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Decarbonising the retail sector: case studies

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Decarbonising the retail sector: case studies

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Views expressed in this report are those of the researcher and not necessarily those of the Welsh Government

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1. Introduction

1.1. This document presents a series of case studies gathered as part of the Decarbonising the retail sector research project, conducted by Alma Economics on behalf of the Welsh Government. It highlights practical examples of how retailers are implementing decarbonisation initiatives, such as energy efficiency, low-carbon technologies, recycling schemes, and others. For the full report, including detailed methodology and wider findings, please refer to the Statistics and Research pages of the Welsh Government website: https://www.gov.wales/statistics-and-research.

2. Case studies

Something Different Wholesale Ltd.

Location: Swansea, Wales.

On-site renewable energy generation for business operations

Planning

2.1. Something Different Wholesale operates in the giftware industry, designing a wide range of products in the UK and trading primarily as an e-commerce business. As part of its long-term business strategy, the leadership team made a deliberate decision to embed carbon reduction and sustainability at the core of the organisation.

2.2. To support this ambition, the business joined the Accelerated Growth Programme delivered by Business Wales. Through a programme of webinars and structured support sessions, the company developed a stronger understanding of sustainability principles and began to formalise its carbon reduction strategy.

2.3. The sustainability journey began in 2022 with a comprehensive assessment of the company's carbon footprint to identify the scale and sources of emissions. Energy use was identified as the most appropriate starting point for two key reasons. First, the business operates two large warehouses in Swansea with extensive roof space, and the area benefits from relatively high levels of sunlight compared to other parts of the UK. Second, energy consumption was fully within the company's control, as it owns the premises and could therefore implement and test solutions directly.



2.4. Following this assessment, the business engaged a specialist solar energy provider to support the planning and feasibility phase of a rooftop solar installation. This work included a detailed technical design to determine optimal panel placement and system capacity. As exporting surplus electricity to the national grid formed a core part of the proposal, additional regulatory, compliance, health and safety, and security requirements also needed to be addressed at this stage.

Delivery and implementation



2.5. The project aimed to install approximately 2,200 solar panels across the two warehouse roofs, with the capacity to generate around 1,000,000 kilowatt hours of electricity per year. Installation commenced in early 2023 and was completed by September 2023.

2.6. The system is fully automated, removing the need for additional staffing or specialist training for existing employees. Energy generation and consumption are monitored and managed through the supplier's control system, which automatically switches power sources when solar output is low. While generation varies seasonally, the system

consistently produces sufficient energy to support operational needs. Surplus electricity is exported through a contractual arrangement with an energy company that purchases excess power directly from the business.

Funding and resources

2.7. The installation was financed through a loan from the Development Bank of Wales, which provides funding to support businesses transitioning to greener and more sustainable practices. From the outset, the business anticipated using approximately 20 to 25% of the electricity generated on-site, exporting the remaining surplus to the national grid. Although export prices have declined since installation, selling excess electricity continues to provide a valuable income stream and contributes towards loan repayment.

Challenges and barriers

2.8. While the business was clear about its ambition to introduce solar power, it did not have the in-house expertise required to deliver a project of this scale. As a result, it relied heavily on trusted external partners with specialist technical knowledge.

2.9. Environmental factors also presented challenges linked to the site's coastal location. Seagull nesting led to significant soiling of the panels, reducing efficiency. This required the panels to be cleaned for the first time in 3 years, involving additional time and resources. The business is now exploring bird management measures to prevent future nesting and reduce the need for frequent cleaning, helping to manage ongoing operational costs.

Success factors

2.10. From a management perspective, the system is straightforward to operate. Built-in intelligence, monitoring, and reporting software tracks performance across all panels and can identify underperforming or non-functioning units, issuing alerts where required. In nearly 3 years of operation, no faults have been identified, and no major corrective maintenance has been necessary.

2.11. A maintenance agreement is in place with the installation provider to meet compliance requirements. The system is inspected quarterly, with all checks formally recorded. This approach supports ongoing reliability and performance.

Impacts and outcomes

2.12. The project has delivered substantial cost savings by significantly reducing the amount of electricity purchased from the grid. Most electricity generated is exported, while daytime operations are largely powered by the company's own renewable energy. During periods without sunlight, the business continues to draw electricity from the grid but has ensured this is sourced from renewable energy suppliers.

