



Business Working Together for a Low Carbon Ireland

Inaugural Report on the BITCI Low Carbon Pledge

PwC June 2019



BUSINESS
IN THE
COMMUNITY
IRELAND



Ministerial Foreword



Richard
Bruton

Minister for
Communications, Climate
Action and Environment

The Government is determined to take decisive Climate Action. The Citizens' Assembly signposted a way for radical reform in its 2018 report and the all-party Oireachtas Committee on Climate Action has, more recently, issued a comprehensive set of recommendations. In unanimously endorsing these recommendations, Dáil Éireann has recognised the scale of the climate disruption that faces our planet and has declared a climate and biodiversity emergency.

Given the scale of the challenge, and the strong political and social consensus on the need for ambitious climate action, we now need to work collectively across Government, enterprise and wider society to address the challenges and realise the opportunities that such changes can hold.

The Government will shortly publish a new Climate Plan to respond to this challenge. It will recognise that the window of opportunity to act is fast closing and the time to act is now. The Climate Plan will enable Ireland to meet our emissions targets over the next decade and put in place a strong foundation for the complete decarbonisation of our economy by mid-century.

To realise our vision of a low carbon transition will require a revolution in how we live. Every person, every community, every enterprise, every home and every school will have to make profound changes in the systems and practices that support our lifestyle. Nothing less will do if we are to make the changes that are needed to create a sustainable future for everyone.

The enterprise sector plays a critical role in managing and achieving the transition to a low carbon economy. While there will be many challenges to achieving the required transformation, it is important that we recognise the opportunities too. Early movers will be best placed to be competitive whereas those who delay will face rising costs. Enterprises know that innovation will be a powerful tool in addressing the decarbonisation challenge. Most of the technologies we need to decarbonise are available and it is now a question of how they are deployed. The Government is committed to working closely with the enterprise sector to help it maximise the opportunities of a low carbon economy.

I wish to recognise the leadership that this inaugural report on the Low Carbon Pledge represents. Initiated by Business in the Community Ireland (BITCI) and its Leaders' Group on Sustainability, it is a leading

example of collective business commitment to climate action and has been endorsed by international organisations such as We Mean Business, World Business Council for Sustainable Development and CSR Europe. I commend the 47 business leaders of the BITCI network that are championing climate action by becoming signatories to the Pledge. This report marks an important milestone in a longer term programme of commitment and action by the network, and I see this work as a critical step to increasing enterprise ambition on climate action over the coming years.

The Pledge shows that business leaders recognise the urgency of climate change and are playing a leadership role. Collaborative action such as this will greatly help position Ireland as a credible leader on climate change. This will be a key theme of the Government Climate Plan, which will seek to mobilise networks across all sectors - including buildings, heat, transport, industry and agriculture - to step up Ireland's response to climate change.

I am committed to continuing to work with BITCI and its members to expand this initiative, build its ambition and engage more companies. I invite leaders of the BITCI network and beyond to increase their commitment and focus to collective actions as demonstrated by the Low Carbon Pledge. I ask individual companies to identify what actions they can take within their own businesses, and to work with their supply chains and their wider group of stakeholders to become climate change leaders in their sector by adopting new technology and practices.

Through actively reporting on and sharing their learnings and new behaviours with their customers, employees and the wider communities in which they work, enterprises can demonstrate their leadership in the low carbon transition. By working collaboratively with government and with civil society we will have the greatest chance of creating genuine change in the short timeframe available to us. This will require a sustained effort, but it will ultimately deliver a better country in which to live, work and do business.

I wish to thank BITCI together with the Co-Chairs of the Low Carbon sub-group, Mark Foley, EirGrid and Denis O'Sullivan, Gas Networks Ireland, who have pioneered this initiative.

Richard Bruton, TD





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Executive Summary

Irish businesses are responding to the climate action challenge and to date 47 companies in Ireland have signed Business in the Community Ireland's Low Carbon Pledge. Signatory companies have committed to reducing their direct carbon intensity by 50% by 2030 and to report on their progress on an annual basis. The Pledge aims to practically demonstrate Irish businesses commitment to supporting the transition to a low carbon economy.

This inaugural report, by PwC, on the Low Carbon Pledge identifies that participating companies have engaged positively with the decarbonisation challenge and have already delivered meaningful emissions reductions. The 47 Pledge signatory companies have seen an overall emission reduction of 42% between the Baseline Period and 2018 marking significant progress towards achieving a 50% decrease in carbon intensity by 2030. Collectively companies have delivered reductions across their process, stationary and fugitive emissions sources. 66% of Pledge companies reduced their electricity usage between the Baseline and 2018. This report, and the dataset underpinning it, provides a benchmark against which to assess the future carbon reduction efforts of the signatory companies.

With an ever increasing awareness of the risks of climate change, and the importance of accelerating abatement activity, it is critical that the ambition of the Low Carbon Pledge also evolves. While the initial pledge group of 47 signatories is a significant achievement it will be important to grow this number while extending the carbon commitment scope. In order to maintain the integrity of the Low Carbon Pledge, it is critical that businesses seek external assurance of their non-financial data.

The case study analysis reveals that senior management leadership is central to driving a meaningful response to the challenges of decarbonisation. Businesses should look to embed decarbonisation and sustainability policies and actions in their core business strategy both from a risk mitigation and a value enhancing perspective. As part of this process companies should look to engage with policy makers, suppliers, employees and local communities to identify how best to support Ireland's transition to a low carbon future. For companies to truly demonstrate a commitment to decarbonisation and sustainability it is important that they are seen to equally prioritise their financial and non-financial reporting.

1

Introduction from Business in the Community Ireland

Context

Irish businesses are responding to the climate action challenge and to-date 47 companies in Ireland have signed Business in the Community Ireland's Low Carbon Pledge (The Pledge) to reduce their direct carbon footprint by 50% by 2030 and to report on their progress on an annual basis. This inaugural report is an important milestone in an ambitious long term programme of climate action by the network.

In response to the complex sustainability challenges facing business, Business in the Community Ireland (BITCI) convened the CEO-led Leaders' Group on Sustainability to identify and drive collaborative action on the priority issues for Ireland, with one of these being the transition to a low carbon economy. A Low Carbon Sub-group, chaired by the CEOs of EirGrid and Gas Networks Ireland, and senior representatives from Arup, Dawn Meats, ESB, Musgrave, and Veolia, were mandated to design a collective business response to climate change. The Pledge is the outcome of this process.

The Pledge aims to practically demonstrate Irish business commitment to reducing carbon emissions and to act as a catalyst for wider and more far reaching complementary initiatives and actions. The Pledge calls on business to be part of an ambitious collective commitment to: measure, report and communicate on carbon emissions performance; seek external validation of carbon emissions data; embed carbon reduction efforts within core business strategy; invest in low-carbon initiatives, technologies and innovations; collaborate on cross sectoral carbon reduction; and engage in dialogue with policy makers, suppliers, employees and local communities to support Ireland's transition to a low carbon future.

BITCI are delighted that PwC accepted the invitation to produce the inaugural Low Carbon Pledge Report which sets out a clear baseline from which to chart future progress on the decarbonisation pathway. This Low Carbon Pledge Report brings together for the first time a collective cross sectoral vision and includes insights from exemplar Irish companies. Through these insights, and the related dialogue combined with the actions committed under the Low Carbon Pledge, this report seeks to create urgency and a platform for joint action by business. There is clear evidence that all sectors want to play an increasing part in addressing this challenge and businesses want to work with all its stakeholders to create positive change.

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BITCI, and the business leaders that led on the design of the Low Carbon Pledge, aim for this report to become an annual statement on business action in response to climate change. BITCI and the CEOs of Gas Networks Ireland and EirGrid recognise that the pathway will be difficult, and that much remains to be done. This annual statement aims to mobilise business and make transparent what is, and isn't working, in creating change. We believe that the leadership demonstrated by the Pledge signatories, and their willingness to be part of this collective report, is a foundation on which to build more ambitious and bold action. This Pledge is designed as a mechanism to foster dialogue and engagement with other critical stakeholders such as government, suppliers, employees and communities.

Climate change presents real and potentially imminent threats that will negatively impact the environment, industry, trade and commercial functionality. All of which are activities that are critical to both Ireland's economic and social development. The Business & Sustainable Development Commission has called out, in the *Better Business, Better World* report, the global business opportunities that come with a low carbon economy. While the risks of climate inaction are clear, business needs to equally recognise that by moving to a low carbon economy, Ireland can realise new business opportunities and create a more stable economic model.

