



# "For the Love of the Sea Limited"

Presented by
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Câr-Y-Môr is a Community Benefit Society

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# 1. Executive Summary

In 2017 we as a family group of seven people agreed to try and fulfil our responsibility to present and future generations of leaving this world healthier than we found it. We decided to focus our efforts on Welsh Societies' two most challenging issues – People's health and the climate emergency. From this the Câr-Y-Môr idea started.

Câr-Y-Môr means "For the Love of the Sea". It's aims are to create jobs and improve the coastal environment and people's lives

Three years later we are a registered Community Benefit Society with 26 members and growing. We are a diverse group all with our own jobs and commitments who generously volunteer their time to develop Câr-Y-Môr.

in August 2020, after three years of business planning, applications and lobbying we obtained 5-year Licenses and all necessary consents for two trial Restoration Ocean Farms.

Since then, in just three months, key members at Robust Boats have now deployed and seeded these two trial farms in Ramsey Sound, St. Davids

With these trial farms finally started, and community interest growing, we invite all who are inspired by the Câr-Y-Môr's aims to join and share the challenge of developing this society so that it is owned and democratically run by a growing group of collaborative people of all ages and skills bringing long lasting benefits to our society.

Sustainability lies at the heart of Câr-Y-Môr; Performance will be measured using triple bottom line accounting reporting social, environmental and financial performances.

OUR PLAN IS TO ACHIEVE OUR AIMS THROUGH THE FOLLOWING THREE INTERCONNECTED ACTIVITIES:

## 1. Developing a viable seafood business that:

- Creates fulltime jobs processing and marketing and farming sustainable seafood.
- Reinvests all profits to continually innovate this sector generating skilled and valued jobs while improving our coastal environment



**2.**Producing Seaweed and shellfish from the two trial Ocean Farms, demonstrating the potential environmental benefits and carbon offsetting of a 1-3 hectare Ocean farm and establishing the first one as a template for others to duplicate.



# 3. <u>Reconnecting people with their Coastal Environment and local sustainable seafood</u> by:

- Using all media channels to educate about the jobs and environmental benefits that this innovative farming can bring, and the healthy and affordable seafood it can offer
- Through volunteering and paid workshops at the Sea farms and with Seafood processing and cooking
- Through boat and diving trips to the sea farms
- Offering Child led outdoor education to schools and other events

In terms of the United Nations Sustainable Development Goals Câr-Y-Môr is working towards:









# Our vision is that in 5 years we will have:

- Completed the testing programme at our TRIAL Ocean farms establishing the environmental benefits, carbon offsetting, best equipment and practices and most viable species
- Setup and be operating a TEMPLATE 3 hectare Ocean farm with annual production after 3 years of 50 tonnes seaweed, 150 tonnes of mussels, 20 tonnes oysters, 3 tonnes of scallops, 3 tonnes of clams.
- This ONE Template farm will be carbon negative offsetting 240kg of CO2/ day which is equivalent to the CO2 produced daily by 20 people in Wales. Many believe government Carbon offsetting payments are imminent
- This TEMPLATE will be viable, scalable and replicable by other people who wish to produce healthy food, using the most environmentally friendly farming possible along the Welsh Coast.
- Started training three people a year, from year four, to start their own Ocean Farms. This includes supporting these new farmers through the licensing and funding processes. Within 10 years we estimate a minimum of 10 new farms will be operating providing 20 full time jobs and £1.75million turnover. (Greenwave's example of new farms starting every year shows this is achievable – but only with the support of all key stakeholders.)
- A coastal land site we will call "The Seafood House" will be processing and marketing the produce from the Ocean farm and locally harvested seafood.
- Educated at least 2,500 people on (1) the preparation and cooking of our seafood products (2) the potential health benefits of increasing the seafood in our diets and (3) the importance of harvesting sustainably farmed seafood and conserving the natural "sea stock".
- Delivered free outdoor child led education for at least 3,000 children and parents at the seaweed potion kitchen to encourage them to develop a passion for the sea and for outside activities.
- Provided at least 2,000 people with outdoor seaweed baths.



- A growing number of both members (will have surpassed 500) and the following of the Câr-Y-Môr brand through stakeholders, social media, and the education programme.
- Employment of 9 people (members) all inspired and motivated by being equal partners of an increasingly sustainable business.
- Continued development through innovation and technology to keep improving the sustainability and viability of all our activities.
- A dedicated group of member volunteers helping with all the Câr-Y-Môr activities
- A 5 year turnover of £1.3 million with a £181,951 profit. The total capital funding required during the 5 year startup is £549,000. All surpluses being re-invested.
- Through all the above will have started fulfilling the Society's aims of Improving many people's physical and mental wellbeing and the coastal environment.

# Business Background

# 2.1 Business Background

Câr-Y-Môr is the trading name of a Pembrokeshire Community Benefit Society (CBS) called "For the love of the Sea" initially started by a few founder members to improve people's wellbeing and the coastal environment.

They see this business as not only an opportunity to start creating a sustainable type of low input farming, harvesting the seas' natural produce, but also to educate people about this tremendous natural resource and how it can improve our wellbeing.

These members have a diverse range of complementary skills to bring to the business and November 2021 has grown to 112 members – without whom the progress could not have been made. These include marine scientists, marine engineers and contractors, fishermen and shellfish processor, chefs, a robotic engineer, divers and seaweed harvester and processor. All members generously volunteer their spare time and skills to develop the society. The team notably includes:

#### The Robust Boat team of Steve his family and Bill Preece

They are marine engineers/contractors, boat builders, fishing tackle suppliers and Chandlers with decades of experience of fishing and operating in Ramsey Sound and servicing Ramsey Island.



## Jono Voyce and Sandy Powell of Solva Seafoods

Jono is the only full-time fisherman operating in the Ramsey Sound. He is also experienced with Vivier systems. He and Sandy have built up a growing crab and lobster processing business from their farm for 10 years.

#### Ella Hughes

Ella co-facilitated our 2019 outdoor education programme and also played an integral part in assembling and deploying the two trial farms.

#### **Martin Charlton**

A pilot for the Milford Haven Port Authority, St Davids Lifeboatman, A commercial diver and has worked in the wind turbine sector.

