Net Zero Report
Carbon Reduction Plan

January – December 2024

Executive Summary

This document showcases the carbon footprint calculations Avantis Education Limited (hereafter referred to as 'Avantis Education') has undertaken and the corresponding Net Zero targets. Data was provided by each entity and reviewed and processed to calculate our corporate carbon emissions for FY24 at Group level. This granularity allows us to understand the sources of emissions and locate emission hotspots, and to develop Net Zero strategy and reduction pathways at an entity level.

Overall, in FY24 the majority of our carbon dioxide equivalent (CO_2e) emissions are Scope 3 (99.1%, 4,304 tCO_2e), followed by Scope 1 (0.5%, 24.32 tCO_2e), and finally Scope 2 (0.3%, 14 tCO_2e). The greatest source of CO_2e in FY24 was Scope 3 Purchased Goods and Services (66%), Upstream transport (14%), Use of Sold goods (8%), Downstream Transport (5%), Business Travel (4%). and Employee Commuting (2%). All other CO_2e categories equated to less than 2% of the total FY24 emissions.

We are pleased to say we have exceeded our FY24 target reduction against our FY22 baseline, both when looking at absolute emissions and when using our turnover based emissions intensity.

Going forward, our focus will expand beyond our own operations to working closely with our tier 1 supply chain partners to build a more sustainable and ESG-aligned supply chain.

While action on decarbonisation at our key emission hotspots and within areas directly under our control or influence will continue, we recognise that meaningful progress requires deeper collaboration across our value chain.

To support this, Avantis Education is considering the following CO_2e reduction action:
- Enhancing data quality related to the procurement of goods and services, in partnership with suppliers.
- More clearly differentiating and managing upstream and downstream transport emissions.
- Improving the granularity of calculations related to the use of sold goods, ensuring more accurate insights to guide targeted action.

This approach will help align our operations and supply chain practices with broader ESG objectives, while driving measurable progress on decarbonisation.

Executive Endorsement

At Avantis Education, innovation has always been at the heart of what we do. From creating ClassVR to pioneering new ways for students to learn, our mission has never just been about technology, it's about shaping a brighter future for young people everywhere.

This Net Zero Report sets out how we are reducing carbon emissions and building sustainability into every part of our work, from product design to day-to-day operations. It highlights the progress we've made, the challenges we're tackling, and our commitment to doing more. By sharing this journey, we hope not only to lead by example but also to inspire others to join us. Together, we can give today's learners the skills and environment they need to thrive, while ensuring the world they inherit is one worth thriving in.

About us

Avantis Education has been at the forefront of educational technology for over twenty years, delivering innovative solutions that transform teaching and learning worldwide. Our pioneering products, including immersive virtual and augmented reality platforms, are designed to make learning more engaging, inclusive, and impactful for students of all ages.

With a reputation built on collaboration with educators and schools globally, Avantis Education is committed to developing technologies that not only support outstanding classroom practice but also respond to the broader challenges facing society. Central to this commitment is our responsibility to sustainability. By integrating environmental considerations into the way we design, produce, and deliver our solutions, we aim to align our educational innovations with the principles of a net zero carbon future.

Our vision is simple: to inspire learners through cutting-edge technology while ensuring our work contributes to a sustainable and thriving planet for generations to come.

Commitment to Net Zero

We are committed to taking action to reduce our annual emissions and achieving Net Zero emissions by 31st December 2045, five years earlier than the UK governments target. We will aim to reduce our carbon intensity year on year and achieve a:

33%

reduction in our Scope 1 and 2 emissions by 2030

87%

overall reduction in all Green House Gas (GHG) emissions across Scopes 1, 2, and 3 by 2045 - off setting any residual emissions via high-quality nature based or direct air capture projects and becoming Net Zero

To achieve these goals, we have taken the following actions:

1 We have appointed an external specialist carbon consultancy to collate and verify data, calculate GHG emissions and help advise on carbon reduction options

2 Calculated our carbon footprint in line with the GHG protocol for FY24 including the following Scopes and categories:

Scope 1
- i. Stationary combustion,
- ii. Transport (owned and leased vehicles)
- iii. Refrigerant gasses

Scope 2
- i. Electricity – both from premises and electric vehicles

Scope 3
- i. Category 1: Purchased goods and services
- ii. Category 3: Fuel and energy related activities (not included in Scope 1 and 2)
- iii. Category 4: Upstream transportation and distribution
- iv. Category 5: Waste
- v. Category 6: Business travel
- vi. Category 7: Employee commuting (including home working)
- vii. Category 9: Downstream Transport & Distribution
- viii. Category 11: Use of Sold Goods
- ix. Category 12: End-of-life Treatment of Sold Goods

3 Created a carbon reduction pathway for each Scope and category

4 Set the Net Zero date and committed to updating our carbon footprint at least annually, with this being the second calculation since our base year and the third in total

