17 SDGs and their targets. Strategies outlined in bold indicate those strategies that contain direct references to the SDGs and that have identified which SDGs their actions align with. Other strategies that may have preceded the SDGs have also been identified as having alignment with certain SDGs based on their strategic actions and targets.

It is clear that the key national strategies identified in the Sustainable Development Goals National Implementation Plan 2018–2020 strongly align with a number of goals, such as SDGs 8 and 11, but lack alignment with a number of other SDGs,

including SDGs that the 2019 SDG Index (Sachs *et al.*, 2019) has identified that Ireland has experienced major challenges (SDGs 12 and 13) and significant challenges (SDGs 2, 5–7 and 14) in meeting.

Furthermore, although Table 2.5 identifies those key national strategies that reference the SDGs, in some instances the references are an acknowledgement of the SDGs, as opposed to a call to action to align with the SDGs. For example, Enterprise 2025 Renewed (DBEI, 2018a) contains a sole reference to the SDGs (discussed further in section 5.1.2), while Project Ireland 2040: National Planning Framework (Government of Ireland, 2018c), although highlighting that alignment exists between the SDGs and the framework's National Strategic Outcomes, does not explicitly identify where linkages exist between them.

In addition, only 4 of the 15 national strategies aligned with at least three of the seven environmental SDGs.

2.3 Emerging Themes from the Review of the National Sustainability Landscape

2.3.1 Challenges and opportunities in implementing the SDGs

Despite the progress outlined in its 2018 VNR (Government of Ireland, 2018a), Ireland faces numerous implementation challenges and barriers to achieving its SDG targets by 2030, although the SDGs also offer Ireland a framework to capitalise on opportunities to engage and collaborate with the private sector in innovative and proactive ways.

Awareness

As noted in section 1.2.5, raising awareness of the SDGs is a key challenge facing countries across the globe. Awareness of the SDGs in Ireland is currently below average compared with other EU countries, with only one-third of the population having an awareness of the SDGs (Government of Ireland, 2018a).

The WBCSD, a global chief executive officer (CEO)-led organisation of over 200 leading businesses with a shared vision of a more sustainable world, advocates the SDGs as presenting a historic opportunity for the private sector to engage more deeply and act as a more positive influence on society (WBCSD, 2016).

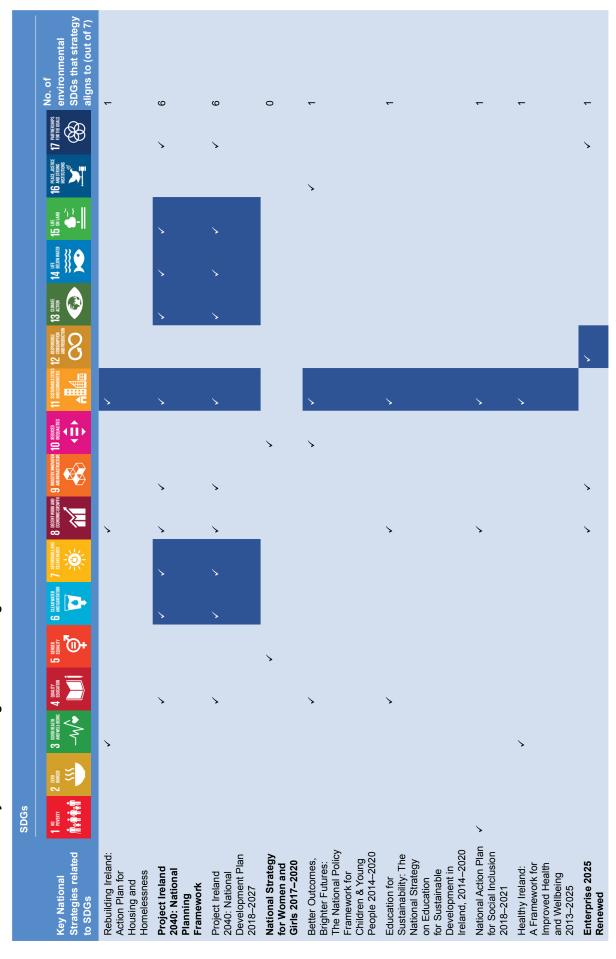
Table 2.4. Matrix of key national strategies and level of input into each strategy from key stakeholders across enterprise and environmental support agencies

	Enterp	rise ar	Enterprise and environmental support agencies	ental s	upport ag	encies							
Key national strategies related to the Sustainable Development Goals Implementation Plan 2018–2020	Bord	BIM	Enterprise Ireland	EPA	IDA Ireland	LEOs	Marine Institute	NPWS	NSAI	SFI	Skillnet SEAI Ireland	net nd SOLAS	Teagasc
Rebuilding Ireland: Action Plan for Housing and Homelessness													
Project Ireland 2040: National Planning Framework	>	>	>	>	>		`				`		>
Project Ireland 2040: National Development Plan 2018–2027	>		>		>		`			>	`		
National Strategy for Women and Girls 2017–2020	>		>			`						>	>
Better Outcomes, Brighter Futures: The National Policy Framework for Children & Young People 2014–2020													
Education for Sustainability: The National Strategy on Education for Sustainable Development in Ireland, 2014–2020											,	>	
National Action Plan for Social Inclusion 2018–2021 (upcoming)													
Healthy Ireland: A Framework for Improved Health and Wellbeing 2013–2025				>									
Enterprise 2025 Renewed			>		>	>			>	>			
Towards Responsible Business: Ireland's National Plan on Corporate Social Responsibility 2017–2020	>		`		`	`							
Realising Our Rural Potential: Action Plan for Rural Development			`	>	>	>	>						>
National Biodiversity Action Plan 2017–2021	>			>				>					>
National Mitigation Plan 2017		>		>			>				>		>
Food Wise 2025: A 10-Year Vision for the Irish Agri-food Industry	>	>	>	>							>		>
National Action Plan on Antimicrobial Resistance 2017–2020				>									
% of national strategies that stakeholder is involved in	40	20	47	47	33	27	27	7	7	4	27 7	4	40

Note: strategies in bold relate to at least three of the seven environmental SDGs (see Table 2.5).

LEO, Local Enterprise Office; NSAI, National Standards Authority of Ireland; SFI, Science Foundation Ireland; SEAI, Sustainable Energy Authority of Ireland.

Table 2.5. Matrix of key national strategies and their alignment to the SDGs



SDGs that strategy aligns to (out of 7) No. of 0 0 က α 17 PARTNERSHIPS FOR THE GOALS 33 _ 27 20 20 33 67 20 27 53 20 13 **@** 27 20 SDGs 13 Responsible Business: Ireland's **Biodiversity Action** Realising Our Rural Potential: Action National Action Plan National Climate Action Mitigation Plan 2017 SDG alignment (%) Strategies related Food Wise 2025: A National Plan on Corporate Social 10-Year Vision for the Irish Agri-food Resistance 2017– 2020 Responsibility 2017–2020 Plan 2017-2021 on Antimicrobial Plan for Rural Key National Development to SDGs National **Towards** Industry

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Notes: strategies in bold contain a direct reference to the SDGs; environmental SDGs are highlighted in blue.

Table 2.5. Continued

Almost one-third of the way through the timeline for Agenda 2030, raising awareness of and engagement in the SDGs across all areas of society remains an ongoing challenge globally (OECD DevCom, 2017; Risse, 2017; Dentsu, 2019) and nationally (Government of Ireland, 2018a).

The Department of Education and Skills' Action Plan for Education 2019 (DES, 2019) and National Strategy on Education for Sustainable Development in Ireland (DES, 2018) contain actions that will seek to build awareness around sustainable development across the wider population through the education system, but there is no specific reference to the SDGs in the further education and training space in either the National Strategy on Education for Sustainable Development in Ireland (DES, 2018) or SOLAS' Corporate Plan 2017–2019 (SOLAS, 2019).

Awareness of the SDGs at a local level in Ireland is low and, to date, there has been an absence of a strong national SDG communications plan, which will be required to raise public engagement with the goals (Coalition 2030, 2018). Given the importance of local government engagement for public information dissemination, policy alignment and data gathering, it has been recognised that increasing local government engagement with the SDGs will be vital to ensure that Ireland meets its SDG objectives, particularly in the first National Implementation Plan (Government of Ireland, 2018a).

Awareness of environmental sustainability as a competitive advantage. Establishing the competitive advantage of the SDGs is vital if the private sector is to engage with Agenda 2030, and identifying the opportunities that exist with regard to both commercial and reputational activities is an important step in understanding the value of the SDGs to the private sector. Early engagement with the SDGs has allowed 13 of the world's largest enterprises to capitalise on market opportunities from their CSR initiatives, generating revenues of US\$233 billion as a result, while UK B Corp companies are growing 28 times more quickly than the national rate (Edie, 2019) (see section 5.5 for more details on B Corp companies) and 52% of Irish CEOs believe that their organisation's future growth will depend on how well they adapt to a low-carbon, cleantech economy (KPMG, 2019). The reputational benefits may also be significant.

particularly with a view to long-term organisational growth, with businesses that are more mature in their sustainability efforts more likely to win the greatest market share in the decade leading to 2030, thereby securing their social licence to operate and increasing shareholder value over the long term (EY, 2017; Bruß, 2019).

Environmental awareness compared with SDG awareness. Society is engaging with environmental issues, such as climate change, on a global scale, with a huge resurgence in climate activism in 2019 (Haynes, 2019; Yeo, 2019), while societal discussions on topics such as plastics (Fegan, 2019; McHugh, 2019; O'Sullivan, 2019), the circular economy and zero waste (Gittens, 2018), and marine life (McDonnell, 2018) are gaining traction nationally.

Alignment between these movements on the SDGs is not always clear, however. Global movements such as Extinction Rebellion (XR, 2019), the Climate Reality Project (2019), and the Global Climate Strike (2019) and its counterpart, Fridays for Future (2019), make either very limited or no reference to the SDGs on their websites. This poses a wider question around whether or not these organisations are overlooking the SDGs and if the SDGs and climate action are "friends" or "frenemies", i.e. friends but a rival for attention (Delpero, 2015). The point here is that the media profile around environmental issues that these movements have established creates an opportunity for Ireland to reintroduce the SDGs to wider society as the implementation framework for taking environmental and societal action.

Strategic policy alignment

Sustainable Development Goal policy has been identified as a key means for implementation of the SDGs (OECD, 2015a). Despite a significant amount of sustainability work, activities and programmes taking place in Ireland that align to one or more of the 17 SDGs, a number of the key strategic and policy documents relating to sustainable development in Ireland precede the launch of the SDGs (as noted in section 2.2.3).

As a result, a process of retrofitting policy with SDG targets has been developed to shoehorn existing strategy, policies and action plans into the SDG framework. Therefore, there is no SDG policy coherence in place to ensure that Ireland is fully aligned to the SDG framework, opening Ireland up to the risk of missing targets by not committing or contributing to the SDG targets in their entirety.

As identified in section 2.2.4, the national policy documents provide the framework for enterprise growth in Ireland. However, references to sustainable development and to the SDGs are limited, and there is no specific policy in place to ensure that Ireland's enterprise support agencies provide SDG-specific support to the private sector.

Although the key enterprise policy document, Enterprise 2025 Renewed (DBEI, 2018a), briefly recognises the effects of climate change and the need for more sustainable management of environmental resources, it contains a sole reference to the SDGs – that they are addressed in Ireland's National Plan on Corporate Social Responsibility 2017–2020 (DBEI, 2017). The National Plan on Corporate Social Responsibility does not specifically call out the SDG challenge nor indeed explicitly state how it will meet Ireland's sustainability goals, other than by using existing initiatives.

Action 17 of Ireland's National Plan on Corporate Social Responsibility 2017–2020 encourages businesses to align their CSR strategy and activity to the SDGs. However, the SDGs have been designed to encourage businesses to align their overall strategies to the SDGs to ensure that transformative change takes place (DBEI, 2017). Relabelling existing CSR activities as relevant to the SDGs does not advance the SDGs or deliver the scale of impact that the SDGs require; this will be achievable only if the SDGs are advanced through core business activities (Kramer et al., 2019).

At a high level, the Project Ireland 2040: National Planning Framework acknowledges alignment between its National Strategic Outcomes and the SDGs but, at a more granular level, there are no references to alignment with the National Policy Objectives outlined in the National Planning Framework (Government of Ireland, 2018c). Therefore, it is difficult to assess at an operational level the degree of alignment that exists between current transformational action and the SDG targets.

Ecosystem integration

The level of integration with the SDGs across both government departments and the national enterprise agencies is limited based on the desk review. As enterprises increase their environmental sustainability activity, more clarity and organisation is needed to ensure that all stakeholders within the ecosystem work together to ensure greater alignment of policy, programmes, objectives and targets in meeting the 2030 agenda. This will require more synergy among key sustainability and enterprise development stakeholders to ensure that Ireland efficiently leverages its resources to progress towards the 2030 targets.

There is growing awareness that the achievement of sustainability goals can enhance financial, social and environmental capital; improve economic prosperity; develop people; and enhance our environment (UN, 2019f). Public–private collaboration and provision of support are essential requirements if the private sector is to engage with the SDGs on a large scale.

The role of the private sector in achieving the SDGs has always been acknowledged as vital (Kahkonen, 2015; UN Global Compact, 2017; Abshagen *et al.*, 2018), but evidence of any meaningful public–private partnerships (PPP) engaged in the SDGs in Ireland is currently in short supply, although the 2019/2020 SDG Champions programme will be a promising start in mitigating this.

The enterprise sector has not been specifically identified as a sector with responsibility for preparing sectoral adaptation plans under the National Adaptation Framework (DBEI, 2018b). However, as noted previously, its importance has been recognised more recently in both the Future Jobs Ireland 2019 strategy (Government of Ireland, 2019a), which identifies SDG alignment with the pillar "Transitioning to a Low Carbon Economy", and the Climate Action Plan 2019 (DCCAE, 2019a).

Data and reporting

Given the volume of indicators and targets that need to be monitored, it is inevitable that it will be challenging to develop or collect data effectively on each indicator, which may lead to "data blind spots". As of July 2019, the national SDG hub has collected data on 86% of 244 indicators, meaning that there is still no information for a seventh of the SDG indicators contained in the SDG global indicator set. However, this is offset by the European Commission's (EC) decision to develop a specific EU SDG indicator set (Government of Ireland, 2019b).

Furthermore, there is added complexity around sustainability development and data indicators specifically in the Irish context. For example, according to the NESC (2014), there is a gap in Ireland's ability to put a value on its biodiversity and natural capital. Certain biodiversity and heritage indicators, which were reported in the *Environmental Indicators Ireland 2016* report (CSO, 2016), are mirrored in the UN SDG global indicator framework, but other indicators associated with SDG 15 (Life on Land), such as "Progress towards sustainable forest management" and "Mountain Green Cover Index", are not available/ are sparsely reported for Ireland and it would require work to generate and track data.

Private sector participation

The participation of the private sector will be key to achieving the goals of Agenda 2030. However, enterprise response to the SDGs has been slow. A 2018 survey highlighted that only 23% of companies had disclosed meaningful KPIs and targets related to the SDGs (PwC, 2018a). The sustainability enterprise supports outlined in section 2.2.3 promote the engagement of the private sector with sustainability initiatives but the lack of SDG-specific enterprise supports may limit its adoption of SDG-related targets.

The DBEI (2020) defines CSR as a form of self-regulation whereby organisations integrate their social and environmental responsibilities into their operations. Previous research on CSR in private sector enterprises in Ireland has found that the main barrier to CSR activity is time and the cost of human resources (Sweeney, 2009). Further research by the Irish Business and Employers Confederation (IBEC, 2019b) on the availing of business opportunities in the circular economy identified the ability to capitalise on these opportunities as resource dependent.

According to the Ethical Corporation's latest Responsible Business Trends report (Ethical Corporation, 2019), 71% of senior global business executives (from across enterprise, NGOs, trade bodies and academia) surveyed said that they are integrating SDGs into their business strategies, and a recent survey in Ireland indicated that over half of Business in the Community (BITC) members have begun to integrate SDGs into their business strategies and have adapted formal governance and reporting structures to report on their SDG activity (BITC, 2019a). However, it is important to acknowledge that these companies are likely to be outliers and not representative of the wider sector, given their existing membership in a sustainable network such as BITC. For context, a survey into SDG integration among the largest 120 companies in Finland revealed that, although 37% of the companies have made some prioritisation of SDGs in relation to their business, only 11% have integrated the SDGs into their business and/ or sustainability strategies, which may indicate the considerable challenges that developed countries face in encouraging private sector organisations to integrate the SDGs into their strategies (FIANT Consulting, 2019).

However, despite the push for SDG integration into business strategies, the *Responsible Business Trends Report 2019* found that 62% of companies are not measuring their contribution to the SDGs, an increase of 6% over 2018 (Ethical Corporation, 2019), while a PwC survey reported that 72% of organisations communicate the SDGs in their annual reports but only 23% disclose meaningful KPIs aligned to the SDGs (PwC, 2018a).

The UN Global Compact is the world's largest enterprise sustainability initiative. It is a call to organisations across the globe to align their strategies and operations with universal principles on labour, human rights, anti-corruption and the environment, and to take actions that advance societal goals. However, as of September 2019, participation in Ireland has been extremely low, with only 24 Irish organisations having signed up to participate (UN Global Compact, 2019a). Appendix 5 provides a list of Global Compact members based in Ireland.

3 Review of the International Sustainability Landscape

3.1 Introduction

As outlined in Chapter 2, sustainability is a growing consideration for the government, the wider public sector and the private sector in Ireland, and there is evidence of sustainability supports being made available for enterprise. Identifying how Ireland is performing with regard to supporting its private sector to adopt more sustainable activities is difficult to do in isolation. Therefore, it is natural to look to other countries for comparisons of progress.

This chapter presents a review of the enterprise support relating to sustainability across global, regional and national geographic boundaries. It then presents three case studies from across Europe that have been identified by the report authors as containing examples of best practice with regard to aligning enterprise supports with the SDG framework. The chapter then presents examples of SDG support tools for enterprise from across the globe and identifies emerging themes from the international desk review.

3.1.1 Measuring international SDG progress

As outlined in section 2.1.2 (see "Voluntary national review 2018"), Ireland ranks highly on a number of well-known global social indices, a common mechanism for comparing countries and identifying benchmarks.

There are a number of ways in which a country can benchmark its SDG progress, including by comparing VNRs, mapping and interpreting data from the UN/EU SDG indicator sets and conducting independent reviews (such as the international peer review carried out into Germany's sustainable development strategy in 2017; Wagner, 2018).

The SDG Index and Dashboards Report is a mechanism for ranking and comparing SDG progress across countries. In the 2019 SDG Index, Ireland ranked 19th out of 162 countries (Sachs *et al.*, 2019).

3.1.2 Benchmarking the environmental SDGs

With regard to the seven environmental SDGs, Ireland's performance on the 2019 SDG Index is average compared with the 35 other OECD countries – it ranks in the bottom half for five of the seven indicators. The Sustainable Progress Index 2019 ranks Ireland 13th in its environmental comparison of EU15 countries (Social Justice Ireland, 2019) (Table 3.1).

Ireland's poor performance on the environmental SDGs when analysed against its peers is further illustrated by its ranking of 48th (of 56 countries) on the 2019 Climate Change Performance Index, the lowest rank of all EU countries (GermanWatch, 2019). An even more alarming analysis of climate change carried out by Climate Action Network Europe in 2018 ranked Ireland 28th out of 29 EU countries on the fight

Table 3.1. Ranking Ireland's SDG progress

	6 CLEAN WATER AND SANITATION	7 AFFORDABLE AND CLEAN ENERGY	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND
SDG Index 2019: OECD rank (out of 36)	31st	21st	19th	26th	4th	17th	14th
Sustainable Progress Index 2019 (out of 15)	5th	12th	8th	14th	11th	9th	8th
SDG Index 2019: current assessment	Significant challenges remain	Significant challenges remain	Challenges remain	Major challenges remain	Major challenges remain	Significant challenges remain	Challenges remain

against climate change, with an overall score of 21% (CAN Europe, 2018). The 2019 Social Progress Index identifies "environmental quality" as Ireland's third lowest component score across 12 diverse categories, with it ranking 17th globally; biome protection ranks 62nd globally (Social Progress Imperative, 2019).

3.2 Review of the International Landscape

The true test of commitment to Agenda 2030 will be implementation. We need action from everyone, everywhere. (Ban Ki-Moon, Secretary General; UN, 2015d)

According to the UN, Agenda 2030 was significant in its endorsement by the world community, which reaffirmed its commitment to global sustainable development. The UN system will play a vital role in supporting its Member States' implementation of the agreed sustainable development objectives, but coherence across global, regional, country and community levels will be critical for achieving sustainable development targets globally (UN, 2015a).

3.2.1 Global

Global efforts to achieve the SDGs are being supported by the UN system, which consists of the UN and the six principal organs of the UN, specialised agencies and affiliated organisations. The United Nations Statistical Commission is responsible for the creation of the IAEG-SDGs, which has developed the SDG indicator framework for follow-up and review of the SDGs at the global level (UN, 2019e).