2.13. Instead of investing in battery storage at this stage, the business prioritised securing green energy contracts to cover non-generation periods. Together, these measures have had a significant positive impact on operational costs.

Replicability and scalability



2.14. Something Different Wholesale recognised that projects of this scale require both specialist expertise and access to appropriate funding. A clear understanding of operational, regulatory, and financial implications is essential before proceeding.

2.15. The business highlighted the importance of thoroughly assessing energy usage patterns, property ownership, and site suitability, including roof space and local sunlight conditions, to determine whether a solar installation represents a viable investment. Warehousing operations with large roof areas and daytime energy demand are particularly well-suited to this approach.

2.16. With the right technical advice, leadership alignment, financial planning, and regulatory support, similar businesses could replicate this model to reduce carbon emissions, increase energy resilience, and generate long-term financial returns.

Shil Pharmacy

Location: Cwmbran, Torfaen

Early adoption of a low-carbon air system in a community pharmacy

Planning

2.17. Shil Pharmacy is an independent community pharmacy that has served the local population of Cwmbran since 1988. Around 15 years ago, the pharmacy began experiencing ongoing issues with its existing heating system, including poor cost-effectiveness and increasing difficulty sourcing replacement parts. Rather than replacing the system with a new gas boiler, the owner chose to explore more environmentally sustainable alternatives.

2.18. Support from Business Wales enabled the pharmacy to obtain quotations from a range of suppliers and to commission assessments of the building's existing infrastructure. This process helped identify suitable low-carbon options. Following this analysis, the owner opted to install an air source heating system. At the time, this technology was relatively new but offered clear advantages, including a lower carbon impact and the ability to provide both heating and cooling.



Delivery and implementation

2.19. The installation took approximately 2 weeks and involved removing the old heating system, installing the air source units, and fitting protective measures, such as a metal cage, to secure the external equipment. A key advantage was that much of the existing pipework could be reused, making the transition technically straightforward and reducing overall costs.



Funding and resources

2.20. The project was entirely self-funded, with no grant or external financial support. The upfront cost was approximately £15,000, with ongoing annual maintenance costs of around £300. The system is simple to operate and is managed through a digital app, allowing efficient and remote control.

Challenges and barriers

2.21. Two main challenges arose during installation. First, unforeseen building issues increased costs beyond the original quote. Second, responsibility for disposing of old equipment and waste was initially unclear and had to be renegotiated with the supplier midway through the installation to ensure the waste was removed. These issues highlighted the importance of clear contractual agreements and contingency planning when undertaking retrofit projects.

Success factors

2.22. The pharmacy operates from a single-storey building with a largely open-plan layout, which made installation easier and more cost-effective. Fewer internal walls meant fewer units were required, reducing both equipment and labour costs. Early engagement with Business Wales and careful supplier selection also helped ensure the system was appropriate for the building and business needs.

Impacts and outcomes

2.23. Despite significant increases in electricity prices in recent years, the pharmacy reported that overall running costs have remained broadly comparable to the previous system. Improved energy efficiency has helped offset rising energy prices.

2.24. The air source heating system warms the building quickly and effectively, ensuring the space is comfortable before staff arrive. It performs particularly well in open-plan areas such as the shop floor.

2.25. In the long term, the owner believes the system supports decarbonisation goals and will continue to reduce energy costs. They also noted that air source heating is a more cost-effective low-carbon option than standard electric heating when moving away from gas.



Replicability and scalability

2.26. While the initiative required a significant upfront investment, it shows that air source systems can be a viable and effective option for small retailers, particularly those operating from open-plan or single-storey premises. As the founder described, “the long run, not only is it decarbonisation effective, but I do think the bills would be cheaper.”

2.27. The approach is relatively easy to replicate, provided businesses carefully assess their building layout, understand how many units are required, and have access to sufficient capital. With the right advice and planning, similar retailers could adopt this model to improve energy efficiency and reduce their carbon footprint over the long term.

A Strings

Location: Pontypridd, Rhondda Cynon Taf

Energy efficiency and circular practices at a guitar retailer

Planning

2.28. A Strings began as a small business importing guitar accessories from manufacturers in Germany and the United States. It has since grown into one of the largest musical instrument retailers in Wales, operating both online and from a physical store. Sustainability was never developed as a formal strategy. Instead, it emerged organically through practical operational decisions focused on efficiency, longevity, and cost control. Practices such as reusing packaging, repairing instruments, and improving energy performance became integral to the business model over time.

