



AQUABAND
DEFENDER

BUSINESS PLAN

*"Aquaband Defender: A Personal Water Safety
Wristband that sends alerts and saves lives"*

April 2025

Module: New Enterprise Development (BAA1003)

Lecturer: Eric Clinton

Team Name: Group 36, Aquaband Defender

Team Members:

- Adam O'Brien (22512756)
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- Liam Cummins: (22111611)

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Confidentiality Agreement

The undersigned reader acknowledges that the information provided in this business plan is confidential; therefore, the reader agrees not to disclose it without the express written permission of Aquaband Defender.

It is acknowledged by the reader that information to be furnished in this business plan is in all respects confidential in nature, other than information that is in the public domain through other means, and that any disclosure or use of this confidential information by the reader may cause serious harm or damage to Aquaband Defender.

Upon request, this document is to be immediately returned to Aquaband Defender.

Signature:

Name (printed):

Date:

This is a business plan. It does not imply offering of securities.



1. Executive Summary

<< Introduce promoters here, and the reason you are now preparing this Business Plan.

This section should not be completed until the business plan is written. It will highlight all milestones in the company's development over the next five years. It should sum up the following areas:

- Purpose of the plan
- Product or service and its advantages
- Market opportunity
- Management team
- Track record, if any
- Financial projections
- Funding requirements

Financial projections should be summarised and highlighted. The following format is suggested as a guide:

	Year 1	Year 2	Year 3
Sales	€395,374	€524,000	€712,000
Exports	-	-	-
Net Profit before Tax	€41,361.64	€67,470.00	€83,250.00
Investment	€150'000	€100'000	€50'000
Employment	5 full-time	7 full-time	9 full-time

- ! Remember that potential investors often make a provisional judgement based on the executive summary, and that their decision to read the main body of the business plan will depend on the information presented here. The appendices at the back of the plan contain more detailed information to support the main text of the business plan.
- >>

2. Company Description



The business was founded by a team of water safety advocates and entrepreneurs who saw an urgent need to improve swimmer safety in open-water environments. The core founding team consists of five promoters:

1. Adam O'Brien (CEO & Co-Founder)

Interest in product design and innovation with experience in Team management. Responsible for business strategy, investor relations, and overall operations.

2. Liam Cummins (CTO & Co-Founder)

Has an aptitude for digital engineering & software development. Oversees product development, technical research, and hardware/software integration.

3. Adam O'Beirnes (CMO & Co-Founder)

Marketing and communications specialist with experience in safety tech and public awareness campaigns. Leads marketing, partnerships, and customer engagement.

4. Joseph Flynn (CFO & Co-Founder)

Accountant with knowledge in tech startups and fundraising. Manages the financial strategy of the company, budgeting, forecasting, and reporting, as well as leading fundraising efforts and investor communication.

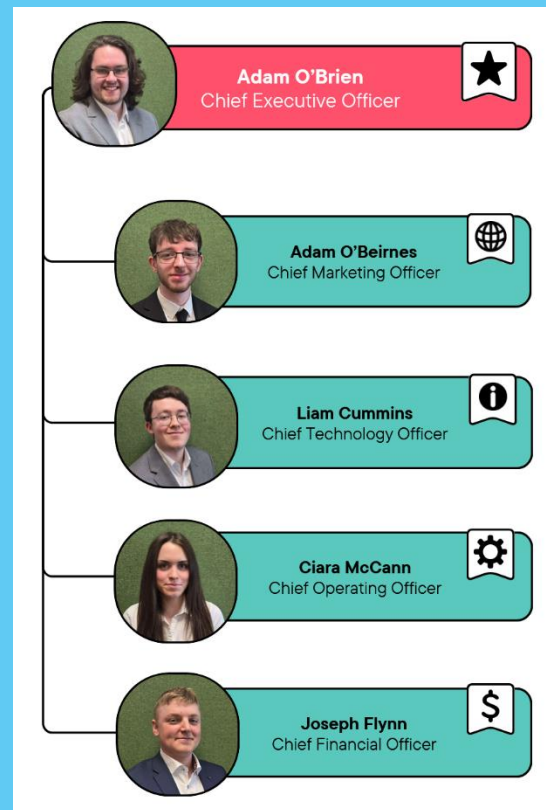
5. Ciara McCann (COO & Co-Founder)

Operations and logistics specialist with a strong background in supply chain management and process optimization. Oversees day-to-day business operations, procurement, fulfilment, and quality assurance.



Management Structure and Responsibilities

- **CEO (Adam O'Brien)** – Strategic direction, investor and stakeholder relations, high-level operations
- **CMO (Adam O'Beirnes)** - Brand strategy, digital marketing, customer acquisition, and PR
- **CTO (Liam Cummins)** – Product development, technical R&D, manufacturing oversight
- **COO (Ciara McCann)** – Logistics, inventory, and supply chain management
- **CFO (Joseph Flynn)** – Financial Planning, investment strategy, budgeting & financial reporting



Shareholders

- Adam O'Brien – 20%, €10,000 cash investment
- Adam O'Beirnes – 20%, €10,000 cash investment
- Liam Cummins – 20%, €10,000 cash investment
- Ciara McCann – 20%, €10,000 cash investment
- Joseph Flynn – 20%, €10,000 cash investment

Advisors

Legal Advisor:

- Connall Geraghty, Partner
- Mason Hayes & Curran Solicitors
- South Bank House, Barrow St, Dublin 4, D04 TR29
- Email: cgeraghty@mhc.ie
- Phone: +353 86 170 9634
- Strengths: Specialises in the assistance of Fast-Growing Tech Companies (Mason Hayes & Curran LLP, 2025)

Product Development Advisor(s):

- Intelegencia Technology Corporation



- Specialising in Custom software development and Application testing (Intelegencia, 2025)
- 40 West Evergreen Ave, Suite 101A, Philadelphia, PA 19118
- Email: info@intelegencia.com

Product Outline

Product Name: Aquaband Defender Smart Wristband

What it is and what it does: The Aquaband Defender Smart Wristband is a waterproof, GPS-enabled wearable designed for open-water swimmers, children, and caregivers. It monitors swimmer movement and vital signs to detect signs of distress or drowning and automatically alerts emergency services with real-time location data.

Background to Development: The concept emerged from observations on the rise of open water swimming during/since the COVID-19 pandemic, which saw a significant rise in recreational sea swimming all across Ireland. Concerns around safety in unsupervised open waters and delays in Coast Guard response times led to the development of a solution combining wearable technology, distress detection algorithms, and emergency connectivity.

Benefits and Features:

- Automatic distress detection using motion and biometric sensors
- Real-time GPS tracking
- Long-range connectivity (VHF Radio Transmission)
- Alerts Coast Guard and emergency contacts
- Comfortable and lightweight design
- Mobile app for caregiver monitoring

Unique Selling Points (USPs):

- First wearable in Ireland designed specifically for open-water swimmer distress detection
- Integration with national Coast Guard systems and rescue services
- Data-driven alerts validated by academic and professional consultation

Advantages to Customers:

- Enhanced safety and peace of mind
- Real-time visibility for parents and guardians
- Enables exploration of open water without fear
- Supports professional lifeguards in rapid intervention

Disadvantages or Weak Points:

- Dependent on reliable network coverage (addressed via satellite backup)



- Potential for false alarms (mitigated by algorithm refinement)
- Higher upfront cost (offset by long-term safety value)

Future Developments:

- Expansion to international markets (UK, US, Nordic countries)
- Integration of a Companion App to appeal to parents/caregivers etc.
- Improved features in 2.0 model and improved water/diving resistance rating
- Child-specific models with added parental control features
- Group swimming & club functionality

Long Term Aim of the Business To become the leading provider of open-water safety technology globally, saving lives through innovation and enhancing water safety culture worldwide.

Objectives (5-Year Plan)

Year 1:

Year 2:

Year 3:

Year 4:

Year 5:

SWOT Analysis & Strategic Fit

Strengths: <ul style="list-style-type: none"> • First-mover advantage in Irish market • Real-time alert & GPS integration • Achieves a noble goal of saving lives • Academic research & Emergency first responder support 	Weaknesses: <ul style="list-style-type: none"> • Dependence of VHF transmission quality • High initial product cost • Managing the risk of false positives • Limited Brand awareness at early stage of development
Opportunities: <ul style="list-style-type: none"> • Post-Covid Open water swimming boom • Capitalizing on public sector water safety awareness initiatives • Global demand for swim assistance wearables • Partnering with sporting/swim groups, water safety services. 	Threats: <ul style="list-style-type: none"> • Larger tech companies entering the market • Influence of emergency response policy • Regulatory hurdles • Pricing & Economic influences to customer spending



The SWOT analysis we developed as part of our business plan offers a clear and structured insight into the internal and external factors that influence the strategic positioning of our venture. It highlights how our product, the Aquaband Defender Wristband, strategically fits within a growing and clearly defined market need.

