



# H<sub>2</sub>sOap

Cleaner Hands.  
Cleaner World.



Country: Isle of Man

Mentor: Paul Wiseman



# EXECUTIVE SUMMARY

## MISSION STATEMENT

To reduce the amount of pollution caused by single-use plastics.

## OUR BUSINESS IDEA

Our product, H2sOap, is an effervescent soap tablet that, when added to water, reacts to form a foaming hand soap. Over 1 billion single-use plastic bottles are thrown away per year. Using our product will reduce this number as neither the product nor the packaging is made with zero single-use plastic. Our product has been designed, produced and manufactured completely from scratch by us.

## OUR GOALS

We want to make a quality product that reduces the amount of CO2 and plastic pollution by eliminating unnecessary waste. Furthermore we hope to run a successful business and to build a company that has potential for expansion, producing a wider range of sustainable products, including variations of our soap and other bathroom products. Lastly, we want to make a greater proportion of international sales, and get our product into British Supermarkets.



## FINANCIAL SUMMARY

Income: €7057.22  
Cost of Production: €2451.89  
Gross Profit: €5711.66

## BUSINESS PERFORMANCE

We spent the first four months making and developing H2sOap before we developed our final product. As we made it from scratch, we had to deduce the quantities/ratios of said ingredients. We have sold out our stock twice, and have achieved our goal of reaching the international market since beginning this competition. This report describes our company, product, marketing and sales in greater detail. You can also find all of our social media links on our website.

<https://atlasiom.co.uk/>

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# —OUR COMPANY—

Our company name, “Atlas”, is derived from the statue of Atlas, the Ancient Greek titan. Our brand colours, logo and designs portray this, and by using the statue as inspiration we hope to effectively convey a unified brand identity.



**atlas**  
/'ætlæs/

*noun*

- i. Titan - condemned to hold up the heavens or sky for eternity after the Titanomachy.

Although our roots stem from a symbol of ancient history - consequently bringing hints of classicism - our brand vision is one of innovation, uniqueness and modernism, with a large focus on professionalism and scalability.

## —OUR TEAM—

We came together as a group of 6 best friends, and had always planned to compete in the COYC together. With an extensive set of skills and knowledge between us, we aspired to succeed from day 1, and went on to win our national competition.

					
Head of Finance	Head of IT and Operations	Secretary and Head of Photography	Head of Design	Sales and Managing Director	Marketing Managing Director

## OUR JOURNEY

As a team, we are very aware of our world's environmental crisis, and from the beginning were eager to come up with an idea that would combat this. With a particular focus on UN sustainable development goals 6, 8, 11, 12, and 13, we all share the vision of transforming our world. In our first 4 months, we built up our company's brand identity before taking our product to market, and came up with our 5 company principles:



In March, we won our national final and since then, our company has come on leaps and bounds. We were a featured case study in our government's climate report; won a local financial excellence award; and even won the JA Europe Gen-E award for good corporate governance last week!

# — OUR PRODUCT —

As a team, we are very aware of the current climate crisis and what that means for our future. Every year, over **1 billion** single use plastic soap bottles are thrown away. In an effort to reduce this number, we developed our product: **H2sOap**. H2sOap is an **effervescent soap tablet** that, when added to water, creates foaming hand soap. The tablets, in combination with a reusable dispenser, can be used to refill the bottle repeatedly. This reduces plastic waste by revolutionising the way people wash their hands.



## €11.60 - Bundle

Contains 1 recycled foaming bottle and 5 H2sOap effervescent tablets.



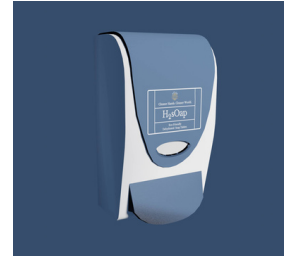
## €5.80 - Refill

Contains 5 H2sOap effervescent tablets for returning customers.



## €4.06 - Travel pack

Contains 1 50ml bottle and 2 mini H2sOap tablets for travel convenience.



## €0.00 - Dispenser

A mechanism placed in office dispensers to work with H2sOap at no extra cost for businesses.