Figure 1. Sources of Greenhouse gas emissions by Scope and category. Source: GHG Protocol
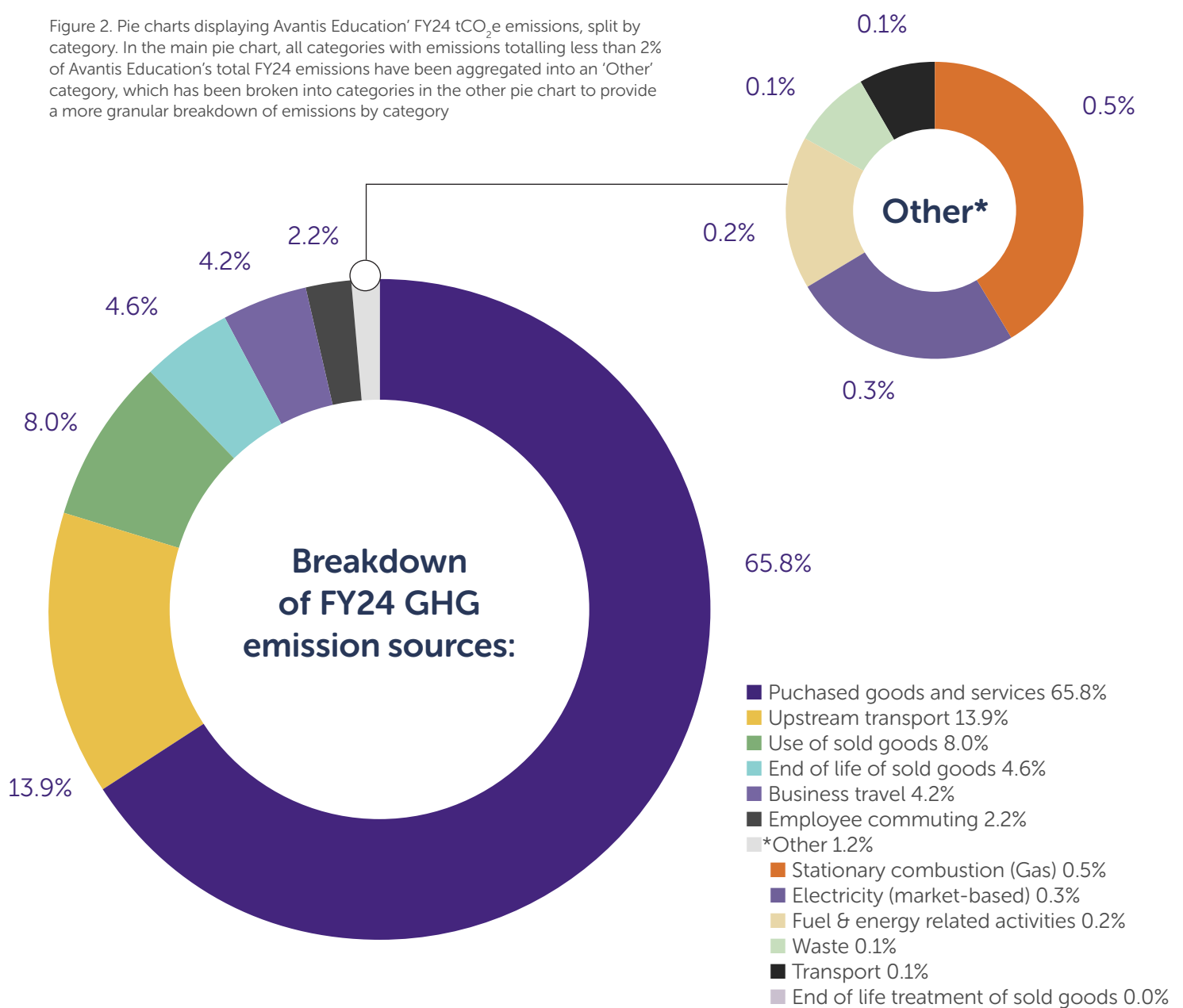
Emissions footprint
January 2024 - December 2024

This report follows on from our preceding carbon inventories - baseline year 2022 and 2023. The baseline year is a record of the greenhouse gases that were produced in a financial year prior to the introduction of any strategies to reduce emissions. It provides a breakdown of our carbon emissions from which our emissions reduction pathway has been created, with target reductions provided for each scope and category.

This report contains Avantis Education's 2024 results as shown below. Comparisons with our 2022 and 2023 results follow.

Figure 2. Pie charts displaying Avantis Education' FY24 tCO_2e emissions, split by category. In the main pie chart, all categories with emissions totalling less than 2% of Avantis Education's total FY24 emissions have been aggregated into an 'Other' category, which has been broken into categories in the other pie chart to provide a more granular breakdown of emissions by category

Breakdown of FY24 GHG emission sources:

0.1%
0.1%
0.5%
0.2%
Other*
0.3%
2.2%
4.2%
4.6%
8.0%
65.8%
13.9%

- Puchased goods and services 65.8%
- Upstream transport 13.9%
- Use of sold goods 8.0%
- End of life of sold goods 4.6%
- Business travel 4.2%
- Employee commuting 2.2%
- *Other 1.2%
  - Stationary combustion (Gas) 0.5%
  - Electricity (market-based) 0.3%
  - Fuel & energy related activities 0.2%
  - Waste 0.1%
  - Transport 0.1%
  - End of life treatment of sold goods 0.0%

Below is an itemised breakdown showing emissions (tCO$_2$e) by each scope and category from FY24 baseline calculation.

Table 1. Avantis Education's FY24 CO$_2$e Inventory

Scope / Category	Item	Total tCO$_2$e FY24	% of FY24 total tCO$_2$e
SCOPE 1			
Stationary combustion (gas)	Gas consumed	21.47	0.5%
Transportation	Owned and leased vehicles	2.85	0.1%
Refrigerants	HVAC's	-	0.0%
SCOPE 2			
Electricity (location based)[1]	Purchased electricity, for own use (grid average)	21.69	N/A
Electricity (market based)[2]	Purchased electricity, for own use (specific contract)	13.11	0.3%
Electricity (Electric Vehicles)	Owned and leased EVs	0.78	0.0%
SCOPE 3			
Category 1: Purchased goods & services	Goods and services	2,924.39	65.8%
Category 3: Fuel & energy related activities	WTT[3] & T&D losses[4] from electricity, stationary combustion of fuels and transport	10.45	0.2%
Category 4: Upstream transportation	Transport between tier 1 suppliers or paid transport for goods (upstream & downstream) WTW[5]	617.54	13.9%
Category 5: Waste generated in operations	Waste	5.16	0.1%
Category 6: Business travel	Land and air travel and hotel stays for business purposes WTW	187.64	4.2%
Category 7: Employee commuting	Employees commuting to and back from work WTW plus emissions associated with working from home	99.53	2.2%
Category 9: Downstream Transport	Transport to customers (WTW)	203.62	4.6%
Category 11: Use of Sold Goods	Direct and indirect emissions from use of goods sold	354.32	8.0%
Category 12: End of life treatment of sold goods	Waste disposal and treatment of products	0.88	0.0%
Total gross emissions (location-based)		**4,450.32**	
Less emissions avoided by procurement of renewable electricity		8.34	-
Additional emissions generated from the procurement of non-renewable electricity (residual grid mix)		0.24	-
Total gross emissions (market-based)		**4,441.74**	
Less carbon offsets		-	-
Total net emissions		**4,441.74**	

