

# 2024 ESG Report

# What sustainability means to Xaar

Every business has an opportunity to make a positive contribution to the planet and society, and Xaar is no exception. We are passionate about driving our business in a way that is underpinned by a strong sense of ethics, corporate responsibility and a commitment to minimising our environmental impact.

The Roadmap has five key pillars – Environment, People, Innovation, Community and Governance; its purpose is to drive our ESG goals beyond the current Scope 3 requirements, enabling our customers to become more sustainable by using our products. Our Roadmap will provide an essential backbone for much of Xaar's future investment and activity.





# ESG Roadmap

Ambitious and achievable targets to drive meaningful impact



## Scope 1 & 2 Net Zero



We will work to reduce our water consumption in our facilities and manufacturing processes



We will drive energy reduction through work groups and invest in renewable energy sources



We will reduce paper usage in our operations and facilities



Internal communications will continue to be a priority



We will investigate End-of-Life product collection to improve the recycling and re-use.



We will build on our current STEM programme, broadening our approach and scope



We will work on initiatives to improve the environment around us within our community



We will update and communicate our environmental policy



We will improve biodiversity in the community where we operate



We will reduce our scope 1 emissions by reducing our F-Gas leaks



We will improve the working environment to support employee wellbeing



Every employee will have an IDP which supports them to develop the skills required for the future



We will optimise our material choices to improve sustainability



We will build a hybrid charity programme combining a charity partner with local charity support



We will submit our strategy to the SBTi



We will validate our strategy with a sustainable accreditation



We will reduce our waste in operations and become a Zero waste to landfill company



We will aim to reduce business travel where possible



We will continue to build on our safe working culture at Xaar gaining an ISO 45001 accreditation



We will invest in annual cohorts of early talent to build the skills for the future



We will work to develop energy efficient solutions for our key markets



We will build on our current volunteering programme



We will become an ISO 5001 accredited company



We will reduce and re-use chemicals in our operations where possible



We will donate and/or recycle our old IT equipment where possible



We will expand our consideration for product design to include improvement in manufacturing efficiency



We will work with the community to offer support, hospitality and opportunities



We will adhere to the GRI



We will reduce scope 3 emissions by making sustainable solutions accessible to our employees



We will develop a transparent approach to reward



We will use sustainability as an input into our supply chain design and supplier selection



We will build capability in inkjet within the wider community



We will become a FTSE4Good company

## 45% Reduction in Scope 3 emissions



We will investigate the potential use of AI & IT to improve our manufacturing efficiencies



We will invest in early careers and develop skills for the future



We will expand our consideration for product design to include a full picture of sustainability



We will extend beyond STEM and engage with further education and other subject areas



We will improve our transportation and distribution system for our full supply chain



We will continue to build a diverse workforce



We will work with our customers to improve the end-of-life treatment of our products



We will launch a sponsorship programme for the local community



We will ensure that we invest in verified carbon removal schemes to reach net zero and continue to support sustainability



Our employee benefits will evolve and develop, responding to employee feedback



We will work to develop print head designs which are inherently more sustainable

## By 2050 we will be a Net Zero company

# 2050

# 2040

# 2030

Between 2023-2024 we raised £626 for our charity partner Break from selling over 120 jars of honey harvested from our Xaar bees

## Our Pillars



### Environment

Leading the way in environmental sustainability for the industrial inkjet technology sector



### People

Be employer of choice by putting our people, their potential and wellbeing at the heart of all we do



### Innovation

Encouraging more sustainable approaches to design, manufacture, technology and collaboration across the whole product lifecycle



### Community

Actively engaging with our communities to provide practical, lasting support that benefits society



### Governance

To deliver on our sustainability and ESG ambitions, it is vital that we work towards clear milestones and goals



# Rebaselining our sustainability targets

**We have reinforced our commitment to sustainability with a rebaselined ESG Roadmap, which sets ambitious yet achievable targets to drive meaningful environmental, social and governance impact.**

Xaar's first Sustainability Roadmap was launched in 2020 and we have made considerable progress in the five years since. We are on track to hit our target of a 90% reduction in Scope 1 and 2 emissions by 2030.

