



**PROGRAMME:** Master in Business and Administration

# AXEL

## BUSINESS PLAN DEVELOPMENT

Author: Alonso Carazo Barbero

Supervisor: José María Benito Peñalba

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## PREFACE & ACKNOWLEDGEMENTS

This Business Plan has been prepared in partial fulfillment of the requirement for the Master in Business & Administration at ICADE Comillas, in the academic year of 2022-2023. In order to prepare this report information from all the classes and lessons along the course have been contemplated and used as necessary. The rationale behind this project is to be able to understand the development process of a detailed business plan. It is important to be able to test the feasibility of the idea, looking at different angles and approaches on how to conduct its development. Along this work different sources have been used to make sure that the information provided to the reader is of great value, being always the main resources used the ones provided by professors along the studies.

## BUSINESS PLAN EXECUTIVE SUMMARY

This executive summary outlines the plan for the creation of a new company called AXEL. It is a furniture structure designed to improve the client's rest and sleep. It incorporates advanced technology, including a retractable cover, voice-operated controls for factors like light and temperature, and a screen for visual data and entertainment. The goal is to revolutionize the sleeping environment and address the increasing societal issues related to stress and fast-paced lifestyles that have an impact during the night.

Strengths of AXEL include its unique and innovative product, advanced sleep-tracking technology, potential for strong brand recognition, and the opportunity to establish a strong foothold in the market as a first mover. Weaknesses include the high price point, lack of proven track record, and dependence on technology and outsourcing for manufacturing.

Opportunities for AXEL lie in the growing demand for sleep improvement products, the potential to tap into the wellness and health market, and the opportunity to develop partnerships with sleep experts or health professionals. Threats include competition from other sleep improvement products or services, potential negative reviews or customer dissatisfaction, technological dependence, and changes in consumer preferences or trends.

The ideal target persona for AXEL is a well-educated, +40-year-old female with an average to high economic status. Marketing efforts will focus on families, midlife marriages, and women with sleeping issues. Additionally, AXEL can explore B2B deals with hotels, resorts, medical centers, and residences.

The company projects significant sales growth over the first three years, with sales of 300 units in the first year, 700 units in the second year, and 1,500 units in the third year. After-sales services such as repair and maintenance, warranty services, installation and setup, technical support, maintenance plans, and spare parts will be offered to enhance customer satisfaction.

AXEL is competitively priced at 4,999.99 €, and volume discounts and special discounts for loyal customers will be available. The company's investment plan targets a total initial investment of 3,000,000 €, with a minimum investment amount of 50,000 €. Investors can expect a return of 10% on their investment in the third year, followed by an annual return of 22.22% from the fifth to the eleventh year.

AXEL is socially oriented and aligns with all seventeen United Nations Development Goals (SDGs), particularly the goal of "Good Health & Well Being." Risks include the inability to achieve forecasted sales and the potential replication of the product by competitors. Future implementations envision AXEL as a technological innovation firm.

In conclusion, AXEL aims to disrupt the sleep improvement market with its innovative product, advanced technology, and focus on customer satisfaction. The company's comprehensive plan, target market segmentation, investment opportunities, and social orientation make it a promising venture with significant growth potential.



## 1. INTRODUCTION

This work represents the plan for the creation of a new company called AXEL. This, being both the name of the company and the only portfolio product, is a furniture structure where a mattress can be put in. This structure counts with a variety of technology that have the goal of improving the client's rest and sleep. AXEL, has a fabric retractable cover on top of it, that is capable of closing up creating an intimate space around the bed. Devices capable of controlling factors such as light, temperature, humidity levels, sound or sleep cycles are all operated through the user's voice, having also a virtual assistant integrated on the product. A screen is also present, providing a better view to visual data collected during the night, but also providing different entertainment such as movies and games. All this innovative technology is combined with the intention of changing the way people think about beds and the sleeping environment, an industry that has not evolve as much as others and is now causing problems in a society more than ever affected by pressure and a fast-pace surroundings.

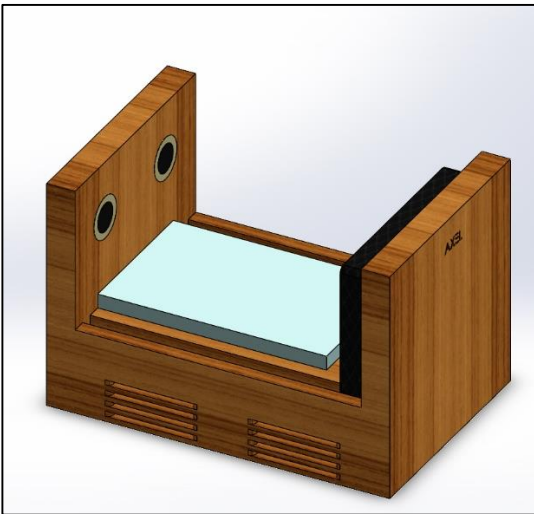


Figure 1: AXEL first view



Figure 2: AXEL second view

## 2. MARKET ANALYSIS

The main purpose of this section is to get a general view of where the product stands regarding both its own capabilities and comparison with competition. From this we can get to see how the product needs to be developed in order to perform adequately in the market.

## 2.1 SWOT ANALYSIS

A SWOT (strengths, weaknesses, opportunities, and threats) analysis can be helpful as a first step during the development of this idea because it provides a comprehensive overview of the project's potential situation. By identifying the product's key insights, it is possible to set the stage for developing a successful business plan or model. Having this in mind the following analysis is made.

**Strengths:** The internal factors that give a business an advantage over its competitors, such as unique resources, skills, or market positioning.

- Unique and innovative product that offers a new approach to sleep improvement.
- Advanced technology that can track and improve sleep quality such as sleep trackers or air quality regulators.
- Potential for strong brand recognition and customer loyalty due to a high differentiation among competitors.
- Establishing a strong foothold in the market having a first mover advantage. Similar products have been developed but not able to obtain solid brand recognition among average customers.
- Unification of multiple technologies in one product.

**Weaknesses:** The internal factors that put a business at a disadvantage compared to its competitors, such as lack of resources, poor management, or outdated technology.

- High price point may limit market appeal.
- Lack of proven track record or customer reviews.
- Dependence on technology may be perceived as a potential drawback.
- Need for outsourcing the manufacturing process. This can lead to increased costs, quality control issues, and potential delays in delivery apart from dependency on suppliers.

**Opportunities:** External factors that present potential advantages for a business, such as emerging markets, new technology, or changing consumer trends.

- Growing demand for sleep improvement products and services.
- Potential to tap into the wellness and health market.
- Opportunity to develop partnerships or collaborations with sleep experts or health professionals.
- Potential to expand into other sleep-related products or services.

**Threats:** External factors that pose potential challenges or risks for a business, such as new competitors, economic downturns, or changes in regulations.

- Competition from other sleep improvement products or services.
- Potential for negative reviews or customer dissatisfaction.
- Technological dependence may pose a threat to the company's competitiveness and profitability if the technology becomes obsolete or malfunctions.
- Changes in consumer preferences or trends in the sleep improvement market.

This product has to be presented to the customer as a never-before-seen technology, highlighting its benefits and distinguishing features from other products. It is also important for the customer to feel confident in their purchase, so the product should not be too disruptive. Although it will not be familiar due to its lack of history, it needs to be introduced to the market in a docile and approachable way. During the team, partners, and channels selection process, it is crucial to choose people and organizations that the company can trust, since due outsourcing there will not be complete control over operations. Additionally, reaching agreements with certain companies to make the product versatile and compatible with other devices will be a key factor in its development. Finally, in order to not deter potential customers, the price point should be kept as low as possible within the necessary margins and costs.

## 2.2 COMPETITORS & POTENTIAL PARTNERS ANALYSIS

Based on characteristics and applications, some potential competitors for AXEL could include the ones exposed below. It is important to underline that these products can also be potential partners for the product since manufacturing ideally will not be done entirely in-house but rather done by making an assembly of the most appropriate pieces and equipment in the market. Some specific examples of companies that could potentially be competitors in the Spanish market are listed below. They are chosen with the intention of picturing a variety of ways on how to solve some customer needs targeted also by AXEL. Consequently, products with same repeated functionalities are not added, making it easier to comprehend how to distinguish from competitors and learn from their achievements.

**Other sleep-related technology companies:** There are a number of companies that offer sleep-related technology products, such as smart beds, sleep trackers, and sleep-enhancing devices.

- [Beddit](#)
  - **Description:** Beddit (Beddit, 2019) is a technology company that specializes in sleep tracking. They produce a device that is placed on the mattress to monitor a user's sleep patterns, heart

rate, and breathing. The device connects to an app that provides personalized insights and recommendations to improve sleep quality. Beddit was founded in Finland in 2006 and was acquired by Apple Inc. in 2017. Since the acquisition, Beddit's products and services have been integrated into Apple's ecosystem, including the Health app on iOS devices.

- **Strengths:** Accurate sleep tracking, non-intrusive design, integration with popular health apps.
- **Weaknesses:** High price, limited availability.