## — HOW IS IT USED? —



1.

Fill the bottle up to the line with hot water.



2.

Drop one tablet into the water and screw on the pump



3.

Leave for approx. 15 minutes (for solution to develop) and enjoy!

## WHY CHOOSE OUR PRODUCT?

**Cheaper on average per bottle of soap:**

H2sOap costs €1.16 per refill, compared to the leading market competitors (€1.73 per bottle).

**Better for the environment:** It uses **no single-use plastic** or packaging and we incentivise reusing of packaging.

**Better value for money:** One refill will last on average **500 pumps**, compared to the 280 offered by the leading market competitor.

**More carbon efficient:** In the same size vehicle, we can transport equivalent to **8.5x** the number of hand washes than that of the leading market competitor.

## — SCENTS —



**ORANGE**  
Classic orange



**WOODLAND**  
Siberian Fir & Douglas Fir



**REFRESH**  
Lavender, Rosemary, Peppermint and Melalouca

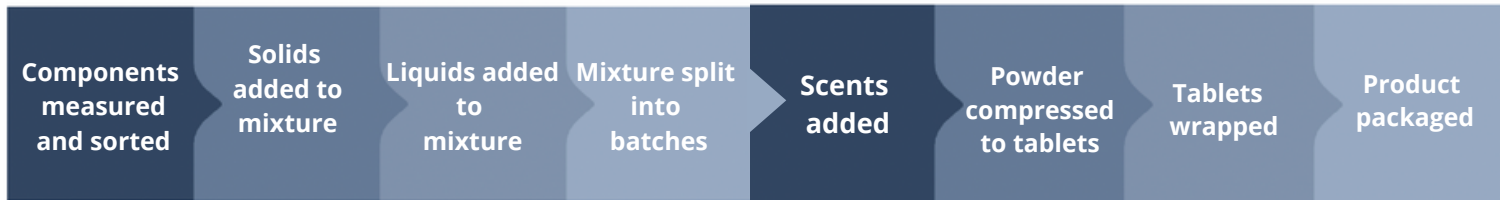


**CITRUS FUSION**  
Orange, Lemon and Lime



# OPERATIONS

Our product has been researched, developed and manufactured **entirely by us** in our school science lab. We formulated our initial prototype based on extensive online-research. We had 6 categories of ingredients: Surfactant (reduces surface tension), Anti-bacterial, Scent, humectants (moisturiser), Chemical preservatives (for shelf life) and solubility. After 30+ testing sessions, we finalised our recipe and process:



## Product Information File (PIF)

The PIF is a legal document required by EU & UK legislation which contains the key information about the product. We put together a PIF to gain cosmetic certification. This demonstrates good governance and adherence to regulations; and exemplifies that the ingredients and product are safe for wider use. To do this we broke down the requirements into sections and split them between members of the team, amalgamated the document and sent it to licensed UK chemists to be reviewed so that our claims can be verified.

## ANTIBACTERIAL CAPABILITY

To test the soap's antibacterial ability over time, we performed an Agar Jelly experiment. Swabs of bacteria on our hands were taken and placed on agar plates. We washed our hands using H<sub>2</sub>Oap and repeated the swabbing process. The plates were then incubated and the results were recorded. This experiment was also done with a month-old H<sub>2</sub>Oap solution. We concluded that the tablets are successful in killing bacteria and that this doesn't diminish with age.

### 1st prototype - Oct '21



### Development - Dec '21



### Final Product - Jan '22



## PRODUCTION PROBLEMS

### LIMITED PRODUCTION CAPACITY

As we only have **6 team members**, it is extremely difficult for our production line making it very time consuming, and due to financial constraints, we were unable to purchase all the equipment necessary to produce tablets at full capacity.

✓ To combat this we have designed and ordered new custom metal production apparatus from Strix, a local engineering company. This will drastically improve production capacity.