[1] Location based represents emissions from electricity consumption based on grid average emissions

[2] Market based represents emissions from electricity consumption based on specific energy contracts

[†] These categories have been re-baselined as new information has been shared within this category, this has increased accuracy of the glidepath and comparison against last years information

[3] Well-to-tank emissions. Emissions associated with the extraction, refinement, and transport of fuels before consumption

[4] T&D losses – Transmission and distribution losses. Emissions associated with the energy lost during the transmission of electricity through the network

[5] WTW – Well-to-wheel emissions. Includes emissions associated with the extraction, refinement, transport, and consumption of fuels

Table2. Avantis Education's FY24 CO_2e Inventory compared to FY22 and FY23

Scope / Category	Item	Total tCO$_2$e 2022	Total tCO$_2$e 2023	Total tCO$_2$e 2024	% change from base year 2022
SCOPE 1					
Stationary combustion	Gas consumed	7.57	14.24	21.47	183.7%
Transportation	Owned and leased vehicles	2.33	3.21	2.85	22.2%
Refrigerants	HVAC's	10.86	-	-	-100.0%
SCOPE 2					
Electricity (location based)[1]	Purchased electricity, for own use (grid average)	9.11	12.98	21.69	138.1%
Electricity (market based)[2]	Purchased electricity, for own use (specific contract)	1.23	0.87	13.11	966.8%
Electricity (Electric Vehicles)	Owned and leased EVs	-	1.79	0.78	N/A
SCOPE 3					
Category 1: Purchased goods & services	Goods and services	3,560.42	2,376.29	2,924.39	-17.9%
Category 3: Fuel & energy related activities	WTT & T&D losses from electricity, stationary combustion of fuels and transport	2.51	2.13	10.45	316.8%
Category 4: Upstream transportation	Transport between tier 1 suppliers or paid transport for goods (upstream & downstream) WTW	1,140.37	707.32	617.54	-45.8%
Category 5: Waste generated in operations	Waste	12.77	11.89	5.16	-59.6%
Category 6: Business travel	Land and air travel and hotel stays for business purposes WTW	167.41	116.43	187.64	12.1%
Category 7: Employee commuting	Employees commuting to and back from work WTW plus emissions associated with working from home	146.49	67.83	99.53	-32.1%
Category 9: Downstream Transport	Transport to customers (WTW)	42.10	90.14	203.62	383.7%
Category 11: Use of Sold Goods	Direct and indirect emissions from use of goods sold	125.95	234.68	354.32	181.3%
Category 12: End of life treatment of sold goods	Waste disposal and treatment of products	1.23	1.65	0.88	-28.2%
Total gross emissions (location-based)		5,229.11	3,640.58	4,450.32	-14.9%
Less emissions avoided by procurement of renewable electricity or additional generated from the procurement of non-renewable electricity (residual)		7.88	12.10	8.58	9.0%
Total gross emissions (market-based)		5,221.23	3,628.48	4,441.74	-14.9%
Less carbon offsets		22.00	20.00	-	
Total net emissions		5,199.23	3,608.48	4,441.74	-14.6%

Offsetting & Rebaselining

In previous years, we have offset our Scope 1 and 2 carbon emissions as part of our commitment to operating responsibly. However, we have now chosen to shift our focus towards direct reduction initiatives. This decision reflects our view that we have greater control and influence over the additionality and effectiveness of actions that reduce our own emissions at source. Also, following evolution of the ISO 14068 standard regarding the use of the term 'Carbon Neutral', it ensures that our approach remains credible and transparent, helping us avoid any risk of being perceived as greenwashing in the future, while delivering lasting and measurable impact on our carbon footprint.

This year we have rebaselined our calculations across the following categories:

Scope 2: Electricity 2023
We have revisited the 2023 calculations to include emissions associated with electric vehicles. Emissions for 2023 have gone from 0.87 to 2.66 tCO_2e.

Scope 3: Waste
An inconsistency in methodology between 2022 and 2023 meant that there was a variation in emissions for category 5 waste. The methodologies have now been aligned via a rebaselining. The 2023 emissions value for waste has changed from 0.21 to 11.89 tCO_2e. Note that in 2024 we have improved the data we use for calculations as we now collect primary weight data for our waste streams. In 2022 and 2023 we used the number of bins, their volume, and the frequency of collections to make estimations.