2.29. A key turning point followed relocation to larger premises. Although the building had a strong energy performance rating, the existing gas heating system presented a significant risk. Uneven heat distribution and direct heat exposure threatened the stable temperature and humidity conditions required to protect guitars and other instruments.

2.30. With support from Business Wales, detailed research was undertaken to assess the building and identify suitable solutions. Advisory support also helped prepare a grant application for an HVAC system. However, due to tight operational timelines and uncertainty around funding decisions, the business chose not to delay and instead invested its own capital to install the system in priority areas.

Delivery and implementation

2.31. Installation of the HVAC system took approximately 2 weeks and was completed alongside refurbishment works ahead of reopening. The system delivers 3 core benefits: consistent temperature control, regulated humidity to protect high-value instruments, and removal of reliance on gas heating. While gas boilers remain physically in place, they are no longer in use and are expected to be fully decommissioned.



2.32. Circular practices are also embedded across day-to-day operations. Packaging received through regular deliveries is retained and stored in a dedicated room within the premises. Boxes, plastic, and protective materials are reused for outbound orders and in-store purchases, reducing waste and procurement costs. Savings generated through reuse are reinvested into initiatives such as carbon offsetting for deliveries.

2.33. The service department plays a central role in reinforcing a circular approach. Led by a full-time technician and supported by trained staff, the team repairs, refurbishes, and repurposes instruments. For example, following the collection of 12 damaged guitars from a local school, 9 were restored. Components from the remaining instruments were reused for spares, repairs, or crafted items such as wall clocks.



Funding and resources

2.34. All energy efficiency improvements to date have been privately financed. Once ownership of the building is finalised, the business intends to apply for grants to support the installation of solar panels and wider renewable energy measures.

2.35. Many sustainability actions, including packaging reuse and instrument repair, require minimal capital investment. This demonstrates that meaningful decarbonisation can be achieved through operational choices and skills development.

Challenges and barriers



2.36. The primary barrier has been the ongoing process of purchasing the premises. Without full ownership, access to certain renewable energy grants, particularly those supporting solar installations, has been restricted, as eligibility often requires the applicant to own the building.

Success factors

2.37. Advisory support from Business Wales strengthened confidence and capability to prepare robust grant applications in future, helping ensure longer-term renewable energy ambitions remain achievable.



2.38. Sustainability is integrated into everyday practice: packaging is reused, instruments are repaired rather than discarded, and energy efficiency is prioritised through

climate control systems. These measures deliver environmental benefits while also improving operational resilience, reducing costs, and strengthening customer trust.

2.39. Equally important is the organisational mindset embedded across the business, as the owner reflected on his products and the shop's mindset:

> "What we try to put across to our customers is that we carefully choose every product we sell. We won't stock a guitar that we believe has a short shelf life.



> We only sell instruments we truly stand behind—guitars that, if properly cared for and supported by us, you could still be playing in 30 years' time, perhaps even passing down to your daughter, son, or someone else. Keeping that long-term value in mind shapes everything else we sell as well".

Impacts and outcomes

2.40. The combined impact of HVAC installation, circular packaging practices, and an in-house service department has delivered multiple benefits. Operationally and financially, stable climate control protects valuable stock, supports effective storage, and reduces packaging costs. Environmentally, waste is minimised, product lifecycles are extended, and infrastructure has been installed with future renewable integration in mind. Culturally, a strong repair and reuse ethos has been fostered among staff and customers, reinforcing the value of maintaining and extending the life of instruments rather than treating them as disposable.

Replicability and scalability

2.41. Many of the approaches adopted by A Strings are highly replicable for other small and medium-sized retailers. Reusing packaging, engaging suppliers on material choices, prioritising durable products, and developing in-house repair capability through skilled technicians are practical steps that require limited capital but deliver meaningful environmental and operational benefits.

2.42. The central lesson is that decarbonisation can be embedded across a business model when aligned with operational needs. By combining product longevity, circular

practices, and incremental energy improvements, sustainability becomes a driver of resilience and long-term viability rather than a cost burden.

Community-based circular economy in a fashion retailer in rural Wales

Location: Brecon, Powys

Community-based circular economy in a fashion retailer in rural Wales

Business model

2.43. Dressed to Impress was established in 2016 as a small rural boutique with a strong emphasis on reusing, repairing, repurposing, and extending the life of clothing. Although the founder had always personally valued garment reusing and alteration, sustainability was not the primary motivation for starting the business. The original idea emerged in response to a clear local gap in the market, when limited options for prom dresses and suits became apparent in a rural area.

