



**Sustainability**  
*Driving Change*

## CIÉ Group Sustainability Annual Review 2024



**Bus Átha Cliath**  
Dublin Bus



**Bus Éireann**



**Iarnród Éireann**  
Irish Rail



**CIE TOURS**



# Contents

<b>2</b>	Message from the CIÉ Group CEO
<b>4</b>	Message from the CIÉ Group CSO
<b>6</b>	Who We Are
<b>8</b>	Executive Summary
<b>12</b>	Governance and Disclosure
<b>15</b>	<i>Low Carbon Fleet Transition</i>
<b>21</b>	<i>Building Energy Efficiency</i>
<b>23</b>	<i>Biodiversity</i>
<b>25</b>	<i>Circular Economy</i>
<b>28</b>	<i>Climate Adaptation</i>
<b>29</b>	<i>Community Engagement and Heritage</i>
<b>31</b>	<i>Decent Work and Wellbeing</i>
<b>33</b>	<i>Diversity and Equal Opportunity</i>
<b>35</b>	<i>Transport Orientated Development</i>
<b>37</b>	<i>Partnerships and Knowledge Sharing</i>
<b>39</b>	Plans for 2025
<b>40</b>	Our Sustainability KPIs
<b>46</b>	Appendix I: CIÉ Group Carbon Emissions Conversion Factors
<b>48</b>	Appendix II: Sustainability Reporting Frameworks
<b>50</b>	Appendix III: CIÉ Group Sustainability Governance
<b>51</b>	Appendix IV: Climate Risk Analysis
<b>53</b>	List of Abbreviations

# Message from the CIÉ Group CEO



**As Ireland's largest public transport provider, CIÉ Group plays a critical role in delivering low-carbon mobility solutions and shaping a more sustainable future.**

In 2024, we continued to work to expand our public transport services, enabling the transition away from private car dependency and supporting national efforts to reduce greenhouse gas emissions in line with the Climate Action Plan 2024 and the National Sustainable Mobility Policy.

This year brought significant milestones. Bus Éireann launched Ireland's first fully electric regional city bus fleet in Limerick, Iarnród Éireann received the first battery-electric trains under the DART+ Programme, Bus Átha Cliath completed key infrastructure upgrades to support electric vehicle operations, and CIÉ Tours launched their Sustainability Action Fund to support climate and community-driven programmes. These achievements reflect the strength of our partnerships with the Department of Transport and the National Transport Authority and our shared commitment to climate leadership.

While a great deal of progress has been made during 2024, the CIÉ Group faces a unique challenge of reducing absolute emissions while also expanding services to support national modal shift goals. For the Group to meet its 2030 targets, I believe we need to explore all potential zero emission technologies such as hydrogen fuel cell buses and also support efforts to accelerate the 'greening' of the electricity grid.

Sustainability is not just about decarbonisation – it is about delivering services that support an inclusive society and creating economic and social value for the communities we serve. It is about using the opportunity we have on our land and network to invest and protect biodiversity and to manage the impact we have on our climate and environment. In 2022, the CIÉ Board committed to investing in sustainability through the CIÉ Sustainability Fund. Since 2022, we have supported over 76 projects, ranging from solar installations and biodiversity mapping to employee wellbeing programmes and innovation partnerships. As we look ahead, we know that the path to net zero is challenging, particularly as we expand our services to meet growing demand, but we remain committed to driving ambitious, evidence-based climate action, and ensuring that public transport continues to serve as a cornerstone of Ireland's sustainable future.

**Lorcan O'Connor**

*CIÉ Group Chief Executive Officer*





Train passing by wooded area with stream in the foreground.



# Message from the CIÉ Group CSO



**Along with the Group wide Sustainability teams, I am proud to present the CIÉ Group Sustainability Strategy Annual Review for 2024. This year marks a period of accelerated action, deepening our sustainability commitments while expanding the scale and scope of public transport services across Ireland.**

We continue to work toward our Group-wide target to reduce Scope 1 and 2 emissions by 51% by 2030, while supporting modal shift and meeting rising passenger demand. Achieving these dual objectives is complex and requires long-term investment in zero-emission technologies, policy alignment, and collaboration across the sector. In 2024, we made real progress by expanding our electric bus fleet, reducing emissions intensity per kilometre, and advancing alternative fuel trials including hydrogen, biofuels and HVO. With the support of the CIÉ Board, we underpinned our ambition to deliver on our commitments by concluding a sustainability linked loan and embedding sustainability targets into the Group Facility Agreement. Beyond carbon, we took action on biodiversity, circular economy, and community wellbeing. We launched Ireland's first Native Tree Seed Collection Programme in the transport sector, installed rainwater harvesting and solar PV systems across depots, and supported community and climate-focused initiatives through the CIÉ Sustainability Fund and CIÉ Tours' new Sustainability Action Fund.

This year, we advanced our governance and reporting practices, aligning with the Corporate Sustainability Reporting Directive (CSRD) and preparing for our double materiality assessment in 2025. These efforts are crucial to ensure transparency and to future-proof our business against evolving risks and stakeholder expectations.

Sustainability is embedded in who we are - our purpose, our people, and our partnerships. I would like to thank our cross-Group sustainability teams and all employees who continue to champion this work.





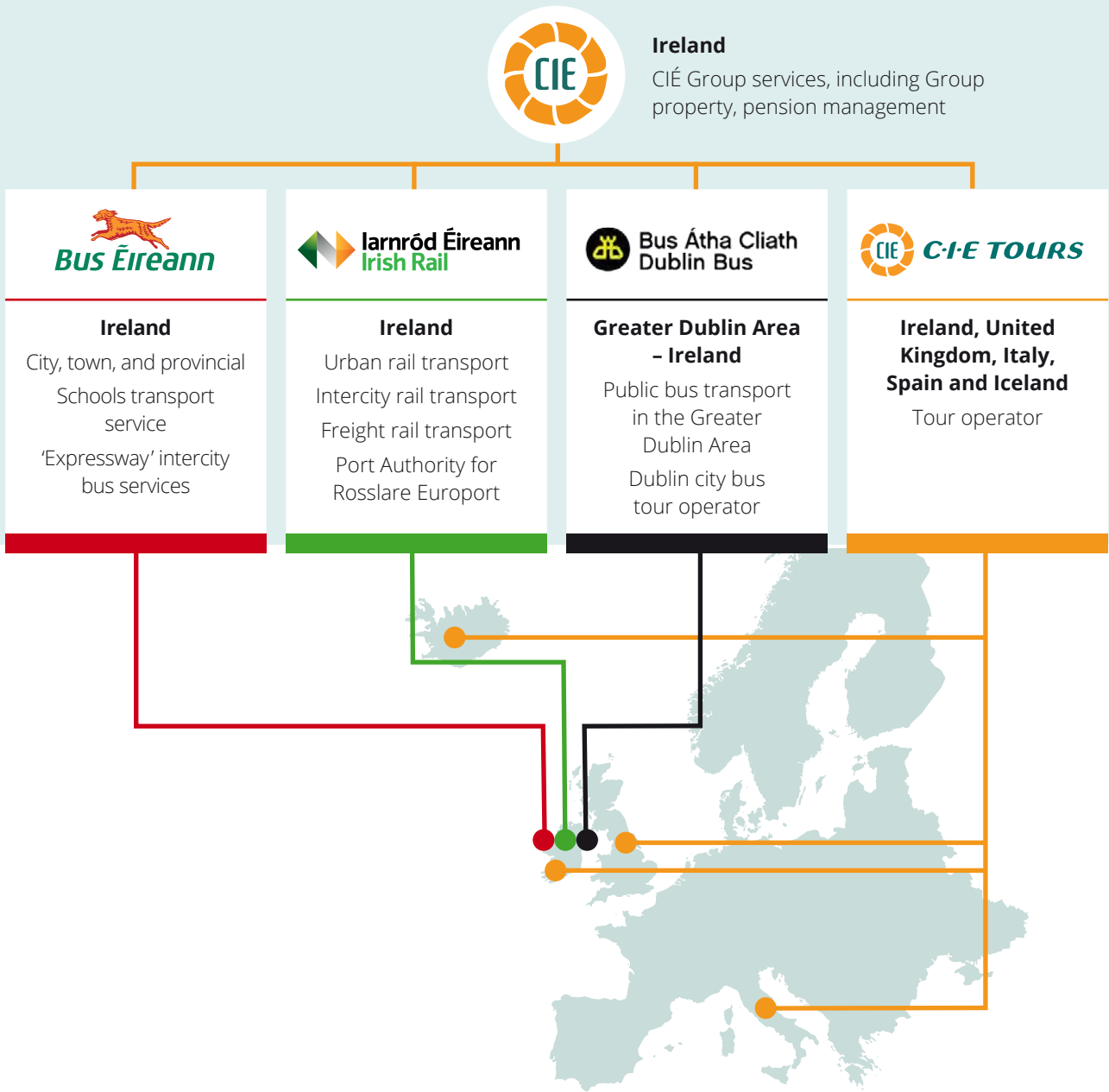


# Who We Are

The CIÉ Group of Companies, including Bus Átha Cliath, Iarnród Éireann, Bus Éireann and CIÉ Tours, is the largest public transport provider in Ireland. In conjunction with the National Transport Authority (NTA), we operate bus and rail services across the country. Public transport generates positive externalities as a major driver of economic and social development, connecting people to jobs, education, health care, and each other. Through our operating companies, we provide a national public transport network, which is expanding to meet the needs of our growing population. By offering a sustainable alternative to private car use, our services alleviate traffic congestion, improve road safety, reduce air pollution, and mitigate greenhouse gas (GHG) emissions from the transport sector.

CIÉ Tours has been offering tour packages to international tourists to in Ireland and other countries in Europe for over 92 years. They offer a responsible tourism experience and promote sustainable travel by encouraging the use of coach transport as a lower-carbon alternative to individual car travel. With over 600 partners in Ireland and spending approximately €34m in 2024, it contributed significantly to the island of Ireland tourism sector and regional economic growth.

## CIÉ Group of Companies





**Our Mission:**

At CIÉ Group, we are dedicated to providing efficient and accessible transport services that enhance the quality of life for our passengers and promote social inclusion. Our mission is to deliver a safe, efficient, and low carbon public transport network across Ireland, contributing to a greener and more sustainable future.

**Our Vision:**

Together, with our passengers, partners, and communities, we are committed to transforming public transportation into a powerful force for positive environmental, social, and economic change.

**Low Carbon Transport**



Transform our bus and rail fleets to low carbon, zero tailpipe emission vehicles

**Renewable Energy**



Prioritise the adoption of efficient technologies and renewable energy sources

**Responsible Resource Use**



Promote the sustainable use of resources, safeguarding the environment for present and future generations

**Inclusive Communities**



Foster diverse and inclusive communities where every individual is valued, respected, and empowered

**Our Values:**



PARTNERSHIP



INTEGRITY



EFFECTIVENESS



RESPECT

# Executive Summary

The CIÉ Group Sustainability Strategy Annual Review 2024 highlights the Group's continued progress in implementing its Sustainability Strategy across ten action areas: Low Carbon Fleet Transition, Energy Efficiency, Climate Resilience, Biodiversity, Circular Economy, Transit-Oriented Development, Community Engagement and Heritage, Partnerships, Decent Work and Wellbeing, and Diversity and Equal Opportunity. These ten action areas are focused on delivery of our Group strategy set out in 2020 and are underpinned by significant investment and dedicated resources to deliver a Group wide programme of change.

Investment by government and the NTA in the network ensures that we are part of the solution to climate resilience. Expansion of services to deliver modal shift for a growing population brings real challenges as we transition to a low carbon fleet. Notwithstanding these challenges, real progress is being made, with the growth of the zero emissions fleet, a significant increase in service kilometres and passenger journeys and progress in energy efficiency.

In 2024, CIÉ Group advanced the decarbonisation and service expansion through programmes in each of the CIÉ Group operating companies.

- Key decarbonisation milestones included: Bus Éireann's launch of Ireland's first all-electric regional bus fleet in Limerick, bus depot upgrades and continued deployment of electric buses by Bus Átha Cliath, and delivery of DART+ Head of Series battery-electric trains to Iarnród Éireann.
- Infrastructure Upgrades: Expansion of charging infrastructure, solar PV installations at depots, and investment in water-saving technologies.
- Innovation and Research: Continued participation in the SH2AMROCK hydrogen consortium, UCD NexSys energy partnership, and trials of alternative fuels such as HVO and hydrogen.
- Biodiversity: Launch of biodiversity mapping project across CIÉ-owned lands.
- Community and Inclusion: Significant investments in employee wellbeing, inclusive recruitment, CIÉ archival project.

The CIÉ Group has experienced a non-linear reduction in Scope 1 and 2 emissions, achieving a 5.44% decrease against the 2018 baseline. This progress is measured against a more ambitious target of a 51% reduction by 2030. Despite this slower pace in emissions reduction, the Group made significant strides in 2024 by reducing emissions intensity per kilometre traveled while increasing service provision by 7.1% during the same year. These achievements highlight the Group's commitment to enhancing access to sustainable mobility. However, they also underscore the ongoing challenges of balancing emissions reductions with service growth and managing dependencies within the supply chain.

To support strategic delivery, CIÉ Group strengthened its sustainability governance in 2024 by establishing the Board Sustainability Committee and launching the CIÉ Youth Board. Progress was also made in preparing for enhanced sustainability disclosures under the CSRD and EU Taxonomy, including the launch of a cross-Group double materiality assessment.

With 76 projects funded since 2022 through the CIÉ Sustainability Fund, the Group is investing in transformative, cross-cutting solutions to meet climate, social, and economic goals. The CIÉ Group remains committed to its core mission of delivering a low-carbon, efficient, and inclusive public transport system that supports Ireland's climate targets and enhances national wellbeing.

