




HEAnet Climate Action Roadmap 2025

Document control

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Purpose	To demonstrate how HEAnet are adhering to the Public Sector Climate Action Mandate, what activities have been undertaken to date and what our plans are to be fully compliant and achieve the targets set, by 2030.
Scope	HEAnet CLG

Document approval









Approved by	Role	Signature	Date
Ronan Byrne	Chief Executive Officer		04/07/2024

Change History





Date	New Version	Author	Summary of Change

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Indicators are used throughout the document to indicate compliance with the individual requirements of the Public Sector Climate Action Mandate 2025¹.

Indicator	Notes
	Fully compliant
	Partially compliant with work in progress
	Not in compliance with work required to achieve compliance
	Requirement does not apply to HEAnet

¹https://assets.gov.ie/static/documents/Public_Sector_Climate_Action_Mandate_2025_branded.pdf

1 Introduction

1.1 Organisational context

HEAnet CLG is Ireland's National Education and Research Network, delivering high speed internet connectivity and ICT shared services to all levels of the Irish education sector. Over 1.2 million students, researchers and staff rely on our national education network every day.

EduCampus Services (heretofore known as EduCampus) was incorporated in April 2015 as a subsidiary company of HEAnet to implement, maintain and support business-critical systems to clients in the education sector. EduCampus provides systems user supports to 20,000 staff and 140,000 students.

HEAnet is a Company Limited by Guarantee and not having a Share Capital. EduCampus is a Designated Activity Company, with 92% of its share capital held by HEAnet. Both Companies have charitable tax status and are registered with the Charities Regulator.

As registered charities, HEAnet and EduCampus comply with the Charities Act 2009, make an annual return to the Charities Regulator, file annual financial statements, and comply with the Charities Governance Code.

HEAnet and EduCampus operate under a group model (the "Group"), therefore some content may span both organisations, however, this document relates to HEAnet only unless specified. EduCampus maintain a separate Climate Action Roadmap.

1.2 HEAnet Strategy

At HEAnet, we acknowledge the critical importance of safeguarding both the sustainability of our operations and the health of the planet. As a leading provider of network infrastructure and services to the education and research community, we recognise our responsibility to minimise environmental impact. Accordingly, we are committed to implementing strategic initiatives that enhance our operational resilience and reduce our carbon footprint.

In the HEAnet Strategy 2025-2030², sustainability is one of five key focus areas for us over the lifetime of the strategy, and builds upon the foundation established by our ESG Strategy, launched in December 2023.

² <https://www.heanet.ie/beanet-strategy>

Our Environmental, Social, and Governance (“ESG”) strategy includes key environmental goals and targets, aligned with the Public Sector Climate Action Mandate (the “Mandate”), and is available on our website³.