Scope 3: Business Travel 2022
There was a historic calculation error whereby mileage reclaims were double counted in 2022. Calculations and the corresponding glidepath have been updated to account for this correction. Business Travel emissions have changed from 194.58 to 167.41 tCO_2e.
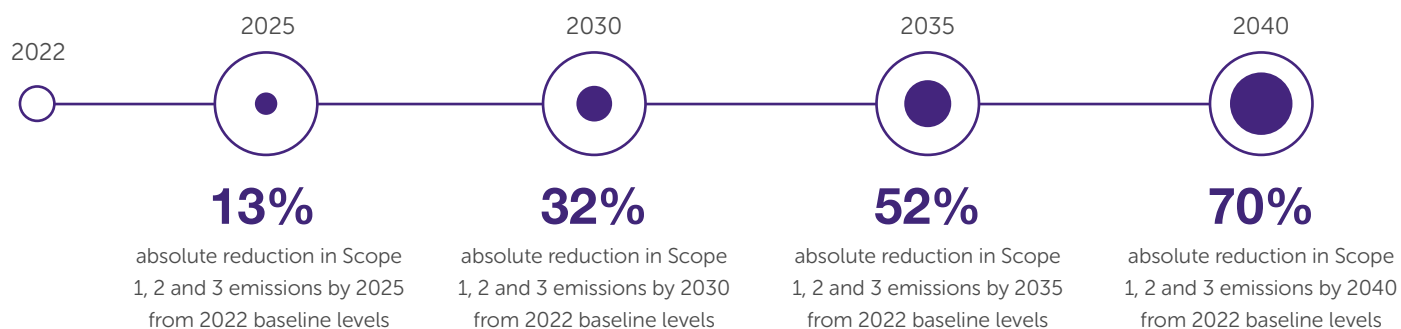
Scope 3: Downstream Transport 2022 and 2023
An improvement in calculation methodology has significantly decreased reported emissions associated with downstream transportation. Emissions for 2022 have changed from 1127 to 42 tonnes. Our reduction glidepath has been updated accordingly. Emissions for 2023 have changed from 1,562 to 90 tonnes. Note that the glidepaths and emissions values reported in 2022 and 2023 can now be considered as superseded.
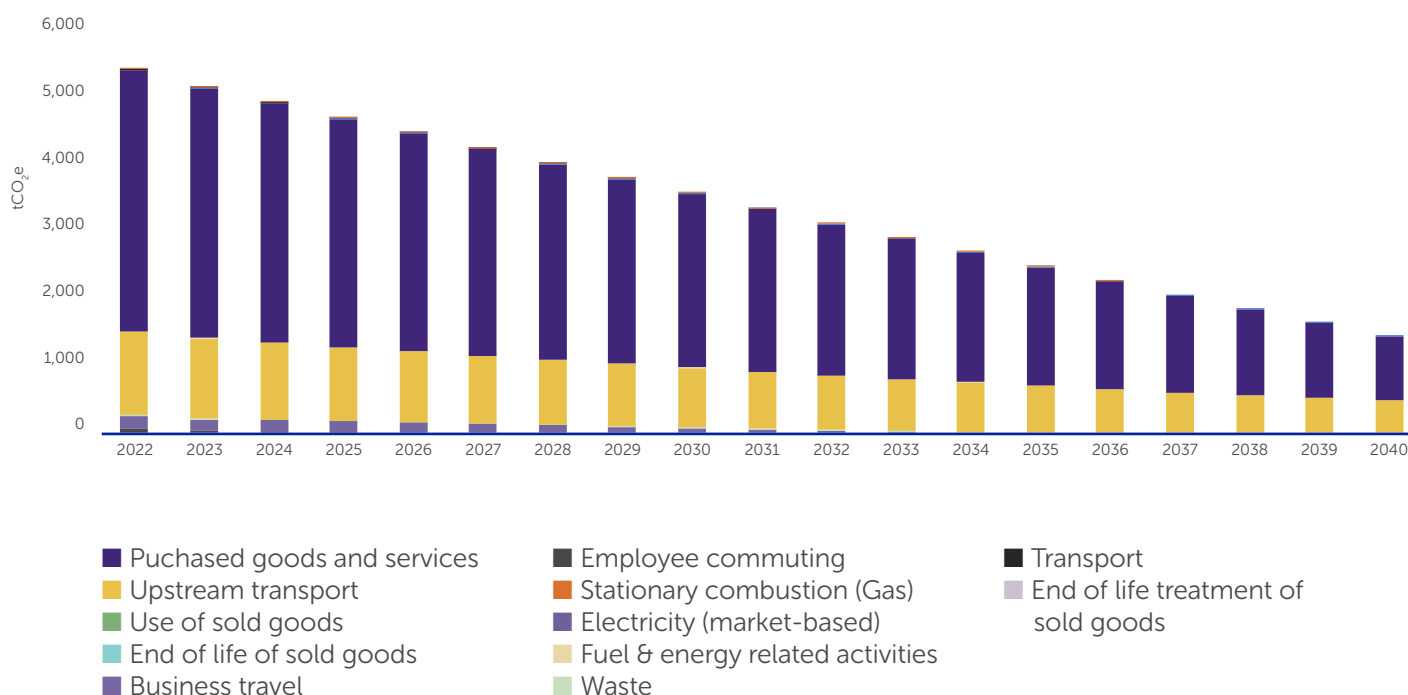
Emission reduction targets

In setting Net Zero targets and developing a Net Zero roadmap in FY22, we assessed the CO_2e reduction potential of each scope and category. This assessment considered the degree of control we have over the activity, operational considerations (e.g. fleet replacement cycles, availability of green energy tariffs by geography, available waste disposal methods), and wider politico-economic factors including the UK government's commitment to decarbonise the UK National Grid and the ban on the sale of ICE vehicles post-2030. The reduction pathway is science-based and aligned to the Paris Agreement's commitment of limiting global warming to 1.5°C above pre-industrial levels.

To continue our progress to achieving Net Zero, we mapped out and planned a number of positive actions to achieve the following carbon reduction targets:

| 2022	2025	2030	2035	2040
	13%	**32%**	**52%**	**70%**
	absolute reduction in Scope 1, 2 and 3 emissions by 2025 from 2022 baseline levels	absolute reduction in Scope 1, 2 and 3 emissions by 2030 from 2022 baseline levels	absolute reduction in Scope 1, 2 and 3 emissions by 2035 from 2022 baseline levels	absolute reduction in Scope 1, 2 and 3 emissions by 2040 from 2022 baseline levels

Carbon Emission Glidepath tCO_2e

Figure 3. Avantis Education's Net Zero glidepath - roadmap to achieve Net Zero (-87% tCO_2e by 2040 against the FY 2022 base year)

Legend:
- Puchased goods and services
- Upstream transport
- Use of sold goods
- End of life of sold goods
- Business travel
- Employee commuting
- Stationary combustion (Gas)
- Electricity (market-based)
- Fuel & energy related activities
- Waste
- Transport
- End of life treatment of sold goods

We are proud to report that we have surpassed our reduction target in FY 2025 by achieving a 15% absolute emissions reduction versus our FY 2022 base year, above the target of a 13% reduction by FY 2025 (Figure 4).

