



FOAM ENGINEERS

INNOVATE ▶ DESIGN ▶ MANUFACTURE

Sustainability Development Program





Sustainable Innovation

The topic of sustainability is one that we are committed and devoted to, we know we are at the beginning and have a long way to go but feel encouraged and excited about the future and the positive change and impact we can have.

We have already developed many innovative products and have optimised many of our manufacturing processes by rethinking them from the beginning. Today, we are acting in an environmentally friendly and resourceful manner and will continue on this path. For example, we are currently drawing up plans to obtain the ISO 14001 Environmental Certification.

We want to operate an even more sustainable business into the future and create longer term added value and benefit for our customers, employees and stakeholders.

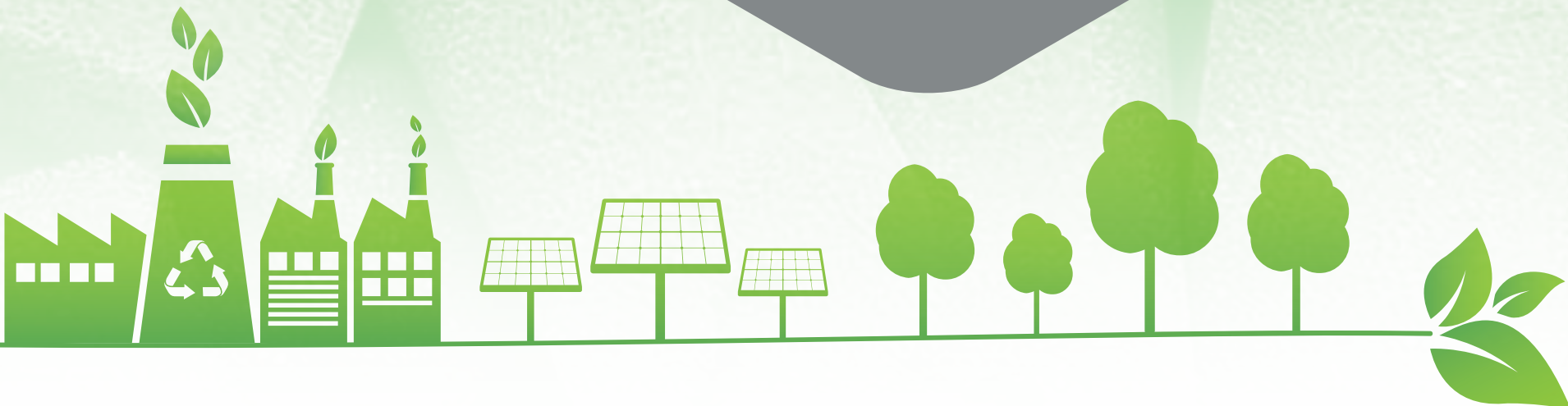
Our team is on board, and we are collectively and continually planning new projects to improve our outputs and expand our knowledge as we become even more responsible for our actions from an economic, social and ecological viewpoint.





"Sustainable development is a fundamental break that's going to reshuffle the entire deck. There are companies today that are going to dominate in the future simply because they understand that."

Francois-Henri Pinault





Our Green Credentials

What are we doing at Foam Engineers to reduce our impact on the environment.

As a converter of plastic products, we fully understand our potential impact to the environment and our responsibility to reduce this as much as possible. We are currently working on numerous projects and initiatives within the business to achieve this. We call this the Foam Engineers Sustainability program.

We aim to recycle all our waste from general waste to foam waste.

Our foam waste is recycled back into new products such as carpet underlay, play areas and soft toy stuffing. We are continually reviewing and exploring new ways to recycle our foam waste.

Where possible, all our processes have been reviewed to reduce scrap and waste materials.

In some cases, this have been achieved by adjusting our cutting programs and improving yields. We now work Monday to Thursday which is helping us save energy and fuel consumption – we have estimated collectively we are doing 193 miles less each week.

We are embarking on a project to fully understand, access and offer eco foams.

These foams are currently available through most of our suppliers around the world from Europe to Japan. What are eco foams? These fall into two categories, which are, plant based or bio based foams which have been developed since the late 1990's and recycled foams made up of a percentage of recycled content. Over the past several decades this technology has evolved substantially, and bio-based polyols are being used today. Once we have established a product range of eco foams, we will carry out the necessary internal testing to ensure suitability and effective conversion. We are excited that this will create opportunities in a wide range of applications and markets. We hope to be able to promote these eco foam products very soon.

