



 **KAO DATA**

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT FY2023-24

About this report

This report is the second ESG report from Kao Data covering the financial year 2023-24. It represents the sustainability information available to us at the time of publication. The report has been prepared in line with the Sustainability Accounting Standards Board (SASB) sustainability reporting metrics, as shown in the appendix tables 'Metrics and Targets' and throughout the report.

This report is also aligned to the United Nations Sustainable Development Goals (SDGs), and also aims to demonstrate our approach and progress against the 'Global

Real Estate Sustainability Benchmark' (GRESB) Infrastructure (asset level) standard. The report has been formally reviewed by the Board, and management team in collaboration with the Kao Data Sustainability Working Group, and has been included in our investors' portfolio sustainability reports.

Methods of data collection, emissions sources and calculations have been independently checked and verified by Saltire Sustainability Ltd and as such they have confirmed that the calculations, sources and data handling are suitably transparent, appropriate and tracked.

Navigating this report

For ease of use, we've made our report interactive. You will find our navigation bar (see top of this page) and return-to-Contents arrow button (see bottom left) on most pages. Click them to quickly move around the report. Look out for 'read more' links (**underlined text**), in-text references, page numbers, and footnotes.



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Welcome from our CEO Doug Loewe

For almost a decade, Kao Data has established an enviable reputation as a pioneer within the fields of AI and high performance computing (HPC), and the company's award-winning infrastructure, technical and operations teams are already trusted to host some of the industry's most demanding, mission critical compute environments.

Kao Data has enjoyed some key milestones in 2023-24. The year saw Kao Data establish a new capital structure from its shareholders Infracore Ltd, Legal and General Capital, and Goldacre Noé Group, with an investment of £350M into a new, industrial-scale data centre in Greater Manchester. In November 2023, Kao Data also announced that its KLON-02 data centre was fully operational, reinforcing its Harlow campus as one of the UK's preeminent locations for GPU-powered AI and advanced workloads. More broadly, the dominance of AI developments in every sector has further underlined the crucial role of hyperscale data centres to a fully functioning economy and for supporting our everyday lives.

As workloads grow its also increasingly clear that powering these workloads in a clean and green way is a moving target and a huge challenge for the industry.

Sustainability has indeed been an integral driver for the business since Kao Data was founded in 2014, and has become an increasingly important aspect to data centre deployments for all customers. That's why we are signatories of the Climate Neutral Data Centre Pact (CNDP) which is helping us toward making a net zero business a reality at Kao Data.

At Kao Data, we are very aware that our industry needs to fulfil its role in an equitable and climate conscious way. Kao Data is committed to making a positive contribution to our staff, the communities in-and-around our facilities, and of course society at large. Our approach is formalised in 'The Kao Way', which outlines our values and business principles that we believe can help us 'do the right thing' for all our stakeholders.

This ESG report, being our second, aims to show how Kao Data is building a more resilient, sustainable, and successful business for all its stakeholders. We continue to map our progress against the United Nations Sustainable Development Goals (UN SDG's) to best communicate our impact. Thank you for reading this report, and your interest in Kao Data. Should you need any further information or have any questions, please do not hesitate to get in contact with our team.



Doug Loewe
Doug Loewe
CEO







Introduction

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Introduction to Kao Data

Kao Data leads the industry, pioneering the development and operation of data centres engineered for AI and advanced computing. With hyperscale-inspired facilities east and west of London, and northern England’s largest data centre planned for Greater Manchester, we are home to technology’s most demanding computing infrastructure.

Our award-winning, NVIDIA DGX-Ready certified data centres are designed, engineered and operated by one of the industry’s most respected teams. Together, this provides colocation customers deploying mission critical AI, enterprise and cloud workloads with a secure, scalable and sustainable compute environment, backed by a guarantee of 100% uptime. Kao Data’s data centre portfolio includes more than 160MW of IT-load either currently operational, under development or planned – all of which is under-pinned by the highest energy efficiency, sustainability and ESG credentials.

Backed by leading international investors, and with several pioneering ‘industry firsts’ to our name, Kao Data represents the future in industrial scale, high-capacity data centres for AI and the next generation of compute.

- ✓ **Infrastructure** Technically advanced data centres designed and engineered for AI and next generation computing.
- ✓ **Operations** World class operations management, providing secure and resilient environments delivered at maximum reliability.
- ✓ **Efficiency** Optimised, efficient and sustainable architecture ensuring low TCO and low carbon colocation.



Our sustainability vision: climate-conscious computing

In 2023-24, the exponential rise of AI, cloud computing and global workloads continued to demonstrate the increasing importance of industrial scale data centres. However, while data may be virtual, data consumption creates real climate impacts. As an early signatory to the cross operator Climate Neutral Data Centre Pact (CNDCP) in early 2021, Kao Data is on track to achieve Net Zero operations by 2030, helping us deliver on our mission to provide 'Climate-conscious computing' to our customers, investors and the communities around us.

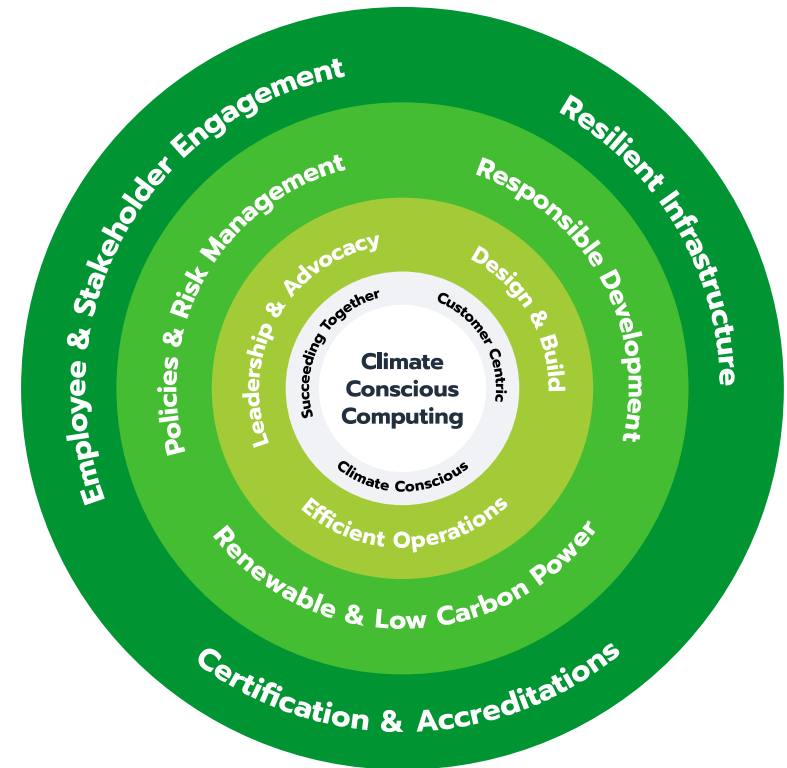
Customer-centric

By fully committing to reducing the climate impact of our business, we enable our customers to do the same. Kao Data continues to set ambitious and pioneering benchmarks for the data centre

industry, actively engaging with our customers to enable customised and optimised sustainability performance and resilience. We measure our sustainability performance and climate related progress across three strategic sustainability pillars: Design and build, Efficient operations, and Industry leadership and advocacy.

Succeed together

At Kao Data we are committed to engaging our people and stakeholders in co-creating fairer, more sustainable futures where we can all 'succeed together'. Following 'The Kao Way', we aim to be a catalyst for growing and attracting the diverse tech talent of tomorrow. Our committing to hiring and nurturing diverse talent helps our teams make better, more balanced decisions for resilient, long-term and customer success.



“

At Kao Data we've long held the belief that data centres can be a catalyst for net zero ambitions, and since our company's inception we have ensured that sustainability has remained at the heart of our decision-making.

MATTHEW HARRIS | CFO, KAO DATA



Our strategic pillars

Design and build

As an award-winning designer, builder and operator of sustainable data centres, we are committed to providing highest calibre infrastructure, and ensuring responsible development that is both climate resilient, customer centric and informed by stakeholder engagement. We work to 'considerate construction' principles, and are compliant with the rigorous Open Compute Project (OCP) Ready standards. We also utilise the BREEAM assessment method for all our development. This is so we can measure every aspect of built sustainability, from energy use, to biodiversity to health and wellbeing, and social sustainability impacts. From the ground-up, sustainability is built into our data centres and their operation.

🔗 **Read more: [Our sustainable, resilient facilities](#) and [Our work with the OCP](#)**

Efficient operations

Kao Data's operational teams manage highly efficient and sustainably powered data centres. Kao Data is committed to leading our industry toward a more sustainable future, to achieving net zero operations by 2030, and advocating for the technologies and solutions that can help us achieve this as demonstrated by our pioneering use of HVO fuel for back-up energy generation. Kao Data's facilities already provide a robust, resilient, and reliable environment to house mission-critical compute systems. To ensure these workloads remain uptime, all of the time, and provide a low total cost of operations (TCO) for our customers, Kao Data also engage with many stakeholders in supporting the development of environmental and sustainability impact frameworks for the data centre industry, among other activities.

🔗 **Read more: [Energy and Emissions](#)**

Industry leadership and advocacy

Kao Data's senior management team is at the 'leading edge' of data centre technical design philosophy, having played key roles at industry leading data centre providers, Fortune 500 corporations and publicly traded REIT's including CBRE, Digital Realty Trust, Interxion, Verne Global and Virtus. Driven by a cycle of continuous improvement, we advocate for sustainability best practice within our industry so we can 'Succeed together'. Kao Data engages with the Infrastructure Masons, Open Compute, ASHRAE, the Uptime Institute, techUK, the Climate Neutral Data Centre Pact (CNDCP), the European Data Centre Association and many other partner organisations. Kao Data also has a program of annual awareness focused community engagements with local schools, colleges, science centres and apprenticeship schemes to help nurture the diverse tech talent of tomorrow and promote the increasing vital role data centres play in underpinning our digital lives.

🔗 **Read more: [Social Sustainability](#)**



Identifying and managing our material issues

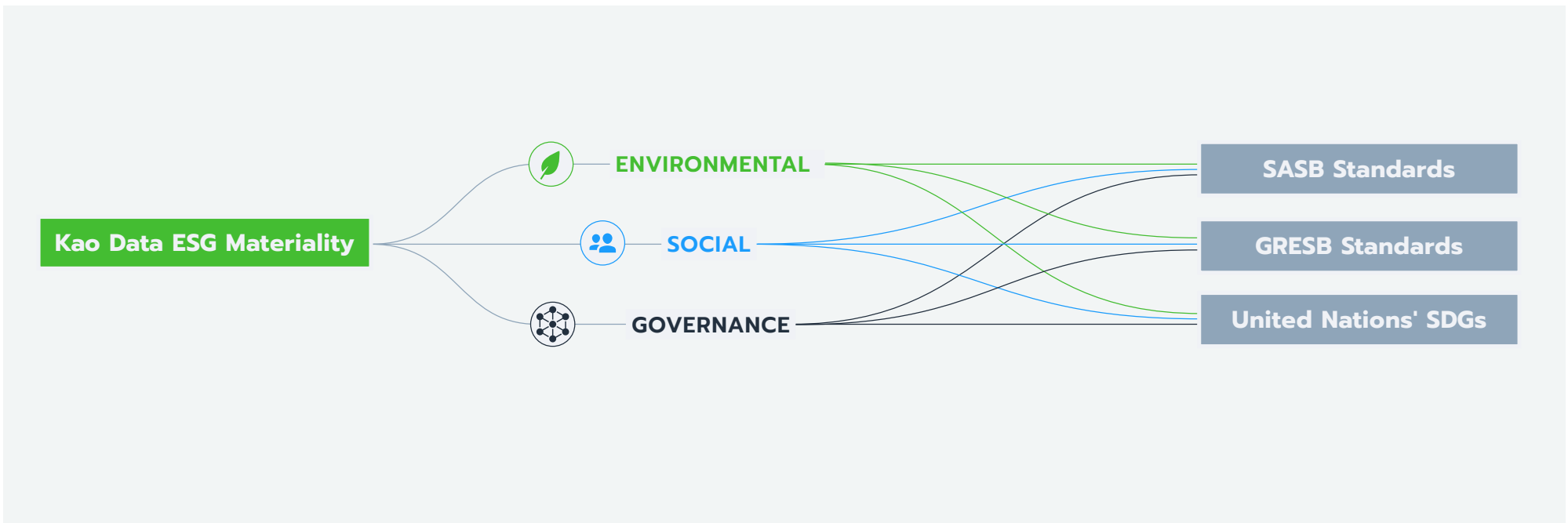
The structure of this ESG report is informed by a 2023-24 ESG materiality assessment, conducted by an independent consultancy. This work enabled Kao Data to further hone its sustainability strategy, and continues to ensure we remain accountable to our stakeholders, tackle the most pertinent sustainability challenges, and create an even better company in the years ahead.

