

**ENTREPRENEURSHIP AND SMALL FIRMS - 4<sup>th</sup> Edition**  
*DEAKINS AND FREEL*

**CHAPTER 6: INNOVATION AND ENTREPRENEURSHIP**

**CASE STUDY: AQUAMOTIVE**

The following information provides detailed information on the case study, Aquamotive, that has been referred to in the main text in Chapter 6. A suggested assignment, based on this case was given in Chapter 6. The case is presented in three parts; Part A, and Part B. Lecturers can obtain further information on this case and tutor notes in the Lecturer's on-line resources.

A reminder of the suggested assignment is given below:

### **Suggested Assignments**

**Questions on Aquamotive case study . The case study is available from the student on-line learning resources centre**

#### **As a Basis for Discussion**

1. With hindsight, was the strategy to use MBS to gain time and finance as well as business experience correct?
2. What are the difficulties faced by entrepreneurs in the innovation process as demonstrated by Aquamotive?
3. How can these be overcome?
4. What are the risks for a potential investor in Aquamotive?

**As a Role Play:** Students are allocated roles through a briefing sheet which asks them to adopt one of the following roles:

2 students play the role of Alex and Marion.

1 student plays the role of a 'business angel' who has £100,000 to invest and is searching for an engineering opportunity.

Students that take on the role of Marion and Alex must sell their idea to the business angel who then has to justify his/her decision of whether or

## **AQUAMOTIVE CASE STUDY: - PART A**

### **Introduction: Mauchline Business Services**

Mauchline Business Services (MBS) was a pre-cursor business start-up by two partners: Marion Welsh and Alex Howie. This service-based business was started by Marion and Alex, in light of their successful experience in the effective daily operation and control of their previous employment. MBS offered a consultancy service to other SMEs. It was the partners' intention to offer a holistic, global solution to the administrative needs of small firms and to provide a 'one-stop-shop'.

During the initial start-up phase, the partners were able to take customers (from their previous employer) with them, but Marion and Alex faced difficulties in sourcing initial custom to create a broader, more secure customer base. MBS faced a further obstacle in the longer term, the nature of the service that they were offering and the market they were targeting was such that their customer base was necessarily 'churning'. The essence of the service offered by MBS was the provision of administrative and commercial support to new start and micro firms until such times as these firms had enjoyed sufficient growth to enable them to bring these functions in-house. Although custom from individual client organisations was often on a repeat basis, this custom had a finite lifetime, averaging in the region of two years. As a result, MBS was required to find new clients to replace those they had helped to grow. In effect they were assisting organisations to reach a situation whereby they no longer needed the services of MBS.

After two years trading MBS had achieved a turnover marginally in excess of £50,000 and was employing one additional member of staff in a clerical/administrative role. Although this situation was considerably short of the original targets the partners had set themselves, the company pre-tax profit (excluding partner remuneration) was £40,925. At this stage the temptation would have been to seek the consolidation and limited

growth which marks the 'lifestyle firm', content with generating an acceptable level of personal income and enjoying continued autonomy. However, the partners remained intent on growing the business. A possible opportunity was soon to present itself.

Alex had received several phone calls from his brother, who was a maintenance foreman at a fish farm, asking advice on a feeding system that didn't work very well. There had been several lengthy sessions on the phone and eventually his brother invited Alex and Marion to the site of the fish farm. The feeding system was manufactured in Norway, with the result that obtaining service and an engineer from Norway was both time consuming and very expensive. Alex and Marion visited the site and on opening the control panel box, they found a programme logic controller (PLC). This was exactly the type of technology they had been working with in their former employment. They found that the system in place at the fish farm was adapted from other land-based systems. They were able to repair the system, but as they were leaving they both thought: '*There has got to be a better way of engineering a fish feeding system.*' In addition, they were of the opinion that the existing technology was being utilised in an incomplete and piecemeal manner which, they felt, created as many difficulties as it was able to solve.