We have a dedicated Green Team.

Who are responsible for continually reviewing our business strategy to ensure we are doing all we can to be as environmentally friendly as possible, this team will also review any legislation and criteria we as a business are expected to meet and adhere to, this will involve, familiarizing ourselves with the new environmental legislation, plastic tax 2022 small business sustainability, environmental compliance.

Supporting Sustainable Development Goals (SDGs):





- 4-day working week
- Ban on plastic cups
- We are measuring our carbon footprint and outlining a reduction plan using Climate Essentials
(Decarbonisation report available on request)
- Energy efficient LED lights
- Carboard reuse scheme
- We are promoting a range of eco foams
- Internal recycling
- We only use recycled paper towels
- Optimised cutting plans across our processes
- We bale foam waste for recycling or resale

26%
OF EMPLOYEES
ARE ON THE
GREEN TEAM

21
COLLECTIONS
OF SCRAP SENT
FOR RECYCLING
IN 12 MONTHS
TOTALING
20 TONS

**44% FEMALE
& 56% MALE**
STAFF ACROSS
MANAGEMENT
AND FACTORY

482 m³
OF WASTE KEPT
OUT OF LANDFILLS
EACH YEAR

3
OF OUR
MANAGERS
ARE HSE
TRAINED

7
FIRE
MARSHALLS

9
BANKSMEN

6
FIRST
AIDERS



We believe in building a high-performance business and are committed to delivering safe, high-quality products and services.

We also believe in creating a culture of continuous improvement throughout Foam Engineers, applying the Lean Enterprise model to everything we do. While we want to win in business, we must do so in a fair way, the Foam Engineers Code requires honest and proper conduct from all Foam Engineers employees. We also expect the same from our suppliers and other business partners.



Our Commitments

Our strategic goals direct how we continually strive to achieve our targets and that of our customers.

- Enabling our people to make sustainable choices at home and at work
- Ensuring our decisions are informed and aligned to our sustainable goals
- Inspiring our customers with new sustainable products and processes
- Improving our efficiency, reducing our waste and lowering our emissions



Supporting SDGs:





Our Approach to Sustainability

Sustainable Development Program (SDP) is instrumental at Foam Engineers, we are making robust decisions and integrating sustainability into our business growth plan.

SDP is a key tool to increase our awareness and understanding of operational and market risks and opportunities relating to our environmental impact against the contribution of our products to the planet and society. We are engaging in open innovation and discussions with our key customers and suppliers.

We are committed to sustainable growth.



Our commitment to enhancing our working environment

- 4 day working week
- Full staff involvement
- Summer BBQ's
- Staff training
- ILM courses offered
- Company team building days
- Christmas parties
- Free vending
- Flexible working patterns
- Seasonal gifts



Our internal working parties

- Fire party – This parties meets to discuss and monitor our fire safety measures and conducts testing and maintenance.
- Health and Safety committee – Responsible for day-to-day health and safety matters and promote co-operation between employees and employer and to ensure health, safety and welfare for all.
- Green Team – Consists of key individuals whose responsibilities focus on sustainability management and communication throughout the business of these important topics.



Our Approach to Sustainability



Performance at a glance

- Innovation and development
- Sustainable product development
- Emissions data reviewed
- Waste recycled or reused
- Efficiencies introduced
- Scrap saved
- Safety performance measured
- Staff members trained on our code of conduct

Introducing efficiencies

- We are reducing our scrap across all processes
- Cutting program improvements
- Minimum Order Quantities (MOQs) to fully utilize the materials and optimize yields
- Increased use of automation
- New machine and equipment investment
- Increased yields through optimization
- Upskilling and training our workforce through our competencies matrix