- **Eight Sleep**

- **Description:** EightSleep (Eight Sleep, 2023) is a New York-based technology company that produces smart mattresses and sleep-related products. Their signature product is the "Eight Smart Mattress," which features sensors that track a user's heart rate, respiratory rate, and sleep cycles, and adjusts the mattress temperature and firmness to optimize sleep quality. The data collected by the sensors is sent to the EightSleep app, which provides personalized sleep insights and recommendations. The company also offers other sleep-related products such as a sleep tracking sensor, a smart pillow, and a sleep coaching program. EightSleep was founded in 2014 and has received funding from prominent investors.
- **Strengths:** Smart features, wide range of products, advance sleep tracking.
- **Weaknesses:** High competition due to being so common.

- **Hello Sense**

- **Description:** Hello Sense (Hello Sense, 2023) is a San Francisco-based company that produces sleep-tracking devices to improve sleep quality. Their "Sense Sleep System" tracks factors such as temperature, light, noise, and air quality, while a Sleep Pill sensor tracks user movements during sleep. The data is sent to the Hello Sense app, which provides personalized sleep insights and recommendations. The app also features relaxing sounds and guided meditations. The company was founded in 2013 and has being financed through important individuals.
- **Strengths:** Non-intrusive design, integration with popular apps.
- **Weaknesses:** Limited functions.

- **Halo Rise**

- **Description:** The Amazon Halo Rise (Xataka Smart Home, 2022) is a new sleep tracking device announced by Amazon in September 2022. The device is designed to help users improve their sleep quality by monitoring various metrics, such as heart rate, respiratory rate, and body temperature, among others. It comes with advanced sensors and a display that shows

personalized insights and recommendations based on the data collected. The Amazon Halo Rise can also be used as a smart alarm clock, gently waking up the user at the optimal time based on their sleep cycle. The device can be controlled using a mobile app, which provides a detailed analysis of the user's sleep metrics and offers personalized tips and recommendations to improve sleep quality. The Amazon Halo Rise is part of the Amazon Halo product line, which also includes a fitness and wellness tracking band.

- **Strengths:** Advance technology, innovative product, small size.
- **Weaknesses:** Lack of compatibility with existing bedding, limited customization options.

- **Oxy Health**

- **Description:** Oxy Health (Oxy Health , 2023) is a California-based medical technology company that specializes in hyperbaric chambers used for hyperbaric oxygen therapy. Their signature product is the "OxyHealth Vitaeris 320," which is used by athletes, celebrities, and medical professionals to improve athletic performance, accelerate recovery from injuries, and treat medical conditions. OxyHealth was founded in 1998 and has received FDA clearance for its hyperbaric chambers.
- **Strengths:** Proven health benefits, brand establishment, product alternatives.
- **Weaknesses:** High price, anti-cost-efficient, single-function focus.

- **HiCan**

- **Description:** Hi-Interiors (Hi-Interiors , 2023) is a company that creates smart furniture for the home, with their flagship product being the HiCan - a "smart bed" that includes a range of high-tech features such as a projector, speakers, and integrated lighting. It is designed to be a self-contained sleep environment that can be controlled using a mobile app or voice commands, with sensors and tracking capabilities to monitor the user's sleep patterns and provide personalized recommendations. HI-Interiors focuses on integrating technology into traditional furniture to provide a high-tech sleeping experience.
- **Strengths:** Full-pack technology, customization.
- **Weaknesses:** Extremely high price, big size, intrusive design.

- **Beddr**

- **Description:** Beddr (Jung, 2020) is a health technology company that produces a wearable sleep tracking device designed to help users monitor and improve their sleep quality. The Beddr SleepTuner is a small sensor that attaches to the user's forehead using a medical-grade adhesive,

and uses advanced sensors to track various metrics such as heart rate, oxygen levels, and snoring, among others. The device then provides personalized insights and recommendations based on the data collected, allowing users to optimize their sleep routines for better performance and overall health. The Beddr app provides a detailed analysis of the user's metrics, including sleep stages, heart rate, and snoring data. Beddr was founded in 2016 and is headquartered in Redwood City, California.

- **Strengths:** Innovative technology, simplicity, size, FDA registered.
- **Weaknesses:** Low brand awareness

**Mattress and bedding companies:** Many mattress and bedding companies offer products that are designed to improve sleep quality, such as mattresses with specialized materials or features that promote proper alignment or support.

- [Leesa](#)
  - **Description:** Leesa (Leesa, 2023) is a company hailing from the United States, specializes in sleep-related products that encompass mattresses, pillows, and bedding. Their flagship offering boasts a foam construction that seamlessly combines comfort and support. Going beyond just mattresses, Leesa caters to diverse preferences with an array of mattress types, including luxurious and hybrid models, alongside an assortment of sleep accessories. Since its establishment in 2014, Leesa primarily operates through its online store, while also establishing showrooms in handpicked cities across the United States. Notably, Leesa stands out for its dedication to social impact, as it allocates a portion of its profits to organizations devoted to eradicating homelessness. Recognized and acclaimed, Leesa has garnered media attention and has been prominently featured in prestigious publications such as Forbes and Wired.
  - **Strengths:** 10-year warranty, pressure point relief, 100-day trial.
  - **Weaknesses:** High price, short lifespan.
- [Nectar](#)
  - **Description:** Nectar (Nectar, 2023) is a US e-commerce company specializing in sleep-related products like mattresses, pillows, and bedding. Their main product is the "Nectar Mattress," featuring a multi-layer foam construction that provides comfort and support. Nectar offers various mattress types, including hybrid and adjustable models, along with other sleep accessories. Founded in 2017, the company operates primarily through their online store and has been featured in publications such as Forbes and The New York Times. Additionally,

Nectar is known for their customer-friendly policies, including a 365-night home trial and lifetime warranty.

- **Strengths:** Comfortable specially for light customers, good spinal support, life warranty, 365-night home trial.
- **Weaknesses:** Higher price than equivalent products, high body heat concentration and low transpiration issues.

- **Simba Sleep**

- **Description:** Simba Sleep (Simba Sleep , 2023) is a UK-based company that specializes in sleep-related products such as mattresses, pillows, and bedding. Their signature product is the "Simba Hybrid Mattress," which is designed with multiple layers of foam and springs to offer both comfort and support. Simba Sleep also offers other mattress types, including foam and hybrid models, as well as bedding and sleep accessories. Founded in 2015, the company has gained media attention and has been featured in publications such as The Independent and Good Housekeeping. Simba Sleep is known for their customer-friendly policies, including a 200-night home trial and a 10-year warranty. Their mission is to help customers achieve better sleep by providing innovative products and designs.
- **Strengths:** Innovative micro pocket springs, popular for back pain, trial and warranty periods.
- **Weaknesses:** Low breathability, uneven discomforting texture.

**Home automation companies:** Some home automation companies offer products that allow customers to control various aspects of their home environment, including lighting, temperature, and sound.

- **Google Nest**

- **Description:** Google Nest (Google, 2023) is a brand of smart home products that are designed to help users save energy and make their homes more comfortable and secure. The brand includes a range of devices, such as thermostats, cameras, doorbells, and smoke detectors, that can be controlled using a mobile app or voice commands. Google Nest products use advanced sensors and algorithms to learn the user's behavior and adjust the settings accordingly, providing a more personalized experience. They also integrate with other smart home devices, such as lights and speakers, to create a seamless and connected home environment. Google Nest was originally created by Nest Labs, a startup founded in 2010 that was later acquired by Google in 2014.
- **Strengths:** Ease of use, attractive design, Google Assistant integration.
- **Weaknesses:** High price, dependence on Internet, privacy concerns.

- **Philips Hue**
  - **Description:** Philips Hue (Philips, 2023) is a brand of smart lighting products that allows users to control their home lighting using a mobile app or voice commands. The brand includes a range of devices, such as light bulbs, light strips, and lamps, that can be controlled individually or grouped together to create customized lighting scenes. Philips Hue products use LED technology to provide energy-efficient and long-lasting lighting solutions. The brand also integrates with other smart home devices, such as Amazon Alexa, Apple HomeKit, and Google Assistant, to provide a seamless and connected home experience. Philips Hue is owned by Signify, a company that was formerly known as Philips Lighting and is one of the world's leading lighting companies.
  - **Strengths:** Brand popularity.
  - **Weaknesses:** Competition, unique function, high price, not enough differentiation.
  
- **Alexa**
  - **Description:** Alexa (Amazon, 2023) is a virtual assistant developed by Amazon that is capable of voice interaction, music playback, making to-do lists, setting alarms, and providing real-time information, among other things. Alexa is the name of the voice-activated assistant software, complemented with the hardware devices that are used to access it, such as the Amazon Echo and Echo Dot. These devices use far-field microphones and advanced natural language processing algorithms to detect and interpret user commands from across the room. Alexa can also integrate with other smart home devices, such as Philips Hue lights and Nest thermostats, to provide a centralized and streamlined smart home experience. Alexa was first introduced in 2014 and has since become a popular and ubiquitous virtual assistant used by millions of people around the world.
  - **Strengths:** Popularity, low price, non-intrusive design, compatibility.
  - **Weaknesses:** Privacy issues, lack of integration on some competition devices.
  
- **Samsung SmartThings**
  - **Description:** Samsung SmartThings (Samsung, 2023) is a brand of smart home products that enable users to connect and control various smart devices within their home. The SmartThings ecosystem includes a range of devices, such as sensors, outlets, and cameras, that can be controlled using a mobile app or voice commands. Samsung SmartThings also integrates with other popular smart home platforms, such as Amazon Alexa and Google Assistant, allowing users to control their devices using their voice. The SmartThings app provides a centralized



control hub for all connected devices, enabling users to create customized scenes and automations based on their preferences. Samsung SmartThings is owned by Samsung Electronics, a multinational electronics company based in South Korea.

