



MANUFACTURING OUTLOOK

BACKING SUSTAINABLE MANUFACTURING

As manufacturers continue to embrace sustainability as part of their business models, AIB's €10bn Climate Action Fund will help the sector transition to a more sustainable footing, writes John McGeown.

Irish manufacturing has undergone a turbulent two years. From pandemic related shutdowns, Brexit uncertainty and supply chain blockages, to the current energy and commodity price inflation challenges - it has been anything but plain sailing. Notwithstanding these considerable challenges, Irish manufacturing has weathered the storm and continues to outperform even the most optimistic expectations. This has been evidenced by the AIB Purchasing Managers' Index which has maintained an expansionary position since October 2020 and even hit an all-time high of 64.1 in May 2021.

Global Challenge

A significant challenge now facing the global manufacturing eco-system is the climate change agenda which will demand a move to more sustainable manufacturing practices. The UN Climate Change Conference (COP26) held in Glasgow in November has seen an explosion of activity on the topic. This is not surprising, as it is clear that climate change will have economy-wide impacts and create regulatory, financial, physical, and

reputational risks for a wide range of companies.

Last July, the Irish government signed the Climate Action and Low Carbon Development (Amendment) Act 2021 into law, committing the country to moving to a climate-resilient and climate-neutral economy by the end of 2050. In the medium term this will require a fundamental 51% reduction in Irish greenhouse gas emissions by 2030. The government subsequently published the 'Climate Action Plan' in November 2021, which sets out sector level reduction targets and outlines an action plan and set of initiatives to deliver the reductions required.

Manufacturing generates approximately 12% of the states' Greenhouse Gas Emissions (source EPA) and is therefore a key contributor to its' environmental footprint. Consequently, the sector will be coming sharply into focus for improvement. Notably, the government's 'Climate Action Plan' aims to reduce Ireland's industrial emissions by approximately 40% by 2030. This, in addition to the EU wide 'Sustainable Products Initiative', will compel manufacturers to ensure that their products be more durable, reusable, repairable, recyclable and energy efficient,



John McGeown

Head of Manufacturing,
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which highlights the inescapable fact that change is coming to the sector, and it is coming fast.

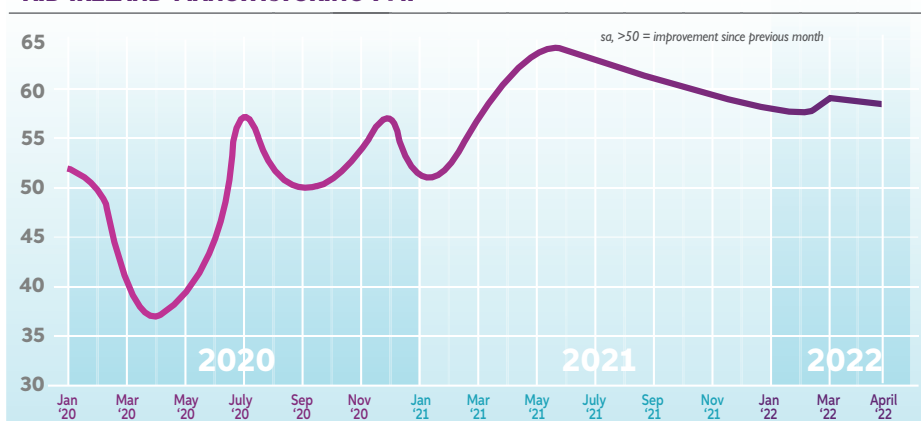
In a recent IMR survey just 22% of manufacturers have identified sustainability as a core part of their strategic plan, which highlights that the sector has a way to travel. However, positively an overwhelming majority of operators actually feel that the area will provide increased opportunity for their businesses.

Economic Implications

The economic implications cannot be ignored. Disregarding the current elevated energy prices, carbon costs, currently charged at a rate of €41 per tonne of CO₂, are to increase annually at a rate of €7.50 per tonne to 2030, acting as a drag on bottom lines. Coupled with this, commodity price volatility can erode margins and acts as a significant incentive to maximise yields and minimise waste. We strongly recommend that manufacturers be acutely conscious of the improvements available from industry 4.0 technologies as they work through their equipment replacement cycles, with opportunities for tangible reductions in energy usage and enhanced productivity available.