**CIÉ Group remains committed to delivering a low-carbon, efficient, and inclusive public transport system that supports Ireland's climate targets.**



# The CIÉ Group Sustainability Strategy – At a glance



## SUPPORTING OUR STRATEGY











### CIÉ Sustainability Fund

Allocated funding for sustainability initiatives, with €11.3 million approved between 2022–2024 to fund 76 projects

### CIÉ Group Governance

Strong sustainability governance to effectively manage our sustainability risks, impacts, and opportunities

## 2024 Sustainability Highlights

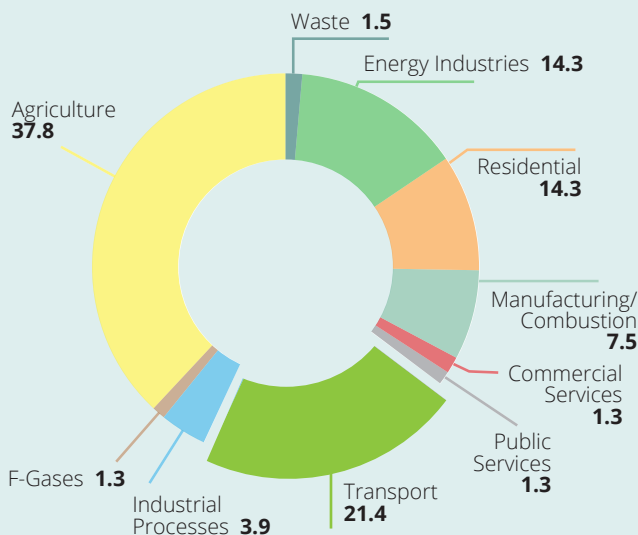
CIÉ Holding Company and CIÉ Tours	Bus Átha Cliath	Bus Éireann	Iarnród Éireann
<p>CIÉ Tours launched Sustainability Action Fund to support climate and community-driven programmes such as ReFarm and Belvedere Youth Club</p> 	<p>Installed charging infrastructure at their Phibsboro depot in 2024, and added 44 new charging points</p> 	<p>Launched the first electric regional city bus fleet in Limerick, 55 EV buses due to be in service across the city. These buses are expected to deliver more than 2.1 million tailpipe emission-free kilometres annually</p>	<p>DART+ fleet: Delivery of the two Head of Series trains</p> 
<p>Continued progress on the cataloguing and digitisation of the CIÉ Group's historical archives, with over 1,400 historical minute books and 1,600 files preserved and catalogued</p>	<p>Rainwater harvesting systems were installed in Ringsend and Donnybrook depots</p> 	<p>Installed waste segregation across sites in 2024, ensuring that all sites now have waste segregation infrastructure in place</p>	<p>Achieved a 15% reduction in water usage in 2024</p> 
<p>CIÉ Tours became a signatory of the Glasgow Declaration on Climate Action in Tourism</p>	<p>Launched the Safer Journeys Team, a 20-week pilot aimed at enhancing safety and security across its network</p>	<p>Installed solar PV at six depots and stations</p> 	<p>Launched the "Seed Saver Campaign", funding Irish nurseries to grow native tree seeds</p>
<p>Funded 76 projects through the CIÉ's sustainability fund between 2022-2024</p>	<p>Held seven open days for women with the aim of increasing the number of women bus drivers</p>	<p>Became a signatory of the Employment and Youth Engagement Charter</p>	<p>Installed "Past Tracks" storyboards in train stations across the country</p>
<p>Winner of the Sustainability and ESG Reporting award at the Chartered Accountants Leinster Society Published Accounts Awards</p> <p>CIÉ Tours awarded a Great Place to Work 2024, and recognised as an Outstanding Employer 2024 by the Employer Excellence Initiative by Fáilte Ireland</p> 	<p>Winner of the Best Graduate Training Programme of the Year award at the Operational Excellence Awards</p> 	<p>Winner of the 2024 SEAI Leadership in Public Sector Award</p> <p>Winner of the CIPD Award 2024 in the Talent Management category for Inclusive Recruitment</p> <p>Winner of the Women in STEM Awards 2024 in the STEM Recruitment Campaign of the Year 2024</p> <p>Winner of the HR Champion Awards 2024 in the Diversity and Inclusion Category</p> <p>Winner of the CILT Awards 2024 Diversity and Inclusion Leader and Staff Development Leader</p> 	<p>Winner of the Circular Economy award and Sustainability Strategy of the Year award at the 2024 Irish Climate Change Leadership Awards</p> <p>Winner of the Best Procurement Collaboration Project – SME Award at the National Procurement Awards</p> <p>Winner of the Exceptional Cloud Team of the Year at the CIO and IT Leaders National Diversity and Inclusion Awards 2024 – Advancing Gender Equality</p> <p>Winner of the Diversity Champion award and the Sustainability and Change Management Award at the CIPD HR Ireland awards</p> 



# The CIÉ Group and National Climate Policy

Ireland's national climate policy has driven emissions reductions, with a 6.8% decline from 2022 to 2023, bringing emissions 1.2% below 1990 levels for the first time. The transport sector however, remains the second-largest source of emissions in Ireland, rising by 0.3% in 2023 to 11.79 million tonnes of CO<sub>2</sub>e. This represents an increase of 129.2% from 1990, the largest rise of any sector. To meet the national Climate Action Plan (CAP) targets, transport emissions must be halved by 2030 and reach net zero by 2050, requiring a major shift from private cars to lower-carbon public transport.

## Greenhouse gas emissions share by sector in 2023



**Figure 1.** National greenhouse gas emissions share by sector in 2023, latest available figures. Source: [EPA, 2023](#)

The CIÉ Group plays a key role in delivering CAP and National Sustainable Mobility Policy (NSMP) objectives by expanding services and transitioning to low-carbon and zero-emission fleets. The NSMP aims to increase the number of daily public transport journeys by 130% by 2030, and CIÉ Group is working with stakeholders to extend the public transport network and shift to sustainable energy sources, enabling the critical modal shift needed to tackle emissions from the transport sector.

To further support the achievement of Ireland's national climate targets, CIÉ Group set Group-wide targets in line with the CAP to reduce total Scope 1 and 2 carbon emissions by 51% by 2030, using a baseline year of 2018. We are modelling our emissions pathways out to 2030 and regularly communicating the results with our stakeholders, in direct support of one of the actions of the CAP. In 2024, CIÉ Tours became a signatory of the Glasgow Declaration on Climate Action in Tourism, committing to halving tourism emissions by 2030 and achieving net zero as soon as possible before 2050.

This work aligns with Ireland's National Development Plan, which outlines significant investment in sustainable transport infrastructure and supports the electrification of fleets and development of alternative fuels. The Renewable Transport Fuel Obligation (RTFO) further supports CIÉ Group's decarbonisation goals by setting out blend-rate targets for biofuels, providing a near-term pathway to reduce emissions from our existing diesel fleets while zero-emission technologies are scaled.

In addition, CIÉ Group is supporting national circular economy legislation, embedding circular principles into procurement, operations, and infrastructure design to reduce waste, improve resource efficiency, and support Ireland's transition to a circular economy. Together, these policy frameworks shape and enable CIÉ Group's long-term strategy for climate action, service expansion, and environmental stewardship. They also play a critical role in informing our materiality process, helping to identify the most significant sustainability-related risks and opportunities facing the Group, and ensuring our strategy and disclosures remain aligned with national priorities and regulatory expectations.

# Governance and Disclosure

## Governance

The CIÉ Board and Group of companies have adopted best-in-class sustainability governance; implementing the recommendations of the Taskforce for Climate Related Financial Disclosures and progressing to adopt the principles of UN Global Compact and Corporate Sustainability Reporting Directive (CSRD) European Sustainability Reporting Standards (ESRS).

Recognising that we can deliver impact and efficiencies by working together, the CIÉ Group sustainability strategy is a coordinated approach that focuses on areas where we can scale the impact of Group objectives and support the ambition of the CIÉ Group of Operating Companies. It is led by the Sustainability Steering Group (SSG), made up of a cross-Group sustainability representatives.

In late 2024, the governance environment was enhanced with the establishment of the Sustainability Committee, a sub-committee of the CIÉ Board and which took the place of the Sustainability Advisory Group. The SSG reports to the Sustainability Committee, proposing strategic direction and reporting on progress. In 2024, to ensure that the Group strategy remains relevant and challenged, the CIÉ Group Youth Board was established, bringing a diverse and inclusive perspective to our sustainability strategy and long-term vision.

Building on this foundation, the CIÉ Group Sustainability Strategy has continued to evolve and become more refined, with an increasing emphasis on areas where cross-company collaboration can amplify impact. As part of this, we are developing a Group-wide approach around a set of key strategic pillars, including energy strategy, greenhouse gas emission and transition planning, employee health and wellbeing, and the circular economy. This collaborative approach supports consistency and ambition across the operating companies while allowing for company-level implementation. In parallel, the Group is working together to prepare for the CSRD, ensuring alignment with the European Sustainability Reporting Standards (ESRS) and strengthening our sustainability disclosures.

...the CIÉ Group Sustainability Strategy has continued to evolve and become more refined, with an increasing emphasis on areas where cross-company collaboration can amplify impact.



Members of CIÉ staff stand with the CIÉ Youth Board members in front of a Iarnród Éireann train carriage.



# Disclosing on Our Sustainability Performance

The CIÉ Group reports under a range of voluntary and mandatory sustainability frameworks.



CIÉ Group has been reporting on the CDP platform on an annual basis since 2020. Through this reporting process, we obtain verification on our emissions calculations and are refining our modelling and understanding of our climate transition and environmental risks and opportunities.

The CIÉ Group’s governance structure and management of risks and opportunities was highlighted as a strength in the CDP scoring report. In 2024, CIÉ Group was awarded a score of ‘B’ for our climate and water-related disclosures. This is higher than the average respondent score in Ireland and in the transport sector.

CIÉ Group will continue to take on board the recommendations from CDP and will aim to achieve an ‘A’ score on our environmental management strategy.

CIÉ Group CDP Submissions		
Submission Year	Disclosure Topic	Score
2020	Climate change	B
2021	Climate change	B
2022	Climate change	A-
2023	Climate change	B
2024	Climate change	B
2024	Water	B



United Nations  
Global Compact

The CIÉ Group submitted to the UN Global Compact for the second time, with the aim of aligning policies and procedures with best practice in promoting human rights, labour rights, anti-corruption and environmental responsibility across our operations.



Gníomhaireacht Bainistíochta an Chisteáin Náisiúnta  
National Treasury Management Agency

The CIÉ Group also reports biannually under the New Economy and Recovery Authority (NewERA) Climate Action Framework, with each Operating Company reporting on actions taken related to climate action, the circular economy, and other sustainability areas of focus.



SCIENCE  
BASED  
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

The CIÉ Group has committed to having our climate targets validated through the Science-Based Targets Initiative. We are working closely with our stakeholders to reduce our Scope 1 and 2 emissions and developing a comprehensive scope 3 emissions inventory and targets.

Planted flowers at Irish Rail’s Carrick-on-Shannon station.





European  
Commission

Throughout 2024, the CIÉ Group progressed preparations for reporting under the CSRD and the EU Taxonomy frameworks. A key focus was preparing to conduct a double materiality analysis (DMA) in 2025, assessing both the financial impacts of sustainability risks on the Group and the Group's environmental and social impacts.

The CIÉ Group DMA will determine the material environmental, social, and governance topics to be disclosed under CSRD. We have also begun mapping our existing policies and strategies to the relevant ESRS standards to identify gaps and ensure consistency. For example, our focus areas of 'low carbon fleet transition', 'building energy efficiency,' and 'climate adaptation' align with ESRS E1 on climate change; 'decent work and wellbeing' and 'diversity and equal opportunity' relate to ESRS S1 on own workforce; and our work on the 'circular economy' corresponds with ESRS E5 on resource use and circular economy. As the double materiality analysis progresses, additional material topics and subtopics may emerge, shaping the scope of our future disclosures.

Group-wide preparations for the CSRD will also include enhancing data collection processes, aligning reporting structures with ESRS, and engaging with key stakeholders to ensure compliance with evolving regulatory requirements. These efforts will strengthen transparency, facilitate integration of sustainability into corporate governance, and position CIÉ Group for full CSRD reporting readiness.

## Financing sustainability

As part of our commitment to increasing the sustainability of our operations, the CIÉ Group established the CIÉ Sustainability Fund to support the implementation of the CIÉ Group sustainability strategy.

- From 2022-2024, a total of 76 projects have received approval for funding, and budget approval for these projects totaling €11.3 million.
- Projects that have received funding include technical trials and feasibility studies, which provided insights into what can be achieved with sustainability and energy management.
- The fund has enabled the delivery of energy efficiency studies and renewable fuel trials; onsite solar PV installation; investment in waste infrastructure upgrades across stations and depots; water management; biodiversity enhancement; and afforestation.

In 2024, CIÉ Tours launched a Sustainability Action Fund, reinforcing their commitment to sustainability. The fund will support the communities and places that create unique experiences for their guests while addressing the environmental impact of their operations.

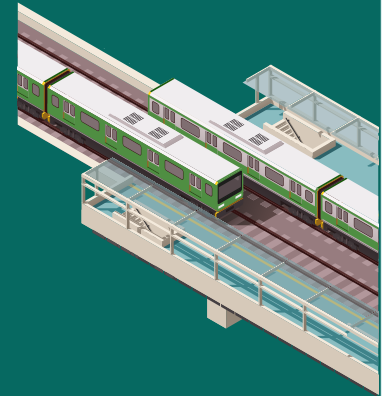
The CIÉ Group has recently concluded a sustainability linked loan, by embedding sustainability targets into its Facility Agreement. The facility is underpinned by four ambitious objectives in the areas of tackling emissions in scope 1 and 2 and modal shift, renewable energy deployment, circularity and waste reduction, and employee health and wellbeing. This is an important step which demonstrates its sustainability ambitions and commitment to its lender group.

**CIÉ Group is embedding sustainability at the heart of our operations through strategic investment, driving lasting impact across the transport sector**



# Low Carbon Fleet Transition

The decarbonisation of our services is a core pillar of the CIÉ Group Sustainability Strategy. We are committed to reducing greenhouse gas emissions and supporting Ireland's climate targets through the electrification of public transport services and use of alternative fuels.



	Commitment	Progress in 2024
Scope 1 and 2 GHG emissions	Decrease our GHG emissions by 51% by 2030 (against a 2018 baseline)	<ul style="list-style-type: none"> <li>• -5.44% change in emissions since 2018</li> </ul>
Bus fleet transition	100% of the Bus Átha Cliath bus fleet will be zero emission by 2035	<ul style="list-style-type: none"> <li>• Up to 100 electric buses in operation by year end</li> <li>• 9% of fleet made up of zero tailpipe emission vehicles</li> </ul>
	50% of the Bus Éireann fleet will be zero emission by 2030	<ul style="list-style-type: none"> <li>• 82 electric buses in operation by year end</li> <li>• 3 hydrogen fuel cell electric buses in operation by year end</li> <li>• 9.2% of fleet made up of zero tailpipe emission vehicles</li> </ul>
Rail fleet transition	Deliver the DART+ Programme	<ul style="list-style-type: none"> <li>• Delivery of the two Head of Series trains DART+ fleet from rail manufacturer</li> <li>• Railway Order applications approved by An Bord Pleanála for key DART extensions</li> </ul>

## Modelling the Transition

CIÉ Group is working across government and with key stakeholders to model options to transition from fossil fuels to electrification and alternative fuels in support of our 2030 and 2050 climate targets. Given the complex policy context for energy and transport, the evolving technological and infrastructure challenges and the financial impacts of both transition and business as usual, we are working closely with industry and government to inform strategy. We aim to ensure that critical EU and national policy objectives are delivered effectively and to ensure transparency on Group

progress and challenges. By modelling the impact and costs of transition, we seek to inform stakeholders of potential future investment requirements necessary to enable a timely and effective transition to a low-emission public transport system.