### **Aquamotive Control Systems Limited**

From the outset it had been the intention of Marion Welsh and Alex Howie to become involved in electronic control systems design. However, they realised that, if this course was to be followed exclusively, the finances and time involved in creating a product/service range and establishing a reputation and customer base would render the venture unfeasible. Although the partners had no direct prior experience with regards to control systems within the fish farming industry it is true that many of the concepts involved were generic across industries. It was as a result of this truism that the partners felt problems were arising.

## PRODUCT DEVELOPMENT

These problems revolved around issues relating to;

- the harshness of environment and the inherent difficulties arising from exposure of electrical devices and other equipment.
- the high maintenance requirements/costs of existing equipment in the event of blockages and disruption.
- wastage, destruction and uneven dispersal of foodstuff.
- algal growth and pollution.

These problems, in turn, resulted in existing technology being utilised in an incomplete and piecemeal manner which, they felt, created as many difficulties as it was able to solve.

After some initial market survey work, designed to establish whether the problems they had identified were indeed prevalent throughout the fish farming industry, the partners were determined to develop a prototype system which would provide a global solution for the sector. Prototype development was begun, the original intention in developing a system and its companion software had been to utilise existing technology in a more efficient and comprehensive manner, however, during the design process they were to discover that the necessary technology was unable to adequately meet the requirements which they had set the system.

Fish farming involves a significant amount of water. The risks and potential costs involved when electricity comes into close proximity with water led the partners to the conviction that traditional control systems, involving on-site electrical currents, could not be the cheapest and most effective method of meeting control requirements. The task with which they were faced was to design a system which would withdraw the necessary electrical components from the site and the water tanks. To facilitate the development

project that was to be at the centre of their activities, the company were able to secure a public sector innovation grant which represented 50% of estimated costs involved (including wages, travelling expenses etc. - amounting to £25,000).

The key innovative elements of this finished system were the Aquamatic Control Valves. These valves effectively take hydraulics into the realms of digital computing. Current systems use 1 valve: 1 hydraulic line. By digitising the system, the addition of one hydraulic line doubles the number of valves which can be controlled, such that 16 valves can be controlled by 4 hydraulic lines. Control was therefore by means of a digital address. This address, however, was created by means of (water) pressure and not from electrical signals. In addition to the obvious electrical safety considerations, this system offered another principal benefit, in the event of leakage, in its use of [salt] water as the hydraulic fluid as opposed to the more conventional oil. Hence, the hydraulic fluid used is free, in plentiful supply, non-toxic and safe.

## **MARKET POSITIONING**

The technology had originally been developed to create a more efficient automated fish feeding system. However, it became obvious to the partners during, and immediately after, the design stage of their project that the breadth of applicability of their 'invention' was far greater than they had originally appreciated.

For example, it could be adapted for application in the:

- horticulture industry (primarily large-scale greenhouse facilities)
- oil and gas industry (including extraction, transport and storage activities)
- chemical industry (principally transport and storage activities)

Despite this diverse technological applicability it was decided that the company should concentrate its initial activities on tailoring, and subsequently marketing, the technology for one distinct industry. The rationale for this decision lay in part in the desire to maintain effective control of the company's growth and in part in the limiting nature of finance - fearing that potential financiers would perceive the company to be spreading themselves too thinly. Superficially it could be assumed that concentration on one or more of these alternative market opportunities would offer greater scope for remuneration than that offered by the low profile, 'unfashionable' fish farming industry. However, in deciding on their initial market positioning and developing a market strategy the partners highlighted several drawbacks associated with entry into these alternative markets:

- Development for the oil and gas or chemical industries would prove to be too costly at this stage of the company's development (e.g. due to material and time costs, valves for petrochemical industries would cost in the region of £300 as opposed to £30 for the fish farming industry).
- There are no technological barriers to development specifically for the horticulture market. Specification limits and tolerances are of a similarly low nature to those required for the fish farming market and the valves themselves would require little further research and development time. However, the profit margins and attitudes to investment within these markets are such that investment in automation would only be undertaken at prices incompatible with development costs to date.

