Impact Report 2024

Dare to innovate differently

CGD™
CAMBRIDGE GaN DEVICES

camgandevices.com

Our mission is simple: *to make sustainable electronics possible*

To drive our mission forward, we've engineered pioneering GaN technology that transforms the efficiency of power devices; cutting energy use and lowering CO_2 emissions.

Our next-generation GaN solutions are designed for everyday products, enabling businesses and individuals alike to unlock smarter, more sustainable power. Together, we're shaping a cleaner, greener future - one innovation at a time.

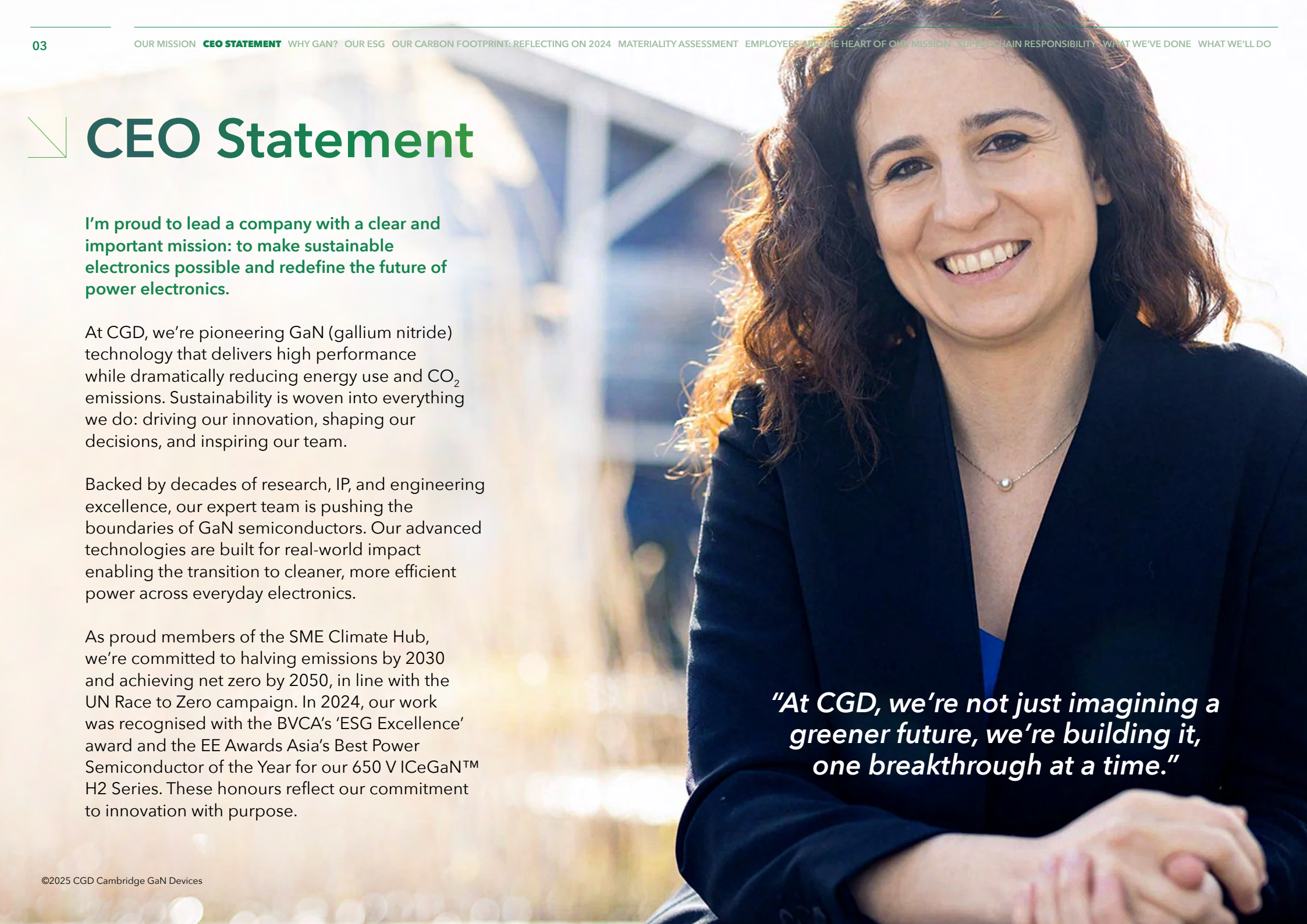
CEO Statement

I'm proud to lead a company with a clear and important mission: to make sustainable electronics possible and redefine the future of power electronics.