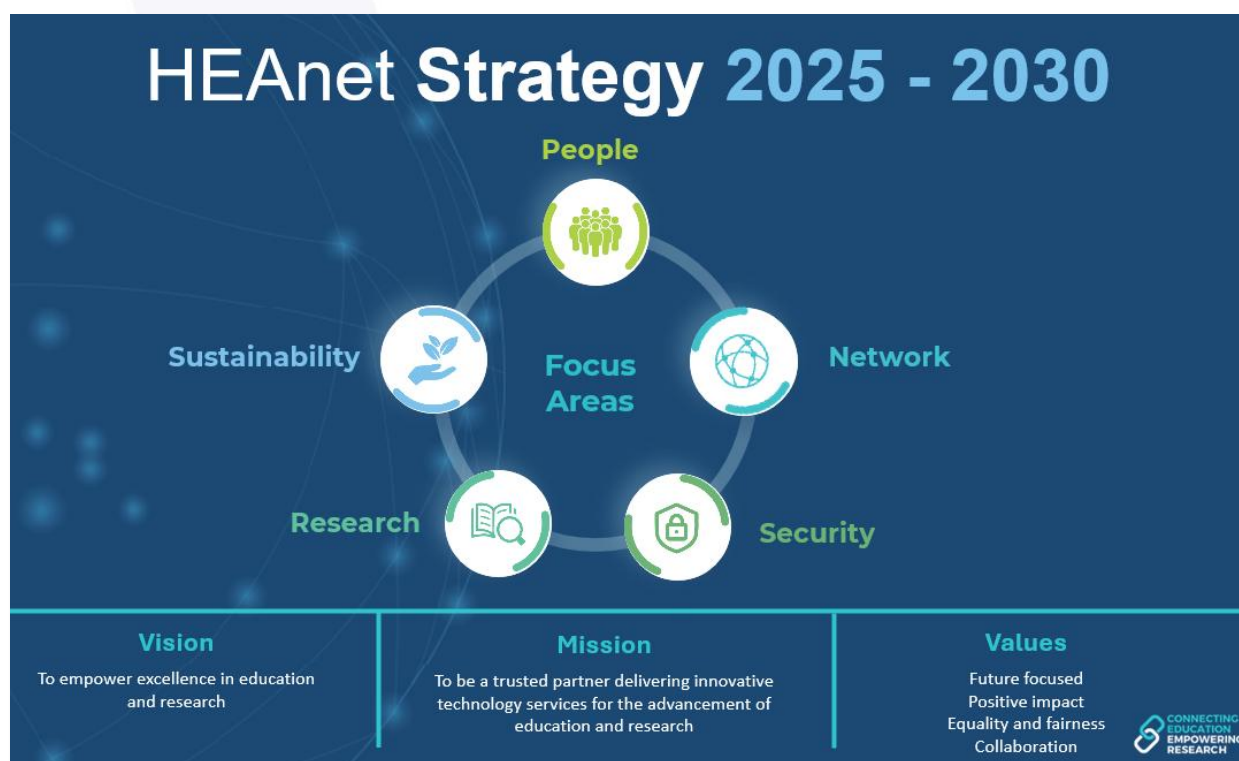


Figure 1: HEAnet Strategy 2025-2030. Source: HEAnet.

We are committed to investing in measures that improve our energy efficiency, decrease our carbon footprint, and contribute positively to Ireland’s Climate Action Plan.

³ <https://www.heanet.ie/our-esg-strategy>



Figure 2: HEAnet Strategy 2025-2030 sustainability focus area. Source: HEAnet.

1.3 Climate Action Roadmap

This Climate Action Roadmap is HEAnet's plan to reduce GHG emissions, improve our energy efficiency and meet mandated requirements. It outlines our performance to date and the actions we will take to achieve the targets outlined in the Mandate. It also explains how we will reduce our impact on the environment by focusing primarily on our people, and our ways of working.

This document is the second iteration of our Climate Action Roadmap and will be reviewed and updated annually to ensure adherence with the latest iteration of the Mandate.

2 Our Targets

The public sector has established a track record of leading by example when it comes to climate action. In 2020, it met its target of achieving a 33% energy efficiency improvement. This was compared to a target of 20% for the whole economy.

The Mandate has again set ambitious emission reduction and energy efficiency targets for public bodies. Whilst we are not a public sector body, we are committed to complying with the Mandate. Our targets are to:



Reduce our greenhouse gas emissions by 51% by 2030



Increase the improvement in our energy efficiency to 50% by 2030

2.1 Measuring and monitoring progress

At HEAnet, we are acutely aware of the energy-intensive nature of our operations. This is why we have worked to implement solutions that improve energy efficiency, reduce emissions, and minimise our overall environmental footprint.

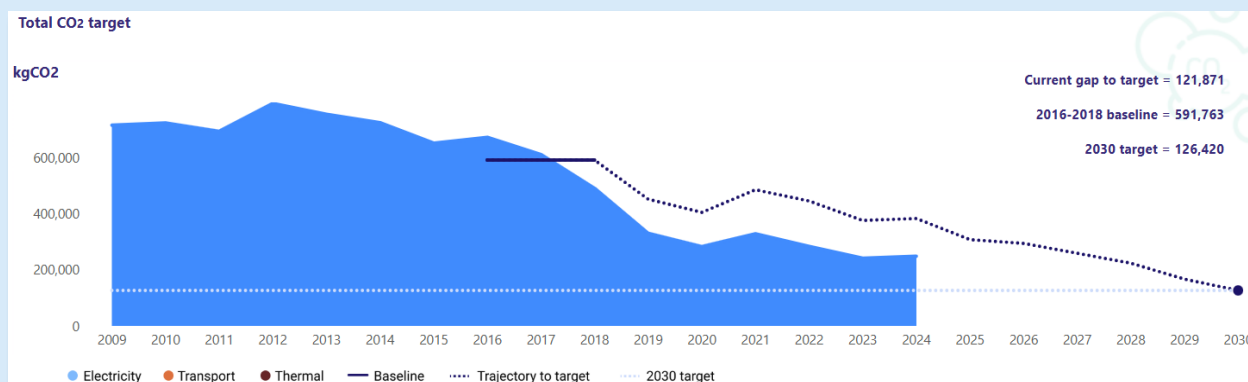
The first step in reaching our targets is understanding where we are starting from by using the SEAI Monitoring & Reporting System ("M&R System"). Our GHG emissions baseline figure is the average for the three-year period 2016 to 2018, and our energy efficiency is baselined against our 2009 figures, which is the baseline year for public sector energy efficiency targets.

