



FOR A GREENER TOMORROW

SUSTAINABILITY REPORT

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1. THE CLIMATE CRISIS



What is climate change and what are the effects?

Climate change refers to the significant and long-term alteration of the Earth's climate patterns, primarily driven by human activities such as burning fossil fuels, deforestation, and industrial processes. Leading to a notable increase in global temperatures, resulting in a wide range of environmental impacts.

The enhanced greenhouse effect, caused by the release of greenhouse gases into the atmosphere, trap heat and cause the planet to warm unnaturally. Consequently, we are witnessing alarming rates of glacier and polar ice cap melting, contributing to rising levels that pose a severe threat to coastal communities. To avert further escalation, urgent and sharp reductions in greenhouse gas emissions are imperative.

Climate change disrupts weather patterns, leading to more frequent and intense natural disasters like hurricanes, droughts, and wildfires. The evidence of unprecedented rapid warming is undeniable with the Earth currently about 1.1°C warmer than it was in the 1800s, and the last decade has been the warmest on record.

Furthermore, the ocean, which plays a central role in reducing emissions and stabilising the climate by generating 50% of the planet's oxygen and absorbing 25% of carbon dioxide emissions, is now facing challenges due to climate change. The ocean has become warmer, more acidic, and less productive, with rising sea levels. These levels have reached a critical point, necessitating the relocation of communities living in vulnerable coastal areas. As climate change intensifies, the number of 'climate refugees' is expected to increase, placing additional strains on resources and infrastructure.

Climate change has far-reaching consequences, affecting not only the environment but also human lives and livelihoods. It is estimated that approximately 13 million people lose their lives each year due to environmental factors. The impact on human health is evident, with disruptions to food production, housing, safety, and employment opportunities.

Food security is under threat as climate change impacts fisheries, crops, and livestock. With the acidity of the ocean putting marine resources at risk, heat stress diminishes water

and grasslands for grazing, leading to declining crop yields and affecting livestock productivity. Additionally, climate change is also impacting the availability of usable freshwater, with only 0.5% of water on Earth being suitable for consumption.

Understanding and addressing these aspects of climate change are critical to safeguarding our environment and ensuring a sustainable future for generations to come.

What are the main causes of climate change?

The main causes of climate change are primarily down to human activities, with greenhouse gas emissions playing a central role.

The burning of fossil fuels, such as coal, oil, and natural gas, for energy production, transportation, and industrial processes releases significant amount of greenhouse gases like carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) into the atmosphere. These gases trap heat, leading to the Earth's temperature to rise and contribute to global warming. For instance, using petrol for driving cars or coal for heating buildings releases these gases into the atmosphere.

Deforestation is another major factor driving climate change. Large-scale deforestation, driven primarily by agriculture, logging, and urbanisations, reduces the numbers of trees that can absorb CO₂ from the atmosphere. This diminishes the planet's capacity to regulate CO₂ levels, exacerbating the greenhouse effect.

Industrial activities also contribute significantly to climate change. Processes such as cement production, chemical manufacturing, and other heavy industries release substantial amounts of greenhouse gases and other pollutants, further contributing to the global climate crisis.

Agricultural practices are also a significant source of greenhouse gas emissions. Livestock, rice paddies, and the use of fertilisers release methane and nitrous oxide into the atmosphere. Moreover, land-use changes for agriculture often lead to deforestation and the release of stored carbon from the soil.

Our responsibility

As a key player in the transport sector, manufacturing, and supplying vehicles such as HGVs and LCVs, we bear a significant responsibility in addressing the climate crisis. Majority of cars, trucks, ships, and planes run on fossil fuels like gasoline, diesel, and kerosene, releasing carbon dioxide, a potent greenhouse gas, into the atmosphere.

The transport sector itself accounts for approximately 15% of total greenhouse gas emissions, making it the fourth-largest emitter globally after power generation, industry, and agriculture-forestry-land use sectors.

Within the transport sector, road vehicles are the largest contributors, accounting for a staggering 69% of all transport emissions. Without decisive action, emissions in the sector could increase by as much as 65% by 2050. However, the potential for successful action is promising, with the possibility of reducing emissions by up to 68%.

Achieving this goal will require a range of transformative measures, including demand efficiency strategies, and embracing electromobility. Battery-electric vehicles, particularly when charged with low-carbon electricity, offer a more sustainable alternative, exhibiting lower emissions throughout their lifecycle compared to internal combustion engine vehicles.