## Dr Christian Berger and Dr Dani Abdulhawa

Have a CIC Plants Beyond Land, with a Porphyra site at Penmon Point on Anglesey. Have built a Seaweed hatchery and sealens environmental monitoring system for seaweed farms. Researchers of of seaweed processing and marketing

#### Dr Jessica Knoop

Marine Scientist specialising in seaweeds, PhD in Pembrokeshire Porphyra

## Pembrokeshire Beachfood Company – Jonathan Williams

Seaweed Harvester and processor with years of experience running his infamous Seafood Trailer in Fresh Water West. Started Seaweed growing trials with Little Haven fisherman and processor, Danny Curtis last year.

#### The Haines family

They enjoy working with people making business bring about positive social and environmental change. Owen is part time South Wales Seafood Cluster Manager helping seafood businesses survive and prosper. He is a second-generation fish farmer and has worked on several shellfish farms from Poole to Oban. His passion is working with teams developing the best gear, work practises and markets to make fish farms commercially viable. The family have complimentary skills including agricultural accountancy, IT Web design and e commerce, agriculture, project and administration management, Outside education and the hospitality sector and catering.

# Previously this family group worked together to deliver benefits to a community through business:

For four years (2014-2018) the team worked together to save Torre Trout Farms Ltd. from liquidation. Owen worked full time whilst all the others contributed on an ad hoc basis. These farms are in Somerset.





One of the employee owners with an infamous Somerset Blue

The following was achieved:

- All legal and licensing obligations fulfilled
- Farms and hatchery renovated
- A new 20-year lease negotiated
- 3-year supply contracts secured Wessex and Welsh Water.
- New equipment and vehicles purchased
- New production and marketing strategy applied
- Implementation of financial and stock control systems
- Employees recruited and trained
- A motivated team developed, creating long-term profitability through innovation and ingenuity.
- An employee owner agreement was drafted and agreed.

The result is that Torre Trout Farm now trades as a profitable, employee-owned business.





The employee owner team at one of the Farms in the Exmoor National Park

# So returning to Câr-Y-Môr...... since November 2017 the ups:

- Built a website and social media platform.
- Accepted on the Welsh Government's Accelerated Growth Programme.
- Registration of "For the Love of the Sea" as a Community Benefit Society trading as Câr-Y-Môr.
- From June 2019 delivering our first summers' 50 child-led outdoor education events with our potion kitchen and photo board on beaches and coastal venues in Pembrokeshire.
- In August 2020 received licenses and in three months rigged and seeded two TRIAL Restorative Ocean Farms in Ramsey Sound.
- Establishing a growing support network in Pembrokeshire especially now the trial sea farming has started.
- Eight letters of support from key Pembrokeshire stakeholders for SDF funding (Including the Welsh Government Environment Minister Leslie Griffiths.)
- Still building knowledge acquisition around funding support in Wales and continuing to apply.
- The growing Câr-Y-Môr **team has volunteered** >7000 hours and covered >£52,000 of expenses and set up costs
- This is from an initial director's loan of £100,000 to allow the business to start operating

#### and the down:-



Failed several funding applications to date for a variety of reasons like All licenses not acquired, too innovative, too big a project, not established enough, unclear carbon capture data etc

# The route of the problem that we face - On-going degradation of the world's coastal seas:

Since the 1960's there has been a ten-fold increase in areas of coastal sea that suffer from various levels of hypoxia (low-oxygenation) (Diaz & Rosenberg, 2008). Hypoxia is prevalent in coastal areas with high population and intensive farming activity, 65% of Europe's Atlantic coast exhibit signs of low oxygenation (Selman et al., 2008; Figure below of World hypoxic and Eutrophic Coastal Areas). Hypoxia in coastal areas can have far reaching effects on ecological services, for example causing loss of food security and tourism (Levin & Brietburg, 2015).

# Legend ophic and Hypoxic A

World Hypoxic and Eutrophic Coastal Areas

https://www.wri.org/resource/world-hypoxic-and-eutrophic-coastal-areas

Years of increasing fossil fuel burning and other human activities have increased the levels of carbon dioxide and other greenhouse gases in the atmosphere causing seawater to warm, acidify and deoxygenate. These problems are further compounded by decades of agricultural and sewage runoff (Brietburg et al., 2018) - people believing the "solution to pollution is dilution" - this has all resulted in a FUNDAMENTAL DEGRADATION OF OUR MARINE ECOSYSTEMS REDUCING OUR OCEAN BIODIVERSTY AND PRODUCTIVITY.

## A new hope for our Oceans – has the tide started to turn?

Twenty years ago off the Connecticut coast Bren Smith, a lifelong commercial fisherman since the age of 14, pioneered the development of restorative 3D ocean



farming, which is designed to start restoring ocean ecosystems, mitigate climate change and create blue-green jobs for fishermen — while ensuring healthy, local food for communities. See the compelling logic at

https://www.greenwave.org/team. Greenwave have now trained more than 50 new farmers leading to growing numbers of restorative 3D Ocean Farms operating in American and Canadian waters.

# What is Restorative Ocean Farming?

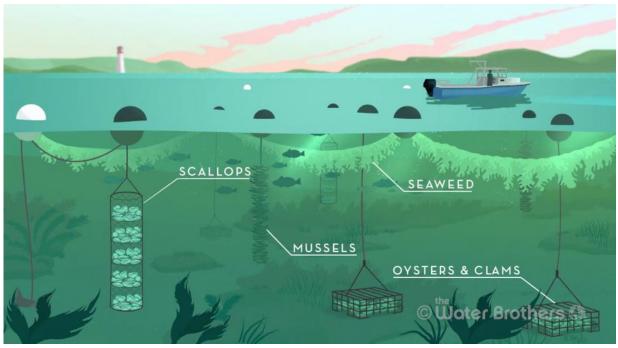
Scientists refer to this as a form of IMTA – Integrated Multi Trophic Aquaculture. This is Aquaculture that improves ecosystem health with different species at different trophic levels whilst producing harvestable crops of economic value (Barrington et al., 2009). It is restorative by helping to restore the marine ecosystem through sequestration of nitrogen and carbon and by creating new reefs for all marine life (Morrissey & Heidkamp, 2018). "Integrated aquaculture should be looked upon as a very important tool to facilitate the sustainable growth of marine aquaculture and its potential to promote sustainable development." (FAO, 2009)

**Restorative Ocean Farming** is more simply known as **3D Ocean Farming** as it is a simple, replicable type of farming which uses the entire water column to grow restorative species. As all growing happens vertically it is a very space efficient way of producing food, furthermore as it is under water it has a very minimal aesthetic impact. One of the key benefits that set it apart from traditional aquaculture is that it protects and improves rather than privatises the oceans.