2.1.1 GHG emissions

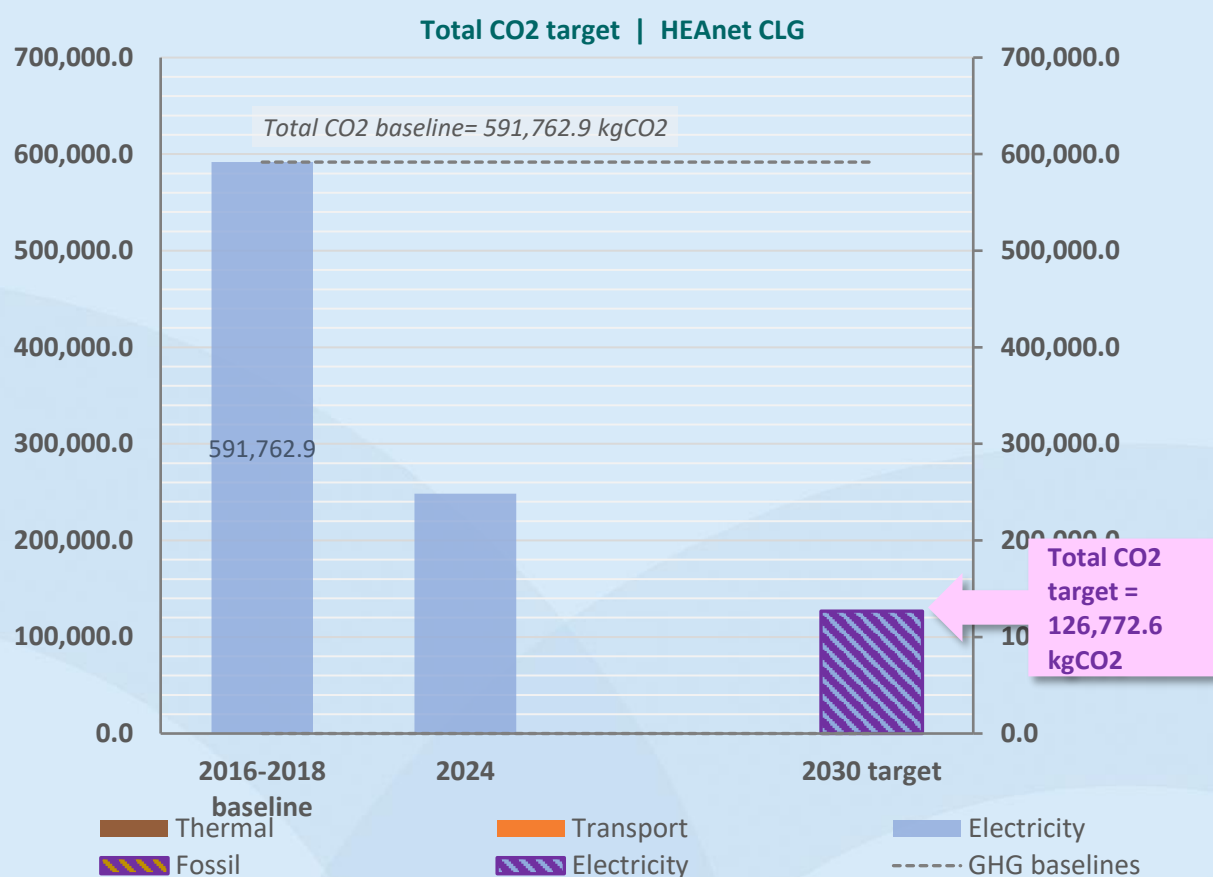
In general, when we refer to reducing GHG emissions, we are referring to the emissions that come from the energy we use i.e., emissions from the gas used to heat buildings and water, and the emissions that are produced offsite to generate the electricity used. Over 90% of our GHG emissions are based on electricity usage in our head office and data centre locations.