Tomás Sercovich

CEO, Business in the
Community Ireland



Denis O'Sullivan

MD, Gas Networks Ireland



Mark Foley

CEO, EirGrid



Low Carbon Pledge Signatories

A&L Goodbody

Julian Yarr (*Managing Partner*)

ABP Ireland

Frank Stephenson (*CEO*)

AIB Group

Bernard Byrne* (*CEO*)

Aldi

Giles Hurley (*CEO UK & ROI*)

An Post

David McRedmond (*CEO*)

Arup

Eoghan Lynch (*Director | Chairman Arup Ireland*)

AXA Insurance

Philip Bradley (*CEO*)

Bank of Ireland Group

Francesca McDonagh (*Group CEO*)

Boston Scientific

James Lyons (*VP Operations and Site Manager*)

BT

Shay Walsh (*Managing Director*)

Central Bank

Philip Lane* (*Governor*)

College Proteins Group

John Gilroy (*CEO*)

Dawn Meats Group

Niall Browne (*CEO*)

Deloitte

Brendan Jennings* (*CEO*)

Diageo Ireland

Oliver Loomes (*Country Director*)

EirGrid

Mark Foley (*Group CEO*)

Enterprise Rent-a Car

George O'Connor (*Managing Director*)

ESB Group

Pat O'Doherty (*CEO*)

Fujitsu Ireland

Tony O'Malley (*CEO*)

Gas Networks Ireland

Denis O'Sullivan (*Managing Director*)

Heat Merchants Group

Alan Hogan (*Managing Director*)

HEINEKEN Ireland

Maarten Schuurman (*Managing Director*)

Hovione Ireland

Paul Downing (*General Manager*)

Janssen Pharmaceutical Sciences UC

Kyran Johnson* (*General Manager*)

J&J - De Puy

Gary Hartnett (*Plant Manager*)

J&J - Vision Care

John Lynch (*Plant Manager*)

KBC Bank Ireland

Wim Verbraeken* (*CEO*)

KPMG

Shaun Murphy* (*Managing Partner*)

Lidl Ireland

JP Scully (*Managing Director*)

Marks & Spencer (Ireland)

Ken Scully (*Country Manager*)

Matheson

Michael Jackson (*Managing Partner*)

Musgrave Group

Chris Martin (*Group CEO*)

Ornua

John Jordan (*CEO*)

Permanent TSB

Jeremy Masding (*Group CEO*)

PM Group

Dave Murphy (*CEO*)

PwC

Feargal O'Rourke (*Managing Partner*)

Ricoh Ireland

Gary Hopwood (*Managing Director*)

Sodexo Ireland

Margot Slattery (*Country President*)

SSE Ireland

Stephen Wheeler (*Managing Director*)

Symantec

Kevin Hogan (*Vice President*)

Tesco Ireland

Kari Daniels (*CEO*)

Transdev Dublin Light Rail

Seamus Egan (*Managing Director*)

Ulster Bank Ireland DAC

Jane Howard (*CEO*)

Veolia

Sinead Patton (*Chief Finance and Commercial officer*)

Virgin Media Ireland

Tony Hanway (*CEO*)

Vodafone Ireland

Anne O'Leary (*CEO*)

William Fry

Bryan Bourke (*Managing Partner*)

*Signed by former CEO / Managing Partner in 2018

2



The Low Carbon Pledge & Ireland's Decarbonisation Challenge

2.1 Introduction from PwC

PwC welcomes the opportunity to produce the inaugural report on the BITCI Low Carbon Pledge. The following pages detail the process involved in building the Low Carbon Pledge Report and outline the progress of participating Signatory companies in reducing their carbon impact. The analysis highlights some of the key actions that companies are taking in order to drive their emissions reduction efforts and get on a pathway towards enhanced sustainability.

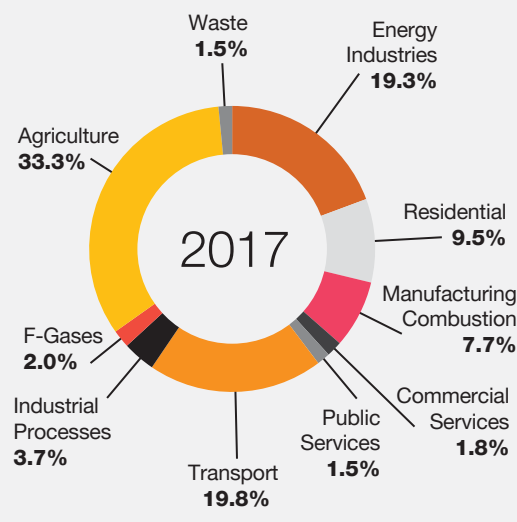
2.2 Ireland's Decarbonisation Challenge

Europe's commitment to the 2015 Paris Agreement and its associated emission targets, coupled with a long-term objective of a decarbonised European economy by 2050, will result in the EU and its Member States (including Ireland) facing increasingly onerous emission reduction targets and reduced carbon budgets. Mirroring the EU's long-term vision of the EU, Ireland's 2015 Climate Action and Low Carbon Development Act detailed the Government's long term goal of transitioning to a low carbon, climate resilient and environmentally sustainable economy by 2050. The transition to both a low carbon economy and sustainable future fundamentally depends on a country decoupling its economic and emissions growth and shifting to a low carbon transition pathway as soon as possible. Sustainable low carbon business models must be at the heart of this transition.

A discussion on the role that Ireland's business community can play in helping Ireland achieve a low carbon transition could not be more pertinent given recent EPA pronouncements. Ireland faces a challenging short to medium term emissions reduction environment as a result of its on-going challenge to significantly decouple economic and emissions growth. Ireland's critical emissions reduction challenge lie in the non-ETS sectors.¹ In 2017 Ireland's greenhouse gas emissions were almost 3 million tonnes (MtCO₂e) over the pathway required to meet Ireland's 2020 emissions target.

Figure 1. Ireland's Emissions Drivers

The agriculture, transport and energy industry sectors now account for 72% of Ireland's total greenhouse gas emissions.



The EPA project that, at best, Ireland will only achieve a 1% emissions reduction in its non-ETS sector by 2020 compared to a target of 20%. The EPA warn that Ireland is currently not on the right trajectory towards decarbonisation in the longer term (2030 & 2050). By 2030, Ireland's non-ETS sector must reduce its emissions by 30% (compared to 2005). Ireland must also comply with binding annual emissions limits for each year from 2021 – 2030. Current EPA projections envisage Ireland exceeding the allowable carbon budget implied by the annual limits by between 47-52Mt over the period (2021-2030).

With Ireland facing a significant distance to travel to have a climate resilient economy and society, the collective carbon reduction efforts of Ireland's business community will play a critical role in helping the transition to a low carbon economy.

¹ Ireland's emissions sources exist within two distinct sectors: the ETS and non-ETS sectors. The EU Emissions Trading Scheme (ETS) is an EU wide cap-and-trade system. The ETS provides cost-effective incentives to help companies in the main EU CO₂ intensive sectors (power generation & energy intensive industry (e.g. large combustion plants, oil refineries, plants producing cement, iron, steel)) in each Member State comply with annual emissions targets. The ETS sets a cap on the total amount of greenhouse gases (principally CO₂) that can be emitted by companies participating in the scheme. The cap is reduced over time so that total emissions fall. Within the cap, companies receive or buy emission allowances which can also be traded if they wish to do so. At the end of each year companies must surrender enough allowances to cover their emissions or else face the imposition of significant fines. Companies in the electricity and power gen sectors must purchase all their allowances from regularly scheduled auctions. While the EU ultimately wants to see all ETS participants buying allowances via auction, companies in all other sectors are currently allocated a significant volume of their allowances for free. Where companies receive allowances for free, their annual allocation will always be less than their emissions needs: companies must therefore undertake abatement activity or seek to purchase allowances to cover their shortfall from companies who have reduced their emissions and have surplus allowances to sell. With the ETS covering approximately 28% of Ireland's GHG, the key challenge for national policy makers lies in delivering emissions reductions in Ireland's non-ETS sectors (incl. agriculture, transport, residential, waste).



Building the Low Carbon Pledge Report

3.1 Capturing Participating Company Emissions Data

Development of the Low Carbon Pledge Report, which aims to annually track the reduction of companies' carbon impacts, is underpinned by the provision of a range of carbon emissions data. Monitoring and reporting of carbon emissions is common practice across the business sector with organisations reporting on their carbon impact through a variety of different measures.



To ensure consistency and comparability of emissions recording and reporting efforts across various companies, a carbon data template² was utilised to facilitate the emissions data capture process and quantification of each company's carbon footprint and impact. Specifically, companies were asked to:

- Identify all scope 1 & 2 carbon emissions³ sources and state how these are recorded and reviewed.
- Provide the totals for each emissions source for the baseline year selected and the current year (e.g. total volume of natural gas, total volume of purchased electricity, litres of fuel used in company vehicles, kg of refrigerants used in air conditioning systems).
- State the carbon conversion factors used to quantify the CO₂ impact of the raw material of each scope 1 & 2 emissions source.
- State the level of assurance provided on the carbon data and the calculations taken place, (e.g. do companies undertake an internal verification of their raw data or seek external verification of data, including the acquisition of 3rd Party Assurance).

² The design of the Carbon Data Template was underpinned by the internationally recognised Greenhouse Gas Protocol Corporate Standard.