Imagine these **3D Ocean Farms** as underwater gardens with hurricane-proof anchors on the edges, connected by floating horizontal ropes from which kelp and other seaweeds grow vertically next to scallops in lantern nets and mussels in their socks. Below are oysters in cages and clams buried in the sea floor. These farms are replicable in that they are very simple and cheap to build since we don't have to fight gravity underwater. This means that anyone with marine skills, a boat and a small amount of set-up capital has the potential to have their own farms in the sea (this is assuming that the legislative process is successfully clarified and streamlined so that the Welsh Government's ambitious growth targets for Aquaculture can begin to be achieved.)

For clarity, in the rest of this plan, we will refer to these farms as **3D Ocean Farms**.





# 2.2 Legal Business Description

Câr-Y-Môr is the trading name of "For the love of the sea" a registered Community Benefit Society.

# Key criteria of the registered society:

- One member one vote.
- All profits reinvested to improve peoples' wellbeing and the coastal environment.

The growing number of members is now 26. This will further increase with the completion of the Pioneer Share Offer in February 2021.

The Society presently has a board of 6 directors (including three non-family members.) In February 2021 three more board members from the community will be co-opted strengthening the board as activities increase. This will also safeguard against any significant vested interests or potential conflicts of interest.

The founders have chosen a third sector entity to launch this business as they wish the business to be a force for good bringing social and environmental benefits to all. Therefore Câr-Y-Môr will trade commercially, once developed, with all profits being reinvested to further its aims of benefiting people and the coastal environment.

# 2.3 VAT Status

The business has applied for VAT registration, as the projected turnover will exceed the VAT registration threshold.



# Aims and Objectives

#### 3.1 Mission Statement

To be a social enterprise benefiting people and the coastal environment.

Our vision is that in 5 years we will have:

- Completed the testing programme at our TRIAL 3D Ocean farms establishing best equipment and practices, most viable species and a streamlined licensing process.
- Setup and be operating a TEMPLATE 3 hectare Ocean farm (The area of three rugby pitches) with annual production after 3 years of 50 tonnes seaweed, 150 tonnes of mussels, 20 tonnes oysters, 3 tonnes of scallops, 3 tonnes of clams.
- This TEMPLATE will be viable, scalable and replicable by other people who wish to produce healthy food, using the most environmentally friendly farming possible along the Welsh Coast.
- Started training three people a year, from year four, to start their own 3D Ocean Farms. This includes supporting these new farmers through the licensing and funding processes. Within 10 years we estimate a minimum of 10 new farms will be operating providing a further 20 full time jobs and £1.75million turnover. (Greenwave's example of new farms starting every year shows this is achievable with the support of all key stakeholders.)
- Our "Seafood House" facility in St Davids will be processing and marketing the produce from the 3D Ocean farm and locally harvested seafood.
- Educated at least 2,500 people on (1) the preparation and cooking of our seafood products (2) the potential health benefits of increasing the seafood in our diets and (3) the importance of harvesting sustainably farmed seafood and conserving the natural "sea stock".
- Delivered free outdoor child led education for at least 3,000 children and parents at the seaweed potion kitchen to encourage them to develop a passion for the sea and for outside activities.
- Provided at least 2,000 people with wood fired outdoor seaweed baths.
- A growing following of our brand through stakeholders, social media, and eduction programme.
- Employment of 9 people (members) all inspired and motivated by being equal partners of an increasingly sustainable business.
- Continued development through innovation and technology to keep improving the sustainability of all our activities.
- A society membership of >100 being a diverse group of ages and skills, many volunteering their time and skills.



- A 5-year turnover of £1.3 million with a £181,951 profit. The total capital funding required during the 5-year startup is £549,000. All surpluses being re-invested
- Improved many people's physical and mental wellbeing and the coastal environment.

# Key Objectives

# **Short Term Key Objectives (1-3) years**

- Raise £150,000 through Pioneer Share Offer by Feb 2021
- Secure additional £300,000 set up capital required during the first five years (Finish EMFF application and continue discussions with WWF)
- Continue research into certification for Carbon Offsetting and carbon credits
- Continue with ongoing farming and environmental monitoring at the Trial 3D Ocean Farms.
- Create and raise recognition of the Câr-Y-Môr brand.
- Investigate the possibility of utilising the St Justinans Life boat Station
- Each summer deliver Câr-Y-Môr's child-led outdoor education events.
- Successfully take over Solva Seafoods and move to the "Seafood House"
- Set up and start operating "Seafood Market" facility in St Davids
- Generate annual turnover in year three in excess of £250,000.
- Publish environmental monitoring reports
- Make applications for Marine License and consents for 3 hectare template 3D Ocean Farm

## Medium Term Key Objectives (3-5) Years

- Gain required licenses and set up 3 hectare template 3D Ocean Farm
- Complete development of Seafood Market facilities and increase processing and trading activity.
- Complete certification for Carbon Offsetting and carbon credits
- Continue to build stakeholders support for this Community Benefit Society
- Continue developing and delivering Câr-Y-Môr's child-led outdoor education.
- Generate annual turnover in excess of £325,000.
- Employ suitable staff in line with financial projections.
- Start our new farmer programme training three people a year to start their own 3D Ocean Farm.
- Apply for and win conservation and sustainable development awards.

#### **Long Term Key Objectives 5+ years**

- Continue to increase trading and annual turnover from Seafood House
- Maintain accreditations and licences required by the business.
- Annual production from TEMPLATE commercial scale 3D Ocean Farm of 50 tonnes seaweed, 150 tonnes of mussels, 20 tonnes oysters, 3 tonnes of scallops, 3 tonnes of clams.