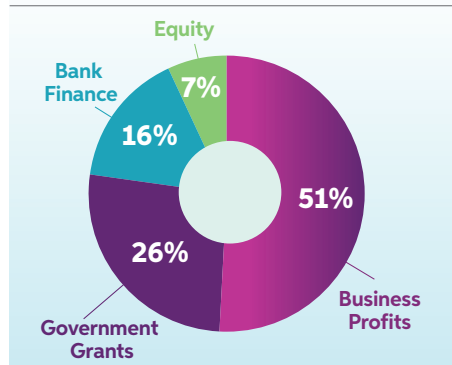
Furthermore, national, regional, and global regulations and voluntary standards will place manufacturers under pressure to improve their energy efficiency, reduce carbon emissions, limit their water usage, minimize waste generation and disclose their environmental performance. This means that operators can take action now or risk being left behind from both a cost and competitive perspective, which can ultimately erode valuation multiples. The potential upsides for manufacturers with environmental credentials are clear with scope for increased access to environmentally conscious customers, markets, labour, green equity and support from local communities.

AIB IRELAND MANUFACTURING PMI



Source: PMI/IHS Markit

FUNDING SOURCES



Source: IMR

The transition to a low-carbon economy will come with a significant price tag and is estimated to cost the Irish economy in excess of > €50 billion (Source: Goodbody). From research undertaken, businesses expect that the majority of this funding is to come by way of reinvested business profits with the balance provided by grant funding, bank finance and equity input.

AIB Commitment

At AIB we are acutely aware that we have a crucial role to play in supporting both individuals and businesses to make the transition. In October 2021, we doubled our Climate Action Fund to €10 billion, having previously allocated €5 billion targeting lending of €1 billion per annum for green and transition lending over five years from 2019 – a target which we aim to substantially exceed by the end of 2023.

Furthermore, AIB have accelerated the development and rollout of products and services that assist customers in reducing their carbon emissions. The AIB Corporate Banking team has been at the forefront of innovation in this space. In January 2019, the team supported the first Sustainability Linked Loan (SLL) in the Irish market which incentivises companies to achieve their ESG targets. Since then, we are increasingly engaging with our manufacturing customer base in relation to Sustainability linked funding. We have a growing pipeline of activity in this area as awareness and education levels continue to increase on green and transition lending initiatives, and as stakeholders become more focused on sustainable activity. We are seeing that initial demand from Institutional / plc customers is broadening out to mid-market and SME's as companies at all levels develop their sustainability strategies.

With green and transition lending accounting for 19% per cent of new lending in 2021, we have set out an ambitious target for this to reach of 70% by 2030. In doing this we have fundamentally committed ourselves to supporting the transition to a low-carbon economy, reducing our own carbon footprint and helping our customers to do the same. ■

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MANUFACTURERS GET READY FOR SUSTAINABILITY

New research carried out by Irish Manufacturing Research (IMR) shows that Irish manufacturers are starting to put sustainability at the heart of their businesses.



Micheal Cassidy

Micheal Cassidy, Chief Technology Officer, Irish Manufacturing Research (IMR).

With over 260,000 staff and exports of approximately €120bn of goods, the Irish manufacturing sector plays an important role in the economy.

Globally, however, manufacturing is changing as companies embrace new technologies and changes in the international supply chains force manufacturers to constantly adjust their business models. The Internet of Things (IoT), high performance computing, digitalisation, Big Data and analytics, artificial intelligence and robotics are just some of the areas that manufacturers the world over have to contend with as they deal with the parallel challenges brought about by climate change and the need for more sustainable business practices.

For manufacturers, sustainability is no longer an option - it is an imperative as climate change, and the many problems it has created, now influences consumer behaviours, investment decisions and business practices.

While sustainability looms large on the social and economic agendas of many developed nations around the world, including Ireland, there are many challenges to be overcome before the net zero emissions target by 2050 can be achieved.