## Bus Fleet Transition

The CIÉ Group bus companies, Bus Átha Cliath and Bus Éireann, are working with the NTA to decarbonise Ireland's urban and regional bus services. This includes the procurement of zero-emission vehicles and the electrification of supporting infrastructure as part of the BusConnects programme.

Electrification plays a particularly important role in decarbonising urban bus fleets, where shorter routes, predictable schedules, and high passenger volumes make battery-electric buses highly effective for reducing emissions and improving air quality in densely populated areas.

- As part of the bus fleet transition, Bus Átha Cliath and Bus Éireann each reached over 100 zero tailpipe emission buses in operation by the end of 2024.
  - › Almost 10% of the Bus Átha Cliath and Bus Éireann fleets have been converted to zero emission vehicles.
- In April 2024, Bus Éireann launched Ireland's first fully electric regional city bus fleet in Limerick, supported by the NTA.
  - › A total of 34 battery-electric double-deck buses entered service in 2024, with 21 additional buses to expected to be deployed in 2025.
  - › The 55-bus fleet is expected to deliver over 2.1 million emission-free kilometres annually.
  - › The service is supported by a network of 35 charging stations.
- Bus Átha Cliath continued its electric fleet rollout under BusConnects Dublin.
  - › Charging infrastructure was completed at Phibsboro depot, and 44 new charging points were added at Summerhill depot.
  - › Preparations for electrifying a third site are underway, with works continuing into 2025.

While battery-electric technology is well suited for city-based operations, the decarbonisation of long-distance and interurban services presents additional challenges due to driving range, refuelling times, and infrastructure constraints. In this context, the CIÉ Group is also exploring the potential role of alternative zero-emission technologies, such as hydrogen fuel cell or hydrogen internal combustion engine buses, as a complementary solution for routes that are less suitable for electrification.



From left, Stephen Kent, Bus Éireann CEO; Eamon Ryan, former Minister for Transport; and Anne Graham, NTA CEO at the Limerick electric fleet launch.

## Rail Fleet Transition

Electrification remains a cornerstone of Iarnród Éireann's decarbonisation strategy. Through the DART+ Programme, Iarnród Éireann, in partnership with the NTA, is working to triple the electrified rail network and double passenger capacity across Dublin's commuter rail system.



The first five-carriage train of the new DART+ Fleet.



Key developments in 2024 included:

- Delivery of the first two DART+ Head of Series trains from Alstom. These five-carriage battery-electric trains are part of an order for 185 carriages, with entry into service from mid-2026. The order forms part of a framework agreement allowing for up to 750 electric or battery-electric carriages over ten years.
- Railway Orders approved by An Bord Pleanála for:
  - › Extension of electrification from Hazelhatch and Celbridge to Heuston Station via the Phoenix Park Tunnel (DART+ South West)
  - › The DART+ West project to Maynooth (excluding the depot)
- A Railway Order application lodged for DART+ Coastal North to extend services to Drogheda.

Improving energy efficiency is also central to reducing emissions from train operations.

- In 2024, Iarnród Éireann signed a Memorandum of Understanding with ZF for a potential repowering project, scheduled to begin in 2025. The initiative will retrofit existing rail vehicles with modernised drivetrains, aiming to reduce fuel consumption by up to 20%, improve operational efficiency, and minimise disruption and capital costs.

## Renewable Transport Fuels

### Role of Biofuels in Transport

The Renewable Fuels Transport Obligation (RTFO) is a key policy lever for decarbonising the transport sector by incentivising the use of biofuels and other alternative fuels. The CIÉ Group is working to integrate biofuels and Hydrotreated Vegetable Oil (HVO), classed as a carbon neutral fuel source, to meet the blend rate requirements of the RTFO. Additionally, for services where electrification is not yet feasible, CIÉ Group is exploring the use of additional quantities of HVO beyond the RTFO blend rates as an interim low-carbon fuel.

- The Group maintained its use of a biofuel diesel blend introduced in 2023 across bus and rail fleets to meet the Renewable Transport Fuel Obligation.
- Bus Éireann completed a successful HVO trial in 2024, retrofitting three school buses and one Expressway coach to run on 100% HVO, resulting in an estimated 40 tonnes CO<sub>2</sub>e reduction.
  - › CIÉ Tours partnered with a coach provider to operate a tour programme using 100% HVO, covering 28,000 km and consuming nearly 6,000 litres of low-carbon fuel.
  - › In 2025, four coach providers will expand the use of HVO across five scheduled tours, significantly scaling CIÉ Tours' decarbonisation efforts.



A coach bus operated on behalf of CIÉ Tours.

### Hydrogen fuel

The CIÉ Group is also exploring the potential for hydrogen fuel cell buses and trains, particularly for long-distance and high-demand routes where full electrification may not be feasible in the short term.

- Bus Éireann continued operating three hydrogen fuel cell buses on the Northern Dublin Commuter Corridor in 2024, achieving over 195,000 tailpipe emissions-free kilometres since 2021.
- Iarnród Éireann, in partnership with Latvia's DIGAS, is trialling Europe's first retrofitted hydrogen freight locomotive. A 071 Class locomotive will be converted to run on zero-emission renewable hydrogen, with a single-cylinder test scheduled for Q2 2025.
- CIÉ and Bus Éireann are partners in [SH2AMROCK](#), a five-year, €54 million Hydrogen Valley project.
  - › Funded by €7.5 million from the Clean Hydrogen Partnership and €0.5 million from UK Research and Innovation, the project will:
    - Produce green hydrogen at a Midlands wind farm
    - Transport it to Galway Port
    - Establish Ireland's first hydrogen refuelling station
    - Power hydrogen city and intercity bus fleets and local logistics

SH2AMROCK brings together 28 partners across 12 countries, positioning Ireland as a leader in green hydrogen mobility.



## GHG Emission Figures

The CIÉ Group has Group-wide targets in line with the CAP to reduce total Scope 1 and 2 carbon emissions by 51% by 2030, using a baseline year of 2018.

### Current Emissions Performance

- To stay on track, a linear reduction pathway would require a 25.5% decrease between 2018 and 2024 (Figure 3).
- Between 2018 and 2024, CIÉ Group achieved a 5.44% reduction in total Scope 1 and 2 emissions.
- From 2023 to 2024, Scope 1 and 2 emissions increased by 2.71%, primarily due to expanding service levels.

This means that the Group has not yet achieved the desired rate of reduction and will need to reduce our emissions at an accelerated rate until 2030 in order to achieve our climate targets.

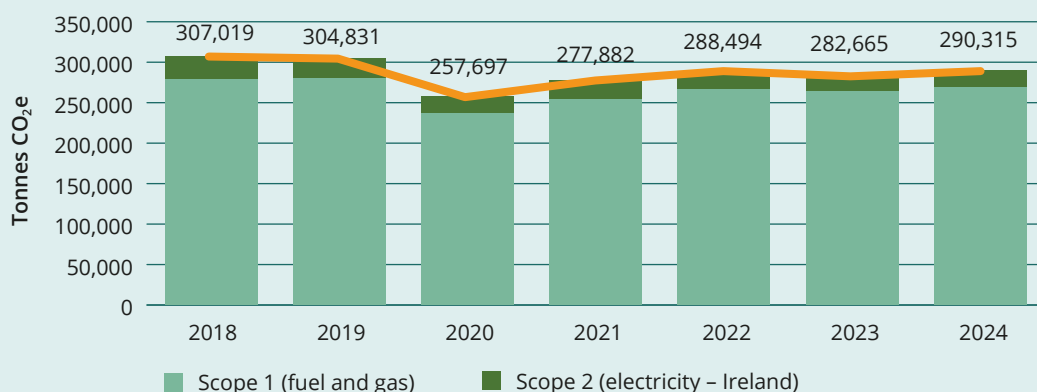
Delivery of emission reductions is predicted on key supply chain infrastructure developments, grid access and grid capacity at key locations.

Notwithstanding the challenges to meet our annual expected emission reduction, the CIÉ Group of services increased passenger journeys by 7.1% and increased the number of kilometres travelled (bus and train) by 3.6% between 2023 and 2024. This reflects the impact of a higher demand for public transport and expanded services.

### Challenges in Meeting Climate Targets

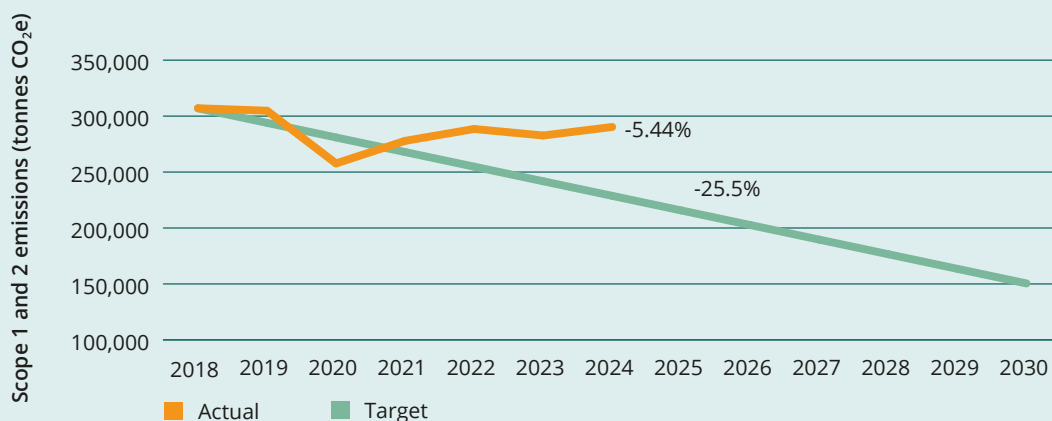
The CIÉ Group faces a unique challenge: reducing absolute emissions while expanding services to support national modal shift and climate goals. Increasing service provision inherently leads to higher energy consumption and associated emissions, complicating efforts to achieve rapid emissions reductions. The rate of reduction must now accelerate significantly between 2024 and 2030 to meet the 51% reduction target.

### CIÉ Group Scope 1 & 2 Emissions



**Figure 2.** CIÉ Group cumulative Scope 1 and Scope 2 carbon emissions. Scope 1 (direct) emissions are generated by the combustion of fuel. Scope 2 (indirect) emissions are generated by the consumption of electricity. The Scope 2 emissions in this figure represent the consumption of electricity in Ireland.

### CIÉ Group Scope 1 & 2 Emissions: Actual vs. Target



**Figure 3.** CIÉ Group Scope 1 and 2 emissions trend plotted against the emissions trajectory in line with the target of decreasing emissions by 51% by 2030. The emission reduction represented in the graph for 'target' and 'actual' are calculated against the baseline year of 2018.

The CIÉ Group is implementing a range of low-carbon initiatives, including:

- Use of biofuels and low carbon technologies in fleets
- Gradual transition to zero emission buses and trains
- Investments in electrification and supporting infrastructure

The transition to a zero-emission fleet will not follow a linear path. Significant lead times are required for implementing zero emission technologies and developing supporting infrastructure, making this a long-term transformation over the coming years.

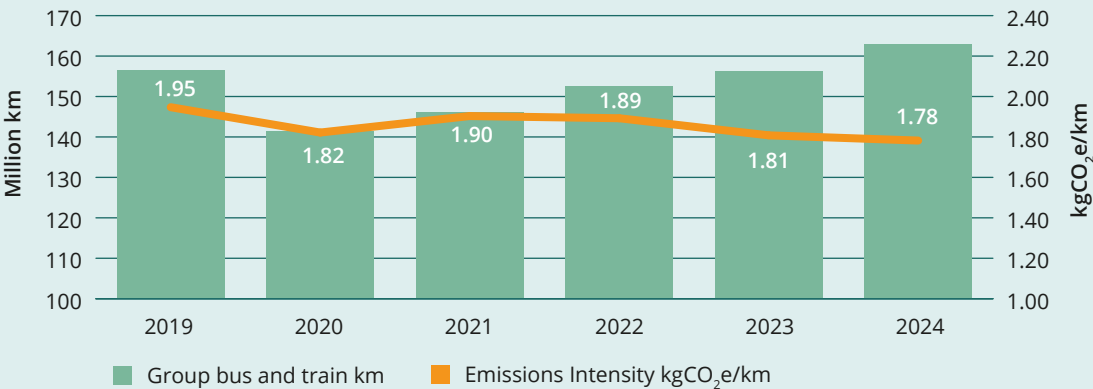
### Emissions Intensity Metric:

The emissions intensity of kilometres travelled (bus and train) by CIÉ Group is presented in Figure 4. Emissions intensity is measured in kgCO<sub>2</sub>e per kilometre travelled (excluding Bus Éireann's schools transport service by third party contractors) and serves as a key indicator of the energy efficiency and environmental impact of the CIÉ Group's transportation activities.

- The emissions intensity metric depends on several factors, including the energy sources used for transportation, the efficiency of vehicles and the distance travelled. A lower intensity metric indicates a more efficient and sustainable level of operations.

- This intensity figure had previously been reported in kgCO<sub>2</sub>e per passenger journey, however, it has been updated to reflect a more standardised metric (kilometre travelled), as journeys vary in length.
  - › A passenger journey refers to a single trip taken by one person on public transport, while a kilometre travelled measures the total distance covered by vehicles in a year, regardless of the number of passengers on board.
- Following a period of service disruptions caused by the COVID-19 pandemic, service kilometres gradually recovered to a high of approximately 163 million in 2024, a record on previous years.
- Emissions intensity decreased by 8.5% from 1.95 kgCO<sub>2</sub>e/km in 2019 to 1.78 kg CO<sub>2</sub>e/km in 2024.
- Continued progress in emissions intensity is expected through fleet electrification across bus and rail and deployment of energy-efficient and low-carbon technologies.

### CIÉ Group Scope 1 & 2 GHG Intensity



**Figure 4.** Total bus and train kilometres travelled plotted against carbon intensity (kg CO<sub>2</sub>e per km). Total carbon intensity figures in this graph do not include CIÉ Tours or the CIÉ Holding Company. CIÉ Tours and the CIÉ Holding Company together contribute less than 0.1% of total CIÉ Group emissions.