- Within 10 years 10 new farmers will be operating their own 3D Ocean Farms providing 20 full time jobs and £1.75million turnover.
- Annually educate at least 1,000 people on the preparation and cooking of our seafood products.
- Outside child-led Education for at least 2,000+ children/year at our seaweed potion kitchen.
- Have a minimum of 12 employee owners (members).
- Have growing numbers of key stakeholders and supporters as members all helping the continued development of the Society

## **4.1Critical Success Factors**

The following factors are critical to the success of the new business:

- Transferring/Gaining necessary planning and environmental health consents for proposed facilities at the "Seafood House" site in St Davids.
- Creating a strong, clear brand.
- Running successful and safe tests on the two TRIAL 3D Ocean Farms.
- Achieving required licensing from NRW, CEFAS, Crown for our TEMPLATE commercial scale 3D Ocean Farm.
- Proving the proposition (that our TEMPLATE commercial scale 3D Ocean Farm is viable and replicable elsewhere).
- Raising the outstanding £450,000 start-up funding.
- Creating a sustainable education programme.
- Becoming an accredited attraction, VAQAS, Visit Wales' quality assurance scheme for tourist attractions.
- Sourcing and hiring competent staff to run the business in line with the objectives in this plan.
- Creating a pricing structure that generates repeat visitors and allows for sufficient profit generation.
- Ensuring strict quality control throughout all production processes, ensuring minimal wastage, in keeping with the business's sustainable aims

# 4.2Key Performance Indicators (KPI's)

Câr-Y-Môr will continually measure a number of KPI's to help manage the business development and growth ultimately leading to a sustainable business.

- Carbon footprint and carbon offset (i.e. in Kg's).
- Amount of social media followers.
- Amount of funding received, versus unsuccessful bids.
- Financial profit overall and per revenue stream.
- Hours of child-led outdoor education delivered.
- Hours educating people about their coastal environment in the visitor centre.
- Hours educating people about the preparation, cooking and eating of seafood.
- Tonnes of plastic collected at outside education events and at 3D Ocean Farm.
- Tonnes of carbon and nitrogen sequestered at the 3D Ocean Farm.



- Tonnes of seaweed and shellfish produced on the 3D Ocean Farm with zero inputs.
- Tonnes sold of locally harvested seafood.
- Jobs created in coastal community.

# 5 Delivery of Products and Services

# 5.1Products and/or Services

Câr-Y-Môr ultimately wants to provide several facilities at The Seafood House. Notably a community benefit centre educating about the coastal environment, a seafood restaurant/kitchen, shop and purification, processing and packaging facilities.

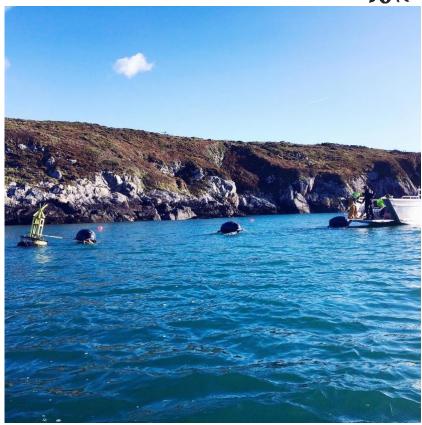


Visitors will have the opportunity to purchase a range of local seafood products from a range of local suppliers. They will also be able to learn about Câr-Y-Môr, ocean farming and the coastal environment. Knowledgeable staff will always share their passion and enthusiasm for improving our coastal environment and peoples' wellbeing. Câr-Y-Môr will also engage with its

community in delivering child-led outdoor education events, renting our wood-fired seaweed baths and educational workshops such as cooking demonstrations, seaweed foraging etc.



In the sea Câr-Y-Môr has replicated a GreenWave 3D Ocean Farm here in Wales. Our trial farm is now growing seaweeds and shellfish in the Ramsay Sound, Pembrokeshire. This farm will also help streamline the legislative process and serve as a template for others to replicate. We will also actively support anyone who wishes to create an ocean farm.



# **Education**

Free outdoor educational sessions for children will be delivered throughout Spring/Summer months. Innovative equipment like our photo board and seaweed potion kitchen will be used to facilitate outdoor child-led play which is essential for healthy development.









Two photos above are of the equipment being enjoyed by children at Y-Gegin in Pembroke Dock - 2019. Our events have been held on Pembrokeshire beaches, at local community events and in partnership with other educational organisations. So far, we have partnered with The Darwin Project, Beach Academy Wales, Pembroke College, local Primary Schools and The National Trust.

We have also began collaborating with divers and boat owners in order to facilitate trips to our 3D Ocean Farm facilitating outdoor education and recreation to more groups of people.

## **Production**

The template 3D Ocean Farm will be used by legislative organisations throughout 2021-2022 to do Environmental Impact Assessments and other research to generate essential evidence on various aspects of ocean farming.

This will undoubtedly bring benefits to science, aquaculture and will also help to streamline the licensing process. Additionally, this will assist the Welsh Government in achieving their ambitious growth targets for aquaculture.



The onsite purification units will allow the business to sell the freshest shellfish to local businesses with minimum carbon footprint and maximum shelf life. The seaweed processing equipment will also allow the sale of seaweed to local cosmetic and food trade businesses.

#### Catering

A seafood café will sell produce directly from the purification tanks allowing customers the freshest shellfish available. Additional ingredients will be sourced from producers prioritising locality, sustainable practices and seasonality.

An online and local trade sales provision will be in place for local hospitality organisations to wholesale purchase the shellfish and seaweed. The online marketplace will open the business up to the whole of the UK.

#### Retail



An onsite shop will sell environmentally friendly products that emphasise the locality, culture and eco credentials of the business. The shop will sell goods, where possible, with the Câr-Y-Môr branding incorporated. Seafood can be sold straight from the purification tanks, preparation and cooking equipment specifically for seafood and outside educational equipment and information. The foundation of this from day one will be the acquisition of Solva Seafoods. With this established and reputable business, we have the required food safety regulation in place, loyal customer base and potential to grow.

