

Made with Wool: Study into Weaving Outputs in Wales

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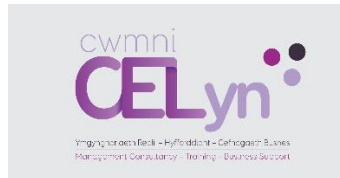


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1. Introduction

1.1 Report purpose

This report has been produced by independent company, Cwmni CELyn who was recently commissioned by Menter Môn to carry out a research study to determine whether there is a demand for another weaving outlet in Wales. This report will outline the research process, the findings, conclusions, and recommendations to take forward.

1.2 Background to the research

The Welsh Wool sector is in crisis with the cost of shearing on many farms outstripping the income generated by wool. Further disruption has been caused by the Covid 19 pandemic and its impact on global wool sales, and the completion of Brexit affecting established supply chains. Uncertainty in the sheep industry, a backbone of rural communities across Wales, has focused attention on finding ways forward.

Made with Wool is a pan Wales project led by Menter Môn, it brings together an extensive network of stakeholders that represent every part of the wool supply chain. Built on the back of 2 years of engagement activities and working closely with project partners British Wool, Wool Testing Authority and The Bio Composites Centre, Bangor. The project aims to:

- a) Support to develop a vibrant ecosystem for a Welsh Wool Cluster, to facilitate capacity building, networking, knowledge sharing, signposting and training opportunities.
- b) Identify and facilitate the take-up of existing opportunities for supply chain integration through animation support, commissioning specialist guidance for micro and SME businesses, piloting a mentoring provision for wool stakeholders and raising awareness of how to measure and improve the quality of wool.
- c) Pilot high-value innovative products made from Welsh wool by partnering with 'The Bio Composites Centre' (www.biocomposites.bangor.ac.uk) to identify opportunities free of Intellectual Property conflict and undertake a product development process leading to piloting 5 commercially viable novel applications of wool.

MADE WITH WOOL VISION

“Bringing Welsh Wool stakeholders together to realise the potential of wool as a natural, sustainable and versatile material, by building on its rich heritage, enhancing

understanding, facilitating collaboration and offering innovative product solutions to current challenges.”

2. Methodology

2.1 Difficulties

We were unable to engage with the target number of Mills and designers, as required in the brief. Many of those we contacted were eager to contribute and share their knowledge and experiences, however lack of time was a common factor. Some respondents were also hesitant to answer the questions fully, as the information required was deemed as being ‘commercially sensitive’.

2.2 Research Brief & Questions

The aim of this study was to:

“Determine whether there is demand for another weaving outlet in Wales. Currently, individual freelance designers in Wales are struggling to find an outlet to create their designs, the mills either don’t have the capacity for extra work, have long lead times or they will only create their own specific patterns. The minimum requirements and costs are also often too much for young emerging designers. There is also a growing demand for establish brands who are looking to ‘onshore’ production, but the mills in Wales are having to turn work away as they don’t have the capacity.”

The brief required that the following key questions to be answered:

The study will cover all working mills in Wales that are willing to participate in the study. To get an understand the situation with wool mills in Wales, covering the below questions;

1. Please provide a description for each mill that will help ‘Made with Wool’ better understand the milling capability and capacity in Wales. For example, what is each mill’s capacity? How close are they to full capacity? What sources of energy do they use? What machinery do they have and what is the state of repairs? What investments have been made over last 5-10 years?
2. What is the operational business model of each mill? For example, what are the income streams, does it sell D2C/B2B, does the mill take on contracts, what are the mill’s operating times...
3. How do the owners describe the current state of each mill enterprise? For examples what are their strengths and weaknesses, is it a profitable business, are there succession plans in place, changes made/need to make to face current challenges/threats, what opportunities do they have...

4. We want to understand more about the skill force behind the woollen mills of Wales. How many skilled workers have they got running the mill? What are the key skills required to run a mill? How do they train staff members? Is there on-going investment in attracting and maintain skilled workers? What is required to develop the skillset in these rural communities?
5. What demand exist from freelance Welsh designers and established businesses to either collaborate closer with an existing wool mill or open a new weaving outlet? If so, to what scale. We would expect you to consult with 15-20 independent designers based in Wales or with strong Welsh connections.