By contrast the fish farming industry offered some distinct benefits, such as:

- Comparatively low levels of competition. There existed no direct competition for the valve component of the system and automation in general is relatively low, though a growth area within the industry.

- Low materials costs, and subsequent relative selling price (due to looseness of technical specification requirements).
- Direct and obvious applicability of technology.
- Immediate potential customer base.
- Proximity of potential test facility offering mutual benefit (i.e. opportunity for 'real life' testing allowing problem identification and resolution - in addition, potential subsequent saleability at reduced cost).

## **MARKETING STRATEGY**

Given that feed costs for the average medium sized fish farm were circa £30,000/month and that the technology for such an enterprise, costing £10,000 - £30,000 (depending on complexity of system), promised savings in the region of 30%, farmers investing in the system could expect it to pay for itself within a year of purchase.

Appreciating the fact that technological value and associated benefits were not in themselves guarantors of success, the partners sought to develop a profile of potential customers who would be targeted in the first instance - dividing the overall market into groupings by type and size. To this end it was decided that the immediate focus of attention would be directed at salmon farms, with a least 8 cages and having 2-3 sites, where profit margins and potential returns to investment were greatest. Having established a customer base within this market and developed a degree of visibility within the industry, it would then be possible to consider diversification into fresh water and other specialist fish farming fields.

Previous promotion and marketing activities for the administrative and system related services of MBS comprised advertising in the local press, local exhibitions and direct personal selling. The company recognised that, due to the nature of the product and

services that were offered by Aquamotive Control Systems Limited and the relative dimensions of the proposed market place, a different approach should be taken.

The activities identified for involvement in the process of gearing up for the launch of the Aquamatic Control Valves and the Aquamotive Control Systems for the fish farming industry included:

- Development of a new company image; to protect their identity Aquamotive Control Systems Limited was registered as a company name, professional brochures and marketing material were commissioned under this name, and the company began trading under the Trade-name/Trademark Aquamotive Control Systems (though still through the 'books' of the original company - MBS).
- Construction of a Beta-Test Facility; construction of this facility was nearing completion and provided the company with exact information regarding the capabilities of the system and allow them to detail more accurately the expected benefits and savings associated with farm investment in this area. Once the facility had been established, the intention was to produce a video to act as a complementary promotional tool.
- Establishment of a network of contacts within the industry; in addition to farm contacts established during the prototype development stage, and with the assistance of the agency funding, the company was able to make visits to Sweden, in the first instance, and other European/Scandinavian countries. These trips were made with a view to making direct contacts with firms operating in a similar sphere to determine the possibility of some form of co-operative venture whereby Aquamotive would be willing to act as an agent for other organisations' products if a reciprocal agreement could be

reached. On a more direct sales front the company attended the industry's annual trade fair to gauge market reactions to their technology.

Perhaps of greatest importance in establishing a reputation from which to build a client base is the role played by 'word of mouth' and referral business within the industry. Market research undertaken by the company had shown that *"...the majority of technological advancements within the industry are as a result of recommendations made between the fish farms themselves"*. In light of this, the Beta-Test Facility on the new site of an established and prominent fish farm was important to achieve demonstration and hence recommendation. 'Word of mouth' had already led to two requests from fish farms for the design and implementation of comprehensive feed control systems (values circa £30,000 each).

In a supplementary move to further increase the company's profile within the industry Aquamotive have been involved in the design and implementation of a crustacean feeding control system which, although not incorporating the innovative valves, has allowed them a smooth introduction to the market. An order was placed for this system by the North Atlantic Fisheries College in Shetland (circa £25,000), after having seen a ¼ scale prototype demonstration. The college intends to expand to five such systems, whilst several other establishments are keeping a close eye on the system's progress (including an institution in Wales which has invited the company to tender for a system valued in the region of £120,000 - arising through industry 'word of mouth').