Other large organisations playing their part in achieving Agenda 2030 include the World Trade Organization (WTO), which has identified nine SDGs that are being supported by trade (including one environmental SDG – SDG 14: Life Below Water) (WTO, 2018); the World Bank Group, with its twin goals of ending extreme poverty and boosting shared prosperity aligned with the SDGs, which is supporting client countries to achieve Agenda 2030 through three areas: finance, data and implementation (World Bank, 2019); and the OECD, which is actively addressing the interconnected nature of the SDGs through a variety of horizontal projects and international initiatives (OECD, 2019).

The International Institute for Sustainable Development (IISD) is another key global player in sustainable development. An independent thinktank, it champions sustainable solutions to 21st-century problems. It is responsible for the management of the SDG Knowledge Hub, an online news portal focused on the SDGs, and the SDG Indicator Portal, an online platform providing visualisations of the SDG indicators that countries are choosing to report on (IISD, 2019).

The Sustainable Development Goals Report is an annual report published by the UN that provides an overview of the world's SDG implementation efforts to date. It highlights areas of progress and areas where challenges still exist in ensuring that no one is left behind. The 2018 report found that climate change and conflict were major contributing factors leading to a growing number of people facing forced displacement and hunger, as well as reducing progress towards achieving universal access to basic water and sanitation services (UN, 2018a).

Policy and strategy

As noted in Chapter 1, Agenda 2030 is a global plan of action for people, planet and prosperity, with the 17 SDGs serving as a blueprint for achieving a better, more sustainable future for all.

The United Nations Department of Economic and Social Affairs hosts the Division for Sustainable Development Goals, which serves as the Secretariat for the SDGs. It provides support and capacity building for the goals and their related thematic issues and delivers analytical inputs for intergovernmental deliberations on sustainable development (UN, 2020).

In addition to Agenda 2030, a number of other key global policies have been agreed or are in the process of development that are aligned to the SDGs. Since 2014, 46 WTO members have been working towards a deal to cut tariffs on environmental goods. Known as the Environmental Goods Agreement or EGA, its participants account for the majority of world trade in environmental goods [e.g. energy-efficient light-emitting diode (LED) bulbs, solar photovoltaic panels, air and water filters, floating barriers to contain oil spills, devices to prevent turtles and aquatic mammals from being trapped in fishing nets]. According to the WTO, removing trade barriers on environmental goods and services will reduce some of the bottlenecks that

delay the achievement of numerous SDGs (SDGs 6, 7, 13 and 15). Tackling these trade barriers will improve the access of governments, organisations and consumers to a global market consisting of high-quality and low-cost environmental goods and services (WTO, 2018).

According to the OECD, improving SDG policy coherence is one of its key objectives. Having previously identified misalignments between climate change objectives and policy/regulatory frameworks across a wide range of activities at the heart of climate policy (OECD, 2015b), it has developed a Policy Coherence for Sustainable Development Framework that helps to identify synergies and trade-offs between the social, economic and environmental policy domains. The OECD has also developed an action plan on the SDGs entitled Better Policies for 2030 (OECD, 2016), in which it outlines some of the key actions it intends to undertake, including ensuring that the OECD's policy and strategy tools have an SDG lens and assisting OECD members in the development of SDG-aligned national development strategies at country level.

Global strategies and policies on SDGs include wide-ranging strategies such as the World Health Organization's (WHO) Global Action Plan for healthy lives and well-being, which aligns to 14 SDGs (WHO, 2018), and the adoption of the Ministerial Decision on Fisheries Subsidies (which WTO members have committed to agree on by the end of 2019), which is an example of global policy that aligns to a specific SDG (SDG 14: Life Below Water) and focuses on a particular target (Target 14.6) (WTO, 2018).

There are a number of other global strategies that, although not formally linked to the SDGs, will play a vital role in ensuring that the 2030 objectives are reached. The United Nations Framework Convention on Climate Change's (UNFCCC) Paris Agreement is inextricably linked to SDG 13, although there is no formal relationship between it and Agenda 2030, while the Sustainable Energy for All (SE4ALL) initiative, which preceded the SDGs, shares close ties with the objectives of SDG 7 (17 Goals, 2015).

Supports, initiatives and programmes

There are a growing number of SDG supports, initiatives, programmes and standards that cater to

countries, private sector organisations, NGOs and consumers on a global scale across a wide range of areas, including awareness building, engagement building, discussion platforms and innovation hubs. In addition, numerous programmes and initiatives that precede the SDGs share close alignment with certain SDGs and will be pivotal in ensuring that the objectives of Agenda 2030 are met.

A list of some of the key supports and programmes and SDG-related initiatives that are taking place on a global scale are outlined in Appendix 10.

Tools

A variety of global-scale tools relating to the SDGs have been developed since the launch of Agenda 2030. Most of these resources can be classified as strategic frameworks, awareness-building tools, knowledge resources, data repositories, monitoring and tracking tools or reporting tools. For example, the Sustainable Development Report 2019, developed by the Sustainable Development Solutions Network (SDSN) and Bertelsmann Siftung (SDSN, 2019), is a worldwide study that uses publicly available data to assess each country's rate of progress towards the 17 SDGs, with the aid of interactive dashboards and reports. Other tools, such as the International Organization for Standardization (ISO) SDG Tool, enable users to identify the international standards that make the most significant contribution to each of the 17 SDGs.

A list of some of the other key SDG tools that have been developed for a global audience are outlined in Appendix 11.

Issues and opportunities

In addition to the global implementation challenges outlined in Chapter 1, the planet is facing a number of other issues. Despite these issues, a shift in the global sustainability mindset can lead to the identification of potential opportunities in sustainable development.

The following two examples show how Eurofound and the World Bank have highlighted environmental issues of differing scales and impacts that could be converted into opportunities for global business and enterprises to transform global challenges into environmentally friendly solutions:

- 1. Climate change. A 2018 Intergovernmental Panel on Climate Change report has been acknowledged as the most extensive warning yet of the risks associated with rising temperatures across the globe (McGrath, 2018). Determining that global temperatures will increase by 1.5°C by 2052 if current rates continue, it outlines the impact that a 2°C increase would have on the planet if countermeasures are not taken (IPCC, 2018). The window of opportunity remains open for now and huge benefits can ensue if countries act fast to reduce their greenhouse gas emissions. A 2019 report has concluded that the transition to a low-carbon economy will have a positive impact on economic growth and employment in the EU and other parts of the world (Eurofound, 2019). The report estimates global growth of 0.1% and 0.5% in gross domestic product (GDP) and employment by 2030, respectively, as a result of transitioning compared with a largely "business as usual" baseline, with forecasted increases for the EU of 1.1% for GDP and 0.5% for employment.
- 2. Import barriers. Trade barriers on environmental goods and services can hamper their transport and consumption across borders. A study by the World Bank has shown that eliminating import barriers in the top 18 developing countries ranked by greenhouse gas emissions would see an increase in imports of 63% for energy-efficient lighting, 23% for wind power, 14% for solar power and 5% for clean coal technology (WTO, 2018). In addition, the report noted that more open trade in environmental goods and services could help domestic companies tap into a rapidly growing global market, estimated at US\$2 trillion per year by 2020.

3.2.2 Regional

The implementation and monitoring of the SDGs is supported in each region around the world by the five UN Regional Commissions. These regional outposts share key objectives aimed at fostering economic integration and implementing internationally agreed development goals at regional and subregional levels.

The UN Economic Commission for Europe represents the EU and a number of other countries, including Canada, the USA, Israel and a number of the Commonwealth of Independent States. The EU played

a crucial role in the negotiations for Agenda 2030 and is fully committed to implementing the SDGs in both its internal and its external policies, although this is still a work in progress (UN Regional Commissions, 2019).

Policy and strategy

First introduced in 1992, the EU's Policy Coherence for Development aims to control the development objectives in its policies that are likely to affect developing countries (EC, 2019b). Its objective is to minimise contradictions and build synergies among its differing EU policies to increase the effectiveness of development co-operation and aid developing countries.

In May 2017, the EU adopted the European Consensus on Development, which not only reaffirmed the Policy Coherence for Development but also identified it as a crucial strategic element in achieving the SDGs. The policy will ensure that the EU and its Member States integrate the environment and climate change in their development strategies while pursuing three key sustainability objectives: addressing the lack of energy access; increasing energy efficiency and renewable energy generation; and contributing to the global fight against climate change (EC, 2018a).

The EU has been proactive in adopting its strategy and approach to implementation of the SDGs. Although not referenced, the SDGs also align closely with the EC's 10 priorities for 2014–2019 (EC, 2014a). In 2016, the EU presented its strategy for sustainable development, Next Steps for a Sustainable European Future (EC, 2016a), while, in 2018, the EC released its long-term strategic vision for a prosperous, competitive and climate-neutral economy, entitled A Clean Planet for All (EC, 2018b), confirming its commitment to lead global action on climate change while also noting the opportunities that a transformation to a climate-neutral economy can offer to Europe. This commitment was reaffirmed in its 2019 Reflection Paper towards a Sustainable Europe by 2030 (EC, 2019c) and through the European Green Deal for the EU (EC, 2019d).

Policy and strategy tools. The EC has developed a number of policy and strategy tools to assist European countries. These include policy tools that enable countries to quickly navigate through a wide range of policies that relate to one or more of the SDGs and a large resource platform that houses a number

of tools and knowledge resources that support SDG implementation (EC, 2019e). A list of some of the key SDG policy and strategy support tools is provided in Appendix 12.

Supports, initiatives and programmes

Europe has been at the forefront of developing supports and programmes to aid its subregional countries to implement Agenda 2030. With support initiatives spanning a range of activities, from awareness building to capacity development and innovation incubators, and tracking and monitoring of progress, the EC has been central to providing governments, local governments, the private sector and wider society with the knowledge and tools they need to contribute to Agenda 2030 (EC, 2016b).

Asia is similarly active in promoting initiatives for implementing the SDGs. The Association of Southeast Asian Nations (ASEAN) has outlined a proposed flagship initiative focusing on greening small and medium enterprises (SMEs). This would not only contribute to the ASEAN Strategic Action Plan for SME Development 2016–2025 (ASEAN, 2015) but also boost the capacity for innovation and greening of businesses, including co-operation in the ASEAN community on developing SME helpdesks, common voluntary frameworks and benchmark schemes on greening SMEs (UNESCAP, 2017).

A list of some of the key SDG tools that have been developed for regional audiences is provided in Appendix 13.

3.2.3 National

As noted previously, successful implementation of Agenda 2030 requires collaboration and commitment, not only at global and regional levels, but also at national and local government levels. In many activities aimed at delivering on the SDGs, the EC has noted that the drive to spearhead campaigns and initiatives must come from national and local levels where relevant (EC, 2018c).

"Localisation" relates both to how local governments can support the achievement of the SDGs through bottom-up action and support and to how the SDGs can provide a local development policy framework (Global Taskforce of Local and Regional Governments, 2018).

Countries around the world are now actively mainstreaming the objectives of Agenda 2030 into their decision-making activities. An OECD survey determined that 70% of OECD countries have already integrated the SDGs into their current national/sectoral strategies (OECD, 2017). With regard to tracking and monitoring progress, a large number of countries have also been proactive in completing VNRs, the countryspecific reviews that document how countries are meeting the challenges of implementing Agenda 2030. In 2018, 46 countries (including Ireland) published a VNR, bringing the total number of VNRs submitted since the inaugural review in 2016 to 111. A further 47 reviews were delivered in 2019, including 40 firsttime reviews, which means that 143 countries will have delivered a VNR by the end of 2019 (UN, 2019g).

Raising awareness at a local level has been an issue since the launch of Agenda 2030. Almost 18 months after the global campaign launch, 63% of EU citizens had never heard or read about the SDGs; in only four EU Member States did more than half of their citizens have some awareness of the SDGs (Mulholland *et al.*, 2017) (Figure 3.1).

Policy and strategy

EU Member States are responsible for ensuring policy coherence within their national policies and in relation to the EU. The new European Consensus on Development expects that policy coherence for development is applied across all policies covered by Agenda 2030, including those related to the environment and climate change (EC, 2019f). In the Netherlands, the Dutch government submits annual progress reports on its policy coherence for development action plan. This action plan, which sets out goals linked to SDGs, actions and indicators, promotes more systematic coherence between the different policy areas that impact on developing countries (EC, 2019g).

Sustainable development policy coherence provides countries with the potential to review their wider policy coherence and align with the SDG framework. An OECD survey on planning and co-ordinating the implementation of the SDGs identified the opportunity to better align policies across different

sectors as the most positive aspect of organising SDG implementation for OECD Member States (OECD, 2017). Box 3.1 provides an example of policy coherence in action.

Strategic integration tools for countries

Integrating the SDGs in existing policy and strategic documentation is a challenge for countries. A number of tools have been developed that can aid policymakers and parliamentarians to ensure that the SDGs align with policies at national and subnational levels. These tools include roadmaps, self-assessment models and simulators that allow countries to test scenarios and impacts in a controlled environment. Appendix 14 outlines some of the strategic integration tools that countries can avail themselves of.

Supports, initiatives and programmes from across Europe and the rest of the world

Appendix 15 profiles a small selection of innovative support programmes, approaches and initiatives that countries are following to promote active enterprise engagement and activity on the SDGs. These initiatives include awareness-building activities such as sustainability weeks and roadshows, business forums dedicated to the SDGs, enterprise funds to provide resource support, and innovation platforms, aimed at tackling the SDGs through private sector intervention, supported by government. Box 3.2 provides an example of an initiative to raise awareness among the private sector in engaging with the SDGs.

3.2.4 Private sector

The private sector, having been involved extensively in the negotiations process, has a significant role to

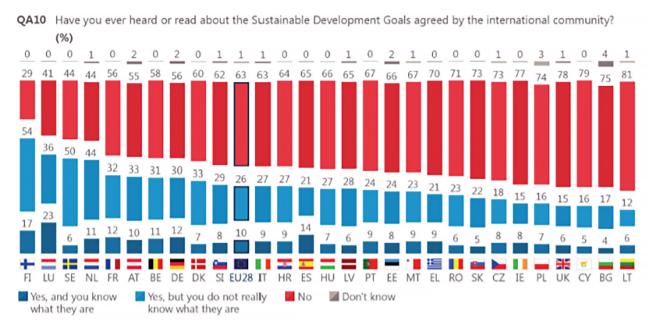


Figure 3.1. Awareness in the EU of the UN SDGs. Source: Mulholland et al. (2017).

Box 3.1. SDG Promotion Headquarters, Japan

SDG Promotion Headquarters, Japan

In May 2016, the Japanese government established a new body, headed by the Prime Minister, to foster closer collaboration between relevant ministries and government agencies and to lead the effective implementation of all SDG-related activity. Encouraging input from across Japanese society, the SDG Promotion Headquarters has created an initiative called the Japan SDGs Award to foster closer engagement with the private sector and recognise leading initiatives led by enterprises (UN, 2017b).

Box 3.2. UK Global Goals Roadshow

Raising Awareness: UK Global Goals Roadshow

Now in its third year, the UK Global Goals Roadshow consists of workshops that are delivered across the UK to raise awareness of the SDGs. Over 17,000 people have engaged with the roadshows, with over 1200 attending workshops facilitated by a network of partners across the country. The majority of attendees have been from business, with the remaining attendees from civil society, NGOs and government. Organised by the UK network of the Global Compact, the focus of the first 2 years of the roadshows was awareness raising; the 2019 roadshow, with workshops in nine locations, was aimed at stimulating practical business action on the SDGs (UN Global Compact, 2019b).

play in implementing Agenda 2030, from provision of development funding and accountability through to industry-wide coalitions on standards and developing more inclusive, sustainable business models. Highlighting the importance of the private sector to the SDGs, the Secretary General of the International Chamber of Commerce (ICC), John Danilovich, commented at the 2017 HLPF that "the SDGs should be known as the BDGs (the Business Development Goals) because their achievement represents a clear economic imperative" (Econsense, 2018).

With SDG-related market opportunities of up to US\$12 trillion a year (including US\$6.6 trillion for food, agriculture and energy; BSDC, 2017) for the private sector (WBCSD, 2017b), businesses are becoming more conscious of sustainability and more involved as key stakeholders in the global sustainability agenda, with 72% of listed companies now mentioning the SDGs in their annual reports (PwC, 2018a). SDG-related market opportunities have been defined as those opportunities that exist for enterprise from developing new economic models, products and innovations that capitalise on demand for low-carbon and environmentally sustainable products (BSDC, 2017).

Initiatives such as the UN Global Compact, the WBCSD (which has developed six work programmes to drive SDG transformation across a number of key economic sectors and promotes more goal-specific initiatives, such as the Low Carbon Technology Partnerships), the Business & Sustainable Development Commission, Business Call to Action, the CSR Forum, Business for 2030 and the SDG Business Forum are promoting dialogue and collaboration and developing guidelines on sustainability to provide

business leaders with the knowledge and resources necessary to ensure that alignment with the SDGs is a key strategic focus.

The importance of multi-stakeholder platforms and industry-wide coalitions has been identified as a key enabler in delivering the objectives of Agenda 2030 (Nelson, 2017). FoodDrinkEurope is just one example of a European-based coalition of organisations working together towards implementing the SDGs, with a particular focus on six of the seven environmental SDGs (FoodDrinkEurope, 2019). Box 3.3 provides an example of multi-stakeholder collaboration in action.

Despite increased engagement, strategic alignment with the SDGs is an issue. Only 27% of listed companies align the SDGs to the strategy (PwC, 2018a), for example Ericsson, which has assigned a senior director for each SDG (*Nikkei Asian Review*, 2018). Certain SDGs, such as SDGs 12 and 13, are prioritised ahead of others, such as SDG 14, which has been identified as the least prioritised SDG for business (WBCSD, 2019a). For those enterprises that have committed to the SDGs, following through on these commitments with clear actions has been an issue (Edie, 2017).

For those companies that are integrating sustainability into their purpose and products, such as Unilever, the results are rewarding. Unilever's sustainable products have grown 30% more quickly than the rest of its business and its "Sustainable Living" portfolio now accounts for 70% of its revenue. All sustainable products under this portfolio have a clear purpose to help tackle an environmental or social concern and contribute to targets set out in Unilever's sustainability plan, which is independently verified annually (Unilever, 2017). One example is the compressed

Box 3.3. The Nordic CEOs for a Sustainable Future

PPP collaboration: the Nordic CEOs for a Sustainable Future

Nordic CEOs for a Sustainable Future was created in 2018 to inspire joint leadership and action towards delivery of the SDGs in the Nordic region, promoting the SDGs as a North Star for enterprise strategy. In 2019, it created a platform for the prime ministers of the five Nordic countries to engage directly with CEOs from some of the region's largest listed companies to discuss how to work together to address sustainability challenges though greater PPP collaboration and transitioning to purpose-driven business practices (Nordic CEOs for a Sustainable Future, 2019).

deodorant products, which contain 50% less gas and 25% less packaging (Unilever, 2020).

3.3 Case Studies

Ireland's performance on environmental SDGs when ranked against EU15 counterparts is a cause for concern. However, the EU countries that are leading the way in progressing towards the environmental SDGs provide Ireland with a benchmark.

This section of the report identifies key sustainability policy, strategy, programme and support initiatives that have been implemented successfully in these benchmark countries to demonstrate opportunities that Ireland can replicate. This report has developed case studies featuring best practice examples from across Europe, focusing on two countries that are considered small and advanced like Ireland (Denmark and Finland; DFA, 2016) and a larger country (Germany) with numerous examples of best practice that could be replicated nationally on a smaller scale; these countries are considered to be benchmarks in sustainability because of their reputations and ranking in the 2019 SDG Index (first, third and sixth, respectively) (Sachs et al., 2019).

3.3.1 Denmark

Denmark is a leading player in sustainable development, reflected in its performance in the 2019 SDG Index and by its world-renowned strengths in healthcare, education, clean energy and gender equality (Danish Government, 2017). A member of the working group on the SDGs, Denmark has grasped the opportunity presented by investing in renewable energy, and exports of its green technology

have grown from DKK 10 billion to more than DKK 40 billion per year from 2000 to 2015 (Strøbæk and Bruckner, 2017).

Governance and policy

The National Strategy for Sustainable Development was published in 2014 and, in accordance with Agenda 2030, the government has developed an Action Plan for SDG implementation that will be co-ordinated by the Ministry of Finance, with line ministries having the responsibility for integrating the SDGs into their relevant policies (Danish Government, 2017). The government will present annual progress reports to parliament on 37 targets that the government has formulated to reflect its desire to prioritise areas of strength. Although new legislation is already assessed for environmental and societal impacts, the potential consequences of any new SDG-related initiatives and legislation will be assessed when the consequences of implementation are believed to be of significant impact (UN, 2017c).