2.44. The business also drew inspiration from consignment stores in the United States, introducing a model where sellers receive a percentage when their items sell, something that is not widely available locally.



2.45. As the business evolved, the operating model matured into 3 core circular economy pillars: resale and consignment of pre-loved and vintage clothing, in-house repair and alteration services, and rental of formalwear and accessories. The boutique later expanded into wedding wear, offering both new and pre-loved dresses sourced from the same trusted suppliers as promwear.

Delivery and implementation

2.46. The boutique operates with a deliberately minimal inventory, typically stocking only one of each item to avoid overproduction, overstocking, and waste. Specific sizes or colours are ordered only in response to customer requests.



2.47. Rental services were initially introduced for boys' tuxedos to meet demand from a nearby private college that required formal wear for events. This offering has since expanded to include dresses, couture garments, and fascinators. As these items are often worn only once or very occasionally, rental provides a lower cost option for customers while keeping garments in active circulation.

2.48. Alteration services began as a complimentary offering for customers purchasing new dresses. As demand increased, a professional seamstress was employed in 2017 to manage repairs and tailoring. The boutique now offers alterations both for its own stock and for garments purchased elsewhere, reinforcing its repair-led ethos.

2.49. Damaged rental items are cleaned and repaired wherever possible. Items beyond repair are sent to auction and sold at low cost rather than being discarded.

Garments that are no longer suitable for in-store display are actively resold online through platforms such as Vinted, ensuring continued use beyond the boutique.

2.50. Collaboration also plays a role in delivery. The boutique has co-hosted fashion shows with other small businesses, using pre-loved garments to promote sustainable fashion. The owner also said they participated in a Welsh Government forum that brings businesses together to discuss commercial opportunities and barriers within the pre-loved sector.

Funding and resources

2.51. Dress to Impress operates primarily through internal budgeting and reinvestment. While small business grants had been received from Powys County Council, these were not specifically linked to circular economy activity.

2.52. The owner remained hopeful that participation in the Welsh Government forum would generate more structured support for pre-loved retail businesses in the future.

Challenges and barriers

2.53. Early stigma around second-hand clothing was a significant barrier when they first opened doors. While some environmentally conscious customers embraced pre-loved fashion from the start, others were hesitant.

2.54. Operational challenges persist. Rental garments may be returned damaged or heavily soiled, resulting in additional cleaning and repair costs. High-value items also carry financial risk if not returned. To mitigate this, deposits are required for rental items and selected pre-loved purchases.

2.55. Competition with charity shops, particularly in small towns across mid Wales, presented another challenge, as these organisations often operate with lower overheads. High business rates and limited marketing capacity also place ongoing financial and promotional pressure on the business.

Success factors

2.56. A key strength lies in the integrated circular model. Garments move flexibly between resale, repair, rental, and resale again, maintaining a continuous circular loop. The in-house alteration service is a significant differentiator, enabling garments to be repaired, adapted, and personalised. Strong word-of-mouth, particularly for rental services, has been central to building trust and demand.

Impacts and outcomes

2.57. Environmentally, the boutique extends the life of clothing through resale, repair, and rental, reducing demand for new production. By limiting stock volumes and avoiding fast fashion, it minimises waste and overconsumption. Damaged items are rarely disposed of without first exploring reuse options.

2.58. Socially, the business argued it has helped shift attitudes towards pre-loved fashion in a rural setting, meaning that what was once stigmatised has become increasingly accepted and valued. Customers gain access to high-quality garments at a lower cost while reducing storage needs and material waste.

Replicability and scalability

2.59. This model is replicable but requires commitment, skill, and careful design. Sewing and alteration expertise provides a strong competitive advantage, particularly when competing with charity shops. As the owner noted,

> "if you're going to resell second-hand stuff, you can also repair and alter stuff. If someone brings something, and people bring random stuff, be creative to look at it and change it. I would say that would be an advantage to somebody starting up a second-hand, pre-loved boutique."

2.60. Developing a clear niche, such as vintage wear, couture rental, or specialist alterations, can help small boutiques stand out.