- **Strengths:** Brand popularity, wide range of products under the same line.
- **Weaknesses:** Basic design, high price, not much market success and popularity among costumers.

**Health and wellness companies:** There are also many health and wellness companies that offer products or services related to sleep improvement, such as sleep aids or sleep coaching.

- **Fitbit**

- **Description:** Fitbit (Fitbit, 2023) is a brand of wearable fitness and health tracking devices that enable users to monitor various aspects of their health and fitness, including steps taken, calories burned, and heart rate. The devices come in the form of fitness trackers, smartwatches, and accessories, and are designed to be worn throughout the day to provide continuous tracking of the user's activity levels. Fitbit devices also include a range of other features, such as GPS tracking, music playback, and contactless payment options. The Fitbit app provides a detailed analysis of the user's metrics, including sleep stages, heart rate variability, and daily activity levels, among others. Fitbit was founded in 2007 and is headquartered in San Francisco, California.
- **Strengths:** Accurate tracking, integration with Apple Health and Google Fit.
- **Weaknesses:** Limited focus in sleep.








- **Oura**















- **Description:** Oura (Oura, 2023) is a wearable health technology company that produces the Oura Ring, a smart ring designed to track and analyze various aspects of the wearer's health and wellness. The ring uses advanced sensors to collect data on metrics such as heart rate, respiratory rate, and body temperature, among others. This data is then analyzed using machine learning algorithms to provide insights and recommendations on how to optimize sleep, activity, and recovery. The Oura app provides a detailed analysis of the user's metrics, including sleep stages, heart rate variability, and daily activity levels. Oura was founded in 2013 and is based in Oulu, Finland.
- **Strengths:** Product quality, design, size, weight.
- **Weaknesses:** Limited functions, low user interaction.




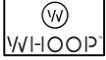
- **Whoop**
  - **Description:** Whoop (Whoop, 2023) is a wearable fitness and health tracking device designed to help users optimize their workouts, sleep, and recovery. The Whoop strap is worn on the wrist and uses advanced sensors to track various metrics, such as heart rate variability, sleep quality, and respiratory rate, among others. The device then provides personalized insights and recommendations based on the data collected, allowing users to optimize their training and recovery routines for better performance and overall health. The Whoop app provides a detailed analysis of the user's metrics, including sleep stages, heart rate variability, and recovery scores. Whoop was founded in 2012 and is headquartered in Boston, Massachusetts.
  - **Strengths:** High popularity, light weight, resistance.
  - **Weaknesses:** High competition, low differentiation.

Overall, it is important to understand and have in mind the specific features and benefits of AXEL compared to those of potential competitors. This can be helpful when developing strategies to differentiate the product and target specific market segments. As it can be seen from the examples above, some of the most notable weaknesses consist on size, privacy issues, prize, internet dependence (although it has been omitted due to its common appearance), single functions among some others. When looking at strengths compatibility, ease of use, safety, innovative technology or warranty can be important factors. When developing the product design and features or talking to the potential customers through marketing campaigns these are things that should be taken into consideration. Some clear advantages to keep in mind that AXEL can have over the analyzed products are versatility, efficiency, convenience or cost-effectiveness. The following table shows some common capabilities of the devices and technologies exposed.

Table 1: Competition comparison

Product	Sleep-Improving Technology	Virtual Assistant	Audio Atmosphere	Sleep Tracking
				
				

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### 2.3 MARKET SELECTION

A Key Question Analysis (KQA) is used to conduct market selection and identify the correct persona for the product, essential for directing marketing campaigns. The key questions personally chosen for this analysis will be: **“Which individuals are more likely to experience sleep issues?”**, **“Which individuals are more likely to buy bedding products?”**, **“Which individuals tend to be early adopters of new technologies?”** and, **“Which demographics are more likely to seek out and purchase high-end, premium products and services?”** By answering these questions through research and analysis, a better understanding of the target market can be gained and the most effective strategy for reaching and engaging with potential customers can be determined. This information is crucial for the success of marketing campaigns, as it helps to tailor messaging and outreach efforts to the needs and preferences of the target audience.

- **Which individuals are more likely to experience sleep issues?**

After some research (Zeng, et al., 2020) (Madrid-Valero, Martínez-Selva, Ribeiro do Couto, Sánchez-Romera, & Ordoñana, 2017) it is clear that age, gender and lifestyle play the biggest role when identifying the most likely individual to have sleeping issues. “Multiple logistic regression analysis showed that female gender, older age, higher level of education, being unmarried, living in the rural area, cigarette smoking and alcohol drinking were associated with insomnia” (Tang, et al., 2017).

- **Which individuals are more likely to buy bedding products?**

Although some articles (Girlpower Marketing, 2022) looking into gender comparisons suggest that females tend to consume more products than men, when it comes to bedding products, and products of a significant required investment that will be shared by more than one family member, the decision is usually made jointly. Since this is a product that cannot be described as an essential necessity but as a premium product, families or individuals with a better economic stability will be more likely to purchase it. Having this in mind it is easy to understand as well that older individuals will be more likely to have this stability. This product has no restraining ages, meaning that can be used and enjoyed by all family members, nevertheless when it comes to the purchase process is always the adult taking the final decision so marketing campaigns should be aimed to them not to younger audiences.

- **Which individuals tend to be early adopters of new technologies?**

Studies (YouGov, 2020) show that male individuals within the 18-34 age range are most likely to be early adopters of new technology. Not necessarily the ones most affected by sleeping issues. In addition, a study of the U.S. market which is summarized on the image below, suggests that apart from the young ages weight, being higher-income individual also plays a big role when answering this question.

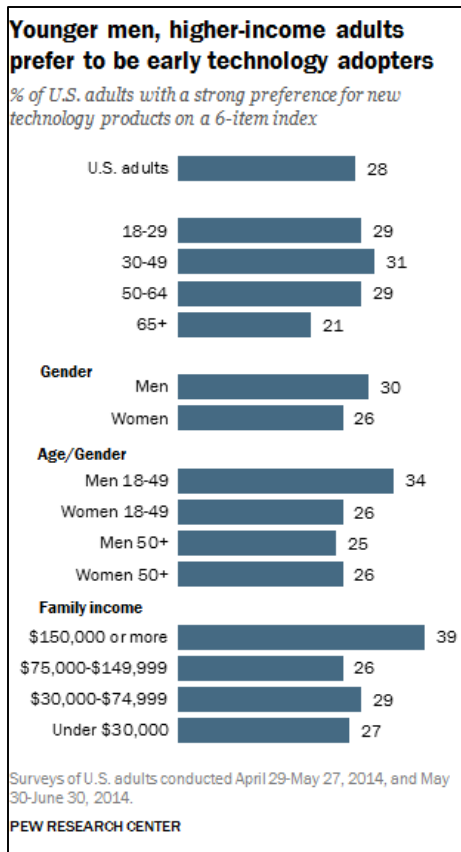


Figure 3: Technology adopter (Kennedy & Funk, 2016)

- **Which demographics are more likely to seek out and purchase high-end, premium products and services?**

Some studies (Wang & Tong, 2017) have found that younger, more educated, and higher-income consumers are more likely to purchase luxury items. Gender can also play a big role, as some research (Parisi, 2017) has suggested that men and women may have different preferences and spending patterns when it comes to luxury goods. Nevertheless, it is important to note that these are just general trends and that individual consumers may have their own unique reasons for choosing to purchase luxury products.

Once these questions have been answered it is important to examine the entire picture and the chosen relevance of each of the questions. For this, a summary table is created below.

Table 2: Market selection

	<b>Gender</b>	<b>Age</b>	<b>Education</b>	<b>Economic Status</b>	<b>Relevance</b>
Sleeping Issues	Women	+40	High level	Average	#1
Bedding Product Purchase	Both	<30	Standard	Average	#4
New Technology Adopters	Men	18-34	Not Defined	High	#2
Premium Products	Both	>30	High Level	High	#3

Based on this summary it is possible to conclude that the ideal target persona for AXEL will be well-educated +40-year-old female having an average, or closer to high, economic status. Although based on the questions and valuation done from them this is the resultant main target, it is important to consider and keep in mind the rest of information discovered along the entire research process.

### 3. PRODUCT DESIGN

The purpose of this section is to visualize the final product's appearance. However, it is also important to understand the strengths and weaknesses of various options, which is the reason why first, a feature analysis will be conducted. By analyzing components, aesthetics, materials and design we will get to understand how to maximize its success potential. The creation of an initial Computer-Aided Design (CAD) can also be helpful when presenting the project to stakeholders such as investors.

#### 3.1 FEATURES ANALYSIS

Through this analysis the primary objective is to evaluate and assess its various features and functionalities. These functionalities need next to be strategically considered when communicating the product to the client, highlighting those that will have a bigger impact when making a purchase decision.

- **Components Analysis**

This product aims to monitor and control various environmental factors that can impact night sleep, including: light presence, noise levels, sleep quality and duration, CO2 levels, humidity, air flow,

and temperature changes. With the above targets in mind, the product will incorporate the following components to create a comprehensive solution that addresses and improves the issues previously mentioned.