Given our prominence in the transport industry, we can play a vital role in advancing carbonisation efforts. As part of our responsibility, we will invest significant resources into the Research & Development (R&D) department. With the aim to innovate and create product that's more suitable for electric vehicles, as well as exploring the use of sustainable materials and processes through the production lifecycle.

By leveraging cutting-edge technologies and sustainable practices, we will seek to reduce the environmental impact of our products, making them more energy efficient and eco-friendly. By investing in adaptive measures to address environmental risks, we can lead the way in sustainability initiatives and contribute to a greener future for the transport sector and the planet at large.

2. NET ZERO BY 2035

What is net zero?

Net zero is achieving a balance between the carbon emitted into the atmosphere, and the carbon removed from it.

Net zero refers to the state in which there is an equilibrium between the amount of carbon dioxide emitted into the atmosphere and the amount of carbon dioxide removed from it. The goal to achieve net zero is to ensure that the total carbon emissions released are effectively eliminated or offset by an equal or greater amount.

By striving for net zero, we aim to mitigate the impact of climate change and work towards a more sustainable future.

...but how?

ELECTRICITY
USAGE
REDUCED
BY 16%



GAS USAGE
REDUCED
BY 9.5%

WATER
USAGE
REDUCED
BY 80%



COMPANY CAR
CARBON USAGE
REDUCED
BY 48.8%



**THE
JOURNEY
SO FAR**

SINCE 2019



**IMPORTED
GOODS**
REDUCED
BY
65.9%

HOW DID WE DO IT?

Here at Albert Jagger, we are committed to reducing our carbon footprint and working towards achieving a net-zero impact on the environment. Since 2019, we have undertaken a series of initiatives aimed at reducing our emissions and embracing sustainability throughout the organisation.

One of the first steps we took was running head office on 100% LED lighting. LED lighting is highly energy-efficient with a longer lifespan than traditional lighting options. By making this switch, we significantly reduced our energy consumption.

Reducing air pollution led us to replacing the company cars with electric and hybrid vehicles. By embracing cleaner transportation options, we not only reduced our direct emissions but also contributed to a cleaner environment for the communities in which we operate.

As firm believers in promoting sustainable commuting practices among our employees, we encourage the Cycle to Work scheme, offering incentives for employees to cycle to the office. This not only cuts down emissions but also fosters a healthier lifestyle, boosting employee well-being.

Embracing digital solutions has also been a game change for the company. With two fully equipped conference rooms, we can achieve seamless online meetings, reducing the need for business travel. By utilising technology to connect with clients and partners worldwide, we have minimised our travel-related carbon footprint.

By making the conscious effort to reshore some of our operations, we have achieved a reduction of 65.9% on imported

operations, we have achieved a reduction of 65.9% on imported goods. By bringing manufacture to the UK and sourcing locally, we now have an ever-growing portfolio of British made products, eliminating the need for long-distance transportation via boats or planes (or private jets!).

Recognising the importance of nature-based solutions, we initiated a tree-planting project to help offset our emissions. Acting as carbon sinks, trees absorb CO2 from the atmosphere, aiding in climate regulation.

At Albert Jagger Limited, we actively promote a reuse culture among our employees. We encourage our staff to donate clothes, books, and other items, increasing their lifespan and minimising waste generation. This fosters a sense of responsibility towards the environment and encourages sustainable habits.

We have taken conscious steps to reduce our paper usage across our operations. By encouraging digital documentation and communication, we are working towards becoming a paperless organisation. Our goal is to be completely paperless by 2028, thereby saving countless trees and reducing our ecological impact.

At Albert Jagger, we are proud of the progress we have made on our journey to net zero so far. We are committed to seeking new innovative ways to reduce our environmental impact. Moving forward we will continue to explore new avenues, setting a positive example for the industry, as we play our part in safeguarding the planet for future generations.

3. CHOOSE BRITISH, CHOOSE SUSTAINABILITY

LOCAL MANUFACTURING, GLOBAL IMPACT

In recent years, offshoring has been a popular practice within many businesses, with the aim of reducing costs and increasing efficiency. However, the effects of offshoring on the UK manufacturing industry have raised concerns about job losses, economic consequences, and environmental impact.

What is offshoring?

Offshoring involves relocating processes or services overseas to take advantage of lower labour and manufacturing costs, access to cheaper raw materials, specialised skills, and advanced technology. While this can lead to cost savings, it can also result in reduced quality control, disruptions in the supply chain, and increased shipping costs.