The materiality assessment gathered insights from internal and external stakeholders to determine and clarify our material ESG issues. In this report, material issues (mapped to the SASB reporting standards) are covered in the Environmental, Social and Governance sections of this report respectively.

We have also mapped our material issues to the United Nations Sustainable Development Goals throughout this report.

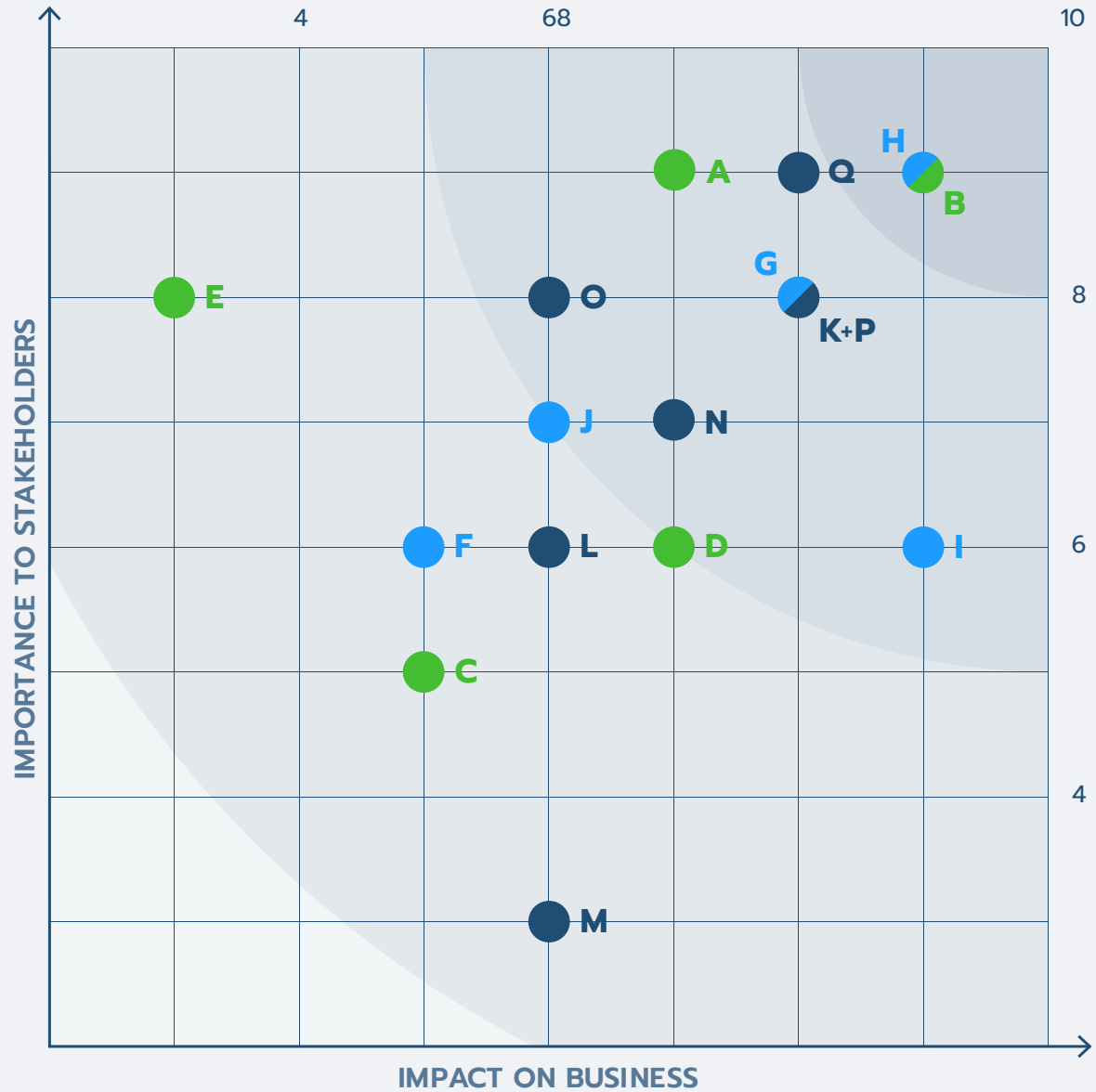
In 2023 and going forward, we have also aligned our ESG reporting to the GRESB Infrastructure (asset level) assessment indicators. You can see these indicators mapped against our material issues in the section data tables within this report.

This is to demonstrate our commitment to sustainable infrastructure, and GRESB excellence, a key focus of Infratil, our majority investor.



Materiality matrix

- Planet (Environmental)**
 - A GHG Emissions
 - B Energy Management
 - C Water and Wastewater Management
 - D Waste and Hazardous Materials Management
 - E Ecological Impacts
- People (Social)**
 - F Human Rights and Community Relations
 - G Customer Privacy
 - H Data Security
 - I Employee Health and Safety
 - J Employee Engagement, Diversity and Inclusion
- Prosperity (Governance)**
 - K Product Design and Lifecycle Management
 - L Supply Chain Management
 - M Materials Sourcing and Efficiency
 - N Physical Impacts of Climate Change
 - O Business Ethics
 - P Management of the Legal and Regulatory Environment
 - Q Systemic Risk Management








Sustainable Development Goals alignment

On the following pages we have mapped Kao Data’s sustainability alignment with the United Nations Sustainable Development Goals (SDGs).


This includes how we align to specific SDG indicators and targets. Kao Data has identified nine Primary SDGs that we can best tackle, either as a business (via strategic pillars 1 and 2), or through advocacy (strategic pillar 3).

These SDGs are arranged below for environment, social and governance relevance. For example, the five primary ‘Environment’ SDGs chosen correspond to those identified by JLL’s Data Centre Sustainability Scorecard as most relevant to data centres. For social and governance sustainability we have included our primary SDGs that we believe we can best impact and quantify. In the section tables of this report we have also included our alignment to what we deem ‘secondary’ SDGs. These are SDGs Kao Data can engage with, but for which we have little influence upon.



PRIMARY ENVIRONMENT SDG TACKLED	SDG INDICATOR	SDG TARGET	WHERE IN THIS REPORT?	KAO DATA TARGET
 6. Clean Water and Sanitation: Ensure access to water and sanitation for all	6.4.1: Change in water-use efficiency over time	6.4: By 2030, substantially increase water-use efficiency across all sectors	Environment-Water	Continually increase WUE
 7. Affordable and Clean Energy: Ensure access to affordable, reliable sustainable and modern energy for all	7.2.1: Renewable energy share in the total final energy consumption	7.2: By 2030, increase substantially the share of renewable energy in the global energy mix	Environment-Energy and Emissions	100% renewably sourced electricity at all sites
	7.3.1: Energy intensity measured in terms of primary energy and GDP	7.3: By 2030, double the global rate of improvement in energy efficiency	Environment-Energy and Emissions	All operational efficiency objectives and activities
 9. Industry Innovation and Infrastructure: Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation	9.4.1: CO2 emissions per unit of value added	9.4: By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities	Environment-Energy and Emissions /Environment-Creating a sustainable campus/ Social-Stakeholder Engagement/ Social-DEandI / Social- Our Customers	Net zero by 2030 across our business / Set Science Based Targets in 2024
 12. Responsible Consumption and Production: Ensure sustainable consumption and production patterns	12.6.1: Number of companies publishing sustainability reports	12.6: Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle	Environment-Energy and Emissions / Environment-Waste and Circularity	Publish annual sustainability report (This ESG report) / Increase engagement activities with supply/value chain partners
	12.8.1: Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment	12.8: Promote universal understanding of sustainable lifestyles	Introduction-Our Strategy-Strategic Pillar 3 / Social: Stakeholders	Expand Stakeholder engagements and strengthen existing partnerships/Outreach programs
 13. Climate Action: Take urgent action to combat climate change and its impacts	13.2.2: Total greenhouse gas emissions per year	13.2: By 2030 integrate climate change measures into national policies, strategies and planning	Environment - All pages	Increase CUE and PUE in line with CNDCP targets, and maintain REF of 100% / Work on improving performance against all 5 CNDCP Metrics



PRIMARY SOCIAL SDG TACKLED	SDG INDICATOR	SDG TARGET	WHERE IN THIS REPORT?	KAO DATA TARGET
 5. Gender Equality: Achieve gender equality and empower all women and girls	5.1.1: Whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex	5.1: By 2030 end all forms of discrimination against all women and girls everywhere	Social-DEandI / Social-Stakeholder engagement	Attract more female talent through HR Practices and stakeholder engagement activities
	5.5.2: Proportion of women in managerial positions	5.5: By 2030 ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life	Social-Attracting and retaining talent	Increase number of female students reached via Kao Academy, and other engagements
 13. Climate Action: Take urgent action to combat climate change and its impacts	8.8.1: Fatal and non-fatal occupational injuries per 100,000 workers, by sex and migrant status	8.8: Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment	Social- Health and Safety	LTIFR of 0 / Maintain and exceed all relevant ISO certifications and other compliance standards
PRIMARY GOVERNANCE SDG TACKLED	SDG INDICATOR	SDG TARGET	WHERE IN THIS REPORT?	KAO DATA TARGET
 16. Peace, justice and strong institutions: Promote just, peaceful and inclusive societies	16.7.2: Proportion of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group	16.7: Ensure responsive, inclusive, participatory and representative decision-making at all levels” by 2030	Social-DEandI / Governance-Governance Oversight	Enhance our hiring approach to make the most of diverse talent. Encourage flexible accessible working where needed
 17. Partnerships for Goals: Revitalize the global partnership for sustainable development	17.16.1: Number of countries reporting progress in multi-stakeholder development effectiveness monitoring frameworks that support the achievement of the Sustainable Development Goals	17.16: Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries” by 2030	Introduction-Strategic pillar 3 / Social-Stakeholder engagement/ Governance-Strong investor partners	Continue to influence the data centre industry through our leadership and advocacy efforts. Work with more suppliers on sustainability related value chain objectives

Sustainable performance: primary metrics

To better measure sustainability related performance, Kao Data has identified 11 primary metrics to focus upon through to 2030. These are shown in the table opposite.

The section tables within this report further map Kao Data’s progress against its material issues as identified by our SDG/SASB driven materiality assessment in 2022. The section tables throughout this report show our progress year-on-year against both our primary and secondary metrics via a traffic light system. Red is for metrics we must improve

upon, amber is for things we are doing fairly well, and green is for areas where we are performing above expectations.












In terms of targets, this is an area currently under review, though we have included some business targets in this report. For instance, our primary metrics for environmental sustainability fully align with the metrics identified by the Climate Neutral Data Centre Pact (CNDCP). These five metrics are the essential levers for reaching net zero by 2030. You can also find these metrics in bold in the

‘Environmental Sustainability’ table/section of the report.

Kao Data plans to develop science based targets in 2024-25, so we can further accelerate sustainability performance, and better align our business to targeted climate action and enhanced stakeholder engagement.