**The transition to a zero-emission fleet will not follow a linear path, making this a long-term transformation over the coming years.**



## CIÉ Group Energy Consumption

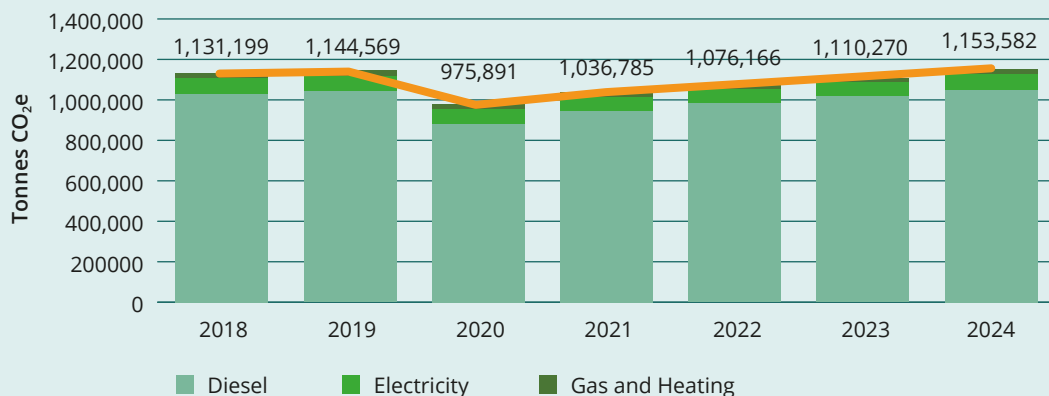


Figure 5. CIÉ Group total energy consumption (MWh)

## Energy Consumption Figures

The CIÉ Group predominantly uses diesel fuel as our main source of energy, as indicated in Figure 5. However, a shift in the Group's energy consumption profile is expected in the medium to long term as we move away from diesel and increasingly towards electricity as a primary energy source. This energy transition will rebalance the proportion of emissions, with the proportion of Scope 2 emissions expected to increase over time.

Since reaching a low in 2020, the CIÉ Group's energy use has gradually increased in line with the steady expansion of bus and rail services. As energy consumption is directly linked to the level of service provided, this upward trend reflects the Group's delivery of public transport services, supporting modal shift. Recognising the need to manage this growth sustainably, one of the Group's key priorities is to increase the adoption of energy-efficient technologies, helping to reduce the energy intensity of our operations while continuing to expand and improve public transport offerings.

## Energy and GHG emissions calculation methodology

The CIÉ Group is committed to the accuracy, transparency, and continuous improvement of its sustainability data. All CIÉ Group Operating Companies are required to report their annual energy use to the SEAI, which verifies the reported data and publishes it via their public Monitoring and Reporting (M&R) system. The Group calculates energy consumption and GHG emissions in accordance with the principles of the GHG Protocol, the globally recognised standard for GHG accounting.

When available, we make use of general well-known and reliable external sources such as the SEAI M&R conversion factors and the UK Department for Environment, Food and Rural Affairs (DEFRA) conversion factors to arrive at reasonable and fair judgements, estimates and assumptions. Judgements, estimates and assumptions are regularly reviewed and updated. At the same time, we acknowledge that the use of third-party information and the aforementioned techniques implicitly bear the risk of outcome uncertainty.

In the 2024 reporting year, we analysed and reviewed our data collection and KPI reporting methodology. As a result, historical scope 1 and 2 emissions have been restated to reflect updated assumptions, greater alignment with the SEAI M&R methodology, and the application of revised conversion factors.

A full list of conversion factors used in this report is provided in Appendix I.

# Building Energy Efficiency

CIÉ Group aims to reduce our GHG emissions from our building stock to support the targets of the CAP. This will be supported through energy efficiency measures, demand reduction, and the use of on-site renewables.



	Commitment	Progress in 2024
Renewable energy	Group: Increase behind the metre Solar PV generation capacity	453.7 kWp capacity in place in 2024

## Energy Efficiency Initiatives

The CIÉ Group is advancing energy efficiency and renewable energy initiatives across our operations through pilot projects, infrastructure upgrades, staff engagement campaigns, and the integration of smart monitoring technologies.

The rollout of solar PV technology continues to play a key role in the Group’s transition to low-carbon operations.

- In 2023, Iarnród Éireann installed a pilot solar PV system on the roof of Heuston Station to assess the viability of solar energy at station locations. Planning for additional PV installations across the Iarnród Éireann network continued into 2024.
- In 2024, Bus Éireann completed solar PV installations at at Sligo bus station, Athlone depot, Galway depot, Westport depot, Donegal town depot, and Drogheda depot. These systems are projected to reduce annual electricity consumption by approximately 360 MWh. Further installations are planned at two additional sites in 2025. All installations were supported by the CIÉ Sustainability Fund.



Solar PV panels on the roof of a Bus Éireann depot.

Real-time monitoring technology is helping the CIÉ Group manage energy and water use more precisely.

- Across 2023-2024, Bus Átha Cliath installed sub-metering and energy monitoring systems at ten locations, with plans to expand monitoring to include real-time tracking of electricity, water, and gas usage across all depots. These improvements are supported by the CIÉ Sustainability Fund.

Efforts are underway to benchmark and improve the energy performance of CIÉ Group buildings, including rail stations.

- In 2024, Iarnród Éireann initiated planning for Building Energy Rating (BER) assessments across their station network, which are scheduled to begin in 2025. This will include: Establishing a baseline of energy performance, developing an energy certification dataset for each station, and identifying opportunities for energy efficiency upgrades. These assessments are supported by the CIÉ sustainability fund.

Engaging employees in energy-saving behaviours helps to improve energy use efficiency.

- In 2024, Bus Éireann, with support from the Sustainable Energy Authority of Ireland (SEAI), launched the “Target 10” energy efficiency campaign at its Broadstone depot. The campaign encouraged staff and drivers to adopt energy-efficient practices through targeted communications. Expansion to additional sites is planned for 2025.

In recognition of their outstanding efforts in energy efficiency, fleet decarbonisation, and overall sustainability, Bus Éireann was awarded the 2024 SEAI Leadership in the Public Sector Award.

**...one of the Group's key priorities is to increase the adoption of energy-efficient technologies, helping to reduce the energy intensity of our operations while continuing to expand and improve public transport offerings.**



A pollinator-friendly garden outside of an Iarnród Éireann train station.



# Biodiversity

The CIÉ Group is committed to enhancing biodiversity and protecting the well-being of our natural environment, ensuring the safeguarding of the lands that we own.



	Commitment	Progress in 2024
Tree planting	Iarnród Éireann aims to plant 40 hectares of native trees on non-operational lands by 2030	12,000 trees on 10 acres on ground were planted in 2021. These trees have been maintained in 2024 with any missing trees replaced throughout the woodland 150 native broadleaves and fruiting trees were planted around the Inchicore depot in 2024/2025 planting season
All Ireland Pollinator Plan	Install pollinator plans at every Iarnród Éireann station by 2030	58 pollinator plans in place

## Biodiversity Strategy

As one of the largest landowners in Ireland, the CIÉ Group is committed to enhancing biodiversity and protecting the well-being of our natural environment. Leveraging the scale of our national network, Iarnród Éireann is leading on the development of a biodiversity strategy, starting with the creation of a national biodiversity mapping project across the rail and CIÉ network, aimed at shaping future biodiversity initiatives.

The biodiversity mapping project will assess the various ecosystems and biodiversity levels along the rail network stretching across the country. This will help identify priority areas for protection and opportunities for afforestation.

## All Ireland Pollinator Plan

As a partner organisation of the [All-Ireland Pollinator Plan 2021-2025 \(AIPP\)](#) one of the key actions for Iarnród Éireann is “to promote pollinator-friendly management of the national rail network in the Republic of Ireland” through measures that include trialing alternatives to glyphosate herbicide, controlling the spread of invasive plant species, and improving

grassland management and pollinator friendly planting across all stations. In 2024, Iarnród Éireann completed pollinator plans for four additional stations, taking the total up to 58 by the end of 2023. CIÉ Tours became a supporter of the AIPP in 2024, also joining Bus Éireann in formally endorsing the plan and agreeing to take specific actions themselves to assist.

## Enriching Our Local Ecosystems

CIÉ Group is supporting a range of projects that invest in our biodiversity and natural capital.

In 2024, Bus Átha Cliath began planning installed biodiversity and wellbeing gardens at several sites. These gardens will improve biodiversity in Dublin city, while also providing employees with natural outdoor spaces for them to enjoy during breaks, lunchtime, or after work.

In 2024 Iarnród Éireann submitted an application to plant 15 acres or circa 15,000 trees on a site in Tipperary. This application is currently in the planning process and required additional bird survey reports and drainage reports to be completed as part of the application. The current aim is to plant in the 2025/26 planting season.



From left, Joe Codd, Iarnród Éireann Environmental Specialist; Jim Meade, Iarnród Éireann CEO; and Caoimhe Donnelly, CIÉ CSO holding tree saplings grown as part of the Native Tree Seed Collection Programme.

Iarnród Éireann and CIÉ continued to develop a biodiversity strategy for Iarnród Éireann and CIÉ landholdings. The strategy is planned to include:

- Mapping of CIÉ/Iarnród Éireann land and property, including the 2,200 km of biodiversity-rich corridors along the rail network
- Mapping of biodiversity assets across Group land and property
- Identification of at-risk areas for protection and restoration.

## ‘Tern the Tide’

An innovative new art installation, built from decommissioned Iarnród Éireann safety signage, was completed in 2024 at Kilcoole beach, Co. Wicklow, to promote the conservation of Ireland’s largest Little Tern colony. The aim of the Creative and Climate Action project ‘Tern the Tide’ is to encourage community awareness of our natural environment and assist BirdWatch Ireland and the National Parks and Wildlife Service in their efforts to protect these rare migratory birds.

## Native Nurseries

In 2024, Iarnród Éireann began funding two Irish nurseries through the Native Tree Seed Collection Programme to collect, process and grow native tree seeds. This initiative, supported by the CIÉ Sustainability

Fund, promotes biodiversity, supports Irish businesses, and promotes the circular economy. It is the first partnership of its kind in the Irish transport sector.

By the end of 2024, approximately 110 trees from improved stock were planted, with preparations underway for further tree planting and seed collection. Seeds gathered in 2024-2025, including hazel, spindle, oak, crab apple, and holly, will be used in the 2026-2027 planting season.



## CIÉ Tours: ReFarm

CIÉ Tours announced in 2024 that it will provide funding support for ReFarm, a new national initiative to make ‘farming for nature’ a sustainable and scalable solution to address the biodiversity and climate crises. Developed in collaboration with Trinity College Dublin, Burrenbeo Trust and local and international organisations, a focus area of ReFarm is the Burren region, home to the iconic Cliffs of Moher, a highlight within CIÉ Tours itineraries. The funding will go towards the implementation of nature positive actions on farmland. The project also funds future research to aid similar initiatives.

# Circular Economy

The circular economy is an area of strategic focus for the CIÉ Group, guiding our efforts to minimise waste, maximise resource efficiency, and reduce environmental impact across our operations. Water management is also a key focus, with efforts to improve water efficiency, reduce consumption, and implement rainwater harvesting and recycling systems at key facilities.



	Commitment	Progress in 2024
Recycling	Bus Éireann targets a 70% recycling rate by 2030	21.2% recycling rate in 2024
	Iarnród Éireann targets a 70% recycling rate by 2030	54% recycling rate in 2024
Waste Segregation Infrastructure	Install waste segregation infrastructure across 100% of offices, depots, and stations across the Group by 2026	31% of sites with waste segregation infrastructure in place in 2024
Water use	Iarnród Éireann aims to install water monitoring equipment at the top 90% consuming sites by 2025	20% complete in 2024

## Waste Management

The CIÉ Group manages three primary waste streams: general waste, recyclable waste, and hazardous waste – the latter primarily arising from the servicing and maintenance of heavy-duty vehicles (e.g. engine coolant, used motor oil, batteries, and oily rags). Across the Group, we have taken significant steps to improve infrastructure, raise awareness, and implement waste reduction, reuse and recycling initiatives.

Municipal waste is a key waste stream for CIÉ Group that we are working to tackle. Improving waste segregation is important for increasing recycling rates and reducing waste sent to landfill. The following initiatives were supported by the CIÉ Sustainability Fund:

- In 2024, Bus Éireann completed the rollout of waste segregation infrastructure across all of its sites. This initiative will contribute to improved recycling performance across the network.
- Also in 2024, Iarnród Éireann installed waste segregation infrastructure or bin wrapping at 11 stations. Planning is underway to expand this initiative to additional locations in 2025, further supporting better waste separation practices.



- Bus Átha Cliath advanced its waste management planning in 2024, with implementation of waste segregation infrastructure and staff training scheduled for 2025.

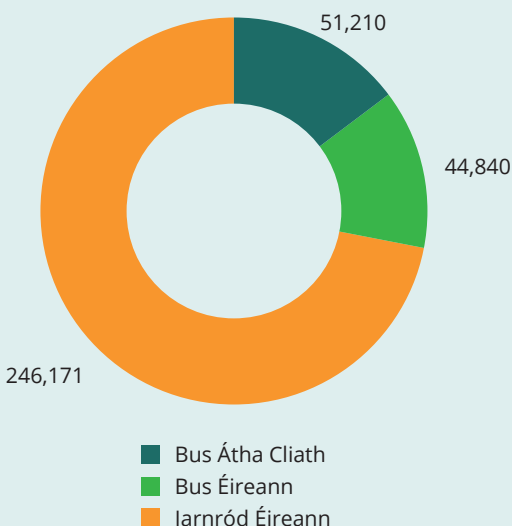
Iarnród Éireann received the 2024 Circular Economy Award at the Irish Climate Change Leadership Awards for a series of high-impact initiatives:

- The Train Component Repair Shop (CME) saves an estimated €5 million annually by refurbishing components in-house instead of replacing them.
- Wood waste donations were made to White Rabbit, an upcycling project supporting local schools.
- Approximately 1 tonne of unused first aid materials was donated to Misneach Ukraine, a charity supporting frontline medical aid in Ukraine.

## Water Management

CIÉ Group relies heavily on water for our daily operations, particularly for vehicle maintenance and washing (Figure 6). To deliver on our commitment to sustainable resource management, the CIÉ Group Operating Companies are undergoing water use audits, installing smart meters, and installing water saving technologies to allow us to use water more efficiently across our operations.

CIÉ Group Water Use 2024 (m<sup>3</sup>)



**Figure 6.** CIÉ Group water use consumption in 2022, reported in cubic metres of water.

To reduce dependency on the public water supply, Bus Átha Cliath is investing in rainwater harvesting systems at key locations:

- In 2023, Bus Átha Cliath installed a rainwater harvesting system at its Summerhill depot.
- In 2024, additional systems were installed at the Ringsend and Donnybrook depots, supported by the CIÉ Sustainability Fund. These systems are designed to capture and store rainwater for non-potable uses, such as vehicle washing, thereby easing pressure on Dublin's water infrastructure.



A rainwater harvesting system at a Bus Átha Cliath depot.

To increase visibility and control over water use, the CIÉ Operating Companies are conducting audits and installing smart metering technology:

- In 2024, Bus Éireann completed water audits and installed smart meters at seven depots, also supported by the CIÉ Sustainability Fund. Bus Éireann plans to expand this programme across more locations and has set a target to reduce water use by 40% by 2030.
- In 2024, Iarnród Éireann achieved a 15% reduction in water usage through monitoring billing records and responding proactively to leaks. This underscores the impact of routine data review and maintenance in driving resource efficiency.