Research carried out by Irish Manufacturing Research (IMR) in association with AIB, has found that 64% of Irish manufacturers - 80% of which are SME's - still do not have a formal sustainability plan.

The research also shows that 50% of these firms are only partially engaged with their supply chain when it comes to sustainability while another 50% of those surveyed said that sustainability is a secondary metric in their overall strategic plan. When questioned about the greatest perceived challenges that might be holding them back from being more sustainable, 62% identified costs as the biggest hurdle.

With environmental legislation now in

place and firm carbon reduction targets set by both the EU and the Irish Government, Irish manufacturers are not shirking their responsibilities, and the IMR research shows that 64% of companies plan to implement sustainable practices within the next 12 months while another 20% plan to do so within the next three years.

In addition, 85% believe an increased focus on sustainability represents a business opportunity while 83% believe it will have a positive effect on their bottom line. Another 44% believe it will actually give their business a competitive advantage.

"The survey results show that we are a little bit behind where we'd like to be and certainly a long way behind where we need to be as a country and as a planet. But overall, the research is still encouraging," says Micheal Cassidy, Chief Technology Officer, Irish Manufacturing Research (IMR).

"It's clear from the research that some of the key drivers like legislation, customer and employee expectations have a big role to play when it comes to spurring engagement, and that companies are being proactive at the moment. Obviously, there are companies that are a step or two ahead of others in their journey, but this research shows that, by using both a carrot and stick approach, companies are now taking their obligations seriously," he says.

"We also know from the survey that the majority of respondents were SMEs, which is great to see from an IMR perspective because there is often a perception out there that sustainability initiatives only really apply to bigger companies that can afford to invest in this from an ESG or CSR perspective," says Micheal.

With close to 100 staff, the majority of whom are involved in research, IMR operates from two high-tech research centres located in Dublin and Mullingar. According to Micheal, its work revolves around four key pillars: Digitisation of Manufacturing;

Robotics and Automation; Design for Manufacturing and Sustainable Manufacturing.

"We collaborate with over 200 companies, indigenous and multinational, across the whole manufacturing ecosystem in Ireland and, working with them, we try to assess what their needs are now and what they might look like in the future," says Micheal.

"Working collectively with manufacturers, we try and understand how we can go about creating new knowledge, developing new technologies that are going to solve their problems over the next three to five years. But we also think in the context of the next 10 to 15 years and what the vision might look like. I think it's important to be working towards something substantive, particularly when it comes to sustainability and the aim to reach net-zero manufacturing," he says. ■

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David McCormack
Director of Sustainable Manufacturing, IMR

"The business case for sustainability in manufacturing is compelling," says David McCormack, Director of Sustainable Manufacturing, IMR. "But as we can see from the survey results, it's not a top priority at the moment although it is changing," he says.

"We're at a time now where there's an unprecedented mixture of social, environmental and technological market trends that are out there at the moment, yet we still have companies that are reluctant to place sustainability within their core business strategy. I think there is a misconception that the cost of embedding sustainability in a business greatly outweighs the benefits. That's not true and, from our perspective, embedding sustainability at the heart of your business will clearly result in a positive impact on your business by increasing competitive advantage, new markets via new product innovations and cost reductions across materials energy and water," says David.

He says IMR is working with a range of indigenous and multinational manufacturers,

across a number of different sectors, on developing sustainable business strategies. Some of the manufacturing sectors it has developed successful solutions for include pharmaceutical, medical devices, food and drink, and automotive.

"We also work with firms in the whole area of circular economy through our CIRCULÉIRE programme, which aims to help companies demystify the concept and help them transition to a low carbon circular manufacturing business, and we are funding projects in this area as part of that programme," he says.