Read more: [CNDCP](#)



PRIMARY KPIS/METRIC	CNDPCP ALIGNED TARGETS	2030 / INTERIM TARGETS	PERFORMANCE*	ENTITY PERFORMANCE FY2023-24
 Power Usage Effectiveness / (PUE)	By January 1, 2025 new data centres operating at full capacity in cool climates will meet an annual PUE target of 1.3	Net zero by 2030	Exceeding	1.57 (Across all our facilities and buildings. Our Technology suites are already delivering a PUE of 1.2)
 Renewable Energy Factor /(REF) (%) CUE	Data centre electricity demand will be matched by 75% renewable energy or hourly carbon-free energy by December 31, 2025 and 100% by December 31, 2030	Net zero by 2030	Exceeding	REF 100% /CUE 0 (Market based- Scope 2 emissions at zero, offset by REGO with Shell)
 GHG Emissions Total/ MTCO2e	Net zero by 2030	Net zero by 2030	Lagging	Currently creating interim targets to be reported in 2024-25. Scope 3 offsetting will also be investigated while we look to ways to create actual entity related reductions
 Waste and Circularity/Total waste disposed (tonnes)	No specific target (assumed any waste minimisation target, especially for E-waste)	Recycle 5.0t/CO2e	Lagging	Working with our waste partner Greenline to understand our waste footprint. We include site by site data for 2023 in appendix table. K-LON05 and K-LON06 data also includes customer waste. Our current waste ratio is 3.26t/CO2e
 Waste and Circularity / Total waste recycled (%)	EDE (Electronics Disposal Efficiency: Data centres will set a high bar for circular economy practices and will assess for reuse, repair, or recycling 100% of their used server equipment. Data centre operators will increase the quantity of server materials repaired or reused and will create a target percentage for repair and reuse by 2025	100% waste recycled by 2030 / Reduce absolute waste by 20% by 2025	Meeting	100% waste diverted from landfill, re-used or recycled, via waste partner (Greenline). This includes waste burnt for green energy (standard practice for all providers)
 Sustainable water use/ Water usage effectiveness (WUE)	By 2022, data centre operators will set an annual target for water usage effectiveness (WUE), or another water conservation metric, which will be met by new data centres by 2025, and by existing data centres by 2030	Continually improve WUE YoY	Lagging: All sites are chosen for low water stress, however we have not yet set a target for improving our WUE	0.41 (average across estate, see site breakdown appendix table)
 Health and Safety (employees) / LTIFR	NA	Maintain LTIFR of 0	Meeting	0 (reporting monthly to our investors)
 Employee Satisfaction	NA	Improve Employee satisfaction	Meeting	We closely monitor employee satisfaction via direct engagement. We will report figures using new engagement portal from 2024-25 onwards
 Customers / NPS	NA	Improve Customer NPS yearly	Meeting	
 Stakeholder engagement / No engagements in 2023	NA	Continue actively engaging with a wide range of stakeholders within local communities	Meeting	See stakeholder engagement tables in this report
 ESG related awareness training / ESG training	NA	Increase ESG training to 100% of all employees and managers by 2025	Meeting	100%/20%

* Exceeding/Meeting/Lagging CNDPCP aligned Targets + all targets

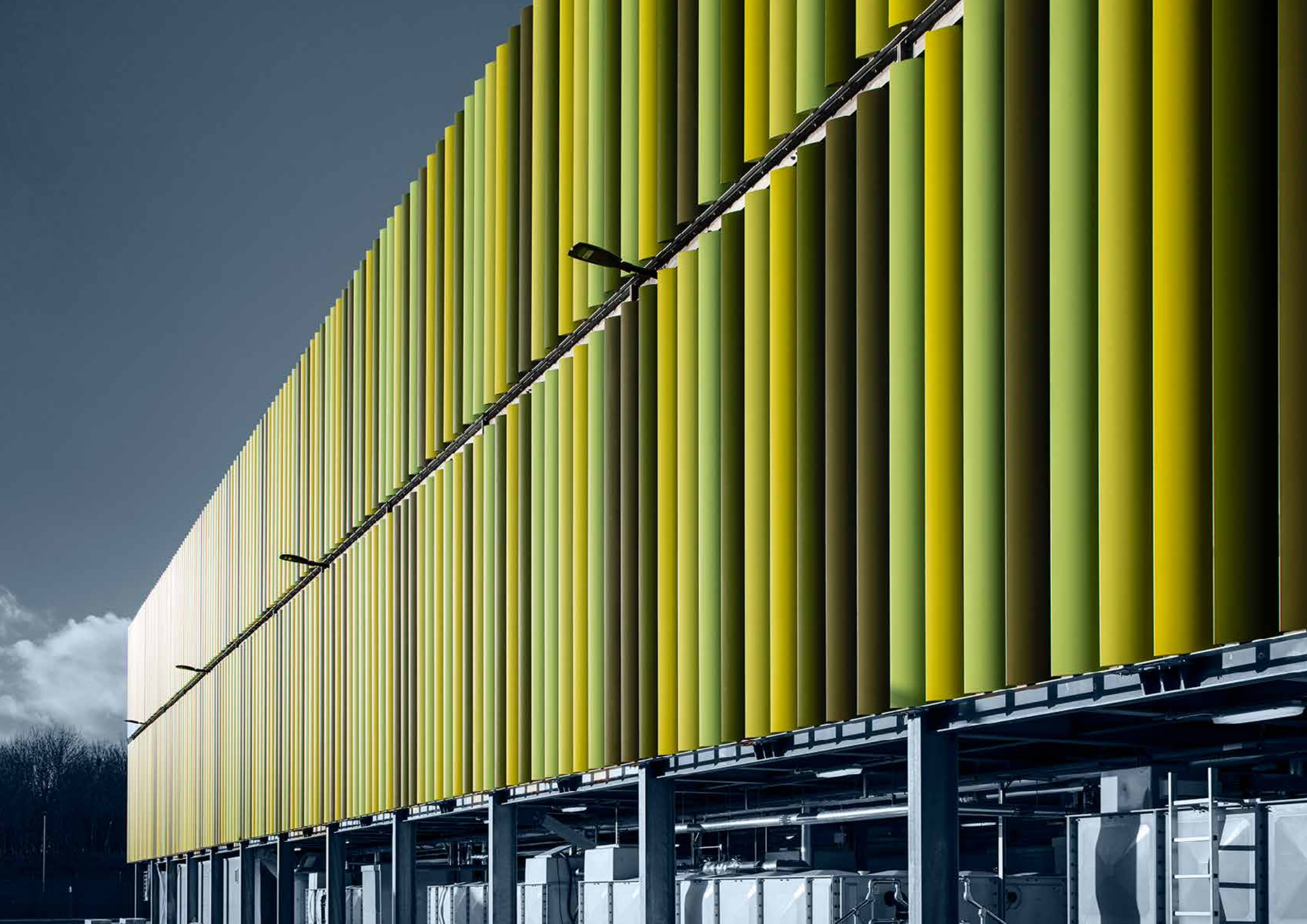




Environment

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Environmental sustainability

At Kao Data we are committed to leading the global data centre industry in energy efficiency and sustainable infrastructure excellence. Our Environmental and Energy Policy includes commitments to reducing environmental impact and lowering carbon emissions through our power use and power procurement.

In addition, we are reducing our reliance on water, and increasing circularity via responsible waste management with a 100% recycling rate via Greenline, our facilities management partner. We are also committed to preserving natural capital by developing on brownfield sites and enhancing biodiversity and ecology at all our locations so we can enable an 'Environment with a future'.



Leadership commitment

Achieve customer centric, climate-conscious computing

Levers

Efficient operations, procuring renewable electricity, and stakeholder engagement for catalysing innovation

Transformational goal

Achieve Net Zero in our business by 2030

Key policies

Environmental and Energy Policy,
Supplier Code of Conduct Policy

Key accreditations

ISO 14001:2015 (Environmental Management Systems) / ISO 50001:2018 (Energy Management)



Creating a sustainable campus

Our Kao Data campus at Harlow was recently rated with Top 10 status for science and research parks in the Cambridge and East of England region, a testament to our customer centric approach, and our mission to provide climate-conscious computing.

At Kao Data we ensure that sustainability is engineered into our data centres, from design, to built form, and throughout their operational lifecycle. Our approach to creating a climate-

conscious campus starts with conducting a site risk assessment to ensure we site all our buildings for maximum physical resiliency, and minimal environmental impact. This includes our commitment to the reuse of brownfield sites for our data centre developments. In fact, the Kao Data campus in Harlow is built on the former 'Nortel Networks' laboratories site, the home of Sir Charles Kao's pioneering discovery of fibre optic cable in 1966, an invention that makes today's data centres possible.



By pushing the boundaries of our original design envelope, and embracing a culture of continuous innovation, KLON-02 sets a new standard for industrial-scale data centres, and one which will directly help our customers reduce the environmental impact of their workloads..

PAUL FINCH | CTO, KAO DATA.



Future-proof facilities

Our Harlow campus consists of a development of four state-of-the-art, OCP-Ready, carrier neutral data centres. KLON-01 (10MW) was completed in 2019 with KLON-02 (10MW) being fully operational since November 2023. Both KLON-01 and KLON-02 are certified BREEAM 'Excellent' for both the design and construction stages, measured against a specific assessment methodology for data centres.

Permits for our other two data centres – KLON-03 and KLON-04 - are in place. When fully completed the 15 acre, +£230m campus will support an ITE load of up to 40MW, across 150,000sq ft of technical space – all powered by 100% renewable energy.

Read more: [About Kao Data](#)





Harlow campus

1

100% sustainable, hydrotreated vegetable oil (HVO) power for back-up generators. This equates to a CO₂ emissions reduction of +80,000 tons per annum, the equivalent of removing +30,000 vehicles from the road.

2

Through expert and efficient design we cool the servers within KLOM-01 via free-air cooling, which reduces our energy usage, lowers our PUE and reduces our environmental impact.

3

SLA-backed industry leading PUE of <1.2.

4

100% renewable energy procurement, backed by REGO and matched at Little Cheyne Court Wind Farm, for our power usage.

5

Wild grass areas maintained to boost biodiversity and ecological benefit.

Manchester: Sustainable infrastructure for a new digital hub

As the UK's leading provider of high-performance colocation, the team at Kao Data have long recognised the benefits that Greater Manchester offers to business and research communities alike. For example, the city's technology ecosystem is projected to add £74.8bn GVA (gross value added) to the UK economy. The region is also an attractive location for enterprise, with access to a highly skilled workforce, readily available renewable energy, and lower operating costs than the London market.

In 2023, Kao Data secured an extensive, 39,000m² ex-industrial site for redevelopment at Kenwood

Point, Stockport, with the aim of establishing a new 40MW data centre. Our new Greater Manchester development represents an investment of £350M, and will follow Kao Data's award-winning design, energy efficiency and sustainability ethos.

Our Manchester campus will be the first of our new next tier locations in Europe, providing much needed sustainable digital infrastructure to the region. In fact, in March 2023, relocation specialist Immigram placed Manchester at the top of its UK Tech Hubs list, naming it Europe's fastest-growing digital city.

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We believe our new facility will set a new standard for sustainable data centres within the region and will provide a piece of foundational infrastructure that supports both Northern England's advanced computing clusters, and the UK Governments' ambitions to become a technological and economic powerhouse for HPC and AI..

SPENCER LAMB | CCO, KAO DATA.



Environmental sustainability

PRIMARY SDGS



SECONDARY SDGS



MATERIAL ISSUES / GRESB INDICATORS	METRICS	2022 FIGURES	FY2023-24 FIGURES	FY2023-24 HIGHLIGHTS
GHG Emissions / GH1, PO2, RM3, RM5.1, RM4.1 RM4.2	GHG Scope 1 emissions	331.23t CO2e	61.45 tonnes CO2e	In 2024, we are exploring the migration of old instratructure sites still running on Diesel to HVO fuel. Risks associated with this transition include refrigerant leak and associated GWP, with amount based on refrigerant type. We are considering an Ethical Offsetting Program to help meet net zero for Scope 1 and 2 by end of 2025
	GHG Scope 2 emissions (location based)	19,516,786.97t CO2e	20,833.94 tonnes CO2e	We will continue to report both Location and Market Based emissions figures. These figures will continue to rise with our new facility and extenstion to exisiting facilities. However our REGO market based Scope 2 emissions will remain at zero
	GHG Scope 1 and 2 combined	19,517,118.20t CO2e	20,895.39 tonnes CO2e	We will continue to assess ways to reduce energy consumption in line with our 2030 net zero target
	Scope 1 and 2 combined (market based)		61.45 tonnes CO2e	Only scope 1 reported here as Kao Data has REGO contracts in place which enable us to report scope 2 emissions as net zero, hence lower market based figure
	GHG Scope 3 emissions	1,790.22t CO2e	1,925.47 tonnes CO2e	Look at increasing scope reporting granularity in line with Sbti. This will involve working with suppliers, potential supplier changes and increasing business travel capture
Energy Management / EN1, RM5.1	Total energy consumed	101.09 GWh	107.75 Gwh	This figure will increase with growth and scalability, but our objective is enhancing efficiency. These efforts include both utility and generators, as well as via new innovations
	Energy intensity	0.00028 MWh/revenue	0.0019 MWh/revenue	
	Renewable Energy	100%	100%	100% renewables via our REGO with Shell providing us with Green Energy. This also ties in with our Wind Farm. In the future we are horizon scanning for other initiatives to support these efforts
	Facilities Power Usage Effectiveness (PUE)	1.63	1.57	We are aiming for a target of 1.50 (>5% reduction) - noting new sites on boarding and ramping up. Note that this PUE aim relates to the facility, while our stated PUE of 1.2 relates to Data Halls. The facility overall figure includes areas outside of data halls, hence its higher value



Environmental sustainability (continued)

MATERIAL ISSUES / GRESB INDICATORS	METRICS	2022 FIGURES	FY2023-24 FIGURES	FY2023-24 HIGHLIGHTS
Waste and Hazardous Materials / WS1, RM2.1	Energy Reuse Factor (ERF)	NA		Waste management contracts in place have 0% to landfill, 100% diversion via Recycling, Reusing, or conversion to Green Energy. We have no IT disposal in 2022, as lifecycle not reached, though we re-use within the business where practicable
	Electronics Disposal Efficiency (EDE)	100%	100%	100% - continue to maintain program
	Total waste disposed	135.55 tonnes (100% diverted from landfill)	153.50 tonnes (100% diverted from landfill)	We allow customer waste in our bins, so this contributes to our waste. With this continuing, this will only increase. As such we would like to see greater segregation of waste. Our efforts will form part of Ethical Offset for Scope 3. We are currently assessing how to better report waste for future reporting
	Total waste diverted from landfill/incineration	100%	100%	100% - continue to maintain program
	Total waste recycled	100%	100%	100% - continue to maintain program
Water and Waste Water Management / WT1, WT2, RC7	Water Usage Effectiveness (WUE)	0.41	0.27	Our infrastructure utilises adiabatic design, so use of water for assistance in cooling. The figure stated is the average across the estate, with build out at K-LON-02 and K-LON-06 this will increase in 2024, we are currently in alignment with EUDCA - CNDCP
	Potable water consumed	13,169,100 litres	18,203,500 litres	Consumption will increase as utilisation of sites increases and additional sites come on stream (eg Harlow). We will assess industry best practice in 2024-25 to maintain alignment with best practice. Living wall decommissioned whilst K-LON-06 is being developed.
	Water recycled/harvested	0	0	We do not currently capture rain water, and as water is used in adiabatic cooling, there are losses to spraying, as well as the need to refresh water used as efficiency for heat extraction decreases over time.
Biodiversity and Ecological impacts / B11	BREEAM Certifications	100% certified	100% BREEAM Certified.	We have ongoing partnership with British Bee Charity. Biodiveristy areas at Harlow campus, plus rebuilt areas behind Northolt and biodiversity areas in Slough. We will seek new ways to work with charities like the British Bee Charity and expand our impact via these partnerships. This may include tree planting and other ecological measures in the future.