- **LED Light Set:** They take care of changing the brightness and color of the space.
- **Speaker Set:** Through sound-making, they contribute to creating the space atmosphere chosen by the user.
- **Microphone Set:** Allows for Voice Control Software activation
- **Sleep Track Device:** Used to monitor and track sleep patterns, it collects data on factors like sleep duration, quality, and disruptions to provide insights and help improve sleep habits.
- **Control Screen:** Through the control screen the sleeper can access more detailed information about their sleep cycles and night configuration. It can also be use as alternative to voice control and movies or shows view through it.
- **Voice Control Software (Previous automation of devices needed):** Enables users to control all gadgets through spoken commands. It eliminates the need for manual operation by providing automation and hands-free control.
- **Fabric Ceiling/Cover & Complementary Retractable System:** Both contribute to create an intimate space for the sleeper separating him or her from bothering light, low noises and outside temperatures.
- **Ventilation System (Prepared for all needed functions):** Through this ventilation system the client will be able to set the desired temperature, humidity level, air flow and CO2 levels.
- **Thermostat:** This device will have the function of reading the present temperature inside the bed so that it can be maintained or changed based on the user`s previous selection.
- **Humidity and CO2 level recorders:** This multifunction recorder performs the same task as the thermostat but for humidity and CO2.
- **Furniture Design:** This will be the base-structure where all the rest of devices will be assembled to. Its design is key when pleasing the client.

These features set will construct a product capable solving common problems by creating a versatile product that is not limited to a single function. Lack of versatility is one of the main problems for an important part of technological products in the sleep market. They will all be interconnected



through a specific and tailored-made software. Next, a value proposition canvas is providing to better understand the needs and pains this product cover from a customer perspective.

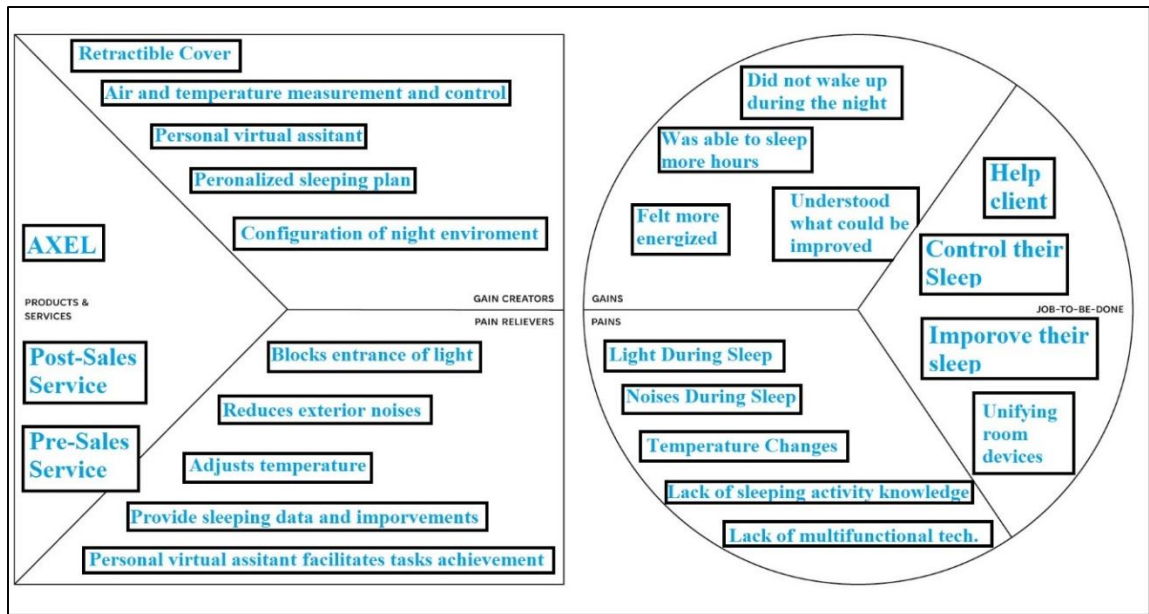


Figure 4: Value proposition canvas

- **Aesthetics Analysis:** Aesthetics are an important factor in a product's success because they can affect a consumer's perceived value and appeal of the product. A product with an attractive and visually appealing design may be more likely to catch a consumer's attention and be perceived as high quality. Additionally, an aesthetically pleasing product may be more enjoyable to use and create a positive user experience.

- **Color**

When it comes to furniture, especially in the luxury market, color can be decisive. Some studies showed that both "muted and bright colors encouraged both classical and expressive aesthetic perceptions within the same hue" (Kim, Hyun, & Park, 2020). A study (Chinoperekweyi, 2019) found that color was able to alter the pleasure feelings of individuals, ultimately influencing their consumption motivation. It is well-known that colors can evoke certain emotions in people and are therefore carefully considered by product and brand designers. For example, red is often associated with passion, love, or anger, while yellow is often associated with hope and happiness (Moore Schools, 2020). The impact of color on emotions and behavior is a significant factor in the design industry. Focusing on this project, different colors may be utilized to convey a certain image, such as a technological rare appearance, or a more familiar and non-intrusive look. It is important

for AXEL to make a friendly entrance into the market and showcase its innovative nature without disrupting the customers' lifestyles. Therefore, the chosen color palette will play a key role in shaping the customers' perception of the product. Although most likely the product offer will count with a standardized one color design, it is kept in mind the possibility of using films to decorate and customize the bed towards the client's taste. Companies such as 3M could be useful when needing for partners (3M, 2023).

○ **Size**

When looking at the sizes it all depends on the size of the mattress. Of course, different adaptation and types of product base on the main one can be later developed. Nevertheless, now it is important to focus on the based and standard one. When it comes to dimensions there are three alternatives among the most used mattresses for couples and families. They all come with benefits and weaknesses that will have an effect on the product and will take into account things such as the purchasing power of each customer. It can be analyzed through the following table.

Table 3: Bed analysis (Foley, 2022)

<b>Dimensions</b>	183 cm wide, 213 cm long	193 cm wide, 203 cm long	152 cm wide, 203 cm long
<b>Surface Area</b>	39,032 square centimeters	39,248 square centimeters	30,968 square centimeters
<b>Best For</b>	Taller couples; couples sharing a bed with a pet	Couples who prefer maximum space; couples sharing a bed with a child	Couples without children or pets sharing the bed
<b>Benefits</b>	<ul style="list-style-type: none"> <li>• Extra length is ideal for tall people</li> <li>• Well suited for those who share the foot of their bed with pets</li> </ul>	<ul style="list-style-type: none"> <li>• Maximum width is beneficial for couples and families with small children</li> <li>• Accessories are widely available</li> </ul>	<ul style="list-style-type: none"> <li>• The most common mattress size, making accessories widely available &amp; affordable</li> </ul>

			<ul style="list-style-type: none"> <li>Easier to move than larger King beds</li> </ul>
<b>Drawbacks</b>	<ul style="list-style-type: none"> <li>It can be difficult to find accessories</li> <li>The most expensive mattress size</li> <li>Difficult to move</li> </ul>	<ul style="list-style-type: none"> <li>More expensive than the popular Queen size</li> <li>Can make smaller rooms feel cramped</li> <li>Difficult to move</li> </ul>	<ul style="list-style-type: none"> <li>Significantly less spacious than King/King XL</li> <li>Will feel cramped for couples sharing the bed with small children</li> </ul>

Although our targeted persona is a high-income one, it can be smart trying to be relatively affordable since also the least expensive option out of them will not occupy as much space as other options. Taking into account that the product itself is seen as a substitution to a bed frame and we do not want to have a very disruptive adaptation in homes, the chosen and most adequate option for the standard product will be the queen-size mattress and the consequent adaptation of the rest of the product to it. Although that is the first choice, the company should have the possibility to manufacture (upon request) other sizes if necessary, in order not to lose potential customers (logically at a different price, delivery time, etc.).

○ **Overall design**

As this product can be classified in the furniture market or being more specific on the technological-furniture market it can be helpful evaluating the actual trends on this industry. After research is concluded it can be determined that “a mix of textures in home surfaces, such as smooth cabinetry with rustic, rough sawn walls will be popular in the coming days” (Harms, 2007). Also,

“The greening of ecology is also driving consumer preferences for wood furnishings, since wood is a natural tie to the environment.” It will be important to take this into consideration in addition to the already stated color suggestion when designing and manufacturing the product. As commented before, films manufactured by 3M could play a big role, as they are able to simulate wood on a composite surface, while maintaining a manufacturing process that mimics wood but at a lower cost and with less environmental impact.



Figure 5: 3M film (3M, 2023)

- **Materials Analysis:** Material selection and research is an important factor in the design of a product because it can significantly impact the overall performance and cost of the product. The right materials can improve the product's functionality, reliability, and lifespan, while the wrong materials can result in poor performance and higher costs.
  - **Quality**

Several academic studies (Kuan & Bock, 2008) (Omachonu, Suthummanon, & Einspruch, 2004) have demonstrated that high quality can be a key factor in attracting and retaining customers, especially in competitive markets. While it may increase the cost for manufacturers, prioritizing material quality has numerous benefits for both the product and the company, including building trust, increasing resilience and safety, and promoting sustainability. These should be considered essential requirements for any manufacturer, even if it means sacrificing cost in the short term.
  - **Durability**

Both product and material durability are important considerations in terms of cost, sustainability, and overall performance. When it comes to the environment, durable products can also be more sustainable, as they generate less waste. Durable materials may be more expensive to produce or acquire, which can increase the overall cost of the product.