HEAnet has no fleet of vehicles thus no emissions from this source. We are, however, responsible for emissions arising from business travel, with business-related flights to foreign destinations being the predominant source.

Our GHG emissions baseline figure is 591,762 kgCO₂. Since our baseline, **we have decreased our GHG emissions by 343,472 kgCO₂ or 58%, and on track to meet the target of 51% set in the Mandate, as shown in the Gap to Target graphs below⁴.**



Graph 1: Gap to Target – Total CO₂ target. Source: SEAI M&R and HEAnet.



Graph 2: Gap to Target – Total CO₂ emissions (kgCO₂). Source: SEAI M&R and HEAnet.

⁴ Sourced from the SEAI M&R System.

Our reduction in GHG emissions has gone from 59.2% in 2023 to 58% in 2024. Whilst our data centre electricity usage decreased from 847,513 kWh in 2023 to 795,278 kWh in 2024, our office electricity usage rose from 25,830 kWh in 2023 to 85,974 kWh in 2024, reflecting the first full year of operations in our new office since the Covid pandemic.

Each year, we observe an increase in internet traffic, and we anticipate this trend will persist for the foreseeable future, which is reflected in our projected GHG emissions. However, the downward trend displayed in the graphs above is due to both the recent efforts in reducing our emissions and the projected increase in the electricity grid's efficiency between now and 2030.

The efficiency of Ireland's electricity supply has generally improved over the last two decades, due to introducing higher efficiency natural gas plants, the closure of or reduction in utilisation of older oil-, coal-, and peat-fired stations, as well as increased direct generation from renewable sources (wind, solar PV and hydro) and net imports. The efficiency of Ireland's electricity supply was 59.1% in 2023 when compared to 33.2% in 1990⁵.

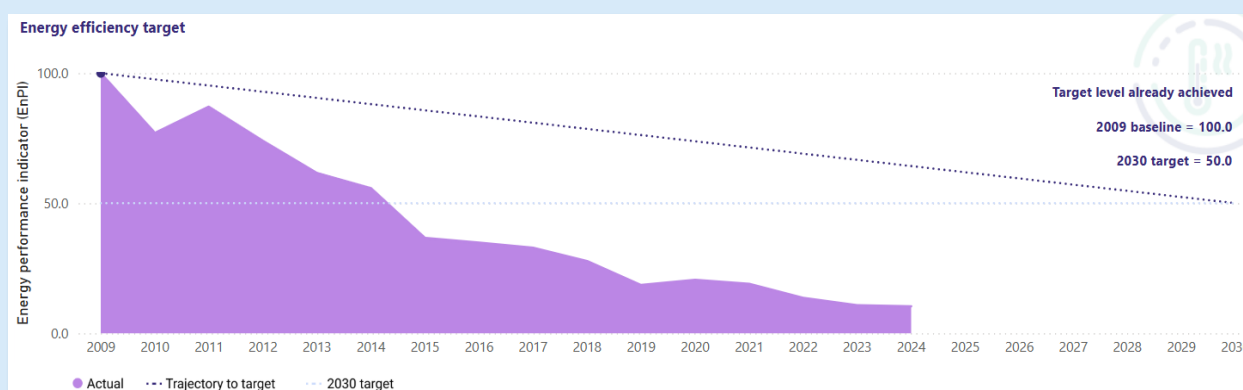
2.1.2 Energy efficiency

Energy efficiency refers to achieving the same outcome with reduced energy consumption. Using less energy will result in lower energy bills and less pollution. Many products, homes, and buildings use more energy than they need, through inefficiencies and energy waste.

Our energy efficiency metric is comprised of floor area (m²), FTE (full time equivalent staff) and internet traffic (petabytes per year), which is the most appropriate composite metric to use as a reflection of our organisation.

We use a single energy source – grid electricity. This is the energy we use to heat our office and power our data centres. **Our total energy efficiency has improved by 89.6% since 2009, exceeding the target of 50%,** as shown in Gap to Target graph below.