Following a review of the requirements to complete Scope 3, we have extended the total timeline to 2050. The decision to rebaseline signifies Xaar's learnings during this period, as well as acknowledging recent regulatory and market changes.

*"Our research indicates that the majority of governments and companies have publicly set 2050 as their end date, and even those that are promising an earlier timeframe don't go sooner than 2040,"* **Graham Tweedale, Chief Operating Officer**



*Our revised target aligns with industry best practices and ensures a pragmatic, achievable approach to reducing emissions, by prioritising the areas – such as energy and waste – that will deliver the biggest impact, soonest.*

**Beth Connolly-Atkins, Strategy and Business Planning Manager**



REBASELINING

# An improved ESG roadmap

**The updated roadmap has been created with the support of the wider Xaar organisation, and input from stakeholders across our supply chain.**

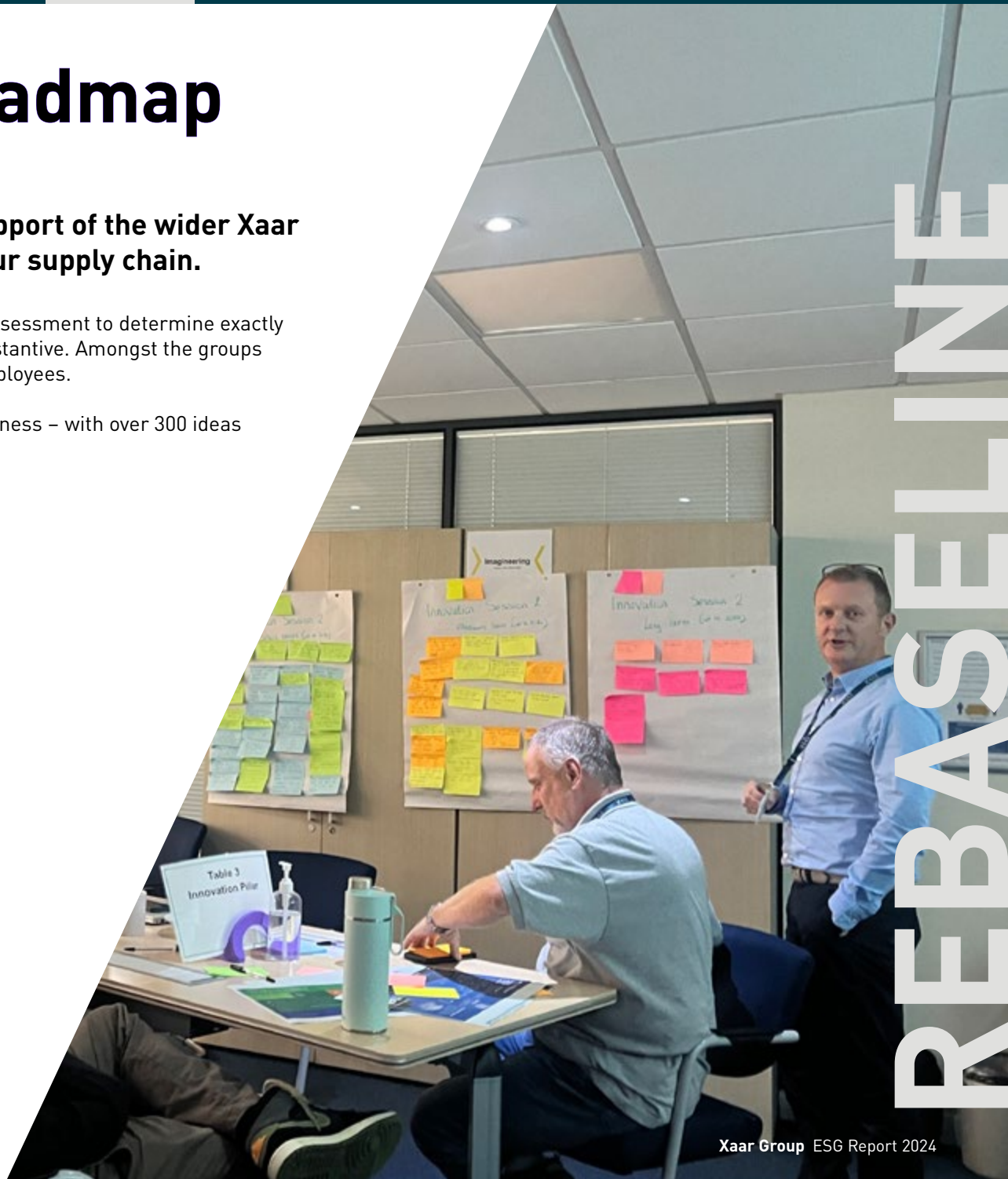
To make it as robust as possible, we undertook an extensive materiality assessment to determine exactly what internal and external stakeholders deemed most important and substantive. Amongst the groups consulted were customers, suppliers, STEM and charity partners, and employees.