Innovative and best practice approach and supports

Emerging SDG-related business opportunities could be worth US\$60 billion a year for Danish businesses by 2030 according to a 2019 report (Dalberg for the Ministry of Foreign Affairs of Denmark, 2019). Danish companies of all sizes are well placed to capitalise on emerging market opportunities owing to their market-leading sustainability innovations and because of increasing co-operation between the government and the private sector in Denmark. Outlined below are a number of the key programmes and supports that are enabling Danish enterprises to maximise their potential and contribute to the SDGs.

National Programme for the European Regional Fund (2014–2020). This programme aims to boost economic growth across Denmark and contribute to targets for sustainable and inclusive growth through the use of forums. By focusing on four priority areas, including increasing the number of innovative SMEs and enhancing resource efficiency in SMEs, the programme estimates that over 700 new growth businesses will be established and 2700 jobs created by the completion of the programme (EC, 2014b).

Young SDG Innovators Programme. The UN Global Compact launched the Young SDG Innovators Programme to engage young business professionals in advancing the SDGs by challenging them to rethink their organisation's current business model and develop new business solutions (UN Global Compact, 2019c). The initiative kicked off in 2019 in the Denmark Chapter of the Global Compact Local Network and was rolled out to a further 15 countries at the end of 2019.

Danish SDG Investment Fund. In June 2018, Denmark and six pension funds launched a US\$650 million investment fund aimed at supporting Danish technology and fighting climate change and poverty in developing countries (Reuters, 2018). With an expected net yield of 10–12% per year, it is anticipated that the fund will contribute to SDG-related projects worth US\$4.5 billion over the next 11 years.

SDG Accelerator. Established in 2018, the SDG Accelerator is a UNDP programme funded by the Danish Industry Foundation that aims to accelerate sustainable business solutions for the SDGs (UNDP, 2018b). The programme was implemented in collaboration with Monitor Deloitte and 19 small and medium-sized businesses completed the course in 2019. The programme will provide companies with an opportunity to develop innovative solutions and business models that have a positive impact on the SDGs.

Global SDG Business Hub. The Global SDG Business Hub was set up by the Danish Trade Council in New York to help Danish companies form international partnerships with the objective of increasing international business opportunities in sustainable development (Medium, 2019). The Trade Council works strategically around the UN platforms to

leverage their network, build partnerships, develop mutually beneficial solutions to meet the SDGs and support Danish companies to scale up.

State of Green. State of Green is a PPP between the Danish government and four of Denmark's leading business organisations that fosters relationships with global stakeholders interested in working with relevant Danish companies and technologies to enable their green transition (State of Green, 2019). With access to over 600 companies, stakeholders can connect with experts working across a range of areas aligning to SDGs such as SDGs 6, 7, 11, 12 and 13.

Partnering for Green Growth. Partnering for Green Growth and the Global Goals (P4G) is a global initiative, initially funded by the Government of Denmark, that seeks to build innovative PPPs using market-based actions, with a focus on energy, water, agriculture, sustainable cities and the circular economy in developing countries around the world (P4G, 2019).

Green public procurement. Copenhagen municipality's new green procurement policy, which came into effect in late 2017, will ensure that the municipality will procure only products and services (from 26 selected categories) that have been certified with either the Nordic Swan Eco-label or the EU Eco-label (Sustainia and Realdania, 2018).

Through its policy, the municipality demonstrates how public stakeholders can encourage local companies to produce sustainable products and services, thereby boosting the market and working towards implementing SDG 12. As part of this policy, the municipality and Ecolabelling Denmark will identify two to four product areas in which the municipality will work with producers to develop more environmentally friendly products.

Cycling Embassy of Denmark. This is a network of cyclists from across society, including NGOs, local authorities and the private sector, that works collaboratively to promote cycling globally by sharing expertise via study tours, lectures, bike tours and masterclasses (Cycling Embassy of Denmark, 2020). Receiving over 100 foreign delegations each year, cycling solutions implemented across a range of Danish cities are shared in areas such as policy development, planning and campaigns.

3.3.2 Finland

Finland has a history of proactive sustainable development dating back to the early 1990s with the formation of a National Commission on Sustainable Development, a forum led by the prime minister. It was one of the first countries to develop a national strategy for sustainable development, in 1996. Its more recent sustainable development policy document was launched in 2013 and updated in 2016 to ensure alignment with Agenda 2030 (ESDN, 2017). Finland was also one of the first countries to draft its National Sustainable Development Goals Implementation Plan and define national indicators required to monitor progress on sustainable development, which it published in 2017, and it continues to maintain excellent progress towards Agenda 2030 (Hakkarainen, 2018).

Finland's approach to Agenda 2030 has been praised globally for its willingness to admit and be vocal about the fact that it will struggle to meet the SDGs. Its approach places emphasis on transparency and honesty, fostering a more collaborative approach with societal stakeholders in determining the opportunities for and challenges of implementing the SDGs (Sokero, 2016).

Governance and policy

Finland's work on developing robust governance structures has also been recognised. The Prime Minister's Office acts as the co-ordination secretariat (PMO Hub), which has overall responsibility for implementation of the plan, supported by the National Commission on Sustainable Development, a co-ordination network and a panel of experts on sustainable development who cast a critical voice over the sustainability debate when required. The mission of the second multi-stakeholder committee, the Finnish Development Policy Committee, is to follow the implementation of Agenda 2030 in Finland from the development policy perspective. It also monitors the government's development policy guidelines and the implementation of the Agenda 2030 programme (Prime Minister's Office, Finland, 2016).

A 2019 profile of Finland's efforts at policy coherence for sustainable development noted the development of a new national follow-up system for enabling stakeholder participation, indicated

that procedures have been developed for policy integration and commented that the National Commission on Sustainable Development has been a successful mechanism for not only building common understanding but also preventing deadlock situations in administration (Risse, 2019).

Innovative and best practice approaches and supports

Ranked as the third most innovative country in the world in the Bloomberg Innovation Index 2019 (Espoo Innovation Garden, 2019), Finland has been at the forefront of developing innovative approaches and programmes to meet the objectives of Agenda 2030. Outlined in the following sections are a number of innovative approaches that Finland is developing that can be regarded as world firsts.

The Finland we want by 2050: Society's Commitment. Society's Commitment is a framework for a strategic sustainable development approach, built on eight shared objectives. However, it is not a typical national strategic plan; rather, it is an innovative approach to engaging the whole of society in implementing its sustainable development activities. In order to achieve the eight shared objectives (outlined in Figure 3.2), operational commitments are established, ranging from more efficient uses of energy to safety and quality initiatives.

At present, more than 1000 operational commitments, lasting from 1 to 25 years, have been made, including 50% from businesses and schools (Prime Minister's Office, Finland, 2018).

Circular economy roadmap. In 2016, Finland published the world's first national circular economy strategy, Leading the Cycle − Finnish Road Map to a Circular Economy 2016–2025, in which it outlined the steps it plans to take to achieve sustainable success. Its circular economy will maximise the use of existing materials, which will retain their value in the loop for as long as possible, bringing 75,000 new jobs and generating €2–3 billion in added value each year up to 2030 (Sitra, 2019a). The concept of a circular economy has the closest alignment with SDGs 6, 7, 8, 12 and 15 (Schroeder et al., 2018). LOOP Ventures. Founded by Sitra, Finland's Innovation Fund, LOOP Ventures is the world's first circular economy accelerator. Its goal is to develop an





A PARTICIPATORY SOCIETY FOR ALL



WORK IN A SUSTAINABLE WAY









A RESOURCE-WISE ECONOMY



LIFESTYLES THAT RESPECT THE CARRYING CAPACITY OF NATURE



DECISION-MAKING THAT RESPECTS NATURE

Figure 3.2. The eight shared objectives of Society's Commitment. Reproduced with permission from the Prime Minister's Office, Finland (2018).

ecosystem that encourages businesses to adopt the circular economy, generate new business and create international demand for smarter, more innovative business models. LOOP provides growth companies that offer sustainable solutions and large enterprises that require these solutions with the opportunity to work together over a 3- to 6-month accelerator period (Herlevi, 2018).

"The most interesting companies in the circular economy" list. Sitra's circular economy team has developed a list of the most interesting companies in the circular economy to inspire other entrepreneurs; to give all Finnish companies a chance to be among the first in the world to switch to a circular economy; and to present the most inspiring examples of the circular economy in Finland. As of September 2019, there were 124 business examples on the list, categorised by five types of circular economy business model (Sitra, 2019b).

Budgeting. Finland has become one of the first countries in the world to attempt to identify the connections between government budgeting and sustainable development. In particular, it seeks to determine connections relevant to the priority areas of carbon neutrality and resource efficiency, although it has acknowledged that any progress will be made gradually to ensure that an appropriate model is established (Finnish Ministry of Finance, 2018).

Lessons learned

The National Commission on Sustainable
Development has outlined some of the key lessons
learned from its implementation to date of Agenda
2030 (Lindblom, 2017). These lessons are as follows:

- functional governance is a prerequisite for sustainable development results;
- ensure that high-level leadership is in place but do not politicise sustainable development;
- create ownership within ministry lines;
- ensure policy coherence between national and international action;
- participate in open dialogue with civil society and other stakeholders;
- process is as important as product.

3.3.3 Germany

Originally adopted in 2002, the German Sustainable Development Strategy (GSDS) will act as Germany's framework for the implementation of Agenda 2030. Updated every 4 years, the most recent update to the GSDS received press coverage because of the federal government's mandate of an international peer review of the strategy. The peer review group provided 11 recommendations based on its review and noted that other countries should follow Germany's lead in ensuring that their sustainability strategies

and implementation planning for the SDGs are robust (Wagner, 2018).

Governance and policy

The GSDS is the responsibility of the Chancellor's office. Although the GSDS is not binding for the federal states, co-operation with the national government on sustainability is growing and the federal states will be heavily involved in implementing the SDGs, particularly through the Alliance for Sustainable Procurement platform. The State Secretaries' Committee for Sustainable Development, which comprises representatives from all federal ministries and is chaired by the head of the Federal Chancellery, is steering the implementation of the SDGs (Aujouannet, 2017).

Two key councils have been supporting the sustainable development process in Germany. The German Council for Sustainable Development, which was established in 2001, consists of 15 members from the business sector, the science and research community and various social groups and advises the German government on all sustainable development issues, while the Parliamentary Advisory Council on Sustainable Development, established in 2004, delivers legislative advice to the government on the GSDS and other sustainability matters (ESDN, 2019).

Innovative and best practice approaches and supports

A 2018 survey identified German multinationals as significantly more likely to report on SDGs than companies in other countries, with 83% of German companies discussing the SDGs in their enterprise reporting (Consultancy.uk, 2018). However, the German government is proactively seeking to ensure that businesses are following up their words with actions and has developed a series of innovative approaches to generate further private sector engagement with the SDGs. A number of these innovative approaches and business supports are outlined in the following sections.

Sustainable management system. Germany's sustainable management system and architecture are at the heart of its sustainable development strategy. This architecture consists of a number of components that are vital to the success of Germany's sustainability

goals: 21 areas of action and related indicators, a set of 12 management rules, a list of institutions and their implementation responsibilities, and monitoring and review procedures (Federal Government of Germany, 2016).

GIZ Blockchain Lab. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), a German development agency, has created a Blockchain Lab to examine the potential of blockchain applications with clear added value to society, as expressed by the SDGs. The Blockchain Lab will work with the business sector, start-ups and government to select relevant applications and drive them through a managed process that will ultimately lead to their implementation (Deutsche Gesellschaft für Internationale Zusammenarbeit, 2018).

National Programme for Sustainable Consumption.

Aligning closely with SDG 12, the National Programme for Sustainable Consumption is a framework for strengthening sustainable consumption in Germany (Federal Government of Germany, 2018). Targeting six main areas of action, the programme will be implemented through practical measures and mechanisms in numerous domains, including education, research, consumer information and sustainable public procurement. Incentives for business include the inclusion of eco-labels on products for information purposes, pushing for ambitious eco-design product requirements and promoting sustainable procurement.

Alliance for Development and Climate. Launched in 2018 by the Federal Ministry for Economic Cooperation and Development, the Alliance for Development and Climate supports businesses in their efforts to reduce greenhouse gas emissions and compensate for remaining emissions through carbon offsetting. The Alliance seeks to make it easier for businesses to finance CO₂ offset projects in developing countries that either avoid emissions or remove them from the atmosphere. Current signatory companies include Deutsche Bank, Bosch and Siemens (Mead, 2018).

German Sustainability Award. The German Sustainability Award is an annual award that recognises the achievements of business, civil society and research across a range of sustainability activities that align with the SDGs (German Sustainability Award, 2019). It honours organisations that are

successful in meeting social and environmental challenges with their products and services by using sustainability as an economic opportunity. Now in its 11th year, over 150 members of the national and international media covered the 2018 event.

Econsense. Founded in 2001 by the Federation of German Industries, Econsense is a network of globally operating German businesses committed to integrating sustainable practice into their business (Ecosense, 2020). It is the largest business-driven forum on sustainability in Germany, with over 30 members operating in a variety of sectors. It has a series of working groups that focus on areas such as the SDGs and digital transformation, environmental impact assessment and sustainability in the supply chain.

3.4 SDG Support Tools for Enterprises

The authors of the research define an SDG support tool as any mechanism that is aimed at assisting enterprises in:

- · developing SDG awareness;
- understanding and measuring both their own impact and the impact of the SDGs on their business activities;
- determining the strategic alignment of their business objectives and targets with the SDGs;
- enabling progress towards SDG-aligned targets.

Tools such as the SDSN's SDG Index and Dashboards and the SDG Tracker portal provide valuable and freely available insights into the SDGs, while resources such as the SDG Business Hub and the SDG Industry Matrix are assisting businesses in identifying SDG-related opportunities.

In total, 46% of OECD countries have identified tools that strengthen business sector engagement and consultations as the most important tools for making implementation of the SDGs more effective (OECD, 2017). This has translated into action and there is now of plethora of tools and resources across SDGs and business activities that are supporting the private sector to engage more proactively on sustainability.

This research has examined a range of tools across multiple categories that guide businesses through an end-to-end process of SDG implementation, from knowledge building to alignment and strategic road mapping, opportunity identification, and tracking and reporting.

Education and awareness:

Resource hubs. A number of SDG resource hubs are available online that act as a one-stop shop for businesses, enabling them to find information on all things SDGs. These hubs contain a broad spectrum of resources, ranging from an introduction to the SDGs to a rundown of tools and best practice examples, a calendar of upcoming events, and the latest news and insights on SDG-related activity from around the globe.

Enterprise supports:

- Strategic planning and alignment tools. These tools enable businesses to integrate the SDGs into their current strategies or to update their strategies using the SDGs as a framework.
 Typical tools include SDG alignment tools, benchmark tools, strategic frameworks and business charters.
- Roadmaps. SDG roadmaps provide businesses with a strategic plan on how to incorporate SDGs into their ways of working and work towards achieving the SDGs.
- Innovation platforms. There is a mix of both online and offline innovation platforms that are open to businesses, entrepreneurs, the public sector and other stakeholders to enable them to come together to establish partnerships, opportunities and ideas/solutions, with the sole purpose of contributing towards the SDGs.

Reporting:

- Maturity assessment tools. Sustainability
 maturity assessment tools enable companies
 to assess the maturity of their current
 sustainability activities. They provide a useful
 benchmark to allow companies to identify
 potential areas of weakness in their current
 framework and where improvements can
 be made.
- Impact assessment tools. Impact assessment tools can provide insight into the level of impact that a business currently has on the environment around it, based on its business activities, and guidance on how to reduce said impact across its value chain, operations, etc.
- Business reporting tools. Tracking and measuring the SDGs will be a key challenge for

many stakeholders, including business leaders. Efforts to standardise the field of reporting for SDGs include the development of tools and reporting standards by organisations such as the Global Reporting Initiative (GRI, 2019a) and the Worldwide Benchmarking Alliance (2020).

An analysis of a non-exhaustive list of the key SDG tools for enterprise is presented in Appendix 9.

3.5 Emerging Themes from International Best Practice

3.5.1 Challenges in and opportunities for implementing the SDGs

The review of the international sustainability landscape has provided insights into trends, best practice approaches and programmes, supports and tools that are assisting governments, regional governments, nations and enterprises in working towards Agenda 2030. There are a number of innovative trends and approaches from around the globe that countries such as Ireland should consider adopting in promoting engagement with the private sector to help advance the achievement of the SDGs. These approaches are presented under a series of emerging and recurring themes.

Awareness

Best practice awareness initiatives globally consist of events that build campaigns around the SDGs, including:

 Engagement events. Engagement events, discussion forums and awareness campaigns, such as the UK Global Goals Roadshow (UN Global Compact, 2019b) and the Belgian SDG Voices programme (SDG Voices, 2019), are driving awareness of and engaging businesses in the SDG implementation discussion.

Ecosystem of enterprise supports

Recurring themes in analysing best practice ecosystems of enterprise support include:

 Accelerator programmes and innovation labs and hubs. Accelerators, innovation labs and innovation hubs seek to accelerate and cultivate exciting business solutions to key local and international challenges. A number of global and national SDG accelerators have been established to ensure that sustainable business solutions with the ability to make an impact on the SDGs are brought to market quickly. The UNDP's SDG Accelerator for SMEs is an example of a 2-year accelerator programme that aims to engage the private sector in Agenda 2030 (SDG Accelerator for SMEs, 2019). SMEs and start-ups are often targeted because of their propensity to generate innovation leaps.

- Innovation marketplaces. Innovation marketplaces link buyers, such as governments and large organisations facing challenges, with innovative providers, such as entrepreneurs, start-ups and SMEs, that can develop innovative solutions to these critical problems. Socialchallenges. eu and Japan's SHIP Digital Platform (https://www.ship-digitalplatform.com) are two examples of how dynamic marketplaces for SDGs that develop and contribute towards the goals can solve key sustainability challenges through shared knowledge, skills and experience.
- Innovation funds. A number of countries, including Belgium, Sweden and Denmark, have developed SDG-related innovation funds to encourage local businesses to think globally and sustainably, leading to the twin achievements of working towards the SDGs and promoting economic growth locally.
- Partnerships. The SDGs are all-encompassing and provide a platform for countries to engage in partnerships on a global scale outside already formalised partnerships. In addition to being a partner in EU SDG activities, Denmark is also working with the Nordic region on sustainability initiatives (Danish Government, 2017) and has formed SDG-related partnerships with the non-EU countries Colombia (UN, 2018b) and Indonesia (Safety for Sea, 2017) on specific initiatives and goals. Furthermore, Denmark is one of a number of country partners of a PPP entitled P4G that aims to be the leading forum for developing concrete PPPs at scale to deliver on the SDGs (P4G, 2019).
- Partnerships and local networks. Further
 advantages of partnerships are the ability to
 access expertise, global knowledge and supports,
 and the opportunity to become part of a global

network. The UN Global Compact, for example, has local networks in over 70 countries that have access to a number of the Global Compact's key initiatives. In 2019, 17 local network countries will begin the SDG Pioneer programmes to recognise business leaders of the future (UN Global Compact, 2019d), while 12 countries will trial the Global Compact's Young SDG Innovators Programme (UN Global Compact, 2019c).

A key finding from the review of SDG activity internationally and the in-depth review of the case studies is that, despite the extensive work being carried out on a global scale, the research has not uncovered any examples of a national SDG ecosystem. This would suggest that no country has yet developed a system that integrates SDG supports, activity and reporting at the national level with private sector SDG activity and reporting to provide a holistic approach to the management and monitoring of SDG impacts at the enterprise level.

Building the sustainable competitiveness offering

Best practice activities globally with regard to developing sustainability as a competitive offering for enterprises include:

Eco-labelling and green standards. Eco-labelling
is the practice of branding products and services
that adhere to a certain environmental standard to
inform consumers that they have been produced
in a sustainable environment. It assumes that the
provision of appropriate information will enable
consumers to assess the environmental and
energy impacts of the options that are available

- to them (Brazil and Caulfield, 2017). Ecolabelling can also be used to drive sustainable procurement and engage green businesses, as seen in the Copenhagen municipality example in section 3.3.1. Other certifications, such as the Gold Standard for the Global Goals, are developing new standards to accelerate SDG progress through programmes, projects and other initiatives (Gold Standard, 2019).
- Market opportunity reports. A number of countries, including Denmark, have produced research reports into the opportunities that SDGs hold for businesses in their country (Dalberg for the Ministry of Foreign Affairs of Denmark, 2019). These reports serve the twin purposes of, first, building awareness nationally and internationally about what the country can offer with regard to SDG implementation and, second, enticing Danish companies to consider pursuing business opportunities in emerging markets and emerging technologies.
- Science, technology and innovation (STI)
 roadmaps. Rapid technological change may
 have a significant impact on society's ability
 to implement the SDGs until 2030. Japan
 has recognised the need for a new STI policy
 framework to enable sustainable change through
 technology (Arimoto, 2018). It has identified
 the importance of STI in minimising trade-offs
 and maximising the potential of sustainable
 development, the implementation of which is
 enabled through the development of its STI
 roadmap, Society 5.0, which has been designed
 to convert STI potential into action and results
 (Cabinet Office, Japan, 2018).