Our **Strengths** include our first-mover advantage within the Irish market, the integration of real-time GPS alerts, and our collaboration with academic and emergency service stakeholders. These elements support a robust technological foundation and credibility, making it difficult for emerging competitors to match our value proposition quickly. Importantly, our founding team and strong advisory network give us the agility and expertise to adapt, develop, and grow.

Weaknesses include the initial product cost and reliance on connectivity which are real challenges, but ones that are addressable through our continued research & development prior to launch. Additionally, any risks of false alerts can be mitigated through continuous testing, user feedback, and general refinement.

On the **Opportunity** side, our alignment with the post-COVID sea-swimming boom, growing public awareness of water safety, and increasing demand for wearable health technologies positions us well for scalable growth. Our unique functionality also makes us a candidate for partnerships with national lifeguarding bodies and water safety authorities. Our **Threats** are greatly mitigated by our research and considerations into regulations, willingness to cooperate with emergency responders, the effectiveness of our product and our market research.

In **Appendix 3**, which details our primary research with lifeguards, strongly supports the product-market fit. According to the survey, 82% of respondents identified locating individuals in distress as one of the most common challenges. 58% cited communication with rescue teams as a major barrier, while over 96% of lifeguards indicated that delayed response times are frequently or very often a contributing factor in drowning fatalities. These real-world insights confirm the need for a product that enhances both communication and visibility in emergency water scenarios.

Furthermore, 93.1% of lifeguards identified "immediate communication with emergency services" as the most valuable feature, with 69.6% stating that such a device would be extremely helpful in assisting Coast Guard search and rescue efforts. The emphasis on GPS, long-range connectivity, and automatic distress detection matches precisely with the core capabilities of the AquaSafe Wristband.

Strategically, our business is positioned to directly address the pain points experienced by frontline rescue personnel, with a well-supported product and a strong foundation for market entry. Our solution not only fits the need—it responds to it with technical and strategic precision.



3. Market Analysis

Our market analysis highlights the key research findings for Aquaband Defender and supports our projections through detailed market segmentation, competitor analysis, and current market trends. The research demonstrates the viability of the market and Aquaband Defender's strong positioning in capturing it.

Target Market

Aquaband Defender has a broad and inclusive customer base, and as such we target two primary segments of the market.

1. **Water Hobbyists-** This includes swimmers, kayakers, etc. These adventurous individuals will require water safety equipment when engaging in water-based activities.
 - **Size:** The global water safety equipment market is one of significant growth as the market is currently valued at USD 52.27 billion and expected to grow to USD 69.90 billion by 2033. (Research Straits,2025)
 - **Growth trend:** There has been a significant increase in water-based activities due to the Covid 19 pandemic which has led to a high demand for water-based safety equipment.
 - **Characteristics:** Adult Aged: 20-50, adventurous, risk taker, safety conscious, uses fitness-oriented technology (eg apple watch) (See Appendix 4 for more information)
2. **Parents of young children-** Concerned for their children learning to swim.
 - **Size:** According to Who (2024), children aged 2-14 account for 40% of drowning related deaths globally. Swim Ireland also says that 485 schools took part in swim competitions, proving young children are a strong target market. (Swim Ireland,2024)
 - **Growth trend:** As one of the most prevalent groups for accidental drownings, there has been an increase in demand for water-based equipment for children, along with smart monitoring systems our product provides. (WHO, 2024)
 - **Characteristics:** Aged: 25- 45, worries for child's wellbeing, involved in school programs. (see Appendix 4 for more information)

Total Market Valuation

The global water safety wristband market is currently valued at 1.2 billion and expected to grow to 2.8 billion as of 2032, seeing a rise of 9.5%. (Dataintel.com. ,2025) (see appendix 2).

- **Domestic Market:** There is very little mention of water safety band figure numbers in Irish markets but based on this we can use it to our advantage. We can open a new market directly to the Irish market and differentiate from current water band-based competitors, who haven't done so. (Siegemund, C 2008)



- **International Market:** Despite being landlocked Switzerland is the biggest producer of water safety equipment as the country is known for making products of high quality, while also showing creativity in design. (Statista,2025) The leading country in revenue figures is India but despite this the US has the greatest number of sales per person. (Statista,2025)

Target Company revenue

Aquaband Defender aims to achieve strong sales growth through several revenue streams:

- **Average Deal Size:** €149.99 per unit
- **Projected First-Year Sales:** 2,634 units (€395,000 revenue)
- **Recurring Revenue (Future plan):** Subscription-based GPS tracking services (€5/month per single user) (€12/ month for family plan), expected to generate €120,000 annually by year two.
- **Partnerships & Bulk Orders:** Agreements with water safety organizations and public institutions are projected to account for 25% of revenue. (e.g: Water safety organisations, swim clubs)

Market Trends

Here are current trends in the water safety market.

- **Recent changes:** Rising popularity of water-based hobbies has led to more of a need for water safety. (Dataintel.com. ,2025) Awareness for water safety is growing, leading to governments passing regulations that further enhance the water safety market, along with being seen as a necessity by parents and educators. (Dataintel.com. ,2025)
- **Future predictions:** With technology continuously improving, newer and more innovative water safety equipment will be made, utilizing similar smart technology from our Aquaband Defenders. Drowning rates will drop, and countries will adopt a culture of water safety.
- **demographic changes:** Increasing urbanization has led to more indoor swimming pools and aquatic centres in family areas, encouraging greater participation in water activities.
- **Economic changes:** Rising disposable income post-pandemic has increased demand for safety-related consumer technology products.
- **legislative changes:** There is no official water safety directive, but there are many about water-based activities advising water safety, such as boating that requires lifejackets and floatation devices. (Citizensinformation,2024)
- **Our Response:** Aquaband Defender is designed to meet rising safety expectations. We will collaborate with swim schools and aquatic centres to ensure compliance with these evolving standards while educating consumers.



Profile of Competitors

Aquaband Defender belongs to a fast-growing, niche market, concerning water safety. However, it has a wide selection of competition concerning safety and tracking equipment. The primary competitors include premium-made fitness watches, floatation wristbands and basic GPS trackers. Below is a detailed comparison of key players:

Features	Aquaband Defender	Floatation Wristbands	GPS Trackers	Smartwatch (e.g. Apple Watch)
Primary Function	GPS tracking & water sensors for drowning prevention	Keeps users afloat	Location tracking only	Fitness tracking with some basic GPS features
GPS Tracking	✓ Live GPS & mapping	✗ None	✓ GPS tracking only	✓ GPS but not water focused.
Emergency alerts	✓ Sends SOS alerts to Lifeguards	✗ None	✗ None	✓ Limited SOS functionality
Wearability	✓ Lightweight, secure wristband	✗ Bulky wristband	✓ Small but lacks safety features	✓ Comfortable but not designed for water safety
Battery life	✓ 3-day battery life, easy charge	Not applicable	inconsistent	18 hours
Target Audience	Open Water Swimmers, parents	General Public	General Public	Fitness enthusiast
Price Range	€149.99	Mid-Range	€30-60	€300-800

(Apple Ireland, 2025; Amazon.com, 2025; Apple Air tag, 2021)

Competitive Advantage

Aquaband Defender outpaces the competition through smart features, targeted design, and affordability.

Unique Features:



- Real-time GPS & emergency alert system
- Emergency contact system (coastguards)
- Family monitoring app (coming soon)
- Waterproof, lightweight and child-friendly wristband design
- **Price:** €149.99 per unit — undercuts high-end fitness watches such as Apple, who don't have water safety features.
- **New Technologies:**
 - o Bluetooth & cellular connectivity.
 - o Future App integration for iOS & Android.
 - o Designed for coastal environments.
- **Efficiency / ROI:**
 - o Reduces emergency response time by up to 40%
 - o Subscription model builds recurring revenue and promotes customer lifetime value.
- **Compatibility:**
 - o Potential integration with Water Safety Organisations
 - o Suitable for individual and club use.
- **Validation:**
 - o Pilot testing with 20 Dublin families: 94% satisfaction
 - o Swim instructors reported ease-of-use and reliability in early demos

Benefits to Clients

Aquaband Defender offers many benefits to its customer base:

Enhanced Safety: Real time monitoring, combined with an emergency response to call the coastguard, making for more guaranteed safety. *Can reduce response time in emergencies by 40%.*

Peace of mind: Parents and guardians of young children will be less stressed as potential drowning victims are monitored by the coastguard. Plans to roll out an app for parents to monitor their real-time location via their phone, subscription models will utilize this tracking more.