³ Scope 1 emissions refer to emissions that arise directly from sources that are owned or controlled by a company. Scope 1 emissions are generally derived from four sources: Stationary (combustion of fuels in stationary sources (e.g. boilers, furnaces, turbines)); Mobile (combustion of fuels in company owned or controlled vehicles (e.g. cars, vans, trucks, trains)); Process (emissions resulting from the processing or manufacture of chemicals and materials (e.g. cement, aluminium, waste processing)); and Fugitive (emissions resulting from intentional or unintentional releases (e.g. hydrofluorocarbon emissions released from the use of air conditioning or chilling systems, methane leakage from gas transport)). Scope 2 emissions refer to emissions generated during the production of electricity purchased by a company.

All 47 of the Low Carbon Pledge signatory companies provided BITCI and PwC with their self-reported direct carbon emissions data on the basis of the carbon data template.

Table 1. Pledge Signatories & Low Carbon Report Participants

Company	Sector*	Company	Sector*
A&L Goodbody	Professional Services	J&J – De Puy	Pharma/Med Tech
ABP Ireland	Agribusiness	J&J – Vision Care	Pharma/Med Tech
AIB Group	Professional Services	KBC Bank Ireland	Professional Services
Aldi	Retailing	KPMG	Professional Services
An Post	Communications	Lidl Ireland	Retailing
Arup	Professional Services	Marks & Spencer (Ireland)	Retailing
AXA Insurance	Professional Services	Matheson	Professional Services
Bank of Ireland Group	Professional Services	Musgrave Group	Retailing
Boston Scientific	Pharma/Med Tech	Ornua	Agribusiness
BT	Communications	Permanent TSB	Professional Services
Central Bank	Professional Services	PM Group	Professional Services
College Proteins Group	Agribusiness	PwC	Professional Services
Dawn Meats Group	Agribusiness	Ricoh Ireland	Professional Services
Deloitte	Professional Services	Sodexo Ireland	Retailing
Diageo Ireland	Beverages	SSE Ireland	Energy/Utilities
EirGrid	Energy/Utilities	Symantec	Technology
Enterprise Rent-a-Car	Transport	Tesco Ireland	Retailing
ESB Group	Energy/Utilities	Transdev Dublin Light Rail	Transport
Fujitsu Ireland	Technology	Ulster Bank Ireland DAC	Professional Services
Gas Networks Ireland	Energy/Utilities	Veolia	Energy/Utilities
Heat Merchants Group	Retailing	Virgin Media Ireland	Communications
Heineken Ireland	Beverages	Vodafone Ireland	Communications
Hovione Ireland	Pharma/Med Tech	William Fry	Professional Services
Janssen Pharmaceutical Sciences UC	Pharma/Med Tech		

*The Retailing sector also captures companies involved in the sale and provision of services, e.g. hospitality and catering services, on-site service solutions, heating and plumbing equipment. Financial Services firms are grouped within the Professional Services sector as they are office based, provide a service and have a carbon footprint based on similar emissions sources to the other companies within this category.

3.2 Emissions Data Verification

The recording and reporting of emissions data represents a critical first step in businesses' engagement with, and commitment to, reducing their carbon impact. As part of the emissions data verification process review, PwC undertook an analysis of the level of assurance that the 47 Pledge Signatory companies apply to their emissions data.

The responses to the question of the level of assurance that companies currently apply to their carbon data shows that the Irish market is still quite immature in the area of sustainability assurance but that awareness is growing. While all companies reported a measure of internal validation, the methods and sophistication of the validation processes varied greatly. The European Commission's proposed common sustainable taxonomy currently in development aims to provide a framework for classifying all activities against a comprehensive set of sustainability goals, from climate change to broader environmental and social goals. This will help with the standardisation of carbon data measurement and validation.

Analysis details that only 11% of companies received external 3rd party assurance over their carbon data. In the UK engagement with limited assurance over carbon and other sustainable data has become common practice for larger companies. 55% of companies surveyed did receive some form of 3rd party assistance or validation for their carbon data mostly in the form of ISO accreditation or as part of a review (but not assurance) by a 3rd party. 34% of companies received no form of external assurance or validation over their carbon data either in the form of 3rd party assistance, an external accreditation such as ISO, or an assurance opinion from a 3rd party assurance provider.

 11% of Signatory Companies receive 3rd Party Assurance on their emissions data

While it is a positive that there is an increasing level of awareness among Irish companies around the need to measure and validate their carbon data it is important that companies continue on this path and ultimately apply similar levels of assurance to their financial and non-financial data. The risks to getting this data wrong include incorrect reporting which is now a regulatory requirement under the non-financial reporting requirements for applicable companies, poor information to support decision making and reputational damage.

This is integral to enhancing the robustness of the emissions reduction actions and commitments reported as part of the Low Carbon Pledge. As part of this process it is critical that the annual Low Carbon Report tracks and reports on the trajectory of company engagement with high quality assurance provision.



4

Potential of the Low Carbon Pledge

The Low Carbon Pledge requires Signatory companies to reduce the intensity of their Scope 1 and Scope 2 carbon emissions by 50% by 2030 and to review year-on-year Scope 1 and Scope 2 carbon emissions with the aim of demonstrating continuous improvement in abatement activity. This inaugural report outlines the progress to date of participating Signatory companies and highlights some lessons learned from businesses that have made significant early progress. The analysis of companies' self-reported emissions data provides the first insights into how the business sector is working towards improving their carbon impact. The 2018 emissions data can be viewed as providing a benchmark against which to robustly assess the future individual and collective carbon reduction efforts of the Pledge Signatories.

4.1 2018 Carbon Emissions Data

Analysis of the first set of data reveals that companies are engaging positively with the decarbonisation challenge and have already delivered some meaningful emissions reductions.

Absolute Emissions

In 2018 total (absolute) carbon emissions of the 47 Signatory Companies equalled 9.3 MtCO₂e. Scope 1 emissions were responsible for 97% of total emissions with Scope 2 generating the remaining 3%. With Pledge participants entitled to choose the baseline year to include in their Emissions Template submission (between 2005 and 2017), a range of emissions baseline year data exists.



Absolute emissions reduced by 42% (6.6MtCO₂e) between Baseline Period and 2018



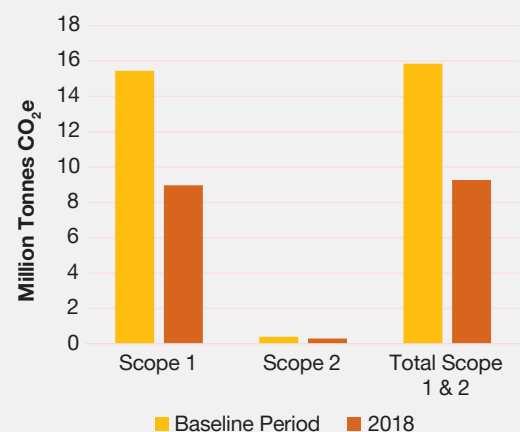
Scope 1 emissions reduced by 6.4MtCO₂e. Scope 2 emissions decreased by 0.18MtCO₂e

Aggregating baseline data across the 47 Signatory companies identifies that “Baseline” carbon emissions totalled 15.9MtCO₂e. Comparing Baseline data with current year data (2018) reveals the Signatory Companies collectively having achieved a 42% reduction (6.6MtCO₂e) in their absolute carbon emissions.

Table 2. Pledge Companies’ Total Scope 1 & 2 Emissions (Million Tonnes CO₂e)

	Emissions (MtCO ₂ e)		
	Scope 1	Scope 2	Total Scope 1 & 2
Baseline Period	15.4	0.45	15.85
2018	9.0	0.27	9.27

Figure 2. Low Carbon Pledge Companies’ Absolute Emissions Reduction



Emissions Intensity

For a company experiencing strong growth it is important to look beyond the absolute carbon reduction and consider carbon intensity. With Pledge signatory companies committing to reducing their carbon emissions intensity by 50% by 2030, the availability of Signatory company carbon data provided an opportunity to assess companies’ historical emissions intensity reduction efforts.

The Signatory companies have distinct business models and operate in multiple sectors and each elected to report against the most appropriate emissions intensity factor.⁴ These ranged, for example, from square footage of the business operations to number of staff. It is therefore not appropriate to report a collective or aggregated emissions intensity of the 47 Signatory companies. However, analysing companies’ emissions intensity data indicates a positive replication of the emissions reduction behaviour evidenced in the analysis of companies’ absolute emissions data.