- **Cost**

There are pros and cons to focusing on durability and quality versus cost when designing product. Focusing on durability and quality may increase the overall value of the product for the consumer and improve customer satisfaction and loyalty, but it may also increase the cost of the product. Choosing cheaper materials in order to reduce costs may be tempting, but it could also result in a shorter lifespan for the product, as well as lower customer satisfaction and loyalty. The decision of whether to focus on durability or cost depends on the specific needs and preferences of the target market. As discussed before this product focuses on average close to high economic lifestyle users. Therefore, both, cost and quality would be balanced offering the best value proposition to the customer.

Overall, the product should take into consideration several important factors. In terms of materials, the goal should be to strike a balance between durability, quality, and cost. In terms of aesthetics, the design should be subtle and not disruptive to the market, using muted and bright colors, and incorporating both smooth and rustic elements. Additionally, the product should include all necessary features adapted for a queen-size mattress. It is necessary to remind readers that these are actual trends that are logically going to change in the future, therefore if the real manufacturing of the product was to be delayed new aesthetics would need to be considered before building the final product.

### 3.2 COMPUTER-AIDED DESIGN (CAD)

Once an initial perception of how the product should be shaped a design can be created. This will put an image in the head of those interested in the project, making it easier to understand its functioning and expected performance in the market. Starting from here, modifications can be made and suggestions can be added depending on the stakeholders' ideas.