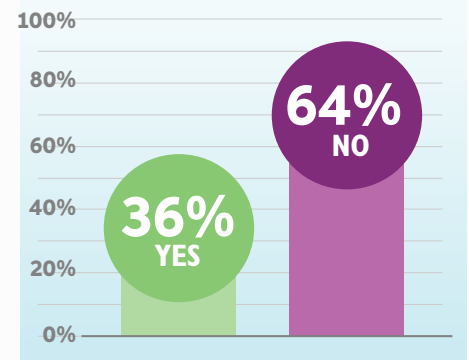
"A good example of the work we are funding under the CIRCULÉIRE programme relates to a project which is tackling construction & demolition waste, one of the largest waste streams in Ireland. The project aims to utilise the concept of reverse logistics to return the waste materials back to their facility

so that it can be incorporated into new products and ensure that there is no waste to landfill. This and other circular economy strategies are going to be hugely important in the overall context of sustainability and the future of manufacturing," David adds.

For any manufacturer that wants to look at its options when it comes to embarking on the sustainability journey, Micheal Cassidy says that IMR is a good starting point. IMR works closely with government organisations involved in providing funding and assistance including Enterprise Ireland, IDA Ireland, SEAI, as well as the EU – which provides significant funding for sustainable manufacturing initiatives under its Horizon Europe 2021-2027 framework program.

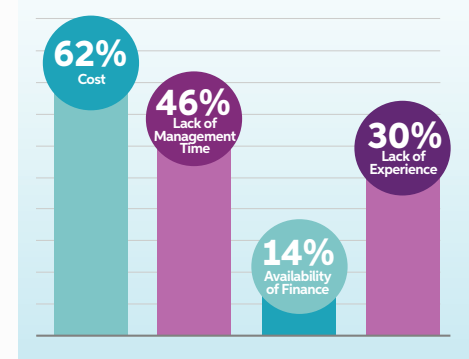
"For industry, we are a good first port-of-call because we have access to a wide range of information and supports, and we understand and have mapped a lot of the things that will be relevant to them. We have also developed a lot of tools that help them understand what are going to be the most significant things for them to do in terms of embarking upon their journey. For example, we have a lot of audit tools and maturity models that can help them map their journey towards where they need to be, and which steps are relevant for them in terms of their maturity now and where they need to be over time," says Micheal. ■

MANUFACTURERS WITH A SUSTAINABILITY TARGET



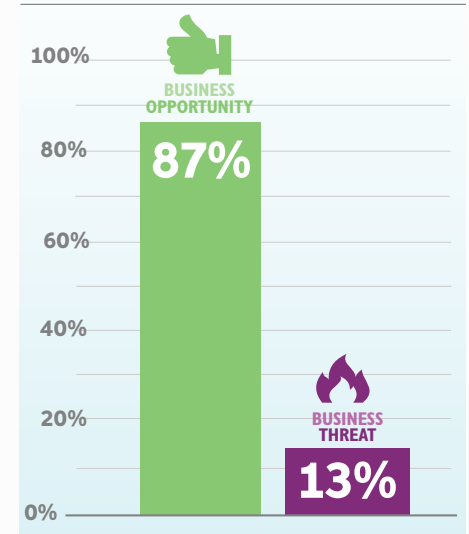
Source: IMR

CHALLENGES TO IMPLEMENTING SUSTAINABLE PRACTICES



Source: IMR

SUSTAINABILITY: THREAT OR OPPORTUNITY?



Source: IMR

For more information on how the IMR can support your business, visit www.imr.ie

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Two clients of AIB share their insights on their transition to more sustainable manufacturing practices.

CASE STUDY:


**NIALL FAY,
DIRECTOR,
GRANT
ENGINEERING.**

Founded in 1978,
Grant Engineering is
now Ireland's largest

engineering company specialising in the plumbing and heating industry. Exporting to countries like France, Denmark, the UK, New Zealand, Greenland and Cyprus, it now employs over 460 staff in Birr, Co. Offaly - where it has its headquarters - Swindon in the UK and Chambéry in France.

Supplying a wide range of products like boilers, radiators, heat-pumps, biomass boilers, solar thermal panels underfloor heating, cylinders and fan-convertors to the building and residential market, it is witnessing first-hand the key sustainability trends consumers and the construction industry have been embracing over the past few years. With an emphasis on innovation and R&D, this has led the business to change its

"We heat our offices, training centre, customer service centre and innovation centre with 100% HVO biofuel."

product offerings along the way, says Niall Fay, director, Grant Engineering.