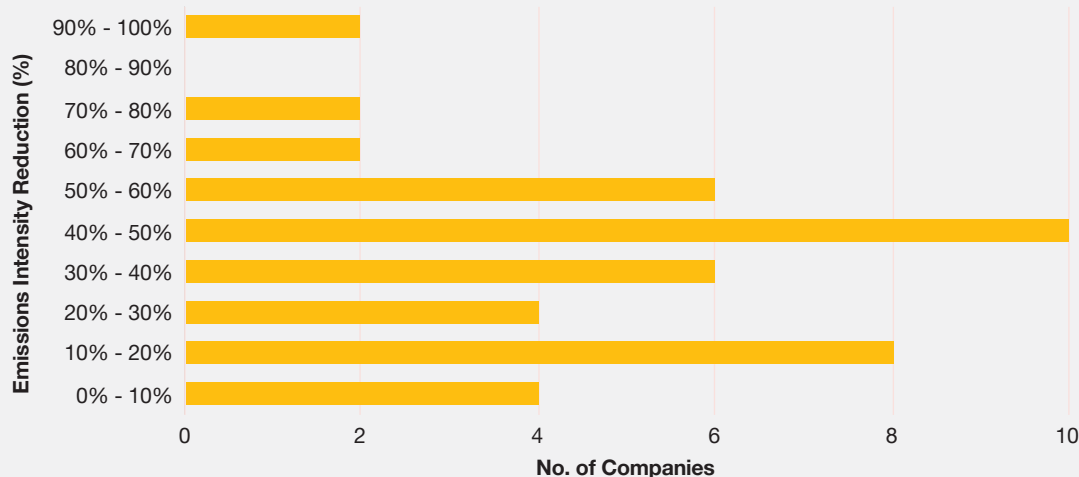
Starting from a range of baseline years to current year (2018) companies have demonstrated an ability to reduce the emissions intensity of their business operation. Figure 3 reveals 44 companies saw a reduction in their emission intensity across the Baseline Period to 2018. The average emissions intensity reductions across the pledge companies was 36%.



Largest share of emissions intensity reductions occurred within the 40%-50% reduction range

⁴ An emission intensity factor is the emission rate of a given pollutant relative to the intensity of a specific activity, industrial production process or category. Examples of intensity factors utilised by Signatory companies include: tonnes of CO₂e/number of full time employees; tonnes of CO₂e/output levels; tonnes of CO₂e/total area of office space; tonnes of CO₂e/operating income.

Figure 3. Pledge Signatory Companies' Emissions Intensity Reduction (%)

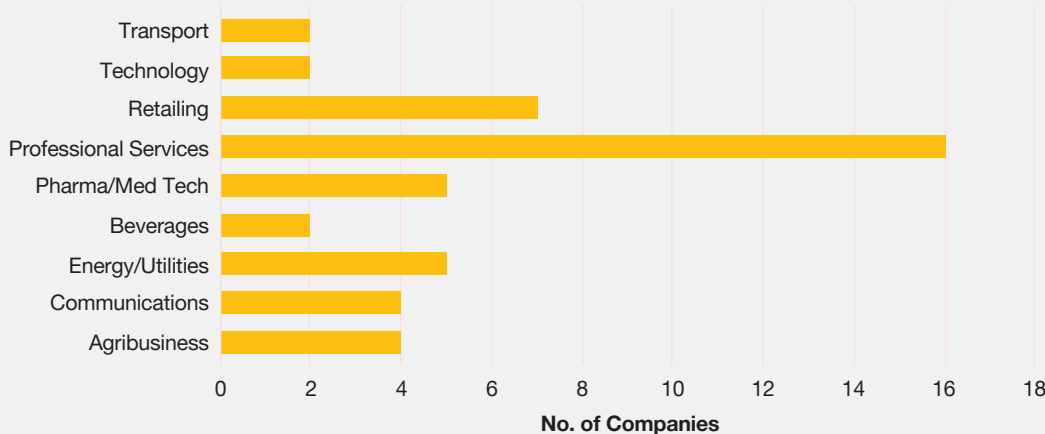


With many companies demonstrating significant intensity reductions over the baseline period to the 2018, a critical challenge for companies will be to sustain such reduction efforts and focus on delivering further intensity improvements out to 2030.

4.2 Understanding the Sectoral Composition of Emissions Sources

The 47 Signatory companies are characterised as falling within one of nine sectors.

Figure 4. Low Carbon Pledge Signatory Company Sectoral Composition



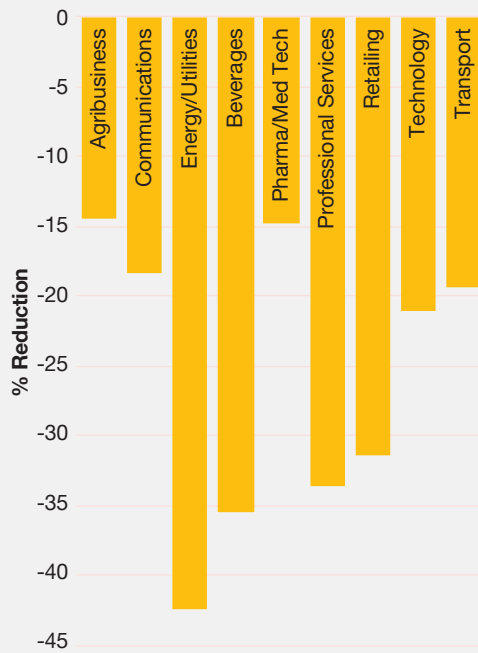
The 5 companies in the Energy/Utilities sector have the largest carbon footprint. Across the “Baseline” period this sector was responsible for generating 94% of total emissions. Figure 5 outlines how all sectors have reduced total emissions (Scope 1 & 2) between the Baseline period and 2018. While the largest absolute reductions occurred within the Energy/Utilities sector (6.4MtCO₂e), all sectors delivered important relative emissions reductions where an emissions reduction spread of 14% (Agribusiness) - 42% (Energy/Utilities) was observed.



Professional Services firms make up the single largest group of participating Low Carbon Pledge Companies

With 16 companies in the Professional Services sector, the sector has shown good engagement with the Pledge. This demonstrates that it is becoming increasingly important for professional services firms to engage with decarbonisation and sustainability in order to respond to increasing client expectations on this topic. In addition, staff engagement and the process of attracting staff and new talent is also seeing companies face increasing questions on their climate and sustainability credentials.

Figure 5. Baseline – 2018 Total Emissions (Scope 1 & 2) Reduction (%)

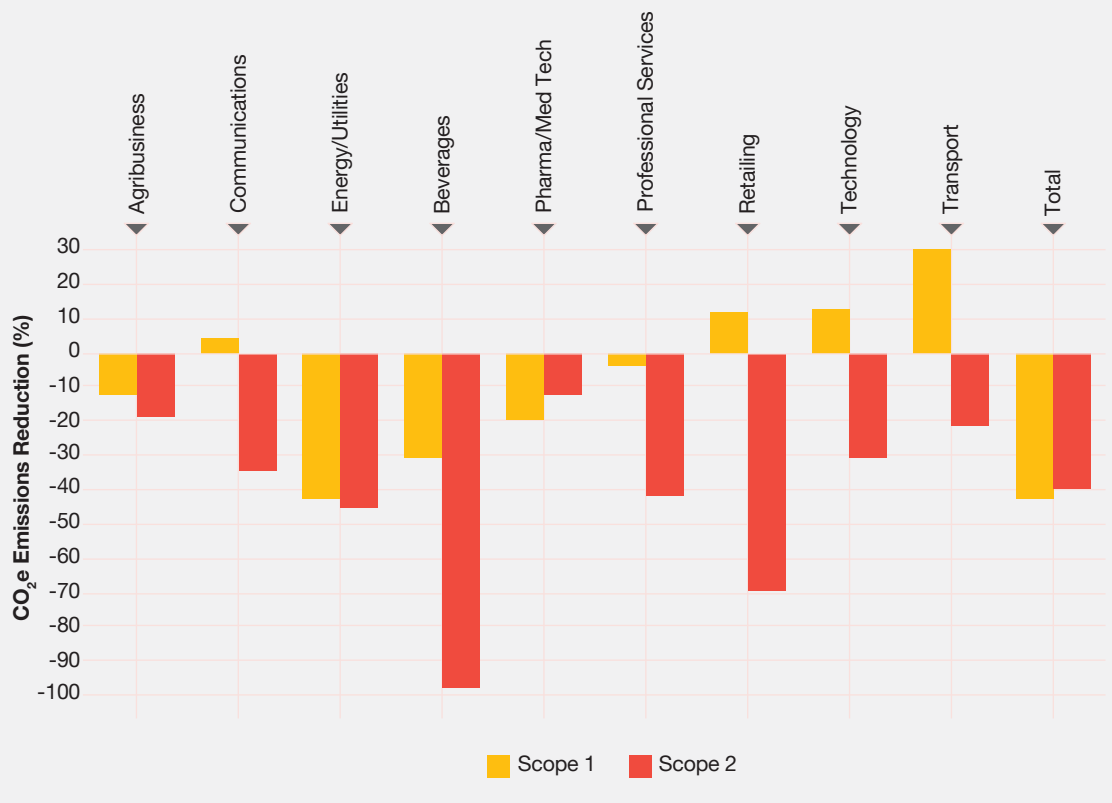


The 47 Signatory companies reduced their Scope 1 emissions by 42% (6.4MtCO₂e) with Scope 2 emissions reduced by 40% (0.18MtCO₂e). Disaggregating total sectoral emissions data reveals that all sectors reduced the CO₂ emissions associated with their purchased electricity (Scope 2 emissions). This trend was not replicated within Scope 1 emissions where collectively companies within the Communications, Retailing, Technology and Transport sectors experienced an increase in their direct operational emissions. We look more deeply into what is driving this trend in the following pages.