## **LICENSING**

The company was approached by 5 separate organisations from Chile and Norway with a view to these organisations manufacturing under license the technology currently being developed at Aquamotive Control Systems Limited. Though these proposals were declined this was not as a result of an aversion in principle to the concepts involved but rather to a general 'unreadiness', on the company's part, to become involved in such a

venture. The company felt that it will prove to be the ideal way in which to surmount the barriers to entry associated with international markets where competition and technological sophistication is far greater than those that will be encountered in the domestic market. The primary reasons for rejecting interest at the time were three-fold;

- Financial - The partners felt that they would like to “...*learn to walk before we run*” and were in danger of driving the company too fast.
- Uncertainty and lack of knowledge with respect to individual organisations and foreign markets; though lack of knowledge of foreign markets was seen as a barrier to direct entry, relative naiveté and asymmetric information were also seen as a barriers to licensing. Consequently the company were determined to become more familiar with the environment in which they will be dealing and the actors within that arena before making a decision on this issue.
- Inability to adequately police use of technology once it was made available to external interests.

## **PATENTING**

Although patents have been applied for, and the company are confident of having their application accepted, completion of the patent application process is expected to take in the region of 3-4 years. As a result, the company were reluctant to license their technology for manufacture without advice from the appropriate quarters and a fuller understanding of the risks involved. The patenting process itself will prove to be a considerable financial burden on a company of this size. The original patent application cost circa £2,500, while costs for further patents covering individual countries will be in the region of £2,000. Thus, with 20 countries immediately within the intended scope of coverage, final costs will be in excess of £40,000.

## **SHORT TERM DEVELOPMENTS**

In the short term the company's aims revolved around initial market penetration and active direct product sales (discussed above), the establishment of a manufacturing facility and the corresponding internal organisational development.

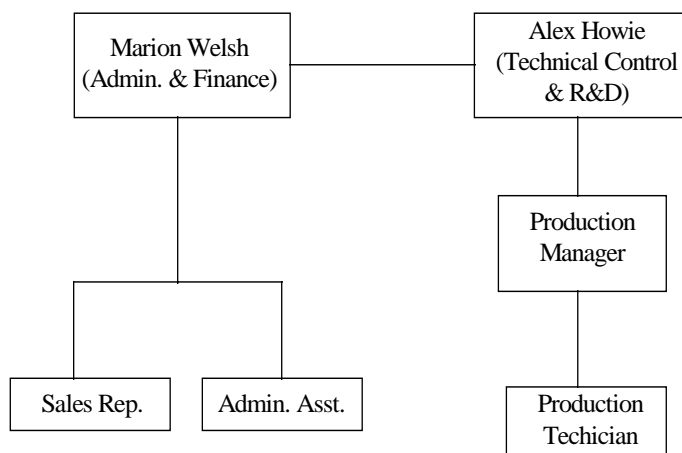
The need to establish a manufacturing facility in the immediate future was of paramount importance. One requirement, associated with the development work being carried out to date, which in turn has created an ongoing dilemma for the partners, revolves around the issue of premises. The company occupies reasonable premises on a small industrial complex, which ideally suited the function of MBS in the provision of administrative and rudimentary systems support. For the research and development and subsequent manufacturing activities in which Aquamotive were involved these facilities were inadequate. The specific systems being developed for the fish-farming market naturally, if testing is to be rigorous, require large quantities of water. This should be part of a recycling process, incorporating water storage facilities, to ensure maximum efficiency and minimum waste.

As a temporary measure the company took a short term lease on an additional unit within their current industrial estate. This step, though providing sufficient accommodation, has insufficient facilities for further development work and was only suitable for small scale production runs. Thus, the company are exploring the possibility of purchasing or custom building premises with adequate scope for future growth in line with manufacturing output.

At the time only one individual (in a clerical and administrative capacity) was employed by the company. With the move to manufacturing, staffing levels will have to increase to fully service both the new custom generated by Aquamotive Control Systems Limited and existing/future business undertaken by MBS (dependant on any decision regarding

the operating future of MBS). With this in mind Marion Welsh devised a proposed medium term staffing structure which, it was hoped would be achieved in a progressive manner (Figure 6.9).