### PIF FILE

⊗ To be able to sell to a wider range of customers, we decided to get H<sub>2</sub>Oap **certified** under UK and EU legislation. However, the review process by certified chemists can take up to nine months

✓ To overcome this, we performed our own agar jelly tests to show antibacterial properties as evidence in the waiting period

### BOTTLES AND PUMPS

⊗ Following the decision to change bottles, we discovered that the new bottle caps **did not fit** the bottleneck as promised, which delayed the rollout of our renewed stock by three weeks

✓ As a team, we quickly found replacement bottles, and built a mechanism to make the pumps work.

# MARKETING

## MARKET RESEARCH

We have conducted extensive market research using online google forms and polls on social media, incentivised by vouchers. This was to determine our pricing strategies, competition analysis and target market. Prior to releasing our product, we also picked 6 neutral testers, who tried the product for 14 days, and then gave us feedback. We used this to make adjustments before taking H2sOap to market, the most notable change being larger volumes of scent per bottle.

## WEBSITE

We have coded and designed our own website to reach the online market. This has generated sales from over 20 countries.

Q [www.atlasiom.co.uk](http://www.atlasiom.co.uk) x



Countries our product has reached indicated in red above

## REWARDS SCHEME

To enforce our belief in reducing waste, we reward customers who choose our product through our scheme: "Reduce, Refill, Reward". Each time a customer returns, they receive an extra tablet for free. This reduces packaging waste and consequent costs, and will increase consumer loyalty. Details can be found on our website, and it is advertised on the instruction cards included with every purchase.

## SOCIAL MEDIA

Influenced by our market research, we created our 3 social media accounts: Tiktok, Instagram and Facebook to promote our product, conveying our unified brand message, and enabling us to reach a variety of age groups. Through projecting #ThinkGlobalThinkAtlas and #CleanerHandsCleanerWorld, we aim to reach a global audience using engaging content.



## COMPETITION

In 2020, the global hand soap market was valued at 2.4 billion Euros, with a projected growth rate of 6.7%. We conducted research on our competitors, and calculated our product's cross elasticity of demand. We determined that the leading hand soap competitor was Carex, who's products are both less eco-friendly and more expensive than H2sOap. When we first put our product to market, no other company had produced effervescent soap tablets. However, as of 14/6/22, we've identified 3 companies: Nivea, Soapsy and Bluewave have released new such products - none of which were on the market when we announced H2sOap. However, the price and sustainability aspects of H2sOap still outperform these new competitors. As of 14/6/22, there are currently no competitors for our travel range in the tourism market.

## PR

After attempting to connect with our older target audience (40+) through social media, we realised that this would not work. Therefore, we decided to do some PR through channels that older demographics typically engage with:



News  
Articles



Video  
Interviews



Radio  
Interview

Sales in ages 40+ increased by 74%

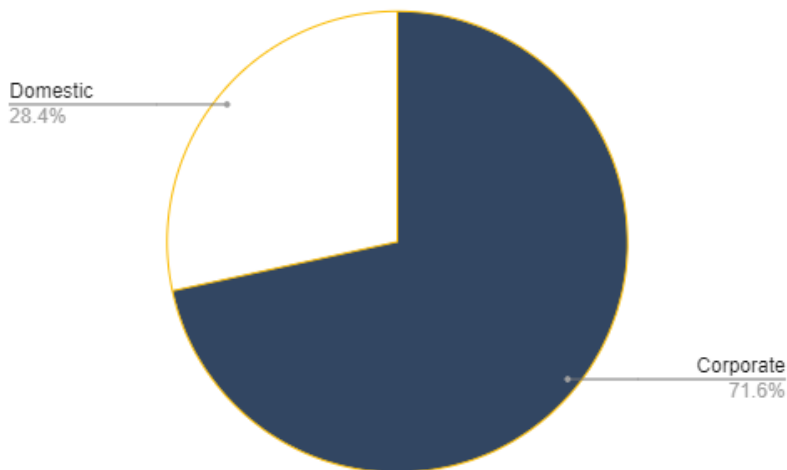
# SALES

When we developed our sales strategy, we wanted to: define our customer; tell people our story; establish a target market; sell our brand; and focus on growth. Initially, our approach was to focus on domestic households, but since then we have expanded our focus to the corporate market and tourism.