# 5.2Customer Service

The society's approach to providing great customer service will include:

- Extending a warm and professional welcome to all customers.
- Supplying high-quality products and services and training staff so that they can help customers make informed decisions.
- Ensuring that all facilities are clean, well maintained, attractive and fully compliant with all relevant legislation at all times.
- Actively sourcing and supplying additional local sustainable products.
- Being 'easy to do business with' i.e. ensuring the bookings are straightforward, clearly communicating any additional costs or services.
- Establishing a pricing policy that is easy to understand for all customers and reflects the quality of services provided.
- Offering a flexible approach to opening hours.
- Ensuring that staff are honest and act with integrity.
- Providing a safe environment and gaining trust from both parents and children.
- Providing a unique educational experience that is both fun and engaging.

#### 5.3Terms of Business

The child-led outdoor educational sessions will be supplied free of charge, although donations will be encouraged through our website donation page and "Put a quid for our Squid" in the Câr-Y-Môr treasure chest which will be at every event.

All onsite purchases will be paid by cash or electronic payment at time of purchase and online orders paid prior to dispatch.



# 5.4Suppliers and Terms of Trade

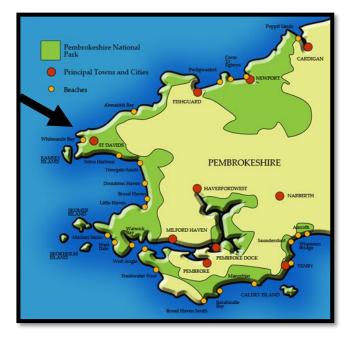
The society is committed to Community Involvement and partnership working. Initially Câr-Y-Môr wishes to specifically work in partnership with Islander Kelp on Rathlin Island, SAMs in Oban and Morecambe Bay Oysters. The supply of Crab and Lobster and other seasonal fish continues from Jono Voyce, Neil Thomas, Tony Pierce, Roger Woodage and hopefully more fishermen next year Whitfish in Bury Port will be a customer and supplier of locally caught fish. Best trade terms with wholesalers and utilities will be negotiated and regularly reviewed.

For the benefit of gaining value for the Society, three written quotes will be obtained for all capital projects with the most suitable supplier decided upon at stakeholder meetings.

# 5.5Premises

With the Seafood Market to be located at the Robust Boat units in St Davids this is where all the land-based activities will be started and developed. Additionally, the society will continue to aim to bring into operation a disused or underutilised coastal building such as a lifeboat station or farm buildings on the coast. If found this will be utilised to scale up the Seaweed hatchery, depuration and vivier facilities. Then, not only will the Society be delivering benefits to the marine environment under the waves, at their 3D Ocean Farm, but also will be utilising existing premises to bring more innovation and jobs to St Davids sustainable seafood sector.

The society has identified Pembrokeshire as the ideal area to locate the business with St David's peninsula the primary focus due to the

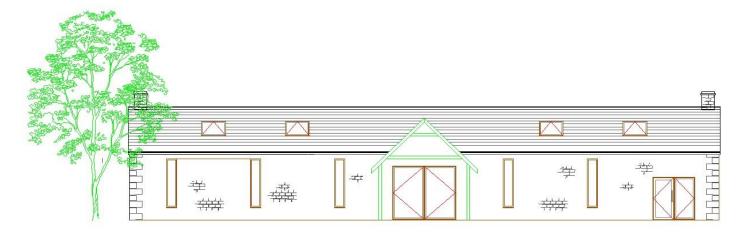


trial sites in Ramsey sound. The city has become a highly successful place to live and work. The area has been complemented by a mix of leisure & retail operators, receiving high visitor numbers throughout the year, particularly during peak seasons. On-going bus services to St David's run several times a day. Additionally, the coastline is well served by the Puffin Shuttle, connecting various points on the coast between St David's and Fishguard. This is perfect for visitors who wish to explore/walk the coast path.

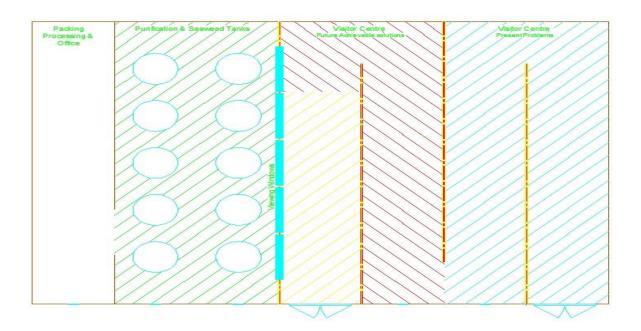
An **example** of two buildings, to house the required facilities, and their proposed layouts can be seen below:

#### **Processing and Visitor Centre facilities in the Seafood House:**





# Visitor centre proposed layout:



## There are three sections to the visitor centre:

- 1. The "Present Problems" area a simulated walk along the seabed (in the BLUE section above) showing some of the present problems such as:
  - Plastic waste.
  - Ghost fishing by wrecks and fishing gear.
  - Pollution from land and drain run off.
  - Chemical changes in the seawater from mankind's activities.
  - Decreasing populations of marine life.
- 2. The "Achievable Solutions" area a simulated walk along the seabed (in the RED section above) showing solutions such as:
  - Plastic waste collection

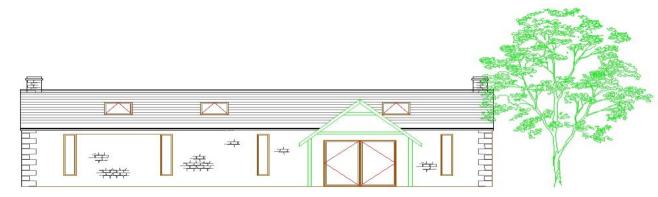


- The effects of what we all can do in our gardens, schools and places of work to reduce the damage caused by land and drain run off.
- 3D Ocean Farms creating new marine habitats where different types of marine life can thrive.
- Farming Seaweed and Shellfish using up the excess carbon and nitrogen that mankind's activities are INCREASINGLY putting into our seas.
- All of us eating more seaweed and shellfish will result in less food required from intensive farming on land this will reduce INPUTS like fertiliser and pesticides, and OUTPUTS like methane and farm drainage.
- 3D Ocean Farms assisting with wave dampening.