4 Stakeholder Consultations

4.1 Methodology

The stakeholder consultation methodology consisted of three key activities, as outlined in the following subsections. Including the desk review of the national and international sustainability landscape, the data collection for this report commenced in April 2018 and closed in September 2019.

4.1.1 Stakeholder mapping

The stakeholders were identified through a detailed stakeholder mapping exercise undertaken as part of the desk review and in consultation with the steering committee. The authors contacted the stakeholders identified with a view to contributing to this research project. In addition, further stakeholders not originally identified in the mapping exercise were highlighted through the course of the stakeholder consultations and efforts were made to include them as part of the stakeholder consultation process.

The stakeholders comprised actors within the national and international sustainability landscape, including government and ministries, national support agencies, representative industry bodies, academic institutions, international standards bodies and private sector enterprises. Consulted stakeholders consisted for the most part of senior executives, environmental/sustainability managers or senior environmental/sustainability officers within organisations. The report authors sought to ensure that stakeholders were sourced from a geographical spread across Ireland and that the enterprise stakeholders represented a mix of organisations of various sizes.

4.1.2 Stakeholder interviews

Building on the mapping exercise, identified stakeholders were approached for input through a semi-structured interview process. This process was used as it allowed the interviewer to tailor the questions based on the initial desk research conducted on each stakeholder to ensure that information already gathered through the desk research could be verified while enabling the stakeholder to voice an opinion on a

range of subjects, including sensitive issues and items not directly related to the scope, prompting further discussion on the topic of sustainability. Interviews were recorded and answers stored in a database, categorised by emerging themes and cross-referenced against the data compiled as part of the desk review, to ensure that the findings were thoroughly analysed and validated.

Every effort was made to ensure that a wide range of stakeholders was consulted, including organisations not directly linked to the subject matter but of benefit to the research because of their knowledge of and contributions to sustainable development. The final list of consulted stakeholders included 22 organisations that were available for interview within the project timeline:

- ABP Food Group;
- Alliance for Water Stewardship;
- BIM;
- Bord Bia;
- CSO;
- DCCAE;
- Dublin Airport Authority;
- Enterprise Ireland;
- EPA;
- European Environment Agency;
- IBEC;
- IDA Ireland;
- Irish Fish Canners;
- · Limerick Local Enterprise Office;
- Macra Na Feirme;
- NPWS:
- Optien;
- Science Foundation Ireland (SFI);
- Sustainable Energy Authority of Ireland (SEAI);
- Tipperary Co-op;
- · University College Cork;
- Wyeth.

The stakeholder consultations themselves involved the investigation and evaluation of the sustainability landscape around enterprise (e.g. stakeholders, targets, interventions and supports) and alignment (e.g. with other stakeholders and targets/interventions,

and with the objectives of the SDGs). As previously mentioned, these consultations consisted primarily of semi-structured interviews with individuals through face-to-face meetings, by phone and via Skype. An outline of the interview guide for national enterprise agencies is provided in Appendix 16. The interviews were conducted not only to provide insight into the depth of the current state of the sustainability landscape and enterprise supports but also to identify challenges and potential risks to SDG alignment and areas of opportunity for further alignment and synergy in the Irish context.

4.1.3 Development of Findings and Recommendations

Findings were formed and collated using a triangulation of perspectives approach to ensure that conclusions and recommendations were not based on a single source of information but were validated through desk reviews and the stakeholder consultation process.

Consultations were conducted with both national and international stakeholders across a variety of organisations and sectors. With regard to gender, the ratio of male-to-female individuals consulted was 1.33:1.1

The authors utilised the key emerging themes from both the national sustainability landscape review (see section 2.3) and the international sustainability landscape review (see section 3.5) to aid the development of an interview guide that would illuminate and focus the stakeholder consultations.

4.2 Summary of the Stakeholder Consultations

This section summaries the key discussion points by thematic question.

4.2.1 Awareness

Thematic question: awareness and communications – "How familiar with the SDGs is your organisation and how widespread is this level of awareness internally?"

Awareness of the SDGs is growing among Ireland's enterprise agencies and the private sector but varies depending on numerous factors such as the industrial sector, the size of the organisation and the prioritisation of sustainable development activities. Initiatives such as Origin Green have contributed to spreading awareness in Ireland, particularly of the environmental SDGs. The level of awareness also differs across organisations, with the stakeholders noting that in-depth awareness of the SDGs is variable within the enterprise agencies and private sector enterprises in most cases.

A particular challenge in raising awareness has been in broadening the levels of engagement with the SDGs beyond a limited number of staff within organisations. These engaged employees tend to have a keen interest in sustainable development, the SDGs and related topics such as climate change and the circular economy outside their current roles. The role of these informal SDG champions has been a recurring theme in our consultations. Their impact in driving discussion around the SDGs and incorporating SDGs into work practices in the absence of more formal policies has been crucial in ensuring that the SDGs become an item for consideration in strategic and operational activity.

The findings from the consultations re-enforced the importance of awareness of the SDGs as a critical precondition to engagement; the slow spread of awareness over the past 4 years has delayed traction of the SDGs at strategic and operational levels in the private sector. Communication was repeatedly re-emphasised as an essential first step to opening the door to engagement with the SDGs by enterprise agencies. Without a formal approach to engagement on the SDGs, it is possible that SDG-related opportunities are not being capitalised on.

Participants identified two challenges in relation to raising awareness of the SDGs within both national enterprise agencies and the private sector:

- outside senior management and environmental teams, awareness of the SDGs across organisations is not widespread;
- those organisations that are communicating the SDGs internally face challenges in understanding

¹ In total, 23 consultations were carried out, with a male-to-female split of 13:10 in absolute numbers. Consultations with two stakeholders from one organisation were carried out to clarify queries arising from the first consultation.

and determining how to translate this awareness into commercial products and services for market.

4.2.2 Sustainability as a competitive offering

Thematic question: awareness of the competitive value of the environmental SDGs – "Has your organisation identified the competitive opportunities and value that sustainability/ SDGs can bring?"

The participants acknowledged the challenge that faces both enterprise agencies and enterprise in establishing sustainable development as a priority from an economic competitiveness perspective. Ireland markets itself on its low corporation tax, skilled workforce, quality of life, infrastructure, wages, property and infrastructure (IDA Ireland, 2019), which have all contributed greatly to its economic growth. This in turn has caused Ireland to overlook the value of sustainability as an economic pillar and is contributing to a lack of awareness of the value that the SDGs can bring to the Irish economy. There is also a perception within agencies that environmental sustainability is a low-value offering that is unlikely to deliver the metrics around economics and job growth that other offerings such as financial services and information and communications technology (ICT) bring to Ireland.

Enterprise stakeholders appear to be more aware of the value of sustainable development, but find barriers around converting the broad SDG framework and targets into purposeful metrics that they can pursue to create tangible impacts while progressing an organisation's overall mission and business drivers. The lack of understanding on how to utilise the SDG framework at an operational level is preventing the private sector from engaging with the SDGs in a meaningful way. Stakeholders also noted the perception that a number of the SDGs (e.g. SDG 6: Clean Water and Sanitation) may be more applicable to developing countries than to a country such as Ireland and that the targets associated with these goals are therefore not relevant to organisations in developed countries.

4.2.3 Strategic alignment

Thematic question: strategy and policy alignment – "Has or does your organisation intend

to align its future strategy with the SDGs (where relevant) and their targets?"

Consultations suggest that the retrofitting activity carried out as part of the Sustainable Development Goals National Implementation Plan 2018–2020 to map government departments and national policy against the SDGs and their associated targets may stifle tangible alignment with the SDGs at a level that will drive sustainable change. It was felt that this initiative may have prevented wider discussions around SDG policy alignment at a national level by outlining that current policy is already meeting the SDG targets. This is causing a disconnect between government departments, national enterprise agencies and the private sector on the vision for delivering actions to achieve Agenda 2030 at an operational level. A recurring theme from the consultations is that the government must drive SDG change through policy and legislation as this is what dictates the priorities, activities and KPIs of national enterprise agencies. Without such policy and legislation there is no incentive for these agencies to provide SDGrelated supports to their clients outside any existing sustainability programmes that they already offer.

Furthermore, there is no push from agency clients for SDG-related programmes, in part because of a lack of legislation aimed at incentivising the private sector to become greener, a lack of awareness of the competitive value of becoming sustainable and a lack of understanding on how to convert the SDG framework into operational targets.

Where SDG alignment does exist, this has resulted from government departments and enterprise agencies working in collaboration. Participants cited policies such as Food Wise 2025, the National Renewable Energy Action Plan and the National Waste Prevention Plan, and programmes such as Origin Green, GreenPlus and the CSR hub as generating extensive collaboration between agencies, including Bord Bia, BIM, Enterprise Ireland, IDA Ireland, SFI, the SEAI and Teagasc. According to those interviewed, this will contribute greatly towards achieving the SDGs. However, it was noted that SDG-specific programmes are still in short supply, although initiatives such as SDG Geohive and the joint Department of Foreign Affairs and Trade (DFAT)-SFI Future Innovator Prize highlight the importance of cross-collaboration

to ensure that SDG initiatives are not developed in isolation.

It has been recognised that there is a real danger that, in the absence of sustainable development being a pillar of Ireland's enterprise strategy and a core feature of its national enterprise agencies' remit and metrics, Ireland will continue down the path of putting economics and job growth first. Although from an economic perspective this has served Ireland well in the past, this is no guide to the future and it has been acknowledged in these consultations that a lack of sustainable development supports and incentives may lead Ireland to lose out on investment and growth over the long term.

4.2.4 Ecosystem of supports for enterprise

Thematic question: ecosystem of supports – "What supports, programmes and initiatives are available to organisations that wish to align with the SDGs?"

The SDG support ecosystem in Ireland is at a nascent stage in its development based on participant feedback. A number of sustainability support programmes, such as GreenPlus and the Large Industry Energy Network (LIEN), are available to businesses in Ireland, although these supports precede the SDGs and therefore any alignment with the SDGs is unintended.

More promisingly, it was noted that a number of support programmes and initiatives that involve multi-agency collaboration in aligning with the SDGs are starting to emerge, such as DFAT and SFI's joint initiative, the Future Innovator Prize 2019, which includes two SDG-related funded challenges (the AI for Societal Good Challenge and the Zero Emissions Challenge), and Origin Green's continued push for alignment (now aligning with 15 SDGs, up from nine in 2016; Origin Green, 2019b). This must be tempered, however, by the lack of a systematic approach to the provision of formal SDG support to Irish enterprises to enable them to support the achievement of Agenda 2030. The participants noted that this lack of integration is preventing tangible engagement with the SDGs.

Public–private partnerships in Ireland focused solely on the SDGs are very limited at present. Enterprise

participants expressed a willingness to engage with the public sector on the SDGs but that a lack of any formal platform for engaging with the government on issues of sustainable development is a barrier. One of Ireland's most prominent responsible business networks has also highlighted the lack of direct engagement with businesses by the Irish government on the SDGs to date (BITC, 2019a).

Support for developing a strategic roadmap or pathway has been identified as a key requirement for Irish enterprises. This pathway would serve as the framework for SDG adoption and delivery within enterprises. Furthermore, current supports tend to be ad hoc and focused on proving that support money has been spent and not on measuring the impact of the support. It was argued that the adoption of standards or mandatory requirements may force behavioural change and impact on monitoring, with agencies also acting as authorities; Origin Green was again cited as an example of a model that works in this landscape.

Also identified in the consultations was the desire of both enterprise agencies and private sector enterprises for the creation of a SDG "one-stop shop", with a central point of contact acting as an accountable body, a resource hub and a provider of guidance on the SDGs, collaboration opportunities, and support programme and initiatives.

4.2.5 SDG reporting

Thematic question: internal SDG-related processes and reporting – "Has your organisation developed or aligned its reporting framework with the SDG framework? How does your organisation monitor and report its progress towards achieving SDG targets?"

Overall feedback suggests that more effort is being made in the private sector than in enterprise agencies to align internal processes and reporting procedures with the SDG framework. At present, the current reporting framework for national enterprise agencies involves no SDG-related reporting. Agencies such as Enterprise Ireland, IDA Ireland and the Local Enterprise Offices primarily provide regular reports to their boards on key economic KPIs such as job creation, while other agencies have complex mechanisms in place to ensure that reporting is

funnelled through government departments and into existing EU reporting frameworks but, again, this does not specifically relate to the SDGs.

Our consultations with private sector enterprises suggest that Irish companies are attempting to integrate the SDGs into enterprise reporting both internally and externally but also face challenges in measuring their SDG impact and making the connection between the SDGs and operational realities and KPIs. In the absence of a clearly defined pathway or agency support, the enterprises have tended to selectively choose SDGs for which they already make a positive impact, but the broad nature of the SDGs is proving to be a barrier to engagement.

4.2.6 Communicating the SDGs

Thematic question: communications – "Does your organisation communicate any

SDG-related activity either internally to staff or externally to clients and the wider public?

Our research suggests that a number of national support agencies and enterprises are identifying and taking advantage of the SDGs as a communications framework to promote sustainable development activity internally but are struggling to measure the tangible impact that their activities are having on sustainable development. This could raise accusations of greenwashing, the process of corporations making false sustainability claims by acting as friends of the environment to expand their markets and cover questionable environmental records (Watson, 2016).

Communication of SDGs is ad hoc, however, and formal communications protocols around the SDGs are absent for the most part across all stakeholders consulted.

5 Recommendations

In this chapter, the report recommendations are presented. Based on the desk review of both national and international SDG activity and following the stakeholder consultation process, five interlinking areas of action have been identified, along with some proposed sub-actions for each.

The identified themes and related recommendations are presented in sections 5.1–5.4. Potential areas for further research are outlined in section 5.5.

5.1 Recommendation 1: Promote SDG Education and Awareness

As outlined in Chapter 2, Ireland's performance with regard to the environmental SDGs is poor compared with its EU counterparts.

Although climate change is a growing consideration for (1) the Irish government (which has established a Climate Action Fund, published the Climate Action Plan 2019 and appointed the Department of an Taoiseach to govern the Climate Action Delivery Board; DCCAE, 2019a); (2) private sector organisations (which already have mature mechanisms for monitoring SDG 13 activity; BITC, 2019b); and (3) media outlets (*The Guardian*, 2019; *Financial Times*, 2018), further efforts are required to progress Ireland's actions on the other environmental SDGs, such as those on biodiversity, life below water, clean energy, and sustainable production and consumption (Sachs *et al.*, 2019; Sargent, 2019).

Findings from the stakeholder consultations suggest that both national enterprise agencies and private sector enterprises within Ireland do not fully understand the competitive value that environmental sustainability can bring to the economy.

Research has identified that focusing on a few critical SDGs, including environmental SDGs, such as those on life below water and life on land, can lead to great overall progress towards achieving the SDGs (Dawes, 2019). The private sector has a large role to play in bringing about sustainable development and delivering a positive impact to the environment, but this must happen in close co-operation with governments and communities to drive change (Polman, 2018).

Recommendations for promoting SDG education and awareness are detailed in Table 5.1.

5.2 Recommendation 2: Develop a Structure of Supports for SDG Adoption in the Private Sector

The landscape for sustainable development supports in Ireland is fractured and lacking in real alignment with the environmental SDGs, with a few notable exceptions. In some cases, national policy and strategy have been retrofitted to align with the SDGs, but supports for the private sector have also been retrofitted using existing programmes. Therefore, there is no coherent framework of supports for the private sector, leading enterprises to miss out on potential aid if they engage with enterprise agency contacts who are not well versed in environmental or sustainable support offerings. This is further compounded by the lack of prioritisation of the sustainability pillar across agencies. It is perceived to be a low-value offering and therefore not a strategic pillar to support enterprise agency engagement with the private sector.

As noted by Lindblom (2017), functional governance is a prerequisite for sustainable development results, while non-politicised high-level leadership on sustainable development was identified as a key learning tool for implementation of the SDGs in Finland.

The likelihood of sustainable development practices being adopted in the private sector in Ireland without the SDGs becoming embedded in enterprise policy is low. The sentiment from stakeholder consultations on the topic of SDG implementation is that real change is unlikely without favourable legislation in place to ensure that the SDG implementation plan is implemented. The national enterprise agencies will not deviate from their current strategies without specific policy support for sustainable development. An ecosystem is therefore unlikely to develop without the SDGs being embedded into enterprise policy.

Recommendations for developing an ecosystem of supports for SDG adoption in the private sector are detailed in Table 5.2.

Table 5.1. Recommendations: promoting SDG education and awareness

Recommendation	Summary
1a. Develop a certified continuous professional development training framework for enterprise SDG training	Develop a continuous professional development training framework for building SDG knowledge across Irish enterprise. This should be a joint collaboration between the key enterprise agencies (e.g. Enterprise Ireland, SEAI, IDA Ireland, EPA, Skillnet Ireland) and enterprises with a focus on building the knowledge and competences needed to recognise the value, opportunities and potential for positive societal and environmental impacts that exist by aligning organisational strategies to/implementing the SDGs. Existing training programmes dedicated to business interactions with the SDGs may be leveraged, e.g. Coursera (2019), the United Nations Institute for Training and Research (UNITAR; Seth and Duran, 2017) and the SDG Academy (2019)
1b. Develop an SDG awareness building initiative for agency staff	Building on the SDG Champions programme and the developing informal network of internal champions in enterprise agencies, a formal awareness-building initiative should be devised for enterprise agency staff to educate them about the SDGs and the competitive offering that can be developed around sustainable development. It is important that agency staff are aware of (1) the challenges facing the private sector in engaging with the SDGs and (2) the sustainable development supports that are available to the private sector within Ireland
1c. Deliver a national roadshow campaign on the value of sustainable development in business	Raising awareness of the SDGs around Ireland through a series of events and roadshows will give businesses, local government representatives, regional enterprise agencies and civil society across Ireland a platform to engage with the SDGs and ensure that, no matter where anyone in Ireland is located, they will not be left behind in the discussions on ensuring that the private sector can contribute to the SDGs
	The WBCSD has been at the forefront of developing SDG sectoral roadmaps for enterprise to support its members in identifying the opportunities that exist and how they can contribute to achieving the SDGs as a result in their respective sectors (WBCSD, 2019b). The UN Global Compact and KPMG have also developed a highly detailed SDG Industry Matrix (UN Global Compact, 2015) that identifies opportunities for shared values, case studies of good practice in initiatives and standards, and examples of multi-stakeholder collaborative partnerships across a range of sectors, while the Global Opportunity Explorer and Global Opportunity Report (DNV GL Sustainia, 2019) outline ongoing opportunities for the private sector to engage with the SDGs through collaboration across numerous fields of expertise. This type of guidance would provide strong foundations on which to develop and run targeted national SDG roadshows for enterprise
	Origin Green has set out a vision for sustainability in the food and drink sector in Ireland and envisages the programme playing a role in enabling the sector to make tangible contributions to the SDGs (Origin Green, 2019b), but this is yet to be replicated across other sectors in Ireland. Now is the time for the Irish government and enterprise agencies to take the lead in identifying what opportunities exist for the private sector across the 17 SDGs (and particularly within the environmental SDGs) across a range of key sectors, and to develop a campaign that spreads awareness of the opportunities that exist for the benefit of the whole of society
	These events could be run, for example, by the DCCAE-appointed SDG Champions or the Local Enterprise Offices, with support from national enterprise agencies

5.3 Recommendation 3: Introduce Standards and Benchmarking for Irish Enterprises

The SDGs serve not just as a catalyst for societal change; they can also be a viable business plan for private sector enterprises. To support implementation of the SDGs, it is recognised that the private sector must transform its business model to align more closely with the SDGs while still remaining profitable (Omarjee, 2019). In order for this change to be tangible, enterprises must translate the SDGs from a strategic vision into operational goals aligned with SDG targets and develop mechanisms for monitoring and reporting on these goals.

Reporting standards have an important role to play in this regard in ensuring that enterprise reporting on

the SDGs is transparent and to avoid accusations of greenwashing. The SDGs provide an ideal reporting mechanism for private sector enterprise to report on their contribution to society but it has been recognised that a consistent, transparent channel is required to facilitate this and to drive tangible, measurable change (PwC, 2018b). Standards such as the Gold Standard for the Global Goals (Gold Standard, 2019) and the Global Reporting Initiative (GRI, 2019a) are examples of sustainability standards that act as guides to best practice on delivering and reporting on global progress on sustainable development. The Global Reporting Initiative aligns closely with the UN Global Compact on advancing enterprise transparency (GRI, 2019b).

Recommendations for introducing standards and benchmarking for Irish enterprises are detailed in Table 5.3.