By setting growth and sales targets, we've gained both domestic and international sales-also helped by our product positioning. Through strategic promotion and marketing, our product is being used in 20 different countries. Our competitive analysis has resulted in competitive prices and a high quality, eco-friendly product, capable of taking on leading brands in the market.

## Corporate

Our corporate range is designed with large venues in mind. By reaching out to large organisations, we are able to sell higher volumes of our product. We are in the process of pitching to a number of companies with a view to getting businesses to install our dispensers or purchase corporate gifts. To date we have sold to one local company and four multinational corporations. This includes an order of €3828 with Zurich, with the possibility that this order may increase in the coming weeks. We are currently in discussions with two other international corporations. We have also supplied three local stores and to one high school with 1700 students. Additionally, we have supplied the IOM TT paddock, with the aim to supply more events in the future.



## Households

Our individual range makes everyday hand-wash more cost-effective and sustainable. The soap dispenser is designed to target environmentally-aware households. Our bundles are the most eco-friendly and cheapest on the market. As of 12/06/2022 we have sold 1,100 soap tablets on the domestic market.

## Travel

Our new travel range reduces the inconvenience of taking liquids through airports. Our 50ml recyclable travel bottle and 2 travel tablets allow our customers to pass freely through security. This allows us to tap into a completely new market, targeting tourists, airlines and airports alike.

## Gifts

We recognise that H2sOap makes a great gift for both the corporate and domestic market. We have seen this through recent sales in both categories. We intend to grow our gift sales by tapping into the upcoming Father's day market.

# MANAGEMENT

## ROLE ALLOCATION

Our team is comprised of 6 students, and role allocation is very deliberate. As we are such a small team, further roles are designated to individual members- e.g secretary is performed alongside another role such as photography and marketing. We have 2 managing directors who liaise between themselves and each lead one of two teams, and this 2-tiered hierarchical system works out very well for us. Mika and Josh are extremely complementary individuals, and have worked flawlessly as co-managers to this day.



As a team, we've faced many challenges; COVID being one of our biggest! All 6 of our members and business mentor have isolated at least once through the process, which disrupted matters hugely. To combat this issue, we moved many of our meetings and procedures to zoom. During our national final, our manager Josh had COVID, meaning we had to re-block our whole presentation at the last minute.

Our management set-up has been structurally sound, so we've had no conflicts to date! However, in case of such a conflict occurring, we have an established complaints procedure in place for our team members, should they be unhappy with any aspect of our governance.

## SELF-SUFFICIENCY AND INNOVATION

Living on a remote island off the coast of the UK, it is very difficult for our company to function as effectively as other companies do, due to supply and publicity issues. We do not function in a modern, urban environment like most, but rather in a very rural, local community. An example of this is that our pumps couldn't be obtained directly, but had to be delivered to a UK address before being forwarded to the island.

We have a big focus on internal development and self-sufficiency - with only 6 team members, our company is very self-reliant. Everything we do has been done solely by us; we shred our own paper to cushion our product, and even print braille ourselves for our packaging. We have also learned how to make moulds out of silicon, something none of us had done before! We are currently building a machine to produce our tablets more quickly and efficiently.

Throughout the process our business mentor and teacher have always been on-hand with helpful advice, but we've maintained strong sense of independence throughout the competition.



We have learned a lot through our journey:

- How to work as a team and support one another
- Perseverance when facing challenges
- The importance of listening to customer feedback, improving the product
- How to negotiate with suppliers and ensure a quality product
- The challenges involved in manufacturing a product and taking it to market



# FINANCE

## PRICING STRUCTURE

Prior to setting the price for our product, we conducted research to find out what price the market would sustain and to do a price comparison on standard hand liquid hand soap, which averages at €2.33.

The customer has an initial outlay of €11.46 for the soap dispenser and 5 soap tablets (€1.16 per tablet). It is worth noting that each tablet lasts as long as two liquid hand soaps.

The first set of soap tablets along with the bottle is the equivalent of €23.30 in liquid hand soap. Giving the customer saving of €11.46 on their initial purchase.