At CGD, we're pioneering GaN (gallium nitride) technology that delivers high performance while dramatically reducing energy use and CO_2 emissions. Sustainability is woven into everything we do: driving our innovation, shaping our decisions, and inspiring our team.

Backed by decades of research, IP, and engineering excellence, our expert team is pushing the boundaries of GaN semiconductors. Our advanced technologies are built for real-world impact enabling the transition to cleaner, more efficient power across everyday electronics.

As proud members of the SME Climate Hub, we're committed to halving emissions by 2030 and achieving net zero by 2050, in line with the UN Race to Zero campaign. In 2024, our work was recognised with the BVCA's 'ESG Excellence' award and the EE Awards Asia's Best Power Semiconductor of the Year for our 650 V ICeGaN™ H2 Series. These honours reflect our commitment to innovation with purpose.



Why GaN?

GaN Power semiconductors, especially CGD's ICeGaN, enable the highest efficiency and lowest losses in the implementation of power electronics, compared to Si MOSFETs, IGBTs and SiC MOSFET technologies.

Detailed calculations show that by converting to GaN-based power supplies in Data Centre operations, reductions in CO_2e emissions over 18.7M metric tons per year can be achieved.

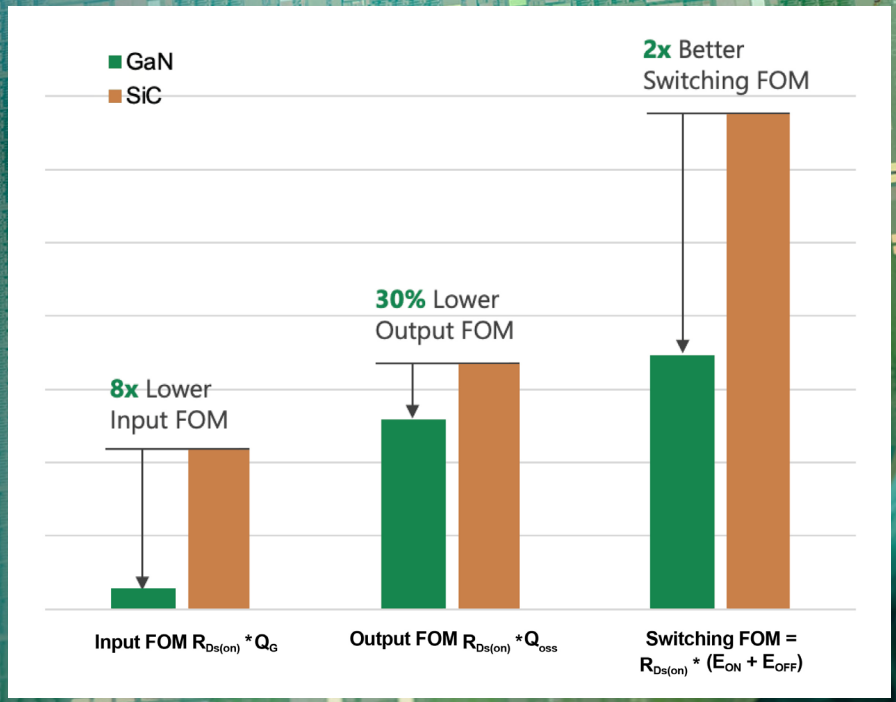
Similar calculations demonstrate that

10.5M
metric tons of CO_2e per year
can be reduced if GaN is used for on-board chargers.