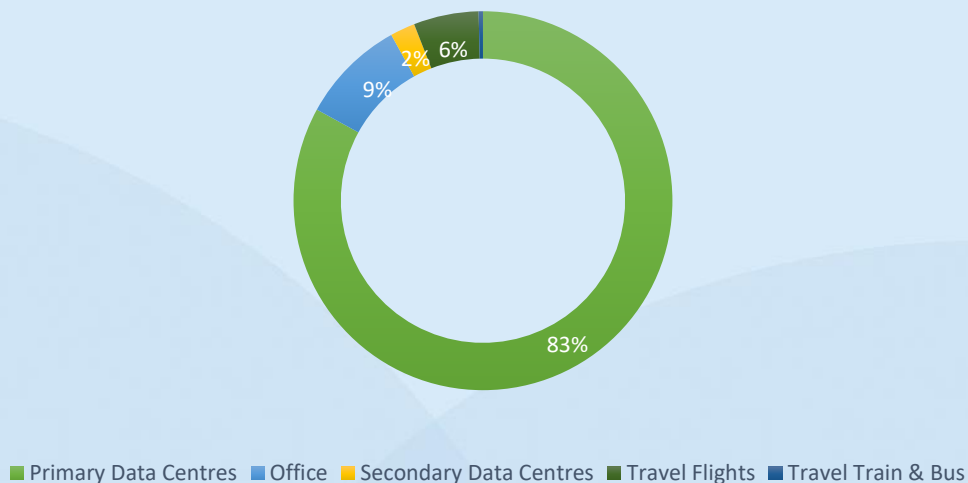
⁵ <https://www.seai.ie/sites/default/files/publications/energy-in-ireland-2024.pdf> (Page 58)



Graph 3: Gap to Target - Energy efficiency target. Source: SEAI M&R and HEAnet.

2.1.3 Significant energy usage

85% of our energy is consumed by our data centres. We operate infrastructure in several data centre locations to provide our services. Our infrastructure consists primarily of networking infrastructure such as switches and routers, but we also operate a large number of servers, storage and security related nodes. We have two primary data centres and five secondary data centres. We do not own the data centres but rather lease co-located space from commercial data centre providers.



Graph 4: GHG emissions by source. Source: HEAnet.

2.2 Actions taken

As shown in the graphs above, HEAnet has been actively engaged in climate action for several years, successfully meeting the targets set by the Mandate. The reductions shown in the graphs above, have primarily been achieved through the following actions.

- ☒ In 2022, we completed the retirement of a data centre, resulting in the average reduction of 354,000 kWh per annum.
- ☒ In 2023, we relocated to leased premises at North Dock 2, in Dublin 1. The building has LEED Gold Certification, a BER of A3 and is also NZEB⁶ compliant.
- ☒ Being a technology company, we have virtualised a significant portion of our existing technology infrastructure, with all new services being virtualised, leading to a reduction in the need for server infrastructure.
- ☒ Engaged with our data centre providers who have confirmed that electricity used comes from 100% renewable energy.

2.3 Planned activities

Whilst we are on track to meet the targets, we will continue to monitor and take action to reduce our environmental impact by undertaking the following activities:

- Focus on energy consumption – review our technology landscape to retire, consolidate, virtualise, and move to the cloud.
- Monitor equipment to reduce usage where appropriate.
- Incorporate sustainability throughout our value chain by engaging our key suppliers in setting environmental goals and taking steps to minimise their environmental impact.
- Incorporate green award criteria in our procurements.
- Integrate energy efficiency as a critical component into new projects.

⁶ 'Nearly Zero Energy Building' means a building that has a very high energy performance. The nearly zero or very low amount of energy required should be supplied to a very significant extent by energy from renewable sources, including energy from renewable sources produced on-site or nearby.

3 Our People – Leadership and Governance

By integrating our ESG strategy including climate action considerations into the HEAnet Strategy 2025-2030 and EduCampus Strategic Plan 2025-2030, we can create an enduring impact and fulfil our purpose as not-for-profit organisations. Our approach is overseen by both the HEAnet and EduCampus Boards, who ensure responsible business practices and accountable leadership throughout both organisations.