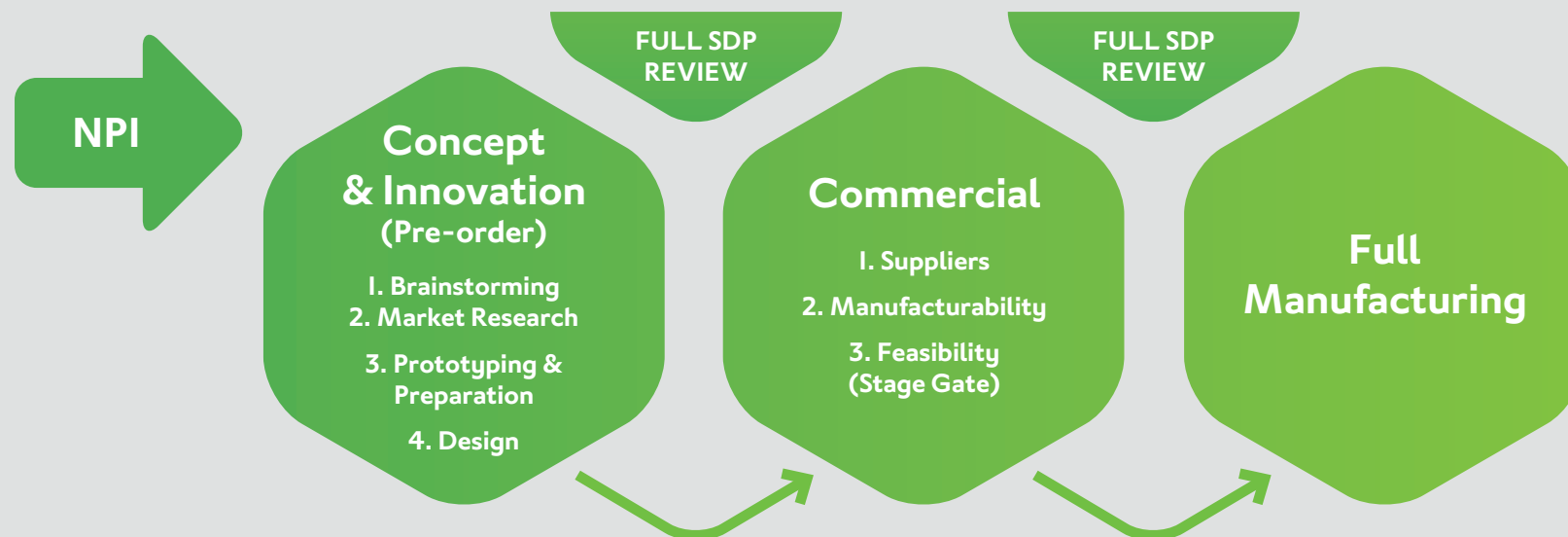


Key decision-making **tool**

Innovation and research

From 2022 100% of all our New Product Introduction (NPI) projects are analyzed along side our SDP tool using SDP logic. Our products go through a development process starting from the beginning with a full preorder review and in some cases, we apply fast track and rapid prototyping at the first phase. These are all then logged in our NPI system.

SDP Logic applied to all our innovation projects





Performance & Plans

| Key Goals | Performance goals in 2022 |
|--|---|
| Maintain our aim of zero to landfill and work with local authorities to improve disposal of waste | Climate Essentials - Boost Green Credentials Assessment. This is a measure of our Carbon score reviewing our products and services, Transport, Energy Consumption and Waste |
| Ensure that all new products are reviewed against sustainable alternatives | Review and re-evaluate our existing and core working practices |
| Installation of renewable electricity (solar panels) by 2025 | Completing appraisals of employees of our management team |
| Adherence to the UN SDG Goals | Understand and reduce our carbon foot print |
| Use less Packaging and Paper | Increase the percentage of recycled foam through third parties and internal innovations |
| Access to and offering of next generation foams including a range of eco foams | Close the loop on waste and reduce foam scrap. |
| Net zero by 2030 | We will continue to train more people in our organisation on sustainability-related matters |
| Continued Product Innovation | Environmental ISO standard preparation work |
| We will train all relevant employees each year based on our competencies matrix | Supplier risk assessment with import and export evaluation |
| We will continue to monitor our external environment and competition for threats and opportunities | We will accelerate our new product development providing sustainable alternatives for 25% of our product range |
| We will continue to invest in new sustainable product lines | We will continue to strengthen relationships with suppliers, whose expertise can help accelerate product development |



| Key Activities in 2021 | 5 year plan |
|--|---|
| Self audited all process safety and spot-audited for general safety performance. | We will continue to comply with all local laws |
| Established the Green Team | Update our learning and knowledge database each year to maintain a focus on innovation based thinking across the business |
| Disaster recovery plan completed | Develop additional policies including a mental health and Human Rights Policy |
| Actively undertook risk assessments and wrote safe operating procedures | Update our compliance policies - better risk management Focusing on non-discrimination, anti-bullying and harassment |
| Shared information about accidents and near misses and the causes to prevent recurrence | We will continue to invest in energy efficiency programmes |
| Business Continuity Plan (BCP) completed | We will continue to conduct third party due diligence checks on suppliers and customers |
| Revising recruitment procedures to ensure discrimination is absent from the recruiting process | Update risk and continuity frameworks |
| Bucks Business First off site Training - Purchasing & Supply Chain. Performance Management | Full systems migration to the cloud |
| Quality policy updated | Calculate our carbon foot print/targets for Net Zero through climate essentials carbon foot print assessment |
| Trained and up skilled our workforce | Develop and adhere to sustainable manufacturing practises |
| Efficiencies program introduced across all factory processes | We will apply greater importance to sustainability performance when assessing and selecting suppliers |