Beverages sector reduce CO₂ emissions from purchased electricity by 97% by contracting with renewable power generation

Figure 6. Baseline – 2018 Sectoral Emissions Trajectory (%)



4.3 Understanding Scope 1 Emissions

Scope 1 emissions are comprised of four principal emissions sources: Stationary; Mobile; Process; and Fugitive. Figure 7 demonstrates that emissions reductions were realised in 3 out of the 4 Scope 1 emissions sources between the Baseline Period and 2018.

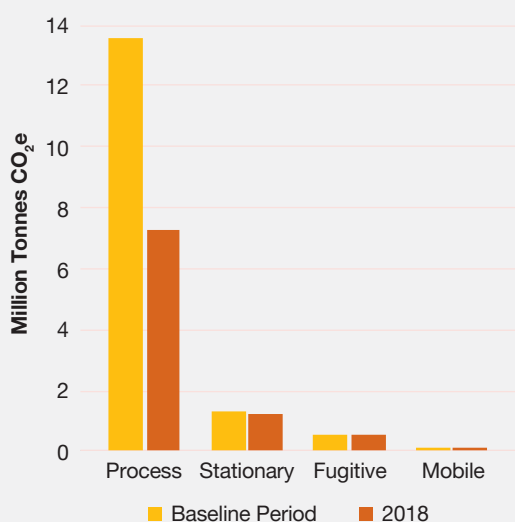
Stationary Emissions	Combustion of fossil fuels in boilers, furnaces, turbines
Mobile Emissions	Fossil fuel use in company vehicles
Process Emissions	Emissions resulting from processing or manufacturing of materials
Fugitive Emissions	Emissions from air conditioning or chilling systems



Collectively companies reduced emissions across 3 of the 4 Scope 1 Emissions Categories

Reductions in process emissions are the principal driver behind the observed decline in Scope 1 emissions where an absolute emissions reduction of 6.4MtCO₂e was observed. Small emissions reductions occurred amongst stationary and fugitive sources with mobile emissions experiencing a marginal increase.

Figure 7. Scope 1 Emissions Sources



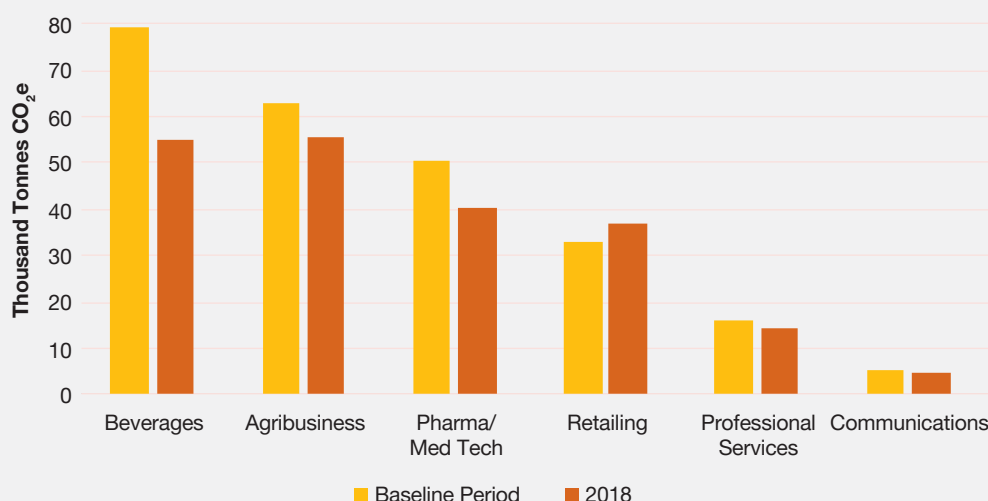
4.3.1 Process Emissions

Process emissions are dominated by activity within the Energy/Utilities sector. Between the Baseline Period and 2018 Energy/Utility sectoral process emissions declined from 13.6MtCO₂e to 7.2MtCO₂e. A 6.3Mt decline in CO₂ electricity generation process emissions, resulting from the closure of inefficient plants, increased investment in renewable electricity generation and participation in the EU emissions trading scheme (EU ETS), was the primary driver of the reduced process emissions. The EU requirement that electricity companies participating in the EU ETS purchase all of their allowances provides a critical incentive for such companies to pursue a strong decarbonisation strategy. Reducing process emissions helps reduce annual emissions compliance cost exposure.

4.3.2 Stationary Emissions

All Signatory companies have reported Stationary emissions in their Scope 1 disclosures. With 2018 stationary emissions of 1MtCO₂e, the Energy/Utilities sector is the dominant Stationary emissions source. The sector's stationary emissions remained constant between the Baseline period and 2018. While Figure 8 reveals a positive downward trajectory for Beverages, Agribusiness, Pharma/Med Tech, Professional Services and Communication stationary emissions, the Retailing sector has seen its stationary emissions rise. Energy efficiency focused rationalisation and strategic programmes are helping reduce emissions in the Agribusiness and Beverages sectors (see Dawn Meats and Heineken Ireland Case Studies #5.2 & # 5.4).

Figure 8. Sample Stationary Emission Sources Absolute Emissions Trajectory



Natural gas is the most widely used fuel source for heating across the 47 Pledge Companies

The reduction in stationary emissions is driven by a decline in CO₂ emissions resulting from companies' use of natural gas. CO₂ emissions from the combustion of natural gas for heating represents the most significant source of stationary emissions amongst the 47 Signatory companies. 43 companies indicated using natural gas for heating in both the Baseline period and 2018. Natural gas combustion was responsible for the generation of 0.21MtCO₂ of stationary emissions in the Baseline period. In 2018 companies reduced their natural gas CO₂ emissions levels equal to 0.18MtCO₂.

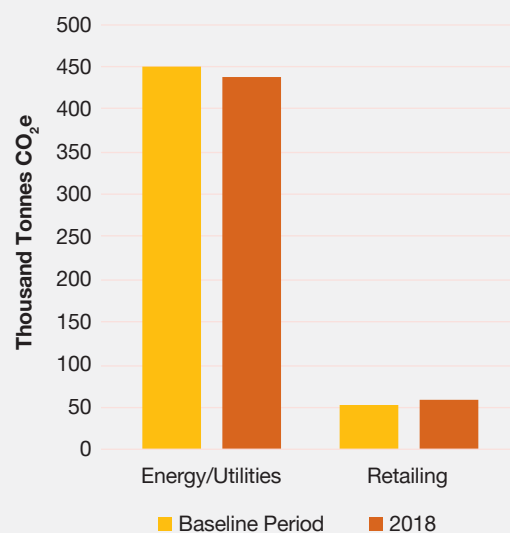
4.3.3 Fugitive Emissions

Companies within the Energy/Utilities and Retailing sectors are the primary sources of Fugitive emissions, accounting for 99% of Fugitive emissions. Fugitive emissions are generated from two key sources: companies' use of refrigerants in air conditioning systems and product chilling and cooling systems. In addition to the Retailing Sector, modest fugitive emission increases occurred within the Professional Services and Pharma/Med Tech sectors.



Fugitive emissions from refrigeration systems are the single biggest emissions source within the retailing sector

Figure 9. Sample Fugitive Emission Sources Absolute Emissions Trajectory



4.3.4 Mobile Emissions

Fossil fuel use in company vehicles (company cars and logistics vehicles) drive mobile emissions. In 2018 mobile emissions totalled 84,000tCO₂e, an increase of 4% from the baseline period, with diesel use responsible for the vast majority of generated emissions. Figure 10 reveals that across the principal mobile emissions source sectors, relatively small increases (Retailing, Professional Services,



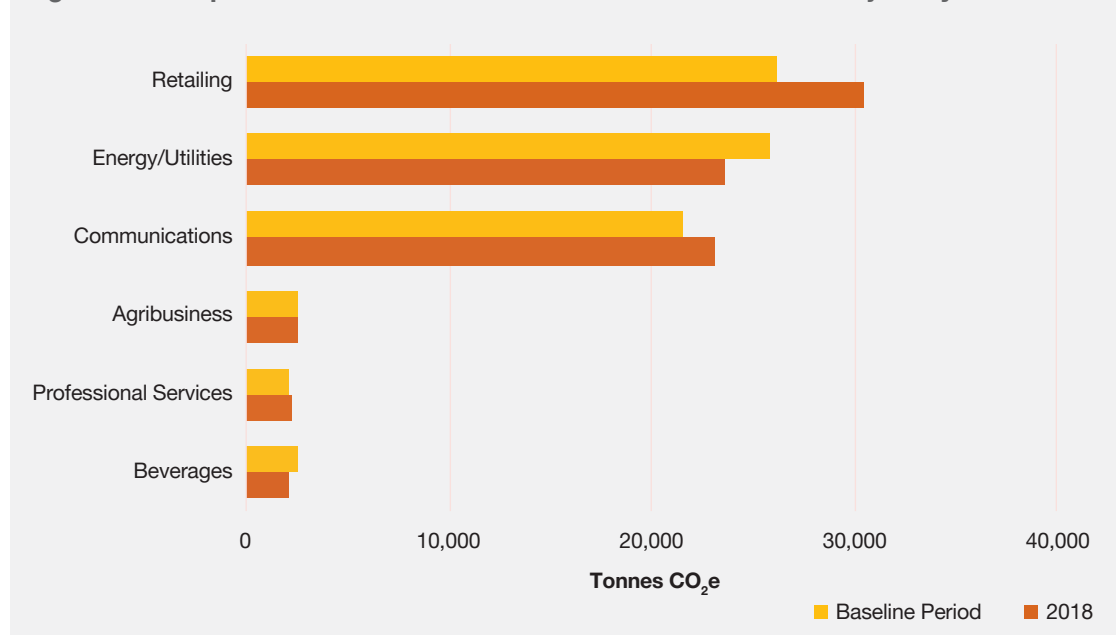
Communications) and decreases (Beverages, Energy/Utilities) in emissions occurred between the Baseline period and 2018. Companies across the agribusiness, retailing and beverages sectors generate mobile emissions from their use of both heavy and lights goods vehicles (trucks & vans) as part of their own logistics operations and to deliver product to customers. For energy/utilities and communications companies a mixed vehicle fleet is required to maintain continuity of service supply (e.g. electricity, gas, broadband) to customers.