Once they have used the first set of tablets they can return to the company for a refill of tablets which initially contains 5 tablets but 1 will be added as part of our “Reduce, Refill, Reward” and this will be sold at €5.80. If a customer was to purchase the equivalent of soap from our average market competitors it would cost them €27.96. Meaning that the customer is saving a total of €22.16.

## LABOUR CHARGES

Currently, we do not pay labour as the team has donated their time to make the soap tablets. Once we expand we would expect to pay €12.76 per hour for someone to manufacture the soap tablets and help with the packaging. This would add 32c to the bundle and 32c refill packs reducing our profit margin by 2.87% for the starter pack and 5.74% for the bundle.

## INITIAL OUTLAY

When we first started the business these are the prices we paid for our products:

Item	Purchase Price	Retail Price	Gross Profit Margin
Starter pack/ bundle which includes a soap dispenser and five soap tablets	£6.21(€7.20)	£10.00(€11.60)	35%
A refill pack of five soap tablets	£1.50(€1.74)	£5.00 (€5.80)	70%

## PROGRESS & INCREASING OUR PROFIT MARGINS

One of the biggest challenges facing the company is the time it takes to manufacture the tablet. We do this by hand but we have worked with a local manufacturing who are helping us to build a device to speed up the process. This will allow us to increase our production efficiency by 4x.

With our current production process, we would be able to make 50 tablets per hour at a basic hourly rate of €12.76. This means the cost of manufacturing five tablets is €1.68 including labour and materials costs. Our new device will allow us to produce 200 tablets per hour which reduces the cost of five tablets to €0.73 also including both labour and material costs.

We have also sourced new reusable bottles and as we are purchasing in volume the price has reduced from €3.73 to 0.57c. By doing this, along with a major revamp of our packaging, we have increased our bundle's gross profit margin from 37.9% to 65.2%.

We have no plans to reduce the price to the customer as the increase in profit margin will give us the opportunity to offer bulk discounts for volume purchases or to resellers.

## CURRENT OUTLAY

We have found an alternative supplier and in return have reduced our outlay and increased our profit margin

Item	Purchase Price	Retail Price	Gross Profit Margin
Starter pack/ bundle which includes a soap dispenser and five soap tablets	£3.49 (€4.05)	£10.00(€11.60)	65.1%
A refill pack of five soap tablets	£1.08 (€1.26)	£5.00 (€5.80)	78.4%

# PROFIT AND LOSS

All figures are as of 14/06/2022  
All figures are in Euros (€)

INCOME	€
FUNDRAISING INCOME	949.50
SALES	6107.72
TOTAL INCOME	7057.22

PURCHASES	2451.89
PRODUCTION WAGES	0.00
TOTAL PRODUCTION COSTS	2451.89
CLOSING STOCK	1106.33
TOTAL COSTS OF SALES	1345.56

GROSS PROFIT	5711.66
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EXPENSES	
BONUS OR COMMISSION	0.00
STATIONARY	53.64
RENT & HIRE	0.00
MARKETING	58.00
MISCELLANEOUS EXPENSES	306.03
TOTAL EXPENSES	417.67

NET PROFIT	5293.99
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ASSETS	
STOCK	1106.33
DEBTORS	0.00
CASH IN HAND	4593.66
TOTAL ASSETS	5699.99