Figure 4. Avantis Education's progress against the original Net Zero glidepath – purple is estimated based on the reduction projections modelled in the original glidepath, yellow is the actual reported emissions

■ Glidepath gross emissions (market-based)   ■ Actual gross emissions (market-based)
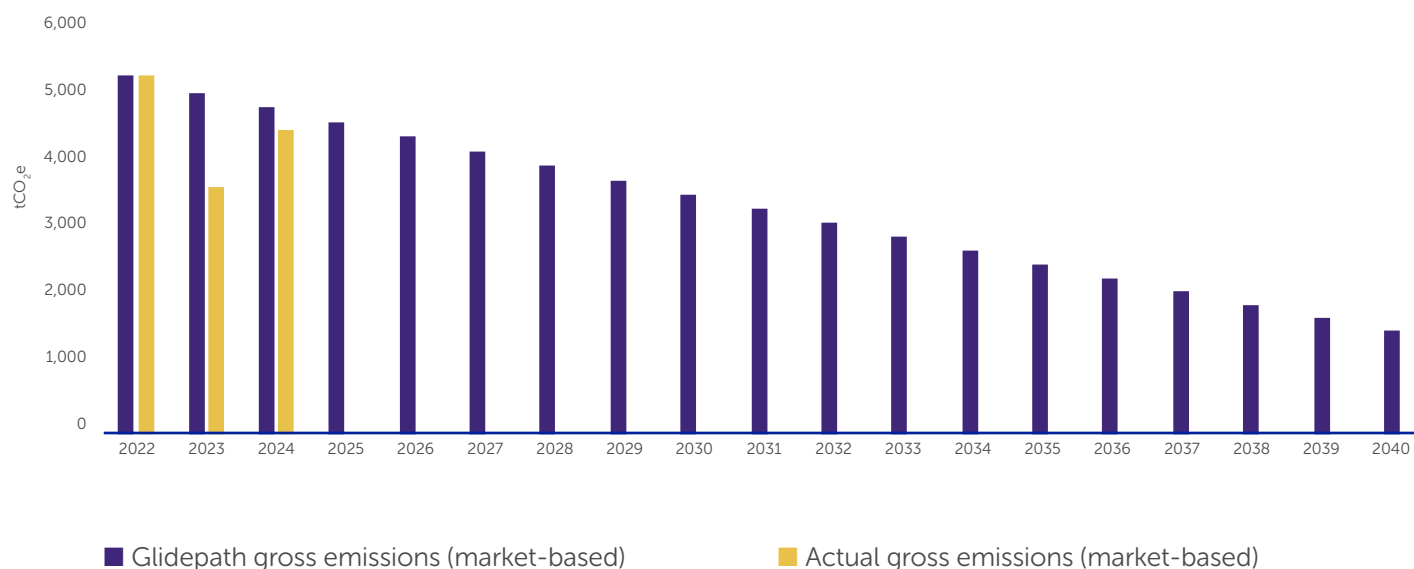
Our primary focus is on reducing our own emissions, supported by dedicated planning and financial resources. However, a substantial share of our carbon footprint falls under scope 3 emissions, which are challenging to address in the short term as they originate within our supply chain an area where we have influence but not direct control. To help drive reductions in these emissions, we will leverage our purchasing power and supplier selection to promote and encourage carbon-reducing practices across our supply chain.

Intensity Metrics and Reduction Targets

In addition to reporting our absolute emissions, we also track GHG intensity using a turnover intensity metric which captures greenhouse gas emissions per one million pounds (£) of turnover. This is being done to understand how well we are decarbonising our business model by considering any changes to the size of the business. Given Avantis Education has grown organically in recent years, the turnover intensity metrics let us see how our emissions have changed considering this.

Turnover has been chosen over other business metrics such as headcount or quantity of physical floor area. This is because most Avantis Education's emissions are associated with the procurement of goods and services. Spend on procurement is more closely tied to turnover than other business metrics, making turnover the most informative intensity metric to use. Table 2 and figure 5 show how our emissions intensity has changed between 2022 and 2024.

Table 2: Avantis Education's turnover Intensity FY 2022, FY 2023, FY 2024

Intensity ratio	FY 2022	FY 2023	FY 2024	% Change 2024 vs. 2022
tCO$_2$e per million £ turnover	228.30	157.71	134.60	-41%