Diesel use is the principal source of mobile emissions

Investment in improving both vehicle fleet efficiency, including the introduction of electric vehicles, and driver efficiency are key to decarbonising company transport emissions. Within sectors where mobile emissions have decreased, companies have been making such investments. The challenge for companies to reduce mobile emissions mirrors the wider societal challenge to decarbonise transport.

Figure 10. Sample Mobile Emission Sources Absolute Emissions Trajectory



4.4 Understanding Scope 2 Emissions

Collectively all sectors reduced their Scope 2 emissions by 0.18Mt CO₂e (40%). Given Scope 2 emissions arise from carbon emissions generated by purchased electricity consumed by a company, a number of companies indicate that they have realised Scope 2 reductions as a result of purchasing electricity generated from renewable sources. With purchasing renewable energy representing a viable means of delivering a significant and immediate Scope 2 emissions reduction, it is critical that as more companies increasingly invest in this mitigation strategy that companies have assurance as to the 'greenness' of this power. Examples of mechanisms to achieve this include entering into a Power Purchase Agreement (PPA) with a renewable generator, or the purchase of green certificates.



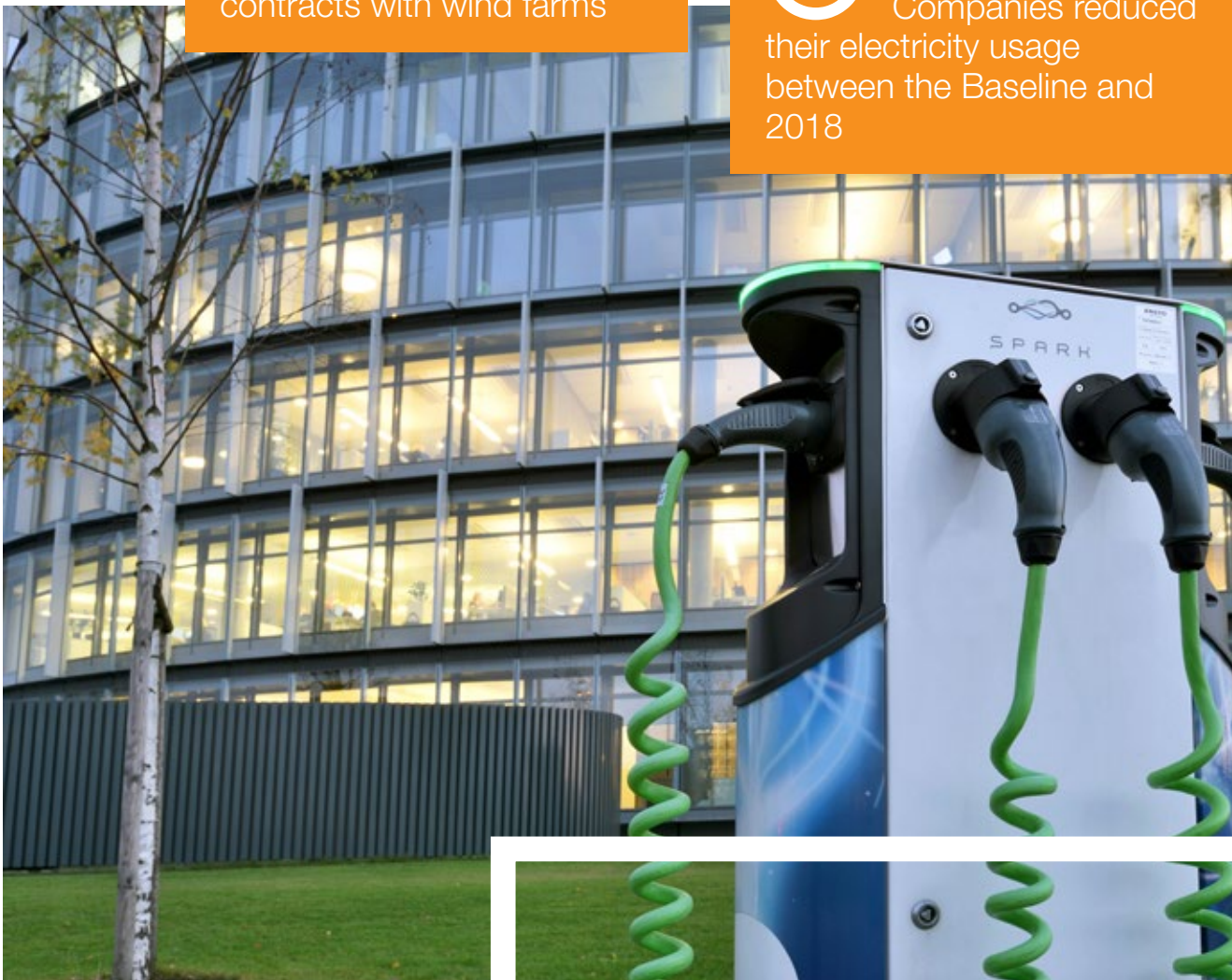
CO₂ emissions from purchased electricity and natural gas use for heating are primary drivers of carbon emissions amongst professional services companies



Beverages sector reduce CO₂ emissions from purchased electricity by 97% through entering into contracts with wind farms



66% of Pledge Companies reduced their electricity usage between the Baseline and 2018





5

Case Study Analysis

The case study analysis provides a short overview of how 4 companies (Gas Networks Ireland, Dawn Meats, ESB, Heineken Ireland) from within the 47 Pledge Signatory Companies are seeking to enhance the sustainability and decarbonisation of their business operations. The case studies seek to highlight some of the key actions that the selected companies are taking in order to drive their emissions reductions efforts and get on a pathway towards enhanced sustainability.

5.1 Gas Networks Ireland

Gas Networks Ireland (GNI) has adopted an iterative multi-year approach to reducing the environmental impact of its business activities. Significant milestones on this journey have been the implementation of an Environmental Management System (certified to ISO 14001) in 2012 and achieving the Energy Management System certification (ISO 50001) in 2014. In 2015 GNI were one of the first companies in the country to achieve the Asset Management System Standard ISO55001. Investment is taking place in implementing leading edge, asset management systems and processes, to better manage network asset performance while increasing energy efficiency.

GNI is an active participant in the Government's Public Sector Monitoring and Reporting (PSMR) initiative. While the PSMR aims to achieve 33% energy saving for the public sector by 2020, GNI are presently on track to exceed this ambition with 42% energy savings already achieved. Energy savings are being underpinned by metering and energy efficiency drives that are taking place at all office locations along with the replacement of inefficient lighting and heating solutions. GNI has replaced its older vehicle fleet with new and more efficient vehicles and manages this fleet more efficiently through enhanced inspection procedures and programmes to increase employee awareness of fuel consumption. In 2012 GNI completed the construction of its Network Services building. The building was the first office building in Ireland to be awarded the coveted 'Excellent' rating under the bespoke building BREEAM assessment procedures. BREEAM is the world's leading design and assessment method for

sustainable buildings. GNI are currently planning to upgrade their headquarters building in Cork and sustainability considerations (energy efficiency and resource management) will be central to the upgrade design.

GNI is undertaking actions to embed sustainability and decarbonisation principles at the core of its business decisions and strategy. While the analysis within this report focused on Scope 1 and Scope 2 emissions sources, GNI is actively focusing on emissions sources beyond this. GNI has implemented a travel policy aimed at reducing the carbon footprint associated with employee work related travel. GNI procures significant volumes of services and materials to support the maintenance and delivery of the gas transportation network and by enhancing the procurement processes GNI is driving better sustainability practices through the entire supply chain. The company ensure environmental and sustainability requirements are embedded in the procurement processes right through to delivery stage of the contract. For example, larger contractors are required to provide GNI with monthly reports on their performance against a range of environmental KPIs in relation to waste management and energy use. Contracts are designed so as to incentivise best environmental practice throughout project delivery. Where contractors outperform KPIs, the financial terms of the contract contain provisions to allow bonus payments to be made. Similarly, KPI underperformance can result in the imposition of financial penalties.