3.1 Governance structure

The diagram below illustrates the overall governance structure for ESG within the Group:

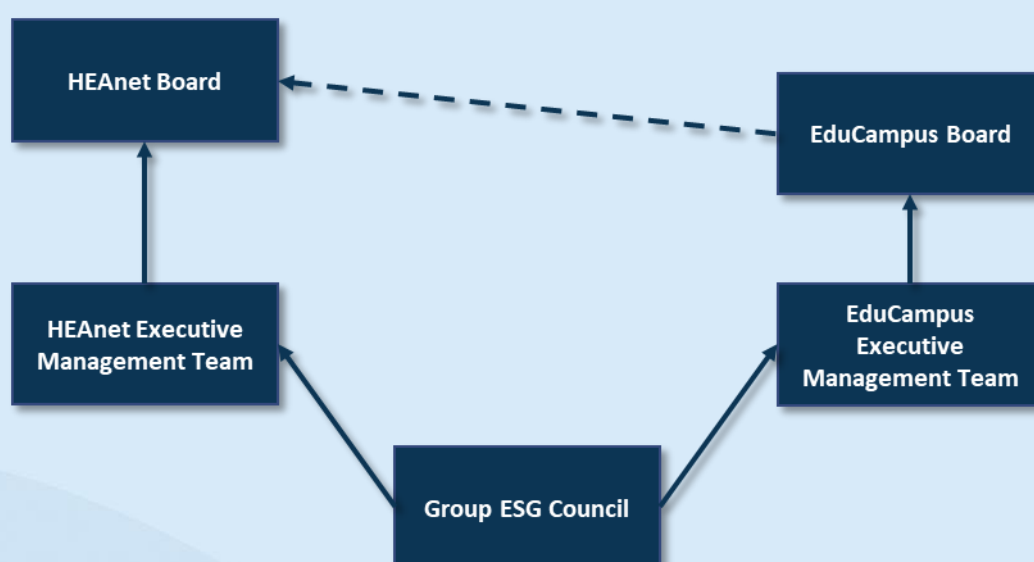


Diagram 1: Group ESG Governance Structure

3.1.1 Board oversight

HEAnet and EduCampus have their own respective Board Directors. Both the HEAnet Board of Directors and the EduCampus Board of Directors will oversee the implementation of responsible practices consistent with the evolving governance environment. They will receive annual updates on all ESG initiatives, including GHG emissions, and energy efficiency metrics.

3.1.2 Chief Executive Officers

Under delegation from the respective Boards, the HEAnet Chief Executive Officer and the EduCampus Chief Executive Officer are responsible for the day-to-day operations of the respective organisation.

3.1.3 Head of ESG

The Head of ESG is the nominated Energy Performance Officer for the purposes of this document. The Head of ESG manages and co-ordinates Group sustainability related activities. They are responsible for chairing the ESG Council and supporting members of the Executive Management Team to develop and roll-out Group sustainability policies and practices throughout the Group.

3.1.4 Group ESG Council

We have a dedicated ESG team responsible for managing environmental sustainability, social and governance initiatives. The team partners with other functions to drive sustainability initiatives and considers the Mandate requirements when developing the annual ESG implementation plan.

4 Our People – Engaging our staff

Staff engagement has been, and will continue to be, instrumental in producing significant energy savings across HEAnet. While we will continue to implement technical solutions to reduce our energy use and emissions, we recognise that deep and sustained reductions are only achievable with ongoing buy-in from our staff.

4.1 Green team

The Group ESG Council shown in Diagram 1 above are our “Green Team”. The Group ESG Council consists of the following roles, which offers a diverse mix of skills and experience:

- Andy Byrne, Head of ESG / Energy Performance Officer (HEAnet)
- Karen Thornton, Director of Strategy and Business Planning (HEAnet)
- Niamh Dawson, Workplace Experience Team Lead (HEAnet)
- Karen King, Schools Programme Manager (HEAnet)
- Rónán ÓhÓbáin, Networks Manager (HEAnet)
- Niall Kelly, Head of Strategic Development (EduCampus)
- Kate Meaun, Procurement and Contracts Manager (EduCampus)
- Varsha Ganapathy Rao, Service Liaison Officer (EduCampus)
- Siobhán O’Mahony, Office Coordinator (EduCampus)

4.2 Climate and sustainability champion

The nominated climate and sustainability champion for HEAnet is Karen Thornton, Director of Strategy and Business Planning. Karen reports directly to the Chief Executive Officer and has responsibility for leading the PMO, and Innovation and R&D functions, with a focus on

driving strategy execution and portfolio delivery within HEAnet. Karen holds a Diploma in ESG from the Corporate Governance Institute.