Workshops were attended by over 20 representatives from across the business – with over 300 ideas shared and used to clarify and refine the roadmap.



*Based on such a thorough process – and with five years of learnings since the original roadmap – we're confident that the rebaselined ESG Roadmap is accurate, achievable, and better aligned with the needs of our business, employees and customers*

**Graham Tweedale, Chief Operating Officer**



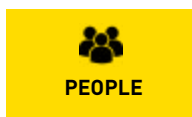
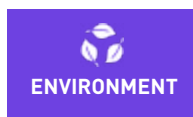


# Above and beyond

**While our timeline may have changed, the Xaar ESG Roadmap goes beyond standard requirements in order to future proof our ability to offer best-in-class, sustainable technologies to customers.**

This thinking is embedded in the pillars established by Xaar in 2020, to which latest Roadmap adds a fifth pillar, Governance.

## Our Five Pillars



*As a key player in the supply chain of many industries, we are playing an active role in supporting customers' own sustainability initiatives – for example, through inkjet innovations that reduce waste or require less energy*

Graham Tweedale, Chief Operating Officer



# Zero to landfill

**We have implemented ‘zero waste to landfill,’ across all three of Xaar’s UK sites – Huntingdon, Waterbeach and the Megnajet facility in Kettering – with the support of waste services provider BIFFA.**

As well as ensuring that zero waste is sent to landfill, we have improved our UK site waste management processes to better separate general recycling and food, a move that comes ahead of anticipated food waste regulations.

We introduced new colour-coded bins at each location to accommodate the change in process, supported by internal communications to help educate employees. A vital decision was to reduce the total number of bins on-site, to make it easier for everyone to follow the system correctly.

The work undertaken on the zero waste to landfill initiative will drive multiple environmental benefits, with improved separation processes ensuring that a greater volume of waste is suitable for recycling. We will monitor data to quantify the results.



*During our sustainability workshops, it was clear that people like to see tangible evidence of our commitment to environmental responsibility. The changes to our waste processes provide one way of achieving this because it’s such a visual system*

**Beth Connolly-Atkins, Strategy and Business Planning Manager**





# Wellbeing

**Providing a safe and confidential space for employees to discuss their emotional needs, our Mental Health First Aiders continue to grow in strength and impact.**

In 2024, we onboarded our first Megnajet site representative, expanding support across our locations. Existing First Aiders also completed refresher training with St John's Ambulance, ensuring they remain well-equipped to assist colleagues. To further strengthen this initiative, First Aiders meet regularly to support each other and share best practices.

Our new partnership with The Printing Charity has further enhanced wellbeing support, by offering a free, 24-hour helpline with emotional support, line manager guidance, and specialist services such as debt advice.

We remain committed to making wellbeing a core part of our business. All available services are prominently signposted across our sites, and we actively engaged in Mental Health Awareness Week 2024. With the theme "Movement: Moving More for Mental Health," we encouraged employees to participate in lunchtime walks and other activities, reinforcing the connection between physical activity and mental wellbeing.