Along with GNI's commitment to the Low Carbon Pledge, Gas Networks Ireland has a strategic plan to achieve 20% renewable gas on the network by 2030. To achieve this level of Renewable Gas, GNI is focusing on supporting anaerobic digestion (AD) within the agriculture sector and the commercial waste industry sector. Gas Networks Ireland are working with Green Generation as part of an Innovation fund supported project to complete the first Renewable Gas grid injection project for Ireland in Cush, Co. Kildare. The project is expected to commission in 2019 and will deliver the first injection of Biomethane into the Natural Gas Grid in Ireland.



20% renewable gas on the gas network by 2030

Gas Networks Ireland is also currently developing a national network of Compressed Natural Gas (CNG) re-fueling stations for public and private transport operators. By 2030 GNI forecast that there will be a network of 172 CNG stations (42 Public stations) with capacity to service 4,484 HGVs and 1,435 Buses. This would represent 26% of the 10 Tonne HGV Segment of 17,000 vehicles and 14% of the Bus Market (10,000 buses).



2030 network of 172 CNG stations servicing 4,484 HGVs and 1,435 buses

GNI recognise that in order to place sustainability at the core of its strategy it must adopt a holistic approach across the company. The company has established a Climate Action Working Group to help achieve its carbon reduction ambition. The Working Group is currently assessing 32 carbon reduction initiatives with a view to identifying a suite of initiatives to help drive the company's decarbonisation efforts. Each business unit within GNI contributed to the identification of initiatives. Initiatives are currently being assessed on the basis of the potential achievable emissions reduction and the associated mitigation and abatement cost.

Centralisation of sustainability within core strategy is reflected by the company's decision to publish its first sustainability report in parallel with this year's annual financial report. Linking sustainability reporting with financial reporting can help elevate sustainability as a core business metric. GNI's sustainability report is aligned with the UN Sustainable Development Goals to illustrate how their efforts fit within a larger context for positive change.



Linking sustainability and financial reporting can elevate sustainability as a core business metric

5.2 Dawn Meats

Dawn Meats' sustainability engagement represents a holistic approach underpinned by strategic objectives, governance structures, target setting and stakeholder engagement. Dawn Meats produced its first formal Group sustainability strategy in 2009 with targets updated in 2012, 2016 and most recently again in 2018. The company has the long stated goal "to be Europe's most sustainable meat company". When Dawn Meats developed its first Origin Green sustainability plan in 2012 as part of its commitments under Bord Bia's Origin Green programme, the company set targets to reduce energy and water intensity by 20% and emissions intensity by 30%. The company's Origin Green plan is submitted annually and Dawn Meats has twice increased its ambition over the last 6 years. In 2018 the company again raised the ambition for its energy and water intensity and emissions intensity reductions to 55% and 70% respectively. The current plan runs to 2025.



Evolving target setting drives efficiency improvements

The company's Sustainability Executive, led by the CEO and comprising 8 of the most senior directors (Operations, Supply Chain, Engineering, Agriculture, Food Safety & Quality, Environment, HR), is central to driving the sustainability agenda and ensuring the company remains focussed on reaching its sustainability objectives. This group provides the co-ordinating governance structure that enables different departments and teams to lead sustainability initiatives across 6 key pillars: resource management; sustainable sourcing; animal welfare; food safety; health & nutrition; people & community. This allows the company to take a full business approach to sustainability; embedding sustainability into the supply chain, through the factory and onto the customer. Sustainability is not confined within a CSR silo rather all executives have targets which include both operational and sustainability related metrics. For example, engineering and environmental lead the internal initiatives around energy, emissions, water, waste and biodiversity (supported by operations), whereas the agriculture team lead the external biodiversity and supply chain efficiency



initiatives to support environmental and productivity improvements on the farm. “Sustainability Champions” within business units and “Themed Weeks” around topics such as environment and waste help maintain employee engagement with and understanding of the sustainability agenda.



Senior management leadership critical to the sustainability and decarbonisation agenda

Dawn Meats’ decision to ensure that the Sustainability Executive is composed of the company’s senior management provides an opportunity to link business and financial decisions with informed sustainability by ensuring an on-going sustainability awareness amongst the key decision makers charged with developing and delivering the company’s business strategy and financial target. This is a critical step if sustainability is to become normalised within traditional business operations.

Since 2012, Dawn Meats’ actions have seen the company save over 350,000MwH of energy with 90,000 tonnes of CO₂e emissions avoided. Water consumption has declined by over 3,000,000m³.

In 2008 Dawn Meats undertook a rationalisation of its business operations and invested heavily in its sites. This afforded the company an opportunity to cost effectively achieve energy efficient buildings and introduce energy efficient processes by aligning operational and sustainability objectives.

Following on from the consolidation exercise Dawn Meats enhanced its commitment to continuous improvement by providing staff training in Lean Six Sigma, which has guided further improvements in quality and efficiency. Business cases are typically proposed for piloting on individual sites and if targeted benefits are delivered the initiative is implemented across all facilities over time.

Data is critical to identifying areas for improvement and Dawn Meats’ energy management team designed and implemented a comprehensive energy management system (EMS) across 8 of the Irish processing facilities. The EMS is built on the framework of data collection and data analytics that facilitates informed decision making on projects that will improve energy management across the sites, reduce energy consumption and improve overall energy efficiency. The EMS received ISO 50001 certification across all 8 Irish production facilities in 2018. Projects include heat recovery (from refrigeration compressors, HVAC), installation of variable speed drives on pumps and low energy lighting, boiler optimisation, district heating systems and refrigeration optimisation. Refrigeration optimisation focused on controls to ensure compressors are run optimally based on load and external environmental factors. Heat recovery, takes heat created as a by-product of manufacturing requirements and uses heat pump technology to meet site hot water requirements. Water reduction was achieved through behaviour change initiatives and introducing low-flow sterilisers, control nozzles and automatic taps. Additional benefits emerged through savings associated with the reduction in the energy required to heat and pump water.



Energy management systems and data analytics help make informed energy efficiency investment decisions

As part of its efforts to reduce emissions in its supply chain, Dawn Meats is working with 20,000 farmers to support efficiency improvements and reduce carbon across their businesses. Dawn Meats established a demonstration farm in Galway which to date has had over 5,000 farmer visits, helping them to consider and see first-hand, how to drive economic and environmental improvements on the farm using best practise in grassland management, breeding and animal husbandry.

5.3 ESB

ESB has been actively engaged with the sustainability agenda for many years. In 2008 they launched a 5 year sustainability programme (2008-2012) which involved performing deep dive audits of the company's energy footprint. This enabled ESB to identify a range of emissions mitigation options and quantify associated cost savings. ESB was one of the market leaders in appointing a Sustainability Director in 2008, an early indication of senior management support. These two initiatives were fundamental in placing sustainability firmly on the company's strategic agenda.

Recognising the evolving policy environment ESB has aligned its business strategy with a vision of a future in which companies will increasingly find themselves operating in an emissions-constrained environment, ultimately leading to an economic model underpinned by decarbonised activity. ESB has identified the objectives of halving their carbon emissions intensity by 2030, generating 40% of electricity from renewable energy by 2030, and being net carbon neutral by 2050. As such ESB view sustainability and decarbonisation as the core of their business strategy.



Sustainability and decarbonisation are the core of ESB's business strategy

As part of its strategy, ESB set itself a corporate Purpose of 'leading the low carbon transition'. This ambition to show climate leadership means that delivering emissions reductions within electricity generation is not sufficient. Reductions must be achieved across the entire estate including all buildings and transport and encompass all business activities and business units. Participation in the EU emissions trading scheme and on-going efforts to expand the company's renewable energy generation portfolio are driving ESB's Scope 1 decarbonisation activities. In order to address Scope 2 targets ESB is prioritising improving the energy efficiency of its buildings. The company is also targeting the carbon footprint of its vehicle fleet.

ESB is currently installing remote energy monitoring in the top 20 energy consumers among its occupied buildings as part of its energy management system. In the medium and long term, it plans to retrofit its stock of some 200 occupied buildings. Energy efficiency programmes to date have delivered a 32% reduction in building electricity consumption and a 57% reduction in carbon emissions related to electricity consumed. The company is currently in the process of securing ISO 50001 accreditation for its energy management system.

Vehicles

ESB commissioned a new, advanced fleet management system in 2018. An extensive fleet utilisation exercise was carried out which provided data to support the prioritisation of vehicles for replacement with electric models. This has permitted ESB to identify 100 small diesel service vehicles with shorter daily mileage and light loads for replacement with an optimised fleet of 75 electric vehicles. The fleet management system can assess fleet performance, manage fleet utilisation, prioritise scheduling of vehicles for EV replacement, and examine the impact of efforts to promote eco-driving practices. The lifecycle cost analysis fully supported this initiative which is also making a significant contribution to decarbonising the 30 million kilometres travelled annually.



