

Swim with **PILAWO**

WATER CONFIDENCE-BUILDING SWIMWEAR



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The Brief

DESIGNING SOLUTIONS THAT MEET THE NEEDS OF WOMEN AND GIRLS

PLAVO 



SUSTAINABLE
DEVELOPMENT
GOALS

“Equality for women and girls is a human right. It is a matter of justice. It is the foundation of sustainable development and lasting peace. And it is essential for humanity. By ensuring access to **quality education for girls**, and opening the doors of opportunity to decent work for women, we kick-start economic growth and we forge stronger economies. And by **giving women and girls their rightful seat at the table**, we boost our chances of solving immense challenges – from climate to conflict... In these perilous times for women’s rights we must rally around the Beijing Declaration. Recommit to the Platform for Action. And stand firm in making the **promise of rights, equality and empowerment** a reality for every woman and girl around the world.”



-UN Secretary-General António Guterres, 10 March 2025



DESIGN EQUALITY WITH INNOVATION
International design competition

Overview

Category: Solutions that meet the needs of women and girls

Prevailing Field: Design

Title: PLAVO: Water confidence-building swimwear

The issue your project addresses: "Majority Worldwide Cannot Swim; Most of Them Are Women" - (Gallup, Blog 2021). About 55% of the world cannot swim according to the Lloyd's Register Foundation World Risk Poll, 2019, most being women.



Overview of the issue and your approach

PLAVO was developed as innovative swimwear start-up focused on creating wearables that combine design, psychology, and functionality to help people build confidence in the water for a University Project. Our belief is that swimming confidence is not only a matter of physical ability but also of emotional reassurance and self-belief.

Confidence in the water plays a critical role for individuals learning to swim and for those wanting to feel safe and independent. One study highlights that students in swimming classes show that "self-confidence has a significant role in relation with swimming routines" (S. Hartoto et al., 2018). Adults who lack swimming confidence often report feelings of "fear, embarrassment, and vulnerability" when entering the water (Wilson et al., 2023). This demonstrates that psychological reassurance is just as essential as physical skill. PLAVO aims to meet this need by creating a product that provides both support in a swimsuit that evolves with the swimmer's growing confidence.

The name PLAVO derives from our mutual Slavic heritage. It comes from the Slavic root meaning "to swim." In Russian, the word "плавать (plavat)" means to swim. Where in Polish, "pływać" carries the same meaning. As both founders come from Slavic backgrounds, we wanted the brand name to reflect the joint culture and our common vision in the product.

The Project description

The PLAVO Modular Flotation Swimsuit changes the way women gain self-assurance in the water. Its detachable buoyancy inserts enable swimmers to progressively decrease assistance as their comfort, confidence, and ability levels increase, resulting in a learning process that progresses at their own speed. PLAVO delivers a dynamic, customised progression that combines safety, comfort, and style, in contrast to traditional flotation devices that offer fixed buoyancy and may restrict independence.

The Stakeholders in your project

Within our project we consider outside mentors and advisors in the fields of physiotherapy, sport psychology, and swimming teaching. Our primary customers include women learning to swim for the first time, returning swimmers overcoming fear or trauma, aquatic therapy patients & rehabilitation programs, also wellness & fitness enthusiasts seeking safe water experiences. Other stakeholders for collaboration include water safety and swimming courses as well as sports shops and swimming influencers.

YouTube video link: <https://youtu.be/HywfJ7fQycQ>

What is PLAVO?

Swimwear design to promote and motivate weaker female swimmers to learn how to swim and feel safe in the water.



How to use it

- Adjust buoyancy to the swimmer's confidence and ability level, foam pieces can be added or removed.
- Enable swimmers to progressively decrease assistance as their comfort, confidence, and ability levels increase, resulting in a learning process that progresses at their own speed.
- The swimsuit provides subtle buoyancy without compromising comfort or look due to detachable, ergonomically moulded EVA foam inserts.



Why did we design it?



"Majority Worldwide Cannot Swim; Most of Them Are Women"

– (Gallup, Blog 2021)

Why is there a need for this product?

Globally, around 55% of people cannot swim confidently or unassisted, with women disproportionately represented due to cultural and social barriers (Gallup, 2021). In Ireland, 23% of adults cannot swim at all and another 32% feel uncomfortable swimming long distances (Irish Water Safety, 2017). Assuming 40% of Ireland's 4.1 million adults need to build water confidence, this equates to 1.64 million potential user groups, with women forming a significant share of this underserved group.