Table 5.2. Recommendations: developing an ecosystem of supports for SDG adoption in the private sector

Recommendation	Summary
2a. Integrate SDGs into enterprise policy	Ensuring specific and clear alignment of enterprise policy with environmental SDG commitments will enable and drive the adoption and delivery of the SDG targets across the national enterprise agencies. German businesses have realised this and have called on the German government to embrace the SDGs as the main framework to drive policy development and priority setting in Germany (Econsense, 2018)
	The government could promote economic policy aligned to the SDGs by enacting favourable and enabling regulations that provide advantages for sustainable products or for certain product groups, such as sustainable bonds, ^a as recommended by Abshagen <i>et al.</i> (2018)
2b. Establish a joint agency/ enterprise community of practice for SDG enterprise development stakeholders	To promote engagement and collaboration between the enterprise agencies and enterprise, a community of practice ^b could be introduced. This could operate in a similar fashion to a private sector SDG advisory council to share experiences and provide advice and support on sustainability issues, such as the previously mentioned Nordic CEOs for a Sustainable Future (2019), or, alternatively, existing groups in Ireland that are focused on sustainability or an aspect of sustainability that could be aligned with an SDG, such as the Large Water Users Community of Practice (Smart Water, 2019) for SDG 6 or SEAI's LIEN for SDG 7 (SEAI, 2019), could be leveraged. In addition, a community of practice could provide an SDG one-stop shop for enterprise and enterprise agencies, acting as a resource and knowledge hub on SDG activity, collaboration opportunities and enterprise supports available to the private sector
2c. Recognise success/ incentivise action	It is important to recognise the success of those companies that contribute positively to sustainability in Ireland by doing business responsibly, to inspire others to do likewise. It is therefore recommended that initiatives such as Finland's "The most interesting companies in the circular economy" list and the German Sustainability Award be introduced in Ireland, as these have incentivised the private sector to engage in sustainable development activities
	Furthermore, it is recommended that consideration be given to introducing a specific support to help firms develop their initial strategy for addressing the SDGs within their business. This could be a repositioning of existing supports, such as GreenPlus, or the introduction of new programmes. The resource challenge is a significant barrier to committing to sustainability practices, with the availability of funding, recruitment of skilled staff and investment in technology identified by Irish businesses as the most significant challenges to developing more sustainable practices (Ethical Corporation, 2019; IBEC, 2019b), and such an initiative would help to address this challenge in a practical way

^aThe International Capital Market Association (2020) defines green and sustainable bonds as any type of bond instrument (i.e. a form of loan) where the proceeds will be exclusively applied to eligible environmental projects.

^bWenger (1998) defines communities of practice as "groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly".

5.4 Recommendation 4: Measure the Impact of Agency Supports on the Environmental SDGs

Agenda 2030 is a call for change and the SDGs provide a framework for enabling this change. Ireland has undertaken a retrofitting exercise at the national level to identify accountable government departments for the 169 SDG targets. Although a useful exercise, the stakeholder consultations suggest that there is a feeling that this exercise is shoehorning the SDGs into existing policy, strategy, metrics and reporting frameworks around economic, societal and sustainable development instead of acting as a catalyst for change and transforming Ireland into a more sustainable society.

Furthermore, the Sustainable Development Goals National Implementation Plan does not provide details on how to achieve the SDGs at an enterprise level, or their targets, and, as a result, no priorities or action plan have been identified for enterprise agencies to deliver on. The Forum for Sustainable Development of German Business has identified the SDGs as an ideal framework for driving policy development and priority setting while establishing sustainability as a pillar in a rapidly changing global environment (Econsense, 2018), and the SDGs present the Irish economy with the ideal opportunity to do likewise. Technological innovation alone will not be enough to drive progress on the SDGs; it will require behavioural change on a grand scale across society and with collective action (Hayward, 2016).

Recommendations for measuring the impact of agency supports on the SDGs are detailed in Table 5.4.

Table 5.3. Recommendations: introducing standards and benchmarking for Irish enterprises

Recommendation	Summary
3a. Establish a local network of the Global Compact	As of September 2019, there were 24 Irish members of the UN Global Compact, whereas many more organisations have signed up in comparator countries such as Denmark (n =391) and Finland (n =86). Following the principle that 'transparency builds trust', the UN Global Compact requires its members to produce an annual Communication on Progress, which outlines how they have been working to embed the principles of the Global Compact into both their strategies and their operations. Global Compact local networks advance the principles of the Global Compact at a local level and facilitate outreach, policy dialogue and collective action to implement the SDGs throughout society using a multi-stakeholder approach. There is no Global Compact local network in Ireland, although there are over 50 worldwide (UN Global Compact, 2019e)
	Irish organisations should be encouraged to join the UN Global Compact and to establish a local network. The facilitation of a local network in Ireland could be supported by a network member, the national enterprise agencies, SDG Champions, the Skillnet Ireland network or the Local Enterprise Offices and would have multiple benefits, not solely confined to reporting, such as increased dialogue and collaboration between a diverse range of committed stakeholders
3b. Develop a national sustainability standard for the private sector in Ireland	Verifiable and internationally acceptable sustainability standards are an important component in driving increased private sector engagement with sustainability and the SDGs. Having a track record of established sustainability standards (i.e. through the SEAI) means that Ireland is well placed to drive further private sector engagement with the SDGs
	The Irish government should consider establishing a technical committee (consisting of some of the key stakeholders identified in this report plus a variety of industry stakeholders) to lead the development of a national standard for enterprise alignment to the SDGs. This could support the creation of an entry-level standard for Irish enterprises to report on how they are actively contributing to the Irish government's objectives across the seven environmental SDGs through their sustainable development activities
	Developing an international best practice standard for SDGs would allow Ireland to be seen as a leader in sustainable development activity internationally, enable industry-based sustainability progress to be tracked, eliminate any opportunities for greenwashing, and enable analysis and benchmarking across sectors
	The Irish government could utilise transformative regulation to complete and report on due diligence along the supply chain in order to ensure that enterprises are held to account for the environmental and social impact of their actions (Abshagen <i>et al.</i> , 2018). This may involve the auditing/verification of an enterprise's environmental impact along its supply chain to ensure that any claims of sustainability made are reported on in a transparent fashion using evidence-based reporting
3c. Develop a sustainability maturity model and guidance tool	A maturity model is a tool that helps organisations measure and assess their current capabilities to allow for continuous improvement. Sustainability maturity models provide organisations with the ability to assess their current policies and practices against best practice in sustainability and improve them, outlining a pathway to sustainable transformation
	A pilot environmental sustainability maturity model and guidance tool has been developed based on this report's analysis of current SDG tools and stakeholder feedback and identification of the need for a sustainability maturity model and guidance tool that can equip organisations with the information they need to determine how mature their organisation is with regard to sustainability
	Appendix 17 presents the environmental sustainability maturity model, which identifies seven key categories and 21 key subcategories that may contribute to sustainable activity relating to the environment. These categories were identified based on reviews of the effectiveness and limitations of current models and via stakeholder feedback on key organisational areas of impact on sustainability
	The pilot guidance tool in Figure A17.2 is a self-assessment model that presents a maturity scale to aid organisations in identifying how far along the path to sustainable maturity they are in seven key areas; it also provides an overall maturity assessment. The maturity assessment could potentially serve as a National Standards Authority of Ireland SWiFT guide and/or ultimately link to a national standard (as in recommendation 3b) that is auditable and provides certified firms with a way to demonstrate their credentials and contributions to helping to meet the SDG national targets

5.5 Recommendation 5: Conduct Further Research

Although this report focused primarily on mapping current levels of SDG-related activity in Ireland,

during the course of their research the authors identified a series of related topics that would benefit from further exploration These topics are outlined in Table 5.5.

Table 5.4. Recommendations: measuring the impact of agency supports on the SDGs

Recommendation	Summary
4a. Measure the impact of agency supports	A platform or hub could be established to serve as the central and integrated co-ordination point for all environmental SDG enterprise development activity within the country, ensuring that all activity is managed and delivered efficiently while also measuring the impact of enterprise agency supports. The appointment of the Department of the Taoiseach to govern the Climate Action Delivery Board has been commended as a positive step, with the aim of ensuring implementation and reporting on the Climate Action Plan, and a recognition that climate change has a wider impact than just on the environment and that the Department of an Taoiseach is best placed to lead a "whole-of-government" approach to both policy and action coherence (MHC, 2019)
	The same structure will most likely benefit the implementation of the environmental SDGs, and the potential for the PMO to lead and co-ordinate a central task force with responsibility for SDG implementation has been recognised both in Ireland (Coalition 2030, 2018) and overseas (see section 3.3.2 on Finland's PMO Hub, section 3.3.3 on Germany's State Secretaries' Committee for Sustainable Development and Box 3.1 on Japan's SDG Promotion Headquarters)

Table 5.5. Recommended areas for further research

Recommendation	Summary
5a. Adoption of science- based targets	Some work has been carried out into the benefits of incorporating science-based targets into the implementation of SDGs (Galvin, 2019). Science-based targets, which are based on the concept of a global carbon budget (the tolerable quantity of greenhouse gases that can be emitted over a specified time; WWF South Africa, 2014), give companies a clear pathway to growth by specifying how much and how quickly they need to reduce their greenhouse gas emissions (Science Based Targets, 2019a)
	To date, over 600 companies are taking science-based climate action and 232 companies have approved science-based targets, including nine that have their headquarters in Ireland (Science Based Targets, 2019b). The Irish government could look at ways to encourage Irish enterprises to commit to science-based targets (through programmes such as Origin Green) and/or work with enterprises to identify if science-based targets could be used to drive operational activity and SDG alignment across other SDGs, such as those related to water, biodiversity or sustainable cities (Opray, 2019)
5b. Leveraging technology	Technology will be a key enabler towards achieving the targets of Agenda 2030, with the Industry 4.0 revolution (the trend towards automation, cloud computing and artificial intelligence in business processes) being heralded as the sustainability revolution (Schmid, 2017). Businesses in Germany (Econsense, 2018) and countries such as Denmark (see section 3.3.1) have already identified the crucial role that digital innovations can play in rapidly meeting the SDGs as technology becomes cheaper and more efficient each year, while organisations such as Huawei have identified where the highest correlations between SDGs and ICT could potentially exist (Huawei, 2019a)
	In a recent analysis by Huawei, Ireland ranked 19th out of 55 countries on combined ICT development and progress towards sustainable development. Identified as a leader (defined as countries scoring 75 and above out of 100) in this 2019 ICT SDG benchmark analysis, Ireland has been shown to have a strong correlation between ICT and sustainable development, highlighting the interconnectivity of the two, suggesting that ICT can act as an enabler for countries such as Ireland to improve their SDG performance (Huawei, 2019b). Further research could be carried out into how Ireland, its enterprise agencies and its enterprises could maximise their use of both existing and future technological innovations to enhance Ireland's contribution to the SDGs
5c. SDG incentivisation and financing mechanisms	It is widely acknowledged that global adoption of the SDGs will not happen without large-scale financing (UNDP, 2018c; Chrisney, 2019; IMF, 2019; UN Global Compact, 2019f). It is acknowledged that governments alone will not be able to finance the delivery of the 17 SDGs and private finance will therefore need to represent a significant proportion of investment if Agenda 2030 is to be achieved (Edie, 2019; Hoek, 2019; Omarjee, 2019)
	As sustainable finance continues to grow as a concept (with €82 trillion committed to the UN Principles for Responsible Investment by 2018; Polman, 2018), incentivising the private sector to commit to sustainable practices through mechanisms such as social business investments, inclusive business models and green bonds could enable society to solve global problems at exponential speed and scale (BCtA, 2018). Further exploration of the role of SDG incentivisation and green finance could greatly benefit sustainable funding and investment decisions in Ireland

Table 5.5. Continued

Recommendation	Summary
5d. The growth of "for- benefit" enterprises	While many for-profit enterprises have broadened their corporate social responsibilities in the 21st century, a growing number of enterprises are being established across the globe with the sole purpose of leveraging business mechanisms and methods to solve social and environmental problems (Polman, 2018). Often referred to as for-benefit enterprises, B Corp or the fourth sector, these for-profit companies are blurring the lines that separate the public, private and non-profit sectors (World Economic Forum, 2017b). B Corp, the private certification body for for-profit companies, has certified over 2500 organisations in 50 counties (BCORP, 2019). As of September 2019, there were two certified B Corp recipients in Ireland (DBEI, 2019b), including UrbanVolt, a Dublin-based company that delivers LED lighting upgrades to companies by funding the installation cost in return for a proportion of the savings (UrbanVolt, 2019). The growth of these types of enterprise will be critical in delivering on the SDGs (World Economic Forum, 2017b), so determining how these organisations can continue to grow could be an important area of research
5e. Ireland's spillover effect	The most recent SDG report (Sachs <i>et al.</i> , 2019) listed Ireland as having one of the highest negative SDG spillover scores globally. The spillover score measures the effect that a nation's domestic and international activities have that either positively or negatively impact on other countries. Negative spillover effects can undermine other countries' efforts to achieve the SDGs. An example of a negative spillover effect is increasing tropical deforestation (and releasing additional carbon in the process, as witnessed in Borneo) as a result of international demand for commodities such as palm oil (Lustgarten, 2018). Small countries with a large trade intensity such as Ireland tend to have higher negative spillover effects. Identifying how Ireland can reverse its negative spillover effects may prove a valuable area of research
Related concepts	A number of related and emerging concepts with relevance to the SDGs have emerged over the course of this research. These concepts – the SDG spillover effect, the circular economy, inclusive business and just transition – would benefit from further research into their impact on the SDGs and on the private sector in Ireland

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Abbreviations

ASEAN Association of Southeast Asian Nations

BIM Bord lascaigh Mhara

BITC Business in the Community
CEO Chief executive officer
CSO Central Statistics Office

CSR Corporate social responsibility

DAFM Department of Agriculture, Food and the Marine

DBEI Department of Business, Enterprise and Innovation

DCCAE Department of Communications, Climate Action and Environment

DFAT Department of Foreign Affairs and Trade

DHPLG Department of Housing, Planning and Local Government

Department of Jobs, Enterprise and Innovation

DPER

Department of Public Expenditure and Reform

EC European Commission

EPA Environmental Protection Agency

EU European Union

GDP Gross domestic product

GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit

GSDS German Sustainable Development Strategy

HLPF High-level Political Forum

IAEG-SDGs Inter-agency and Expert Group on SDG Indicators
IBEC Irish Business and Employers Confederation

ICC International Chamber of Commerce

ICT Information and communications technology
IISD International Institute for Sustainable Development
ISO International Organization for Standardization

KPI Key performance indicator **LED** Light-emitting diode

LIEN Large Industry Energy Network

MDG Millennium Development Goal

NESC National Economic and Social Council

NGO Non-governmental organisation
NPWS National Parks and Wildlife Service

OECD Organisation for Economic Co-operation and Development

P4G Partnering for Green Growth and the Global Goals

PMO Prime Minister's Office
PPP Public–private partnership
SDG Sustainable Development Goal

SDSN Sustainable Development Solutions Network
SEAI Sustainable Energy Authority of Ireland

SFI Science Foundation Ireland
 SMEs Small and medium enterprises
 STI Science, technology and innovation

UN United Nations

UNDESA United Nations Department of Economic and Social Affairs

UNDP United Nations Development Programme

UNSD United Nations Statistics Division

VNR Voluntary national review

WBCSD World Business Council for Sustainable Development

WTO World Trade Organization

Appendix 1 Transitioning from Millennium Development Goals to Sustainable Development Goals

The 17 SDGs expand on the previous eight MDGs (Figure A1.1), which were considered to be too narrow in focus, with limitations in the framework preventing successful outcomes from being experienced equally across the globe (Fehling *et al.*, 2013). The MDGs were focused on specific human societal development needs; in fact, the only environmental target was an afterthought, which was added at the last minute (Tran, 2012).

While the MDGs were operational it was realised that environmentally sustainable development was a long-term underlying factor in all of the goals (Tran, 2012). For this reason, the key principles in formulating the SDGs were that no one will be left behind and that Agenda 2030 would be people centred, universal and transformative (UN, 2015a). Figure A1.2 outlines the development journey of the SDGs.



Figure A1.1. The eight MDGs adopted in the UN Millennium Declaration 2000. Reproduced with permission from UNDP (2020).

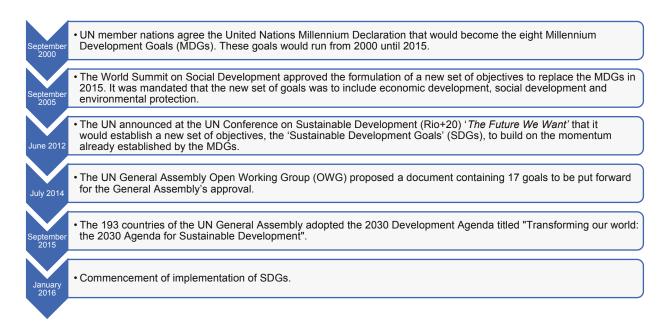


Figure A1.2. Timeline for development of the SDGs. Source: United Nations Environment (2013).

Appendix 2 Sustainable Development Goals National Implementation Plan 2018–2020: Actions

Table A2.1. Committed actions under the Sustainable Development Goals National Implementation Plan 2018–2020

	Area	Action
1.	VNR	Prepare Ireland's first VNR for delivery at the UN HLPF at its next session in the summer of 2018 (formally presented to the UN in July 2018)
2.	National sustainable development policy	During the lifetime of this first National Implementation Plan, prepare a new Sustainable Development Strategy, taking Ireland's SDG commitments directly into account
3.	Mainstreaming the SDGs	In order to promote transparency and accountability, publish the SDG Policy Map on dccae.gov.ie/ SustainableDevelopmentGoals and update as necessary
4.	Mainstreaming the SDGs	Beginning in 2018, include a reference in all new statements of strategy to all SDG targets for which a department has lead responsibility
5.	Budgeting	Departments will consider options available to identify those items of departmental expenditure that support specific SDGs
6.	Budgeting	In order to promote transparency and accountability, publish details of lead and stakeholder departments for each SDG target on dccae.gov.ie/SustainableDevelopmentGoals and update as necessary, taking into account any changes in departmental configurations
7.	Political and interdepartmental engagement	In order to promote transparency, publish on dccae.gov.ie/SustainableDevelopmentGoals regular updates on the work of the SDG Interdepartmental Working Group
8.	National SDG Stakeholder Forum	Establish a national SDG Stakeholder Forum in the first half of 2018
9.	National SDG Stakeholder Forum	In order to promote transparency, publish on dccae.gov.ie/SustainableDevelopmentGoals details of the membership of the national SDG Stakeholder Forum and the Forum's terms of reference. In addition, publish the agenda and minutes of Forum meetings
10.	Communications and awareness raising	The SDG Interdepartmental Working Group will develop a strategy around communicating Ireland's key SDG priorities to national and international audiences
11.	Online SDG platform	Develop an online SDG platform as a one-stop shop for SDG information and learning
12.	SDG Champions	Select a limited number of national organisations to act as "SDG Champions" who can leverage their public profile to raise awareness of the SDGs. SDG Champions will be selected following input from the SDG Stakeholder Forum
13.	A participatory approach	In conjunction with the SDG Stakeholder Forum, develop communication materials/toolkits to raise awareness of the SDGs and the commitment to "leave no one behind" and reach the furthest behind first, among the general public, and to help national and local organisations engage with the SDGs and communicate their own contributions
14.	Reporting at the UN HLPF	Inform the UN of Ireland's intention to present four VNRs to the HLPF by 2030, beginning in 2018 and then in 2022, 2026 and 2030 $$
15.	Reporting at the UN HLPF	Prepare Ireland's second national SDG report for delivery in 2020, to include a review of progress under this first National Implementation Plan
16.	Transparency and participation	Seek stakeholder input to all SDG reports prepared under this Plan
17.	Transparency and participation	Include stakeholder representatives in the Irish delegation to the HLPF
18.	Transparency and participation	Provide speaking time for a stakeholder representative during Ireland's presentation of its first VNR to the HLPF in July 2018
19.	Sectoral reporting	From 2018, those departments with responsibility for implementing specific SDG targets will provide information in their annual reports, where relevant, on how they are implementing those targets

Appendix 3 SDG Champions 2019/2020

The 2019/2020 champions are (MerrionStreet.ie, 2019):

- An Post;
- BIM;
- Carlow County Council;
- ECO-Unesco;
- Gaelic Athletic Association (GAA);
- Irish Congress of Trade Unions;
- Irish Men's Sheds Association;
- Musgrave Group;
- National Women's Council of Ireland;
- Smart Farming;
- Union of Students of Ireland;
- Vodafone.

Appendix 4 Enterprise Agencies Ranked by Allocations

Box A4.1. Irish enterprise agencies ranked in descending order by 2016 allocation

Enterprise Ireland (including Local Enterprise Offices).
IDA Ireland.
SFI.
Teagasc.
Failte Ireland.
InterTradeIreland.
Údarás na Gaeltachta.
Western Development Commission.
LEADER programme.
Tourism Ireland.
Bord Bia.
BIM.

Source: Reidy (2017).