Ease of Access: Wristbands found online through our website, at local sports shops and through partnership with swim clubs.

Ease of Use: Not complicated to set up, easy enough for all ages to use when in an emergency. Lightweight, sleek and made with hypoallergenic materials. Future plans will enable distress detection to send out automatic distress signals to the coastguard and through connected mobile phones.



4. Marketing/Sales Strategy

Aquaband Defender will reach its target market primarily in the domestic market, to do this we will make use of multi-channel marketing and sales approach. By combining emotional appeals (child safety), real-world tech advantages, and competitive pricing, we aim to generate high visibility and sustained customer engagement across domestic and international markets.

Marketing Strategy

- **Initial Target Segment:** Parents of young children. This group will be targeted first due to their emotional stake in child safety and high motivation from this group to design solutions for enhanced peace of mind.
- **Why?** Accidental drownings have become one of the most prevalent causes of death in children. Targeting this segment first will validate the necessity of our product, along with gaining a trusted source for word of mouth in marketing campaigns.
- **Full Market Expansion Plan:** After establishing brand credibility amongst families, we will target water hobbyists through:
 - Sponsor Sports event partnerships (eg: triathlons, swim event)
 - Launch Seasonal campaigns and showcase user success stories.
 - Collaborate with Outdoor retailers.
 - Sell internationally through our website.
- **Product Differentiation:**
 - Real-time GPS tracking with emergency alert system.
 - Water Safety focused.
 - Child-friendly, durable and lightweight design.
 - Plans for app, to enhance monitoring and ease of mind for parents.
- **Key Benefits:**
 - Enhanced safety in water-based environments.
 - Real time location tracking.
 - Connections with emergency services.
 - Peace of mind for parents/guardians.
 - Lightweight, waterproof, wristband.
 - Plans for a subscription-based model.
- **Targeted Customers/Outreach:**
 - Early feedback from swim instructors and lifeguards at local swim clubs in Dublin has been positive, particularly praising the device's simplicity. (see appendix 3)
- **Contacts for Awareness:**
 - Water Safety Ireland
 - Local schools and coastal communities
 - Kayaking and sailing clubs
- **Marketing Team:**



Initial Phase: Managed by the internal student-led marketing team for awareness campaigns and social media outreach, with the main goal to be featured in a water safety Ireland video.

Support Roles: Freelance digital marketers for social content, SEO, and PPC.

Expansion: Onboard sales reps for school visits, partnerships with water organisations, and product demos for swim clubs.

Revenue Sources

Aquaband Defender will generate revenue through product sales, subscription-based GPS services, licensing agreements, after-sales accessories, and future product upgrades across domestic and international market

Source	Ireland	EU	US	Rest of World
Products	€350,000	€200,000	€150,000	€100,000
Services (GPS plans)	€50,000	€25,000	€20,000	€15,000
Licences	€10,000	€15,000	€10,000	€5,000
After-sales (replacement bands, batteries)	€20,000	€10,000	€10,000	€5,000
Upgrades (next-gen band models)	€30,000	€20,000	€15,000	€10,000

Key Takeaways:

- Our strongest revenue stream is the Irish domestic market, where we're launching and building our brand through early market traction.
- The subscription-based model is predicted to generate a consistent stream of revenue throughout each region.
- We've accounted for international sales potential, with the EU and US offering strong secondary markets for expansion.
- This mix of one-time and recurring revenue ensures both short-term cash flow and long-term profitability.

Sales Strategy (Domestic Focus- Ireland)

For our initial sales rollout, our main focus is to the Irish domestic market, before expanding globally. To do this we will utilize many multi-channel strategies, while maintaining a strong brand, customer engagement and product pricing.

- **Direct Website Sales:** Set up a professional website where we sell directly to our target market. Set ours apart by having informational videos, live chat support and customer testimonials.
- **Social Media Marketing:** Reach out to fitness based social media influencers to advertise our water safety bands to their strong Irish following on Instagram and TikTok.



- **Retail Partnerships:** We plan to partner with Irish based retailers such as Elverys, to sell our product in their stores.
- **Distributors:** For EU market expansions we plan to align with trusted distributors of safety equipment.
- **Sales Reps:** Employ part time sales reps in regional areas of Ireland to visit schools, summer camps, and water activity centres to talk about Aquaband Defender, along with showing a prototype.
- **Revenue Sharing Partners:** Water safety organisations or charity initiatives, helping to increase brand trust and reach.

Cost Analysis:

- Direct Website: Low cost, high control.
- Social media: Low cost, wide stream of potential customers. Challenge could come from the right social media influencer, for example if they are “cancelled”.
- Retail: Higher logistics and inventory management but strong presence.
- Reps: Training and salary costs but great for relationship-building.
- Distributors: Agreed percentage of sales(moderate) but could be potential struggle to find a trusty worthy and cost-effective distributor.
- Revenue Sharing Partners: Low cost, high reward in brand recognition.

Pricing

- **Product Price:** €149.99 per unit (competitive pricing, slightly under premium competitors)
- **GPS Subscription Tracking Plans:**
 - Individual: €5/month
 - Family: €12/month
- **Retail Mark-up:** 20–30% for sports shops
- **Licences:** Custom agreements depending on volume
- **Upgrade pricing:** Tiered discount for previous customers

Pricing is based on:

- Competitor benchmarking (e.g. Apple, floatation bands)
- Perceived safety value for families
- Cost of production (€60 per unit)
- Desire to be seen as a practical enhancement for water safety.



Marketing and Communications Strategy

Aquaband Defender will be promoted through a focused multi-channel strategy, designed to increase brand awareness, generate customer engagement, and drive both direct sales and potential for future subscription growth. Our marketing efforts will target parents and water hobbyists across Ireland, leveraging both digital and in-person platforms.

Advertising:

- **Facebook & Instagram Ads:** Set up our own digital platforms to spread awareness of our product while also paying for social media-based banner advertisements to appeal to parents and water hobbyists.
- **Influencer Collaborations:** Collaborate with Irish fitness influencers with strong local followings on TikTok and Instagram to promote the product in a video praising the product during a swim session.
- **YouTube Campaigns:** Collaborate with **Water Safety Ireland** to create an informative video on water safety and how Aquaband Defender can enhance safety.

Website:

- **SEO (search engine Optimization):** Integrate SEO optimized pages to by using keywords such as “water safety for children”. This can help our target audience find us at the top of their search engine.
- **Website utilization:** Feature informal videos on Aquaband Defender, have success stories for website traffic to see, and live chat customer support.

Exhibitions: Take part in Water Safety Awareness week, make our prescene known at events such as the national ploughing championships.

Public Relations: Have a press release in the sports section of Irish Times, be featured in well-known parenting blogs or be featured in lifestyle magazines.

Direct to Marketing: Use email marketing to be featured in emails to sources such as school newsletters, swim clubs, parenting groups, etc.

Word of Mouth: Incentives for customer referrals, testimonials from early adopters.

5. Advertising & Promotion

This product serves simultaneously as a lifesaving need and a niche market need, making the promotion and advertising strategy crucial factors to our success in the water safety market.

Objectives of our strategy



1. Raise product awareness among our core demographic by 60% in year one.
2. Achieve 5,000-unit sales within the first 12 months post product launch.
3. Establish the Aquaband Defender as Ireland's most trusted water safety device.

Target Market Breakdown

- Open water swimmers and triathletes – those who train in lakes, rivers and seas.
- Parents of young swimmers – Concerned guardians seeking protection and ease of mind
- Adventure sports enthusiasts – Kayakers, surfers, paddleboarders and snorkelers.
- Water safety organisations – Established entities such as Water Safety Ireland who can use their platforms to promote and educate and incorporate the Aquaband Defender into their rescue programs.

Secondary Markets

- Older adults and retirement communities who swim to retain fitness.
- Hotels, leisure resorts, cruise ships
- Schools and swim clubs
- Lifeguard Patrols

With open sea swimming surging in popularity since the covid pandemic, the Aquaband defender has a strong potential for room for expansion, with the water safety equipment market expected to grow at 3.7% through 2033 (Straits Research, 2025)

The Aquaband Defender will be marketed as a premium, trust-worthy lifesaving innovation, showcasing the technology implemented and professional-grade safety design make it more than just a gadget, but a wearable aid to give peace of mind.