2.3 Research Methods

We undertook a series of one-to-one interviews with 5 Welsh Mill owners and 11 designers or businesses that produce and sell Welsh Wool products. The interviews were semi structured, with questions based on the research brief.

3. Literature Review

According to Wikipedia¹, the woollen industry in Wales was at times the country's most important industry, though it often struggled to compete with larger and more efficient woollen mills in the north of England, and almost disappeared during the 20th century. There is continued demand for quality Welsh woollen products.

Wool processing includes removing the fleece by shearing, classing the wool by quality, untangling, carding, dyeing, and spinning it into yarn, which may be knitted or woven into cloth, then finishing the cloth by fulling, napping and pressing. Spinning and weaving of sheep's wool dates to prehistoric times in Wales, but only became an important industry when Cistercian monasteries were established in the 12th century. Water-powered fulling mills to finish the cloth enabled rapid expansion of the industry in the 13th century, although spinning and weaving continued to be a cottage industry. In the early 16th century, production shifted from south Wales to mid and north Wales. The Shrewsbury Drapers Company in England took a dominant role in distributing Welsh cloth.

During the Industrial Revolution, the Welsh woollen industry was slow to mechanise compared to the mills of northern England. When railways reached mid Wales in the 1860s, they brought a flood of cheap mass-produced products that destroyed the local industry. However, development of the South Wales Coalfield opened a growing market for woollen products from water-powered mills in the south west, which prospered until after World War I. At one time, there were more than 300

¹ https://en.wikipedia.org/wiki/Woollen_industry_in_Wales

working wool mills. The industry went into steady decline after World War I, and only a few mills continue to operate today.

Concerns about the future of Welsh Woollen Mills were highlighted recently in a news article², which suggested that an 'ageing workforce' and lack of succession being a common factor in Mills closing. The article referred to Mill owners finding ways to keep the businesses going when they retire, examples were:

- Melin Tregwynt³ - Has set up an employee-ownership model for the Mill, Employees will be given shares and bonuses while they are working for the company and the management team continue to run the business as before.
- Melin Teifi⁴ - Being taken over by its next-door neighbour National Wool Museum. The working Welsh commercial mill's machinery and equipment will continue to be maintained at operated after the business closes its doors.
- Curlew Weavers⁵ - A family member planning to take the business on.

As of 2013 there were just nine commercial woollen mills still in operation, often run by small families producing traditional Welsh cloth on old looms. The Cambrian Woollen Mill at Dre-fach Felindre was acquired in 1976 for the Museum of the Welsh Woollen Industry, now named the National Wool Museum⁶. Water powered woollen mills that were open to the public as of 2016 include Melin Tregwynt, Rock Mill Llandysul, Solva Woollen Mill and Trefriw Woollen Mills.

In 2016, the National Museum of Wales listed the following active woollen mills:

County	Mill	Location	Type / Current Known Status
North Wales	Trefriw Woollen Mills	Trefriw	Industrial
Gwynedd	Brynkir Woollen Mill	Garndolbenmaen	Craft
Powys	Cambrian Woollen Mill	Llanwrtyd Wells	Closed
Ceredigion	Curlew Weavers	Rhydlewis, Llandysul	Industrial

² <https://www.bbc.co.uk/news/uk-wales-60206196>

³ <https://melintregwynt.co.uk/>

⁴ <https://www.melinteifi.com/>

⁵ <https://curlew-weavers-woollen-mill.business.site/>

⁶ https://museum.wales/wool/?gclid=EAlaIQobChMI-dPKIZj7-glVw4BQBh21LAbDEAAAYASAAEgL8a_D_BwE