4.3 Staff training plans

Consistent with the approach adopted in 2024, all staff members will participate in sustainability training in 2025. This initiative reaffirms our ongoing commitment to fostering environmental awareness and integrating sustainable practices across our operations.

4.4 Climate action and sustainability workshops

A climate action and sustainability workshop will be conducted for staff in 2025, aimed at proactively addressing climate-related challenges, with a particular focus on strategies to reduce the organisation's carbon footprint.

4.5 Senior leadership training

In 2024, all members of senior management up to Board level, successfully completed climate action leadership training, demonstrating the organisation's commitment to fostering environmental stewardship at the highest levels. Similar training will be conducted again in 2025, further reinforcing leadership capacity in addressing climate-related challenges.

5 Our Ways of Working

5.1 Reporting ✓

Reporting using the SEAI's M&R System commenced in January 2024. Our GHG emissions and energy efficiency metrics along with our sustainability activities are published in our 2024 Annual Report, which is available on our website⁷.

The Climate and Sustainability Champion regularly reports progress to the CEO and Executive Management Team and reports to the Board bi-annually.



5.2 Mandate compliance ✓

Using the SEAI's M&R System, we report annually on implementation of the individual mandate requirements using the “comply and explain” approach. Of the 47 requirements in 2024, 12 requirements were not applicable. We fully complied with 28 requirements and did not comply with only 1 requirement related to measuring and monitoring water consumption and water refill points.

5.3 Energy and environmental management systems ✓

The Head of ESG i.e., Energy Performance Officer is responsible for monitoring energy management to deliver GHG emissions reductions and energy savings.

HEAnet annual spend on energy is <€2M, therefore ISO 50001 certification is not required to comply with the Mandate.

5.4 Green public procurement ✓

We are committed to the sourcing of environmentally sustainable solutions in procurement and apply a minimum five per cent (5%) weighting to green award criteria at National and EU level tenders.

Our Brokerage Services Team establish high value Framework Agreements, Dynamic Purchasing Systems and run aggregated mini competitions under OGP Frameworks for HEAnet and clients.

There are several ways that HEAnet can apply green award criteria in tender documents:

⁷ <https://www.heanet.ie/news/publications>

- **Technical specifications** – inclusion of environmental characteristics in technical specifications for goods and services, e.g. energy efficient equipment, recyclability, or materials with lower environmental impact and reduced resource consumption.
- **Selection criteria** – inclusion of certification standards as part of the selection process to evaluate suppliers' commitment to sustainability.
- **Contract clauses** – inclusion of performance clauses to safeguard ongoing compliance and sustainability efforts of supplier throughout duration of the contract.

In developing our green award criteria, HEAnet apply the most appropriate and proportionate measure, sourcing criteria from Green Public Procurement (“GPP”) Criteria Search⁸, an online search tool that allows us to rapidly find, select, and download the GPP criteria relevant to a specific procurement project. The search tool is designed to facilitate use of green procurement, developed in collaboration with the EPA and the Department of the Environment, Climate and Communications.

We will continue to improve in the integration of GPP when procuring goods and services by staying informed of developments at a national and EU level and reviewing our green award criteria.

5.5 Low carbon construction methods

This requirement is not applicable to HEAnet, as we do not construct our own buildings. Instead, we opt to lease property.

5.6 Organic food

We do not have a contract with a canteen service provider.

5.7 Food waste

There is no canteen or food service offered to staff. Kitchen facilities are provided for staff to bring their own food, resulting in extremely limited food waste. A compostable bin is provided for food waste and is measured.

5.8 ICT equipment

As a technology company we include mandatory energy efficiency and WEEE regulations in our procurements. Examples are as follows:

Energy efficiency: *"All computers proposed must be independently certified to EPEAT Gold or equivalent standard".*

⁸ <https://gppcriteria.gov.ie/>

WEEE regulations: *"Tenderers must be compliant with the provisions of the waste electronic and electrical equipment (WEEE) regulations and provide proof that they are in possession of a valid certificate of registration from the WEEE Register Society Ltd or equivalent and are fulfilling their obligations under the regulations".*

We also utilise OGP frameworks, which adhere to green procurement principles.

5.9 Paper

As a technology company, most processes in HEAnet are digitised, resulting in very limited paper being used for printing. All printers are set to double sided black and white printing, to reduce the environmental impact, and 100% recyclable paper is used. Paper consumption is monitored.