Figure 5: Avantis Education's progress against the turnover intensity Net Zero glidepath – purple is estimated based on the reduction projections modelled in the original glidepath, yellow is the actual reported emissions
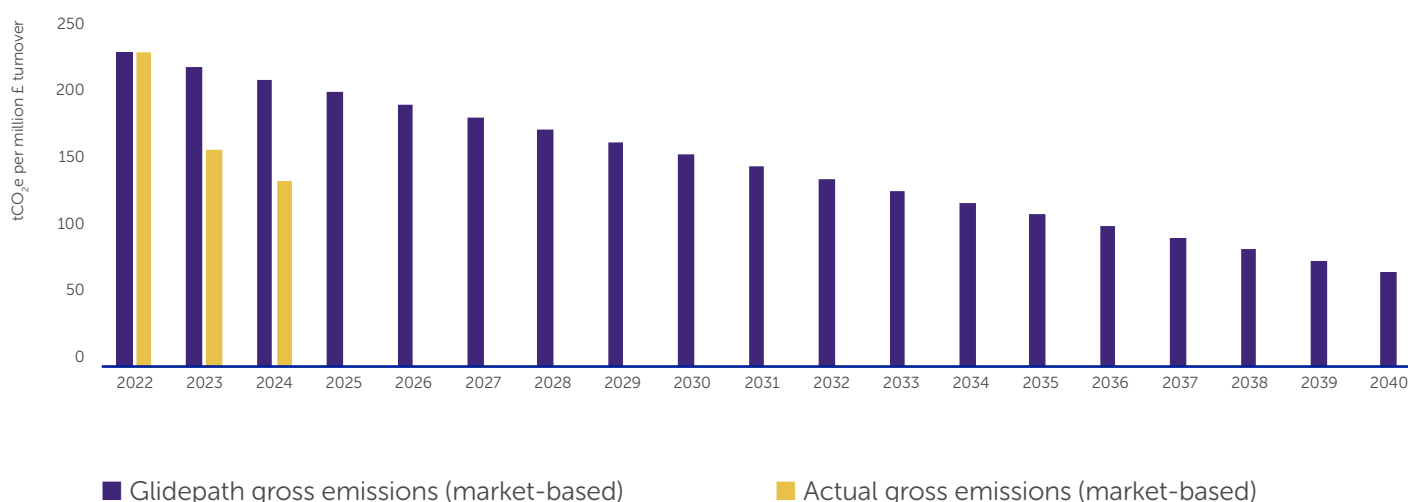
The magnitude of carbon reduction is more significant than that seen when evaluating absolute emissions. This is due to an increase in turnover between 2022 and 2024. This is a positive sign that we are decarbonising our business model.

Environmental management measures / emission reduction plan

As a responsible business, we have for many years had a focus on the environment and reducing our carbon emissions. To drive this to the next level, we engaged the services of Sustainable Advantage to advise the Avantis Education's Board on global best practices on carbon reduction.

We have a detailed carbon emissions reduction plan, the key actions of which are summarised below:

SCOPE 1: Stationary combustion (Natural gas)

This is a relatively low impact area but within our control to reduce impact. We will:
- Progressively replace brown gas consumption with renewable gas consumption or electrical heating systems such as air source heat pumps, infra-red panels, electric storage heaters etc. where practical.
- Ensure that all our facilities use minimal heating by making sure buildings are fully insulated.

SCOPE 1: Transport (owned and leased vehicles)

This is an minimal source of emissions for us and therefore isn't a priority area for reduction. However, we are keen to investigate our options for decarbonising activity related to our vehicle fleet. We will aim to:
- Move diesel and petrol-owned and leased vehicles to electric vehicles (EV) as soon as is practical.
- Undertake regular assessment of the fleet to ensure least efficient vehicles are removed as a priority.
- Where moving to EV's is not practical switch to hybrid vehicles.

SCOPE 2: Electricity

At our Quedgeley site, we have a mix of renewable and non-renewable energy tariffs, whilst in the US we source brown electricity. We will prioritise moving both premises to certified 'Green' electricity over the next few years. We will endeavour to reduce our electricity emissions via the following:

- Purchase renewable energy tariffs across all premises and ensure supply is fully verified as meeting the Scope 2 Quality Criteria[11] (supported by REGOs or equivalent).
- Energy efficiency guides will be issued to all site staff to facilitate positive behavioural change.
- Green champions at each site will be gathering up-to-date monthly energy performance data to provide feedback.
- Ensure we use energy efficient systems wherever possible e.g., replacing lights with LED and using passive infra-red sensors (PIRs) where possible.
- Investigate opportunities to install green energy production facilities onsite where practicable (e.g., solar panels, wind turbines).

SCOPE 3 Category 1: Purchased goods and services and capital goods

Emissions associated with capital goods hasn't been separated out from category 1 and hence, any reduction initiatives for category 1 can be applied to capital goods too.

This is the largest single source of emissions in FY24 and therefore a key priority action area. We will look into opportunities to perform life cycle assessment for key products to improve data quality and to support informed decision making on product and supplier selection.

We realise that much of the GHG reductions in this category will happen because of our suppliers reducing their carbon emissions and becoming more carbon aware as the global economy decarbonises in the coming decades. However, that does not mean that we will take a passive approach to the category especially as it accounts for 66% of our total emissions. To try and enact positive change on our suppliers we will:

- Engage with tier 1 suppliers to first understand their carbon footprint (scopes 1, 2 and relevant 3) by sending out carbon surveys.
- Be selective about working with sophisticated carbon suppliers (where possible), and additionally, support suppliers to reduce their emissions.
- Work with suppliers to collaboratively set carbon emissions reductions targets.
- Request life cycle assessments for products purchased and choose products with a lower environmental impact.

---

[11] https://ghgprotocol.org/sites/default/files/2023-03/Scope%202%20Guidance.pdf. P.63

SCOPE 3 Category 4: Upstream transportation and distribution

This year we have improved our data collection related to category 4 given it makes up a meaningful proportion of our emissions profile (14% of total emissions). This is a priority category for us where we hope to make reductions in the near future by:

- Prioritising the use of sea freight rather than air where practical.
- Exploring options related to supply chain management and inventory control to minimise the need for air freight, which is generally used when freight needs to be delivered urgently.
- We will also collaborate closely with our suppliers to promote sustainable transportation practices and reduce their carbon footprint.

Note that this year we have received information from our logistics suppliers on the emissions associated with journeys. We have continued to use a tonne.km calculation method whilst we investigate the calculation approaches used by our suppliers but will look to use their data next year assuming their methodologies are robust and in line with the GHG Protocol.