Research

Benchmarking

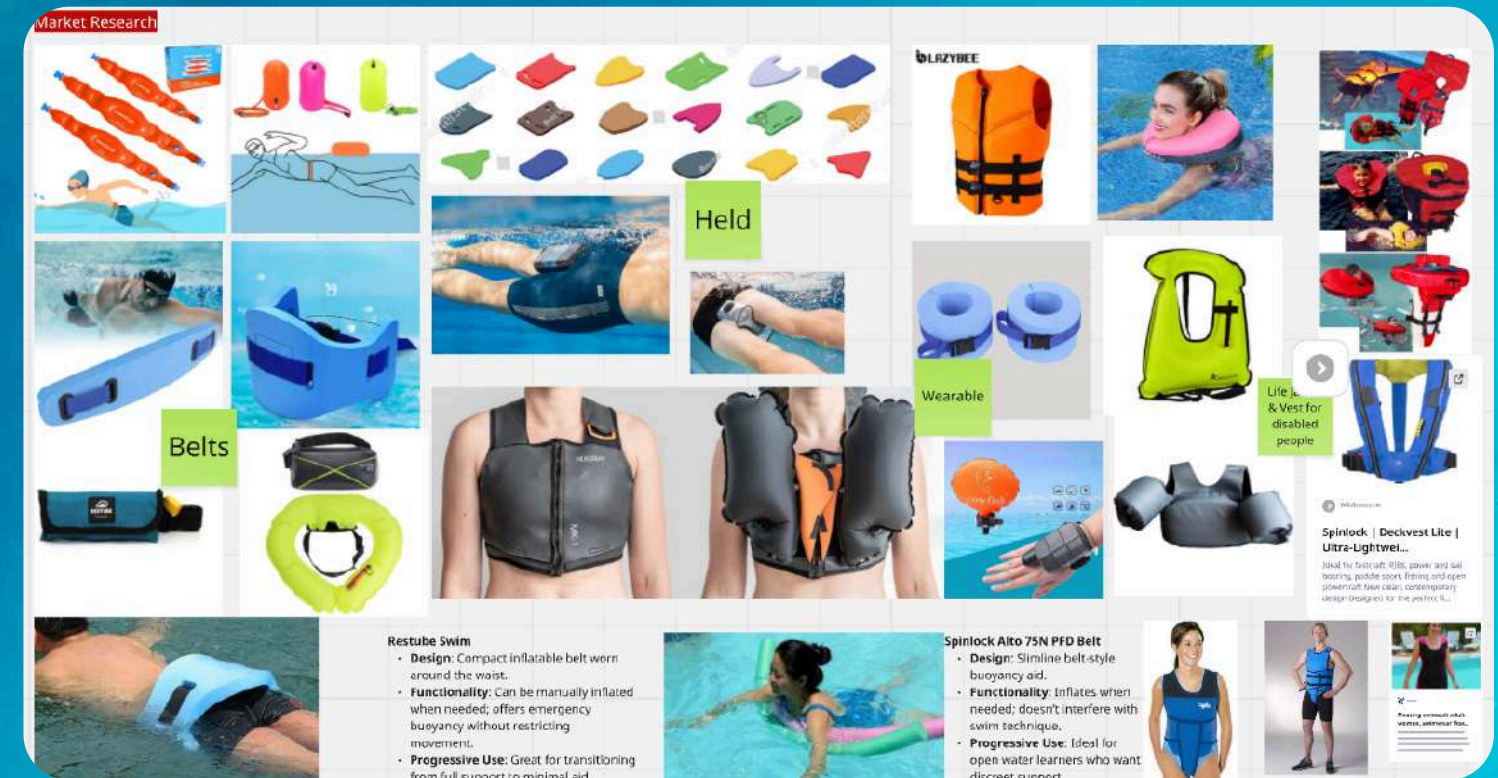
Secondary research was conducted by online internet searches for efficiency and to acquire a large scope of existing floatation aid products. Benchmarking of current solutions for swimwear was done by understanding the pros and cons associated with each product examples seen in figure 1 such as the Retube and Spinlock. "The global personal floatation devices market is expected to reach USD 11,068 million by 2035, up from USD 3,893 million in 2024. During the forecast period 2025 to 2035, the industry is projected to expand at a CAGR of 9.9%." - (Fact.MR, 2025). This confirms the growing demand for wearable floatation swimwear devices in the coming years.