**Figure 6.9 Organisational Structure of Aquamotive**



The short term/immediate plans with regards to this recruitment and organisational development process, will involve the employment of a graduate electronic engineer to fill the position of Production Technician (*“Though he will wear 40 hats like the rest of us.”*) with a view to promotion to the role of Production Manager when sales and output warrant the recruitment of further technical members of staff. A member of staff dedicated to sales will be employed once initial industry contacts have been established, production is underway and it is felt that the partners are unable to devote sufficient time to this function. Any moves in this direction were dependant on finance being made available

## FUNDING

Although the partners had identified aims, objectives and strategies for growth and development these, in turn, were reliant upon the injection of considerable capital to allow their initial implementation and achievement regardless of the probability of ultimate success. The estimated financial package required to launch the first stage plans for Aquamotive (namely the initial small scale manufacturing and sales) was between £50,000 - £60,000 depending on whether premises were bought, custom built or leased. In raising all, or part, of the necessary finance the company had several avenues which could be explored:

1. Further Government/Quasi-Government Grants and/or Loans: This naturally represented the preferred option for the company whereby they are able to secure grants or low interest loans via Central Government (as was the case for the previous Innovation Grant), Agencies or Local Authority. With this in mind the company had targeted a regional assistance manufacturing grant available through the Government (though the application process for this had not formally begun).
2. Bank/Financial Institution Funding: Since it was unlikely that government funding would fully satisfy the financial needs of initial development, overdraft extensions or bank loans would be sought to make up the short fall. At the time, the company had received an overdraft extension from £14,000 - £35,000 to allow the leasing of temporary premises (discussed above). This figure was expected to fall to £23,000 once the second instalment of the Innovation Grant had been received and was further expected to fall to zero on sale of the first feeding system. The company enjoyed an excellent relationship with their bank and required no guarantee for this facility.

3. Venture Capital/External Stakeholding: The entrepreneurs were not averse, in principle, to the notion of an external shareholding in their company, and the external influences that may come with this, believing in Marion's words; *"It is better to own part of something than all of nothing"*. The company had no formal approaches from venture capitalists, however, the feeling within the networks they had established was that this would not prove to be a problem (particularly once small scale manufacturing had begun and the first sales had been achieved).
4. Business angel venture financing; an individual angel may be more interested in providing the required funding level of £50,000 to £60,000.
5. Manufacturing Under License: Despite the fact that approaches to this effect had been dismissed for reasons discussed previously, this course of action would offer an initial lump sum and a guaranteed income thereafter. If the concerns highlighted above could be adequately addressed, this would offer a partial solution to the financial needs of the company corresponding with organisational development.

## **THE FUTURE**

Marion and Alex began to look forward to the future with some confidence and excitement. They felt that they had a sound trading record that counted highly with the bank, a solution to the fish farming industry's problem, a patentable product with a global market, good knowledge from market research on the fish farming industry and good contacts and high levels on interest from overseas at their exhibitions. To realise the potential, however, of Aquamotive Control Systems they needed to raise additional finance.