County	Mill	Location	Type / Current Known Status
	Rock Mill Llandysul	Capel Dewi, Llandysul	Industrial
Carmarthenshire	Elvet Woollen Mill	Carmarthen	Temporarily Closed
	Melin Dolwerdd	Dre-fach Felindre	Craft
	National Wool Museum	Dre-fach Felindre	Craft
	Melin Teifi	Dre-fach Felindre	Industrial
Cardiff	Esgair Moel, St Fagans National History Museum	St Fagans	Craft
Monmouthshire	Sioni Rhys Handweavers	Pandy	Craft
Pembrokeshire	Riitta Sinkkonen Davies Handweaving	Haverfordwest	Craft
	Snail Trail Handweavers	Cilgerran	Craft
	Melin Trefin	Trefin	Craft
	Melin Tregwynt	Castlemorris	Industrial
	Solva Woollen Mill	Middle Mill	Industrial

It has been difficult to get an accurate picture of how many active Mills remain today, of the 15 listed above, Cambrian is closed. Elvet Woollen Mill is also currently closed but in the process of being purchased and will hopefully re-open and become active again.

4. Findings

Generally, those we spoke to were glad to be able to share their experiences in the hope that it would be the catalyst for change and to take action to safeguard the future of the Welsh woollen mill sector. Many referred to their concerns about the future, words such as ‘concerning’, ‘a crisis’, ‘tragic’, ‘too late’, ‘a shame’, ‘frustrating’, ‘dying out’, ‘lost opportunities’, ‘Welsh heritage at risk of being lost forever’, were used to describe the situation.

It was recognised that the woollen mill sector is an important part of Welsh heritage and that steps should be taken now to protect, promote and develop a ‘heritage industry’. This included the need to raise awareness of ‘the story’ and of the ‘crisis’ facing the sector, which would highlight the need for urgent action.

The findings section has been shared into subheadings, here we will refer to the key messages identified:

Wool

- a. Many ‘Welsh wool products’ are not actually made with wool from Wales, this is misleading and very frustrating for the designers and businesses we spoke to. Most products which are weaved in Wales are made with wool from elsewhere in UK or abroad. Only one designer we spoke to, used Welsh wool in products – creating handmade snoods, which included a mix of Welsh yarn. However, this particular designer spoke of the difficulties currently in finding ‘spun’ Welsh wool available for knitting machines.
- b. Some mill owners told us that they are aware of current supply chain issues across the UK and Scotland, and they are having difficulties getting hold of weaving yarn.
- c. Frustrations were raised by all we spoke to about their inability to use Welsh wool in products (mainly blankets and cushions), stating that there are limitations and challenges. Reasons included - lack of available colours, difficult to source a Welsh wool which is fine and soft enough and available in commercial quantity.
- d. There is still a big demand for the vintage ‘carthen’, but also for more ‘affordable’ and ‘softer’ blankets which are branded ‘Welsh wool’. It was acknowledged that not every customer can afford to pay for the heavier

- vintage / coarser products, but again there are no mills in Wales that have the capacity to produce the whole range of products required to meet demand.
- e. There seems to be a lack of facilities in Wales to make Welsh Wool into a usable weaving product, no scouring, spinning or finishing facilities in Wales, and so no way that the complete production 'from fleece to product' can be achieved in Wales at the moment. Most send the wool to be scoured in Bradford or Scotland (Haworth Scouring Company, Johnsons of Elgin) and to finishers in Huddersfield, Brighouse, or Scotland (W T Johnson & sons Ltd, H&C Whitehead, Schofield Dyers and Finishers). However, two Welsh mills we spoke to noted that they were in fact, able to achieve full production, from fleece to blanket. One of these spoke of their ambition to expand on this further and grow the carding and spinning plant now. *"We are optimistic about the future, we have new blood coming in to help run the business, we want to invest and grow"*.
 - f. All designers and businesses we spoke to noted that there is a need for additional capacity and outlets in Wales, however there was recognition that the whole production process is very complex and specialised. Suggestions were made to work with the present mills to develop, increase capacity, future proof and ensure sustainable succession plans. Many designers were having to go to England to get their products made, as they could not find Mills in Wales with capacity (Mills referred to – The Bristol Weaving Mill, New Lanark Spinning Co, County Brook Mill Lancashire)
"There are so many layers of complexity, it is difficult for people to understand the process and we need to raise awareness of this and share the story"
 - g. There seems to be an overall lack of awareness about the supply chain and production process, with designers noting that people do not realise the complexity and that getting the wool from 'farmer, fleece to product' is just not possible in Wales, as the infrastructure is not there.
 - h. Some designers raised questions around the 'British wool' status and why this isn't possible with Welsh wool? Noting that more needs to be done to raise the profile and to promote the sector.
 - i. Cambrian wool is the only company in Wales which commercially produces wool, mainly for knitting and at present this is not suitable for looms, however they are currently working with Melin Tregwynt to develop Welsh wool into a quality weaving product. Garthenor organic also produces yarn for hand knitting and setting up a spinning mill in Wales, using certified organic wool. There is potential to work with these companies to support and ensure that Welsh wool is utilised to create premium Welsh products and meet demand.