2.61. Scalability does not necessarily mean increasing volume. Growth can instead focus on strengthening circular services, expanding online resale, and increasing repair capacity. While improved marketing support and reduced business rates would enhance viability, the example suggests that fashion retail can thrive by keeping garments in use for as long as possible.

Sero Aberystwyth

Location: Aberystwyth, Ceredigion

A refill and zero-waste shop in west Wales

Business Model

2.62. Sero Aberystwyth is a refill and zero-waste shop in west Wales, offering loose foods, teas, and personal care products. The business is built around reducing packaging waste, with most products sold plastic-free or entirely packaging-free. Customers are encouraged to bring their own containers, supporting a culture of conscious and low-waste consumption.



2.63. The business was established following extensive research into refill stations and sustainable retail models, which highlighted a gap in local provision, particularly for refillable food products. Market research, including community surveys and questionnaires, confirmed strong local interest in recycling and sustainable shopping, providing confidence to proceed.

2.64. Development of the idea took place over the course of under a year. The business was self-funded, as access to grants and loans was limited without established cash flow projections. After a 2-month search, an affordable premises was secured. Using predominantly second-hand furniture, the shop was fitted out and ready to open within approximately one month.

2.65. Support from Business Wales was accessed through webinars and advisory services, providing guidance on legal requirements, health and safety considerations, and sourcing suppliers aligned with the shop's sustainability values.



Delivery and implementation

2.66. Two core initiatives underpin the shop's green ethos: circular suppliers and blister pack recycling. The shop works closely with suppliers that operate established container take-back systems. Products are supplied in 5- and 20-litre containers. Once enough empty containers are accumulated, typically around 24 of the 20-litre drums, the supplier arranges courier collection. Containers are then professionally cleaned and refilled, ensuring quality and hygiene standards are maintained while keeping packaging in continuous circulation.

2.67. Sero also operates a community blister pack recycling scheme, which has already diverted approximately 67 kg of waste from landfill and incineration. A dedicated collection box capable of holding up to 8,000 blister packs fills monthly. The initiative was introduced to address a lack of local options for disposing of medication packaging. Promotion through social media, particularly Facebook, alongside engagement with community groups such as the Women's Institute, has been central to raising awareness and encouraging participation.

Funding and resources

2.68. Delivery of initiatives relies on careful resource management rather than external funding.

2.69. For circular supply chains, ongoing research is required to ensure suppliers genuinely operate closed-loop systems, as not all refill brands maintain active container return schemes. Staying informed on waste legislation and recycling guidance is essential, with resources such as Recycle Now used to ensure compliance and best practice.

2.70. The blister pack recycling scheme is funded through community donations. The initial recycling box required an upfront investment of £216, with donation campaigns

promoted through social media to keep the service free to use. A planned switch to a lower-cost recycling partner, reducing costs from £216 to £112, is expected to improve long-term financial sustainability.



Challenges and barriers

2.71. Sustaining refill and recycling initiatives requires continuous engagement with the local community to maintain participation and behaviour change. Physical constraints also present challenges, as the size of the shop limits the number of recycling streams and collection points that can be accommodated on-site.

Success factors

2.72. Strong community support has been central to the success of Sero. Residents actively participate in recycling initiatives and choose to shop in ways that reduce waste. Resourcefulness has also been important, with customer donations and income from reselling items such as gift cards helping to fund recycling services. The shop plays an informal educational role, offering practical advice on waste reduction and acting as a local point of reference for sustainable living.



Impacts and outcomes

2.73. Sero's initiatives have generated clear environmental and social impacts. The blister pack recycling scheme diverts significant amounts of hard-to-recycle packaging from incineration and landfill. The shop also attracts customers who are already interested in sustainability, creating valuable opportunities to promote refillable and low-waste alternatives while raising awareness about responsible consumption. As a result, Sero has evolved into a local hub for recycling initiatives and wider sustainability advocacy within the community.

Replicability and scalability

2.74. This case demonstrates that small-scale, community-focused refill and recycling initiatives can deliver meaningful environmental impact while remaining economically viable. The business itself emerged from the founder's personal experience of a gap in local refill options. As they explained:

> "It was always a dream of mine to create a space that offered refills, especially for food. We once had a shop locally that provided refills for hair, body, and cleaning products, but it was bought out and eventually closed, leaving a clear gap in the market. The idea really began as a personal journey because I was frustrated that there wasn't anywhere I could shop that offered these options. I felt that if I wanted it, surely others must want it too, and that's what the business grew from."