What are the effects of offshoring on UK manufacturing?

The growing trend of offshoring has raised concerns about the loss of domestic jobs, as manufacturing is moved to countries with cheaper labour, such as India and China. This downsizing of the UK workforce has broader economic consequences, leading to reduced demand for related industries and local businesses that depend on the manufacturing sector.

Dependency on foreign suppliers can make UK manufacturers vulnerable to disruptions in the global supply chain, like geopolitical tensions, natural disasters, or transportation issues.

Additionally, offshoring contributes to increased carbon emissions and environmental degradation due to longer shipping distances.

What is reshoring?

Reshoring involves the process of bringing production and manufacturing back to the company's original country. It has become one of the most discussed topics recently, driven by geopolitical factors like Brexit, COVID-19, and international conflicts.

Why are businesses reshoring?

Reshoring is the shrinking cost gap between countries, as they continue to develop, labour costs in offshore locations are increasing, making the cost advantage of offshoring less significant each year.

Reshoring also aims to strengthen the local and national economy by generating jobs, reducing unemployment, and balancing trade deficits. It can also improve quality control and enhance supply chain security, although it may result in high labour costs and decreasing economies of scale.

In light of the changing global landscape, businesses are reconsidering their offshoring strategies. Geopolitical risks such as trade wars, national disasters, and pandemics can lead to inflated fees and supply chain disruption.

Rising costs of transport, shipping containers, and labour, along with new regulations, result in longer lead times and increased shipping expenses. UK manufacturers prioritise shorter lead times, reduced delivery costs, and leaner workflows by keeping supply in the same time zone, helping manage operations more efficiently. Overreliance on outsourcing can also leave companies vulnerable to unexpected issues, such as changes in foreign economies, energy prices, and resource availability.

What are the advantages of reshoring?

Reshoring has a positive impact on the UK economy, by providing jobs and boosting expenditure, reshoring contributes to the overall well-being of the UK community.

Quality control is easier to maintain when production is closer to home, reducing the likelihood of substandard parts and ensuring higher product quality. Shorter distances in the supply chain result in smaller carbon footprints, aligning with sustainability values and reducing the overall environmental impact.

As the global landscape evolves, reshoring is becoming an attractive option for businesses. It offers numerous benefits, from supporting the economy to reducing environmental footprints.

In times of geopolitical uncertainties and changing economic conditions, businesses should carefully evaluate their manufacturing strategies and consider the advantages of reshoring. By choosing British and embracing sustainability, companies can play a vital role in the growth of the UK economy while contributing to a greener, more sustainable future.

THE FIGURES

£183BN

of output from the UK manufacturing sector

2.5M

jobs provided by UK manufacturing

12%

higher wages than the whole economy

51%

of the UK's total exports is goods

4. OUR RESHORING STORY

Procuring investment from its parent company Albert Jagger Holdings, Albert Jagger used funding to begin the extensive process of reshoring its Antiluce™ fastener product range from China.

Citing a change in the Group's business strategy, the production of Antiluce™ Fasteners will return to Albert Jagger's manufacturing facility in Vincent Works, Bloxwich for the first time since the early 2000's.

The process of reshoring involved transferring a business operation that was moved overseas back to the country from which it was originally relocated. As such, Albert Jagger is able to produce more efficiently with less scrap – saving both time and cost to the manufacturing operation. Further efficiencies have also been introduced in the assembly process with additional investment in the latest automated assembly.

Having teamed up with the Manufacturing Technology Centre to deploy 5S, lean and six sigma into Albert Jagger, we refurbished the entire UK engineering facility using virtual reality technology to remap the layout of the shop floor.

Following advised investment, two new CNC machines – the Citizen Cincom L220 machine and the IMECA Boss 338 HD bar feeder – further fine-tune our engineering capabilities and enable us to manufacture components to precise specifications whilst providing a high-quality offering. Key to our engineering services, CNC machining has allowed us to keep up with the current shift within the manufacturing industry that now demands a diverse range of machining needs.

The state-of-the-art machinery works with a range of materials including mild steel, stainless steel, aluminium, and nylon and provides consistent accuracy in the manufacturing process of components that are produced to the highest of quality. Taking approximately six months, the first phase of the reshoring process already benefitted the UK marketplace with shorter lead times, whilst also ensuring quality and price met the needs of our customer base.