## Green Public Procurement and Value Chain Engagement

Green public procurement (GPP) is a strategic means for CIÉ Group to leverage our purchasing power to foster a more sustainable supply chain. Through GPP, we seek to source goods, services, or works with a reduced environmental impact throughout their lifecycle. The CIÉ Group Operating Companies have targets and strategies in place to ensure that the appropriate GPP criteria is included in their contracts and tenders, with the goal of increasing the number of contracts and tenders with sustainability criteria. This process aligns with Ireland's commitment to resource efficiency and a circular economy.

Bus Éireann's target of including sustainability criteria in 75% of tenders by 2030 was raised to a target of 95%, reflecting the material progress made by the company to date in this regard. Iarnród Éireann also has a Responsible Purchasing Policy in place with a target of incorporating sustainability selection criteria in 100% of their tenders by 2030, and Bus Átha Cliath include sustainability criteria in tenders.

CIÉ Tours, in working to reduce their carbon footprint and GHG emissions, engaged with a coach supplier to operate one of their tours using a coach powered by HVO. The seven-day tour operated during the 2024 season covering 28,033 kilometres. Such a strategic partnership is essential in driving industry-wide change, as they encourage suppliers to develop and offer more eco-friendly options. The number of tours and coach operators using HVO are set to grow significantly in 2025.

CIÉ Tours also undertook multiple supply chain activities throughout 2024. They established a pilot supplier sustainability programme with suppliers representing aviation, ground transportation, visitor attractions, and hotels to better understand their sustainability work, and to look at ways of collaborating to accelerate this work. Each of these suppliers was requested to submit carbon emissions data so any potential gaps could be identified and to find solutions to close these gaps to support more robust supplier carbon emissions data collection.



Lavender in bloom as part of pollinator-friendly planting at an Iarnród Éireann station.

**Green public procurement is a powerful lever for driving sustainability across our supply chain**

# Climate Adaptation

The effects of climate change, such as shifting rainfall patterns, intensified extreme weather events, rising sea levels, and global temperature increases, are already evident in Ireland. Climate adaptation involves developing proactive strategies and measures to anticipate, prepare for, and respond to changing climate conditions and their impacts.



## Climate Adaptation Strategy

Climate adaptation is a fundamental element of climate action and is outlined in the [National Adaptation Framework](#), where the Commercial Semi-State Sector is called to safeguard their own operations and services as well as support the wider implementation of adaptation actions.

The CIÉ Group has carried out a climate scenario planning exercise to explore the potential impacts of climate-related risks and uncertainties on our operations. This approach will be complemented by our upcoming DMA, which will identify and prioritise the Group's most significant impacts, risks, and opportunities. A key focus of this process is the identification of physical climate risks, which will also inform future adaptation strategies and infrastructure resilience planning across the Group.

In 2024, Iarnród Éireann published their [Climate Adaptation Strategy](#), which highlights climate impacts to rail services including intense rainfall and flooding, severe winds and storm surges, sea level rise, extreme temperatures and drought events. The strategy outlines their six-stage approach to managing these impacts and ensuring the reliability of the railway in the face of climate change.

Climate adaptation and mitigation is an important aspect of Bus Éireann's Climate Action Strategy which they are committed to managing. Bus Éireann worked on developing a Climate Change Risk Assessment and Adaptation plan in February 2025, in line with the Department of Transport's Climate Change Sectoral Adaptation Plan.

## East Coast Railway Infrastructure Protection Project (ECRIPP)

Spanning the coastal railway south of Dublin to Wicklow, certain sections of the coastal areas are vulnerable to the impacts of coastal erosion, coastal flooding, wave overtopping and cliff instability. These impacts are expected to increase both in frequency and severity in future years as a result of climate change. The East Coast Railway Infrastructure Protection Projects (ECRIPP) was established to deliver the necessary enhanced coastal protection to the existing railway infrastructure in affected areas of the rail network.

The project is currently in Phase 2, which involves design works and environmental studies, with several surveys having been carried out to inform this phase. Key documentation, including the Option Selection Report, Project Execution Plan, and Feasibility Cost Estimates have been submitted to the NTA.

Additional detail on ECRIPP and the steps being taken to protect the Dublin to Wicklow rail line can found on the [ECRIPP website](#).





# Community Engagement and Heritage

The CIÉ Group values engaging with charities and community organisations, fostering strong partnerships that support local investment and community development. As a long-standing provider of bus and rail transport, the Group also leads initiatives to preserve cultural heritage by creating access to historic buildings and archives.



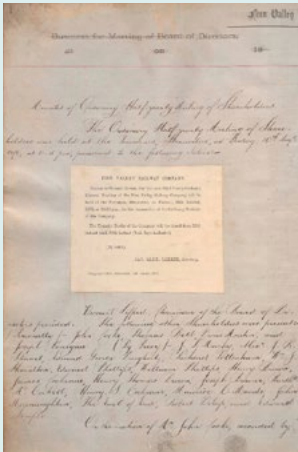
## Community Engagement and Heritage

### Archive Heritage Programme

Throughout 2024, the CIÉ Group Archives continued its work to preserve and make available historic company documents for legal and historic purposes. With support from the CIÉ Sustainability Fund, two major projects are underway from 2023 to 2025.

The first project is establishing an archives service at Heuston Station, including the preservation, cataloguing and digitisation of statutory records dating from the early 1800s to the 1990s. By the end of 90% of these records had been catalogued and preserved, and 150 board minute books were digitised. The project will conclude in 2025 with the launch of a website and public online catalogue.

The second project kicked off in mid-2024 and aims to catalogue almost 5,000 files created by CIÉ and its predecessor companies dating from the 1880s-1970s. To date over half of the files have been catalogued, and the descriptions will be made available online once the project concludes in 2025.



A page of a historic Board minute book that will be scanned and archived as part of the CIÉ Archival Heritage Programme.



Historical CIÉ documents in storage.

## Past Tracks

Across 2023-2024, Iarnród Éireann installed “Past Tracks” storyboards at various stations nationwide. These storyboards were placed at train stations to engage customers on the railway and social history of towns in which stations were located. The project aims to provide a social and local heritage link between the railway and the local population. Each storyboard features five illustrated stories, with the final one focusing on Iarnród Éireann’s sustainability vision for the future.

## Belvedere Youth Club

Through their Sustainability Action Fund, CIÉ Tours is supporting the local Belvedere Youth Club (BYC), an organisation dedicated to empowering youth in Dublin’s north inner city. BYC provides essential services such as homework clubs, sporting activities, arts and crafts, food provision, and a range of offsite recreational activities.



## Dublin Pride

Bus Átha Cliath partnered with ShoutOut, a registered charity committed to improving life for LGBTQI+ people, launching the *Celebrating How Far We’ve Come: 50 Years Of Dublin Pride* campaign on buses across the capital during the 2024 Pride season. As part of the campaign, 50 t-side ads were displayed across the Bus Átha Cliath fleet with a selection of heartfelt and significant personal milestones from the lives of queer Dubliners.

## Tour de Munster

In 2024, Bus Éireann’s ‘Expressway’ brand sponsored the 24<sup>th</sup> annual charity cycle Tour de Munster, which raises funds for Down Syndrome Ireland and other worthy charities.



CIÉ Tours Managing Director, Stephen Cotter, and Belvedere Youth Club CEO, Jenny Courtney, stand in a CIÉ Tours coach bus with two members of the Belvedere Youth Club

**CIÉ Group is proud to support the people and places that define the communities we serve.**

# Decent Work and Wellbeing

CIÉ Group is committed to fostering a safe and healthy working environment for our employees, contractors and customers. By investing in the physical, mental and emotional wellness of our staff, we can create a positive and productive work environment that fosters innovation, collaboration and engagement.



	Commitment	Progress in 2024
Employee Engagement	Engage at least 2,350 employees in health screenings, wellbeing training, and financial wellbeing training on an annual basis by 2026	2,268 employees engaged in health screenings, wellbeing training, and financial wellbeing training

## Employee Wellbeing

Employee health and wellbeing are essential aspects of CIÉ Group's sustainability strategy. A variety of initiatives and programs have been implemented across CIÉ Group to promote employee health and wellbeing, including employee assistance programmes, fitness challenges, expert webinars on various health topics, first aid courses, stop smoking courses, mental health resources, and a Group-wide network of Wellbeing Champions.

Bus Éireann's Health and Wellbeing Strategy revolves around the three key themes of Promotion, Prevention, and Rehabilitation, and is underpinned by six pillars – Mental Wellbeing, Physical Wellbeing, Financial Wellbeing, Social Wellbeing, Intellectual Wellbeing, and Sustainable Wellbeing. In 2024, they held wellbeing workshops and initiatives, including providing training to Mental Health First Aiders and Wellbeing Champions.

The Iarnród Éireann health and wellbeing team held a series of workshops, programmes, and courses for employees throughout 2024, including a financial wellbeing programme, stop smoking courses, free health checks, a 'menopause hub', a specialised 'Ignition Go' health programme for night workers and shift workers, a network of Health & Wellbeing Champions, men's health workshops, and other health and wellbeing events.

## Well on Track Online Platform

The CIÉ Group Health and Wellbeing Departments have developed an online wellness hub aimed at providing employees with wellbeing information, guidance, and support. Launched in early 2024, the online platform helps employees to learn and improve their overall health and wellbeing by providing them with resources and webinars on various health-related topics. The platform gathers information from a growing network of charities, non-profits, and government agencies that cover different aspects of wellbeing, including financial, social, environmental, lifestyle, diversity & inclusion. This online wellbeing hub is funded by the CIÉ Sustainability Fund.

## KeepWell Mark Certification

As part our commitment to foster a safe and healthy working environment, the CIÉ Group Operating Companies have registered to the IBEC KeepWell Mark, a national accreditation that recognises organisations that invest in workplace health and wellbeing.





CIÉ Group staff in with the KeepWell Mark logo.

### KeepWell Mark Certification



CIÉ HC	✓
Bus Éireann	✓
Iarnród Éireann	✓
Bus Átha Cliath	✓

## Workplace Safety

CIÉ Group is committed to providing a safe and healthy work environment for our employees and passengers. Each Operating Company implements their own health and safety policies that are regularly reviewed and updated as required. All staff work to ensure that processes are in place to allow for best practice in workplace safety and security, and that those processes are put into practice across their stations, depots, on vehicles, and on CIÉ Group property. The policies aim to ensure that CIÉ Group complies with all relevant legislation and regulations and fosters a culture of safety and well-being among our staff and customers.

## Business Conduct

CIÉ Group's publicly stated commitments regarding anti-corruption, protected disclosures and anti-discrimination are available on the [CIÉ Corporate Governance](#) webpage. These commitments reflect the CIÉ Group's values and principles, as well as our legal and ethical obligations in conducting business activities. CIÉ Group expects all employees, contractors, suppliers and partners to adhere to these commitments and to uphold the highest standards of integrity, fairness, and respect in their dealings with the CIÉ Group and our stakeholders.

## Collective Bargaining

CIÉ Group negotiates with our employees through the process of collective bargaining. CIÉ Group, on a voluntary basis, agrees to engage with the unions to discuss collective bargaining issues. The practice within CIÉ Group is to work with trade unions that represent a wide range of categories of staff. CIÉ Group has a long history of negotiating with trade unions and there are agreements in place that date past decades. These agreements reflect a mutual understanding and respect for the rights and responsibilities of all parties and serve as a testament to the constructive dialogue that has been maintained over the years, fostering a stable and productive working environment.

# Diversity and Equal Opportunity

CIÉ Group is committed to supporting a diverse, inclusive, and equitable workplace where all employees feel valued, respected, and supported. Through ongoing initiatives and policies, we aim to create an environment where equal opportunity is embedded in everything we do.



	Commitment	Progress in 2024
Bus Éireann diversity targets	10% female drivers by 2030	5% female drivers in 2024
	10% female supervisors by 2030	2% female supervisors in 2024
	12% women in the organisation by 2025	11% women in the organisation in 2024
	50% women in management by 2028	31% women in management in 2024
Iarnród Éireann diversity targets	Double the number of women employed, from 474 in 2022 to 948 female employees by 2030	559 female employees in 2024
Bus Átha Cliath diversity targets	10% female drivers	7% female drivers in 2024
	Double the number of female drivers from 189 in 2024 to 380 by 2027	189 female drivers in 2024

## Equality, Diversity and Inclusion

The CIÉ Group Operating Companies each have Equality and Diversity statements or policies in place, underscoring our ongoing dedication to promoting equality, diversity, and non-discrimination. This commitment extends to our employees, customers, and the broader communities that we aim to serve.

- [Bus Éireann Diversity Statement](#)
- [Bus Éireann Route to Respect 2024-2030](#)
- [Bus Átha Cliath Diversity and Inclusion Policy](#)
- [Iarnród Éireann Equality and Diversity Statement](#)
- [CIÉ Diversity and Inclusion Policy](#)

## Gender Pay Gap Reports

Following the implementation of the Gender Pay Gap Information Act 2021, each Operating Company publishes an annual gender pay gap reports, outlining the gender representation across each Operating Company, the gender pay gap (if present), and initiatives in place to narrow the gender pay gap and/or the gender representation gap. CIÉ Group is committed to not only ensuring that the gender pay gap does not disadvantage any gender, but also to increase female representation across the Operating Companies in the historically male-dominated transport sector.

[Bus Átha Cliath Gender Pay Gap Report 2024](#)

[Bus Éireann Gender Pay Gap Report 2024](#)

[CIÉ Gender Pay Gap Report 2024](#)

[Iarnród Éireann Gender Pay Gap Report 2024](#)



Female Bus Átha Cliath employees pictured as part of the More Mná campaign launch.

## Inclusive Recruiting

The CIÉ Group Operating Companies each have dedicated inclusive recruitment campaigns, reinforcing their commitments to diversity and inclusion. A few of the initiatives being run across the Operating Companies are included below:

- **Female Open Days:** Bus Átha Cliath's 'More Mná' campaign is backed by research revealing that 25% of Irish women have previously avoided roles perceived as 'men's jobs', though perceptions are shifting. Bus Átha Cliath and Bus Éireann invited women to a series of dedicated Female Open Days in 2024, offering a unique opportunity for women to explore a career as a bus driver in an inclusive and supportive work environment.
- **'A Career Built Around You':** Bus Éireann introduced this campaign to attract mechanics from a broader range of backgrounds, promoting greater diversity within the organisation. This initiative earned two awards: the 2024 CIPD Award for Inclusive Recruitment and the STEM Recruitment Campaign of the Year at the Women in STEM Awards.
- **Ability Programme:** Bus Éireann's programme supports employment opportunities for adults with disabilities and fosters partnerships with disability organisations to offer inclusive work experience placements.
- **Back to Work Connect partnership:** Iarnród Éireann has continued to partner with Back to Work Connect, an organisation that advertises external job vacancies to those wishing to return to work, with an emphasis on women returning after a career break.
- **PTECH Programme:** Iarnród Éireann works with schools across Dublin's North East Inner City region to encourage junior cycle students to consider careers with Iarnród Éireann.