If we consider other key high-volume and growing applications like photovoltaic energy systems, heat pumps, motors, and automotive DC-DC converters and traction inverters, GaN will accelerate the journey to net-zero.

In addition to the lower losses, GaN enables higher switching frequencies than both Si and SiC and thus reduces size, mass and quantity of passive and cooling materials used to create the power electronics. This reduced size and weight of the implemented power electronics enables more CO_2e savings by reducing shipping and installation energy required.

AC/DC SEMICONDUCTOR LOSS BREAKDOWN FOR EACH DEVICE



GaN HEMT fabrication does not involve high-carbon-emission processes such as gate oxidation, high-energy implantation and long thermal diffusion, therefore, these devices achieve lower per-device carbon emissions than Si.

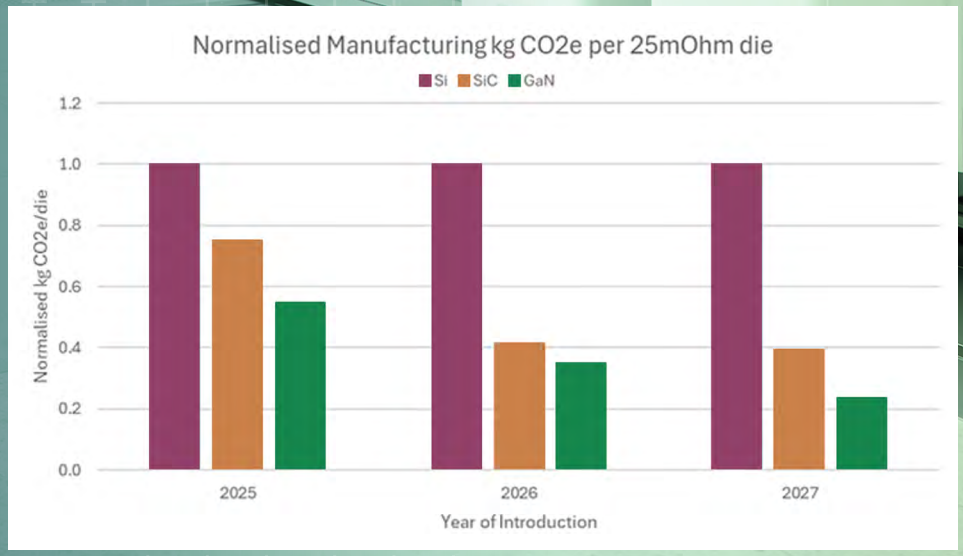
Why GaN?

The creation of SiC ingots requires reactors with very high temperature profiles, pulled at a lower rate than that the GaN-on-Si process. Downstream manufacturing operations of SiC MOSFETs requires non-conventional processes, such as high-energy ion implantation and high-temperature annealing. Due to the hardness of SiC wafers (second in hardness only to diamond) slicing, grinding, polishing and dicing require more energy than GaN.

GaN HEMTs have smaller die size, which enables a lower-per-chip carbon footprint for the same amount of energy and chemicals used in manufacturing a wafer (Wide-bandgap semiconductors and power electronics as pathways to carbon neutrality: Zhang et al., 2025).

Producing GaN power semiconductors uses much of the same well understood and optimised standard CMOS process flow. The GaN process has fewer mask steps and no implants, resulting in the significant energy savings for making GaN power semiconductors. The unique GaN-on-Si epitaxial manufacturing process is in an early stage of maturity and is projected to improve over the coming years, strengthening the sustainability advantages of GaN (GaN Power ICs bring highest levels of sustainability through manufacturing processes: Di Maso, 2024).

GaN reduces the waste in application, implementation and has the lowest manufacturing carbon footprint of all power semiconductor technologies.



Our ESG

At the heart of our corporate strategy is a steadfast commitment to Environmental, Social, and Governance (ESG) principles - a vital framework for creating long-term value for our stakeholders. Our approach is built on three core pillars:

Social Responsibility, Environmental Stewardship, and Governance & Ethics.

These pillars shape our decisions and reflect our broader duty to society, the planet, and the high standards we set for ourselves.