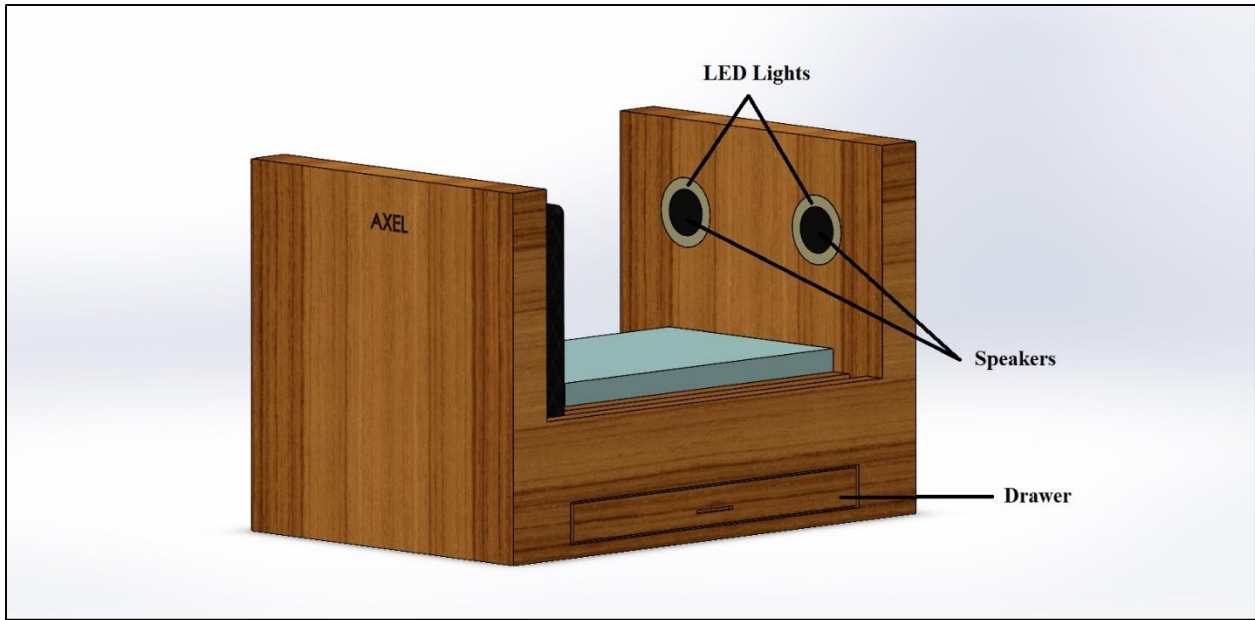


Figure 6: CAD design 1

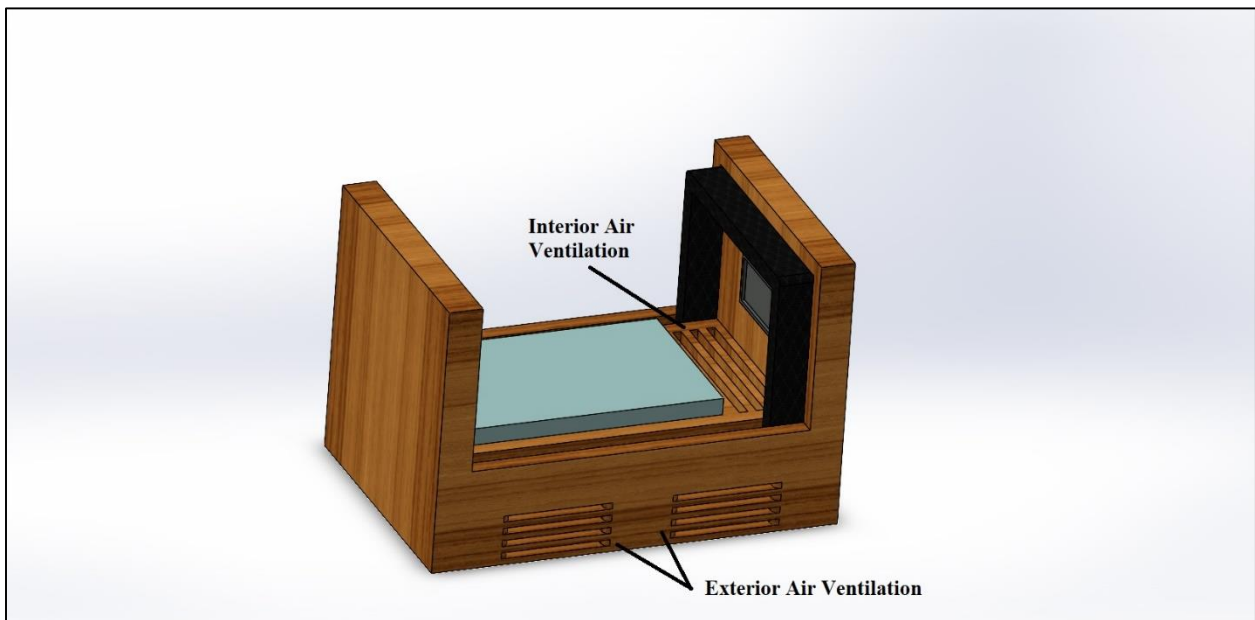


Figure 7: CAD design 2

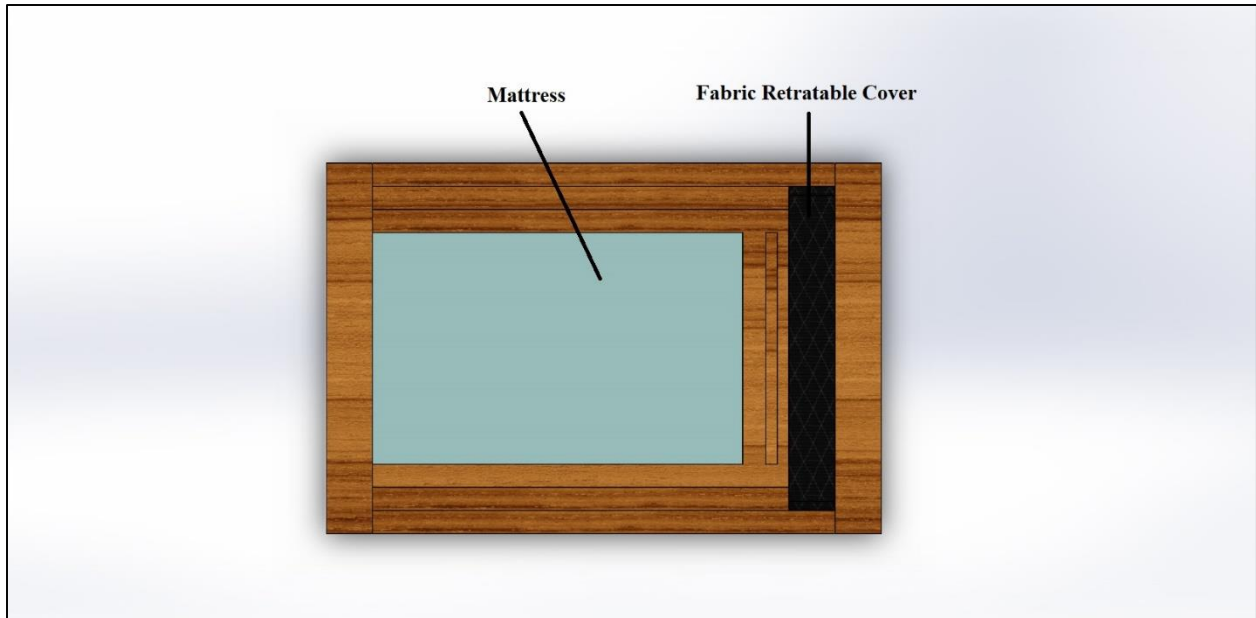


Figure 8: CAD design 3

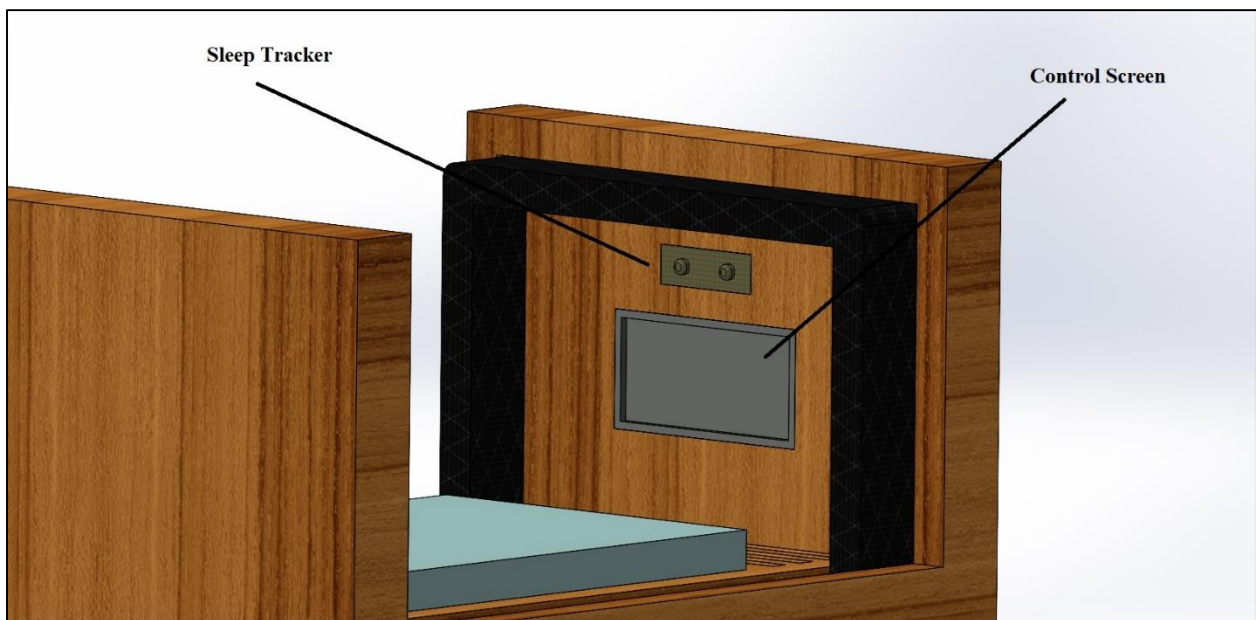


Figure 9: CAD design 4

After these designs were done, they were shown to some audiences. The feedback was positive. During this process the idea was first explained and next the designs were revealed. Some of them pointed out the difference between their imagined concept and the actual pictured one. At first they thought of something rare and unadaptable to a regular room, but once the designs were seen by them they thought it was a great idea and something that could fit and be integrated in their homes.

## 4. MARKETING

The purpose of this section is to provide an overview of the company's positioning and marketing strategy. The Positioning section outlines the brand image, targeted segments, segmentation strategy, market size, pricing policy, and growth potential. The Marketing Strategy & Approach section outlines the targeted segments approach, communication paths, media plan, and promotions that will be used to transport the company's value proposition and capture customer interest.

### 4.1 POSITIONING

By effectively positioning the brand, businesses can differentiate themselves, connect with their target audience, and build long-term brand loyalty. A strong brand positioning helps consumers perceive the brand as unique, relevant, and valuable in comparison to competing alternatives.

- **Brand Image**
  - **Mission:** To improve people's quality of sleep and overall wellbeing by providing innovative technology solutions that unify all room devices.
  - **Vision:** To be the leading provider of smart bedding technology that promotes better sleep and overall health.
  - **Values:**
    - Innovation: We are committed to developing cutting-edge technology that improves the sleep experience.
    - Quality: We are committed to providing high-quality but relatively affordable products that are built to last and improve people's lives.
    - Customer-centric: We are committed to understanding our customer's needs and providing solutions that meet those needs.
  - **Identity:**
    - Innovative and forward-thinking.
    - High-quality and reliable.
    - Customer-centric.
  
- **Positioning**

AXEL is meant to be the leading provider of smart bedding technology that improves sleep quality and overall health by unifying room devices for a personalized sleep experience, targeting those with sleep issues or seeking high-tech solutions.



- **Targeted Segments & Concentration**

As previously discussed the product aims to target Spanish well-educated 40-year-old females with an average to high economic status as their primary market segment. However, there is also a preference list in the form of a funnel (from generic to specific), which includes other potential segments: families < average to high-economic status marriages < average to high-economic status, well-educated, cohabitational status men and women & finally the one already stated (all focused initially on the Spanish market).

In order to better understand and target the well-educated 40-year-old female segment, AXEL will use a combination of demographic and psychographic segmentation to tailor its marketing efforts. Demographic information such as age (above 40), education level (high), and income (average/high) will be used to identify potential customers within this segment. Psychographic information such as lifestyle (stressful), values (health-conscious), and personal interests (innovative technology) will also be considered to understand their preferences and develop a more personalized approach. This concentration strategy will allow AXEL to effectively target and communicate with their primary market segment and increase their chances of success.

Based on the two previous paragraphs marketing campaigns will be focused on three developed simple final segments, differentiating the importance for each of them.

- **Families**
- **Midlife Marriages**
- **Sleeping Issues Women**

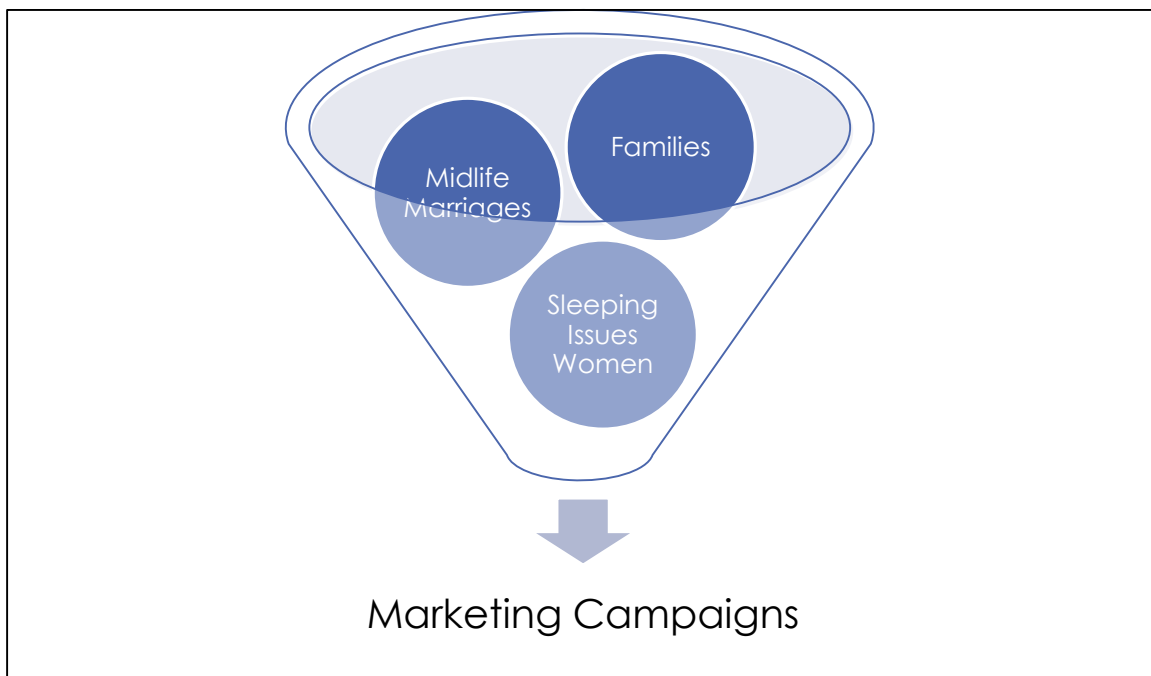


Figure 10: Segments funnel

Although these target segments project the intentions of the B2C (business to customer) model, a large portion of purchases could come from B2B (business to business) deals, such as hotels, resorts, luxury medical centers, residences, and apartment complexes. Therefore, businesses that focus on our target audience must be evaluated. For instance, hotels that cater to women with sleep problems could see this type of bed as an added value for their clients.

- **Size**

With the intention of determining the market size, potential customers are divided into four different groups. These groups are all part of the Spanish market as the product is intended to be distributed within it.

- **Total:** Starting with the thought of a future society adapting to a new kind of bed, the first segment includes all potential customers who may have a need for this product or an alternative such as a regular bed. Given that there are 47.435.597 (total population) – 28.552 (homeless population) = **47.407.045** people in Spain who sleep on beds under their own roof, it is identified as the first segment value (Instituto Nacional de Estadística, 2022) (65YMÁS, 2022).