# Transport Orientated Development

Transit-Oriented Development (TOD) is an urban design concept focused on creating compact, walkable, mixed-use communities around public transport hubs. CIÉ is committed to applying TOD principles by leveraging its well-located property assets to improve access to housing, jobs and services near high-quality frequent transport.



## Heuston Station, Dublin

The Heuston Masterplan is a blueprint for the mixed-use, transformational development of lands at Heuston Station as an exemplar of TOD. It will oversee the development of a largely brownfield site into a destination for living, working, exercising, and socialising.

There are circa 10 hectares of potential development lands which could accommodate over 210,000 sqm of mixed uses including over 1,000 residential units.

Work packages regarding additional pedestrian, cycling and accessibility linkages, and the relocation of stakeholders are ongoing. It is planned to progress both packages to planning applications in 2025.

CIÉ and the NTA are exploring further enhancements to intermodal connectivity at Heuston.



## Connolly Station, Dublin

The completed Dublin Arch development will comprise of 59,000 sq.m of offices, a 200 bed hotel, and 187 residential units. The scheme will substantially improve linkages with the adjoining community and, in line with the TOD objectives of the CIÉ Group, improve access to the station and rail services.



Architectural render of the Dublin Arch development at Connolly Station.

## Kent Station, Cork

Horgan's Quay, Cork comprises six acres of mixed-use TOD including new public realm linking to Kent Station. Total office space of 29,000 sq. m. is planned with Phase 1 completed and Apple and Regus installed as tenants. The Dean Hotel has been trading since late 2020.

CIÉ and the developer entered into agreements with the Land Development Agency to bring forward the development of 302 residential units, the construction of which commenced in 2024.



Quay development site.

## Ceannt Station, Galway

Planning permission was recently granted for the Augustine Hill development at Ceannt Station Quarter, Galway which will incorporate circa 400 residential units, retail, hotel and office space together with quality public realm areas and facilities for cyclists over 3.3 hectares. It is anticipated that development works will commence later in 2024.



Architectural rendering of the Augustine Hill development at Ceannt Station.

## Colbert Station Quarter, Limerick

CIÉ is working alongside the Land Development Agency on the Colbert Station Quarter development, which will deliver several thousand affordable residential units.

CIÉ Group is unlocking the potential of our property assets to deliver vibrant, connected communities built around public transport.

# Partnerships and Knowledge Sharing

Collaboration is essential to delivering meaningful and scalable sustainability outcomes. By engaging with academic institutions, industry partners and cross-sectoral networks, we are strengthening our capacity to innovate, share knowledge and shape best practises in sustainable transport.



## UCD NexSys



CIÉ Group is working with the UCD Energy Institute, a leading research centre in the field of energy systems, to form the NexSys (Next Generation Energy System) strategic research partnership. NexSys involves studying the energy demand and the potential of low or zero emissions fleet technology across the entire transport network, including rail, bus and road vehicles. As an industry partner in NexSys, the CIÉ Group will use the research findings to inform strategic planning and key investment decisions, such as choosing fleet technology and optimising energy efficiency.

## SH2AMROCK



CIÉ is a member of the SH2AMROCK consortium, which aims to create Ireland's first renewable hydrogen transport hub in Galway. Renewable hydrogen offers a renewable and versatile energy solution with the potential to decarbonise various sectors, including transportation.

The hub is designed to use excess renewable energy to generate green hydrogen, powering zero-carbon transportation modes including buses, heavy-duty vehicles, industry, maritime ships, and aviation in the Galway area. Supported by funding from the EU Clean Hydrogen Partnership, the consortium also aligns with Ireland's National Hydrogen Strategy and the EU Hydrogen Strategy, marking a significant step towards sustainable energy solutions.

## Supply Chain Sustainability School



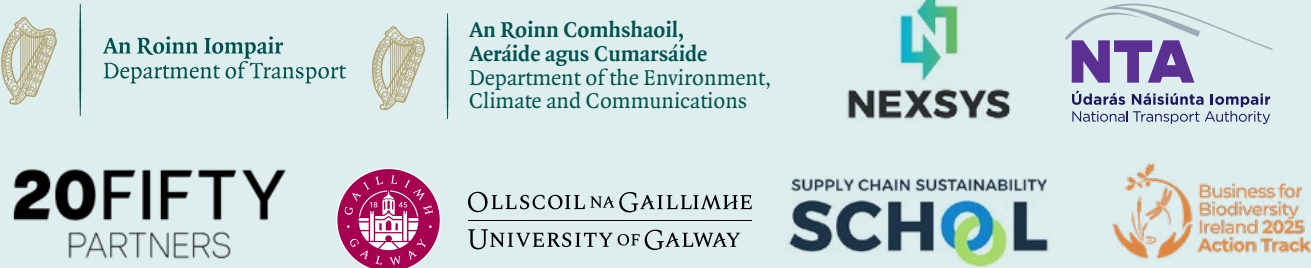
Iarnród Éireann is a founding partner of [The Supply Chain Sustainability School Ireland](#), an initiative that aims to provide free training and resources on sustainability issues for the built environment sector in Ireland. The Supply Chain Sustainability School is a collaboration between clients, contractors and suppliers, offering online learning materials, webinars, workshops and conferences on topics such as carbon and climate change, community and social impact, workforce issues, and sustainable procurement.



# Business for Biodiversity Ireland

In 2024, CIÉ Group became a member of Business for Biodiversity Ireland, a national platform supporting businesses to take action for nature. This collaboration strengthens CIÉ Group’s commitment to integrating biodiversity considerations across our operations and supporting national and EU nature goals.

## Our Partners



## Embedding a Culture of Sustainability

At CIÉ Group, we recognise that our employees play an instrumental role in our future as a sustainable business. By providing our employees with the skills and knowledge to understand climate change and sustainability, we can work together to achieve our sustainability goals. To develop skills and expertise, we are supporting training in sustainability, climate and green procurement.

### Employee Skill Development

In 2024, CIÉ Group continued to offer sustainability training to employees across the Group, supported by the CIÉ sustainability fund:

Course Title	Number of employees enrolled in 2024
Level 7 Sustainable Resource Management	37
Level 8 Lean for Sustainability	18
Environmental, Social, Governance (ESG) Fundamentals <i>(provided to Executives)</i>	21

## Executive and Board Training

Sustainability and ESG seminars have been delivered to CIÉ’s Board and senior management teams, providing insights on sustainability strategy and ESG and reporting and legislation. The training programmes have covered topics including the CSRD reporting requirements, EU Taxonomy regulations, and carbon abatement.



CIÉ Group employees awarded certificates in the Level 7 Sustainable Resource Management course.

# Plans for 2025

As we look ahead to 2025, the CIÉ Group remains committed to delivering on our sustainability goals through targeted investment, enhanced governance, and continuous improvement. The following key initiatives will guide our work:

## Continued Development of CSRD Reporting Capacity

CIÉ Group is strengthening our capacity for sustainability reporting in preparation for mandatory disclosures under the Corporate Sustainability Reporting Directive (CSRD). Informed by a recent Group-wide gap analysis, we will implement the necessary improvements in data collection, reporting structures, policies, and procedures to ensure alignment with the European Sustainability Reporting Standards (ESRS). This work will also support our upcoming double materiality assessment in 2025.

## Transition Planning

As we work with the NTA to procure and deploy zero emission technology across the rail and bus fleets, we will continue to engage with our key stakeholders to model the emissions and energy use from our operations, working together to identify potential solutions to meet our climate targets.

## Biodiversity Strategy and Land Stewardship

We are developing a CIÉ Group Biodiversity Strategy to identify, protect, and enhance natural ecosystems across our landholdings. Focused primarily along the national rail network, this work will include a biodiversity mapping project, afforestation using native broadleaf species, and the development of long-term land management plans by Iarnród Éireann to protect critical habitats and ecological corridors.

## Solar Energy Deployment

As part of our climate transition strategy, CIÉ Group will scale up the deployment of behind-the-meter solar PV systems across stations, depots, and offices. Building on successful installations in 2024, we will continue investing in solar technology to increase our renewable energy capacity, reduce operational costs, and lower Scope 2 emissions.

## Delivering on Our Sustainability-Linked Loan (SLL) Targets

In 2024, CIÉ Group commenced work to implement a sustainability-linked loan agreement tied to performance in four key areas: Scope 1 and 2 emissions reduction, renewable energy deployment, waste and circularity, and employee wellbeing. In 2025, we will actively monitor, report, and deliver against these ambitious targets, reinforcing our financial and environmental accountability to stakeholders.

## Support for Green Hydrogen Initiatives

CIÉ Group will continue to support the development of Ireland's green hydrogen sector, recognising its potential as a critical component of a diversified low-carbon transport system. Through partnerships such as SH2AMROCK and ongoing hydrogen trials in the rail fleet, we aim to build the technical and operational foundations needed to scale renewable hydrogen mobility solutions.

# Our Sustainability KPIs

Scope 1,2 and 3 emissions are calculated using emissions factors from DEFRA and the SEAI. See Carbon Emissions Conversion Factors table for the conversion factors used.

## Iarnród Éireann Key Performance Indicators:

### Pillar 1: Economic

#### Generating Economic Value

Connecting People	2024	2023	2022	2018
Passenger journeys (millions)	50.7	46.1	35.8	47.9
Train Kilometers travelled (millions)	19.41	18.76	18.24	18.88
Diesel Train Km travelled (millions)	16.89	16.32	15.87	16.43
Electric Train Km travelled (millions)	2.52	2.44	2.37	2.45

### Pillar 2: Social

#### Sustainable cities and communities

Accessibility	2024	2023	2022	2018
Accessible stations (%)	79	79	79	76

#### Wellbeing, Gender Equality and Inclusivity in our Workforce

Investing in our employees	2024	2023	2022	2018
Number of employees	4,814	4,559	4,339	3,782
Gender equality	2024	2023	2022	2018
Female employees (%)	12%	12%	11%	10%
Women in senior management roles (%)	52%	44%	35%	18%
Female Board members (%)	50%	50%	44%	50%



## Pillar 3 Environment\*

### Climate Action

Greenhouse Gas (GHG) Emissions	2024	2023	2022	2018
Scope 1 – Direct emissions (tonnes CO <sub>2</sub> e)	130,566	124,284	125,274	125,764
Scope 2 – Indirect emissions from electricity purchased (tonnes tCO <sub>2</sub> e)	17,559	16,473	19,636	24,238

Energy Use	2024	2023	2022	2018
B0 diesel fuel/Rail Transport Marked Diesel (L)	46,100,987	43,746,696	44,342,632	43,985,351
100% biofuel/Rail Transport Biofuel (L)	3,015,370	2,165,569	–	–
Forecourt diesel fuel (L)	1,280,343	1,474,953	1,372,239	1,458,536
Forecourt petrol fuel (L)	223,733	179,353	69,208	41,668
Total energy consumption (MWh)	584,354	549,351	533,305	541,207
B0 diesel fuel/Rail Transport Marked Diesel (MWh)	468,801	444,860	450,920	453,277
100% biofuel/Rail Transport Biofuel (MWh)	27,468	19,727	–	–
Forecourt diesel fuel (MWh)	12,897	14,864	13,851	14,762
Forecourt petrol fuel (MWh)	2,028	1,637	635	382
Natural gas (MWh)	10,823	8,678	7,956	8,542
Rail Transport: DART Electricity (MWh)	26,589	26,103	26,034	26,222
Fixed Assets Electricity Imports (MWh)	35,680	33,478	33,908	38,021
Offsite charging of EVs (MWh)	54	–	–	–
Self-generated renewable energy	14.3	4.7	–	–

\* Some figures have been updated since the 2023 CIÉ Group Sustainability Strategy Annual Review due to an updated calculation methodology. All energy and GHG emission calculations are carried out in accordance with the GHG Protocol and the SEAI established values.

### Responsible Consumption and Production

Waste management	2024	2023	2022	2018
Total waste generated (tonnes)	2,235	2,132	2,084	2,337
Waste recycled (tonnes)	1,190	1,093	1,091	1,272
Recycling rate	54%	51%	52%	54%
Hazardous waste (tonnes)	1,374	912	707	909
Water management	2024	2023	2022	2018
Water consumption (cubic metres)*	246,171	288,721	367,543	–

\* Some figures have been updated since the 2023 CIÉ Group Sustainability Strategy Annual Review due to an updated calculation methodology.

## Bus Éireann Key Performance Indicators:

### Pillar 1: Economic

#### Generating Economic Value

Connecting People	2024	2023	2022	2018
Passenger journeys (millions)	111.6	107	90	84
Kilometers travelled (own fleet) (millions)	81.4	78.5	76.2	84.3
Diesel km travelled (own fleet) (millions)	79.9	78	76.1	84.3
Zero emissions km travelled* (own fleet) (millions)	1.45	0.5	0.1	–
Number of buses in operation	1,138	1,104	1,099	1,148

\* Includes Electric Vehicles, Hydrogen and HVO

### Pillar 2: Social

#### Sustainable cities and communities

Accessibility	2024	2023	2022	2018
Accessible service buses and coaches %	100%	100%	100%	65%
Accessible bus stations to standard %	84%	84%	84%	

Schools transport	2024	2023	2022	2018
No. of students transported under the School Transport Scheme per school day	172,500	162,500	151,000	117,800
No. of students transported per school day with special education needs	21,950	19,900	17,500	13,400

#### Wellbeing, Gender Equality and Inclusivity in our Workforce

Investing in our workforce	2024	2023	2022	2018
Number of employees	3,078	2,932	2,827	2,562
Gender equality	2024	2023	2022	2018
Female employees (%)	11%	11%	10%	9%
Women in senior management roles (%)	34%	34%	39%	32%
Female Board members (%)	44%	29%	29%	25%

## Pillar 3: Environmental\*

### Climate Action

Greenhouse Gas (GHG) Emissions	2024	2023	2022	2018
Scope 1 – Direct emissions (tonnes CO <sub>2</sub> e)	71,767	72,501	73,890	78,924
Scope 2 – Indirect emissions from energy purchased (tonnes CO <sub>2</sub> e)	1,867	1,316	1,340	1,975

Energy Efficiency	2024	2023	2022	2018
B0 diesel fuel (L)	5,500,478	7,301,230	22,672,770	23,726,638
B7 blended diesel fuel (L)	18,418,226	16,230,999	–	–
Forecourt diesel fuel (L)	4,223,796	4,323,316	4,212,624	4,764,592
Total energy consumption (MWh)	297,363	292,961	283,703	301,444
B0 diesel fuel (MWh)	55,934	74,246	230,779	241,276
B7 blended diesel fuel (MWh)	185,529	163,568	–	–
Forecourt diesel fuel (MWh)	42,547	43,568	42,520	48,224
Grid electricity for fixed assets (MWh)	4,727	4,047	4,017	5,236
Grid electricity for fleet (MWh)	1,847	616	–	–
Natural gas (MWh)	5,148	5,496	5,084	6,189
Other heating fuels (MWh)	1,502	1,258	1,170	519
Self-generated renewable energy (MWh)	48.2	14.5	–	–
Hydrogen (MWh)	82	147	131	–
Fleet Proportions (Excluding School Fleet)	2024	2023	2022	2018
Service fleet with Euro VI standard engine (%)	83%	80%	80%	43%
Service fleet with Euro V standard engine or older (%)	1.2%	11.2%	11.6%	57%
Service fleet with hybrid engine (%)	6.6%	7%	8%	–
Service fleet with zero tailpipe emissions (fully powered by electricity or hydrogen) (%)	9.2%	1.8%	0.4%	–

\* Some figures have been updated since the 2023 CIÉ Group Sustainability Strategy Annual Review due to an updated calculation methodology. All energy and GHG emission calculations are carried out in accordance with the GHG Protocol and the SEAI established values.