EVs to help decarbonise the 30 million kilometres travelled annually by ESB fleet

With a strategic commitment to decarbonisation and leading the low carbon transition, ESB's decision to convert the diesel forklift fleet to fully electric alternatives considered a more extensive lifecycle cost analysis, including environmental and health co-benefits, which built a compelling business case for management to deliver emissions free goods handling in stores and depots, removing a key emissions source from indoor warehouse spaces.

ESB recognise that it has become increasingly important that companies subject their carbon and sustainability profiles to the same rigorous auditing process applied to financial data. ESB's corporate finance team identify investors as becoming increasingly interested in understanding a company's performance against both financial and non-financial metrics. With this in mind ESB are working towards aligning the publication of their financial and sustainability reports. Reflecting ESB's holistic approach to sustainability and decarbonisation, the company's corporate finance team recently issued a Green Bond to further drive ESB's low carbon transition strategy.



Investors increasingly interested in companies' financial and non-financial metrics

Looking beyond the parameters of its own operation, ESB is seeking to enhance the sustainability of its supply chain. The company developed a "sustainability check list" as part of the original sustainability programme. Efforts are on-going to update this and to identify the range of "best practices" that could be used to drive carbon reductions within the supply chain. Possible options being explored include the requirement for carbon audits for key suppliers and engagement with them to support their efforts to reduce emissions.



5.4 Heineken Ireland

Heineken's global strategy to "Brew a Better World" created a clear mandate for Heineken Ireland to prioritise sustainable business practices. The global strategy, effective since 2010, sets out the company's global ambition to be a green brewer. The strategy identifies 6 pillars against which all local companies must deliver continual improvement: reducing CO₂ emissions; sustainable sourcing; protecting water resources; promoting health and safety; advocating responsible consumption; and growing with communities. Efforts to reduce CO₂ are captured within a programme labelled "Drop the C" which aims to reduce energy consumption in production and decrease CO₂ associated with distribution and cooling. Globally Heineken have committed to growing its share of renewable thermal energy and electricity to 70% by 2030, with individual emission goals set across production, distribution and cooling to build a renewable energy road map for 2030.



Heineken's global strategy to "Brew a Better World" creates a clear mandate for Heineken Ireland to prioritise sustainable business practices

Heineken Ireland has an established governance structure to ensure sustainability is successfully embedded into business operations. All managers operate with the dual mandate to deliver production objectives and targets that are also compatible with the sustainability pillars. Performance against the 6 pillars is monitored on a quarterly basis with employee's bonus structure also linked to performance against a range of cross sectoral sustainability targets. This helps ensure that it is in employees' best interest to promote best practice.



Employee bonus structure linked to performance against sustainability targets

Heineken's global sustainability network combines an online forum with regular workshops which provide Heineken Ireland staff with the opportunity to share and access information on the latest energy efficiency and sustainability practices. "Energy Champions" within the company help disseminate best practice information and knowledge within the Irish site.

Whilst Heineken have undertaken a number of emissions reduction efforts, a number of actions are worth noting. To monitor energy use, Heineken utilise a sub-metering system across its site which enables the identification of areas of excessive energy use and the implementation of corrective actions. Whilst the upfront cost of implementation was material it was recognised as being fundamental to the identification of process inefficiencies and was therefore funded through a dedicated on-going financial provision within its operational budget.

Cash flow and capital expenditure is always a key consideration for any company contemplating an energy efficiency investment. Heineken Ireland have avoided this challenge when replacing the lighting system across its production line. Urban Volt were engaged to design and install a LED energy efficient lighting system achieving significant energy and cost savings. The added benefit of this business model was the avoidance of any capital outlay on the part of Heineken. The switch to an LED system reduced energy consumption by 400,000 Kwh while also delivering an unexpected safety benefit as the LED system meant that previously dark areas of the production line were now extremely well lit, addressing another key Pillar of Health and Safety.



Switching to LED lighting system reduced energy consumption by 400,000Kwh

To reduce CO₂ emissions associated with product distribution the company has worked with customers to optimise loads and routes, increased the number of loads going directly to customers and increased the volume of self-collections. The company now use high capacity trucks and trailers for primary keg distribution, which increased the loads by 19% and allowed trucks to make fewer trips per year.

While Heineken Ireland has flexibility to identify local solutions to help deliver against the global pillars, global strategy also provides direction regarding certain actions. In 2018 Heineken Ireland had zero carbon emissions arising from its long term contract to procure electricity from the Raheen Barr wind farm. Heineken's decision to procure locally sourced green certified renewable electricity is driven by a global objective of the company's CEO to see that the company brews with locally sourced green energy where possible. Another global sustainability initiative is the procurement rule stipulating that all purchased Heineken fridges must be 'green fridges' and comply with four specific characteristics: use a hydrocarbon refrigerant, be LED illuminated, have an energy management system and energy-efficient fans. Adherence to these rules has resulted in a 45% decrease in the energy required for product cooling.



6

Conclusions and Recommendations

The inaugural report on the Low Carbon Pledge details how the business community in Ireland can play a critical role in supporting the transition to a low carbon economy. The 47 companies that have signed up to the Low Carbon Pledge have seen an overall emission reduction of 42% between baseline year and 2018 marking significant progress towards achieving a 50% decrease in carbon intensity by 2030. The analysis of the submitted data has yielded rich insights into how particular sectors are performing and the case studies presented give clear examples of the actions needed to reduce corporate carbon intensity. This dataset also provides a benchmark against which to assess the future carbon reduction efforts of the signatory companies.

The Pledge signatories commit to record, report and reduce their carbon emissions. Positively, the report identifies that the participating companies having engaged positively with the decarbonisation challenge and have already delivered some meaningful emissions reductions.

A number of insights and observations have been collated while writing this report and these have been grouped and summarised here.



Raising Ambition & Increasing Reach

As societal and business understanding of the risks of climate change, and indeed opportunities from early abatement activity, continues to rapidly evolve, it is critical that the ambition of the Low Carbon Pledge moves in parallel with these developments. While the initial pledge group of 47 signatories is a significant achievement it will be important to grow this number and extend the scope of the carbon commitment over time. Ensuring that the Pledge stays relevant and progressive is vital for its continued support and success in achieving its objectives. Therefore a review of the Pledge commitments should be performed on a regular basis.



Knowledge Sharing & Skills Development

Limited data on the specific actions taken to achieve specific scope 1 and scope 2 emissions reductions was available. An exception to this was the selected case studies which do provide rich insight into some of the key initiatives and strategic thinking undertaken by the exemplar organisations.

To provide greater insight and knowledge transfer across companies on how emissions reductions can be achieved, future iterations of the Low Carbon Report would benefit from the ability to analyse the actions and policies being implemented by companies to drive mitigation activity. This could be achieved with companies including information on their significant mitigation activity in their annual Carbon Data Template. We do acknowledge that the BITCI has created a knowledge platform to provide signatory companies with the opportunity to: network with carbon and energy experts; share carbon reduction best practice examples; and form partnerships on specific carbon projects.



Transparency & Credibility

As the business community increasingly engages with the decarbonisation challenge, tracking future carbon reduction efforts, and ensuring the integrity of companies' self-reported emissions data will be critical to safeguarding the robustness of the Low Carbon Pledge companies' mitigation efforts. The provision of external 3rd party assurance over companies' carbon data enables companies to safeguard the integrity of their reduction efforts. While this analysis reveals that the Irish market is still quite immature in terms of the application of the 3rd party carbon data assurance and an area requiring attention, positively we find there is at least an increasing awareness of the importance of assurance amongst the business community. Seeking 3rd party assurance also provides companies with another opportunity to demonstrate their commitment to decarbonisation whilst at the same time enabling companies prepare for a transition to an increasingly onerous and transparent reporting environment.

For companies to truly demonstrate a commitment to decarbonisation and sustainability it is important to place equal priority to their financial and non-financial reporting. Leading companies also look to align the publication of their sustainability and annual financial reports. Such actions demonstrate that sustainability has become an integral part of a company's core strategy and associated metrics form part of the businesses key performance indicators.



Senior Management Leadership

The analysis of Scope 2 emissions sources revealed that carbon reductions are being achieved by procurement of electricity generated from renewable sources. Whilst representing a positive mitigation action, companies could further enhance the integrity of such actions through procuring green certified renewable electricity. Decisions by senior management to embed renewable energy sourcing targets, underpinned by green certificates, into company strategy could act as an important catalyst for driving further decarbonisation efforts within the Pledge Signatory group.

The case study analysis in section 5 reveals that senior management leadership is central to driving a meaningful response to the challenges of decarbonisation. Businesses should look to embed decarbonisation and sustainability in their core business strategy both from a risk mitigation and a value enhancing perspective. Scenario analysis to test corporate strategies should, for example, consider a high future carbon price. Strong leadership can help businesses prepare for a carbon constrained world and ensure that their businesses are aligned with an increasingly carbon conscious investor and consumer.

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