- **Available:** This market section includes customers who are aware of alternative products, have access to these products, are able to use them, and are interested in purchasing them. Since it is challenging to determine this value without launching the product, population is divided into three age groups: 0 to 25, 25 to 65, and 65 to 100+. The target group comprises individuals within the 25 to 65 age range as they are more likely to afford the product and be receptive to technological innovation. Therefore, concluding on a total number of **27.088.063** people (Instituto Nacional de Estadística, 2023).
- **Target Market:** This piece accounts for the part of the market the company wants to target. Although as discussed before AXEL has three target variants it is smart to focus now on the specific and most relevant characteristics that will surely increase the selling opportunities for the brand. Within them there be can distinguished gender, sleeping issues presence and adequate income. It is also important that these people are married or in a relationship as the bed is meant to be shared. Therefore, the total number out of the ones previously discussed that would fit the exposed aspects will be around **1.950.341** people (Pérez Menéndez, 2020) (Instituto Nacional de Estadística, 2022).
- **AXEL Forecast:** Finally, it is important to forecast or at least have a close idea of the possibilities of the product within the target. A common approach is to aim for a market penetration rate of 2-6% in the first year of launch (Omnia Retail, 2021), and then increase it gradually as the product gains traction and brand recognition. Following this and being conservative on the estimation, AXEL Forecast population value would be following:  $1.950.341(\text{target market}) * 0.02$  (penetration rate) = **39.007** people. Although it seems that the calculations are done correctly following trusted data, after going through the financials of the company it seems like the population number could better fit a long term forecast for the product. Looking at both the revenues and the expenses, later exposed in the financial section, an appropriate logical digit for this estimation results on a total sell of **300** units (600 people) after the first year launch. All this can be graphically summarized through the following graph.

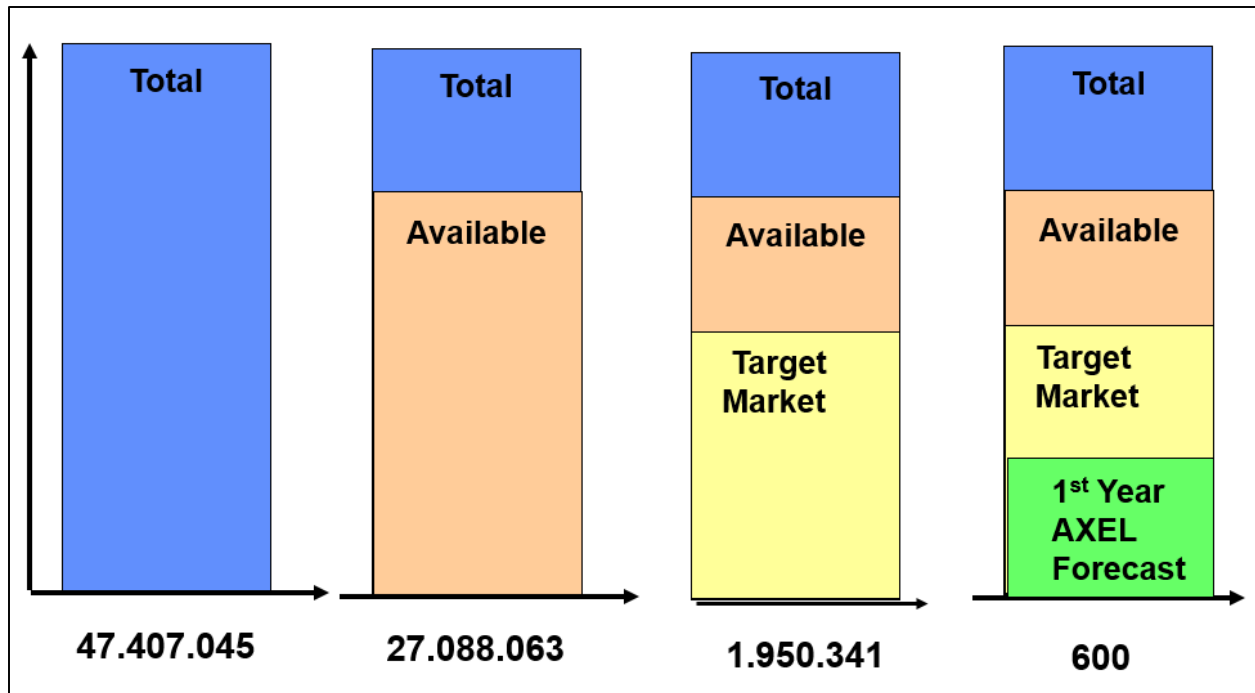


Figure 11: Market penetration

- **Growth**

“The average company anticipates revenue growth of 120% in its first year, 83% in the second, and 60% in the third, so the ideal growth rate for any startup is now measured between 60% to 120%.” (Eqvista, 2022). While it is common for companies dedicated to a single product to experience average growth rates, a disruptive innovative product like the one in question is believed to surpass the norm. As such, a slightly higher growth rate than average is predicted for this company. Specifically, a sales growth of 133.33% between the first and second years of operation is forecasted, going from 300 to 700 units.

## 4.2 MARKETING STRATEGY & APPROACH

An evaluation of how and to whom marketing campaigns need to be aimed is done. This will serve as a way of understanding how resources need to be allocated and the impact of them on each audience. Recurrence of these campaigns is also explored, estimated the best time frame option in each of the cases.

- **Targeted Segments Approach**

- **Families:** Market the bed as a solution to common sleep challenges faced by families, such as respiratory issues, discomfort, and sleeplessness in children. Highlight the bed's technology-driven features that cater to families, temperature control or sound-masking capabilities. Emphasize the bed's ability to improve the quality of sleep for all family

members and promote a healthy sleep environment. There is a future possibility of offering products and services that cater to families with children, such as child-friendly bedding and sleep accessories.

- **Midlife Marriages:** Position the bed as a luxury product that caters to couples seeking a comfortable and intimate sleep experience. Highlight the bed's technology-driven features that promote relaxation and intimacy, such as lighting and music control. Emphasize the bed's ability to enhance the couple's relationship and improve their sleep quality. There is potential for the addition of sleep-promoting accessories in the long-term such as aromatherapy diffusers.
  - **Sleeping Issues Women:** Highlight some sleep challenges faced by women, such as hormonal changes, stress, and anxiety. Make an emphasis on the scientifically improvements on health that each bed tool can provide. A potential future addition can be pre-sleep relaxation courses presented on the product's official website. Overall, emphasize the importance of good sleep for overall health and well-being, especially for women.
- **Communication Paths**

The following marketing approaches illustrate the possibilities of the firm when trying to increase brand awareness. Nevertheless, all these approaches will need to be considered as a whole and made sure that they match with the marketing budget represented in the financial section.

- **For Families:**
  - **Social Media:** Share testimonials and reviews from families who have used the bed and seen improvements in their sleep quality. Utilize influencer marketing, such as professional athletes, to reach a wider audience and showcase the bed's features and benefits through live demonstrations and product reviews.
  - **Email Marketing:** Create targeted email campaigns to reach families who have shown interest in sleep-related products. Offer promotions and discounts to incentivize purchase.
  - **In-Store Promotions:** Host in-store or fairs events and demonstrations to showcase the bed's features and benefits. Offer product demonstrations, workshops, and sleep clinics to educate families on the importance of good sleep and how the bed can help
- **For Midlife Marriages:**
  - **Print Advertising:** Place advertisements in high-end lifestyle and home decor magazines that cater to midlife marriages. Highlight the bed's luxury features and benefits and offer exclusive promotions and discounts.

- **Outdoor Advertising:** Place physical advertisements, such as banners and billboards, in key locations around the city that are visible to couples in midlife marriages. This can include busy roads, shopping areas, and recreational parks. This type of advertising is especially cost-effective and can reach a large audience, providing maximum exposure for the product (Bartle, 2014) (Taylor, Franke, & Bang, 2006).
    - **For Sleeping Issues Women:**
      - **TV Advertising:** Create targeted TV advertisements aimed at women with sleeping issues. Highlight the bed's features and benefits, specifically its ability to improve sleep quality, and show real testimonials from women who have seen improvements in their sleep after using the bed. Offer promotions and discounts to incentivize purchase.
- **Media Plan**
  - **Social Media:** Utilize influencer marketing to reach a wider audience.
    - **Frequency:** monthly.
    - **Cost:** “Nano influencers (1000 - 10,000 followers): €8.24 - €82.43 per post. Micro influencers (10,000 - 50,000 followers): €82.43 - €412.15 per post. Mid-tier influencers (50,000 - 500,000 followers): €412.15 - €4,121.50 per post. Macro influencers (500,000 - 1,000,000 followers): €4,121.50 - €8,243.00 per post” (Shopify, 2022)
    - **Expected Results:** Increased brand awareness and engagement with the target audience, resulting in more sales and customer loyalty.
  - **Email Marketing:** Targeted email campaigns to reach families who have shown interest in sleep-related products.
    - **Frequency:** monthly.
    - **Cost:** negligible (cost of email service provider and time spent creating the campaign).
    - **Expected Results:** Increased conversion rates, as well as improved customer loyalty through personalized messaging.
  - **In-Store Promotions:** Host in-store or fair events and demonstrations to showcase the bed's features and benefits.
    - **Frequency:** quarterly.
    - **Cost:** depends on the size and location of the event, but likely to range from a few hundred to several thousand dollars.