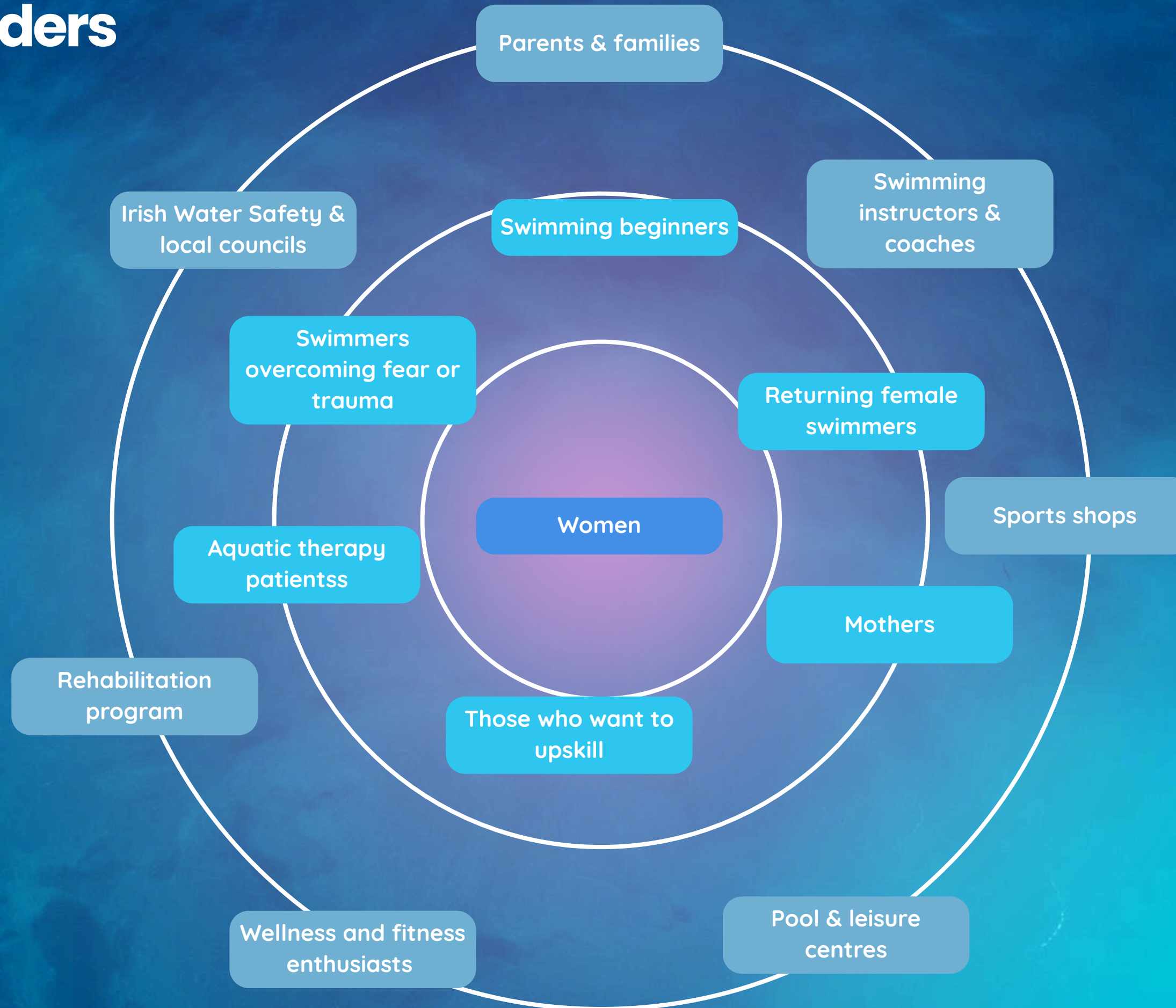
The needs and wants vary from person to person, yet the main requirements include:

- Floatation: support in the water – buoyancy must be in line with safety guidelines
- Gradual progression: control over the amount of support they are getting
- Comfortable and non-restrictive: should allow the swimmer to move freely without hindering movement
- Modular: removable or detachable foam pieces
- Confidence building: allows for users to feel more self-assured around water

User Needs & Wants



Stakeholders



Our approach

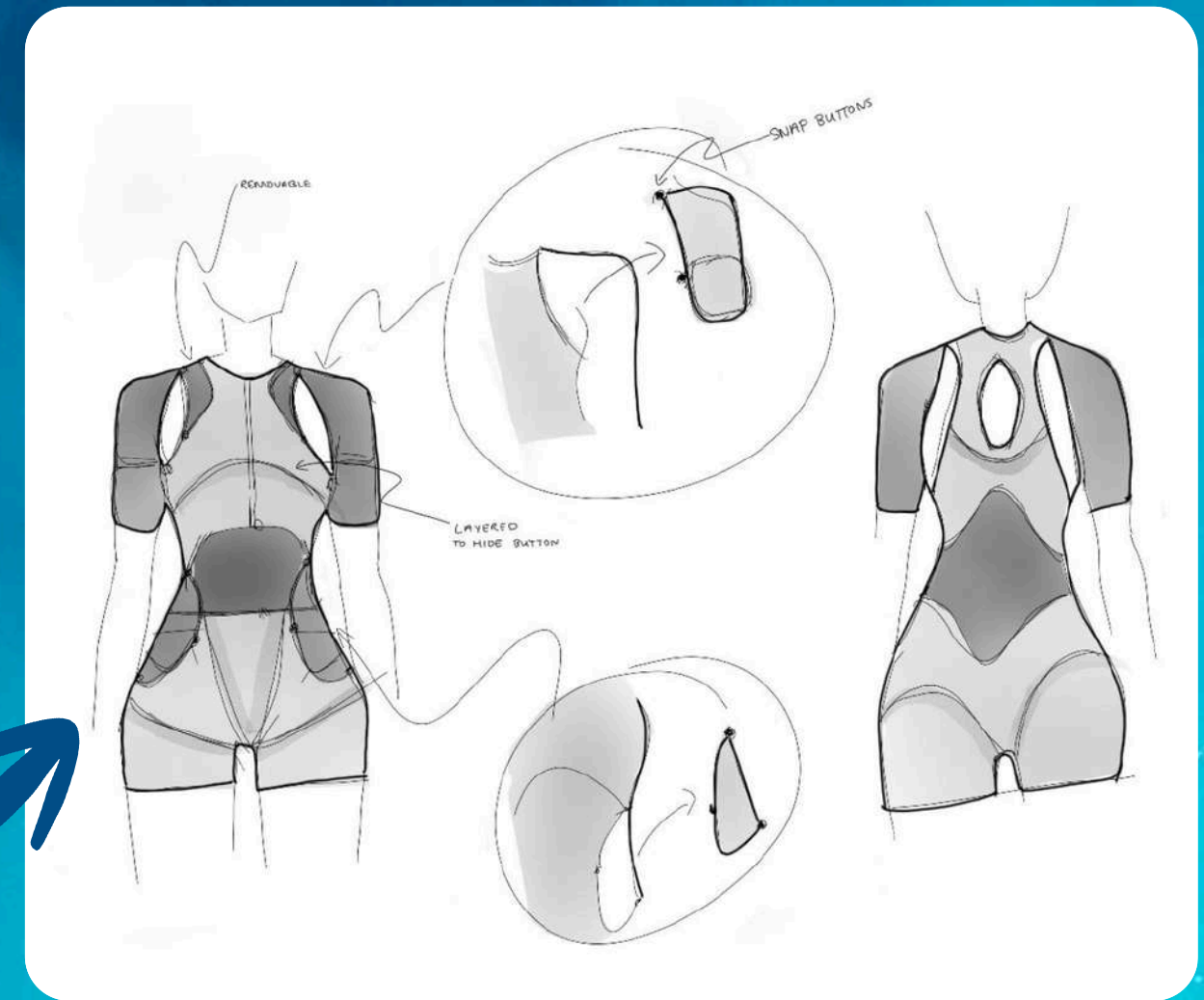
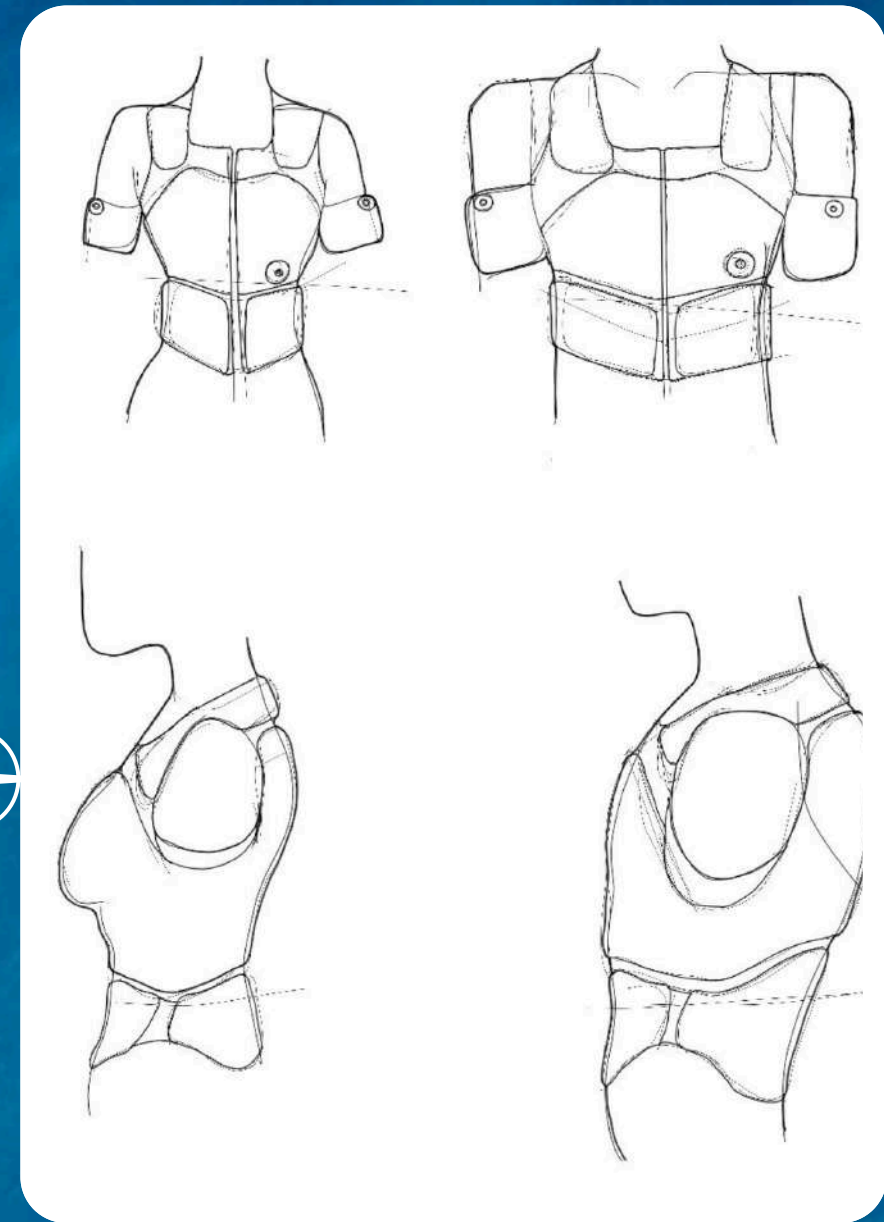
How did we design PLAVO?