Advertising Channels

1. **Digital**
 - Instagram & TikTok – Targeting Irish fitness influencers and safety awareness pages can expose our product to individuals already engaged in open sea swimming extensively, along with creating reels which showcase the product in real use cases in popular swimming areas, such as beaches around Dublin.
 - YouTube Ads – Short skits of the product in action or testimonials from past users with rescue stories can further develop the products awareness and trust.
 - Google Search Ads – Targeted key words, such as “Swimming gear” and “Open water safety”
2. **Traditional Media**
 - Print Ads –Focusing on publications such as Triathlete Europe and The Independent.



- Radio – Targeting regional stations during morning and evening drive times

Promotional Tactics

- Partnerships with Influencers – Collaborating with Irish fitness influencers, such as swimmers and lifeguards can create content with those educated on the purpose of our product.
- Live Demos – Hosting and participating in events where users can engage in our products features at popular swimming locations to showcase the reliability of our services, increasing awareness and trust.
- Press coverage – Pitch stories to reputable and popular publications, such as The Irish Times, where we share real-life rescue stories of our product, or older stories where our product could have made a difference.

Event Specific Promotions

- Liffey Swim – Pop up booth with live demos and discounts, along with potential sponsoring throughout the event.
- Dun Laoghaire Harbour Race – Branded Aquaband Defenders can be given out to top sea swimmers.
- National Water Safety Week – Collaborating with Water Safety Ireland, creating co-branded safety awareness digital campaigns and presentations for schools.

Sales Promotions

- Early Bird Pricing – Initial reduced discounts for a brief period post launch
- Promo Codes – 10% promo sales through using discount codes which are collaborated with influencers.
- Family Bundle deals – Buy 3 get 1 free, for example.

Public Relation Strategies

- Obtain product reviews from respected users, such as from Irish outdoor bloggers and marine safety enthusiasts who have an online presence or following.
- Participate in trade shows such as Irelands Outdoor Adventure Show or SeaFest Galway.
- Promote stories where our product has saved lives on media outlets to spread awareness of the products effectiveness.

Budget and Evaluation



Channel	Budget	Estimated Reach
Social Media Ads	€15,000	800,000+ views
Influencer Collaborations	€7,000	200,000+ views
Print & Radio Advertising	€22,000	500,000+ views
PR and Events	€5,000	300,000+ views
Promotional Discounts	€5,000	Conversion focused

Total:

Success Metrics

Website conversion rate > 2.5%

At least 10,000 emails obtained from campaign events

5,000-unit sales from year 1

Minimum 3x return on advertising spend

High product ratings on consumer reviews and social media engagement growth.



6. Research and Development

Technology Roadmap

The Aquaband Defender will initially be developed through outsourced prototyping within Ireland, allowing us to leverage local expertise while keeping production oversight accessible during early-stage testing. This approach ensures agility, quality control, and quicker iteration. As sales grow, we will scale up with offshore production partners to meet demand.

Development phases.

Team/Department structure:

At launch, the technical side of development will be managed through Irish prototyping and design contractors. We plan to onboard permanent staff once the product reaches the market and revenue is generated.

Initial roles (outsourced).

- Hardware prototyping firm (Ireland-based)
- Freelance app developer
- Regulatory consultant

Future In-house team.

- Chief Technology Officer (CTO)
- Product Engineer
- QA/UX Lead
- Mobile App Developer

Methodology.

We use an iterative development process in collaboration with local prototyping partners, allowing us to test, refine, and enhance the product in short phases. Real-world feedback from swim clubs and early users plays a key role in shaping each update.

Platforms used.

- Embedded Tech: ARM Cortex MCU, AIS, GPS modules
- Software: Firebase, React Native, AWS
- Management Tools: Notion, Trello, Slack




Milestones To Be Achieved

Milestone	Target Date
Finalise Functional Prototype (Ireland Based)	Oct 2025
Complete beta testing with swim clubs	Nov 2025
Obtain CE safety certification	Dec 2025
Begin full operations (production, logistics, staffing)	Jan 2026
Launch pre-orders via branded e-commerce platform	Feb 2026
Scale sales through retail partners and swim events	Q2 2026
Expand customer support and operations team	Q3 2026
Begin development of companion mobile app	Late 2026
Transition to offshore manufacturing	Mid-2027
Launch product variants (Kids/Pro Series)	2028
Begin expansion into UK & EU markets	Late 2028


System Overview.




The Aquaband Defender is a standalone wearable water safety device designed for open-water swimmers, triathletes, and adventure sports users. The system combines GPS positioning with AIS (Automatic Identification System) and micro VHF radio technology to issue distress alerts in real time.



The device is activated manually by the user pressing a discreet SOS button during an emergency.



Once activated, the wristband uses its integrated GPS module to determine the swimmer's exact location. (U-blox, 2023).



Location and distress signal are automatically transmitted via a micro VHF radio transmitter using Channel 16, the international maritime distress frequency. This is compatible with the Automatic Identification System (AIS) used by the Irish Coast Guard and other marine rescue services. (Killaloe Coast Guard Unit, no date; Commission for Communications Regulation, no date).

This system does **not require a companion app or smartphone** to function, ensuring maximum reliability and ease of use in emergency situations.

Research and Development

Aquaband will maintain R&D as a core ongoing function of the company to ensure we remain at the forefront of marine safety technology. Our R&D efforts will focus on:

- **Miniaturisation** of components to improve comfort and wearability.
- **Sensor integration** (e.g., heart rate, temperature sensors in future models)
- **Advanced waterproofing** for deeper immersion and saltwater durability



- **Smart alert systems** (e.g., automatic detection of abnormal motion patterns)
- Global compliance and localisation for global expansion
- Sustainable materials and long-life battery solutions

Expected contributions from R&D include enhanced product reliability, differentiated features, and new product variants for children, professional athletes, and inland swimmers. R&D will also drive long-term competitiveness and support potential B2B offerings for lifeguard services, schools, and water safety organisations.

Technical Partners

- Irish prototyping firm – hardware development and small-batch assembly for initial product version. We are still need to make the final decision but we are currently looking at firms such as RTR Electronics (integration of all electrical components; PCB assembly) & TheCadLab (waterproof casing).
- DCU school of engineering - Advisory support on component integration and water safety design
- Freelance app developer - Design and deployment of Aquaband's mobile companion app
- Water safety Ireland – product validation, and outreach to swim clubs and safety instructors.
- Partner abroad for mass production (TBC).

IP, Patents, Copyrights, Brands

We are actively pursuing **intellectual property protection** for the Aquaband Defender to strengthen our competitive position and brand trust.

- Patent Application (Planned for 2026): We intend to file for patent protection on the integration of GPS + AIS micro-VHF signaling in a waterproof wearable form designed for open water safety use.
- Copyright: The software logic, mobile app interface, and system architecture will be protected under standard software copyright laws.
- Trademark: Aquaband Defender™ is being trademarked to protect the brand name and associated logo.
- Brand Development: The brand will be built on principles of trust, rescue-readiness, and innovation in water safety. Partnerships with Water Safety Ireland and visibility at high-profile open-water events will reinforce brand credibility and loyalty.



7. Staffing and Operations

Aquaband Defender will adopt a lean startup structure in Year 1, with most technical and production activities outsourced. The founding team will manage day-to-day operations, business development, and customer relations. As sales and investment increase, we will begin building an internal team and expand our operational capacity.

Our long-term vision is to develop a hybrid team model — with core technical and operational staff in-house, supported by offshore manufacturing and external advisors. This phased approach allows us to scale efficiently while ensuring product quality and innovation remain central.

Management (including Board) Organisation Chart

Staffing

YEAR	ROLE	SKILLSET
2026	No full time hires (outsourced)	Contractors in hardware, app dev, marketing
2027	CTO (In House)	Wearables, firmware, systems integration
	Customer Support Coordinator	CRM tools, communication
	Compliance & QA Consultant	CE marking, marine safety standards
2028	App Developer (full-time)	React Native / iOS/Android development
	Sales Manager	B2B retail, event partnerships

Training Plans

To ensure a high-performance, safety-conscious team, we will implement structured training programs focused on:

- Technical Training



- Product usage, component integration, and firmware updates
- Data security protocols and cloud system management
- Compliance workshops
- Customer Support Training
 - Swim safety awareness and device troubleshooting
- Ongoing staff development.
 - Annual skill-up workshops and cross-functional learning sessions
 - Access to online training platforms for upskilling (e.g. Coursera, LinkedIn Learning)
 - Leadership development support for managerial roles

This training program will evolve alongside new product features and international expansion needs.

Operations

Premises.