Plant Based Foams - Bio-Oil Technology

Polyurethanes (PUs) are widely used in many applications, such as insulation materials, automotive parts, bedding and furniture, electrical, flotation, packaging, and structural materials.

PU foam is made through the reaction of isocyanates and polyols. Currently, both polyols and isocyanates are mainly derived from petroleum resources. However, due to increasing concerns over the depletion of fossil fuels and their negative impacts on the environment, there is growing interest in the exploration for renewable feedstocks to replace petroleum derived polyols either partially or completely with bio-based polyols for the production of PU foams.

A number of vegetable oils have been used to prepare PU foams, such as soybean oil, palm oil, castor oil, rape seed oil, linseed oil, however, some of these vegetable oils are produced on a

very limited commercial scale. Bio-based polyols can also be produced by conversion of abundantly available biomass into bio-oils using chemical, thermochemical or biological methods.

We are researching, testing and investing in foams made from plant-based bio-oil and recycled materials. An example of this is castor beans, a non-food source that doesn't compete with food crops and uses very little water to grow. The rapidly renewable plant has been naturalised in warm climates all over the world and can grow ten feet in a single season. The use of castor oil reduces the need for petroleum and uses fewer natural resources to produce. It with potentially allow us to provide our customers with eco-friendly, reduced petroleum solutions with uncompromised functionality and performance, while limiting the impact on the planet. We are also researching

and testing foams which are based on or contain; Mushroom oil, seaweed oil, sugar Cane, bamboo, corn starch and even algae.

We are also offering polyethylene materials which have been made from at least 30% recycled material. Our suppliers are currently reviewing and developing products not yet achieving 30% recycled content to understand if these can also be commercially produced.

It is our aim to introduce Bio-based adhesives which are clean, sustainably sourced bio-based raw materials. We are committed to becoming a greener manufacturer and are always researching new sustainable innovations to help meet our climate goals, one of these is the use of bio-based and vegan adhesives.

Supporting SDGs:

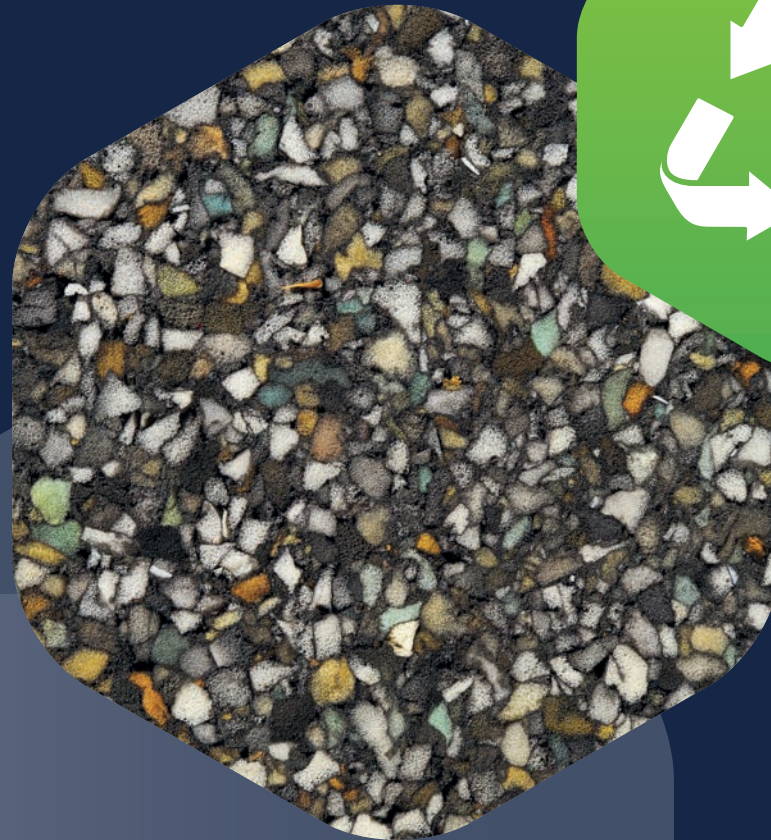




Closing The Loop On Waste

We recycle 68% of post-production waste material. This is typically achieved through the foam manufacturers who turn the waste into new products.