Ideation

Initial ideas focused on creating a solution based around a physical buoyancy product that would be customisable to the users' needs and could change shape or function as the swimmer progresses in skill level. An adjustable swim aid emerged as one of the potential solutions.

Concept Development

Our concept development began analysing elements brought to light the possibility of developing a system in which assistance might progressively decline as user proficiency increased. Building on this idea, the concept studied how buoyancy inserts could be removed one at a time, allowing swimmers to lower flotation as they proceed.



Who would use PLAVO?



MOTHERS

Mothers that want extra support while swimming with their babies and children.



SWIMMERS OVERCOMING FEAR OR TRAUMA

Women who had a negative experience and want reconnect with water.



THOSE WHO WANT TO UPSKILL

Women looking to develop their skills and feel confident while swimming including those who never learned or struggle to swim and need extra support in the water.



[See more on user personas](#)

The Confident Swimmer & Mum

Melissa used to frequently visit the pool before giving birth because she has always loved swimming. She has signed up for parent-and-baby swim lessons now that her child is one year old. Throughout the session, she must guide, hold, and support her infant. Despite her confidence in her swimming skills, Melissa occasionally finds it difficult to maintain her balance and hold her child steadily. At the same time, she wants to go through the water comfortably. She would benefit from a floatation because she needs additional stability while concentrating entirely on her child, not because she is unable to swim.



Melissa

Age: 38

Location: Cork, Ireland

Family: One child, 1 year old

Swimming Ability: Confident swimmer, comfortable in both shallow and deep water

Goal: To safely participate in baby-and-parent swim lessons while keeping her child secure and supported.



Swimmers Overcoming Fear or Trauma

When Karina was a teenager, she had a terrifying event on a school swim trip that made her extremely wary of the ocean. She completely shunned swimming pools for years, retreating whenever friends or relatives encouraged her to go. Now in her 40s, she feels prepared to take back this aspect of her life for her own emotional health as well as for travel.

She recently enrolled in swimming lessons for adults. Despite her motivation, she still experiences fear when she enters the water, which manifests as rigid shoulders, shallow breathing, and trouble relaxing her legs. She frequently feels as if she needs something to keep her balanced, protected, and unburdened.



Daria

Age: 45

Location: Limerick, Ireland

Swimming Ability: Nervous beginner who has always been afraid of deep water

Goal: to regain confidence in herself, feel safe, and discover how to enjoy water anxiety-free.



Those Who want to Upskill

For years, Lara has attempted to learn how to swim. She studies articles, watches YouTube tutorials, and even tries solo practice sessions at the pool. However, she consistently encounters the same issue: she is unable to synchronise her breathing with her body's movements. Her body tenses up and sinks as a result of either holding her breath too long or exhaling too rapidly.

Even though she frequently feels like she's doing everything correctly kicking, waving her arms, and attempting to float. She is hesitant but not discouraged by this experience. She still wants to learn, all she needs is assistance so she can concentrate on breathing without worrying about sinking.



Lara

Age: 30

Location: Galway, Ireland

Swimming Ability: Persistent self-taught amateur who has trouble controlling how they breathe

Goal: To learn how to swim comfortably so that she won't sink or panic when she tries to breathe.



VoC Feedback



A VoC (Voice of Customer) based on our potential design was conducted in addition to a few survey questions asked. (See appendix for link.) Our target customers are adults that want to feel more support and confidence while swimming. Within the time frame we were able to achieve 13 replies to our VOC. 85% of those who answered were interested in a swimsuit with built-in, removable flotation supports that can be taken out once you feel confident swimming. Of the 13 replies; 7 feel uneasy, unconfident and very confident in the water. When presented with a picture of our potential design; the 7 replied that they would be interested in buying it and believe that it would enhance their comfort in the water.

From this we can understand that weaker swimmers are interested in alternative solutions for floating. We were also able to receive feedback from individuals who identify themselves as confident swimmers. They indicated that they would highly recommend or buy it for friends who feel anxious in the water. One participant noted “I have a friend my age (21) who can’t swim and I would definitely recommend something like this to her to give her the confidence to start learning”.