### Responsible Consumption and Production

Waste management	2024	2023	2022	2018
Total waste generated (tonnes)	534	500	620	745
Waste recycled (tonnes)	120	117	121	45
Recycling rate*	21.2%	23.36%	20%	6%
Hazardous waste (tonnes)	501.4	498.7	583	–
Water management	2024	2023	2022	2018
Water consumption (cubic metres)	44,840	44,412	43,768	–

\* Some figures have been updated since the 2023 CIÉ Group Sustainability Strategy Annual Review due to an updated calculation methodology



## Bus Átha Cliath Key Performance Indicators:

### Pillar 1: Economic

#### Generating Economic Value

Connecting People	2024	2023	2022	2018
Passenger journeys (million)	159	147	121	143
Kilometers travelled total (million)	62	59	58	58.5
Diesel blend km travelled (million)	59.4	59.02	58	58.5
Zero emissions km travelled (million)	2.7	0.06	–	–
Number of buses in operation	1,110	1,090	1,056	1,010

### Pillar 2: Social

#### Sustainable cities and communities

Accessibility	2024	2023	2022	2018
Fully accessible stations/stops (%)	100%	100%	100%	100%

#### Wellbeing, Gender Equality and Inclusivity in our Workforce

Investing in our workforce	2024	2023	2022	2018
Number of employees	4,224	3,940	3,771	3,424

Gender equality	2024	2023	2022	2018
Female employees (%)	9.4%	8%	8%	7%
Women in senior management roles (%)	25%	20%	21%	22%
Female Board members (%)	44%	44%	38%	44%

## Pillar 3: Environmental\*

### Climate Action

Greenhouse Gas (GHG) Emissions	2024	2023	2022	2018
Scope 1 – Direct emissions (tonnes CO <sub>2</sub> e)	65,756	66,542	66,577	74,084
Scope 2 – Indirect emissions from electricity purchased (tonnes CO <sub>2</sub> e)	2,480	1,235	1,417	1,684

Energy Efficiency	2024	2023	2022	2018
B0 diesel fuel (L)	23,811,466	24,180,191	24,116,025	26,759,294
100% biodiesel FAME (L)	1,387,246	1,115,620	–	–
Total energy consumption (MWh)	272,631	268,407	258,643	287,689
B0 diesel fuel (MWh)	242,139	245,888	245,236	272,115
100% biodiesel FAME (MWh)	12,637	10,163	–	–
Grid electricity for other (MWh)	4,811	4,402	4,324	4,463
Grid electricity for fleet (MWh)	3,990	63	–	–
Gas usage (MWh)	9,015	7,848	9,036	11,111
Self-generated renewable energy (MWh)	39.3	42.4	46.5	–
Fleet Proportions	2024	2023	2022	2018
Fleet with Euro IV standard engine (%)	10%	11%	9%	14%
Fleet with Euro V standard engine (%)	13%	13%	14%	15%
Fleet with Euro VI standard engine (%)	46%	50%	53%	46%
Fleet with hybrid engine (%)	20%	21%	22%	0%
Fleet with zero tailpipe emissions (%)	9%	2%	0%	0%

\* Some figures have been updated since the 2023 CIÉ Group Sustainability Strategy Annual Review due to an updated calculation methodology. All energy and GHG emission calculations are carried out in accordance with the GHG Protocol and the SEAI established values.

### Responsible Consumption and Production

Waste management	2024	2023	2022	2018
Total waste generated (tonnes)	655	662	640	912
Waste recycled (tonnes)	486	491	478	658
Recycling rate	74%	74%	73%	72%
Hazardous Waste	906	930	1,102	–
Water management	2024	2023	2022	2018
Water consumption (cubic metres)*	51,210	51,782	85,567	–

\* Some figures have been updated since the 2023 CIÉ Group Sustainability Strategy Annual Review due to an updated calculation methodology.

# Appendix I: CIÉ Group Carbon Emissions Conversion Factors

Emissions Category	CO <sub>2</sub> e Emissions Source	Conversion Factor	Unit	Source
Scope 1	Natural Gas	0.000204741	tonnesCO <sub>2</sub> e/kWh	SEAI conversion factor 'Natural Gas'
	Kerosene	0.000257004	tonnesCO <sub>2</sub> e/kWh	SEAI conversion factor 'Kerosene'
	BioLPG	0	tonnesCO <sub>2</sub> e/kWh	SEAI conversion factor 'BioLPG'
	Biofuel (100% FAME)	0	tonnesCO <sub>2</sub> e/kWh	<a href="#">SEAI conversion factor 'Biodiesel ME' from biomass sources considered to be sustainable</a>
	Diesel (fossil)	0.000263868	tonnesCO <sub>2</sub> e/kWh	SEAI conversion factor 'Diesel (fossil)'
	Diesel (blend 2024)	0.000242274	tonnesCO <sub>2</sub> e/kWh	SEAI conversion factor 'Diesel (blend 2024)'
	Diesel (blend 2023)	0.000243282	tonnesCO <sub>2</sub> e/kWh	SEAI conversion factor 'Diesel (blend 2023)'
	Diesel (blend 2022)	0.000246893	tonnesCO <sub>2</sub> e/kWh	SEAI conversion factor 'Diesel (blend 2022)'
	Diesel (blend 2021)	0.000249628	tonnesCO <sub>2</sub> e/kWh	SEAI conversion factor 'Diesel (blend 2021)'
	Diesel (blend 2020)	0.000248997	tonnesCO <sub>2</sub> e/kWh	SEAI conversion factor 'Diesel (blend 2020)'
	Diesel (blend 2019)	0.000250494	tonnesCO <sub>2</sub> e/kWh	SEAI conversion factor 'Diesel (blend 2019)'
	Diesel (blend 2018)	0.000253186	tonnesCO <sub>2</sub> e/kWh	SEAI conversion factor 'Diesel (blend 2018)'
	R410A gas (updated 2023 methodology)	1.924	tonnesCO <sub>2</sub> e/kg	DEFRA conversion factor 'R410A' – published in 2023 using AR5 GWP
	HFC32 gas (updated 2023 methodology)	0.677	tonnesCO <sub>2</sub> e/kg	DEFRA conversion factor 'HFC32' – published in 2023 using AR5 GWP
	R134A/HFC134A gas (updated 2023 methodology)	1.30	tonnesCO <sub>2</sub> e/kg	DEFRA conversion factor 'HFC134A' – published in 2023 using AR5 GWP
	R407C gas (updated 2023 methodology)	1.624	tonnesCO <sub>2</sub> e/kg	DEFRA conversion factor 'R407A' – published in 2023 using AR5 GWP
	HCFC22 gas (updated 2023 methodology)	1.760	tonnesCO <sub>2</sub> e/kg	DEFRA conversion factor 'HCFC-22/R22 = chlorodifluoromethane' – published in 2023 using AR5 GWP
	Kerosene (L) to Kerosene (kWh)	10.18	kWh/L	SEAI conversion factor 'calorific values – kerosene'
	LPG (L) to LPG (kWh)	6.8	kWh/L	SEAI Conversion and Emission Factors – published 2023
	LPG	0.000229284	tonnesCO <sub>2</sub> e/kWh	SEAI Conversion and Emission Factors – published 2024
	Diesel (L) to Diesel (kWh) (100% FAME)	9.10936	kWh/L	SEAI calorific value 'pure biodiesel'
	Petrol (fossil) (L) to Petrol (kWh)	9.348	kWh/L	SEAI calorific value 'petrol (fossil)'
	Bioethanol (L) to Bioethanol (kWh)	5.888	kWh/L	SEAI calorific value 'pure bioethanol'

Emissions Category	CO <sub>2</sub> e Emissions Source	Conversion Factor	Unit	Source
	Petrol (L) to Petrol (kWh) (forecourt blend 2024)	9.063	kWh/L	CIÉ estimate for calorific value using SEAI national biofuel blend average of 8.24% by volume
	Petrol (L) to Petrol (kWh) (forecourt blend 2023)	9.126	kWh/L	CIÉ estimate for calorific value using SEAI national biofuel blend average of 6.43% by volume
	Petrol (L) to Petrol (kWh) (forecourt blend 2022)	9.177	kWh/L	CIÉ estimate for calorific value using SEAI national biofuel blend average of 4.94% by volume
	Petrol (L) to Petrol (kWh) (forecourt blend 2021)	9.178	kWh/L	CIÉ estimate for calorific value using SEAI national biofuel blend average of 4.91% by volume
	Petrol (L) to Petrol (kWh) (forecourt blend 2020)	9.176	kWh/L	CIÉ estimate for calorific value using SEAI national biofuel blend average of 4.98% by volume
	Petrol (L) to Petrol (kWh) (forecourt blend 2019)	9.176	kWh/L	CIÉ estimate for calorific value using SEAI national biofuel blend average of 4.97% by volume
	Petrol (L) to Petrol (kWh) (forecourt blend 2018)	9.178	kWh/L	CIÉ estimate for calorific value using SEAI national biofuel blend average of 4.92% by volume
	Diesel (L) to Diesel (kWh) (forecourt blend 2024)	10.0731	kWh/L	CIÉ estimate for calorific value using SEAI national biofuel blend average of 9.05% biodiesel by volume
	Diesel (L) to Diesel (kWh) (forecourt blend 2023)	10.0775	kWh/L	CIÉ estimate for calorific value using SEAI national biofuel blend average of 8.6% biodiesel by volume
	Diesel (L) to Diesel (kWh) (forecourt blend 2022)	10.0935	kWh/L	CIÉ estimate for calorific value using SEAI national biofuel blend average of 7.1% biodiesel by volume
	Diesel (L) to Diesel (kWh) (forecourt blend 2021)	10.1056	kWh/L	CIÉ estimate for calorific value using SEAI national biofuel blend average of 5.987% biodiesel by volume
	Diesel (L) to Diesel (kWh) (forecourt blend 2020)	10.1028	kWh/L	CIÉ estimate for calorific value using SEAI national biofuel blend average of 6.250% biodiesel by volume
	Diesel (L) to Diesel (kWh) (forecourt blend 2019)	10.1094	kWh/L	CIÉ estimate for calorific value using SEAI national biofuel blend average of 5.625% biodiesel by volume
	Diesel (L) to Diesel (kWh) (forecourt blend 2018)	10.1213	kWh/L	CIÉ estimate for calorific value using SEAI national biofuel blend average of 4.498% biodiesel by volume
	Diesel (L) to Diesel (kWh) (100% fossil)	10.169	kWh/L	SEAI conversion factor 'calorific values – diesel (100% fossil)'
<b>Scope 2</b>	Hydrogen	0.000179	tonnesCO <sub>2</sub> e/kWh	BÉ Emission Factor
	Grid electricity – Ireland 2024	0.000281748	tonnesCO <sub>2</sub> e/kWh	SEAI conversion factor 'Grid electricity – Ireland 2024'
	Grid electricity – Ireland 2023	0.000318951	tonnesCO <sub>2</sub> e/kWh	SEAI conversion factor 'Grid electricity – Ireland 2023'
	Grid electricity – Ireland 2022	0.00033917	tonnesCO <sub>2</sub> e/kWh	SEAI conversion factor 'Grid electricity – Ireland 2022'
	Grid electricity – Ireland 2021	0.000355612	tonnesCO <sub>2</sub> e/kWh	SEAI conversion factor 'Grid electricity – Ireland 2021'
	Grid electricity – Ireland 2020	0.000297723	tonnesCO <sub>2</sub> e/kWh	SEAI conversion factor 'Grid electricity – Ireland 2020'
	Grid electricity – Ireland 2019	0.000332194	tonnesCO <sub>2</sub> e/kWh	SEAI conversion factor 'Grid electricity – Ireland 2019'
	Grid electricity – Ireland 2018	0.000377286	tonnesCO <sub>2</sub> e/kWh	SEAI conversion factor 'Grid electricity – Ireland 2018'



## Appendix II: Sustainability Reporting Frameworks

CIÉ Group is committed to managing our strategic decisions with a focus on double materiality and sustainability disclosure. We recognise the importance of measuring, monitoring, and disclosing our sustainability performance to our stakeholders, and we are preparing to report to the European Commission through the CSRD in 2026. To ensure that CIÉ Group meets the highest standards in managing sustainability issues, we are seeking to increase our transparency and accountability around sustainability objectives.



### Corporate Sustainability Reporting Directive

#### CSRD Compliance Statement

The Corporate Sustainability Reporting Directive (CSRD) is a new EU regulation that requires large companies to disclose information on their environmental, social and governance performance. CIÉ Group is committed to complying with the CSRD and will report in accordance with the European Sustainability Reporting Standards (ESRS). These standards encompass both financial and non-financial information, using a double materiality perspective that considers the impacts of the company on sustainability matters and the impacts of sustainability matters on the company. We will prepare our first CSRD report for the financial year 2025, reporting on our sustainability impacts and initiatives. The CSRD report will be verified by an independent third-party auditor and made publicly available.

In 2023, CIÉ Group completed a gap analysis of our current ESG policies and reporting procedures to assess our reporting readiness and compliance with the CSRD requirements, to identify the strengths and weaknesses of our current reporting practices, and to prioritise the actions and resources needed to close the gaps. CIÉ Group is currently developing a plan to address the gaps, including improving data quality and availability, developing and implementing additional ESG-related policies, enhancing stakeholder engagement, and disclosing relevant and reliable information.