- Year 1: We aim to work remotely in the first year. However should the need arise, we will use shared office and workshop spaces; flexible office solutions available in Dublin such as CoCreate or Dogpatch Labs. Not only is this a low cost solution during the early stages of development, a shared office space also provides the opportunity to network with other entrepreneurs and gain new contacts (GoCreate.ie).
- Year 2–3: Expansion to dedicated workspace with small-scale R&D lab and fulfillment station

Equipment.

- Prototyping tools (3D printer, soldering stations)
- Waterproof testing chamber
- Standard office equipment (laptops, server access, charging docks)

Production facilities.

- Year 1: Prototyping and low-volume production outsourced within Ireland
- Year 3: Transition to offshore manufacturing partner (e.g., Eastern Europe or Southeast Asia) for mass production

Infrastructure.

- E-commerce website with integrated payment and order tracking
- Inventory management and order fulfillment system (e.g. Shopify + ShipBob or An Post)
- Customer support ticketing system



Communication facilities.

- Internal: Slack, Zoom, Notion for team collaboration
- External: Email, WhatsApp Business, in-app alerts (via companion app)

Estimated Operational Costs (Year 1).

Category	Estimated Cost (€)
Office Space	€0 (TBD – we plan to work remotely as long as possible and only rent office services when necessary).
Irish Based production run	€158,160
R&D & Prototyping	€20,000
Packaging & fulfilment	€15,000
Staff & freelancers	€87,500
Marketing & events	€45,000
Total	€325,660

Note: These figures are based on conservative estimates and will be updated upon final supplier selection and quote confirmation. Additional costs are included in Balance Sheet.

Suppliers.

Category	Supplier
Components & sensors	Currently being negotiated and will be determined based on price and availability.
Prototyping & assembly	Irish hardware prototyping firm (TBD – shortlisting in progress)
Packaging	EPacking Ireland - (TBD – shortlisting in progress)
Logistics & fulfillment	AnPost: national shipping



8. Financial Projections

8.1 Key Assumptions

We predict a net profit margin of 9%. This is a healthy margin considering the upfront costs incurred. We have assigned €45,000 across the year to marketing, including increases of €5,000 per month during the summer months of May-August. We forecast a drop in sales in September and October as the summer comes to an end, and as such have decreased marketing spend during these months. We then predict a jump in November and December due to a large allocation of marketing costs to take advantage of black Friday and Christmas shopping.

We expect revenues to surge from €395k in 2026 to €712k by 2028 because of growing unit sales alongside expanding market awareness. The product sells at €149.99 per unit. The production cost of €60 per unit results in a gross margin of €89.99 which equals 60% of the product price. The gross margin of 60% matches industry standards for hardware products that aim to achieve between 40% and 60% profit margins (Kimball, 2023).

We set the price at €149.99 to stay below the psychological €150 threshold because research shows that prices ending in.99 boost customer demand by 24% compared to rounded prices (Poundstone, 2011). The €149.99 price point strikes the right balance between customer attraction and profit generation.

We have allocated €87,500 in 2026 for wages. This figure is comprised of two employees. One is an operations manager on a salary of €47,500. They will oversee product development, quality control and communication with manufacturers. The other employee will be a customer service provider, responsible for customer queries. All related payroll taxes are factored into our P&L and balance sheets.

We have allocated €20,000 to R&D to develop, test and certify a prototype that follows all relevant marine regulations. Further R&D amounts of €5,000 have been allocated to 2027 and 2028 to prototype an additional version of our product with further features.

For 2026, we plan to use communal spaces such as college meeting rooms and online meeting platforms to work together. In 2027 and 2028 we plan to rent office space in Swords, Co. Dublin. In terms of storage space, we are availing ourselves of shed space in Bealinstown, Swords via Flynn's Tomatoes. These are relatives of our CFO and have offered the use of a spare shed on their premises to store our inventory.



II Profit & Loss Accounts

Aquaband Defender														Profit & Loss Statement 2026		2027	2028
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Totals			Total	Total
Income																	
Sales (net of VAT)	€15,299	€16,949	€23,248	€29,248	€33,448	€44,547	€50,097	€50,547	€28,498	€26,998	€38,997	€37,498	€395,374			€524,000	€712,000
(Cost of goods sold)	€6,120	€6,780	€9,300	€11,700	€13,380	€17,820	€20,040	€20,220	€11,400	€10,800	€15,600	€15,000	€158,160			€199,000	€271,000
Gross profit	€9,179	€10,169	€13,948	€17,548	€20,068	€26,727	€30,057	€30,327	€17,098	€16,198	€23,397	€22,498	€237,214			€325,000	€441,000
Expenditure																	
Marketing	€2,500	€2,500	€2,500	€2,500	€5,000	€5,000	€5,000	€5,000	€2,500	€2,500	€5,000	€5,000	€45,000			€65,000	€95,000
R&D / Prototyping	€20,000	€0	€0	€0	€0	€0	€0	€0	€0	€0	€0	€0	€20,000			€5,000	€5,000
Certification fees	€2,500	€0	€0	€0	€0	€0	€0	€0	€0	€0	€0	€0	€2,500			€0	€0
Bank charges	€0	€0	€15	€0	€0	€15	€0	€0	€15	€0	€0	€15	€60			€60	€60
Insurance	€400	€400	€400	€400	€400	€400	€400	€400	€400	€400	€400	€400	€4,800			€5,000	€6,000
Business Registration	€120	€0	€0	€0	€0	€0	€0	€0	€0	€0	€0	€0	€120			€0	€0
Stationery	€150	€0	€0	€150	€0	€0	€0	€150	€0	€0	€0	€150	€600			€1,200	€1,200
Office Rent	€0	€0	€0	€0	€0	€0	€0	€0	€0	€0	€0	€0	€0			€12,000	€12,000
Website Development	€5,000	€0	€0	€0	€0	€0	€0	€0	€0	€0	€0	€0	€5,000			€0	€0
Website Maintenance	€0	€0	€200	€0	€0	€200	€0	€0	€200	€0	€0	€200	€800			€1,600	€1,600
Transport/courier costs	€1,250	€1,250	€1,250	€1,250	€1,250	€1,250	€1,250	€1,250	€1,250	€1,250	€1,250	€1,250	€15,000			€24,000	€32,000
Loan Repayment	€0	€702	€702	€702	€702	€702	€702	€702	€702	€702	€702	€702	€7,722			€8,424	€8,424
Wages	€5,000	€7,500	€7,500	€7,500	€7,500	€7,500	€7,500	€7,500	€7,500	€7,500	€7,500	€7,500	€87,500			€125,000	€180,000
Payroll taxes	€553	€829	€829	€829	€829	€829	€829	€829	€829	€829	€829	€829	€9,672			€15,470	€19,890
Accounting & Admin	€100	€100	€100	€100	€100	€100	€100	€100	€100	€100	€100	€100	€1,200			€2,400	€4,000
Telephone	€50	€50	€50	€50	€50	€50	€50	€50	€50	€50	€50	€50	€600			€800	€1,000
Total	€37,623	€13,331	€13,546	€13,481	€15,831	€16,046	€15,831	€15,981	€13,546	€13,331	€15,831	€16,196	€200,574			€265,954	€366,174
Profit Before Tax	-€28,444	-€3,162	€402	€4,067	€4,237	€10,681	€14,226	€14,346	€3,552	€2,867	€7,566	€6,302	€36,640			€59,046	€74,826
Corporation Tax (12.5%)	€0	€0	€0	€0	€0	€0	€0	€0	€0	€0	€0	€0	€4,580			€7,381	€9,353
Net profit													€32,060			€51,665	€65,473

Our Profit & Loss statement demonstrates a positive financial development pattern from 2026 through 2028. We forecast €396,374 in net sales during 2026 with a COGS of €158,160, leading to a gross profit of €237,214 and a net profit of €32,060 after operating expense deductions.

We forecast substantial sales growth to €524,000 during 2027, with a gross profit of €325,000. Operating expenses grow proportionally with this increase in sales. Operating expenses rise to €265,954. The most notable expenses driving this increase are the wages of €125,000 and marketing spend of €65,000. We forecast to maintain our profitability at €51,665.

We forecast sales growth to €712,000 during 2027, with a gross profit of €441,000. Operating expenses rise to €366,174. The most notable expenses driving this increase are yet again a further increase in wages of €180,000 total and marketing spend of €95,000 total. We forecast to maintain our profitability at €65,473.