Energy and emissions

Our approach

Our approach to reducing our energy use and emissions is to ensure that our data centres are intricately designed to drive operational and energy efficiency, no matter the type of deployment. Kao Data offers hyperscale levels of power and cooling efficiency, from rack level to full occupancy, all powered by 100% renewable power, a key differentiator for our customers.

Pillar 1 - Design and build

Through sustainable siting, design and construction we are committed to taking a lifecycle approach to sustainable data centre design by sourcing sustainable, low embodied energy materials and equipment. Our commitment to sustainable development is evidenced by our Environment and Energy Policy and Supplier Code of Conduct Policy which includes sustainability requirements for all our buildings and services.

Pillar 2 - Efficient operations

At Kao Data, 'efficient operations' means consuming fewer resources for any given task, and where we must consume resources, ensuring they are procured sustainably. This includes our commitment to procuring 100% renewable electricity. Efficiency affects every aspect of our data centres, from our commitment to use less water, to our commitment to produce less waste and create more circular energy systems for a lower power usage effectiveness (PUE).

structure and operations of our facilities.

This includes being the first wholesale colocation data centre operator in the UK to incorporate facility-wide free-air cooling.

At Kao Data, we are helping our customers tackle their own Scope 3 emissions, reinforcing the fact that our digital infrastructure meets the demands for a reduced carbon footprint while maintaining industry-leading uptime.

Energy and GHG emissions

Our progress

All new Kao Data constructions are built to BREEAM 'Excellent' rating, and any existing facilities we take ownership of are redeveloped to an equivalent level. Our environmental sustainability progress has included a number of technical design and engineering 'firsts' that were incorporated into the

Powering customer innovation

Compute deployments within our facilities include life-saving work around vaccine research and genetics, research into new drug discoveries and the continued development of artificial intelligence frameworks across financial services and risk analysis. Kao Data also house industrial scale cloud and e-commerce deployments that facilitate many of the services people use every day.



Progress highlights

PUE (Power usage effectiveness): By ensuring best-in-class power and cooling efficiency, Kao Data achieves an industry leading Power Usage Effectiveness (PUE) ratio, of < 1.2, even at partial loads. Power efficiency is one of the main levers for achieving climate conscious, customer centric computing. As part of a continual program of improvement at all our sites, we continue to carefully monitor our data centres' PUE, to ensure our customers' workloads are being powered and cooled as efficiently as possible, thus using as little energy as possible.

OCP Ready: Kao Data is proud to be the first operator outside of the United States to achieve OCP Ready status, as set by the Open Compute Project (OCP). This was for our pioneering KLON-01 facility in Harlow, just north of London. OCP-Ready sets the benchmark for industrial scale computing providing the most efficient and sustainable hosting environments within the industry.

Digital Twins technology: Utilising Digital Twins technology, to identify inefficient 'hotspots' within our Technology Suites. This is helping us ramp

up the efficiency of our data centres even further by better understanding sustainability at every operational scale.

Renewable energy: Since Kao Data went operational in 2018, we have procured 100% renewable electricity, backed by REGO certification, to match our current and forecasted usage.

Smart working: We currently promote public transport where possible, have introduced cycle to work schemes, are exploring hybrid and electric vehicles schemes in partnership with Octopus EV, and keep business flights to a minimum by using remote meetings. To achieve a net zero business by 2030, Kao Data must get serious about the environmental impact of our employees and that of our value chain. Succeeding together really is a collective effort. We are currently assessing additional ways to reduce and offset the remaining emissions in our business such as through sustainable commuting and offering remote working.



HVO backup fuel

In 2021 becoming the first data centre operator in Europe to transition our back-up generators from diesel fuel to 100% renewable HVO (hydrotreated vegetable oil) fuel. This move enabled us to eliminate up to 90% of the net CO2 from our generators and significantly reduced our nitrogen oxide, particulate matter and carbon monoxide emissions.



Efficient operations: the road to net zero

The following pages cover progress against the following topics of operational excellence, power efficiency, renewable energy, and back-up power. These are areas of intense focus at Kao Data as they are crucial levers for delivering climate-conscious computing for our customers through our 'Efficient Operations' strategic pillar. They are also the key inputs on our road to achieving a Net Zero business by 2030.

Operational excellence

In line with our sustainability vision and policy commitments, Kao Data's data centres comply with the hosting requirements of the Met Office's Supercomputing 2020+ Programme, which sets high standards for sustainability, climate resiliency, risk management and energy efficiency. Our facilities were also the first OCP Ready Data centres in the UK. Our Integrated Management System sets clear and ambitious commitments for energy efficiency, environmental management, and emissions reduction. This is aligned with our and ISO5001 and ISO14001 international standards certification for energy and environmental management for data centres. Read more: [Our work with OCP.](#)

Power efficiency

One of the most common metrics used to measure performance within the data centre environment is PUE (Power Usage Effectiveness). PUE determines the effectiveness of a data centre by dividing the total amount of power consumed by the facility by the power used to run the IT equipment within it. This is expressed as a ratio with the ideal target of 1.0. A PUE of 1.0 means all the power consumed by the facility was used by IT equipment. Of course, this is unrealistic as cooling, lighting, power transmission losses, and other miscellaneous services also require power which raises that figure of 1.0 northwards. Switching your compute from the industry average PUE of 1.58, to 1.2 could save around 25% on your energy utilisation cost. Through innovative design, energy efficient infrastructure and technical operational excellence Kao Data runs our new 'Kao design' facilities at a PUE of 1.2, while our redeveloped facilities – KLON-05 and KLON-06 – run at a PUE of 1.25⁴. Operating a low PUE across our facilities means we are utilising less energy to run our customers' IT hardware. This is a benefit to them as it reduces their TCO and reduces the amount of power required from the utility grid.

🔗 Read more: [Power efficiency whitepaper](#)

⁴ This already low figure drops to 1.15 at 50% load, 1.16 at 75% and 1.23 at full IT utilisation. Furthermore, these values were achieved using air-to-air heat exchange technologies which are less efficient from a heat transfer perspective compared to water-to-water.)

Renewable energy

Kao Data is committed to the use of natural resources within our operations. To help our customers fully address their own Scope 3 emissions, Kao Data is first and foremost committed to ensuring we purchase all energy/fuel responsibly, with a commitment to procuring 100% renewable electricity for all Kao Data facilities, on a cost neutral (passover) basis for customers. This achievement takes our market-based carbon emissions to zero.

Using our Harlow campus as an example, when fully operational and operating at full load (43.5MVA), our renewable energy contracts will reduce the campus's CO₂ emissions by +80,000 tons per annum, the equivalent of removing +30,000 vehicles from the road. In addition, our goal is to improve on the annualised 100% renewable energy target in the next 2 to 3 years by seeking local Power Purchase Agreements (PPAs) driven by wind or solar (PV) directly connected to the facility, dedicated to our needs. It is envisaged that whilst this may form a percentage of our total consumption, a grid connection with a 100% REGO contract will also be required.

🔗 Read more: [Our sustainability commitments](#)





Little Cheyne Court wind farm

Through unique collaboration with our energy provider all the renewable energy we use is now associated with a known source - Little Cheyne Court wind farm in Kent. Every electron of energy Kao Data consumes is matched by an equivalent capacity generated by this specific wind farm. While we are still using the REGO certificated system, we're removing the uncertainty as to the source and validity of this green energy, by ensuring our power is matched by genuine, renewable energy - generated here in the UK, at this wind farm. This also provides certainty to the market, and incentivises continued development of renewable assets, by providing a committed, long-term demand for the wind farm.

Resilient back-up power: HVO fuel

All data centres, especially those operating to Uptime Institute Tier 3 equivalence and above, must plan and prepare against a loss of utility power and mitigate against this risk by installing on-site back-up power generation.

Yet, the vast majority of UK data centres are still backed-up with fossil fuel, mineral diesel generators. That's why in 2021 Kao Data partnered with Crown Oil to become the UK's first data centre to transition towards all back-up generators from diesel to hydrotreated vegetable oil (HVO) fuel, eliminating the need for diesel fossil fuel at our facilities.

Kao Data has replaced an initial 45,000 litres of diesel at our Harlow campus and will eventually switch to an HVO provision of more than 750,000 litres, when the campus is fully developed. Kao Data will eliminate up to 90% of net CO₂ from its backup generators following this move.

This achievement demonstrates the potential for operators globally to further reduce their CO₂ emissions in the pursuit of net zero operations.



Pioneering the use of HVO in place of diesel fuel for our generators is a key step toward achieving our goal of being a net zero business by 2030. It also enables our customers to reduce their own Scope 3 emissions, and is just one example of our leadership in the international data centre sustainability field.

PAUL FINCH | CTO, KAO DATA.



Eliminating emissions: As a clean, renewable diesel alternative, HVO fuel eliminates up to 90% of net CO₂, therefore significantly reducing harmful greenhouse gases, including nitrogen oxide, particulate matter and carbon monoxide emissions. Using HVO also offers a number of additional benefits in respect of infrastructure reliability, and resiliency. It is easier to store and maintain, free from aromatics, sulphur, and metals, odourless and completely biodegradable. (📄 [Read more: HVO whitepaper](#))



Waste and circularity

Waste

Our approach

Kao Data is committed to reducing the waste footprint of our value chain through sustainable procurement, minimising packaging, and running recycling initiatives at all our sites.

The Climate Neutral Data Centre Pact highlights the need to reuse, repair and recycle all used server equipment, which we do where possible, partnering with externals schemes when required. We donate redundant IT infrastructure to charity or to other local authority programs and encourage customers to adopt the EU’s Waste Electrical and Electronic Equipment Regulation designating responsible collection and recycling of electronic waste.

Our Progress

In 2023-24, we continued to assess our waste footprint, engaging our Facilities Manager, Greenline, to enable a more proactive and granular approach to our waste. This is so we can tackle

the areas that will create the most positive impact. We already actively engage with our suppliers and contractors around waste management and the adoption of circular waste systems in line with our ISO14001 certification.



Water efficiency

Our approach

The Climate Neutral Data Centre Pact, (CNDCP), of which Kao Data is a signatory, sets out clear commitments to curb water usage, challenging the data centre industry to reach zero water use by 2030. Part of this commitment is to measure water use with a Water Usage Effectiveness Ratio (WUE).

At Kao Data we aim to reduce our water consumption wherever possible. Through superior design and efficient infrastructure, we are able to operate our data centres using predominantly free-air cooling. This reduces our water usage significantly. Though we do not site our data centres in areas of water stress, water use is an industry wide issue, and as an industry advocate for sustainability it is important we set a best-in-class benchmark.

Our progress

In 2022 we started to reuse some of our water for our Living Wall at our Northolt site (temporarily decommissioned until K-LON-06 complete). We are fully committed to further lowering water usage and recycling water where we can, through utilising more efficient cooling systems, with the support of our staff and the expertise of our technology partners.

In 2024 we aim to assess our sites to identify areas where we could use less water or recycle it more effectively to create circular systems.







Cooling off: Optimised environments

With servers generating heat all day long, data centres need sustainable, energy efficient cooling. Yet, cooling systems are among the most energy and water intensive systems in most data centres. Cooling alone accounts for approximately 30% of power usage within many facilities.