This is a result of our expanding commitment to the creation of more sustainable technologies that close the loop on post-production waste material and get us closer to the end goal of ZERO waste. We are investing more than ever before in R&D to continually understand and develop more sustainable solutions that optimize our supply chain from end to end by capturing and repurposing all waste material.



Supporting
SDGs:





Eco Polythene Bags & Box Reuse Program



Ordinary polybags take hundreds of years to decompose, causing pollution and trapping marine life. That's why we are looking into our packing products with the aim to offer eco friendly alternatives, this is known as the Eco Polythene Range. These include:

Polythene plant – produced from sugar cane and potato starch rather than oil. Carbon Neutral, 100% recyclable, same properties as polythene with no change in performance.

Polythene recycle – Created using recycled content. Less polythene going to landfill, 100% recyclable, can avoid the UK plastic packaging tax.

Polythene degradable (bio-degradable or compostable)
Bio-degradable products break down naturally into miniscule pieces of plastic over time by microorganisms. Compostable products are created using starch which fully decomposes into compost without creating any toxic residue.

We are working with our customers to reuse cardboard boxes where possible, by reducing the use of cardboard we save trees, decrease our carbon footprint, and eliminate the need for thousands of gallons of water a year.

Supporting
SDGs:





A drive to recycle



Scrap foam becomes new products

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**Carpenter and
Ball & Young
recycling
collections in
12 months**



Trim collection

Trim foam is collected from our facility by Ball & Young



Material Preparation

The trim is mechanically broken down into small pieces. The materials are steam cleaned and then mixed with an isocyanate pre-polymer



Conversion

The mix is then moulded, pressed and bonded together with a pre-polymer and injected with steam to create a foam block ready to be converted into new products

The Sustainable Development Goals

The Sustainable Development Goals are a collection of 17 interlinked global goals designed to be a “blueprint to achieve a better and more sustainable future for all”. The SDGs were set up in 2015 by the United Nations General Assembly and are intended to be achieved by 2030.

How does Foam Engineers fit in to this initiative.

We believe it is important to be aware of these goals and have aligned our business model accordingly. Our aim is that we effectively communicate these goals throughout our business and adapt our way of working to improve our attitudes on sustainability making our business a better place to work whilst being kinder to the environment. Please read on to understand how we hope to achieve this and what we’re doing within our business. We are focusing on a select number of the 17 goals which we feel are most relevant / achievable to our business.





Good health and well-being

Ensure healthy lives and promote well-being for all at all ages

- Promote mental health
- Achieve universal health coverage
- ThinkSAFE
- Promote work-life balance
- Make sure that our employees have access to healthcare
- Giving back to our communities is something that would enhance our employees' well-being



Gender Equality

Achieve gender equality and empower all women and girls

- Ensure full participation in leadership and decision-making
- Understand what the culture on promotions is and whether there are unconscious biases in new hires.



Affordable and Clean Energy

Ensure access to affordable, reliable, sustainable and modern energy for all

- Double the improvement in energy efficiency
- LED lighting
- Metrics



Decent work and economic growth

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

- Improve resource efficiency in consumption and production
- Promote youth employment, education and training
- Full employment and decent work with equal pay
- Make Foam Engineers a great place to work
- Foam Engineers core values



Industry, Innovation and Infrastructure

Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation

- Develop sustainable processes
- Enhance research and upgrade internal technologies
- Fully benefit from the UK Government R & D tax credit scheme
- Support sustainable technology development
- Reduce waste through LEAN manufacturing



Climate Action

Take urgent action to combat climate change and its impacts

- Integrate climate change measures into policies and planning
- Build knowledge and capacity to meet climate change
- Think GREEN
- Sustainability impact analysis and LCA embedding in policies and processes
- Perspective and encouragement for our employees to adapt a better lifestyle



Dear Reader

Thank you for reading this edition of the Foam Engineers brochure, we hope you found it useful and interesting and would welcome any questions or enquires you may have.

Please get in touch

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FOAM ENGINEERS

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