Appendix 5 Irish Global Compact Members

Table A5.1. Irish organisations signed up to participate in the UN Global Compact (as of 23 September 2019)^a

Name	Туре	Sector	Joined on
Trócaire	NGO global	Not applicable	31/05/2019
Whiteknight Cabling Ltd	Small or medium-sized enterprise	Construction and materials	30/01/2019
Gorta (trading as Gorta Self Help Africa)	NGO global	Not applicable	01/01/2019
Alliance Environment Industry Ltd	Small or medium-sized enterprise	Industrial engineering	01/01/2019
Follow the Camino	Small or medium-sized enterprise	Travel and leisure	30/11/2018
NTR plc	Small or medium-sized enterprise	Alternative energy	05/11/2018
Arka Merchants Ltd	Company	Forestry and paper	18/09/2018
An Bord Bia – Irish Food Board	Public sector organisation	Not applicable	26/06/2018
Concern Worldwide	NGO global	Not applicable	30/05/2018
Red Rose	Small or medium-sized enterprise	Software and computer services	31/01/2018
GDSI Ltd	Small or medium-sized enterprise	Diversified	31/01/2018
Chieftain Fabrics	Small or medium-sized enterprise	Construction and materials	02/11/2017
Ryanair DAC	Company	Aerospace and defence	11/09/2017
Institute of Technology Tralee, Unesco Chair	Academic	Not applicable	22/09/2016
Truform Laser Dies	Small or medium-sized enterprise	General industrials	19/07/2016
Spera Ltd	Small or medium-sized enterprise	General industrials	02/06/2016
Isles International University	Academic	Not applicable	07/04/2016
Dublin City University Business School	Academic	Not applicable	19/06/2013
University of Limerick	Academic	Not applicable	24/04/2012
PCH	Company	Technology, hardware and equipment	12/04/2012
An Post	Company	Support services	04/08/2010
Smurfit Kappa Group plc	Company	Forestry and paper	26/05/2010
C&F Tooling Ltd	Company	Electronic and electrical equipment	16/03/2009
Musgrave Group Ltd	Company	General retailers	26/05/2004

*https://www.unglobalcompact.org/what-is-gc/participants/search?utf8=%E2%9C%93&search%5Bkeywords%5D=&search%5Bcountries%5D%5B%5D=84&search%5Bper_page%5D=50&search%5Bsort_field%5D=country&search%5Bsort_direction%5D=desc (accessed 28 August 2019).

Appendix 6 Stakeholder Profiles: Government Departments

Table A6.1. Key government departmental stakeholders in the enterprise sustainability landscape

Agency name	Description
Department of Business, Enterprise and Innovation (DBEI)	The DBEI plays a vital role in stimulating the economy's productive capacity and creating an environment that supports job creation and maintenance. The department also has a remit to safeguard workers, protect consumers and promote fair competition in the marketplace ^a
Department of Communications, Climate Action and Environment (DCCAE)	The DCCAE regulates, protects and develops the natural resources of Ireland. It has responsibility for communications, climate action, environment, broadcasting, energy, natural resources and postal services ^b
Department of Finance (DFIN)	The DFIN is responsible for the management of government finances. It also plays a crucial role in the achievement of the government's economic and social goals ^c
Department of Foreign Affairs and Trade (DFAT)	The DFAT is charged with promoting and protecting the values, interests and economic well-being of Ireland and its people, both at home and abroad ^d
Department of Housing, Planning and Local Government (DHPLG)	The DHPLG is responsible for housing, planning and local government. It supports effective local government and the sustainable and efficient delivery of well-planned homes ^e
National Economic and Social Council (NESC)	The NESC advises the Taoiseach on strategic issues for Ireland's social and sustainable economic development. It is the only state agency under the remit of an Taoiseach

ahttps://dbei.gov.ie/en/Publications/Publication-files/Statement-of-Strategy-2018-2021.pdf (accessed 28 August 2019).

bhttps://www.dccae.gov.ie/en-ie/about-us/Pages/default.aspx (accessed 28 August 2019).

chttps://www.finance.gov.ie/corporate/strategy/ (accessed 28 August 2019).

dhttps://www.dfa.ie/about-us/what-we-do/ (accessed 28 August 2019).

ehttps://www.housing.gov.ie/corporate/other/who-we-are (accessed 28 August 2019).

Appendix 7 Stakeholder Profiles: Enterprise Agencies

Table A7.1. Key national enterprise agency stakeholders in the enterprise sustainability landscape

Agency name	Description
Bord Bia	Bord Bia (the Irish Food Board) acts as a link between Irish food, drink and horticulture suppliers and existing and potential customers throughout the world. Its main objective is to develop markets for Irish suppliers and to bring the taste of Irish food to more tables worldwide
BIM	BIM, Ireland's Seafood Development Agency, is the state agency responsible for the sustainable development of the Irish seafood sector. This covers seafood retail and distribution, as well as commercial fishing, fish farming and processing
CSO	The CSO is Ireland's national statistical office. Its purpose is to impartially collect, analyse and make available statistics about Ireland's economy, people and society ^a
Enterprise Ireland (EI)	El works in partnership with Irish SMEs to advance their development and growth in global markets. El comes under the remit of the DBEI. It is a key focus of El to support sustainable economic growth, regional development and secure employment
EPA	The EPA is responsible for protecting and improving the environment as a valuable asset for the people of Ireland. It is committed to protecting people and the environment from the harmful effects of radiation and pollution. The EPA has key roles in environmental regulation, the provision of knowledge and advocacy for the environment ^b
IDA Ireland	IDA Ireland is the agency responsible for encouraging investment in Ireland by foreign-owned companies. It supports new and existing clients to set up and develop their business in Ireland
Local Enterprise Offices	Local Enterprise Offices play a major role in enabling Irish people to start, grow and successfully expand businesses by offering expertise, know-how and financial support to Irish businesses, allowing them to grow and thrive
Marine Institute	The Marine Institute is the state agency responsible for marine research, technology development and innovation in Ireland. It carries out environmental, fisheries and aquaculture surveys and monitoring programmes and provides scientific and technical advice to the government to help inform policy and to support the sustainable development of Ireland's marine resources
NPWS	The NPWS manages the Irish state's nature conservation responsibilities. As well as managing the national parks, the activities of the NPWS include the designation and protection of Natural Heritage Areas, Special Areas of Conservation and Special Protection Areas
SFI	Established in 2003, the SFI is responsible for funding strategically focused research in STEM (science, technology, engineering and mathematics) subjects
SEAI	The SEAI was established as Ireland's national energy authority under the Sustainable Energy Act 2002. Its mission is to play a leading role in transforming Ireland into a society based on sustainable energy structures, technologies and practices
Skillnet Ireland	Skillnet Ireland is a national agency dedicated to the promotion and facilitation of workforce learning in Ireland. It supports over 15,000 companies and provides a wide range of learning experiences to over 50,000 trainees
SOLAS	An tSeirbhís Oideachais Leanúnaigh agus Scileanna (SOLAS – translated as "Further Education and Skills Service") is a state agency in Ireland. Among other functions, such as research, monitoring and co-ordinating of further education and training provision, it also provides funding to education and training boards and other bodies engaged in the provision of further education and training programmes
Teagasc	Teagasc (Agriculture and Food Development Authority) is the national authority appointed by the Minister for Agriculture, Food and the Marine. It is responsible for providing integrated research and advisory and training services to all sectors of the food and agriculture industry, as well as rural development agencies ^c

ahttps://www.cso.ie/en/aboutus/whoweare/ (accessed 28 August 2019).

bhttps://www.epa.ie/pubs/reports/other/corporate/epa-whoweare-whatwedo.html (accessed 28 August 2019).

[°]https://www.teagasc.ie/media/website/publications/2017/Statement-of-Strategy-2017-2020.pdf (accessed 28 August 2019).

Appendix 8 List of Consulted Stakeholders

The organisations that were consulted as part of the stakeholder consultation process are as follows:

- ABP Food Group;
- Alliance for Water Stewardship;
- BIM;
- Bord Bia;
- CSO;
- DCCAE;
- Dublin Airport Authority;
- Enterprise Ireland;
- EPA;
- European Environmental Agency;

- IBEC;
- IDA Ireland;
- Irish Fish Canners;
- Limerick Local Enterprise Office;
- Macra Na Feirme;
- NPWS;
- Optien;
- SEAI;
- SFI;
- Tipperary Co-op;
- University College Cork;
- Wyeth.

Appendix 9 Analysis of Key SDG Tools for Enterprises

Table A9.1 provides a categorised list of global, regional and local SDG support tools for enterprises.

This table analyses the key features and benefits of each of these tools.

Table A9.1. Non-exhaustive list of SDG tools for enterprises

Tool name	Developer	Description	Features	Benefits
Resource hub				
Business for 2030	United States Council for International Business	The Business for 2030 website hosts a wide range of information on the SDGs, but primarily measures the current progress of business towards addressing the SDGs. This progress is measured through the number of SDG targets that currently have business case studies associated with thema	 Case studies for each SDG Global interactive map SDG progress chart 	 Companies are able to partner with Business for 2030 to have their own initiatives represented Allows businesses to determine which SDG targets have not yet
SDG Academy	SDSN	The SDG Academy is an online education platform that provides free educational resources on sustainable development as a global public good ^b	26 free educational courses based around the 17 SDGs	 Free education for all on the SDGs Courses are either instructor led or self- paced and the majority of courses can be started at any point in time
SDG Acceleration Toolkit	UNDG	An online bank of tools, diagnostics, models, methodologies and guidance for analysing interconnections among the SDGs and assessing how to contribute to Agenda 2030°	 SDG interconnection tools Risk-informed planning tools Communication plans 	Helps stakeholders at all levels understand synergies and identify and remove bottlenecks for strategising, prioritising and accelerating progress
SDG Business Hub	WBCSD	This hub is a one-stop shop for organisations to access all information, tools and resources related to the SDGs. It helps businesses to align with the SDGs and integrate them into their decision-making processes ^d	 Tools and resources Latest news Case studies Business insights and trends 	 Best practice examples Directory of the latest advocacy messages and leading insight into opportunities
SDG HelpDesk	United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)	The SDG HelpDesk is a repository that contains links to toolboxes, data portals and an online knowledge platform ^e	Community of practiceResource repository	 Instant and easy access to a wide range of enterprise resources Access to best practice and technical experts
SDG Lab Toolkit	UN	This toolkit is a "how to" guide on replicating the SDG Lab model, providing insight into the methods, tools and techniques that the UN has tried and tested since founding the Lab in 2017 ^f	 Tips for building an SDG Lab (seven clusters of tips) 11 tools to support Lab development Rules of engagement for co-creation 	 "How to" guide on building an SDG Lab for governments and organisations Highly accessible and designed to support a range of actors, regardless of expertise, experience and knowledge

Table A9.1. Continued

Tool name	Developer	Description	Features	Benefits
SDG Toolbox	UN Global Compact	An extensive toolbox ranging from leadership engagement platforms to resources and best practices that help businesses embed sustainability into their operations and identify opportunities to advance the SDGs and partner with the UN ^g	 SDG entry point examples of initiatives from the 17 SDGs Action platform Library of 200 tools and resources 	 SDG opportunity identification Interactive tool to search by relevant SDGs
Strategic planni	ing and alignmen	it		
Blueprint for Business Leadership	UN Global Compact	This blueprint sets out how businesses can advance each of the 17 SDGs through leadership. It outlines five qualities required for SDG leadership and identifies actions for business to work on to advance each goal ^h	 Five qualities for SDG leadership Sets out a framework for SDG leadership 	 Recommended actions, considerations and guiding questions to advance each SDG Identifies interconnectedness between each SDG
Business Charter for Sustainable Development	ICC	This charter has been specifically designed to help enterprises contribute to the implementation of the SDGs. Based around eight guidelines, it presents a strategic framework to aid companies in ensuring that sustainability is at the heart of their operations ⁱ	 Strategic framework Eight clear guidelines that align to the SDGs 	Provision of a sustainable framework for economic growth
Circle Economy tools and services	Circle Economy	Circle Economy provides a range of tools and services (including portfolios, assessments, business cases) to support decision-making and implementation of action plans ^j	Portfolio circularity evaluationCircular strategy support	 Support for setting up circular projects and bringing circularity into current business strategies
Future-Fit Business Benchmark	Future-Fit Business	This free-to-use tool allows companies to assess how fit their business is for the future. It aligns its own benchmarks with the SDGs to enable businesses to assess how their own objectives align with the SDGs ^k	SDG targets analysisAction guide for targets	 Benchmarking strategic alignment against the SDGs Detailed action guide
PwC SDG Selector	PwC	The SDG Selector prioritises a company's focus on five of the 17 SDGs, identifying which SDGs are most important based on the filter that is chosen. SDGs can be filtered by industry impact, industry opportunity, country and theme!	SDG filters	Provides a description of the key actions a business can take for a selected goal
Towards the Tipping Point: Global Goals Guide for Business	BITC and Deloitte	This guide provides practical examples and recommendations for organisations that are beginning to engage with the SDGs. It aims to move organisations towards the tipping point of sustainable development action ^m	 Best practice examples Variety of engagement models 	 Highlights the advantages offered by aligning business with the SDGs Categorises and illustrates pioneering practice using five models of engagement
SDG Business Dashboard	Earth Security Group	Uses a robust approach to help firms identify the SDGs that are most important to their long-term strategy around business operations, social licence, and innovation and growth. It then identifies where the SDGs can have the most impact on a firm's strategy	SDG alignment frameworkDiagnosisGap analysis	Aligns business strategy to the SDGs that matter to business growth
SDG Indicator Wizard	SDG Funders	This tool helps to determine which SDGs and targets relate to a company's work, and which indicators can be aligned and tracked with a company's to measure the impact of their activities ⁿ	SDG indicator alignment and tracker	Translates strategic priorities into an SDG- compatible framework

Table A9.1. Continued

Tool name	Developer	Description	Features	Benefits
SDG Industry Matrix	UN Global Compact/ KPMG	A companion to the SDG Compass, the SDG Industry Matrix provides industry-specific examples and ideas for activating the SDGs across six industries, including energy, natural resources and chemicals; transportation; and food, beverages and consumer goods°	Industry highlightsIndustry matrix	 Best practice examples Analysis of opportunities (including partnerships) by SDG and industry
Roadmaps				
SDG Compass	Global Reporting Initiative, UN Global Compact and WBCSD	The SDG Compass is a guide for business action on the SDGs. Its main objective is to facilitate the alignment of organisational strategy with the SDGs using a five-step process, and act as a measurement and management guide on an organisation's contributions towards meeting the SDGs ^p	 User guide for maximising contributions to the SDGs Business indicators inventory Tools inventory 	 It provides a strong business case for organisations wishing to define the added value of contributing to the SDGs Enables companies to align their reporting with the SDGs Hosts an inventory of business tools that are useful when assessing organisational impact on the SDGs
SDG Sector Roadmaps	WBCSD	This series of sectoral roadmaps has been developed by the WBCSD to guide entire sectors as they seek to optimise contributions to the SDGs by assessing their value chain's interaction with the SDGs; identifying opportunities for impact; and establishing key actions for SDG implementation ^q	Three-step framework to develop an SDG sector roadmap	Road mapping best practice
Impact assessi	ment			
BCtA Impact Lab	Business Call to Action	This platform allows companies to better track their social and environmental impact. It supports companies in understanding, enhancing and communicating their societal impact ^r	End-to- end impact measurement cycle	 Track a company's social and environmental impact Identify the right measurement tools Design your own impact framework
Global Value Toolkit	Global Value	This service is for businesses that want to measure and manage their sustainable development impact. It has collated, evaluated and categorised over 220 sustainability measurement and management tools ^s	Categorisation and evaluation of sustainability tools	Filtering of more than 220 tools, methods and frameworks
SDG Impact Assessment Tool	Ramboll	This tool promotes a deeper understanding of the SDGs from both a strategic and a tactical level. It allows users to reflect on their company's results and the potential unlocking of new sustainable actions to drive transformation ^t	Custom-made report to explore areas of improvements	Promotes critical thinking of a company's current business practices
SDG Impact Assessment Tool	SDSN Northern Europe	This is an online tool for developing an understanding of and strategies towards achieving the SDGs. The main objective is to ensure that the user is better equipped to prioritise actions post assessment	Results visualisation	Stimulate the user to obtain a more thorough understanding of the complexity of the different aspects of the SDGs and sustainable development

Table A9.1. Continued

Tool name	Developer	Description	Features	Benefits	
Innovation and collaboration platforms					
Global Opportunity Explorer	Sustainia, DNV GL and UN Global Compact	Containing 5 years of research involving 18,000 business leaders, the Explorer guides user through hundreds of sustainable solutions and market opportunities that address the SDGs, using the premise of the SDGs presenting huge opportunities for business. It aims to help entrepreneurs, business leaders and investors connect with partners, projects and markets to foster more partnerships for the SDGs	World's largest database of verified sustainable solutions	 Maps cutting-edge innovation from across the globe Fostering of partnerships 	
Project Breakthrough	UN Global Compact	Project Breakthrough identifies the best examples in sustainable innovation that demonstrate a commitment towards driving change. It analyses innovative business models and disruptive technologies that will be vital in driving the next wave of sustainability solutions ^w	 Business models Disruptive technologies Innovation challenges 	Best practice examples on innovative approaches to sustainability	
SDG Impact Platform	UNDP	The SDG Impact initiative aims to provide businesses with the insights and tools required to support their contributions to achieving the SDG. It invites companies to adapt their core business strategies to deliver social, environmental and financial performance, and use the SDGs as the fulcrum for engaging in untapped markets ^x	 Impact management Impact intelligence Impact facilitation 	The initiative aims to develop market-based solutions for challenges in least developed countries	
Unreasonable Goals	Unreasonable Group	Each year, Unreasonable Goals hosts a 2-week accelerator programme that brings together 16 entrepreneurial solutions that have the potential to tackle each of the SDGs. It is a PPP that connects highly profitable entrepreneurs with cutting-edge technologies and expertise ^y	2-week accelerator programme	 Access to cutting-edge technologies Helps ventures to scale quickly to create jobs and make an impact on a particular SDG 	
Maturity assess	sment				
TBL Maturity Assessment Tool	Transportation Research Board	Developed as part of National Cooperative Highway Research Program (NCHRP) Project 20–83(7), the tool helps transportation agencies assess their sustainability maturity and progress toward creating a triple bottom line (TBL) sustainability policy system ^z	Maturity Assessment tool	It provides users with an understanding of their current position and potential activities they could take to achieve a higher level of sustainability maturity	
SDGs and Inclusive Business Maturity Toolkit	Business Call to Action and UNDP	This is a practical reference for business leaders seeking to position their companies for continued success in the context of the SDGs. It also offers suggestions for actors seeking to design a more inclusive global ecosystem. It can be used to help support business leaders in developing inclusive businesses ^{aa}	Maturity assessment tool	The tool aims to help companies understand where they are in terms of inclusive business maturity stage	
Sustainability Maturity Matrix	PwC	PwC's Sustainability Maturity Matrix measures an organisation's maturity from compliance to value, in which the sustainability approach matures from an approach based on risk management to a model that views sustainable business practice as a strategic advantage ^{bb}	Maturity matrix	Identifies the maturity approach of organisations	
Sustainability Maturity Model	CollaborateUp	The Sustainability Maturity Model was developed to help companies make rational, cost—benefit-based decisions about investing in sustainability. The self-diagnostic helps companies to measure the societal expectations of them and then assess their need to make progress on economic, social and environmental sustainability activities	Visual model	 Assesses and supports business opportunities Assesses the potential return on investment of integrating sustainability into business 	

Table A9.1. Continued

Tool name	Developer	Description	Features	Benefits
Sustainability Management Maturity Matrix	Retail Industry Leaders Association	This tool enables retail sustainability leaders to identify the management practices that will increase both enterprise and environmental performance	Maturity model	Identification of potential pathways to strong environmental sustainability initiatives and programmes in the retail sector
Reporting				
Action Platform for Reporting on the SDGs	UN Global Compact and Global Reporting Initiative (GRI)	Leveraging GRI standards on reporting and the 10 principles of the UN Global Compact, the Action Platform provides three reporting tools to help businesses to integrate sustainability and the SDGs into their reporting activities ^{cc}	 Analysis of goals and targets Practical guide on integrating the SDGs in reporting Addressing investor needs in SDG reporting 	Enables measuring and reporting of SDGs

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Appendix 10 List of Global SDG Supports, Initiatives and Programmes

Table A10.1. Non-exhaustive list of global SDG supports, initiatives and programmes