Themes

Fear of Deep Water or Low Confidence in Open Water

Many Adults Feel Uneasy or Unconfident in the Water

Difficulty Staying Afloat and Maintaining Body Position

Strong Preference for Comfort, Discreet Support, and Adult-Friendly Design

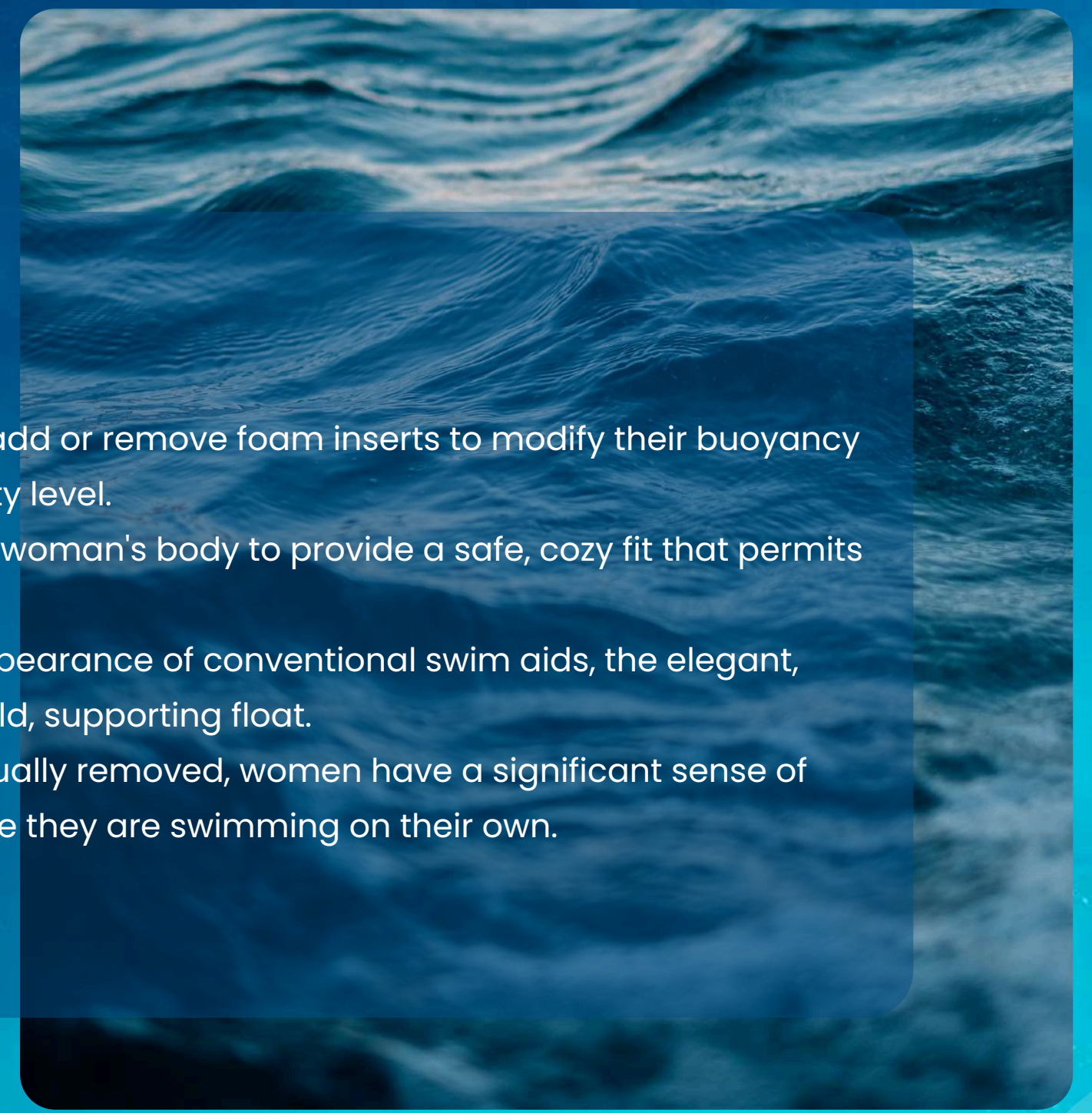


Our Goal

To promote women to learn and develop their swimming skills across the world.



- As they advance, women can add or remove foam inserts to modify their buoyancy to fit their confidence and ability level.
- The flexible design adapts to a woman's body to provide a safe, cozy fit that permits free, natural mobility.
- Without the bulk or childlike appearance of conventional swim aids, the elegant, adult-focused design offers mild, supporting float.
- When the foam parts are gradually removed, women have a significant sense of accomplishment as they realise they are swimming on their own.





Thank You!

WITH PLAVO FEEL SAFE, MOVE FREELY, FIND CONFIDENCE!



References

Gallup (2021) Majority Worldwide Cannot Swim; Most of Them Are Women, News Blog Available at: ews.gallup.com/opinion/gallup/352679/majority-worldwide-cannot-swim-women.aspx [Accessed: 17 November 2025]

Hartoto, S., Nugroho, A., & Prasetyo, H. (2018) Self-confidence and its relation to swimming routines in students. *Journal of Physical Education and Sport*, 18(4), pp. 2345–2350.

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