# 3. The "Seaweed and Shellfish Display" area (in the YELLOW section above) showing:

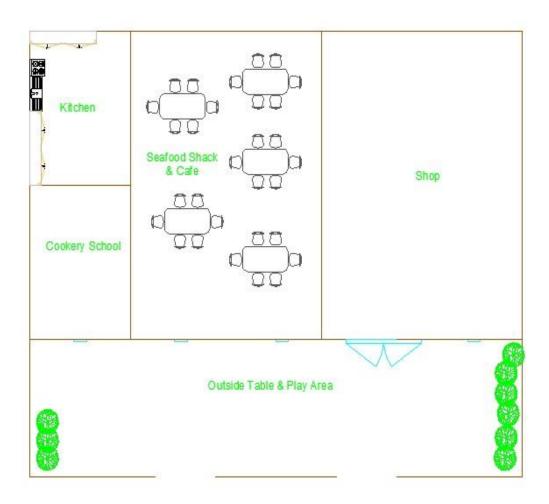
- The history and culture of seaweed and shellfish harvesting in Wales.
- That 30 million tonnes per year of seaweed is farmed in the rest of the world's seas and from the 1680 miles of Welsh Coast we farm ZERO tonnes.
- If Wales is serious about the climate emergency we need to START sustainably farming seaweed and shellfish so we can immediately start improving our coastal environment.
- Shellfish and seaweed, that can be sustainably farmed off the Welsh coast, in tanks through the "Viewing Windows"
- Why seaweed is the secret ingredient it's the UMAMI The 5<sup>TH</sup> Savoury Taste.
- Seasoning with seaweed.
- Seaweed and shellfish recipes.
- The health benefits of seafood in your diet.
- Seaweed extracts used in foods, medicine and industrial processes.
- Cosmetics using seaweed.
- Plastic packaging replaced by seaweed.
- Seaweed as an organic fertiliser.
- How there are numerous other uses eg edible business cards made of seaweed.

## **Seafood Shack and shop building:**



# **Seafood Shack and shop proposed layout:**





# 5.6 Legislation

The business is aware of its legal obligations and will be subject to a wide range of legislation, including:

- Employment Right Act 1996 provides a range of contractual rights for employees, including National Minimum Wage legislation, arranging employer's liability insurance and ensuring equality of treatment in recruitment. Health and Safety at Work etc. Act 1974 and the Health and Safety (Miscellaneous Amendments) Regulations 2002, which set out general obligations towards staff, clients and members of the public in terms of health and safety.
- Health and Safety legislation.
- The Disability Discrimination Act.
- Fire Precautions (Workplace) Regulations 1997 (amended in 1999) and the Regulatory Reform (Fire Safety) Order 2005.
- The Equality Act 2010 forms the basis of anti-discrimination law in Great Britain. It requires equal treatment in access to employment as well as private and public services, regardless of the protected characteristics of age, disability, gender reassignment, marriage and civil partnership, race, religion or belief, sex and sexual orientation.
- The Price Marking (Food and Drink services) Order 2003.
- The Sale of Goods Act 1979 (as amended) applies to all retailers, and requires that goods sold must match their description, be fit for their purpose, and be of satisfactory quality.



- Pembrokeshire Coast National Park Local Development Plan (2010).
- Town and Country Planning Acts (1990, 1991, 2004 & 2008).
- Welsh Government TAN6 and TAN 23 Regulations.
- GDPR Data Protection 2018.
- Staff Criminal Records Check (Disclosure Barring Service).

Although not required by law, the business also wants to ensure their staff are familiar with all first aid procedures and high levels of customer service. This will be achieved through regular training courses.

#### 5.7 Insurances

The business has insured the Trial Sea Farms and has Public and Employers' Liability Insurance.

# 5.8 Staff Requirements

Currently 12 of the members, around their other commitments, are voluntarily giving their time and expertise to setup of this Community Benefit Society. Thousands of hours and out of pocket expenses have been given to date.

The business will grow to be run by a core group of 9 permanent staff by year 5. This will be supplemented by a number of seasonal part-time workers and volunteers when required at either the Seafood House or out on the 3D Ocean Farms.

It should be noted that additional information regarding staffing numbers, seasonality and wages can be seen on a monthly basis within the accompanying financial projections.

## 6 The Market

## 6.1 Market Overview

The Seafood House will present a facility for a seafood and educational coastal experience within the county of Pembrokeshire. Based on the location and services offered Câr-Y-Môr will appeal to a wide audience and is intended to make a great impact on the way that people perceive and use the coast and sea and enjoy local healthy sustainable seafood.

#### **Pembrokeshire**

The county is the most popular coastal holiday destination in Wales, with some of the best-preserved coastlines in Britain. Only one county in southwest England has more blue flag beaches. Pembrokeshire regularly wins awards and accolades for the quality of the beaches, landscapes, local products and tourism facilities. In 2010, a panel of 340 National Geographic experts rated Pembrokeshire as the second-best coastline in the world, citing "the magnificent protected National Park coastline from both ecological and geological perspectives" as the reason why. They also applauded a very mature and established tourism industry that has preserved, rather than eroded, the qualities that make Pembrokeshire unique. Pembrokeshire is the ideal location to establish Câr-Y-Môr.

## Foraging: Healthy, Sustainable and Local



Foraging is fast becoming the new trendy way to eat food. However, the concept is not new, with generations having previously foraged for their food; people had no choice, with no modern supermarket conveniences to rely on and people ate according to the seasons. According to Innova Market Insight, making more mindful choices was one of 2018's top food trends, making foraging the new thing to do, for all generations. There is so much interest in foraging, survival, and fresh and local ingredients that those that get out there and actually 'do' it are considered ahead of the game. The ongoing impact of Covid is to accelerate this trend

However as foraging and wild harvesting is on the increase, so is the concern that it will become unsustainable. An obvious solution is 3D Ocean Farming sustainably producing a selection of healthy, non-processed, native seafood. Foraging groups could be taken out to the 3D Ocean Farms and could be assisted to set up their own 3D Ocean Farms. Câr-Y-Môr believes both sustainable wild hand harvesting and Sea Farming are essential for inspiring people about their coastal environment and helping to develop the fast growing sector with a variety of species from natures pantry.

#### **Outdoor Education**

It is now widely accepted that child-led outdoor education improves children's overall health and encourages them to take responsibility of their own mental and physical wellbeing.