Support type	Support name	Responsible body	Description
		body	Description
SDG specific: a	ıll stakeholders		
Collaboration	SDG Lab	UN	This multi-stakeholder initiative contributes to the implementation of the SDGs by leveraging knowledge and expertise into policy, practice and action ^a
Data management	IAEG-SDGs working groups	UN	At its third meeting, the IAEG-SDGs formed three working groups to investigate specific areas related to SDG indicator implementation. These working groups provide regular progress reports on interlinkages, statistical data and metadata exchange, and geospatial information ^b
Data management	Cape Town Global Action Plan for Sustainable Development Data	United Nations Security Council	Adopted in 2017, the Global Action Plan for Sustainable Development Data aims to outline the required actions to generate quality and timely data to inform sustainable development at the desired level of disaggregation and population coverage. It contains actions under six key strategic areas ^c
Data management	Open SDG Data Hub	UNDESA	This hub promotes the exploration, analysis and use of SDG data sources for evidence-based decision-making. It uses a wealth of SDG data to enable users to discover, understand and communicate inter-relationships and patterns ^d
Discussion forum	HLPF	UN	The HLPF is the main UN platform on sustainable development. It plays a central role in the follow-up and review of Agenda 2030 and the SDGs at the global level. It meets annually under the UN Economic and Social Council and every 4 years at the level of heads of state and government ^e
Education	SDG Academy	SDSN	This platform offers free educational resources on sustainable development. There are currently 24 courses on the platform covering a range of interdisciplinary topics related to the SDGs ^f
Funding	SDG Fund	UN	This is an international multi-stakeholder and multi-donor development mechanism developed to support sustainable development activities through funded programmes. Developing PPPs is a key feature of the fund ⁹
Standards	Gold Standard for the Global Goals	World Wide Fund for Nature	The Gold Standard was established in 2003 to ensure that projects that reduced CO ₂ emissions under the UN's Clean Development Mechanism also contributed to sustainable development. In 2017, it launched the Gold Standard for the Global Goals to enable climate and development interventions to quantify, certify and maximise their climate security and sustainable development impacts ^h
SDG specific: e	enterprise focused		
Awareness/ engagement building	Global SDG Awards	Global SDG Awards	This is an international sustainability initiative designed to increase private sector engagement with the SDGs through competition ⁱ
Awareness/ engagement building	UN Global Compact	UN	The UN Global Compact voluntary initiative is based on CEO commitments to implement 10 universal sustainability principles and to take steps to support the SDGs. It is a global movement of sustainable organisations and other stakeholders ^j
Awareness and recognition	SDGs&Her	World Bank	This is an online competition for female entrepreneurs to showcase how they are supporting the SDGs through their business operations. Key objectives of the initiative include recognition, awareness of the SDGs and opportunities to collaborate, and sharing best practice and innovative ideas ^k

Table A10.1. Continued

Support type	Support name	Responsible body	Description
Awareness	Principles for Responsible Management Education (PRME) initiative	UN	The PRME initiative was founded in 2007 as a platform to raise awareness of sustainability in schools around the world. Its objective is to educate tomorrow's business leaders, ensuring that they are responsible leaders with a sustainability mindset and the ability to deliver change
Benchmarking	World Benchmarking Alliance	WBSCD	Launched in 2019, this multi-stakeholder initiative intends to rank a selection of 2000 of the world's largest companies through a series of benchmarks that measure and compare enterprise performance on the SDGs ^m
Discussion forum	UN-Business Action Hub	UN Global Compact and Global Hand	The UN-Business Action Hub is a platform where the UN and businesses can engage in dialogue, share information and take action to advance the SDGs and other UN objectives ⁿ
Discussion building	SDG Business Forum	UNDESA, UN Global Compact and ICC	Running in parallel to the HLPF, the SDG Business Forum is a platform for supporting business action and partnerships to achieve the SDGs. It fosters public–private dialogue and explores innovative business solutions to accelerate sustainable development. The 2018 Forum focused on five of the seven environmental SDGs°
Innovation	UNLEASH	UNLEASH	UNLEASH is an innovation lab that aims to develop innovative, implementable and scalable solutions to the SDGs. The 2018 Lab, which took place in Singapore, focused on five of the seven environmental SDGs ^o
Reporting	Action Platform for Reporting on the SDGs	UN Global Compact and Global Reporting Initiative (GRI)	Launched in 2017, this initiative aims to provide a framework for businesses to assess and report on their contributions to the SDGs using both the GRI Standards and the UN Global Compact's Ten Principles ^q
Examples of glo	bbal sustainability in	itiatives that are no	t specific to the SDGs but where alignment with the SDGs exists
Awareness building/ discussion forum	Global Dialogue for Water Security and Economic Growth	OECD and Global Water Partnership	The Global Dialogue for Water Security and Economic Growth is an initiative to promote and accelerate the transition to water security. It connects policymakers and practitioners through consultations and a task force analysis of the links between sustainable economic growth and water security. It has close alignment to SDG 6 ^r
Collaborative network	SDSN	UN	The SDSN brings together global scientific and technological expertise to discuss, develop and promote practical solutions for sustainable development, including implementation of the SDGs ^s
Collaborative network	Green Growth Knowledge Platform (GGKP)	UN, OECD and World Bank	Established in 2012, the GGKP is a global network of international organisations and experts that collaborate to identify and address major knowledge gaps in green growth theory and practice. Through collaboration and world-class research, the GGKP offers practitioners and policymakers policy guidance, tools and data to aid the transition to a green economy ^t
Discussion forum	Committee on Trade and Environment (CTE)	WTO	The WTO established the CTE forum to bring WTO members together to discuss environment and trade-related issues so that countries can learn from each other's national experiences to ensure that policies work together. This forum preceded Agenda 2030 and therefore is not specific to the SDGs, but it does share alignment with SDGs 11 and 12 ^u
Discussion forum	Global Taskforce of Local and Regional Governments	Global Taskforce	This forum is a consultation mechanism that brings together international networks of local governments to undertake collaborative advocacy work relating to global policy processes, including the SDGs and climate change
Standards	International Social and Environmental Accreditation and Labelling (ISEAL) Innovations Fund	ISEAL Alliance	ISEAL Alliance is the global membership association for sustainability standards. It addresses many of the world's biggest social and environmental challenges. Its Innovations Fund aims to support innovations that can help sustainability standards deliver more value to stakeholders*

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Appendix 11 List of Key Global SDG Tools

Table A11.1. Non-exhaustive list of key global SDG tools

Tool category	Tool name	Responsible body	Description
Awareness building/ knowledge resource	Partnerships for SDGs online platform	UN	This platform is the UN's global registry of voluntary commitments and multi-stakeholder partnerships made in support of the SDGs. It also facilitates the sharing of knowledge and expertise among partnerships and provides periodic updates on their progress ^a
Awareness building/ knowledge resource	SDGs Knowledge Platform	UNDESA	Managed by the Division for Sustainable Development Goals, the platform provides access to information and knowledge on sustainable development to Member States, other stakeholders and the general public ^b
Data repository	SDG Indicators – metadata repository and database	UN Stats	This database and metadata repository presents the latest metadata information provided by the UN System and other international organisations for Tier I and Tier II indicators in the global indicator framework ^c
Financing	World Investment Forum (WIF) SDG Toolbox	WIF and United Nations Conference on Trade and Development (UNCTAD)	This toolbox contains examples of best practice and other initiatives that boost the private financing of the SDGs, in addition to co-operation with public sector entities. It outlines the steps needed to increase private investment and improve the sustainability and inclusivity of private investments across the SDGs ^d
Knowledge resource	SDG Knowledge Hub	IISD	An online resource centre for news and commentary on the SDGs. The hub also contains a calendar of upcoming events related to Agenda 2030e
Localisation resource	Localisation Toolkit	UNDP and UN- Habitat	This toolkit contains a wide range of tools and strategies to enable the user to facilitate SDG implementation at a local level across the initialisation and capacity-strengthening processes ^f
Mapping	UNSD GIS SDG monitoring project	Various	Seven UN members (including Ireland) have been invited to take part in a research exercise to develop a new approach for monitoring SDGs using geographic information systems (GISs). Ireland's website launched in 2017 and contains 62 indicators and a number of story maps for users to analyse ⁹
Monitoring and tracking	UN System SDG Implementation online database	UNDESA	Example of a monitoring tool focused mainly on policy and strategy. It is the UN System's repository of plans, initiatives and actions on the implementation of Agenda 2030 and the SDGs. It is a reference tool for understanding what UN System entities have been doing in support of the implementation of Agenda 2030 and the SDGs ^h
Monitoring and tracking	Sustainable Development Report	Bertelsmann Stiftung and SDSN	The Sustainable Development Report measures countries' progress towards achieving the SDGs. It indicates areas requiring faster progress. The SDG Index score can be interpreted as the percentage of achievement
Monitoring and tracking	SDG Atlas	World Bank	This atlas provides maps, charts and stories relating to the SDGs. It discusses trends, comparisons and measurement issues using data visualisations ⁱ
Monitoring and tracking/ reporting	SDG Monitoring and Reporting Toolkit for UN Country Teams	UNDESA	This toolkit supports national governments in monitoring and reporting on the SDGs. It provides access to global policies and guidelines, data resources, SDG localisation and implementation resources, and capacity building and co-ordination resources ^k
Policy assessment	SDG Accelerator and Bottleneck Assessment (ABA)	UNDP	The SDG ABA tool supports countries in identifying policy and/or programme areas that can trigger positive multiplier effects across the SDGs (i.e. "accelerators") and provide solutions to bottlenecks that hamper the maximum performance of mechanisms that enable the identified accelerators ¹

Table A11.1. Continued

Tool category	Tool name	Responsible body	Description
Policy coherence	Policy Coherence for Sustainable Development (PCSD) online toolkit	OECD	The PCSD online toolkit provides guidance, self-assessment checklists, best practice examples and tools to analyse, enhance and track progress on policy coherence in the implementation of the SDGs ^m
Policy framework	PCSD Framework	OECD	The PCSD Framework provides countries and other stakeholders with guidance on how to analyse, apply and track progress on policy coherence for the SDGs ⁿ
Reporting	SDG Indicator Portal	IISD	Based on the top-down indicators selected by the UN, the portal provides a bottom-up view of indicator reporting by nation using visualisations of the indicators that countries are choosing to report on for the SDGs°
Reporting	SDG visualiser	UNDP	This tool enables users to track SDG progress, lessons learned and challenges by country using reports such as VNRs and country progress reports ^p
Standards	ISO SDG tool	ISO	The ISO SDG tool identifies the international standards that make the most significant contribution to each of the 17 SDGs. The tool also identifies which ISO technical committee developed each standard ^q
Trend analysis	SDG Trend Scanner	UNDP and RISE	This tool enables businesses, the public sector and other stakeholders to use key disruptive technological and societal trends as drivers for accelerating their progress towards the achievement of the SDGs. The initiative will also explore opportunities for stakeholders to leverage trends through collaborative research, innovative pilot projects and the development of new tools ^r
Other			
Policy	Various policy tools	Various	Other tools that are used to address SDG connections and enhance policy and institutional coherence include the SDG interactions framework, ^s NDC-SDG Connections, ^t the Sustainable Asset Valuation tool ^u and the Sustainable Development Verified Impact Standard ^v
Simulation	ESCAP Resource Efficiency Simulation App	United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)	This simulator enables the user to simulate the potential gains of enhancing material, water and energy efficiency in a selected country ^w
Standards	SASB Navigator	Sustainability Accounting Standards Board	The SASB Navigator is a tool to identify issues across environmental, social and governance factors that impact on enterprise performance and identify how well companies are disclosing on these issues ^x

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- "https://klimalog.die-gdi.de/ndc-sdg/ (accessed 3 June 2020).
- vhttps://verra.org/project/sd-vista/ (accessed 3 June 2020).
- whttps://sdghelpdesk.unescap.org/re/index.html (accessed 28 August 2019).
- *https://navigator.sasb.org/#about (accessed 28 August 2019).

Appendix 12 List of European Policy and Strategy Tools

Table A12.1. Non-exhaustive list of examples of European policy and strategy tools relating to SDGs

Tool category	Tool name	Responsible body and region	Description
Policy	Library of EU policies and actions relating to each SDG	EC (Europe)	The EC has developed a large number of both internal and external policies that are linked to the 17 SDGs and their targets. This site hosts EU policies and actions relating to each SDG ^a
Policy	Better Regulation Toolbox	EC (Europe)	This toolbox allows for the analysis of the potential impacts of important EU policy initiatives on developing countries. It helps to ensure that any impacts on these countries are considered at a very early stage of the preparation of an initiative ^b
Resource platform	KnowSDGs	EC (Europe)	This platform houses tools, knowledge on policies (mapped against all 17 SDGs), methods and indicators, and data to support the implementation of the SDGs ^c

ahttps://ec.europa.eu/sustainable-development/about_en (accessed 28 August 2019).

bhttps://ec.europa.eu/info/better-regulation-toolbox_en (accessed 28 August 2019).

[°]http://knowsdgs.jrc.ec.europa.eu/ (accessed 28 August 2019).

Appendix 13 List of Regional SDG Supports, Initiatives and Programmes

Table A13.1. Non-exhaustive list of regional SDG supports, initiatives and programmes

		Responsible body	
Support type	Support name	and region	Description
SDG specific: all st	takeholders		
Awareness and engagement	European Sustainable Development Week (ESDW)	European Sustainable Development Network (Europe)	The ESDW is a European-wide initiative to stimulate and spread awareness of events, activities and projects that promote sustainable development and the SDGs ^a
Discussion forum	Regional Forum on Sustainable Development (RFSD)	UN Regional Commissions (all regions)	The RFSD reviews the implementation of the SDGs in the five UN Regional Commission regions. With a focus on practical value added and peer learning, it develops a regional space where stakeholders can share policy solutions, key learning, best practices and key challenges in implementing the SDGs and helps identify major regional and subregional trends ^b
Discussion forum	SDG multi- stakeholder platform	EU (Europe)	This high-level multi-stakeholder platform regularly brings together stakeholders from civil society, NGOs and the private sector to support and advise the EC on the implementation of SDGs at EU level ^c
Localisation	SDG localising tool	European Observation Network for Territorial Development (ESPON) (Europe)	In December 2018, ESPON put out a call for tenders to develop a web application tool that can be used by governments to identify subregions that are leading and lagging in implementing the SDGs and to find peers with similar characteristics ^d
Knowledge resource	Environmental SDGs Tool Compendium	United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) (Asia)	This compendium provides a review of available tools related to the integration of the environment into policy and planning in order to deliver sustainable development in the Asia and Pacific region ^e
Monitoring and tracking	EU Indicator Set	Eurostat (Europe)	In May 2017, Eurostat published its own set of SDG indicators. Comprising 100 indicators, it is structured along the 17 SDGs ^f
Monitoring and tracking	SDG data portal	UNESCAP (Asia- Pacific)	The SDG data portal provides a regional perspective on the current status and progress towards the 17 SDGs in the Asia-Pacific region. This portal covers the 58 regional Member States of the Economic and Social Commission for Asia and the Pacific ⁹
Monitoring and reporting	Sustainable development in the EU – monitoring report on progress towards the SDGs in an EU context	Eurostat (Europe)	Eurostat publishes annual monitoring reports on the progress of SDG implementation in the EU and its Member States. The analysis reports on the EU SDG indicator set ^h
SDG specific: ente	rprise focused		
Awareness and recognition	European Sustainability Award	EC (Europe)	The European Sustainability Award was launched to recognise and reward the creativity and efforts of European people, businesses, public bodies and organisations. The award is granted annually to initiatives that are turning the SDGs into concrete solutions ⁱ
Knowledge resources/ discussion forum	Sustainable Business Exchange	CSR Europe (Europe)	This exchange is the European hub for action towards implementing the SDGs. It empowers organisations to take action and adopt sustainable growth models. It also fosters business engagement with the wider community to make sustainability a key driver for growth in Europe

Table A13.1. Continued

Support type	Support name	Responsible body and region	Description
Innovation hub	SDG Incubator	CSR Europe (Europe)	Part of CSR Europe's Sustainable Business Exchange, the objective of the SDG Incubator is to incubate collaborative action by leveraging CSR Europe's network of partners, reaching over 11,000 companies and stakeholders in 31 countries across Europe
Examples of region	nal initiatives that are no	it specific to the SDGs b	ut where alignment with the SDGs exists
Innovation marketplace	Social Challenges	Socialchallenge.eu (Europe)	Socialchallenges.eu is a platform aimed at creating a marketplace where actual social challenges can find innovative solutions. It provides €30,000 grants and dedicated support to ensure that public and private sector organisations' environmental and social challenges are met with solutions from social innovators, SMEs and start-ups

ahttps://www.esdw.eu/ (accessed 28 August 2019).

https://ec.europa.eu/eurostat/documents/276524/10369740/SDG_indicator_2020.pdf (accessed 28 August 2019).

https://www.socialchallenges.eu/en-US/community/4/About (accessed 28 August 2019).

^bhttps://www.unece.org/sustainable-development/regional-forum-on-sustainable-development/rfsd2018/regional-forum-background.html (accessed 28 August 2019).

^chttps://ec.europa.eu/info/strategy/international-strategies/global-topics/sustainable-development-goals/multi-stakeholder-platform-sdgs/role-structure-and-working-methods_en (accessed 28 August 2019).

dhttps://www.espon.eu/call-SDG%20localising%20tool (accessed 28 August 2019).

[°]http://sdghelpdesk.unescap.org/sites/default/files/2018-07/Environmental%20SDGs%20Tool%20Compendium.pdf (accessed 28 August 2019).

⁹http://data.unescap.org/sdg/ (accessed 28 August 2019).

https://ec.europa.eu/eurostat/web/products-statistical-books/-/KS-01-18-656 (accessed 28 August 2019).

https://ec.europa.eu/info/sites/info/files/european-sustainability-award-frequently-asked-questions_en.pdf (accessed 28 August 2019).

Appendix 14 SDG Strategic Integration Tools at Country Level

Table A14.1. Non-exhaustive list of country-level SDG strategic integration tools

Tool		Responsible	
category	Tool name	body	Description
Guide	SDG Cities Guide	SDSN and GIZ	This guide outlines how cities can get started with implementing SDGs in cities. It provides city leaders, policymakers and local practitioners with a practical guide for on-the-ground planning and development ^a
Roadmap	Roadmap for localising the SDGs: implementation and monitoring at subnational level	UN-Habitat, UNDP and Global Taskforce of Local and Regional Governments	This roadmap for localising the SDGs has been developed to support regions and cities to deliver on Agenda 2030. It seeks to support local and regional governments to influence national policymaking and to implement and monitor the SDGs. The roadmap is split into five parts: awareness raising, advocacy, implementation, monitoring and next steps ^b
Self- assessment	Parliaments and the Sustainable Development Goals: a self- assessment toolkit	UNDP	The purpose of this toolkit is to assist parliamentarians to assess their preparedness to engage with the SDGs and identify additional partnerships, mechanisms and strategies to support implementation of the SDGs ^c
Self- assessment	Rapid Integrated Assessment	UNDP	This tool enables countries to assess their readiness to implement the SDGs. It is a first step in the process of localising the SDGs. It reviews national and subnational development plans and relevant sector strategies and provides an overview of the level of alignment between the plans/ strategies and SDG targets. It also identifies requirements for cross-sector collaboration to achieve specific SDG targets ^d
Simulation	The World's Future	International Institute for Applied Systems Analysis and OECD	The World's Future is a role-play game that serves as an experiential playground based in scientific systems research. The simulation challenges players' understanding of sustainability dynamics and their ability to innovate towards the SDGs ^e
Simulation	Integrated Sustainable Development Goals (iSDG) model	Millennium Institute	The iSDG model allows policymakers and planners to understand the interconnectedness of SDG policies (policy coherence) and to test their likely impacts before they are adopted ^f

ahttps://sdgcities.guide/scope-purpose-and-structure-of-the-guide-ef19de0c42f7 (accessed 28 August 2019).

https://www.millennium-institute.org/isdg (accessed 28 August 2019).

bhttp://media.wix.com/ugd/bfe783_434174b8f26840149c1ed37d8febba6e.pdf (accessed 28 August 2019).

https://drive.google.com/file/d/17feS9xc7A8oQU5wfXrRtWKvI0sP5IrhM/view (accessed 28 August 2019).

^dhttps://www.undp.org/content/undp/en/home/librarypage/sustainable-development-goals/rapid-integrated-assessment---mainstreaming-sdgs-into-national-a.html (accessed 28 August 2019).

[°]http://www.iiasa.ac.at/web/home/research/researchPrograms/EcosystemsServicesandManagement/event/170614-WorldsFutureGame.html (accessed 28 August 2019).