SCOPE 3 Category 5: Waste

Although this is a relatively low impact area compared to other emissions sources, we will focus on reducing emissions from waste as we have a greater degree of control over this impact area and due to wider environmental considerations of waste. We currently send Zero Waste to Landfill by following the waste hierarchy where a preference is given to:

- Reduce waste generated
- Re-using / recycling as much as possible
- Residual general waste to be incinerated to limit the volume of waste that goes to landfill

In addition to this we will also aim to reduce our waste by:

- Rolling out staff training programmes to provide clear, consistent training and information to minimise waste and maximise recycling.
- Tracking the disposal methods of our various waste streams and encourage waste management companies to change suppliers who send waste to landfill.

SCOPE 3 Category 6: Business travel

Business travel isn't a huge impact area for us; however, we are keen to engage our employees to understand the environmental impact of their activity, and this is a key area of influence. We will endeavour to reduce emissions though the following methods:

- Continue to prioritise the use of video call technology to reduce the need for business travel which isn't absolutely necessary
- Where travel is required, we will prioritise carbon-reducing travel modes, choosing rail over air and / or cars
- Encourage the uptake of EV vehicles by paying favourable mileage reclaim rates and considering the installation of EV charging points at our site, where practical

SCOPE 3 Category 7: Employee commuting and homeworking

This isn't an emission hotspot for us (2% of total emissions) but still an area we strive to influence. We recognise that we cannot directly influence what modes of travel our employees use, we need to do all we can to encourage them to join us on our sustainable journey. We will endeavour to achieve this by:

- Sending a travel survey to each one of our employees to understand how they currently get to and from work.
- Putting in place initiatives that promote low emissions commuting, including:
    - Cycle-to-work schemes
    - EV salary sacrifice schemes
    - Encouraging carpool arrangements
    - Providing information on public transport alternatives
    - Installing EV charge points at our office location
    - Paying favourable mileage reclaim rates to EV vehicles

Employee homeworking was not a large source of CO_2e emissions in FY24, and we recognise that we have limited control over the consumption of fuel and energy in employee working from home environments. As such, we will focus on continuing to promote awareness of employee energy consumption and efficiency measures.

- Encourage switching to renewable energy tariffs where possible.
- Implement an awareness campaign for reducing working from home carbon footprint:
    - Install SMART meters
    - Reduce, reuse, recycle, limit waste sent to landfill

SCOPE 3 Category 9: Downstream transportation and distribution

Our emissions associated with downstream transport are similar in profile to upstream transport. Please see category 4: Upstream transport for reduction initiatives for this category.

Note that there has been a large increase in emissions for this category due to air freight being used rather than sea freight. This is due to urgent demands for products which means the more time-efficient, but more carbon intensive, air freight route was used more than in previous years.

We have allocated emissions into either upstream or downstream transport in line with guidance from the GHG Protocol. There are various items which could be described as downstream in the traditional sense in that they are deliveries of products to customers. However, many of these deliveries were paid for by Avantis Education. The GHG Protocol advise that category 4 includes emissions from 'Third-party transportation and distribution services purchased by the reporting company in the reporting year (either directly or through an intermediary), including inbound logistics, outbound logistics (e.g., of sold products), and third-party transportation and distribution between a company's own facilities.' Therefore, these items have been allocated as category 4 given Avantis Education have purchased the services.

SCOPE 3 Category 11: Use of sold products

This year we have used average figures for the power a headset requires to be charged as well as an estimate on the number of times it might be charged during their lifetime. However, in future years we will strive to use more granular, primary data which we collect on the energy use of our devices.

Emissions reduction in this category is tied to the decarbonisation of the UK and US grids but also related to the design of product. Increases in the energy efficiency of our devices will lead to a reduction in emissions for this category and this is something we are actively working on. In future years, we will also use more granular data on the devices to target efforts in a more focused way. We will also:

- Consider completing life cycle assessments (LCAs) for products to identify areas for emission reduction.
- Continue to communicate with customers about increasing the efficiency of the use of sold products.

SCOPE 3 Category 12: End-of-life treatment of sold goods

We recognise that at the end of their life, our devices contribute to e-waste. We implement a return scheme where schools can return their devices to us for disposal. Although this would mean an increase in the amount of waste we have to process and a possible increase in our Category 5 emissions, it would ensure that all headsets were disposed of as efficiently as possible and increase the chance of headsets being refurbished and having a second life. We encourage schools to recycle devices to ensure that they are broken down and recycled so their constituent parts can enter supply chains again. We will continue to minimise waste production and diverting waste from landfill via communication with customers and product labelling.

Conclusion

This carbon inventory report provides a comprehensive analysis of our greenhouse gas (GHG) emissions for the reporting period, identifying key sources and trends. Our total emissions for this period amount to 4,441.74 tCO$_2$e, with the largest contributors being Scope 3 Purchased Goods and Services (66%), Upstream transport (14%), Use of Sold goods (8%), Downstream Transport (5%), Business Travel (4%). and Employee Commuting (2%). This year Avantis Education has continued to use a turnover carbon intensity metric, normalising our emissions per one million pounds of turnover to account for growth. Our emissions intensity has continued to fall, with emissions reduced by 41% in FY24 versus the 2022 base year (tCO$_2$e/£ Million Turnover).

We are currently delivering a larger carbon reduction than that targeted for FY24, as set at our base year and reported in our reduction glidepath. This is a testament to our commitment to decarbonisation, and we will strive to continue to meet our reduction targets as we move towards 2030. We will continue to take stock of our carbon inventory on an annual basis with the next covering FY25. Through collaboration with stakeholders, investment in green technologies, and adherence to best practices, we aim to continue to achieve our long-term emissions reduction targets. We look forward to continued improvements and partnerships as we work toward a more sustainable and environmentally responsible future.

Note that this year we have completed rebaselining across several categories to improve our calculation methodologies and to ensure we are as accurate and representative of our business activity.