Weaving production and demand

- a. All Welsh mills we spoke to are at full capacity and not able to take on further commissioned work, if at all. Mill owners told us that they are receiving

enquiries all the time but have to refuse trade and commissioned weaving as they are too busy with their own work to take on any commissioned work.

- b. There are many examples of designers not using Welsh Mills due to lack of capacity and long lead times for production, the minority that do take on commissioned work the lead times are at least 6 – 8 months. We spoke to designers using English Mills (Lancashire and Bristol) as they could not find mills in Wales that were able to take on commissioned work.

“I have always tried to use Welsh mills, but the lead in times now are too long and it really does impact on my business, I am having to use English mills now, but not out of choice”

“I am really concerned about the sector in Wales, we all know the demand is there but it’s all about flexibility and meeting demand, sadly we are not able to use Welsh mills and are using English mills”

- c. People are buying with more conscience and so want to buy local, ‘Welsh wool’. Demand for Welsh wool products is definitely there, world-wide, Welsh wool products and designs have become ‘trendy’, ‘iconic’ and an increase in online/e-commerce has meant that ability to sell has increased but designers cannot keep up with demand, due to delays in production.

“We are selling Welsh wool products world-wide, they sell straight away and are very popular – but we just cannot keep up with the demand and can’t now source any mills in Wales that can produce for us”

- d. Designers also told us of the need for an outlet which can work with designers to experiment with different wool and patterns. Currently, there are no mills in Wales that can take on small scale batches of work. This is especially an issue for new designers, those who cannot afford to finance large orders and also those who want to experiment with new products and ideas.
- e. One business shared concerns that there does not seem to be a ‘catalogue’ or archive of Welsh wool patterns, this may well exist, however this is the belief amongst many.

“Many of the old Welsh patterns are out of copywrite but I not aware that there is a record of these, which is a shame – more patterns need to be available / in the public domain, which would lead to more design variation, but again there would be an issue with production in Wales due to lack of mill capacity”.

- f. The woollen mill machinery tend to be very old and requires specialist skills to maintain and repair. Mill owners told us that these skills are not in Wales, and some are having to get machinery repaired in England, which is very costly.

Training & skills

- a. Production is very complex and specialist and so having the right technical ability is critical for the mills.

“The whole production process is highly complex, tricky, having the right technical ability to run the mill is essential”

- b. There seems to be a lack of awareness of the opportunities within the sector and encouragement for people to learn the key skills needed – weaving and tying a knot, patience etc...
- c. It was emphasised that a lack of training and apprenticeships an issue for the sector
- d. Training and courses need to have more focus on manufacturing and production and not just on design
- e. There is a need to work collaboratively with education providers and textile courses to ensure that appropriate skills are developed, working with mills to provide work experience etc....

Succession planning

- a. Many mill owners are older and have been in the industry for many years, some told us that they do not have succession plans to ensure the future of the mill.

Other barriers and challenges

- a. Many of the Welsh mills are located in rural areas and so recruitment is an issue due to transport issues to and from the mill. One mill owner noted that they had difficulties in recruiting textile students from university who were interested in an apprenticeship, but they could not recruit as they either could not drive or could not afford a car. Lack of transport links in rural areas is a real problem and many of the mills are located in rural Wales.