Appendix 15 Supports, Initiatives and Programmes at Country Level

Table A15.1. Non-exhaustive list of country-level SDG supports, initiatives and programmes

Initiative/	Initiative/		
programme type	programme name	Country	Description
Awareness	SDG Voices programme	Belgium	The SDG Voices campaign challenged cities in Belgium to encourage and mobilise its citizens to be conscious of the SDGs in their daily lives. In addition, it selected eight organisations as SDG champions or "voices" to be ambassadors of the SDGs – they received a budget with the goal of communicating the SDGs in Belgium ^a
Awareness	Social Responsibility Week	Portugal	As part of the 2018 Social Responsibility Week, a network of SDG events was held to make the case for using the SDGs as a catalyst for innovation by SMEs and start-ups. Several start-up founders shared their experiences of how they are leveraging disruptive technologies to develop solutions aligned with the SDGs. Over 300 companies participated in the events ^b
Awareness	SDG Roadshow	UK	In 2017 and 2018 a SDG Roadshow took place in the UK, visiting 11 cities and reaching over 8000 people to build awareness of the SDGs in the UK. Participants included a range of businesses and other stakeholders, many with limited awareness of the SDGs before attending ^c
Business forum	SDG Business Forum Austria	Austria	The SDG Business Forum – Austria's Economy and the Global Sustainable Development Goals is a government initiative that aims to increasingly introduce Austrian companies to new markets in emerging countries, to promote Austrian companies and to contribute to a uniform framework for sustainable activities in Austria. At the final forum, international experts will analyse the opportunities and challenges of trends such as climate change and digitisation in the context of the SDGs. Austrian companies must also present concrete business opportunities at this forum ^d
Enterprise fund	Enterprise for SDGs	Belgium	This initiative will support business projects working with NGOs and academics to meet at least one of the SDGs. The €12 million-funded programme's objective is to work through challenges facing start-ups and eventually reach a point where the new business is commercially viable and focused on providing social, environmental and economic benefitse
Enterprise fund	Challenge-Driven Innovation	Sweden	Vinnova, Sweden's enterprise agency, has developed Challenge-Driven Innovation to solve social challenges that require collaboration to overcome. To be eligible for funding, projects must contribute to at least one SDG ^f
Innovation platform	Clean Growth Hub	Canada	The hub is a whole-of-government initiative for clean technology focused on supporting companies and projects contributing to SDGs 7, 9 and 13. Providing access to funds and experts, the hub will also accelerate Canada's Framework on Clean Growth and Climate Change ⁹
Innovation platform	SDGs Holistic Innovation Platform (SHIP)	Japan	This is an open innovation platform that tackles SDGs and aims to solve challenges with enterprise know-how and technology. Jointly run by the Japan Innovation Network and the UNDP, it offers Japanese companies a variety of programmes on innovation opportunities ^h

ahttps://www.sdgs.be/en/sdg-voices (accessed 28 August 2019).

bhttps://www.respact.at/dl/OLrIJLJMlkJqx4OooJK/GCLNs-Accelerating_National-SDG-Implementation.pdf (accessed 28 August 2019).

ehttps://www.unglobalcompact.org.uk/sustainable-development-goals-uk-roadshow/ (accessed 28 August 2019).

dhttps://sdghub.com/austria-respact/ (accessed 28 August 2019).

ehttps://www.kbs-frb.be/en/Newsroom/Press-releases/2018/20181212AJ (accessed 28 August 2019).

https://www.vinnova.se/en/m/challenge-driven-innovation/ (accessed 28 August 2019).

⁹https://www.ic.gc.ca/eic/site/099.nsf/eng/home (accessed 28 August 2019).

https://www.sdgs-ship.com/en/ (accessed 28 August 2019).

Appendix 16 Draft Interview Guide

A16.1 Strategy and Policy

- 1. Do you have a:
 - (a) Corporate social responsibility policy? Does it reference sustainability/environment?
 - (b) Sustainable development strategy and goals/ targets?
- 2. If yes, what was the impetus/driver for having a sustainable development strategy/implementation plan?
- 3. Is there a designated area or person with responsibility for ensuring that sustainability goals are met? If so, where in the organisation does responsibility lie (i.e. who, what department and at what level)?
- 4. Does your organisation align with other organisations on sustainable strategy and policy?

A16.2 Sustainable Development Goals

- Does the organisation have an awareness of the UN SDGs? How widespread is this awareness (from board level to staff level)?
 - (a) (If yes) Is this awareness embedded in the organisation and explicitly communicated?
- 2. Does the organisation have targets/actions linked to the UN SDGs?

A16.3 Programmes, Initiatives and Supports

- 1. What sustainability programmes do you have and are they aligned to the SDGs?
 - (a) If you have aligned your programmes and actions to the SDGs, how did you approach this task – organisationally and what tools did you use, who led the process – internal resource or consultants?
 - i. Are there any key learnings from this?

- 2. What supports do you have in place to help you/your clients meet sustainable development targets?
- 3. What challenges do you face in meeting your sustainable development targets?
- 4. Does your organisation align with other organisations on programmes/initiatives and supports? If yes, what are they?
 - (a) Do you see/have you identified opportunities for alignment/synergy?
- 5. Are you aware of any national/international comparators/good references for best practice (e.g. case studies)?

A16.4 The Supporting Environment

1. What supports would be helpful to align/manage/ achieve your SDG objectives/responsibilities?

A16.5 Internal SDG-related Processes

- 1. Did you select the SDGs first and then develop programmes in any instance?
- 2. Is the alignment to the SDGs an ongoing process, i.e. applied to new programmes?
- 3. How do you track progress?

A16.6 Reporting

- How does the organisation report SDGs/ sustainability progress?
 - (a) Who are SDGs reported to and in what format?
- 2. Is budget spend related to the SDGs allocated and tracked?
- 3. What body/department do you report your organisation's SDG activity to?
 - (a) Is this subsequently included in the National Development Plan 2018–2020 reporting?

A16.7 Communications

- 1. Do you communicate the SDGs internally and at what level (corporate and staff level) (i.e. newsletters, annual reports, board agendas)?
- 2. Do you communicate the SDGs externally (i.e. to customers, sister organisations, the general public)?
- 3. Are you involved in organisations/associations related to the SDGs?

Appendix 17 Environmental Sustainability Maturity Model and Guidance Tool



Figure A17.1. Sustainability maturity model.

Table A17.1. Sustainability maturity assessment scale

	S Central Solutions lead. learn. sustain.		The Enterprise Sustainability GPS	ıstainability GF	So	
		Plot your	Plot your company's location on the path to sustainability	on the path to sustai	inability	
	Level 0	Level 1	Level 2	Level 3	Level 4	Level 5
	unaware	ad-hoc	developing	established	advanced	optimised
	00	1	\$. ₩	·*C	卖
	In the Dark	Head in the Sand	Ear to the Ground	On the Right Path	Nearly There	Mountain Top
Communication	1. No awareness of SDGs/sustainability	 Awareness of sustainability but no/ limited communication internally or externally on sustainability/SDGs 	Sustainability policies communicated to staff as a top-down initiative	Actively engaged in a two-way conversation on sustainability issues with employees, clients and other stakeholders	Actively engaged in multi-stakeholder forums on sustainability Actively communicates sustainability successes	Sustainability/SDG Champion – inspires others as a public advocate of action Acts as a lobbyist on sustainability issues
Environmental and societal impacts	Lack of awareness of the need to monitor environmental and societal impacts of business practices	Impact of business practices on the environment not considered or tracked	Impact of business practices on the environment not tracked but company considering ways of incorporating this	Conscious of sustainability and environmental impacts but sustainability activities are not part of a wider sustainability strategy	All operational activities are monitored for environmental and societal impacts	Inclusive business Real-time sustainability management systems in place to ensure resource efficiency

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Governance and reporting	No awareness of SDGs; limited interest in sustainability	Awareness of sustainability but limited ownership by	Leadership open to adopting a standardised approach	Leadership commits to adopting a standardised approach	1. Leadership has fully committed to a standardised approach	Leadership proactively engaged in sustainability
	No references to SDGs or sustainability in enterprise reporting No sustainability remote	Leadership 2. Limited references to SDGs/sustainability in enterprise reporting 3. Franmented and	to sustainability 2. Leadership open to developing a system/ procedure for reporting sustainability	to sustainability Organisation reports on sustainability as part of a defined system	to sustainability management 2. Organisation actively tracks and reports on sustainability KPIs in	Organisation sets ambitious and transparent sustainability goals/ KPIs
					real time as part of the 3. enterprise review 3. Defined sustainability management roles	Internal and external transparency in line with the accountability quality
					4	Shared decision- making on collaborative ventures
People and culture		Limited awareness among staff of need for sustainability	Staff consultations take place on the desire for sustainable	. Staff sustainability awareness initiatives in place	Active staff involvement in sustainability	Staff heavily involved in sustainability strategy and
	No sustainability training for employees		n the	Φ		operations activity
				sustainability journey	and celebrated for 2. sustainable values	Sustainability a part of employment value
					 Sustainability team in situ 3.	Sustainability
						enterprise culture across all functions
					4.	Sustainability a key topic in staff training
Processes and technology	1. Processes and technology have no	Ad hoc sustainability features incorporated	Organisation will invest 1 in sustainable ideas	Innovation procedures in place that can	Dedicated team in 1. place to develop	
	sustainability features	into processes and technology	 No core policy around the integration of sustainability into the 2. 	enable sustainable ideas Sustainability	sustainable innovations 2. Sustainability inherent	place to develop more sustainable processes
			design or procurement of new processes and technology	considerations incorporated into the design and	in the design of new processes and 2. technology through	Sustainability is a core embedded function of
				procurement of	defined policies	the design process of
				technology		technology

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Standards and compliance	Strategy 1	Overall sustainable S maturity a assessment a	Overall approach to A reach next level
No awareness of sustainability standards	No awareness of SDGs No formal sustainability plan	Sustainability is a risk management/regulatory activity only	ASSESS Develop an understanding of sustainability and the impact it can have on your business and priority areas
Inconsistent sustainable regulatory performance Misalignment with enterprise standards	No goals linked to sustainability	Does not see the value in establishing a sustainable approach; undertakes limited sustainability activity	EVALUATE Determine the financial and social value in developing a sustainability function
Gap analysis of sustainability standards complete Roadmap in place	Some sustainability goals but no strategy exists	Tuned into sustainable developments; undertakes some sustainable activity but waits for others to lead	DESIGN AND BUILD Build commitment and capabilities and identify opportunities to tackle sustainable change
Regulatory compliance is consistent Progressing towards certification	Sustainability strategy exists but does not align with the overall enterprise strategy	Actively undertakes sustainable activities; is conscious of sustainability issues but sustainability is not core to strategy	TRANSFORM Transform into an organisation in which sustainability is integrated at strategic and operational levels
Eully compliant with internationally recognised sustainability and environmental standards (even if not legally mandated in country) Risk processes in place to ensure that adverse impacts are prevented and procedures in place to allow access to remedies	Sustainability strategy aligns with the overall enterprise strategy Strategy and operational activities are consistent with the public voice on sustainability	Sustainability is embedded into strategy, operations and other work practices	OPTIMISE Measure and refine sustainability activity based on KPIs, strategy and vision
Beyond compliance – defining new standards and sector-specific leadership Systematic approach to ensuring that it holds itself fully accountable for its actions and impacts on the planet	Integrated strategy; long-term goals fully aligned to the SDGs Sustainability is a core feature of the organisational vision Proactive collaboration with others	A sustainable business that uses its sustainability model as a strategic advantage	CONTINUOUS IMPROVEMENT Maintain standards, collaborate and innovate to remain a sustainability champion

AN GHNÍOMHAIREACHT UM CHAOMHNÚ COMHSHAOIL

Tá an Ghníomhaireacht um Chaomhnú Comhshaoil (GCC) freagrach as an gcomhshaol a chaomhnú agus a fheabhsú mar shócmhainn luachmhar do mhuintir na hÉireann. Táimid tiomanta do dhaoine agus don chomhshaol a chosaint ó éifeachtaí díobhálacha na radaíochta agus an truaillithe.

Is féidir obair na Gníomhaireachta a roinnt ina trí phríomhréimse:

Rialú: Déanaimid córais éifeachtacha rialaithe agus comhlíonta comhshaoil a chur i bhfeidhm chun torthaí maithe comhshaoil a sholáthar agus chun díriú orthu siúd nach gcloíonn leis na córais sin.

Eolas: Soláthraímid sonraí, faisnéis agus measúnú comhshaoil atá ar ardchaighdeán, spriocdhírithe agus tráthúil chun bonn eolais a chur faoin gcinnteoireacht ar gach leibhéal.

Tacaíocht: Bímid ag saothrú i gcomhar le grúpaí eile chun tacú le comhshaol atá glan, táirgiúil agus cosanta go maith, agus le hiompar a chuirfidh le comhshaol inbhuanaithe.

Ár bhFreagrachtaí

Ceadúnú

Déanaimid na gníomhaíochtaí seo a leanas a rialú ionas nach ndéanann siad dochar do shláinte an phobail ná don chomhshaol:

- saoráidí dramhaíola (m.sh. láithreáin líonta talún, loisceoirí, stáisiúin aistrithe dramhaíola);
- gníomhaíochtaí tionsclaíocha ar scála mór (m.sh. déantúsaíocht cógaisíochta, déantúsaíocht stroighne, stáisiúin chumhachta);
- an diantalmhaíocht (m.sh. muca, éanlaith);
- úsáid shrianta agus scaoileadh rialaithe Orgánach Géinmhodhnaithe (OGM);
- foinsí radaíochta ianúcháin (m.sh. trealamh x-gha agus radaiteiripe, foinsí tionsclaíocha);
- áiseanna móra stórála peitril;
- · scardadh dramhuisce;
- gníomhaíochtaí dumpála ar farraige.

Forfheidhmiú Náisiúnta i leith Cúrsaí Comhshaoil

- Clár náisiúnta iniúchtaí agus cigireachtaí a dhéanamh gach bliain ar shaoráidí a bhfuil ceadúnas ón nGníomhaireacht acu.
- Maoirseacht a dhéanamh ar fhreagrachtaí cosanta comhshaoil na n-údarás áitiúil.
- Caighdeán an uisce óil, arna sholáthar ag soláthraithe uisce phoiblí, a mhaoirsiú.
- Obair le húdaráis áitiúla agus le gníomhaireachtaí eile chun dul i ngleic le coireanna comhshaoil trí chomhordú a dhéanamh ar líonra forfheidhmiúcháin náisiúnta, trí dhíriú ar chiontóirí, agus trí mhaoirsiú a dhéanamh ar leasúchán.
- Cur i bhfeidhm rialachán ar nós na Rialachán um Dhramhthrealamh Leictreach agus Leictreonach (DTLL), um Shrian ar Shubstaintí Guaiseacha agus na Rialachán um rialú ar shubstaintí a ídíonn an ciseal ózóin.
- An dlí a chur orthu siúd a bhriseann dlí an chomhshaoil agus a dhéanann dochar don chomhshaol.

Bainistíocht Uisce

- Monatóireacht agus tuairisciú a dhéanamh ar cháilíocht aibhneacha, lochanna, uiscí idirchriosacha agus cósta na hÉireann, agus screamhuiscí; leibhéil uisce agus sruthanna aibhneacha a thomhas.
- Comhordú náisiúnta agus maoirsiú a dhéanamh ar an gCreat-Treoir Uisce.
- Monatóireacht agus tuairisciú a dhéanamh ar Cháilíocht an Uisce Snámha.

Monatóireacht, Anailís agus Tuairisciú ar an gComhshaol

- Monatóireacht a dhéanamh ar cháilíocht an aeir agus Treoir an AE maidir le hAer Glan don Eoraip (CAFÉ) a chur chun feidhme.
- Tuairisciú neamhspleách le cabhrú le cinnteoireacht an rialtais náisiúnta agus na n-údarás áitiúil (m.sh. tuairisciú tréimhsiúil ar staid Chomhshaol na hÉireann agus Tuarascálacha ar Tháscairí).

Rialú Astaíochtaí na nGás Ceaptha Teasa in Éirinn

- Fardail agus réamh-mheastacháin na hÉireann maidir le gáis cheaptha teasa a ullmhú.
- An Treoir maidir le Trádáil Astaíochtaí a chur chun feidhme i gcomhair breis agus 100 de na táirgeoirí dé-ocsaíde carbóin is mó in Éirinn.

Taighde agus Forbairt Comhshaoil

 Taighde comhshaoil a chistiú chun brúnna a shainaithint, bonn eolais a chur faoi bheartais, agus réitigh a sholáthar i réimsí na haeráide, an uisce agus na hinbhuanaitheachta.

Measúnacht Straitéiseach Timpeallachta

 Measúnacht a dhéanamh ar thionchar pleananna agus clár beartaithe ar an gcomhshaol in Éirinn (m.sh. mórphleananna forbartha).

Cosaint Raideolaíoch

- Monatóireacht a dhéanamh ar leibhéil radaíochta, measúnacht a dhéanamh ar nochtadh mhuintir na hÉireann don radaíocht ianúcháin.
- Cabhrú le pleananna náisiúnta a fhorbairt le haghaidh éigeandálaí ag eascairt as taismí núicléacha.
- Monatóireacht a dhéanamh ar fhorbairtí thar lear a bhaineann le saoráidí núicléacha agus leis an tsábháilteacht raideolaíochta.
- Sainseirbhísí cosanta ar an radaíocht a sholáthar, nó maoirsiú a dhéanamh ar sholáthar na seirbhísí sin.

Treoir, Faisnéis Inrochtana agus Oideachas

- Comhairle agus treoir a chur ar fáil d'earnáil na tionsclaíochta agus don phobal maidir le hábhair a bhaineann le caomhnú an chomhshaoil agus leis an gcosaint raideolaíoch.
- Faisnéis thráthúil ar an gcomhshaol ar a bhfuil fáil éasca a chur ar fáil chun rannpháirtíocht an phobail a spreagadh sa chinnteoireacht i ndáil leis an gcomhshaol (m.sh. Timpeall an Tí, léarscáileanna radóin).
- Comhairle a chur ar fáil don Rialtas maidir le hábhair a bhaineann leis an tsábháilteacht raideolaíoch agus le cúrsaí práinnfhreagartha.
- Plean Náisiúnta Bainistíochta Dramhaíola Guaisí a fhorbairt chun dramhaíl ghuaiseach a chosc agus a bhainistiú.

Múscailt Feasachta agus Athrú Iompraíochta

- Feasacht chomhshaoil níos fearr a ghiniúint agus dul i bhfeidhm ar athrú iompraíochta dearfach trí thacú le gnóthais, le pobail agus le teaghlaigh a bheith níos éifeachtúla ar acmhainní.
- Tástáil le haghaidh radóin a chur chun cinn i dtithe agus in ionaid oibre, agus gníomhartha leasúcháin a spreagadh nuair is gá.

Bainistíocht agus struchtúr na Gníomhaireachta um Chaomhnú Comhshaoil

Tá an ghníomhaíocht á bainistiú ag Bord lánaimseartha, ar a bhfuil Ard-Stiúrthóir agus cúigear Stiúrthóirí. Déantar an obair ar fud cúig cinn d'Oifigí:

- An Oifig um Inmharthanacht Comhshaoil
- An Oifig Forfheidhmithe i leith cúrsaí Comhshaoil
- An Oifig um Fianaise is Measúnú
- Oifig um Chosaint Radaíochta agus Monatóireachta Comhshaoil
- An Oifig Cumarsáide agus Seirbhísí Corparáideacha

Tá Coiste Comhairleach ag an nGníomhaireacht le cabhrú léi. Tá dáréag comhaltaí air agus tagann siad le chéile go rialta le plé a dhéanamh ar ábhair imní agus le comhairle a chur ar an mBord.

EPA Research Report 336

Charting Ireland's Sustainable Future: Innovative Approaches towards Achieving the United Nations Sustainable Development Goals for Enterprises



Authors: Colm Gaskin, Ken Stockil, Niall Keely and Myles Kingston

Following an 18-month period of desk research and a process of national and international stakeholder consultations, this report captures the key recurring themes from Ireland's engagement with the 7 environmental UN Sustainable Development Goals (SDGs) to date and its role in supporting private sector enterprises in delivering impactful contributions to these SDGs. The report provides a series of recommendations across each theme on how the enterprise sustainability eco-system must work in unison to achieve its targets by 2030.

Identifying Pressures

With less than 10 years remaining to achieve the targets set out in Agenda 2030, the world continues to face key global and local challenges in addressing the 17 Sustainable Development Goals – navigating the complexity of such a broad framework, ensuring political buy-in, converting that buy-in into both tangible and measurable outputs, financial and resource constraints, fostering a paradigm shift in human behaviour and ensuring that governments and communities engage with the private sector to deliver sustainable change. The private sector must play an active role in supporting the achievement of the environmental aspects of the 17 goals or the world risks failing to meet its targets. The SDGs can be viewed as a request to enterprise, first to act more responsibly and then to use their resources to solve complex global issues through innovative, collaborative and inclusive approaches to help create a better world.

Informing Policy

This research contributes to the existing body of knowledge and provides insight on the current sustainability landscape, mapping some of the key stakeholders involved, both in Ireland and internationally. It identifies global trends in regard to sustainability strategies and policies, the availability of enterprise sustainability supports and the latest SDG tools and technologies. This research also maps the degree of stakeholder alignment nationally both with the SDGs and other stakeholders in Ireland. It also examines and compares the level of SDG engagement in Ireland with best practice from across the globe. Following extensive desk research and a process of national and international actor consultations, the report helps define the key challenges, barriers and drivers for enterprises in engaging with the environmental SDGs, highlighting the nuances and complexities involved in reframing sustainability as an enabler for economic growth.

Developing Solutions

Supported by research, the report outlines several recommendations to help promote engagement at enterprise level in Ireland with the environmental and sustainability aspects of the SDGs. Despite launching in 2015, there is still a lack of knowledge, understanding and engagement with the SDGs within Ireland. Therefore, there is a need to educate and raise awareness across enterprises as a first step to achieving the targets set out in the 2030 Agenda. Enabling structures that can foster and incentivise SDG engagement need to be developed at a national level through policy, enterprise support and guiding best practice behaviour. This can be achieved through driving standards compliance, reporting and benchmarking mechanisms.

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