5.10 Water

Suitable drinking water refill points are available for staff. To date we have not measured and monitored water usage, but it is something we will investigate with the office landlord to ascertain if such reporting is possible in a shared office building.

5.11 Single use

No single use kitchen products are available for use e.g. disposable cups, plates, cutlery. Reusable dining ware is available for staff use.

5.12 Other Materials

We support Ireland's Producer Responsibility Initiatives in the collection and recycling of products.

In 2024, we reviewed our procedures for the responsible disposal and recycling of electronic equipment. Through collaboration with certified e-waste management companies, we ensure the proper handling of end-of-life devices, thus mitigating the adverse environmental impacts linked to improper e-waste disposal. We now have contracts in place with circular economy partners to sell or recycle obsolete equipment.

We actively support the Deposit Return Scheme and provide a Return Bin in our office for staff use. Proceeds from the scheme are donated to a local charity, with Barretstown being our chosen recipient in 2024.

There are dedicated general waste, recycling, and compostable waste bins available in the kitchen area for staff use. Waste is measured and monitored.

6 Our Buildings and Vehicles

6.1 Sustainable commuting ✓

Due to its prime location in Dublin's city centre, our office is accessible via bus, train, and LUAS services. We promote these alternatives modes of transport, and the Travel Tax Saver incentive scheme is available to all staff.

For those travelling by bicycle, secure and accessible bicycle parking is available in the basement of the building. On-site bicycle maintenance amenities are provided for individuals facing any issues during their commute to the office.

In 2024, HEAnet achieved the Smarter Travel Mark Silver Level accreditation with the National Transport Authority (the “NTA”), which recognises and celebrates organisations that support active and sustainable travel on the commute for their workforce, resulting in a reduction in single-person car usage. We will recertify with the NTA in 2025.



6.2 Parking ✓

After relocating to our new office in 2023, the parking capacity was significantly reduced.

6.3 Building energy certificate ✓

The Building Energy Certificate is on display within the office, to clearly show energy use.

6.4 Fossil fuel heating –

This requirement is not applicable, as our office does not rely on fossil fuel heating.

6.5 Indoor cleaning services ✓

When our indoor cleaning services contract is up for renewal, we will include a requirement for tenderers to specify the training that will be put in place to ensure that all staff involved in delivery of the contract have the knowledge and skills to apply cleaning methods, which will reduce the environmental impact of the services.

6.6 Building stock plans –

We inhabit a single office, therefore the requirement for a building stock plan, identifying buildings to be retrofitted is not applicable.

Instead of retrofitting our previous office, a decision was made by the CEO and HEAnet Board to move to a more energy-efficient building. As mentioned above, we relocated to leased premises at North Dock 2, in Dublin 1, in June 2023. The building has LEED Gold Certification, a BER of A3 and is also NZEB compliant. Electricity consumed by North Dock 2, has been verified as being sourced from 100% renewable electricity generation.

6.7 Procurement of zero emission vehicles

This requirement is not applicable, as we do not own nor lease any vehicles.

7 Our Wider Climate Actions Plans

7.1 Technology upgrade programmes

In 2025, we have a large programme of work to replace end of life equipment across both our data centre and network.

7.1.1 Data centre network upgrade

We are currently upgrading network equipment by replacing end of life ethernet switches with more energy efficient switches and consolidating equipment at two data centre locations, with estimated energy savings of 72,000 kWh over 5 years.

7.1.2 Infrastructure network upgrade

We are currently upgrading multiple technology components across our network infrastructure, with estimated energy savings of 600,000 kWh over 5 years.

7.2 Sustainability fund

In 2025, we plan to establish a sustainability fund in HEAnet, financed through proceeds from selling obsolete equipment via our circular economy partnerships. The fund will support projects and initiatives that drive environmental, social, and governance impact, while turning waste into opportunity.

Establishing a sustainability fund aligns with our sustainability focus area, where our ambition is to “*lead the way in environmental, social and economic sustainability*”. It also offers a dual benefit of reducing our environmental impact and funding impactful projects without drawing from operational budgets.

7.3 HEAnet and EduCampus merger

Throughout 2025, HEAnet will work with its subsidiary company EduCampus to merge into a single entity. As part of the merger programme, consideration will need to be given to the integration of reporting processes and engagement with the SEAI to initiate reporting as a merged entity. Completion of the merger is unknown at the time of publication.



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