The cooling infrastructure at Kao Data meets the stringent ASHRAE TC 9.9 environmental guidelines, and our facilities utilise Schneider Electric's EcoStruxure tool that uses multiple sensors in our data centres to help us continually improve power and cooling efficiency. It provides an ultra-efficient, sustainable, exceptionally reliable distributed and redundant indirect air-cooling system. The system units utilise water sprays only at peak temperatures, above 24°C. Overall, this all means compared to a chilled water scheme it is much less water intensive, representing a step-change in HPC infrastructure sustainability. It's how we offer a cooling model with higher degree of reliability and hence availability, to drive a more stable Technology Suite environment.



NVIDIA: Customer centric computing

NVIDIA is the global technology leader for AI, GPU-powered computing, and high-performance computing. Back in 2021, it selected Kao Data because of our world class architecture, industry-leading operating efficiencies, and our team's experience in building industrial scale colocation. NVIDIA was able to customise Kao Data's power and cooling infrastructure to easily accommodate a DGX A100 SuperPOD deployment. The deployment ranked as the world's top five most energy-efficient supercomputers on the Green500 list, being both efficiently cooled and powered by renewable energy. This project saw Kao Data, in collaboration with NVIDIA, named '**Data Centre Operations Team of the Year**' at the DCD Global Awards.

Biodiversity and natural capital

Our approach

Kao Data values natural capital as an essential resource for ensuring the sustainability of our planet, and our business. Biodiversity and ecological enhancements are key weapons in the fight against climate change, yet biodiversity is a commonly neglected aspect of sustainability in the data centre industry. Data centres occupy large areas of land, and this can disrupt ecosystems, accelerating species loss. The UK's biodiversity offset scheme is starting to help halt this decline, but we know that as a business we can do much more to tackle these issues, other than just offsetting.

Our progress

As part of our approach to responsible development, the BREEAM assessment methodology requires our sites to address biodiversity and ecology aspects in our campus. We have outlined areas of our Harlow campus that are to remain 'wild grass' areas to help encourage biodiversity. We also plan to install beehives on the campus in partnership with the British Bee Charity, using

our sites as a weapon against biodiversity decline. Our approach to biodiversity is a testament to Kao Data's holistic and practical approach to ensuring 'an environment with a future'.



The British Bee Charity

The British Bee Charity raises funds and promotes initiatives to help the welfare of bees. With an array of fundraising events and volunteer projects, the charity partners with numerous organisations to make the world and our environment a better place. Bees are a vital weapon in the fight against biodiversity loss as they are busy pollinators. That's why Kao Data is partnering with the British Bee Charity by adopting a hive at our Harlow site across 2024-25. This is just one way we will be helping improve the biodiversity of our site in a practical and simple way.



Social

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Everyone Loves a Journey...



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Social sustainability

Kao Data understands that long term business success is only achievable when we make social sustainability progress. This approach was first evidenced by our award-winning CSR-strategy in 2019, which included firm commitments on responsible resourcing, ethical business and recruiting and developing diverse tech talent.

Kao Data is also aware of the part all our stakeholders can play in minimising the impact of our industry on the environment, and providing a sustainable, more equitable future for all. That's why our stakeholder engagement strategy, driven by our core values and operating principles, empowers our customers, employees and partners to get involved with our sustainability work.



Leadership commitment

'Succeed together' by harnessing and growing a diverse future-fit workforce

Levers

The Kao Way: Stakeholder engagement; Customer engagement; Employee engagement & Training

Transformational goal

Confirming in 2025

Key policies

Health and Safety Policy, Supplier Code of Conduct Policy

Key accreditations

ISO 45001:2018 (Occupational Health and Safety Management)



Social sustainability

PRIMARY SDGS



SECONDARY SDGS



MATERIAL ISSUES / GRESB INDICATORS	METRICS	2022 FIGURES	FY2023-24 FIGURES	FY2023-24 HIGHLIGHTS
Human Rights and community relations / PO2, RP2.1, RM2.2, SE3.1, SE3.2	Maintaining the work of the Kao Academy and other STEM initiatives	KPI needed	UTC, Kao Data Academy and other STEM related activities	
	Training (awareness) Employees	100%	100%	We will continue on-going program
	Training (ESG) Employees	20%	40%	We aim to enable similar year-on-year growth as 2022, with efforts covered informally via induction. Currently we do not have a specific training module on ESG but we will continue to embed these topics within existing training over the next 12 months
	Management	0%	20%	We will continue integrating ESG into our training to ensure greater awareness among all managers of its importance to business success and risk management
Customer privacy / CU1, RM4.4, CA1, CA2	Data breaches	0	0	Maintain zero data breaches
	Customer NPS	0.71	0.69	We will continue and enhance to ensure on-going improvements
	Privacy Policy / Information Security Policy / Cybersecurity Policy		* Read more: Certifications page	Annual review done on policies, so will mature. For instance changes with NIS2, alignment in UK, GDPR, AI Policy, creates a moving landscape. Our policy review captures these changes comprehensively
	Facilities Power Usage Effectiveness (PUE)	1.63	1.57	We are aiming for a target of 1.50 (>5% reduction) - noting new sites on-boarding and ramping up. Note that this PUE aim relates to the facility, while our stated PUE of 1.2 relates to Technology Suites. The facility overall figure includes areas outside of Technology Suites, hence its higher value



Social sustainability

MATERIAL ISSUES / GRESB INDICATORS	METRICS	2022 FIGURES	FY2023-24 FIGURES	FY2023-24 HIGHLIGHTS
Employee health and safety / HS1, HS2, HS3, HS4, RP2.1, RP2.2	Lost Time Injury Frequency Rate (LTIFR)			
	Employees	0	0	Maintain LTIFR at zero
	Contractors	0	0	Maintain zero
Employee engagement / EM1, RM5.2, RP1	Employee attraction and retention	100%	100%	Maintain 100%
	Employee growth YoY	Almost 100%	23%	We aim to see similar year-on-year growth, based on 26 employees to 34 (2023 - 2024 period)
	Number of apprenticeships	0	0	We currently have 2 apprentices via FM company for FM Services, but no direct Kao Data *hence 0 figure). We are exploring ways to change such as finding areas in our business such as Marketing, or Operations (DC) and/or via our partnerships such as with UTC. As such we aim to build out a formal apprenticeship program by 2025
Diversity, Equity and inclusion / EM2, SE1	Racial diversity / International background (employees)	17%	22%	We aim to continue to expand the racial diversity of our workforce. Through our marketing efforts we aim to attract more diverse talent by 2025
	Gender ratio (employees)			
	Men	86%	73%	Enhance diversity each year
	Women	14%	27%	
	Gender ratio (employees)			
Men	86%	73%		
Women	14%	27%		
Equality, Diversity and Inclusion Policy	Maintain compliance and best practice in lin with policy	Maintain compliance and best practice in lin with policy	Continue to maintain	



Our employees

Our approach

Employees at Kao Data live out our core values every day, so we can grow and develop the business together. We are committed to giving our employees and workers the opportunities and training they need to grow our business, and to further their skills for long term shared success. To help us build a future-fit workforce, we look to recruit diverse talent and individuals from other industries to bring in fresh ideas and different ways of thinking. We operate an agile, flat structure that empowers ownership of tasks and fosters real responsibility. This helps make Kao Data an engaging location for a career within the rapidly evolving data centre industry.

Our progress

In 2019, a year after operations began, Kao Data won the Corporate Social Responsibility category at the prestigious Datacloud Global Awards. This win was in recognition of our comprehensive CSR strategy and our work leading the industry to

more sustainable outcomes. In 2021 Our CTO, Paul Finch was awarded Sustainability Champion by the Infrastructure Masons, a testament to his work on both social and environmental sustainability within Kao Data, and for a lifetime of dedicated sustainability advocacy. This was closely followed by our Operations team winning 'Operations Team of the Year' at the 2021 DCD Awards for their work on NVIDIA's Cambridge-1 deployment. In 2023 we started to assess our employee engagement strategy so we can do more in 2024 and beyond.

Attracting, training and retaining talent

To best serve our customers, we must attract the very best and most diverse talent to our business. This is why Kao Data provides comprehensive and ongoing training to our employees. This training includes a focus on excellence, customer satisfaction, compliance and sustainability helping us continually improve the performance of our business, the appreciation of our clients and the

wellbeing of our employees and contractors. In 2022 we launched our dedicated training portal provided by LinkedIn so our employees can continually upgrade their skills. During 2023, 100% of our employees received professional training, and 40% received ESG related training.

Diversity, equity and inclusion

At Kao Data, we know that we have both an obligation and an opportunity to make our company as diverse and inclusive as possible. Diverse opinions lead to better ideas, more robust decision making, faster innovation and the assurance of our reputation as a socially conscious employer. Kao Data utilises a number of diversity metrics, as can be seen in the progress table at the start of this section. However, we know that we must do better if we are to truly capitalise on the immense pool of talent regionally, nationally and globally. In 2024-25 and beyond, we will continue to seek ways to enhance equity and inclusivity for our people.



Employee engagement

At Kao Data our employees are crucial to the success of Kao Data. By ‘Succeeding together’, we can best ensure customer-centric climate conscious computing, and tackle the issues most pertinent to our key stakeholders.

The people who design, build and operate our data centres are some of the finest in the industry and we support and value them every step of the way. This is reflected in our annual Employee Award that recognises employees that are helping us build a better more sustainable business.

To engage employees further we have a range of channels such as training, professional development and industry event attendance. We also ensure our employees feel empowered to contribute to the causes that matter most to them, whether this be through external outreach or through supporting their own career ambitions.

In 2023-24 this included a new focus on mental Health and wellbeing via our new Mental Health First Aider network engagements.

🔗 **Read more: [Our employees](#)**



Mental health: Raising awareness

Kao Data is committed to safeguarding the health and wellbeing of every employee. That’s why in 2023 Kao Data launched its very own Mental Health First Aider network, as part of Mental Health Day’s 2023 theme ‘mental health is a universal human right’. Our support of World Mental Health Day, is a key part of our wider ESG framework, to help our employees ‘succeed together’. Led by Fraser Clarke, our Head of Service Operations, our Mental Health First Aiders (MHFA) will undergo fully-accredited training by Mental Health First Aid England to ensure they are fully equipped to support our colleagues across the business with any mental health challenges they’re experiencing, at any time.

“

I’m proud to work for a company like Kao Data, which takes mental health and the wellbeing of its workforce so seriously. As the first project sponsor, I’m honoured to have the company’s trust in this position of responsibility and I’m looking forward to becoming a fully qualified Mental Health First Aider.

FRASER CLARKE | HEAD OF SERVICE OPERATIONS, KAO DATA

🔗 **Read more: [Our Mental Health Network](#)**

The Kao Way: Living our values

In 2022, along with our materiality assessment, we launched our first set of company values, and operating principles. Together they form 'The Kao Way' which was created by, and for our employees. In 2023-24 'The Kao Way' has informed every interaction with our customers, partners and stakeholders, to ensure shared sustainable success. It also ensures we continually assess our management approach for optimising our employee's wellbeing, health and development.

The Kao Way is driven by collaboration, inclusion, trust and high performance in everything we do. By enabling our people to define their own collective values we are building a diverse, dedicated and determined team to lead us in our next phase of growth. As our staff numbers continue to grow, these values and principles are the bedrock of our commitment to 'Succeed together'.

Our values	Our business principles
<ul style="list-style-type: none"> ▶ Team: We are one united team. We trust each other to deliver, and stand shoulder-to-shoulder in our pursuit of excellence. 	<ul style="list-style-type: none"> ▶ Efficient: We are a small, agile, efficient team who champion delivery.
<ul style="list-style-type: none"> ▶ Vision: We are pioneers. We continually look to innovate and break new ground within the wider data centre industry. 	<ul style="list-style-type: none"> ▶ Leaders: We are influencers in our industry and visionary in our approach.
<ul style="list-style-type: none"> ▶ Respect: We are equals and respect each other's contribution. Our teams support, share and achieve success together. 	<ul style="list-style-type: none"> ▶ Proactive: Our people work positively, and with a spirit of entrepreneurialism to solve challenges faster.
<ul style="list-style-type: none"> ▶ Relevance: Our teams are laser focused on providing the right, relevant, and tailored solutions to solve our client's challenges. 	<ul style="list-style-type: none"> ▶ Clarity: We are clear, concise, and consistent in our contact with customers and communications to industry.
<ul style="list-style-type: none"> ▶ Collaboration: We continually collaborate with each other, our partners, supply chain and clients to foster innovation. 	<ul style="list-style-type: none"> ▶ Together: We are all specialists in our own areas and together form one of the industry's most trusted teams.
<ul style="list-style-type: none"> ▶ Agility: We punch above our weight. While small in numbers, our teams are fast, agile, and respected across the industry. 	<ul style="list-style-type: none"> ▶ Focussed: Our people are focused on achieving our goals and objectives, with the satisfaction of our client paramount.



Our customers

Our approach

Customer centric success is a major focus at Kao Data, with every client assigned a dedicated Customer Success Manager, to help empower faster, more secure innovation, maximising computing power while minimising environmental impact.