2.75. Replication depends on identifying local gaps in recycling provision and understanding which waste streams are not currently collected, such as blister packs or stationery. Engagement with community groups is essential to build awareness, understand local needs, and secure participation. Partnering with suppliers that operate genuine packaging take-back systems is also critical to maintaining a credible and circular business model.

PTB Equipe

Location: mid Wales

Sustainable logistics for a small car parts supply business

Business model

2.76. Following his retirement in 2020 and relocation to the Welsh coast, the founder of PTB Equipe combined a lifelong passion for motorcycles and performance cars with more than four decades of experience in supply chain logistics and distribution. As an active member of motoring and motorcycle forums, he identified a niche opportunity in sourcing and supplying specialist small car parts.

2.77. Having been an experienced eBay buyer and seller for many years, he converted his personal account into a business profile after recognising consistent demand for the types of parts he personally valued and understood. From the outset, the business model was intentionally lean. Operations were home-based, focused exclusively on

small components due to storage constraints, and centred on delivering a high-quality, service-led offering rather than high-volume sales.

2.78. Sustainability emerged naturally from the founder's logistics background, where efficiency, waste reduction, and cost control were already core principles.

Delivery and implementation

2.79. The business operates as a sole trader, supplying customers across the UK and internationally. Speed and reliability are central to the model, with most orders dispatched on the same or next working day.



2.80. Environmental considerations are embedded in everyday operations. For instance, boxes, cardboard, and void fill from incoming stock deliveries are reused wherever possible, significantly reducing the need for new packaging materials. Parcel collections take place directly from the founder's home, minimising unnecessary travel and vehicle use. In this way, trips to the post office are rare and only required outside scheduled collection times.

2.81. Bulk purchasing of consumables reduces delivery frequency and associated emissions. Shipping labels are printed on recycled A4 paper, with unused sections repurposed as notepads or location labels to avoid waste. Operating from home keeps energy use low, eliminates commuting, and avoids the need for additional premises, enabling an efficient, low-carbon operation without compromising service quality.

Funding and resources

2.82. The business is entirely self-funded and designed to be self-sufficient. Income generated is reinvested into packaging, shipping supplies, and maintaining smooth day-to-day operations. An eBay shop subscription provides access to discounted recycled packaging, supporting a professional presentation while keeping costs and

environmental impact low. However, most packaging materials are reused and therefore incur no cost.

2.83. Drawing on years of experience managing budgets and sourcing supplies, the founder avoids unnecessary markups by purchasing through trade suppliers and using targeted search strategies rather than relying solely on large retail platforms. This approach helps control costs and minimises waste.

Challenges and barriers

2.84. Operating from home with limited storage space naturally constrains growth and requires the business to focus on small, easily stored components. This also creates challenges in using environmentally responsible packaging. While reused packaging is prioritised wherever possible, space limitations mean it is not always feasible to store a wide range of reused materials. As a result, branded recycled packaging is sometimes used to ensure products are presented professionally and meet customer expectations.

Success factors

2.85. Strong attention to detail ensures consistently high standards in packaging and dispatch, regardless of the value of the item. Careful sourcing and bulk purchasing help keep costs low while reducing environmental impact. Guidance from Business Wales, particularly on recycling and responsible use of materials, further strengthened confidence in maintaining environmentally responsible practices.

Impacts and outcomes

2.86. PTB Equipe has grown into a supplier serving customers nationally and internationally, demonstrating that sustainability and service standards can successfully coexist within a micro enterprise. Although small in scale, the business demonstrates meaningful carbon reduction through everyday operational choices. As the founder explained, personal interests and environmental responsibility are not mutually exclusive:

> “I’ll be honest, I’m very much a petrol head. I love fast cars, fast bikes, and the noise that comes with them. But that doesn’t mean I’m unaware of my responsibilities to the climate and the impact of climate change. The steps I take to contribute may seem small, but they matter to me, and they come naturally. I understand that this mindset may not come naturally to everyone,

so if others can learn something from the simple changes I make, it is absolutely worthwhile."

Replicability and scalability



2.87. This model is highly replicable for other small or home-based businesses. Key lessons include reusing packaging before purchasing new materials, buying consumables in bulk to reduce deliveries, minimising travel through scheduled courier collections, optimising printing and material use to avoid waste, and maintaining consistent standards regardless of product value. The central message is that reducing carbon impact does not always require significant investment. Many effective sustainability measures stem from careful organisation, attention to detail, and conscious day-to-day decisions.