**[Take in the Financial Forecasts for Aquamotive Control Systems Ltd]**

## Financial Forecasts for Aquamotive Control Systems Ltd.

<b>Profit &amp; Loss Account</b>	<b>Year 1</b>		<b>Year 2</b>		<b>Year 3</b>	
<b>SALES FORECAST</b>						
Administration		£24,000		£12,000		£12,000
Technical Services		£7,500		£10,000		£15,000
Aquamatic Systems		£40,000		£120,000		£180,000
Other Fish Farm Equipment		£10,000		£24,000		£24,000
		<u>£81,500</u>	<u>£81,500</u>	<u>£166,000</u>	<u>£166,000</u>	<u>£231,000</u>
<b>COST OF SALES</b>						
Administration		£420		£420		£420
Technical Services		£1,000		£2,000		£3,000
Aquamatic Systems		£20,000		£60,000		£90,000
Other Fish Farm Equipment		£5,000		£12,000		£12,000
		<u>£26,420</u>		<u>£74,420</u>		<u>£105,420</u>
<b>GROSS PROFIT</b>		<u>£55,080</u>		<u>£91,580</u>		<u>£125,580</u>
<b>Grants</b>		£25,000		£0		£0
<b>OVERHEADS</b>						
Wages & Salaries		£0		£9,300		£28,400
PAYE & NI		£0		£4,700		£14,700
Prototype Materials		£5,000		£0		£0
Heat & Light		£1,200		£1,200		£1,800
Rent & Rates		£2,650		£2,650		£2,650
Motor & Travel		£5,000		£5,500		£6,050
Post, Stationery & Adv.		£4,400		£2,500		£4,400
Telephones		£2,000		£2,200		£2,420
Office Costs		£500		£550		£605
Insurance		£2,200		£2,420		£2,662
Repair & Renewals		£500		£550		£605
Sundry Expenses		£500		£550		£605
Accountancy Fees		£1,000		£1,000		£1,000
Patent Fees		£2,000		£20,000		£2,000
Bank Charges		£280		£550		£605
Bank Interest		£0		£0		£0
HP Interest		£1,122		£1,224		£1,224
Loan Interest		£0		£0		£0
Depreciation		£7,050		£7,050		£7,050
Bad Debt Provision		£4,075		£8,300		£11,550
		<u>£39,477</u>	<u>£39,477</u>	<u>£70,244</u>	<u>£70,244</u>	<u>£88,326</u>
<b>NET PROFIT</b>		<u>£40,603</u>		<u>£21,336</u>		<u>£37,254</u>

<b>Balance Sheet Forecast</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
<b>FIXED ASSETS</b>			
Motor Vehicle Opening	£0	£6,375	£4,250
Motor Vehicle Additions	£8,500	£0	£0
Motor Vehicle Disposals	£0	£0	£0
Motor Vehicle Depreciation	£2,125	£2,125	£2,125
	£6,375	£4,250	£2,125
Plant & Equipment Opening	£0	£9,750	£6,500
Plant & Equipment Additions	£13,000	£0	£0
Plant & Equipment Disposals	£0	£0	£0
Plant & Equipment	£3,250	£3,250	£3,250
	£9,750	£6,500	£3,250
Computer Equip Opening	£1,603	£2,553	£1,403
Computer Equip Additions	£2,100	£0	£0
Computer Equip Disposals	£0	£0	£0
Computer Equip Depreciation	£1,150	£1,150	£1,150
	£2,553	£1,403	£253
Fixtures Opening	£88	£1,563	£1,038
Fixtures Additions	£2,000	£0	£0
Fixtures Disposals	£0	£0	£0
Fixtures Depreciation	£525	£525	£525
	£1,563	£1,038	£513
<b>TOTAL FIXED ASSETS</b>	<b>£20,241</b>	<b>£13,191</b>	<b>£6,141</b>
<b>CURRENT ASSETS</b>			
Debtors	£17,184	£16,255	£22,618
Cash in Bank	£15,305	£19,470	£40,829
Cash in Hand	£68	£68	£68
	£32,557	£35,793	£63,515
<b>CURRENT LIABILITIES</b>			
Creditors	£7,777	£7,287	£10,322
HP Creditor	£9,510	£4,755	£0
PAYE	£0	£392	£1,225
VAT	£2,498	£3,397	£5,648
Bad Debt Provision	£4,075	£12,375	£23,925
	£23,860	£28,206	£41,120
<b>NET CURRENT ASSETS</b>	<b>£8,697</b>	<b>£7,587</b>	<b>£22,395</b>
<b>SURPLUS</b>	<b>£28,938</b>	<b>£20,778</b>	<b>£28,536</b>
<b>FINANCED BY</b>			
Loans	£0	£0	£0
Capital Account	£17,831	£28,938	£20,778
Less Drawings	(£29,496)	(£29,496)	(£29,496)
Period Profit/Loss	£40,603	£21,336	£37,254
	£28,938	£20,778	£28,536