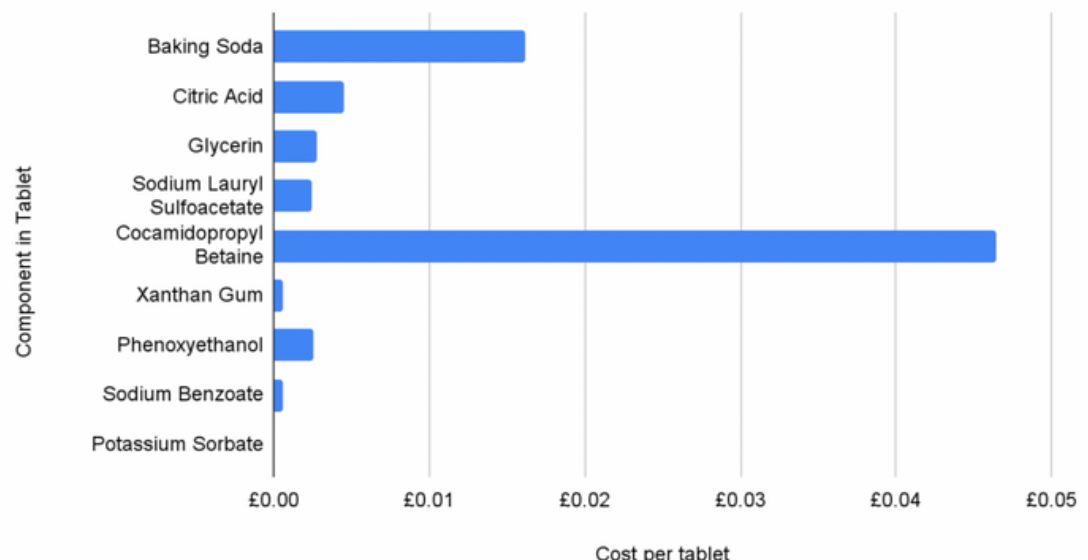
LIABILITIES	
LOANS	0.00
CREDITORS	0.00
TOTAL LIABILITIES	0.00
BALANCE	5699.99
INCOME FROM SHARES	406.00
PROFIT AND LOSS ACCOUNT	5293.99
SHAREHOLDER'S FUNDS	5699.99

## EXCHANGE RATE:

As of: 14/06/2022  
Pound Sterling (GBP) : Euro  
£1.00 : €1.16

*Ian Watson*

Cost per tablet vs Component in Tablet



Overall, the production cost of one H2sOap tablet is 7.6p. As shown by the graph and table, the majority of this production cost originates from the C.Betaine which is responsible for dissolving the tablet.

# FUTURE

We have a unique understanding of sustainability and how soap and water-based products contribute to climate change and the degradation of our oceans. It is this understanding that motivates us to expand and develop our company into the future. Atlas has high aspirations for our future. We function on a goal based achievement system, splitting our goal-oriented focus into two time frames; short term and long term.

## 2 YEAR GOALS

2024

1. Increased pharmaceutical sales and see H2sOap sold in British supermarkets
2. Expand our dehydrated product range to include dehydrated shower gels and shampoos, as well as increasing our H2sOap range.
3. Gain an IPO Patent on H2sOap and any other dehydrated product we produce
4. Scalability: Increase production capacity by 400%, by increasing our number of production machines and relocating to a more suitable location.

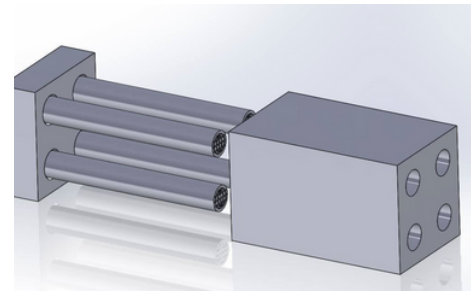
## 5 YEAR GOALS

2027

1. Increased global corporate, and international sales, with an emphasis on large Transnational Corporations to ensure the largest impact.
2. Increased supplying of events such as concerts, theatre productions, race venues (e.g. British Grand Prix), and sporting venues.
3. Register as a Limited company, establish a permanent headquarters, and expand our company
4. Develop a fully automated manufacturing system from production station 1 to production station 5.

## SCALABILITY

We have high aspirations for our company in terms of scalability. In the future, we would like to see our products in major retailers across the UK, most notably in pharmacies. We have been working with Strix, a local company, and have designed our own tablet-compressing machine (see right). This will increase our production capacity by 400%. By increasing our Price Elasticity of Supply, we strongly believe that we can compete with big brands, to increase our market share.



## ACKNOWLEDGEMENTS

We would like to thank Paul Wiseman, our Business Mentor and Mr Watson, teacher. We would also like to thank Junior Achievement for giving us this amazing opportunity.

Finally, we would like to thank our sponsors and partners for their continued support throughout the competition:

MuchBetter  
Tours Isle of Man  
MagpieDigital  
Strix