Appendix

1. Net Zero Calculation Boundaries

When calculating carbon emissions, the GHG Protocol Corporate Accounting and Reporting Standard states that a company must set its organisational boundaries.[12] This can be done either by an "Equity Share" or "Control" approach. The Equity Share approach reflects a company's economic interests and percentage ownership of companies or subsidiaries to assign GHG emissions. The Control approach can follow two routes and defines the boundary by looking at either how much Financial or Operational Control a company has.

To fully cover all our operations and subsidiaries, we have selected the Operational Control method when setting our organisational boundary which will cover 100 percent of the GHG emissions over which it has operational control.

The Operational boundary will include all three Scopes as outlined by the GHG Protocol. Our emissions are reported in tCO_2e and have been calculated utilising the following formula:

> **Source emissions data x conversion factor* = total source emissions**
> **Source unit x (tCO_2e/unit) = tCO_2e**

*Conversion factors are primarily derived from the latest:
- UK Government GHG conversion factors for Company Reporting
- DEFRA (Department for Environmental, Food and Rural Affairs)
- EPA's Environmentally extended input-output (EEIO) tables

[12] https://ghgprotocol.org/corporate-standard

2. Methodology

Inclusions in FY 2025 inventory:

Scope 1

Sources included in the inventory are onsite (or "stationary") natural gas combustion, refrigerants and mobile fuel combustion from leased and owned vehicles.

- Stationary combustion: primary natural gas combustion quantity data provided (kWh).
- Transport: milage data provided, split by vehicle and fuel type.
- Fugitive (refrigerants): No leaks or refills were reported.

Scope 2

Purchased electricity was the only identified scope 2 emissions source. However, per the GHG Protocol Scope 2 Guidance, emissions have been calculated and reported using two separate methodologies:

- Location-based method reflecting the average emissions intensity of grids on which energy consumption occurs.
- A market-based method reflecting emissions from the electricity that we have purposefully chosen via our energy procurement activities. This accounts for energy purchased from green energy suppliers as well as the residual mix of energy purchased via non-renewable tariffs based on the reported residual mix of relevant national grids.

Primary electricity data has been used to complete calculations for owned and leased sites.

Scope 3

Category 1: Purchased goods and services – Includes all upstream (i.e., cradle-to-gate) emissions from the production of goods which we have purchased or acquired during the reporting year. Spend data taken from financial records have been used to calculate associated greenhouse gas emissions using the EEIO emission factors provided by the EPA.

Category 3: Fuel and energy related services – This relates to transportation and distribution losses, and the well to tank emissions for all fuels consumed due to our operations.

- Well to tank emissions account for all the emissions related to the extraction, production, and shipping of fuels excluding only the direct combustion of the fuel. (e.g., fuel consumed by owned or leased vehicles, employees' vehicles used for commuting, vehicles used for business travel, etc).
- Transmission losses account for all the energy that is lost between the electricity production in the powerplant and when it is used (e.g., resistance in power lines).

Category 4: Upstream transport – This relates to the emissions associated with logistics and postage or physical goods during the reporting year. The weight of goods and the distance they travelled via different forms of freight were used to estimate emissions. Journeys paid for by Avantis Education were included in category 4, even when they could be perceived as downstream in the traditional sense of the term per the GHG Protocol Scope 3 Guidance.

Category 5: Waste – Includes emissions from third-party disposal and treatment of waste generated by our operations during the reporting year. Waste emissions have been calculated based on waste reports provided by our waste management provider.

Category 6: Business travel – Includes emissions from the transportation of employees for business related activities in vehicles owned or operated by third parties, such as aircraft, trains, buses, and passenger cars.

- Expense data related to any transport and travel arrangements including hotels have been included.

Category 7: Employee commuting – includes emissions from the transportation of employees between their homes and our offices. Emissions from employee commuting may arise from car, bus, train, or taxi travel.

- Calculations have used employee headcount and typical working patterns to calculate the emissions associated with employee commuting and homeworking,
- Where appropriate we have used the average-data method, which involves estimating emissions from employee commuting based on average (e.g., national) data on commuting patterns.
- In future years, we will supplement the above with employee travel surveys which collect data from employees on commuting patterns (e.g., distance travelled, and mode used for commuting) and apply the appropriate emission factors for the modes used using the distance-based method.

Category 9: Downstream transport – This relates to the emissions associated with logistics and postage or physical goods during the reporting year which Avantis Education customers have paid for. The weight of goods and the distance they travelled via different forms of freight were used to estimate emissions. Journeys paid for by Avantis Education were included in category 4, even when they could be perceived as downstream in the traditional sense of the term.

Category 11: Use of sold products – This includes the emissions associated with the use of Avantis Education VR headsets. Estimations were made based on broad values for the quantity of electricity used to charge a device, multiplied by an estimate of the number of charges a device might need during its lifecycle.

Scope 3 Category 12: End-of-life treatment of sold products covers the emissions associated with the disposal of headsets at the end of their operational life. This is in the form of WEEE waste. Note that Avantis Education operate a return system whereby schools can return headsets to Avantis Education. The waste emissions associated with these devices are covered in category 5.

Category exclusions, accounted for elsewhere in FY 2025 inventory:

Category 2: Capital Goods – Emissions associated with capital goods are captured in category 1 purchased goods and services.

Non-material category exclusions for FY 2025 emissions:

Category 8: Upstream leased assets are excluded from the FY2024 inventory as we do not lease any assets to other businesses.

Scope 3 Category 10: Processing of sold products is excluded from FY2024 inventory as we do not manufacture products.

Scope 3 Category 13: Downstream Leased Assets is excluded from FY2024 inventory, as we do not own any leased assets that we lease to other businesses.

Scope 3 Category 14: Franchises is excluded from FY2024 inventory, as we do not operate franchises.

Scope 3 Category 15: Investments is excluded from FY2024 inventory, as we do not have any investments whereby, we provide capital or offer financing as a service.