# 12

**Mental Health First Aiders**

Across all sites in the UK





# Development

**Launched in 2022, our 'Inspiring EPIICC Leaders' programme equips new and aspiring line managers with the skills, knowledge, and behaviours needed to succeed within Xaar.**

After a successful first cohort in 2023, we welcomed a new group of future leaders the following year, who participated in tailored workshops delivered by our training partner/provider Grassroots. Key topics included leadership styles, managing teams, and navigating change.

For the wider business, our third annual Learning at Work Week was a major highlight. Employees engaged in a diverse range of workshops and events, covering topics from R&D innovations to mastering Excel.

## 301

**Hours of learning during learning at work week**

Collectively across the company



# Sustainability through R&D

**Sustainability and efficiency are fundamental drivers of our R&D strategy. We want to anticipate customer challenges and develop inkjet technologies that create real-world value by addressing reliability, efficiency and sustainability hand-in-hand.**

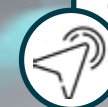
While developing our Ultra High Viscosity Technology, we knew we needed to translate it into tangible benefits for customers. This led to the creation of our DIVA project – Demonstration of Increased Viscosity Advantages. Through extensive research, testing, and collaboration with ink manufacturers, we found that the technology delivers a clear sustainability advantage as well as cost savings for customers.

In collaboration with Swansea University's Welsh Centre for Printing and Coating, we worked on a peer-reviewed study, published in the Journal of Coatings Technology and Research. The findings confirmed the transformative impact of our Ultra High Viscosity Technology and our Xaar Aquinox printhead when combined with innovative high viscosity water-based fluids developed by Nazdar. With access to a broader range of ingredients thanks to our technology, ink chemists at Nazdar were able to develop these advanced fluids to unlock a new world of possibilities.

We also hosted our 'Seeing is Believing' Open Day in November 2023, to demonstrate these advantages to our customers and partners.

## Key takeaways from the research included:

- Colour density increased by up to 67% on coated white corrugated substrates, enhancing vibrancy and print quality.
- Lower ink consumption, with high viscosity fluids requiring less ink to achieve the same intensity.
- Reduced drying energy, thanks to the minimal absorption into substrates.



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our blog

INNOVATION



# Savings in action

## Automotive coating

**Traditional spray painting methods in the automotive industry can waste up to 40% of paint, leading to excessive material consumption and energy use.**

However, our partnership with Axalta, a global leader in coatings, and Dürr, an expert in automated painting systems, is helping to revolutionise automotive coatings to provide significant environmental and cost saving benefits.

By integrating Dürr advanced robotic automation, Axalta's pioneering digital paint technology and Xaar's sustainable inkjet technology, we deliver precise, highly efficient paint application. This innovation is drastically reducing waste and saving time while ensuring high quality, consistent finishes for car manufacturers, which are difficult to replicate using other technologies.

# 30%

## Reduction in CO2 emissions

Significant cost savings for two-tone vehicle manufacturers



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our blog

INNOVATION

# Savings in action

## Battery coatings

**We're the first inkjet company to enter the EV battery sector with a printhead specifically designed for this application – setting new standards for coating technology.**