III Balance Sheets

Balance sheet forecast	
As at December 2026	
Assets	
Current assets	€101,918
Cash	€63,918
Stock	€3,000
Long-term investment	€35,000
Total assets	€101,918
Liabilities	
Current liabilities	€27,714
Accounts payable	€5,000
Accrued Expenses	€962
Taxes payable	€9,672
Income tax	€4,580
Sales tax	€2,500
Payroll accrual	€5,000
Long-term liabilities	€34,422
Borrowings	€34,422
Total liabilities	€62,136
Net assets	€39,782
Owner's equity	
Retained earnings	€7,722
Current year earnings	€32,060
Total equity	€39,782

Balance sheet forecast	
As at December 2027	
Assets	
Current assets	€154,040
Cash	€114,540
Stock	€4,500
Long-term investment	€35,000
Total assets	€154,040
Liabilities	
Current liabilities	€40,851
Accounts payable	€6,500
Accrued Expenses	€1,500
Taxes payable	€15,470
Income tax	€7,381
Sales tax	€3,500
Payroll accrual	€6,500
Long-term liabilities	€25,998
Borrowings	€25,998
Total liabilities	€66,849
Net assets	€87,191
Owner's equity	
Retained earnings	€35,526
Current year earnings	€51,665
Total equity	€87,191

Balance sheet forecast	
As at December 2028	
Assets	
Current assets	€221,942
Cash	€180,942
Stock	€6,000
Long-term investment	€35,000
Total assets	€221,942
Liabilities	
Current liabilities	€51,243
Accounts payable	€8,000
Accrued Expenses	€2,000
Taxes payable	€19,890
Income tax	€9,353
Sales tax	€4,500
Payroll accrual	€7,500
Long-term liabilities	€17,574
Borrowings	€17,574
Total liabilities	€68,817
Net assets	€153,125
Owner's equity	
Retained earnings	€87,652
Current year earnings	€65,473
Total equity	€153,125



IV Cashflow Statement

Aquaband Defender							Cashflow Statement 2026						
CASH RECEIPTS	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Totals
Income from Sales													
Cash sales	€15,299	€16,949	€23,248	€29,248	€33,448	€44,547	€50,097	€50,547	€28,498	€26,998	€38,997	€37,498	€395,374
Total Cash from Sales	€15,299	€16,949	€23,248	€29,248	€33,448	€44,547	€50,097	€50,547	€28,498	€26,998	€38,997	€37,498	€395,374
Loan proceeds	€35,000	€0	€0	€0	€0	€0	€0	€0	€0	€0	€0	€0	€35,000
Total Cash Receipts	€50,299	€16,949	€23,248	€29,248	€33,448	€44,547	€50,097	€50,547	€28,498	€26,998	€38,997	€37,498	€430,374
CASH EXPENDITURE													
Cost of goods	€6,120	€6,780	€9,300	€11,700	€13,380	€17,820	€20,040	€20,220	€11,400	€10,800	€15,600	€15,000	€158,160
Operating expenses	€37,623	€13,331	€13,546	€13,481	€15,831	€16,046	€15,831	€15,981	€13,546	€13,331	€15,831	€16,196	€200,574
Loan payments	€0	€702	€702	€702	€702	€702	€702	€702	€702	€702	€702	€702	€7,722
Total Cash Disbursements	€43,743	€20,813	€23,548	€25,883	€29,913	€34,568	€36,573	€36,903	€25,648	€24,833	€32,133	€31,898	€366,456
Net Cash Flow													
Opening cash balance	€0	€6,556	€2,692	€2,392	€5,757	€9,292	€19,271	€32,795	€46,438	€49,289	€51,454	€58,318	
Cash receipts	€50,299	€16,949	€23,248	€29,248	€33,448	€44,547	€50,097	€50,547	€28,498	€26,998	€38,997	€37,498	€430,374
Cash disbursements	-€43,743	-€20,813	-€23,548	-€25,883	-€29,913	-€34,568	-€36,573	-€36,903	-€25,648	-€24,833	-€32,133	-€31,898	-€366,456
Closing Cash Balance	€6,556	€2,692	€2,392	€5,757	€9,292	€19,271	€32,795	€46,438	€49,289	€51,454	€58,318	€63,918	

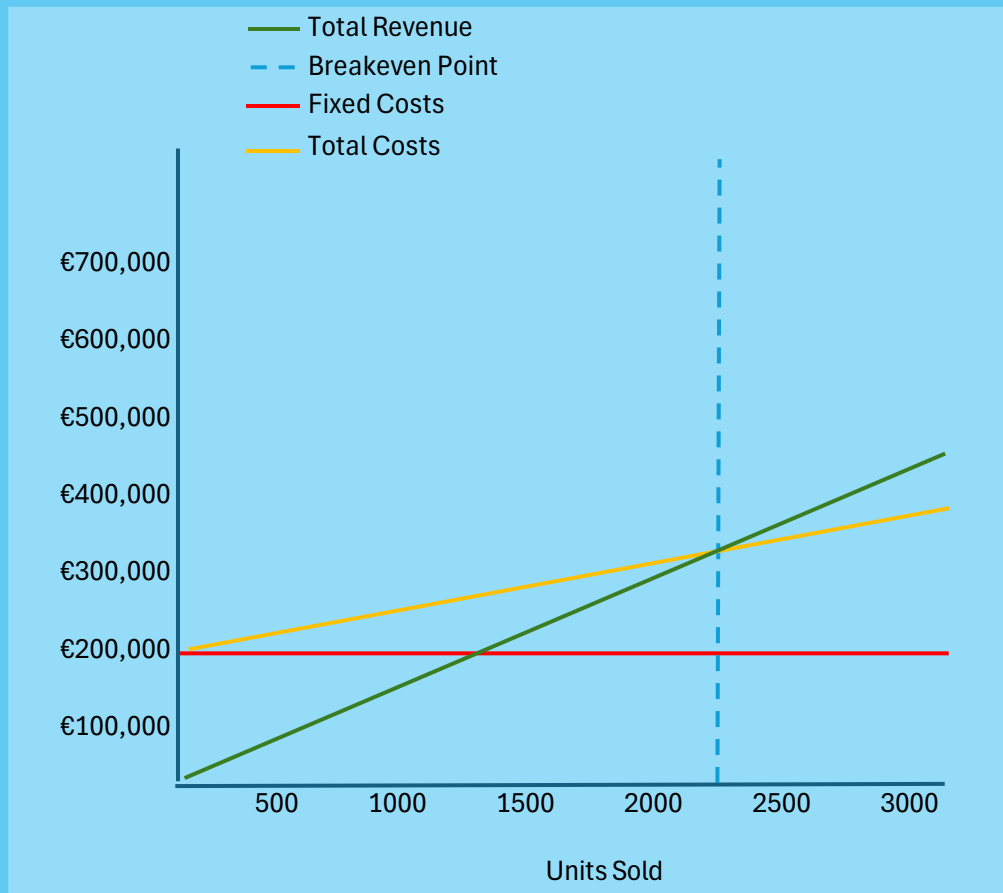
Cashflow Statement 2027	
CASH RECEIPTS	
Total Cash from Sales	€524,000
Loan proceeds	€0
Total Cash Receipts	€524,000
CASH EXPENDITURE	
Cost of goods	€199,000
Operating expenses	€265,954
Loan payments	€8,424
Total Cash Disbursements	€473,378
Net Cash Flow	
Opening Cash Flow	€63,918
Cash receipts	€524,000
Cash disbursements	-€473,378
Closing Cash Balance	€114,540

Cashflow Statement 2028	
CASH RECEIPTS	
Total Cash from Sales	€712,000
Loan proceeds	€0
Total Cash Receipts	€712,000
CASH EXPENDITURE	
Cost of goods	€271,000
Operating expenses	€366,174
Loan payments	€8,424
Total Cash Disbursements	€645,598
Net Cash Flow	
Opening Cash Flow	€114,540
Cash receipts	€712,000
Cash disbursements	-€645,598
Closing Cash Balance	€180,942

The initial loan of €35,000 functions as a vital financial resource which maintains business stability throughout the launch period. Our 2026 cash flow statement showed that we expected major start-up expenses including R&D (€20,000), wages and early operational costs which would create a negative cash balance during the beginning of the year. The absence of this loan injection would have created a cash deficit by February which would have impaired our payment capabilities and operational effectiveness. The €35,000 loan provided us with necessary funds to stabilize our cash flow while we sustained operational liquidity until our revenue growth became significant. The company maintains operational security and achieves cash-positive results throughout its first year because of this financial planning approach which leads to a projected closing cash balance of €63,918 in December 2026.