Eastwood Textile



Location: Gwynedd, Wales

A textile business using natural dyes and recycled textiles

Business model

2.88. Eastwood Textile is a small business founded with sustainability at its core. Launched in July 2025, it produces handmade accessories such as scrunchies and bags, alongside wellbeing products including eye pillows.

2.89. From the outset, the aim was to create functional and visually appealing items using lower-impact materials and production methods. Instead of purchasing new fabric, leftover garments are repurposed, reducing textile waste and extending the life of existing materials. Synthetic dyes are replaced with natural dyes derived from flowers grown on-site, enabling small batch production and distinctive outcomes. Sustainability is not an additional feature of the business model but its foundation.

2.90. This commitment developed during formal studies in fashion, where large volumes of poorly managed textile waste were observed, much of which was destined for landfill. Concerns around the environmental impacts of synthetic fibres and waste-intensive production led to independent exploration of alternative approaches. An apprenticeship with a local craftsperson introduced the use of locally sourced wool and traditional natural dyeing techniques, including onion skin and solar dyeing. These experiences reshaped creative practice and reinforced a low-impact approach.

Delivery and implementation

2.91. The business operates primarily through online platforms such as Etsy and Folksy and is supported by ongoing mentorship from Business Wales.

2.92. Materials are selected carefully. Priority is given to 100% cotton fabrics inherited from family members. Only once these resources are exhausted are additional materials considered, with preference given to sustainable options such as locally produced flax, while avoiding fabrics associated with greater environmental or ethical concerns.

2.93. The creative process is deliberately seasonal and organic. Flowers used for dyeing are grown in pots, with careful planning to ensure a succession of blooms from spring through summer. Some plants, including hollyhocks and cosmos, require a full year from sowing to flowering, reflecting a conscious departure from the pace of modern consumer culture.

2.94. Two primary dyeing methods are used. One involves boiling plant material to extract colour for more even dyeing. The other, eco printing or bundle dyeing, places flowers directly onto fabric before rolling and steaming to create a direct imprint of the plants. Each piece is therefore unique. Acorns are also used as a natural fixative to help bind the dye.

Funding and resources

2.95. In the early stages, she accessed support through Universal Credit’s start-up programme, which provided financial stability while establishing self-employment. In addition, advisory support from Business Wales offers guidance when needed, strengthening business confidence and long-term planning.

Challenges and barriers

2.96. The business, in its current stage, does not yet generate enough income to sustain itself. Time and financial pressures present ongoing challenges. Competing with low-cost, mass-produced goods makes it difficult to rely solely on handmade textiles for income. Consequently, it remains a developing venture that requires careful balancing with other professional commitments.

2.97. Natural dyeing also requires patience and adaptability. Plant materials behave unpredictably, and seasonal constraints limit production speed. These limitations are accepted as part of a slower, more mindful business model.

Success factors

2.98. The business is driven by a genuine commitment to textiles, fashion, and sustainability. This authenticity informs decision-making and resonates with customers who value environmentally responsible products.



2.99. A strong willingness to learn has strengthened both technical capability and environmental understanding. The integration of creativity, ecological values, and practical resourcefulness underpins long-term resilience.

Impacts and outcomes

2.100. The business delivers clear environmental benefits by repurposing textiles, avoiding synthetic dyes, and keeping production volumes small and controlled. Chemical use is minimised, and waste is reduced throughout the process.

Replicability and scalability

2.101. This model is highly replicable for other small-scale creative businesses. Key lessons include using available materials before purchasing new ones, embracing seasonal and local resources, learning traditional low-impact techniques, and accepting slower growth as part of sustainable practice. This approach is reflected in

the founder's practice of cultivating their own flowers to produce natural dyes for their products. As they explained, different plants require time and care:

> "There's Cosmos, that's one that makes pink and red. Then I've got some Hollyhocks, which I had to sow them last year and they'll only be flowering this year. It has to do a lot with being patient, which is quite a good thing to be doing because nowadays things are so fast."



2.102. Scalability does not necessarily mean rapid expansion. Instead, growth can remain measured and values-led, ensuring environmental principles are not compromised. The founder's advice is simple: love what you do, remain open to learning, and be patient. Just as flowers take time to bloom, sustainable businesses require care, commitment, and trust in the process.