Maintaining a quality management system compliant with ISO 9001:2015 requirements, Albert Jagger's revered engineering history allows us to provide versatility and diversity from our site in Walsall, West Midlands.

We made a conscious choice to return our manufacturing process back into the UK in order to improve control over every stage of the production line.

By bringing everything in house we now have the capability to regulate batch quality control more efficiently by dramatically decreasing lead times – which would range anywhere between four to six months in China. Such a significant lead time can provoke issues ranging from the unreliability of product quality or increased risk of supply chain disruptions. Now this lead time has been cut to between seven to ten days, Albert Jagger has complete control over providing the seamless service to its customer base for which it strives whilst having the added benefit of keeping all associated costs such as warehousing and packaging in house at a reduced rate.

Returning the business' manufacturing process to British shores also means we are able to produce bespoke parts for our customers more efficiently and tailor to the needs of the consumer. We have taken this approach to ultimately take back control – and as a result we are now able to take something from sheet metal, manufacture our product and sell to our customers without concerning ourselves with the added complexities from the supply chain.

Equally, this gives us the ability adapt what we offer to suit our customer's product rather than the customer being forced to work within any constraints. Additionally, we recognise that the cost advantage of producing overseas is no longer as significant as it used to be due to China's unit labour prices rising rapidly in the country's vast manufacturing sector.

The company's commitment to further investment into Albert Jagger is an exciting development and one which will enable us to foster even greater innovation into our operation. It will also further ensure that the continued success and satisfaction of our customers has been safeguarded for years to come as well as laying the foundations for future growth within the business.

Andrew Cooper, Director



5. BENEFITS OF BUYING BRITISH

**1. REDUCED
DISRUPTION**

**2. SUPPORT
BRITISH JOBS
AND LOCAL
BUSINESSES**

**3. REDUCED
LEAD TIMES**

**4. QUALITY
ASSURANCE**

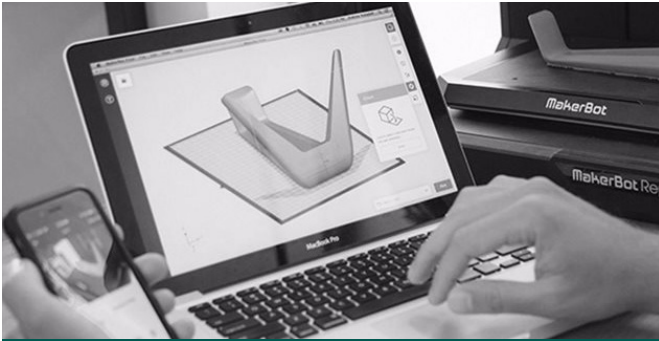
**5. SHORTENED
SUPPLY CHAIN**

**6. SUPPORT
AND BOOST THE
BRITISH ECONOMY**

**7. REDUCED
ENVIRONMENTAL
IMPACT**

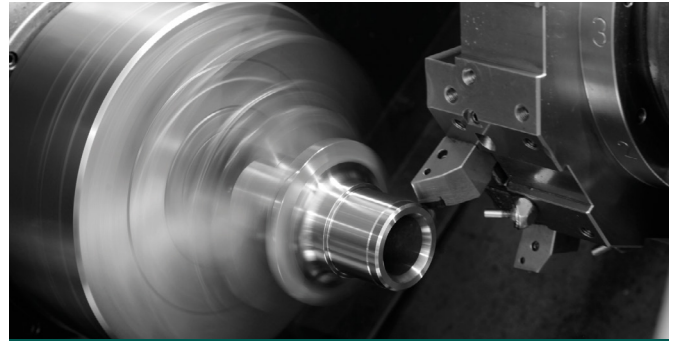
8. MITIGATE RISK





Design & Rapid Prototyping

We use the latest technologies to aid our designers so that we can develop the next generation of hardware and components. We use rapid prototyping so that we can see our developing designs and improve on them.



Manufacturing

As part of the process to ensure that we supply our customers with flexibility, versatility, and diversity we have our own in-house manufacturing department. We don't just supply parts, we design and manufacture them too.



ISO 9001 Quality

One of our key objectives is to continually strive to improve quality of both product and service. To achieve this, we maintain a quality management system compliant with ISO 9001: 2015.



Customer Service

Our future depends on the success of our customers, that is why we like to take a long-term view to building relationships whilst delivering an unrivalled service and inspiring trust and confidence.

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