What sets our ESG work apart is that it's employee-led by design. We've fostered a culture where cross-functional teams from across the business regularly come together to challenge, refine, and advance our policies and initiatives. This inclusive approach keeps our ESG strategy dynamic, relevant, and grounded in the realities of our people, our business, and the communities we serve. By embedding ESG into the fabric of our operations, we demonstrate that responsible business isn't just a value– it's a driver of sustainable growth and long-term success.

Our Carbon Footprint: Reflecting on 2024

At CGD, we believe that truly sustainable progress begins with understanding our environmental impact. That's why our 2024 carbon footprint assessment—covering the period from 1 January to 31 December—took a detailed view of our two operational sites: Cambridge and, for the first time, Taiwan. This included emissions from our labs, offices, and the day-to-day activities of our people.

Expanding our scope to include Taiwan marked a significant milestone. This broader scope led to an expected rise in our reported Scope 2 and Scope 3 emissions. While this reflects the company's growth, it also strengthens our ability to pinpoint where meaningful action is most needed.

	2023 (tCO_2eq)	2024 (tCO_2eq)
Scope 1	0	0
Scope 2	0	2.85
Scope 3	395.46	306.72
Total	395.46	309.57
Emissions per employee	8.41	5.63

Our commitment to transparency and accountability remains central to our ESG strategy.

Taipei

Our Carbon Footprint: Reflecting on 2024

A key focus for the year was deepening our understanding of the greenhouse gas (GHG) impact of manufacturing our GaN wafers. By refining our carbon coefficient—the metric that quantifies emissions from wafer production—we gained a more accurate view of the environmental footprint of our manufacturing processes. This updated calculation resulted in a reduced calculated GHG impact per wafer and is a big driver in our year-on-year emissions reduction. This will enable smarter, data driven decision for the future.

Although our business travel-related emissions rose in absolute terms, a closer look tells a more nuanced story. When viewed per full-time employee, the impact has decreased—highlighting the importance of evaluating emissions in the right context. By scaling our metrics to reflect team growth, we can better track performance and align our decisions with our wider environmental goals.

	2023 (tCO_2eq)	2024 (tCO_2eq)
Total Produced Goods Emissions	174.4	46.9
Emissions per Employee	3.71	0.85

	2023 (tCO_2eq)	2024 (tCO_2eq)
Total Business Travel Emissions	178.42	198.65
Emissions per Employee	3.80	3.61

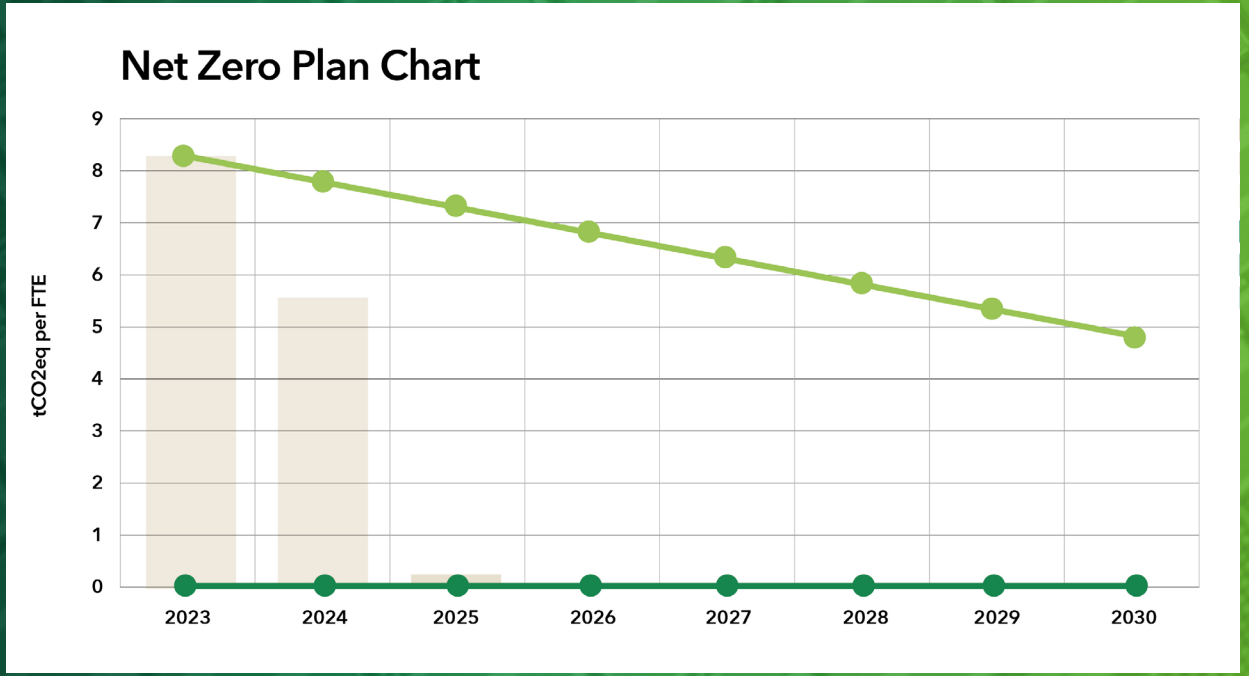
We also maintained a consistent methodology across the board, ensuring our data remains comparable year on year. This rigour helps us monitor our progress accurately and continue reducing our footprint with focus and intent.