Sundry Expenses	£543	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£543
Accountancy Fees	£0	£0	£293	£0	£0	£0	£0	£294	£0	£0	£0	£588	£1,175
Patent Fees	£0	£0	£0	£0	£0	£0	£0	£2,350	£0	£0	£0	£0	£2,350
Bank Charges	£15	£15	£15	£15	£15	£15	£15	£15	£40	£40	£40	£40	£280
Bank Interest	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
HP Interest	£0	£102	£102	£102	£102	£102	£102	£102	£102	£102	£102	£102	£1,122
Loan Interest	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
VAT	£1,384	£0	£0	(£2,316)	£0	£0	£1,159	£0	£0	£1,815	£0	£0	£2,042
HP Repayments - Cars	£850	£219	£218	£219	£218	£219	£218	£219	£218	£219	£218	£219	£3,254
HP Repayments - Equip	£1,510	£177	£7,550	£178	£177	£178	£177	£178	£177	£178	£178	£178	£10,836
Capital Equipment	£2,642	£2,350	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£4,992
Income Tax Payments	£0	£0	£0	£0	£0	£0	£0	£3,000	£0	£0	£0	£3,000	£6,000
Drawings	£1,958	£1,958	£1,958	£1,958	£1,958	£1,958	£1,958	£1,958	£1,958	£1,958	£1,958	£1,958	£23,496
<b>TOTAL OUTFLOW</b>	<b>£18,638</b>	<b>£6,591</b>	<b>£11,317</b>	<b>£4,629</b>	<b>£4,827</b>	<b>£5,417</b>	<b>£5,753</b>	<b>£12,672</b>	<b>£4,266</b>	<b>£12,310</b>	<b>£10,678</b>	<b>£13,680</b>	<b>£110,778</b>
<b>NET CASHFLOW</b>	<b>£1,089</b>	<b>(£3,507)</b>	<b>£4,267</b>	<b>(£370)</b>	<b>(£568)</b>	<b>(£1,158)</b>	<b>(£1,494)</b>	<b>£4,087</b>	<b>(£7)</b>	<b>£3,699</b>	<b>£5,331</b>	<b>£2,329</b>	<b>£13,698</b>
Opening Bank Balance	£1,607	£2,696	(£811)	£3,456	£3,086	£2,518	£1,360	(£134)	£3,953	£3,946	£7,645	£12,976	£1,607
<b>CLOSING BANK BALANCE</b>	<b>£2,696</b>	<b>(£811)</b>	<b>£3,456</b>	<b>£3,086</b>	<b>£2,518</b>	<b>£1,360</b>	<b>(£134)</b>	<b>£3,953</b>	<b>£3,946</b>	<b>£7,645</b>	<b>£12,976</b>	<b>£15,305</b>	<b>£15,305</b>

<b>Cash Flow Projection Year 2</b>	<b>Qrt 1</b>	<b>Qrt 2</b>	<b>Qrt 3</b>	<b>Qrt 4</b>
<b>INFLOW</b>				
Administration	£2,350	£3,525	£3,525	£3,525
Technical Services	£2,206	£2,940	£2,940	£2,940
Aquamatic Systems	£23,500	£35,250	£35,250	£35,250
Other Fish Farm Equipment	£4,700	£7,050	£7,050	£7,050
Debtors	£17,184	£0	£0	£0
Loans	£0	£0	£0	£0
<b>TOTAL CASH INFLOW</b>	<b>£49,940</b>	<b>£48,765</b>	<b>£48,765</b>	<b>£48,765</b>
<b>OUTFLOW</b>				
Administration	£82	£123	£123	£123
Technical Services	£490	£588	£588	£588
Aquamatic Systems	£11,750	£17,625	£17,625	£17,625
Other Fish Farm Equipment	£2,350	£3,525	£3,525	£3,525
Creditors	£7,777	£0	£0	£0
<b>OVERHEADS</b>				
Wages & Salaries	£2,325	£2,325	£2,325	£2,325
PAYE & NI	£783	£1,175	£1,175	£1,175
Prototype Materials	£0	£0	£0	£0
Heat & Light	£352	£353	£352	£353
Rent & Rates	£663	£662	£663	£662
Motor & Travel	£1,615	£1,615	£1,615	£1,615
Postage, Stationary & Adv.	£1,175	£255	£1,175	£250
Telephones	£646	£646	£646	£646
Office Equipment Costs	£161	£162	£161	£162
Insurance	£605	£605	£605	£605
Repair & Renewals	£161	£162	£161	£162
Sundry Expenses	£161	£162	£161	£162
Accountancy Fees	£0	£0	£0	£1,175
Patent Fees	£0	£23,500	£0	£0
Bank Charges	£137	£138	£137	£138
Bank Interest	£0	£0	£0	£0
HP Interest	£306	£306	£306	£306
VAT	£2,498	£3,396	£123	£3,396
HP Repayments	£656	£656	£656	£655
HP Repayments - Equip	£533	£533	£533	£533
Drawings	£5,874	£8,874	£5,874	£8,874
<b>TOTAL OUTFLOW</b>	<b>£41,100</b>	<b>£67,386</b>	<b>£38,529</b>	<b>£45,055</b>
<b>NET CASHFLOW</b>				
Opening Bank Balance	£8,840	(£18,621)	£10,236	£3,710
	£15,305	£24,145	£5,524	£15,760
<b>CLOSING BANK BALANCE</b>	<b>£24,145</b>	<b>£5,524</b>	<b>£15,760</b>	<b>£19,470</b>