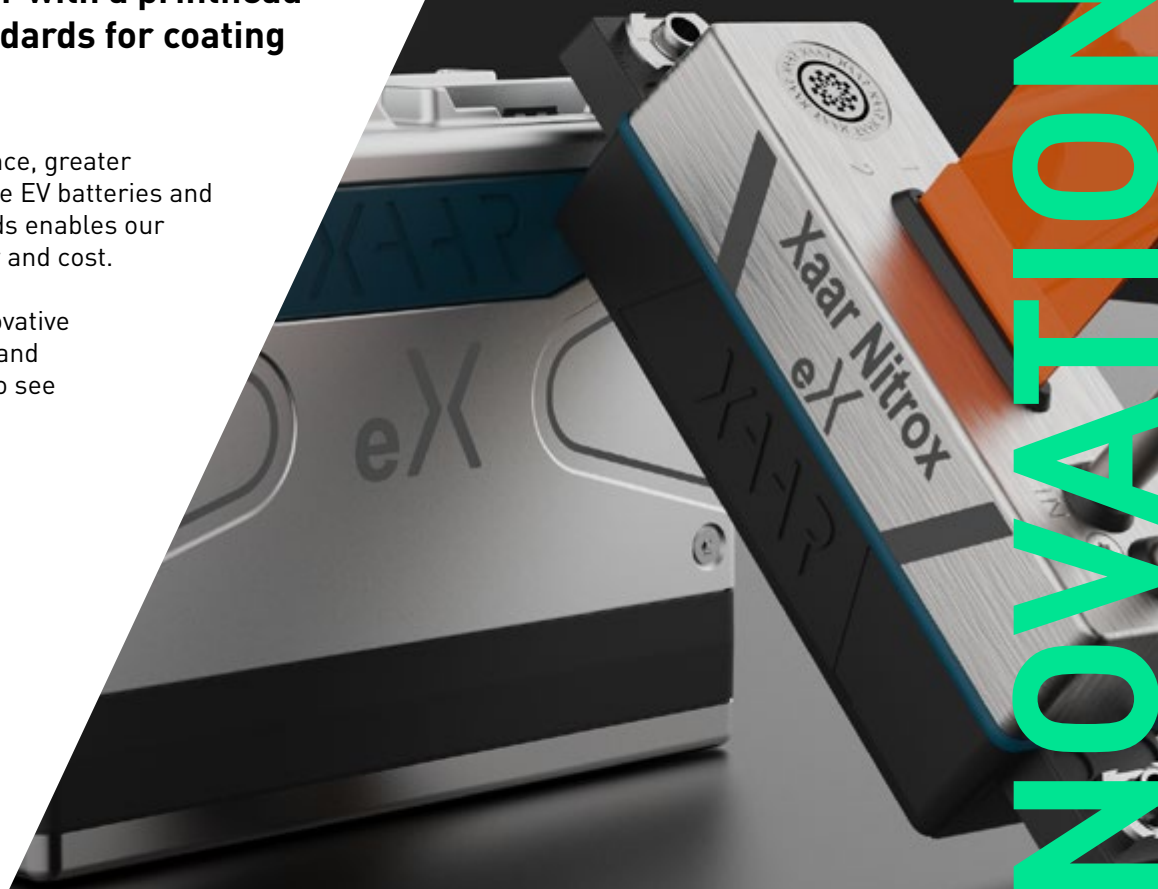
Technology to jet advanced functional fluids, enabling superior UV coating performance, greater mechanical robustness, and the enhanced dielectric strength required by high voltage EV batteries and energy storage systems. Operating these coating machines with higher viscosity fluids enables our customers to deposit a thicker coating in a single pass, reducing machine complexity and cost.

In the spirit of collaboration, our partners at Shifang are currently developing an innovative coating solution with an ink utilisation rate of over 99%, significantly reducing waste and improving the sustainability of the whole battery coating process, which is fantastic to see and only made possible with our technology.

# 99%

**Ink utilisation rate**

For the whole battery coating process



Click to find  
out more





# Break partnership hits six figures

Since 2022, Xaar has worked with our charity partner Break. Our employees have fundraised an amazing over £50,000 for the charity to date, which alongside a matched donation from the company, brings the total donated to over £100,000.

Break makes life better for children and young people on the edge of care, in care and leaving care. Its vision is 'A world where all young people, whatever their start in life, have the opportunities and relationships they need to thrive'.

Xaar employees have participated in dozens of events and activities to raise funds. Amongst the most notable have been the London Marathon and Cambridge Half Marathon, the Three Peaks Challenge, and a skydive.

Alongside raising money, employees also volunteered for Break by helping out at one of its care homes – painting fences, gardening, and generally sprucing up the environment to make it more attractive to the children and young adults who use it.

It doesn't end here. The relationship has been extended for one more year, in advance of our new hybrid charity process (see next page). So, there is still much more fundraising we can do for Break.