Our Carbon Footprint: Reflecting on 2024

Looking ahead, we are actively working with our Taiwan team to explore renewable energy partnerships. These efforts are aligned with our ambition to fully eliminate Scope 2 emissions by 2030 - a critical milestone on our journey toward Net Zero.

Our 2024 emissions data reflects a meaningful step forward. More than just numbers, the deeper insights behind the data highlight what's driving our progress. By focusing on precise metrics and continuous learning, we are making informed, strategic decisions that bring us closer to a low-impact future.

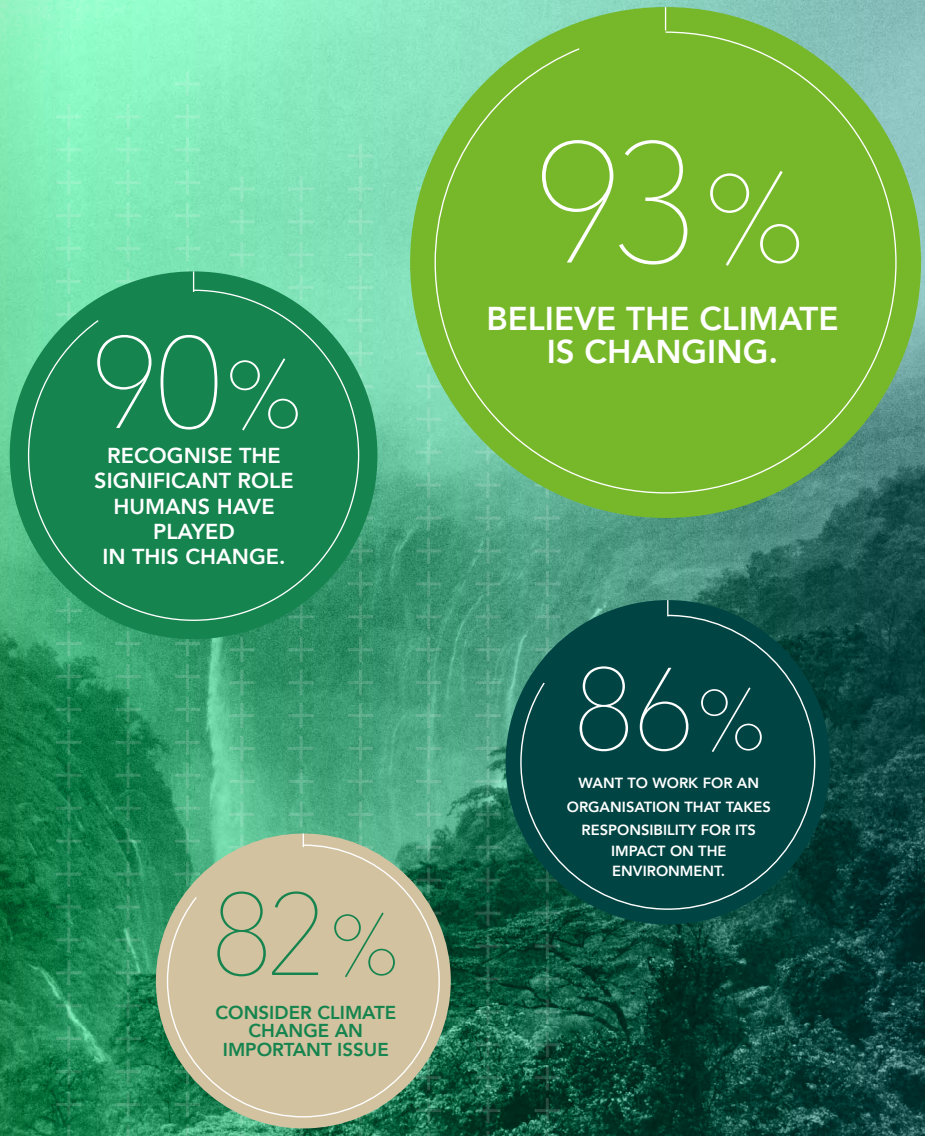
Sustainability is a shared responsibility - and we are proud to play our part, together.