V. Breakeven Analysis



The break-even point calculation results in 2,229 units when using a retail price of €150 per unit and production costs of €60 per unit and fixed costs amounting to €200,547. Our sales projections indicate that we will reach the break-even threshold during November 2026. The business will start generating profits during its initial year of operation because we will reach this important milestone on month 11. The break-even point in month 11 provides assurance to potential investors while showing that our product and business model operates financially sustainably.



9. Sales Pipeline

Stage	Goal	Tactics	Tools
Awareness	Make potential customers aware of the Aquaband Defender along with the issues it is aiming to address	Social media ads, influencer shoutouts, PR boosts during Irish water events	Instagram, TikTok, Google Ads, Event Booths, Print Media
Interest	Capture attention and educate why the Aquaband defender is a better alternative to our competitors	Product reviews, blog posts, Email sign-up incentives	Youtube, Email marketing platform, SEO blog
Consideration	Build desire and trust, collect leads	Promote case studies and testimonials from previous users, live Q&A chats sessions, comparison charts with competitors	CRM System, lead forms, WhatsApp Business, Webinars
Purchase	Convert leads into customers	Limited time promotions, bundle deals, affiliate and referral programs	E-Commerce platform, promo codes, Email sequences
Retention	Encourage continuous and boost satisfaction	Onboarding emails, video tutorials, loyalty rewards, community groups for users	Email drip campaigns, Youtube, private Facebook groups
Advocacy	Turn customers into brand ambassadors	Collect reviews and testimonials, showcase rescue stories on social media, Ambassador programs for lifeguards and athletes	Trustpilot, Instagram, Referral Software



Customer Journey

1. Peter, an avid open sea swimmer sees an Aquaband Defender ad on Instagram
2. He opens the landing page, showcasing a product demo video and signs up for updates
3. He receives an email with a comparison guide and option for pre-order
4. Post purchase, he joins a Facebook support group where reviews are shared
5. His review is featured in a Water Safety Ireland summer campaign

10. Funding Requirements

Total funding needed: €300,000

This figure is the total needed to bring the Aquaband Defender to market and scale the product within the first 24 months. This capital will cover product development, marketing and advertising, operational costs and scaling logistics

Breakdown of Funding Allocation

Category	Amount (€)	Percentage	Purpose
Product Development	75,000	25%	Engineering, prototyping, safety certifications (ISO, CE), waterproof testing, ruggedisation for open water usage.
Marketing & Advertising	45,000	15%	Launch campaigns, influencer partnerships, PR, print and digital ads, promotional events
Production & Inventory	75,000	25%	Manufacturing initial stock, packaging, warehousing, fulfilment set-up
Operations & Staffing	45,000	15%	Hiring part-time staff for sales, logistics, implementing customer service,



			setting up a business infrastructure
Technology & Website	30,000	10%	E-commerce site development, cybersecurity tools, app development
Legal & Compliance	30,000	10%	Patent filings, insurance, unexpected expenses, legal compliance

Sources of Funding

Source	Amount (€)
Enterprise Ireland	75,000
Bank Loan	120,000
Private Investment	100,000
Founders Savings	5,000
Total	300,000

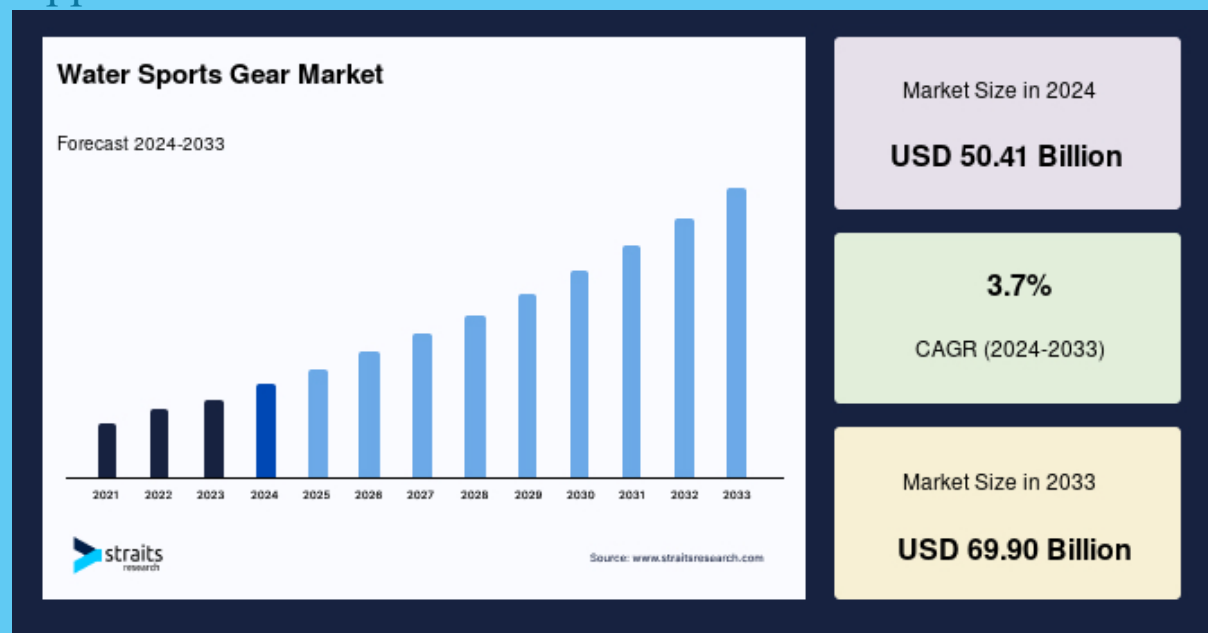
Investment Justification

- Clear sales pipeline and strong event based promotional strategy which will support rapid market entry
- Unique value proposition, being the only wearable device offering direct communication with the coastguard
- Growing demand in the global open water safety market with Ireland experiencing spikes in open water activity
- Scalability once brand trust is established with expansions in the EU, UK and U.S markets



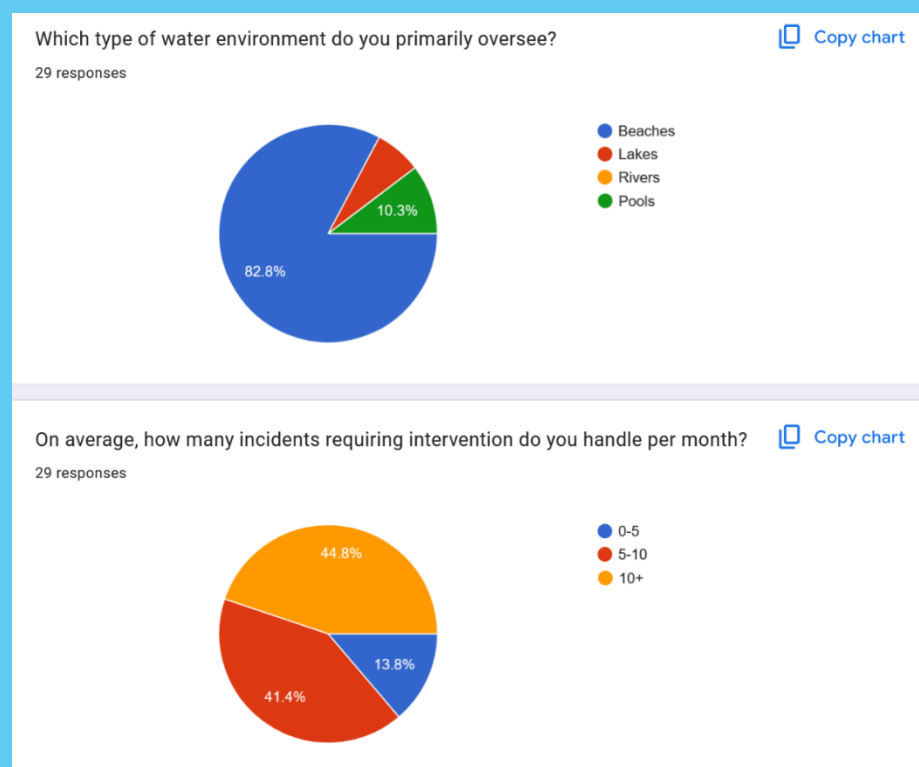
11. Appendices

Appendix 2:



(Research Straits,2025)

Appendix 3: Lifeguard Survey

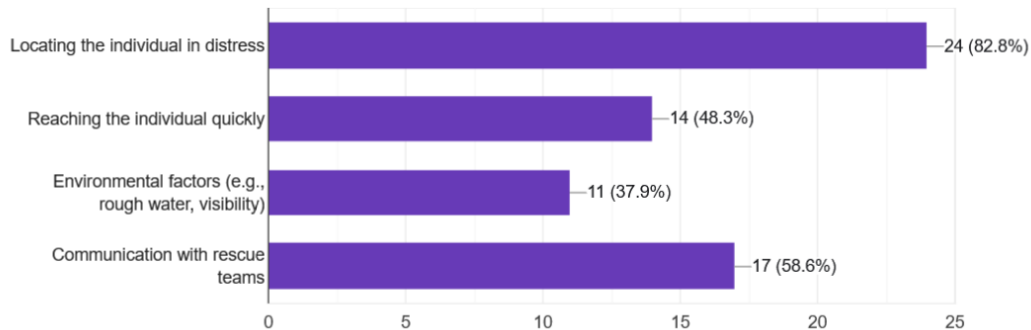


What are the most common challenges you face when responding to drowning incidents?