*The money that you raise makes a massive difference to the life of a young person who's leaving care. We'd like to thank everyone at Xaar for their time, generosity and support.*

Sarah Bunn, Fundraising Manager



Click to find out more



# Change to charity partnership

**The Xaar team is always keen to use our Group capabilities to support the community. As a result, we've further developed our charity partnership programme to enable even more good causes to benefit.**

As part of our 'You Said, We Did' initiative, we asked for opinions from across the Group as to what they'd like to see. Amongst the most common responses were to maintain a local focus, pick partners the team is passionate about and – crucially – not to be locked into just one charity.

The result is our new hybrid approach. Our main charity partner will be chosen on a two year rotating basis, with the first partnership to begin in March 2026 following the one year extension with Break. Xaar's Charity Champions will be responsible for the shortlisting and voting procedure.

Secondary charities will be chosen by team vote, allowing individuals to nominate their favourite causes. The key requirement for any potential partner is that they be a registered charity with demonstrable evidence of aligning with Xaar's own community values.

All proceeds raised by the team will continue to be match-funded by Xaar.





# Our new fifth pillar

**When we first launched our Sustainability Roadmap we focused on four pillars – Environment, People, Innovation and Community – with a commitment to sound governance. As we move towards a wider ESG Roadmap, we want to have more of a focus on Governance so we have included it as a fifth pillar.**

As well as aligning with the requirements of the UK Corporate Governance Code, Xaar's commitment to good governance means embedding it within the entire organisation, to establish a positive and proactive culture aligned to our vision and values.

To achieve this, we continue to improve our systems and processes to ensure a robust governance framework that supports the Board's responsibility for leading the Group. This corporate governance structure has clearly defined responsibilities, designed to safeguard and enhance the long term sustainable success of Xaar.

Xaar benefits from a strong ESG governance structure. Our cross-functional ESG Committee has accountability to the Board. This group brings together a wide range of skill sets as well as a shared determination and passion for a more sustainable future. Our CFO Paul James has specific Board responsibility for ESG matters.

During 2024, the Board undertook the following key governance activities: Recruited two new nonexecutive directors, including the Chairman of the Audit Committee; appointed a new Chief Financial Officer; ensured compliance with the UK Corporate Governance Code 2018; conducted an internal review of Board and Committee effectiveness and performance.

## STANDARDS & COMPLIANCE

Our manufacturing sites meet stringent environmental and quality standards.



### Quality Management Standard: ISO9001

Our Huntingdon and Waterbeach operations have ISO9001 in place.

### Environmental Management: ISO14001

Our Huntingdon and Waterbeach operations have ISO14001 in place.

### Energy Saving Opportunity Scheme (ESOS)

Xaar are fully compliant with the ESOS scheme.



*A strong governance framework with robust supporting processes across Xaar is a key factor in delivering sustainable business performance, generating value for shareholders and contributing to wider society*

**Andrew Herbert, Chairman**



# Looking forward

## ENVIRONMENT

Leading the way in environmental sustainability for the industrial inkjet technology sector

### Areas of focus

- + We will reduce our Scope 1 emissions by reducing our F-Gas leaks and implementing green gas solutions to our UK sites
- + We will drive energy reduction through work groups and invest in renewable energy sources
- + We will improve biodiversity in the community where we operate



## PEOPLE

Be employer of choice by putting our people, their potential and wellbeing at the heart of all we do

### Areas of focus

- + We will improve the working environment to support employee wellbeing
- + We will continue to build on our safe working culture at Xaar gaining an ISO 45001 accreditation
- + We will continue to make internal communications a priority and continually improve these



## INNOVATION

Encouraging more sustainable approaches to design, manufacture, technology and collaboration across the whole Product Lifecycle

### Areas of focus

- + We will work to develop energy efficient solutions for our key markets
- + We will optimise our material choices to improve sustainability
- + We will investigate End-of-Life product collection to improve the recycling and re-use opportunities



## COMMUNITY

Actively engaging with our communities to provide practical, lasting support that benefits society

### Areas of focus

- + We will build on our current STEM programme, broadening our approach and scope
- + We will build a hybrid charity programme combining a charity partner with local charity support
- + We will work on initiatives to improve the environment around us within our community