"We've pivoted to being a heating company, rather just being a boiler manufacturer, and we've pivoted from being a predominantly fossil fuel-based heating company to probably being a 100% renewable because all the products that we now supply are all low carbon, zero, or near zero, carbon appliances," he says.

While the company does not supply the commercial sector, Niall says that it has taken steps to ensure that it has reduced its own carbon footprint and become more sustainable, including the use of hydrotreated vegetable oil (HVO) as a fuel source.

"We heat our offices, training centre, customer service centre and innovation

centre with 100% HVO biofuel," he says.

"In addition, all our scrap steel is recycled, and when our boilers reach end of life, over 90% of the material used in its manufacture can go for recycling," Niall adds.

In addition, Grant Engineering has implemented a number of key international ISO standards which have made it a lot more energy efficient and environmentally conscious.

"One of them is ISO 50001, which has to do with efficient energy management, which is vital for any company. The other is ISO 14001, which involves environmental management systems and are aimed managing the overall environmental impact," says Niall.

"The ISOs are very important, and I would recommend them to any company looking to reduce their energy costs and manage the environmental impact of their business. Obviously, there is an investment to be made to achieve them and that will present some companies with a challenge, particularly in the current business climate when there might be other, more pressing, demands," he adds. ■

CASE STUDY:


**ROSY TEMPLE,
CEO, MAGEE
CLOTHING
& RETAIL**

As more and more
consumers, designers and
manufacturers embrace
slowfashion - at a time

when the unsustainable nature of the fast-fashion industry has been called out, Magee Clothing & Retail in Donegal has prided itself on its strong sustainability credentials and practices, which have been baked into its DNA for many years, says Rosy Temple, CEO of Magee Clothing & Retail.

With 90 staff working across its weaving, tailoring and retail business, it is now one of Ireland's best-known luxury lifestyle brands. A family business that was set up in the 1860s, it is now managed by the fifth generation of the Donegal-based Temple family, which includes Rosy; her brother Patrick, who runs Magee Weaving; and her sister Charlotte, who is the group's creative director.

"Sustainability has always been really important for us, and we have always believed in putting the time and resources into continually trying to improve our business and do

what's best for the environment, the business, our suppliers and our customers," she adds.

"We have a good foundation inherent in our business DNA, which really starts with our fabric. We predominantly use natural fibres like wool and linen, which are renewable, biodegradable and make the basis of high-quality pieces that are made to last. This champions the concept of slow fashion which has become so important," Rosy says.

"For this fifth generation of family, it's also about incorporating this foundation into the wider principles of a circular economy by looking at everything from energy waste management and the lifecycle of our products, right through to the supply chain, packaging and consumer behaviours. We want to be pioneers in this area over the next number of years and while we recognise there is no quick-fix, attention is still needed now," Rosy says.

She says the company is always looking at ways to conserve energy and is currently exploring a number of new options in conjunction with SEAI.

"For us it's about being more energy efficient and finding new ways to do this, whether it's the insulation across all our buildings - we have a lot

of older buildings - or trying to find alternative energy sources from fossil fuels. For example, there is no natural gas supply where we are located in south Donegal, but we are actively researching alternatives like the use of solar and evacuated tubes to deliver hot water as part of re-roofing plan. With this, the hot water would then be used for washing the wool," she says.

Elsewhere, she adds, the company has been working in recent years with Donegal Yarns in nearby Kilcar as well as local sheep farmers to source, develop and optimise the use of Irish wool in its fabrics.

"We are taking a long-term view when it comes to the sourcing and traceability of our raw materials and working with specific local suppliers, and it's a very important part of our sustainability efforts," she adds.

"Another area which we have looked at is packaging, and last year, for example, we worked with our packaging supplier to ensure that the retail bags were more recyclable, by removing the metal eyelets and changing the foil logo into a print one. And the next stage is to make sure that the packaging itself is made from recycled materials, which is something we're actively looking at the moment," concludes Rosy. ■

The above commentary from Rosy Temple and Niall Fay are the view / opinion of the customer not the Bank.

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