We increase engagement and monitor satisfaction during regular monthly meetings and via customer Net Promoter Scores (NPS). Our customers use our facilities to carry out mission critical tasks, handling sensitive data 24 hours a day, so customer privacy and information security is critical. Kao Data deploys military grade levels of physical security and monitoring across all sites, providing maximum protection to customers' infrastructure and data assets.

Our progress

Thanks to our sustainable facilities, and our ongoing culture of continuous improvement, our customers rate us highly. For 2023-24, our customer satisfaction score was 69. This NPS score, which ranges from -100 to 100, measures the willingness

of customers to recommend a product or service to others. Our high score is a testament to the Kao Way, which enables us to live out our values and principles every day for our customers. In 2024-25 we are aiming to improve on our existing NPS.

Customer case study: Jisc

In 2023 our customer centric, climate conscious approach was rewarded by Jisc choosing us as its commercial partner. Jisc is the UK's digital, data and technology agency focused on tertiary education, research and innovation. It provides and operates the Janet network (Joint Academic Network), which serves as the UK's national research and education network.

Why Kao Data?

Kao Data's environmental and energy efficiency credentials are vital to underpin the net zero efforts of research computing organisations like Jisc, that are seeking to harness the power of AI sustainably. Jisc benefits from the high-capacity connectivity that already exists between the facility

and the Janet network – to provide members of Jisc's +18 million user-base with access to scalable, sustainable, and highly connected data centre capacity. This will allow organisations using Janet – the UK's national research and education network (NREN) – to utilise Kao Data's Harlow campus as a shared, high performance data centre resource, accelerating opportunities for ground-breaking UK research, and bolster UK government efforts to lead the world in AI by 2030.



The ability of our partners to support complex scientific data models while meeting technological and sustainability targets is, therefore, a key consideration as we grow the range of Jisc data centre services. We're proud to name Kao Data the first of our referral partners as we seek to bolster academic and scientific research efforts across the UK.

ALEC WRIGHT | CLOUD AND DATA CENTRE SERVICES MANAGER, JISC

🔗 **Read more:** [Our work with Jisc](#)



Our stakeholders

Our approach

As a team, we support causes that allow our employees to interact with the local community, Through 'The Kao Academy' and through various other engagements Kao Data aims to drive greater stakeholder awareness of sustainable digital infrastructure, by partnering with external organisations where we can make the most difference. This work is managed through our stakeholder engagement program.

To nurture and attract the diverse tech talent of tomorrow, Kao Data engages local students at all levels of education helping foster a greater understanding of what data centres are, and how they underpin much of our everyday lives. Kao Data also puts a special emphasis on attracting more girls and minority groups into STEM careers.

Our progress

In 2022 the success of our Kao Academy was recognised with a nomination for an Open:UK Award. In 2023-24 we expanded our work to engage

local communities through education, introducing new initiatives and welcoming further cohorts of young people to existing programmes such as our 'Digital Futures' partnership with UTC Heathrow.

For instance, in September 2023 we partnered with Changing Lives, a not for profit works with young people, hard to reach communities and refugees via its sporting and community engagement programs. You can read more about our educational outreach initiatives on the following pages.

Our stakeholder engagement program

All of our community partner related stakeholder engagements are organised, measured and evaluated via our stakeholder engagement program. To ensure customer success we engage our technology partners actively. For information on how we engage customers, investors and other stakeholders on governance matters, jump to page 56 of this report 'Integrating ESG objectives'.



Rewarding innovators

Since 2021, Kao Data has been a sponsor for the 'Start-up of the Year Award' at the Cambridge Independent Science and Technology Awards. With numerous categories for companies and individuals, the awards are a celebration of the Cambridge region and the UK Innovation Corridor's extraordinary talent. The awards are now in their fifth year and have grown dramatically since inception.



Supporting STEM

The data centre skills shortage is widely recognised as one of the industry's most significant challenges, with the Uptime Institute estimating the sector needs to employ nearly 2.3 million people by end 2025.

The industry must therefore work harder to showcase the opportunities for attractive, long-term and sustainable careers it represents. Kao Data supports a range of initiatives to boost education related to the world of data centres, in particular STEM (science, technology, engineering, and mathematics). This helps to boost local talent so we can succeed together in building a future-fit workforce.

Cambridge Science Centre

Since 2021 Kao Data has supported Cambridge Science Centre, an independent, educational charity helping disadvantaged communities and young people into the technology, engineering and scientific sectors. Kao Data is a member of the Centre's Executive Council, and the funding and support it provides helps give young people a hands-on taste of STEM subjects.



Kao Academy

Created in collaboration with Cambridge Science Centre, the Kao Academy helps teach children aged 7-11 about the role of a data centre, including how they are designed, engineered and constructed, and explains both their importance and relevance to our everyday lives. Delivered via an interactive website, the Kao Academy provides several dedicated

resources, including a live 'data-crunching' game, a downloadable 'how-to' pack which children can use to build their own data centre, as well as educational videos on how Kao Data's award winning KLON-01 facility in Harlow was constructed. Such has been the success of the Kao Academy, it was nominated for an Open:UK Award at the end of 2022.

UTC Heathrow

University Technical College (UTC) Heathrow is a school and sixth form in North London for 14-19 year olds, specialising in engineering and IT. Its 'Digital Futures' programme provides students with the opportunity to start training for a world-class career, in a course designed by some of the data centre industry's biggest companies. Kao Data sponsors and supports this course. As a partner Kao Data helps support the professional education of students, sharing its teams' technical expertise across the spectrum of data centre design, engineering, and operations. This includes

the impact of innovative technologies such as high performance computing and artificial intelligence on data centre design, and how both computer-aided design software and Computational Fluid Dynamics influence energy efficiency.

✦ **Read more: [UTC Heathrow case study](#)**

Engaging local communities: Changing lives

As part of our commitment to ensure we 'succeed together' Kao Data is supporting front-line local community engagement. In 2023 this includes becoming an advocate for 'Changing Lives', a not-

for-profit that works with young people, hard to reach communities and refugees via its sporting and community engagement programs. Through 'Changing Lives' Kao Data will support vital work for young people across Harlow, the wider Essex region, and communities in Ghana through the charity's international engagement programs. Our support includes funding and advocacy for a host of Changing Lives charity programs, such as its Children's Free Sports Activity and Coach Education Program in Harlow, the Ghana Volunteering Coaching and Community Support Program, Refugee Cricket Club, and the Changing Lives Men's and Women's Football teams.



The strength and support of our partners in our local community is critical to the success of our charity programs, and we're delighted to be working with Kao Data. Having a local advocate of their standing is incredibly rewarding and will help us continue our work in Harlow and our new hub in Colchester, and through our international projects in Ghana.

BEN DOYLE | CO-DIRECTOR, CHANGING LIVES



Quantum Data Centre of the future

In March 2023, Kao Data hosted the UK's 'Quantum Data Centre of the Future' project led by ORCA Computing at its Harlow campus in the UK Innovation Corridor. The Quantum Data Centre of the Future project marks a step towards the development of a quantum internet. It consists of a consortium of organisations and universities, backed by a UK Government grant of £11.6 million, the largest single award for a quantum project.

The Kao Academy: Design your own data centre

Working in partnership with the Cambridge Science Centre and schools across Cambridgeshire, Hertfordshire and Essex, we invited Key Stage 2 students to submit innovative data centre designs to win £150 worth of LEGO.

The design had to be ultra-secure and incorporate advanced sustainability, biodiversity and energy efficiency features.

Why Kao Data?

Kao Data was chosen as the venue for the Quantum Data Centre of the Future demonstration, due to our focus on innovation. Our KLON-01 data centre already hosts some of the UK's most advanced, high performance computing infrastructure systems including NVIDIA's Cambridge-1 supercomputer. As host, Kao Data was able to gain crucial feedback, ensuring we create a future-fit data centre environment.

Read more: [Quantum Data Centre event](#)

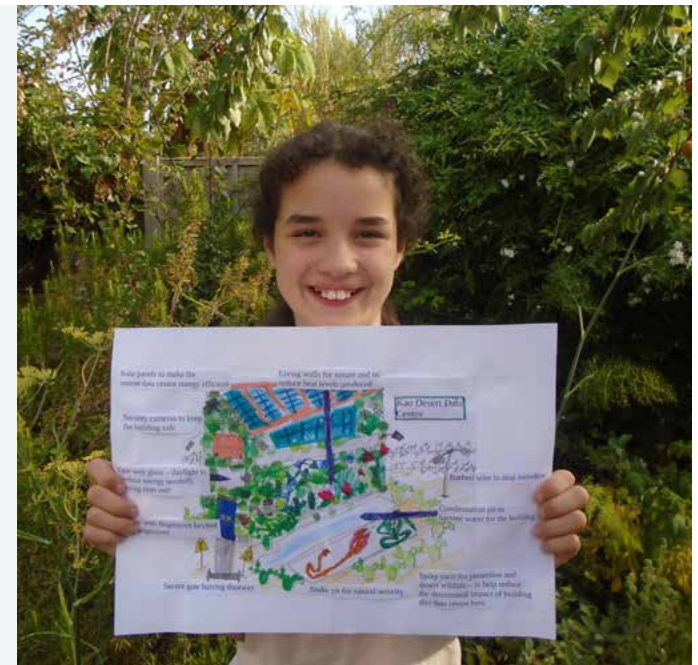
The worthy winner, Jasmine Wales (age 11) was chosen for her 'Desert Data Centre'. Her design incorporated pioneering sustainability features: a condensation pit to harvest water for the building, one-way glass to reduce the amount of energy needed to power the facility, and solar panels for energy efficiency.

It also included clever biodiversity features such as living walls for nature, and even a snake pit for added security! The competition is just one way we are encouraging students to take an active interest in STEM subjects.

“

Being able to showcase our Quantum systems at Kao Data, which already hosts some of the country's leading supercomputing, HPC and machine learning applications, has been a wonderful experience.

DR DAVID HALL | HEAD OF DELIVERY, ORCA COMPUTING



UTC Heathrow- Digital futures

Q: Hi Chris, can you tell me about the work Kao Data are doing with UTC Heathrow?

Sure, we have partnered with UTC Heathrow's Digital futures programme which is strategically tackling the data centre sector's skills shortage by training young engineers in essential skills.

The programme harnesses industry partners, like Kao Data, through 'CoTeach' lessons, workshops, and challenge days. Graduates will exit UTC Heathrow with BTEC Level 3 National Extended Certificates/Diplomas in Engineering or STEM A levels, and with established connections with industry leaders such as Kao Data.



Q: Can you tell us about Kao Data's latest engagement with the programme?

In December 2023, Kao Data was delighted to welcome a group of Year 12 and 13 students from the programme to the Kao Data campus in Harlow. It was a real pleasure to be able to provide a first-hand understanding of our cutting-edge facilities to such an enthusiastic and eager group of students.

Q: What did the students get up to on the day?

The day was underpinned by an engaging quiz that saw students divided into teams, challenging both their knowledge and observation skills. This event was a collaborative 'Team Kao' effort and everyone, including myself, was genuinely impressed by the students' attentiveness and engagement throughout the visit.

Q: Why UTC Heathrow?

The distinguishing feature that I like of the UTC Heathrow 'Digital futures' programme is the fact that many of these students will be entering the industry at an early age and, for most, it will be their first real job following education. From my perspective, this unique qualification will ensure that in the future we have more senior leaders at a younger age.



Chris Small

Chris is Kao Data's Technical Operations Manager and a central figure in the deployment of our data centres.

Q: How does 'Digital Futures' fit into Kao Data's ESG strategy?

At Kao Data, 'succeeding together' means nurturing local and diverse tech talent to help build a diverse future-fit workforce. As a data centre at the forefront of sustainable digital infrastructure, we value the opportunity to contribute to the education and practical development of the next generation of engineers. We are an industry that is crying out for talent – 300,000 new engineering and technical staff are needed by end 2025. By harnessing educational partnerships Kao Data can help bridge the gap and benefit as a business in the process by capitalizing on the fresh ideas of a great local, diverse talent pipeline.

✦ **Read more: [UTC Heathrow](#)**

The Open Compute Project

As part of the ongoing commitment to furthering data centre design excellence, and helping to define new 'Best Practices' Kao Data partners with stakeholders that can help us evolve our industry faster. One crucial partnership for creating sustainable, scalable, resilient data centre infrastructure is with The Open Compute Project (OCP).

Recognising the need for greater data centre efficiency, in 2011 Facebook launched the Open Compute Project in conjunction with Intel, Rackspace, Goldman Sachs and entrepreneur investor Andy Bechtolsheim. The OCP has since partnered with Microsoft, Rackspace and other similar mature IT equipment users, to drive innovation, simplify equipment specifications, and reduce cost. The OPC is a collaborative, global community focused on re-designing hardware technology to efficiently support the growing demands on compute infrastructure. Its mission is to enable the most efficient designs for scalable computing through collaboration across the data centre industry - from the largest hyper-scalers to

technology manufacturers, and colocation providers to private enterprise facilities.