The new National Curriculum will set out only the essential knowledge that all children should acquire and give schools and teachers more freedom to decide how to teach this most effectively and to design a wider school curriculum that best meets the needs of their pupils. This offers opportunities for school leaders to consider their school curriculum afresh.

In the last 10 years, many primary schools have actively embraced the potential of using the outdoors as a learning resource, partly in response to such developments as government publications, organisations that promote its inclusion, the focus in the Early Years Foundation Stage (EYFS) on outdoor learning and increased focus on environmental sustainability.

In addition, outdoor learning is associated with learning about sustainability, it could be viewed as having developed from the pedagogical to being a part of a moral obligation to equip children to manage their futures in a sustainable way.

Outdoor education also has potential to sharpen the focus on crucial issues like marine plastics. Plastic pollution is the accumulation of plastic objects (e.g., plastic bottles, packaging, discarded fishing gear and much more) in the environment that adversely affects wildlife, wildlife habitat and humans. Additionally, emissions from production, transportation and incineration of plastics will contribute to greenhouse gases equivalent to 850 million tons of carbon dioxide (CO2) to the atmosphere in 2019 (Hamilton et al., 2019).

The plastic litter that is entering the oceans is harmful and toxic to marine life (Kühn et al., 2015; Galloway et al., 2017). Community action has been identified as integral to tackling plastic pollution in our oceans "Community action can include initiatives that



... continue to improve public awareness of the impacts and vectors of marine plastic pollution" (Howard, 2019).

By educating visitors of these facts through a self-funded business enterprise, Câr-Y-Môr's processes and model can be replicated throughout the UK and further afield.

#### 6.2 Customer Profile

Key to the success of the business will be establishing a loyal customer base that appreciates the quality of activity and products on offer. The business is likely to attract locals and visitors to the area in growing numbers each year. Through the continued development of premises and employment of excellent staff, the business will aim to achieve worthy accreditations which would generate increased interest from wider a field. This could be Green Key environmental hospitality accreditation and ultimately ISO 14001.

Due to the diverse range of services on offer the customer demographic ranges considerably. Likely customers for Câr-Y-Môr include:

- Parents of children attending the outdoor education events.
- Schools and organisations wishing to offer child led outdoor education at their events and locations.
- People looking for eateries with a sustainable and environmental element.
- Tourists looking for somewhere educational, unique and fun to visit.
- Local restaurants looking to source fresh shellfish.
- Other communities or businesses who may wish to recreate what Câr-Y-Môr can do in their coastal location.
- People from around the UK who have enjoyed the Câr-Y-Môr experience ordering more Pembrokeshire "fruits de la mer" on line to enjoy at home.

## 6.3 Competition/Collaboration

Câr-Y-Môr will be the UK's first 3D Ocean Farm, therefore it does not have direct competition. Ironically Câr-Y-Môr's ethos is to set up a TEMPLATE 3D Ocean Farm and help people to replicate it. We would view additional farms as collaborators not competitors. Our aim is to help establish many 3D Ocean Farms to improve our coastal environment and improve peoples' diets. Our strategy to achieve this is by educating, inspiring and motivating all stakeholders to support our work. Our intention is to partner and collaborate with like-minded suppliers/producers where possible. At this stage of our thinking this includes:



PEMBROKESHIRE!



Initially starting as a mobile catering unit in Pembrokeshire. Currently has a range a products mainly created from local seaweed and Seafood and operates a beach food kiosk at Freshwater West. Jonathan Williams is also not only a member of the society but the main reason it started!

Supplying foraging courses and walks in Pembrokeshire. The business is run by John and Julie from St Davids who employ up to 11 people in their shop and café retailing many sustainable seafood products. They are respected collaborators who look forward to working with Câr-Y-Môr.







From seaside cafés and delicatessens, to Michelin Star restaurants; small coastal villages to central London, they supply shellfish throughout the UK. Based in Broad Haven, Pembrokeshire. Danny Curtis and his family are experienced innovative and respected fishermen and Seafood processors. They are trialling growing seaweed with Jonathan.

Jono is a full-time fisherman who also processes shellfish from Ramsey Sound, Pembrokeshire. Jono and Sandy are helping Câr-Y-Môr get started by selling their processing business and for three months training the new staff in the skills. This will give Câr-Y-Môr an established business with an excellent reputation to grow from. Jono is also a member of the Society and has given invaluable help with the Trial farms

# 6.4 Competitive Advantage

Competitive advantage leading to a financially sustainable business will be achieved by a combination of the following factors:

- The innovative 3D Ocean Farming with all its environmental benefits, combined with the aim to improve peoples' wellbeing, is a unique lever encouraging all to support this Community Benefit Society.
- Fresh local seaweed grown on your doorstep absorbing carbon and nitrogen.
- On site shellfish purification and processing facility.
- Low carbon footprint.
- Expertise and experience within the Câr-Y-Môr membership of all the relevant sectors. e.g. aquaculture, hospitality, financial, IT, social enterprises, organic farming etc.
- By Câr-Y-Môr trading as Community Benefit Society it will attract motivated individuals who passionately want to earn their livelihoods in a sustainable business. This will be a dedicated and innovative team.
- Specialist bespoke outdoor education equipment.
- Câr-Y-Môr' activities will help develop the St Davids Peninsular into the preeminent sustainable seafood area which will be a unique attraction with nothing similar within the country.
- Global forces are very conducive to what Câr-Y-Môr will try to do.

# 7 Marketing

# 7.1 Branding

Educating and inspiring everyone about how to improve our wellbeing and the coastal environment will motivate people to help deliver these benefits – simultaneously this culture will build the Câr-Y-Môr unique brand.



The Society will aim to gain a reputation for being educators of people and we will be flexible and adaptable. The management will emphasise the caring family atmosphere of the business, which will form the core of our brand values.

The Society has already designed a logo which is still being developed. Future versions may include coastal colours and the society's tag line "For the love of the Sea".



# 7.2 Pricing

All costs will be continually monitored and adjusted annually to ensure we are generating profits required to be remain sustainable. For individual pricing information, see the accompanying financial plan.