The next step for CIÉ Group will be to carry out a double materiality assessment to fulfill the CSRD requirements. A double materiality assessment involves identifying and prioritising the sustainability topics that are material from both an impact perspective (how CIÉ Group affects people and the environment) and a financial perspective (how sustainability issues create risks and opportunities for CIÉ Group). By conducting a

double materiality assessment, we can ensure that our sustainability reporting focuses on the topics that are most relevant for its business and its stakeholders.



### Taxonomy Regulations

The [EU Taxonomy Framework](#) was established by the European Commission as a classification system to establish a list of environmentally sustainable economic activities. To comply with the EU Taxonomy Regulation, eligible companies will be required to identify and report on how, and to what extent, their business activities align with the Taxonomy Regulation.

In 2023, CIÉ Group commenced a Group-wide effort to help prepare for reporting under the EU Taxonomy requirements. Using financial information for reporting year 2022, CIÉ Group will identify the areas of revenue, OpEx, and CapEx that could be classified as environmentally sustainable according to the EU Taxonomy requirements. This exercise will set out a reporting methodology and help prepare CIÉ Group for mandatory disclosure in the future.



### Carbon Disclosure Project

The [Carbon Disclosure Project](#) is a reporting platform for organisations to measure, disclose, and share information on their carbon emissions and management strategy. CIÉ Group has been reporting on the CDP platform on an annual basis since 2020. Through this reporting process, we obtain verification on our emissions calculations and are refining our modelling and understanding of our climate transition and environmental risks and opportunities.

In 2024, CIÉ Group was awarded a score of 'B' for our climate and water-related disclosures. This is higher than the average respondent score in Ireland and in the transport sector.

CIÉ Group will continue to take on board the recommendations from CDP and will aim to achieve an 'A' score on our environmental management strategy.

CDP Response	Reporting Year	Score
Climate Change 2020	2019	B
Climate Change 2021	2020	B
Climate Change 2022	2021	A-
Climate Change 2023	2022	B
Climate Change 2024	2023	B
Water 2024	2023	B



## United Nations Global Compact

The UN Global Compact is based on ten pillars that promote human rights, labour rights, environmental protection, and anti-corruption in businesses. CIÉ Group joined the UN Global Compact in 2022 to ensure that we follow best practice in adopting sustainable and socially responsible practices. CIÉ submitted an annual public Communication on Progress to the UN Global Compact 2023 to detail our work in implementing the ten pillars in our business.



## NewERA Framework for the Commercial Semi-State Sector

CIÉ Group reports under the NewERA reporting framework for the commercial semi-State sector to address climate action objectives. CIÉ Group reports against the five commitments of the framework:

- Governance of Climate Action Objectives
- Emissions Measurement and Reduction Target
- Measuring and Valuing Emissions in Investment Appraisals
- Circular Economy and Green Procurement
- Climate-Related Disclosures in Financial Reporting



## Taskforce on Climate Related Financial Disclosures

The TCFD makes recommendations for more effective climate-related disclosures and to promote informed investment decisions and strategic development.

In 2021, CIÉ Group became a supporter of the TCFD framework and is working to align our climate-related reporting to the recommendations. In 2022, our focus was to further develop our climate risk management framework and prepare to carry out climate scenario analysis across the Operating Companies to help identify, define, and quantify our climate-related risks and opportunities.

CIÉ Group will continue to follow the general TCFD disclosure recommendations until mandatory reporting under the CSRD.



## Science-Based Targets Initiative

In 2023, the CIÉ Group committed to setting science-based targets for reducing our GHG emissions and submit them for validation by the SBTi.

CIÉ Group aims to set science-based targets and have them validated by the SBTi by 2025.

# Appendix III: CIÉ Group Sustainability Governance

CIÉ Group recognises the significant impact of climate change on our business operations and the environment. In response to this, we have developed our governance structure to prioritise climate-related risks and opportunities.

The CIÉ Board and Executive teams are fully committed to overseeing climate-related initiatives and ensuring that we invest in sustainable projects to achieve our climate targets. With a dedicated focus on sustainability, we will continue to drive our business forward while contributing positively to the environment and society.

CIÉ Group Governance	
<b>Board of Directors</b>	<ul style="list-style-type: none"> <li>The CIÉ Board has responsibility for the Group strategy and sustainability performance.</li> </ul>
<b>CIÉ Board Sustainability Group</b>	<ul style="list-style-type: none"> <li>A CIÉ Board Committee which meets quarterly to review progress of sustainability initiatives.</li> <li>The Committee has oversight of delivery of the Group sustainability strategy and climate action performance.</li> </ul>
<b>Audit and Risk Committee (ARC)</b>	<ul style="list-style-type: none"> <li>The CIÉ Board ARC regularly reviews the principal risks of CIÉ Group and makes recommendations to the Board of CIÉ on their treatment.</li> <li>Climate related risks come under the same governance structure as all other risks and are reported to the Board via the ARC.</li> <li>A review of the risks presented by the ARC is a standing agenda item at all CIÉ Board meetings.</li> <li>The ARC will oversee CSRD reporting processes.</li> </ul>
<b>Chief Executive Officer (CEO)</b>	<ul style="list-style-type: none"> <li>The CIÉ Group CEO has overall responsibility for climate-related issues.</li> <li>The Group CEO reports to the Group shareholder, the DoT, on climate related performance on a quarterly basis.</li> <li>The Group CEO liaises with the CEOs of the Operating Companies in relation to climate and sustainability issues and strategy at the Executive Board. The Executive Board oversaw the establishment and terms of reference of the Group SSG.</li> </ul>
<b>Chief Sustainability Officer (CSO)</b>	<ul style="list-style-type: none"> <li>The Group CSO works with the Group CEO to oversee the delivery of the Group sustainability strategy and has oversight and sign-off on sustainability strategy development.</li> <li>The CSO leads the SSG and coordinates the implementation of the CIÉ sustainability strategy across the Operating Companies.</li> </ul>
<b>Sustainability Steering Group (SSG)</b>	<ul style="list-style-type: none"> <li>The SSG is comprised of members from CIÉ Holding Company and each Operating Company who have oversight of sustainability and climate-related issues within their respective companies and work across Group to develop and deliver a Group sustainability strategy.</li> <li>Membership of the SSG includes the CSO, energy managers, engineers, environmental executives, health and safety representatives, and additional members.</li> <li>The function of the SSG, which operates at a senior manager level, is to create a platform for sharing best practices and collaborate on Group-wide sustainability initiatives and strategy development.</li> </ul>

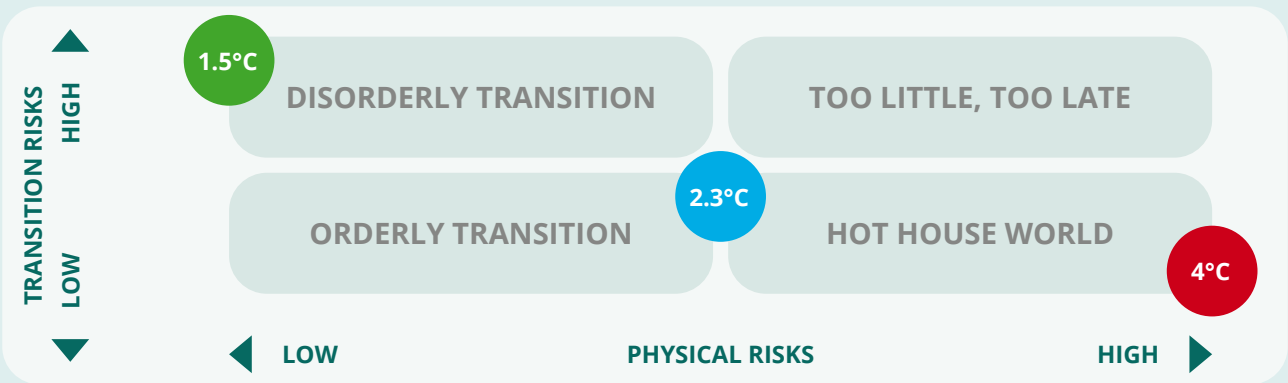
# Appendix IV: Climate Risk Analysis

## Climate Scenario Analysis

CIÉ Group is committed to making our business strategy climate resilient. By using climate scenario analysis, we can better understand and manage the risks associated with climate change, as well as to identify potential opportunities for innovation and growth. In 2023, we carried out a comprehensive scenario analysis process to enhance our climate risk management framework. The risk identification process distinguishes between two risk categories: physical risks from climate-related events such as storms, floods, heatwaves, droughts, and sea-level rise, and transitional risks arising from the transition to a low-carbon economy and the associated policy changes, technological advancements, and shifts in market preferences.

CIÉ Group has developed three climate scenarios to help identify climate-related risks and opportunities: a transitional climate scenario aligned with limiting global warming to 1.5°C, a scenario showing increased physical climate risks aligned with 4°C of global warming, and a ‘middle of the road’ scenario combining both transitional and physical risks. A detailed summary of the climate scenarios is available on pages 41-42 of the [CIÉ Group 2022 Sustainability Strategy Annual Review](#).

1 Net Zero 2050 – “The low carbon route”	2 Delayed transition – “The middle road”	3 Delayed transition – “The middle road”
Net Zero 2050 is an ambitious scenario that limits global warming to 1.5 °C by 2100 through stringent and immediately introduced climate policies and innovation, reaching net zero GHG emissions around 2050. This scenario involves more transition risks early on but manages to limit physical risks to a minimum.	This climate scenario follows a path in which social, economic and technological trends do not shift markedly from historical patterns. The world takes action to limit emission growth but fails to cut emissions in the short term, resulting in >2 °C warming by 2050. This scenario involves several physical risks and additional transition risks after 2030.	This scenario assumes that only currently implemented climate policies are preserved. The world does not cut emission and climate change accelerates causes 2.5 °C of warming by 2050 and >4 °C of warming by 2100 bringing irreversible changes to the Earth’s climate. This scenario involves little to no transition risks early on by results in irreversible and globally disrupting physical risks.





## Climate Risks and Opportunities

The CIÉ Operating Companies each identify their climate-related risks and manage them through a Risk Management Information System (RMIS). As we further establish our scenario analysis process, additional risks are expected to emerge and be included in the RMIS along with any mitigating actions to help reduce the risk.

Several climate-related risks that have been identified for CIÉ Group are detailed below. Additional climate-related risks and opportunities are summarised in pages 43-46 of the [CIÉ Group 2022 Sustainability Strategy Annual Review](#).

Risk	Description	Risk Category
Climate change/ increasing volatility of weather	Some of Iarnród Éireann's network runs adjacent to the coast. Over time, the continued viability of these routes may be threatened by coastal erosion, which could cause damage to the track infrastructure. Iarnród Éireann is carrying out the East Coast Railway Infrastructure Protection Project (ECRIPP) Programme to mitigate against the effects of coastal erosion.	Physical risk – Chronic
	The physical impacts of climate change are expected to cause an increase in the frequency and intensity of extreme weather events in Ireland. There is an increased risk of a major service disruption or incident due to a severe weather event.	Physical risk – Acute
New Technologies	The planned bus and rail fleet transition to zero emission vehicles and low carbon alternative fuels carries a risk associated with the installation of new charging infrastructure, depot upgrades, increased costs, training requirements, and safety risk. There is also uncertainty around the availability of low emission technology required to meet the demand.	Transition risk – Technological
Resource Security	As Ireland shifts towards a decarbonised energy system, the power sector faces new challenges due to increased reliance on electricity. With the proportion of variable renewables in electricity generation set to increase, there's a need for substantial investment and overhaul of the power infrastructure to effectively manage the demands on the electric grid. The greater share of renewable electricity may lead to challenges in grid stability and reliability, which represents a risk given CIÉ Group's significant energy requirements.	Transition risk – Technological
Delays in Achieving Sustainability Targets	Ireland has committed to ambitious national climate targets and public sector energy efficiency targets. There is a risk of failing to achieve these Government targets which would expose CIÉ Group to possible reputational impacts.	Transition risk – Reputational

# List of Abbreviations

<b>AIPP</b>	All Ireland Pollinator Plan
<b>ARC</b>	Audit and Risk Committee
<b>BER</b>	Building Energy Rating
<b>BEV</b>	Battery Electric Vehicle
<b>CAP</b>	Climate Action Plan
<b>CCAC</b>	Climate Change Advisory Council
<b>CDP</b>	Carbon Disclosure Project
<b>CEO</b>	Chief Executive Officer
<b>CO<sub>2</sub></b>	Carbon dioxide
<b>CO<sub>2</sub>e</b>	Carbon dioxide equivalent
<b>CSO</b>	Chief Sustainability Officer
<b>CSRD</b>	Corporate Sustainability Reporting Directive
<b>DECC</b>	Department of Environment, Climate and Communications
<b>DoT</b>	Department of Transport
<b>ECRIPP</b>	East Coast Railway Infrastructure Protection Project
<b>EPA</b>	Environmental Protection Agency
<b>ESG</b>	Environmental, Social and Governance
<b>ESRS</b>	European Sustainability Reporting Standards
<b>EU</b>	European Union
<b>EV</b>	Electric vehicle
<b>FCEV</b>	Fuel cell electric vehicle
<b>GDA</b>	Greater Dublin Area
<b>GHG</b>	Greenhouse gas
<b>HMI</b>	Hydrogen Mobility Ireland
<b>ICR</b>	Intercity rail
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>Km</b>	Kilometres
<b>KPI</b>	Key performance indicator
<b>kWh</b>	Kilowatt hour
<b>LDA</b>	Land Development Agency
<b>LED</b>	Light Emitting Diode

<b>M&amp;R</b>	Monitoring and Reporting
<b>M3</b>	Cubic metres
<b>MWh</b>	Megawatt hour
<b>NDP</b>	National Development Plan
<b>NewEra</b>	New Economy and Recovery Authority
<b>NGFS</b>	Network for Greening the Financial System
<b>NPF</b>	National Planning Framework
<b>NTA</b>	National Transport Authority
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>OPW</b>	Office of Public Works
<b>PV</b>	Photovoltaic
<b>PPA</b>	Power Purchase Agreement
<b>PSO</b>	Public Service Obligation
<b>RCP</b>	Representative Concentration Pathway
<b>RMIS</b>	Risk Management Information System
<b>RVM</b>	Reverse Vending Machine
<b>SAG</b>	Sustainability Advisory Group
<b>SBT</b>	Science Based Targets
<b>SBTi</b>	Science Based Targets Initiative
<b>SDGs</b>	Sustainable Development Goals
<b>SEAI</b>	Sustainable Energy Authority of Ireland
<b>SSG</b>	Sustainability Steering Group
<b>TCFD</b>	Taskforce on Climate-Related Financial Disclosures
<b>tCO<sub>2</sub>e</b>	Tonnes of carbon dioxide equivalent
<b>TOD</b>	Transit orientated development
<b>UCD</b>	University College Dublin
<b>UN</b>	United Nations