Opportunities

- a. The transfer of Melin Teifi to Welsh museum seen as a very positive step, it was suggested that there are opportunities here for collaboration to respond to the concerns and capacity issues in Wales.
- b. It was also emphasised that mills should be encouraged to consider alternative ownership models and be supported and mentored to ensure suitable succession.

5. Conclusions and Recommendations

The woollen industry has been at the heart of communities in Wales for centuries. Through this research, we have found that there are real concerns – with the risk that important Welsh history and heritage could be lost forever, unless steps are taken to support Welsh Mills to develop and safeguard their future.

The research found that there is clearly a need for additional capacity or outlet in Wales, which would support emerging designers and established businesses that want their products to be ‘Made in Wales.’ This need could be met through working with active Mills to strengthen their current infrastructure and capacity to meet demand levels.

The demand for Welsh Wool products is there, there has been a big resurgence in interest in Welsh Wool over the last few years. Customers are buying with a conscience and keen to purchase more sustainably, ethically, and products that have a story behind them. Designers and businesses have told us that they are struggling to find Mills in Wales that can take on commissioned weaving and are having to go to England to get their work produced. Many of the mills are busy and at full capacity, mainly with their own product ranges. Of those that are able to take on commissioned work, they often have a long lead time (at least 6 months) which makes it difficult to meet customer demand and ensure sufficient stock levels. Only a handful of Mills are currently still in operation in Wales, only two of these are in North Wales. The set up and size of each Mill varies enormously, and it is positive to see that the **active** Mills are thriving and having to refuse work as they cannot keep up. We found only two Welsh Mill which are able to keep all levels of production within the Mill, on a small scale. One **of these** told us that they are keen to invest and grow as they recognise the importance of keeping the whole production process in Wales. Otherwise, scouring, carding, spinning and finishing is often contracted out to sites in England, with the weaving done in Wales.

In terms of succession planning, the research has highlighted that it is an ageing and traditional industry, often running in families. There are examples of creative and positive steps being taken to ensure the succession of some Mills, whose owners are about to retire. Melin Tregwynt and Melin Teifi have shown that there are alternative ownership models to consider, and it will be interesting to learn from these examples.

There is no doubt that urgent action and collaboration is needed to secure the future of the Welsh Woollen Mill sector. There needs to be a joined-up approach to safeguard the future of the Mills and ensure that they can continue to prosper, grow, to meet the demand and appetite for Welsh Wool products and celebrate and promote Wales’s unique heritage.

Considering the findings and conclusions, we offer the following as recommendations to take forward:

Supporting the sector

- a) We suggest that a task group be set up to respond to the findings and recommendations and to develop an action plan.
- b) That a Development Officer role (or similar) be created to engage and work with the sector and co-ordinate the action plan.
- c) That a peer support network be created to encourage the sector to share good practice, share learning and opportunities for joint working.
- d) There needs to be an investment package available to support the development of the Mills and ensure their future sustainability. Ageing machinery, cost of repairs and rising energy costs, is an issue for many of the mills.
- e) There should be an effective and easy to access support package for mills, to help them develop effective succession plans, exploring different models of ownership. This should be discussed with partners such as Cwmpas and Business Wales.

Raise awareness of 'the story'

- a) There should be an effective marketing and PR campaign to raise awareness of the challenges facing the woollen mill sector and to generate interest in safeguarding the future of the mills.

From Fleece to product

- a) Working with the sector, more investment and support is needed to make Welsh Wool into a usable product, available in commercial quantities, a range of colours and suitable for weaving. We suggest that this is done in close collaboration with companies who are currently looking at ways of doing this - Cambrian Wool Project and Garthenor Organic.
- b) That a further study be commissioned to investigate the potential and options for ensuring that all levels of production can remain in Wales, from fleece to product. We suggest that this is done in close collaboration with the current mills, especially those which have the potential space to consider expansion. At least one mill in Wales is currently able to achieve this on a small scale and is keen to expand and increase production.

Training and Skills

- a) There needs to be appropriate education and skills provision on every level, working with providers to ensure that textile courses cover weaving in enough depth, and which encourages interest in future careers with woollen mills.

- b) Working with education providers and mill owners, investment is needed to provide apprenticeship and training opportunities in manufacturing, production and weaving.