Kao Data: OCP pioneers

Kao Data is a member of the OCP Data Centre Facility Working Group. As Board members we continue to look for ways to improve our operations in open collaboration with other project members, creating an accelerated cycle of innovation.

Kao Data was the first UK data centre to achieve OCP-Ready status in 2018. Kao Data was successfully self-audited against OCP's checklist for compliance with our KLON-01 facility achieving over 75% in the 'Optimum' category, meaning that our systems go beyond the base requirement, ensuring compliance with emerging 'future-proof' standards.



Kao Data is producing cutting-edge data centre designs for HPC and intensive AI that are built upon the latest OCP technology concepts.

Their team have been actively involved in industry stewardship, offering their expertise and working with other vendors. Sharing that knowledge within the community is a benefit for us all.

MARK DANSIE | OCP READY LEAD, OPEN COMPUTE PROJECT



KAO DATA



TECH IN



Nooni Imperley
FOUNDER
NORTH GATES



Governance

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Governance section

Since its inception in 2014, Kao Data has been built on solid foundations with a strong, active investor base. The company is governed by an industry respected, experienced management team who collectively hold more than 100 years of career experience within the international data centre sector.

Our facilities, operating procedures and policies are guided and certified by bodies such as the International Organization for Standardization (ISO) and their equivalents in the UK, and managed and assured via our integrated management system (IMS).

From a technical and compliance standpoint, Kao Data operates its data centres within technical guidelines provided by industry bodies such as ASHRAE, Open Compute and the Uptime Institute. Internationally, Kao Data is also a signatory of the Climate Neutral Data Centre Pact (CNDCP) which mandates signatories to achieve net zero operations by 2030.



Leadership commitment

Succeed Together: Co-creating better environmental and social impact via our business for our people, our customers, and our stakeholders

Levers

Integrated management system, governance committees, sustainability working group, external engagements

Transformational goal

Fully embed sustainability into governance processes

Key policies

All Business policies

Key accreditations

All accreditations and certifications (see table on page 60)



Leadership and governance

PRIMARY SDGS



SECONDARY SDGS



MATERIAL ISSUES / GRESB INDICATORS	METRICS	2022 FIGURES	FY2023-24 FIGURES	FY2023-24 HIGHLIGHTS
Product design and lifecycle management / RM2.1, CA1	Not a metric driven area but we maintain company policies adherence through our IMS and utilise best practice in relation to: Uptime Institute certification, BREEAM certifications, ISO standards, and OCP-Ready certification	Maintained relevant certifications and continue customer and industry engagement to drive innovation		We have secure system and deployment policy for operational aspects , including lifecycle on IT aspects. As a colocation company, we must note that the IT requirement is dependent on our customers. We will continue to review technology and efficiencies and deploy where we can, but this has dependancies on customer equipment, eg our Lifecycle Replacement program-LCRP. There is a position created in business working with Ops Director on LCRP to look at technological advances as part of replacement solution. KLON-01 and KLON-02 are OCP Ready, KMAN-01 will be once operational
Supply chain management / SE2, RM1	Supplier Code of Conduct	Maintain supplier compliance and best practice in line with policy		We aim to maintain code compliance. We will continue to work with suppliers and working throughout our supply chain to further our ESG Journey and net zero goals and objectives
	Suppliers engaged on ESG matters	NA	46	Forms part of supplier onboarding and supplier review All Tier 1 suppliers, reviewed during period. Further integration with working with suppliers (KAO Scope 3 information) and alignment with our ESG program
Materials sourcing and efficiency / SE2, PO1, RM1	Environmental and Energy Policy	Maintain compliance and best practice in line with policy	Maintain compliance and best practice in line with policy, investigating and exploring other opportunities	It is in Kao Data's DNA to source sustainable products and materials. This will continue in the future
	Number of EPD labelled products purchased	To be reported in 2023	Continue to use sustainable suppliers with appropriate standards in line with our IMS and Energy Policy	We always aim to procure 100% of our supplies and equipment from sustainable suppliers. This is an increasingly important area, especially as it related to Scope 3 emissions. We are currently reviewing areas we can tackle to create the most impact on carbon emissions and energy efficiency. This will include finding ways to use more EPD labelled products within our facilities



Leadership and governance

MATERIAL ISSUES / GRESB INDICATORS	METRICS	2022 FIGURES	FY2023-24 FIGURES	FY2023-24 HIGHLIGHTS
Physical impacts of climate change / RM3, RM4.3, RM4.4	Environmental and Energy Policy / Physical Security Policy	Maintain compliance and best practice in line with policy	Maintained with in company policies and best practise - ISO accreditation aligned	With ISO standards (Clause 4.1), Kao Data is required to consider climate change. Our ISO recertification will encompass evidenced controls under ISO standards. Our risk assessment includes climate considerations such as water stress. All sites are in High Stress Risk (Thames Water and Anglian Water). Via Adiabatic cooling we aim to maintain efficient use of water and site level resilience by design/site location and planning.
Business ethics / PO3, RM1, RM2.3, LE2, LE3, LE4, LE5, LE6	Modern Slavery and Human Trafficking Policy / Anti Fraud Policy /	Maintain compliance and best practice in line with policy	See accreditations and certifications on page 60	We will continue to maintain compliance and best practice. These policies will also be reviewed in August to maintain best practice and compliance with relevant legislation.
Management of the legal environment / RM5.3	All policies managed through IMS and risk management processes	Maintain compliance and best practice in line with all policies	Alignment with IMS Policies and Risk Management Processes, alignment with SDG, signatory for EUDCA CNDP and iMASON'S Climate Accord, best practices under SBTi	We will continue to work with organisations like TechUK, and via participation in DC Council and through the ESG working group of which we are a part.
Systemic risk management / RM1, RM2, RM5.3,	ESG related incentives awarded	HVO / Green Energy (Wind Farm)	HVO / 100% renewable Energy (REGO), Partnership with Windfarm, exploring other opportunities	We will explore other potential initiatives for 2024-25 and beyond.



Leadership and governance

Our approach

Our management team believes in a collaborative approach to managing ESG risks and creating sustainable opportunities for shared success. All

of our managers and team leaders attend regular training, CPD events and online courses, many of which cover sustainability related topics. As part of Kao Data's commitment to leadership and advocacy, the management team also attends, and speaks

at, regular industry leadership events, gaining fresh perspectives on ESG topics. This activity is managed through our senior management team. The management team reports to its investors on a quarterly basis, who are also active in shaping our thinking on ESG matters. This forms one part of our sustainability working group that involves all key managers to integrate sustainability into decision making, risk management, and future planning.



Our progress

Kao Data operates to the standards set by the European Data Centre Association which includes managing our business in line with the Climate Neutral Data Centre Pact (CNDCP) recommendations. In 2023-24, we significantly evolved our governance policies to create a more effective foundation for managing sustainability risks and measuring progress, especially against the 'GRESB' Infrastructure asset level standard. In 2024-25 we aim to set science based targets to formalise our commitment to climate action, drive further efficiency toward our net zero goal and enhance the resiliency of our business.



Integrating ESG objectives: Managing governance risk

At Kao Data, our approach to managing governance risks and opportunities includes a number of inputs and engagement activities. This comprehensive approach ensures we can integrate ESG considerations into every aspect of our business. These include:

ESG INPUT	HOW	EXPLANATION
Governance Policies	Management Team/ Integrated Management System (IMS) / eg managing our Business Continuity Policy	We actively engage our employees in compliance oversight and risk mitigation strategy setting. This is actioned, monitored and managed through our integrated management system (IMS)
Committees	Quarterly meetings	We have numerous committees that convene quarterly and these range between , HR and Compensation, Audit and Risk, Sustainability and specific project committees
Working Groups	Sustainability Working Group	The group consists of senior management team members and meets regularly across the year to discuss sustainability related challenges and opportunities for Kao Data to harness, especially on new builds and additional sites we are considering. It also reviews progress against our commitment to achieving a net zero business by 2030, which is led by our compliance team
Customers	Feedback sessions, solution planning meetings, monthly updates, continual monitoring of customer success through IMS and Customer Portal	Customer input through our customer centric approach is key to ensuring Kao Data future proofs its solutions, and manages and mitigate key risks for customers such as physical and cyber security risks
External Stakeholders	Stakeholder Engagement Programme	We engage a variety of external stakeholders to help us understand stakeholder demands, protecting our licence to operate
Investors	Quarterly meetings and regular contact	We meet with our investors at least quarterly to discuss pertinent risks, industry trends and global, regional and local ESG related challenges or opportunities. This includes aligning our ESG strategies with our investor aspirations, utilising the GRESB infrastructure asset scoring system to assure the appropriateness of our ESG strategy
Governments	Leading and attending events, desk bound research of legislation, external advisory services	We work with government agencies and departments to help move the industry forward and learn about relevant legal and regulatory risks
Benchmarks and NGO's	Memberships, accreditations, certifications, awards, industry frameworks input by management team	Benchmarks: Kao Data regularly engages with non-governmental bodies and trade organisations such as ASHRAE, Uptime Institute, techUK and the European Data Centre Association to assist in supporting the development of environmental and sustainability impact frameworks among other activities



ESG oversight

With our Integrated Management System (IMS), the management team is able to competently deliver against our ESG objectives. The system features robust internal processes, informed by our comprehensive governance policies and enterprise risk management program. Kao Data complies with all relevant regional, national and international legislation pertaining to our business, and we have a number of certifications and accreditations that help us manage every aspect of our business.

Governance oversight

Our senior management team ensures all our managers can input on ESG and sustainability governance related matters pertaining to the company's strategy and operations. Progress and performance is reviewed regularly by the

management team. Kao Data also holds monthly progress meetings with our customers, and provides daily and instantaneous automatic reporting regarding data centre performance.

To catalyse innovation, Kao Data engages with external bodies such as ASHRAE, the American trade organisation that drive global data centre standards for operating conditions for IT equipment. ASHRAE feeds into the European Code of Conduct for Energy Efficiency in Data Centres, and ISO 50001 Data Centre Energy Management. Our CTO Paul Finch is a member of ASHRAE, and is influential in setting the environmental conditions for the reliable operations of servers and IT Equipment, serving and voting as a board member of the ASHRAE Technical Committee (TC) 9.9.

The following is a detailed summary of the roles and responsibilities of our leadership team with regards to ESG matters:

Individual responsible for setting ESG Objectives: CEO



Doug Loewe, CEO

As our CEO Doug is responsible for setting the strategic direction of Kao Data with regards to ESG matters, informed by our sustainability working group, comprised of our senior management team. The delivery of our strategic sustainability goals is supported by relevant Directors such as our COO and CTO for specific issues such as operational performance, and as part of our collaborative approach to delivering sustainable value and achieving net zero by 2030.

Management team: Roles and responsibilities



Matthew Harris, CFO

Our CFO is responsible for managing financial risk, including those risks posed by energy availability and a changing climate. In addition, from 2022, our CFO was instrumental in switching our energy procurement from a fixed basis to a flexible approach, and he aligned our renewable power provision with a tangible UK asset to provide greater certainty to our customers. The CFO also helps the senior management team to report financial and non-financial progress to our investors and stakeholders.



Paul Finch, CTO

Kao Data's Chief Technology Officer (CTO), supported by our Director of Compliance, works to ensure we always meet the highest standards set by ASHRAE and ISO among other standards. He is also responsible for managing our facilities adherence to efficiency and sustainability targets, and he works closely with our CEO and CFO, and other managers, to ensure all supplier purchases for resources and equipment meet our sustainability and resiliency objectives, as defined in our Supplier Code of Conduct.



Spencer Lamb, CCO

Our CCO is responsible for optimising our campus and facility developments to support customers within high-touch areas such as cloud, enterprise, AI and HPC. He also works with the leadership team to identify acquisitions, partnerships and social sustainability initiatives aligned with our values, and is ultimately responsible for our STEM activities within schools and communities, as well as linking our ESG strategies with those of our customers.

Governance monitoring: Strong investor partners

We know that a strong investor base is essential for us to confidently and courageously grow our business. Kao Data is privately funded and backed by Goldacre (part of the Noé Group), Legal and General Capital and New Zealand-based Infratil. In October 2021 Goldacre and Legal and General were joined by Infratil, a listed global infrastructure business with existing investments in the international data centre sector.

In 2023, Infratil and Legal and General Capital increased their equity investment in Kao Data to lead the next phase of platform growth across the United Kingdom.

Legal and General's investment, since 2019, reflects its commitment to help deliver the digital infrastructure required for future cities. The year 2019 also marked an ambitious ongoing partnership with Goldacre to drive the strategic expansion and accelerated growth of the UK data industry.