Materiality Assessment

At CGD, sustainability isn't just a strategic priority, it's a shared commitment that lives through the values, beliefs and actions of our people. As part of our 2024 carbon assessment, we invited our team to share their thoughts on climate-related issues and to reflect on the United Nations Sustainable Development Goals (SDGs) that matter most to them.

The response was clear, thoughtful, and inspiring. Our people care deeply about the future of the planet and they want to be part of a company that does too. Here's what we heard:



When asked which SDGs resonate most, our team prioritised:

7
Affordable and Clean Energy (SDG 7)

2
Zero Hunger (SDG 2)

6
Clean Water and Sanitation (SDG 6)

These insights offer more than just data—they reflect a shared sense of purpose and a desire to be part of a company that takes meaningful action. As we shape our community engagement strategy and charitable initiatives for 2025, this feedback will guide us. It will also inform our approach to carbon offsetting and our wider sustainability journey. By aligning our Corporate Social Responsibility (CSR) activities with what matters most to our people, we're not only building a more sustainable business – we're fostering a culture rooted in authenticity, accountability, and shared ambition.

Employees are the heart of our mission

At Cambridge GaN Devices, people are at the heart of everything we do. We're proud to cultivate a workplace where every individual feels supported, valued and inspired to build a meaningful, long-term career.

Equality, Diversity, and Inclusion (EDI) aren't just policies, they are principles woven into the fabric of how we operate. From how we collaborate to how we innovate, EDI shapes our culture and strengthens our success. By welcoming a wide range of voices, experiences and perspectives, we unlock the creativity and bold thinking that push our technology, and our mission, forward.

We know that when people feel safe to be their authentic selves, they thrive. And when our teams feel a genuine sense of belonging, they're empowered to contribute with confidence, purpose and pride.

This authenticity defines our collective identity and inspires the unique character of CGD. Our commitment to equity and reducing inequalities is deeply rooted in the values we live by every day: collaboration, commitment, courage, innovation, sustainability, and knowledge. These values don't just guide us, they motivate us.

Diversity isn't a checkbox, it's a catalyst. By embracing different ways of thinking and working, we open the door to breakthrough ideas that fuel our ambition to create cleaner, smarter electronics. It's this inclusive mindset that drives our innovation and supports our long-term goal of reaching net zero carbon emissions by 2050.

At CGD, EDI is more than a priority, it's a promise. A promise to our people, our partners and the future we're building together. It's this inclusive mindset that drives our innovation and supports our long-term goal of reaching net zero carbon emissions by 2050.