The Snail of Happiness

Location: Lampeter, Ceredigion

Small steps with a big impact: Sustainability in a craft retailer

Business model

2.103. The Snail of Happiness is a small craft shop opened 4 years ago with a unique approach: combining the sale of new, sustainable crafting products with pre-loved items. The founders, who have backgrounds in crafting and one of whom holds a PhD in ecology, have spent much of their careers working in conservation. They set out to bring environmental and ethical awareness into a sector often associated with overconsumption, waste, and the use of harmful materials.

2.104. Their aim was to foster a culture of reduce, reuse, and recycle, offering ethically sourced, natural fibre products while gently educating customers about sustainability. From the outset, the shop was designed to be as environmentally responsible as possible. This included sourcing furniture and fittings through auctions, friends, and reclaimed materials, as well as constructing some items in-house using waste materials.



Delivery and implementation

2.105. A range of practical sustainability initiatives were implemented from the start. A second-hand electric van was purchased for collections, deliveries, and local travel. With a range of around 120 miles, it is well-suited to the business's small operating area. At approximately £8,000, it was a cost-effective alternative to purchasing a new vehicle. Although electric commercial vehicles later became subject to road tax at £385, the van continues to deliver significant emissions savings.

2.106. Energy efficiency measures were also introduced, including the installation of LED lighting and curtains to reduce heat loss and lower heating costs. Reuse of packaging is a central principle. Incoming boxes, cardboard, and void fill are reused wherever possible, with new packaging only purchased when necessary and sourced from recycled or eco-friendly suppliers. Product selection prioritises natural fibres, with plastic-based yarns avoided. Suppliers are regularly questioned about environmental claims, packaging, and ethical practices to ensure integrity and avoid greenwashing.

Funding and resources

2.107. The shop has been largely self-funded. Through practical sustainability measures such as using reclaimed materials, bulk buying, and improving energy efficiency, the business has also achieved cost savings. Purchasing a second-hand electric van

reduced both transport costs and emissions, while LED lighting and energy-efficient fittings provided low-cost improvements.



2.108. The founders have focused on practical, small, achievable actions rather than complex or high-cost sustainability measures. This approach has allowed the business to remain financially sustainable while staying aligned with its environmental goals.

Challenges and barriers

2.109. One of the main challenges has been sourcing products with genuinely verified environmental credentials. Widespread greenwashing means many suppliers make sustainability claims without providing evidence. The founders address this by carrying out detailed research and asking suppliers specific questions about production processes, chemical use, and ethical standards. They choose to work only with partners who are transparent and willing to share information, viewing openness as a key indicator of credibility.

2.110. Operating in a rural area also presents practical challenges, including limited access to services that support energy-efficient upgrades. While guidance from Business Wales and other networks has been helpful, the founders note that more coordinated support would make it easier for small rural businesses to implement sustainable changes.



Success factors

2.111. Several factors underpin the business's success in reducing its carbon footprint. Its holistic approach, combining pre-loved products, ethically sourced new items, and efficient operations, is designed to achieve a broad and meaningful environmental impact. The focus on small, achievable actions provides clarity and supports day-to-day decision-making without the need for complex carbon footprint calculations.

2.112. External recognition has also played a role. One of the co-founders being named as one of Small Business Britain's inspiring female entrepreneurs has increased both visibility and credibility.

Impacts and outcomes

2.113. The shop has delivered a wide range of environmental and social benefits. Selling pre-loved products and reusing packaging reduces consumption and keeps materials out of landfill. Operational efficiencies, including the use of an electric van and energy-efficient lighting, have reduced carbon emissions. Ongoing engagement with suppliers has also encouraged greater awareness of sustainability in product design and packaging. The founders believe the shop contributes to a wider cultural shift, demonstrating that crafting can be both creative and environmentally conscious.

Replicability and scalability

2.114. This model is easily replicable for other small craft or retail businesses. As one of the co-founders mentioned,

> "people can take small, manageable steps towards living more sustainably. That is the meaning of the snail: an idea to create a positive spiral where small actions lead to meaningful change over time. It's about showing people that they can start with just one simple step today, and when those steps accumulate, they can have a significant impact in the long term."

2.115. The founders emphasised that even without a background in ecology, small business owners can take practical and achievable steps, such as installing energy-efficient lighting, adopting electric transport, and carefully selecting suppliers, to meaningfully reduce environmental impact without large investments or complex calculations.