Fittingly, both investors were nominated in the infrastructure category of the 2020 EG Tech Awards, for Kao Data's advanced data centre and HPC campus.



Legal and General



Established in 1836, Legal and General is one of the UK's leading financial services groups and a major global investor. Legal and General Capital is the Group's principal investment arm, and aims to generate long-term shareholder value with a major focus on residential housing, investment in future cities and venture capital to support the continuing development of the UK's cities.

Goldacre - Noé Group



Goldacre is a specialist investment firm with extensive expertise in digital infrastructure and technology for the real estate industry. It builds, owns, operates and manages critical digital infrastructure assets such as data centres, securing their long-term profitability. Goldacre is passionate about backing businesses that drive sustainable change through technology in the real estate sector in the UK, Europe and Israel.

Infratil



Launched in 1994, Infratil is a publicly-listed, active global infrastructure investor with significant investments across the digital infrastructure, renewable energy, healthcare and airport sectors. Based in New Zealand, it also has operations in Australia, Europe, Asia and the US.

Compliance, accreditations and awards

Technical and operational excellence is at the heart of Kao Data’s approach to responsible development, sustainability performance, and governance best practice.

Kao Data have achieved an impressive list of ISO certifications, plus a range of industry certifications and accreditations.



As a company our mission is to ensure our data centres are running to the highest possible standards, so we can achieve secure, high performance, customer centric and climate conscious computing for our clients’.

GARY KILMISTER | COMPLIANCE DIRECTOR AT KAO DATA



OUR ISO CERTIFICATIONS		
Social focus	Environment focus	Leadership and Governance
ISO 9001:2015 (Quality Management Systems)	ISO 14001:2015 (Environmental Management Systems)	ISO 22301:2019 (Security and Resilience - Business Continuity Management Systems)
ISO 45001:2018 (Occupational Health and Safety Management)	ISO 50001:2018 (Energy Management)	ISO 27001:2013 (Information Security Management)
OUR POLICIES		
Social focus	Environment focus	Leadership and Governance
Health and Safety Policy Modern Slavery and Human Trafficking Policy Data Protection Policy	Business Continuity Policy Environmental and Energy Policy Physical Security Policy	Information Security Policy Anti-Fraud Policy Cyber Security Statement Quality Policy
INDUSTRY CERTIFICATIONS/ACCREDITATIONS		
Uptime Institute Stamp of Approval for Management and Operations (MandO)	Cyber Essentials Cyber Essentials PLUS	ISAE 3000 SOC2 (Type 1)
OCP-Ready Data Centre Certified	PCI-DSS Compliant	ISAE 3000 SOC2 (all sites Type 2 compliant)
Shell 100% Certified Renewable Energy	BREEAM Excellent (5 Stars)	NVIDIA DGX-Ready Data Centre Partner

Integrated management and assurance

With today's heightened sensitivity to assured data centre security and continuity, our customers and their end-users require a robust and independent validation of our performance and governance.

In 2019, our selected consultants and advisors, Keysource and Teamwork IMS, worked along with UKAS Accreditors, Alcumus ISOQAR, to ensure that our Integrated Management System (IMS) was tailored to meet the specific needs of a high performance data centre business. The ISO Standards that make up our IMS are completely re-audited every third year to identify key strengths, weaknesses and non-conformance, and to enable continual improvement in line with ISO9001.

These standards enable Kao Data to engage stakeholders throughout all aspects of data centre management and operations. They also give our customers assurance that Kao Data is compliant across the board from corporate governance and regulatory requirements, to organisational resilience, proactive risk prevention and continual improvement.

For more information regarding certifications and accreditations at Kao Data, please get in touch.

Risk management

Kao Data takes its corporate and social responsibilities very seriously. This is why we are fully committed to managing, mitigating and avoiding risks that could affect our customers, stakeholders and the wider environment – including cyber-security risks, data privacy risks and climate-related risks.

Our Board of Directors is responsible for oversight of our enterprise risk management program. Our risk management processes are formalised and managed through all our governance policies, delivered through our IMS, which is externally assured by UKAS.

Governance risk assessment

Progress in relation to our economic, environmental and social governance objectives and performance is reviewed regularly by the management team and appropriate committees. This is supported by our sustainability working group, with members of the Board and working group overseeing specific risks that pertain to their area of expertise. The

group also involves other stakeholders, such as our investors, to discuss risk exposure and identify credible, realistic mitigation measures.

Identifying risks

Our enterprise risk management tools within our IMS helps us identify pertinent risks with specific managers tasked with monitoring certain risks. Stakeholder and Industry engagement directly inform our approach to identifying and managing risks that could affect our licence to operate, as well as our exposure and resiliency to climate related physical and transition risks. Through our leadership and advocacy activities we also aim to identify legal and regulatory risks and steer our activities to future proof our strategy.

Communicating risks

We are active in performing our own in-house research, such as in our recent 'UK Energy Outlook' whitepaper, which we share with customers and stakeholders around specific risks or timely issues that could affect them. This helps Kao Data stay ahead of any problems that could impact our licence to operate.

🔗 **Read more: [Our research](#)**



Managing customer risks: Customer privacy and cyber security

Customer privacy and information security are increasingly critical factors for all data centre and colocation customers, and one which Kao Data takes very seriously. Our customers use our facilities to carry out mission critical tasks, handling sensitive data, 24 hours a day. This is why Kao Data deploys military grade levels of physical security and monitoring across all campus facilities, providing maximum protection to customers' infrastructure and data assets. Kao Data is certified to the Uptime Institute Stamp of Approval for Management and Operations (MandO) standard.

Our design team is trained to Accredited Tier Designer level by the Uptime Institute. Kao Data is also certified against the Cyber Essentials and Cyber Essentials PLUS scheme. Cyber Essentials is a government-backed, industry supported scheme to help organisations protect themselves against common online threats. To ensure continual improvement we are assured against the following (ISO) international standards:

- ▶ ISO 22301:2019 (Security and Resilience - Business Continuity Management Systems)
- ▶ ISO 27001:2013 (Information Security Management)

🔗 **Read more:** [Our security measures](#)

🔗 **Read more:** [Our full list of accreditations](#)

Assessing social risks

Kao Data is proactive in assessing social risks via an engagement first approach that helps us continually improve our standing with our employees, stakeholders, customers and regulators. This work includes our engagements around employee wellbeing, our

active collaboration with customers on issues such as cybersecurity and our comprehensive governance policies that keeps everyone within our value chain safe from injury, abuse and corruption. As just one example; all our construction work is carried out by carefully vetted main contractors who work within 'considerate construction' principles, and that share our Health and Safety first culture.



Business ethics

Our procurement process is designed to protect the human rights and well-being of every diverse stakeholder in our value chain. To keep us accountable to our stakeholders, Kao Data operates an Anti-Bribery and Corruption Policy, including a Whistleblowing Policy. Kao Data suppliers cannot offer any gifts, entertainment, or hospitality, which could be seen or interpreted as a bribe or action to influence a decision. All workers, irrespective of their nationality or legal status, are treated fairly and equally. Our employees utilise our online training portal to receive training on risk related topics, ensuring we fully protect all our stakeholders. We also have a robust whistleblowing policy that allows employees, stakeholders and contractors to speak up, so we can mitigate social risks within our value chain effectively and quickly.

Managing our value chain

Our strategic pillar 'Leadership and advocacy' includes our commitment to 'succeeding together'. So we can create shared value for all our stakeholders, our Supplier Code of Conduct ensures we engage suppliers to embed standards of best business practice across the business stream. The code covers many aspects including: information

security, business continuity, and business ethics. It sets environmental standards related to fossil fuel consumption, waste and pollution reduction, environmental performance of goods and services. Suppliers complete a questionnaire to ensure they share our values and sustainability aspirations, helping us reduce both reputational and climate related risks in our value chain.

Business continuity: managing systemic risks

Our approach to systemic risk, which includes environmental and social risks, is outlined in our business continuity policy. The policy sets out the management direction in ensuring business continuity via adherence to all relevant laws and regulations, in support of the businesses requirements, managed through our IMS, certified to the ISO9001 standard.

The policy covers issues such as climate risk, environment, information security, quality, energy, and health and safety. The policy helps protect Kao Data's ongoing ability to meet contractual commitments and helps us to minimise the risk of disruption to our operational activities across the business, while always protecting our customers' information.

Assessing environmental and physical risks

We take a best-practice approach to assessing environmental and physical risks. This includes best practice compliance with the Met Office Supercomputing Hosting requirements and meeting the stringent ASHRAE TC 9.9 environmental guidelines.

We also assess and manage our business against the United Nations Sustainable Development Goals (SDGs) indicators and targets, tackling those where we can reduce the environmental and physical risk exposure of our business and the exposure/vulnerability of our stakeholders.

🔗 **Read more: [SDG indicators and targets table](#)**

Managing environmental risk

Through our Design and Build strategic pillar we are committed to minimising Kao Data's negative environmental impact via sourcing of sustainable materials and equipment throughout the whole lifecycle of our facilities.



By minimising development impact, we reduce ongoing risks. By procuring facilities with low embodied energy via the reuse of industrial sites for our developments, we also have an opportunity to actually improve natural capital at our sites. Through efficient operations and the pioneering of new technologies Kao Data is managing its business to minimise environmental impacts and risks, enabling a smooth climate transition. As signatories to the Climate Neutral Data Centre Pact, we manage and measure progress against 5 key metrics that will enable a net zero business by 2030.

🔗 **Read more: [Energy and Emissions section](#)**

Transition risk assessment

We already use a number of tools that helps us assess transition related risks, these include environmental impact assessments and the use of external sustainability consultants to assess material sustainability related risks to our business. Through our strategic pillar 'Industry Leadership and Advocacy we also engage with industry to identify industry trends and pertinent transition related risks, so we can learn how best to manage them.

As part of our proactive approach, Kao Data know we must do more to win the climate transition. That's why we plan on setting science based targets in 2025 to help catalyse our progress toward a net zero business by 2030. We will also be performing a detailed climate scenario analysis, which we will report on next year.

Mitigating climate risk

Kao Data understands that integrating climate risk management into our business model, is crucial to long term success. We already mitigate climate transition risks through our 'Design and Build' and 'Efficient operations' strategic pillars and our business policies. These pillars and policies have enabled the use of 100% renewably matched electricity, the pioneering of low carbon HVO fuel for back-up power in the UK, and the BREEAM excellent certification (both design and construction phases) of our data centres.

Our compliance with the Met Office Supercomputing Hosting requirements and the ASHRAE TC 9.9 environmental guidelines, further ensure we are operating with climate resiliency and climate related risk mitigation front and centre of every strategic decision we take.

Mitigating physical risks

Data centres should provide a robust, resilient and secure environment to house critical systems. As part of the design and build process and ongoing operational state, varying controls are reviewed to mitigate risk to our business and customer base. The physical risks we assess include flooding, fires, water stress, subsidence, and aviation risk. When siting our data centres, we ensure physical and climate resilience by choosing low risk locations that are often previous brownfield sites. This proactive risk prevention approach has been a key enabler of our 100% uptime record.

Managing legal and regulatory risk

Kao Data is subject to regional, national and international legislative drivers around the sustainability performance of the entire ICT industry, which the management team monitor carefully. In the UK, this includes the Department for Environment, Food and Rural Affairs' (DEFRA) ICT sustainability strategy, while in Europe the EU Green Deal sets ambitious Net Zero targets for the ICT sector through the European Green Digital Coalition, and we are active members of the European Data Centre Association.



Business continuity deep dive

Q: Paul, what's the biggest risk to Data Centre Uptime?

According to the Uptime Institute's Abnormal Incident Reports (AIR) Scheme, power failures alone accounted for 36% of the biggest, global public service outages tracked since January 2016.

Q: How does Kao Data maintain 100% Uptime?

At Kao Data we follow stringent procedures pertaining to energy usage, resiliency and sustainability. As a host for the mission critical activities of our customers we take full responsibility for ensuring uptime, all the time. We do this by design, and during operations through the use of Renewable Energy Certificates. Our comprehensive approach to business continuity and physical resiliency is all assured by an ISO certified Integrated Management System.

Q: What is the role of legislation?

Kao Data are cognizant that legislation is a key weapon in the fight for safety, security and




sustainability. Myself and the Kao Data team engages with regulators, government bodies and works with NGO's' to help influence the direction of legislation, and its objectives, to ensure they benefit all parties - regulators and operators - while encouraging greater resilience and industry innovation. Collaboration is crucial to ensure

legislation proposed is workable and, more importantly, is embraced and adhered to, and Kao Data will continue to fight for sensible, future proof legislation. This work is just one part of our all-encompassing approach to governance excellence.

Paul Finch, CTO





 London Office HQ
80 Middlesex Street
London
E1 7EZ

 01279 937400

 info@kaodata.com

 www.kaodata.com

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09227383. Registered office: Kao Data Campus, London Road,
Harlow CM17 9NA