Supply Chain Responsibility

At Cambridge GaN Devices, sustainability is not a side initiative—it is embedded in everything we do. As a fabless GaN semiconductor company, we see our role as both innovator and collaborator in driving a more sustainable, responsible future for electronics. From product design to global partnerships, we are proud to integrate Environmental, Social, and Governance (ESG) principles into every layer of our operations. It begins at the design stage.

Supply Chain Responsibility

Our mission is powered by the belief that technology can—and must—be a force for good. As a pioneer in GaN innovation, CGD is uniquely positioned to accelerate the transition to cleaner, more efficient energy solutions. We're continuously exploring new technologies, processes and partnerships to improve the sustainability of our products and stay ahead of emerging challenges in the semiconductor sector.

Together with our partners, we are driving systemic change across the value chain – championing not just a more sustainable semiconductor industry, but a more equitable one.

Our journey is ongoing, and we remain focused on aligning every aspect of our business with global sustainability goals. By embedding ESG principles across our product development, supply chain and operations, we are helping to shape a future where advanced power technologies support both progress and the planet.

> ***Through shared purpose and collective action, we are proud to be building a more responsible, resilient and sustainable world.***

What We've Done

Advancing Environmental Leadership

WE BEGAN QUANTIFYING THE SUSTAINABILITY ADVANTAGES OF GALLIUM NITRIDE (GaN) manufacturing compared to traditional semiconductor materials—reinforcing our commitment to science-based innovation.

OUR HIGHER POWER PRODUCT PORTFOLIO expanded with new, energy-efficient solutions designed for applications that directly contribute to reducing global greenhouse gas emissions.

SALES AND MARKETING EFFORTS were strategically focused on customer applications with the greatest potential for climate impact, aligning commercial goals with climate priorities.

Supporting People & Society

WE LAUNCHED A VOLUNTEER LEAVE POLICY, enabling employees to dedicate time to causes they care about.

OUR ELECTRIC CAR SCHEME was introduced to support greener transport—already adopted by 10% of employees within months of launch.

THE CREATION OF A WOMEN'S HEALTH AND WELLBEING COMMITTEE marked a proactive step toward gender-inclusive support and holistic employee care.

Strengthening Governance & Culture

A COMPREHENSIVE POLICY REVIEW helped ensure our governance remains robust, fair, and forward-thinking.

WE BROUGHT ESG INTO OUR PUBLIC ENGAGEMENT, replacing physical conference giveaways with a donation corner—redirecting funds to two meaningful charities instead of branded items.

WORLD LAND TRUST

Supporting MARINE CONSERVATION SOCIETY

What We'll Do

Sharpening Focus on Climate Action

WE WILL DEVELOP KEY CARBON PERFORMANCE INDICATORS (KCPIs) to monitor and measure our environmental impact with greater precision—providing clarity and accountability as we accelerate towards net zero. Alongside this, we will revise our Net Zero Plan to ensure it evolves in step with our organisational priorities.

OUR TRAVEL POLICY WILL BE REVIEWED to support low-carbon practices, while a refreshed Environmentally Preferred Purchasing policy will guide ethical and sustainable procurement company-wide.

Strengthening Governance & Ethical Practice

UPDATE OUR ESG POLICY to stay aligned with emerging frameworks and reinforce our commitment to responsible business.

PUBLISH A CODE OF ETHICS to champion ethical conduct and uphold the integrity of our work.

Empowering People & Purpose

LAUNCH A PAYROLL GIVING SCHEME, enabling employees to contribute directly to causes they care about.

ROLL OUT COMPANY-WIDE EQUALITY, DIVERSITY AND INCLUSION (EDI) training, supported by a comprehensive questionnaire, to strengthen our inclusive culture and drive positive change from within.

Through these initiatives, we are not only setting ourselves up for a more sustainable future– we're building a business that leads with purpose, adapts with agility, and acts with integrity. Through these initiatives, we are not only setting ourselves up for a more sustainable future– we're building a business that leads with purpose, adapts with agility, and acts with integrity.

Contact us

To find out more about the important work CGD does, please contact us using the below details

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