<b>Cash Flow Projection Year 3</b>	<b>Qrt 1</b>	<b>Qrt 2</b>	<b>Qrt 3</b>	<b>Qrt 4</b>
<b>INFLOW</b>				
Administration	£2,350	£3,525	£3,525	£3,525
Technical Services	£3,426	£4,406	£4,406	£4,406
Aquamatic Systems	£41,125	£52,875	£52,875	£52,875
Other Fish Farm Equipment	£4,700	£7,050	£7,050	£7,050
Debtors	£16,255	£0	£0	£0
Loans	£0	£0	£0	£0
<b>TOTAL CASH INFLOW</b>	<b>£67,856</b>	<b>£67,856</b>	<b>£67,856</b>	<b>£67,856</b>
<b>OUTFLOW</b>				
Administration	£82	£123	£123	£123
Technical Services	£686	£882	£882	£882
Aquamatic Systems	£20,562	£26,437	£26,437	£26,437
Other Fish Farm Equipment	£2,350	£3,525	£3,525	£3,525
Creditors	£7,287	£0	£0	£0
<b>OVERHEADS</b>				
Wages & Salaries	£7,100	£7,100	£7,100	£7,100
PAYE & NI	£2,842	£3,675	£3,675	£3,675
Prototype Materials	£0	£0	£0	£0
Heat & Light	£528	£528	£528	£528
Rent & Rates	£663	£662	£663	£662
Motor & Travel	£1,777	£1,777	£1,777	£1,777
Postage, Stationery & Adv.	£1,475	£450	£2,650	£350
Telephones	£711	£711	£711	£711
Office Equipment Costs	£177	£177	£177	£177
Insurance	£665	£666	£665	£666
Repair & Renewals	£177	£177	£177	£177
Sundry Expenses	£177	£177	£177	£177
Accountancy Fees	£0	£0	£0	£1,175
Patent Fees	£2,350	£0	£0	£0
Bank Charges	£151	£151	£151	£152
Bank Interest	£0	£0	£0	£0
HP Interest	£306	£306	£306	£306
VAT	£3,397	£5,253	£5,822	£5,428
HP Repayments	£656	£656	£656	£655
HP Repayments - Equip	£533	£533	£533	£533
Drawings	£5,874	£8,874	£5,874	£8,874
<b>TOTAL OUTFLOW</b>	<b>£60,526</b>	<b>£62,840</b>	<b>£62,609</b>	<b>£64,090</b>
<b>NET CASHFLOW</b>				
Opening Bank Balance	£7,330	£5,016	£5,247	£3,766
	£19,470	£26,800	£31,816	£37,063
<b>CLOSING BANK BALANCE</b>	<b>£26,800</b>	<b>£31,816</b>	<b>£37,063</b>	<b>£40,829</b>