(Select all that apply)

29 responses

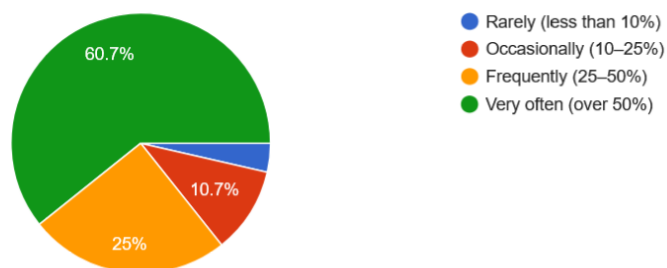
 Copy chart



In your experience, how often are delayed response times a contributing factor to fatalities?

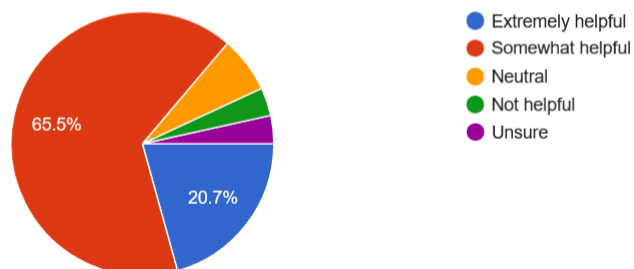
28 responses

 Copy chart



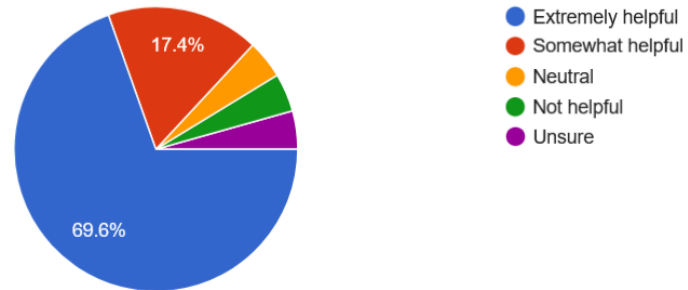
Would a wearable device that automatically alerts rescue services and provides GPS location data be helpful in your line of work?

29 responses



If you have engaged in incidents whereby coast guard co-ordination was required, do you believe this device may be of assistance in Coast Guard search & Rescue efforts?

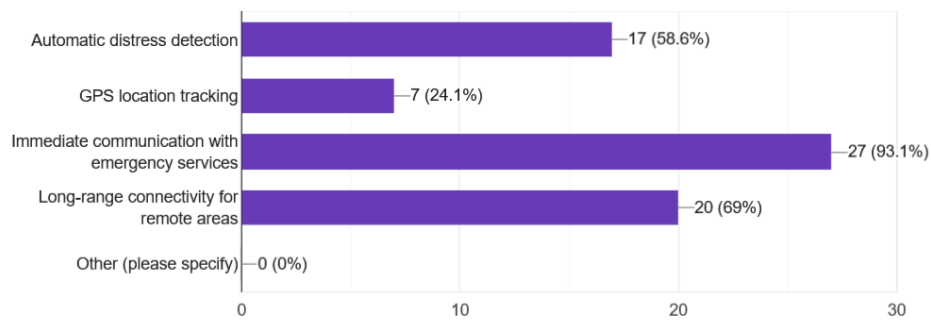
23 responses



Which features of such a device would you consider most valuable?

[Copy chart](#)

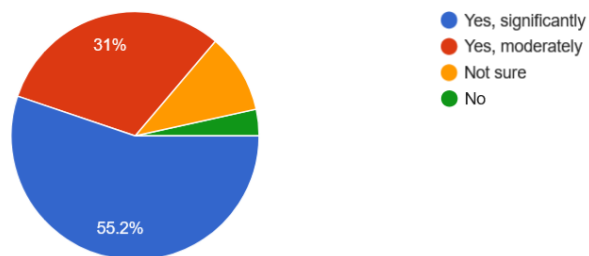
29 responses



Do you think such a device could improve response times during drowning incidents?

[Copy chart](#)

29 responses

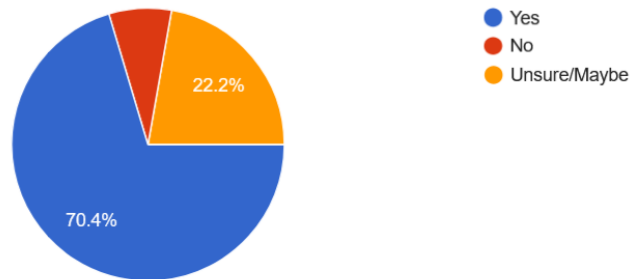


Observations

Have you ever encountered a situation where a wearable distress device could have prevented a dangerous situation in open water?

 [Copy chart](#)

27 responses

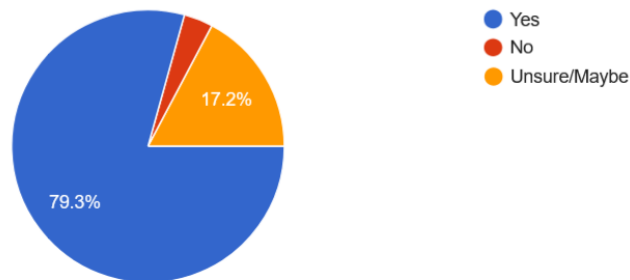


Final Thoughts

Would you recommend open-water swimmers or parents of young swimmers to use such a device?

 [Copy chart](#)

29 responses



(Google Forms, 2025)

Appendix 4: Customer Persona Maps



Niamh McNamara

Creche Worker

Age: 37 years	Children: 2 (aged 5, 8)
Sex: Female	Education: Bachelor's in childcare
Marital status: Married	Location: Sutton, Dublin

GOALS

- Keep her children safe
- Feel less anxious about her young children swimming

PAIN POINTS

- Worries about her children play in the water.
- Her children not monitored.

MOTIVATIONS

- Peace of mind
- Trusted Safety recommendations from schools and parent groups.

INSPIRATIONAL MESSAGE

"I want what's best for my children- with smart safety technology I feel I won't need to worry as much".

SHOPPING HABITS

- Online platforms (e.g: Amazon)
- Child centric shops such as Smyths.
- Reads reviews before purchasing.

TECH HABITS


Regularly uses Smartphone- actively uses Facebook and Instagram.

Part of parenting WhatsApp group.

WHERE SHE HEARS ABOUT PRODUCTS

- Parenting blogs,
- School Newsletters,
- WhatsApp group,
- Instagram advertisements.





James White

Graphic Designer

Age: 28 years	Children: None
Sex: Male	Education: Art's degree
Marital status: Single	Location: Galway, Ireland

GOALS

- Stay safe in open water.
- Use smart technology for sea swimming.

SHOPPING HABITS

- Online sports gear retailers
- Decathlon outlets.

PAIN POINTS

- Watches with no water focus..
- Floatation bands are too bulky ,slowing down swimming.

TECH HABITS

Has an Apple smartwatch for fitness. Regularly uses Instagram and tiktok. Posts swimming videos on YouTube.

MOTIVATIONS

- Independence and safety in solo water activities.
- Fitness and tech innovation.

WHERE HE HEARS ABOUT PRODUCTS

- Youtube reviews
- Reddit threads
- Instagram Influencers.

INSPIRATIONAL MESSAGE

"I want to be ready for my next swim and feel safe- With smart safety technology, I know I can swim the coast and back without fear of drowning".

(Canva, 2025)

Appendix 5 : Breakeven Point Calculation

Break-even analysis	
Average selling price per unit	\$149.99
Average cost of each unit	\$60
Gross profit margin	60%
Fixed costs	\$200,574
Dollar sales to break even	\$334,305
Number of unit sales to break even	2,229



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