# 7.3 Marketing Methods

The business will employ a range of marketing methods as follows:

#### Website

The business already has a website https://carymor.wales and secured a domain name. The website currently has six pages:

- HOME a basic landing page with logo, mission and contact details.
- Invest were tee invest details live
- Why CÂR-Y-MÔR details of our motivation and inspiration
- DONATE TO CÂR-Y-MÔR a donation page
- ABOUT US Details of the 9 Directors. Latest number of members in the growing membership (1st November 112 Kind souls)
- Contact us

The two websites – carymor.wales and solvaseafoods.co.uk are both being reviewed at present.

François is already working on innovative ways of reporting all the benefits Câr-Y-Môr delivers in real time such as:

- Progress on starting up more 3D Ocean farms
  - Potential sites
  - o Training available
- A ticking clocks measuring minutes of outside education enjoyed by children.
- Minutes people have been submerged in seaweed baths.
- A pair of scales showing how much seaweed and shellfish has been grown and the corresponding nitrogen and carbon removed from the sea.
- An information page about the benefits of spending time outdoors as well as in the sea, etc. These will be the Câr-Y-Môr pearls of information summarizing current publications

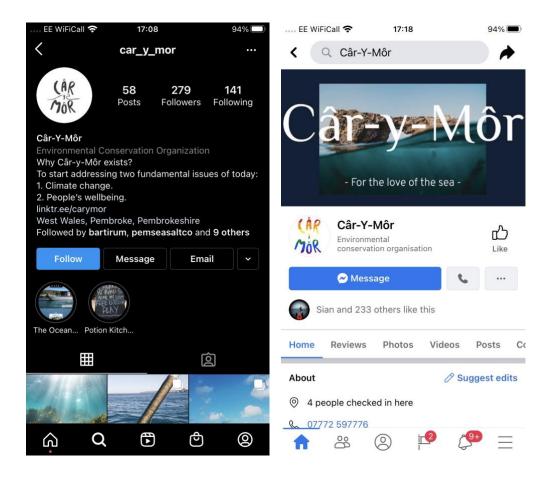




- Guest bloggers helping to grow our social media following
- Live streaming of public talks at our coastal land site by experts in people's wellbeing and tackling the climate emergency

# **Social Marketing**

The business has registered Facebook, Twitter and Instagram pages which are linked to the website. The pages will be a constant source of updates and images of activities taking place as well as snippets of information on health and environmental matters. This started in June 2019 with the first child-led outdoor education events. We now have well over 200 hundred followers on each platform and thanks to the expertise of particular members momentum is building.







www.pathtomobility.com

#### **Business cards and leaflets**

Looking to develop compostable and edible stationary out of seaweed products

# **Vehicle Livery & Point of Sales Banners**

Once the new premises is fully established the Society will commission some livery to be placed on the company vehicles and will get some 'pop up' or landscape banners



designed that may be used to display at tourism events attended. A van was purchased in June 2019 and sign written and this is being used to take our bespoke potion table, 3D Ocean Farm photo board, Câr-Y-Môr's treasure chest for donations and other equipment to and from outside education events.

#### **News Editorial Coverage**

Due to the nature of the business providing education on the environmental impact humans are having to the seas and seeking methods to achievable solutions various media outlets will welcome appropriate articles. Any free events over the summer will most likely be included in local editorials for a minimal or zero fee.

## 8 Finance

# 8.1 Financial Projections

The summary figures below are calculated based on the detailed assumptions shown within the subsequent pages of the financial plan. Five years Profit and Loss, Cash Flow and Balance Sheet forecasts on a monthly basis are shown within the financial plan.

	Projected	<b>Profit Before</b>		
Year	Turnover	Тах		
Year 1	£174,000	£84,200		
Year 2	£277,257	£53438		
Year 3	£294,042	£23,044		
Year 4	£326,602	£32,853		
Year 5	£357,193	£46,198		

At the end of year 2 we expect the cash balance to be at its maximum of £180,528 (due to PSO) falling to £1277 at the end of year 4.

# 8.2 Sensitivity Analysis

	Year 1	Year 2	Year 3	Year 4	Year 5
Income	£174,000	£277,257	£294,042	£326,602	£357,193
Expenditure	£89,800	£173,819	£270,998	£293,749	£310,995
Net Profit	£84,200	£53,438	£23,044	£32,853	£46,198

# 8.3 Existing Assets/ Expenses



Owen and Chimene Haines have provided a members' loan of £100,000 approximately half of this has already been allocated to the following existing assets/expenses.

Van inc signage	£4300
Outdoor education equipment	£800
Wages – Potion Kitchen, web development,	£5,700
admin and communications	
IT equipment and software	£1,200
Insurance inc public liability, trial farm and	£1,832
vehicles	
Trial Farm 5-year licenses, consents and	£4,200
insurance	
Purchase of existing gear at the Trial Farm	£1,500
sites	
Trial ocean farm gear, lanterns etc	£12,000
Trial ocean farm stock (seaweed and	£8,800
oysters)	
Crab processing container	£23,000
Solva Seafoods Ltd	£25,000
TOTAL	£88,332

# 8.4 Funding Requirement

Total capital funding required will be £403,000.

The annual breakdown of capital expenditure can be seen in the table below.

Fixtures and fittings I:	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Crab processing container	5000	18000	)			
Bistro and shop areas	10000	33000	2500		5000	)
Câr-Y-Môr Outside education equipment	5000					
3D Farm	14000			27500	27500	)
Vehicles		7000	)	20000		
Work boat				28000		
Hand picking licence		1500	)			
Purification unit		15000	)			
Hatchery		15000	)			
Environmental monitoring equipment		12000	)	10000		
IT and Website	2000					
Vivier		25000	)			
Ice machine		13000	)			
Chiller, freezer and cold store		14000	)			



 Solva Seafoods
 5000 20000
 5000

 Seaweed processing equipment
 16500
 9000

 Seaweed drier
 6000
 31500

 41000 196000
 2500 85500 78000

# 8.5 Sources of Funding

The Society will continue to seek funding from numerous sources such as a Pioneer Share Offer, stakeholder capital, crowd funding, commercial loans and any grant funding available. Presently we are applying for core EMFF and we have funding from WcVa and WWF. Pembrokeshire Lottery have also invited us to make an application for an interest free loan.

## 8.6 Assumptions

Please note that the five-year cash flow, profit and loss and balance sheet projections can be viewed in the attached Financial Plan.

# 9 References

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