- **Expected Results:** Increased brand awareness, engagement with the target audience, and potential sales.
- **Print Advertising:** Place advertisements in high-end lifestyle and home decor magazines.
  - **Frequency:** bi-monthly.
  - **Cost:** “412.15 € to 16,492.04 €, depending on whether the publication is local or national, the size of your ad, whether you use color and if you've negotiated a multiple-ad rate” (Kobliski, 2006).
  - **Expected Results:** Increased brand awareness and engagement with the target audience, resulting in more sales and customer loyalty.
- **Outdoor Advertising:** Place physical advertisements in key locations around the city.
  - **Frequency:** continuously, changing spots every month
  - **Cost:** depends on the size and location of the advertisement, but the price range generally oscillates between 320 € and 1,030 € per month (BluCactus, 2021).
  - **Expected Results:** Maximum exposure for the product and increased brand awareness, resulting in more sales and customer loyalty.
- **TV Advertising:** Create targeted TV advertisements aimed at women with sleeping issues.
  - **Frequency:** A total of 10 per year strategically spread out
  - **Cost:** depending on the channel and time slot, but prices can range from 400 euros at dawn to 25,000 euros at prime time (Visual Service).
  - **Expected Results:** Increased brand awareness and engagement with the target audience, resulting in more sales and customer loyalty.

These marketing campaigns can also be effectively adapted to reach a B2B audience. For example, for hotels, the campaigns can emphasize the product's ability to enhance guest comfort and satisfaction, showcasing features like temperature control, humidity levels, and sound-masking capabilities. By highlighting how the product can contribute to a positive guest experience, hotels can see the value in incorporating it into their offerings. Similarly, for hospitals, the campaigns can focus on the product's benefits in patient comfort and recovery, such as the benefits of air humidity and adaptation. By emphasizing how the product can improve patient well-being, hospitals can recognize its potential value in enhancing patient care. Tailoring the communication messages and channels to these B2B audiences, such as trade shows, online presence, and direct sales efforts, the campaigns can effectively resonate with hotels and hospitals, opening up opportunities for business partnerships and increased brand adoption.

- **Promotions**

Promotions will be applied when a segment is not showing the expected sales outcome or there is not the desired balance between the three main targeted audiences. Promotions will be given in the form of discounts transmitted to the customer through the media campaign explained earlier. As the amount spent will be volatile and adapted to the situation, the conditions of the discounts will be as well. For example, if more sales are needed within a certain quarter, a promotion lasting certain days will be offered to the audience.

## 5. COMMERCIAL PLAN

The purpose of this section is to provide a clear understanding of the product's role in the market and its commercial positioning with the customer. It aims to clarify the presentation of the product and the conditions under which it will be offered, while also ensuring its profitability through careful analysis of price, its implications and any necessary adjustments.

### 5.1 PRODUCT

The intention is that through this section the reader gets to understand how the product and under what conditions is offered to the customer. Apart from the product, the company offers services that are explained below.

- **Product & Services Definition**

As explained before the main product of the company is AXEL. This, being the main and core offer can be slightly adapted to the desires of the customer. It will also be subjected to future changes and innovations. In addition, a large number of after-sales services for the product will be offered, which are explained in the following section. As for services before the purchase of the product, the company will be open to providing information and remote consultations, even providing in-store demonstrations if the customer requires it.

- **After-Sales**

Some after-sales services AXEL will offer are the following:

- **Repair and Maintenance Services:** This will cover reparations not included under the warranty plan, later discussed. The costs associated to it will be determined by the technician based on the costs driven by the work done, including human labor.
- **Warranty Services:** This service will be explained in detail in the next part.



- **Installation and Setup Services:** The product expense, 4,999.99 €, will include this service making sure that the installation is correctly done, preventing it from damage or future derivate misuse.
- **Technical Support:** This service remotely provides customers with support and advice on any technical issues they may encounter with their product.
- **Maintenance Plans:** This service provides customers with regular maintenance services, such as cleaning and software updates, to keep their product in optimal working condition. Different plans depending on the intensity and frequency will be offered for the customer to purchase. Starting at 100 € per year up to 500€. Tailored B2B maintenance packs for big units will be negotiated with business. They will follow similar prices but costs like transportation to different location will not be necessary so there will be room for discounts.
- **Spare Parts and Accessories:** This service provides customers with access to spare parts and accessories to repair their product (on their own) or add new capabilities.

- **Warranty**

AXEL is backed by a generous 4-year warranty, providing security on their purchase to clients. This warranty covers any technical failures or problems that may occur with the product and will be included in the selling cost of the bed. However, it does not cover damages caused by the owner or resulting from misuse of the product. In the unlikely event of a technical issue, the customer service team will be available to assist them in resolving the problem.

The relevance of a 4-year warranty for the client is that it provides peace of mind and protection for their investment. With the warranty, the client can be confident that if any technical issues arise with the product within the warranty period, they will be covered and they can receive assistance from the manufacturer in resolving the problem. The warranty serves as a guarantee from the manufacturer that the product is of high quality and will function properly. It also shows that the manufacturer is committed to the satisfaction of their customers and is willing to stand behind their product. Overall, this can increase the client's confidence in their purchase and encourage them to buy the product with more ease.

- **Comparison with Competition**

With the intention of comparing these offerings to competition, three products identified at the beginning of the work as competition are chosen, representing a wide range of possibilities for the customer to choose.

Table 4: Offer comparison

	<b>HiCan</b> (Similar to AXEL)	<b>EveSleep</b> (Mattress)	<b>OxyHealth</b> (Hyperbaric chamber)	<b>AXEL</b>
<b>Product Price</b>	98,537.00€	300 € to 600€	20,000€ avrg.	4,999.99€
<b>Warranty</b>	2 years	10 years	1-2 years	4 years
<b>Services</b>	Installation, technical support, pre-sales service	Technical support, pre-sales service, bedding complements, 100-night trial, sleep advice service	Technical support, pre-sales service, maintenance and repair services, healthcare professionals training	Repair & maintenance, maintenance plans, installation, tech & customer support, spare parts & accessories

## 5.2 PRICING POLICY

- **Product & Service Selling Prices**

The following values represent the prices both of the product itself and the services. These values are determined focusing on the company's profitability and being a result of estimations done after deep research and market analysis. They will be later exposed in a more detailed way through the financial plan section.

Table 5: Pricing policy

	Price
Product	4.999,99 €
Repair and Maintenance Services	20% margin out of the total cost of the reparation or maintenance action including the worker payment cost.
Technical Support	Free Service (online)
Maintenance Plans	Three options are given: Basic Maintenance (1 time per year): 100 € / year Intensive Maintenance (3 times per year): 250 € /year Premium Maintenance (6 times per year): 500 € / year B2B Special Maintenance: Prices will be negotiated for each situation.
Spare Parts, Accessories & Customization	A 10% margin will be charged to the additional cost of the spare part or accessory required by the customer. Shipping costs will be included.

- **Commercial Margins**

As previously stated, the price of the product will be 4.999,99 €. Based just on the material cost of the product 2402,00 €, (see Section 8.1) a margin of 48.04% can be expected. This does not include expenses such as labor, marketing, or transportation, therefore not representing the benefit out of every product, but it gives perspective of the situation of AXEL in relation to its manufacturing cost. The rest of these expenses will be evaluated in depth in the financial plan.

- **Competitors Price and Margin Comparison**

Comparing the profit margins of our product with those of our competitors can be a challenging task to undertake. It is possible to make estimations, but the only thing that can be determined with certainty is the price of the product. This is because none of the displayed products are part of a listed company that has the duty to inform shareholders about the margins and costs of each product. As commented before, the prices for the competition products are the following: HiCan:

US\$120,000, EveSleep: 300 € to 600€, Oxy Helath: 20,000 € avrg. (These last two companies offer more than just one product).

When analyzing these values and comparing them to AXEL`s, some advantages and disadvantages can be contemplated. The greatest advantage lies in the possibility of acquiring a product that offers many more solutions than the competition at a significantly lower average price. On the other hand, the product could be perceived as low quality since the customer may feel overwhelmed by the offer of so many functions at such a good cost. However, that is a risk that the brand will have to assume with the intention of making the product accessible to the largest possible population.

## 6. SALES PLAN

Through this section the reader gets to know how the product is offered to the potential customers. It analyzes the conditions and benefits of purchasing the good.

### 6.1 SALES POLICIES

Different policies related with the sale of the product are listed and explained below.

- **Pricing Policy:** The product is priced competitively (4.999,99 €), based on market research and analysis. The company will regularly monitor the market to ensure that the prices are in line with industry standards and that the customers are getting the best value for their money. In addition, volume discounts are offered for bulk orders, as well as special discounts for loyal customers to reward their repeat business.
- **Refund Policy:** There is a certain hope that the product will meet expectations, but it is understood that sometimes things don't work out. If the customer is not satisfied with the product, he or she can return it within 30 days of purchase for a full refund. To be eligible for a refund, the product must be in its original condition and pieces composition, and they must provide proof of purchase.
- **Delivery Policy:** The delivery policy ensures that orders are processed quickly and efficiently. All orders within the Spanish Iberian market qualify for free standard shipping, with orders being shipped within 10 business days. This is possible thanks to the storage of units ready to get on the road. Therefore, when a delivery is made, an already prepared product is sent and another one is produced and later saved in the warehouse. Customers who require faster shipping may choose

express shipping for an additional fee. International or island shipping is available at varying rates depending on the destination.

- **Warranty Policy:** This policy remains as previously discussed before in Section 5.1.
- **Payment Policy:** All major credit cards, PayPal, and Apple Pay are accepted for payment. Payment is due at the time of purchase. The company do not offer credit or payment plans at this time.
- **Distribution Policy:** There is a lot of pride behind the product, for this reason there is a need to ensure that it is being sold and distributed responsibly. It is not allowed for the product to be resold by unauthorized distributors or retailers. The company reserves the right to refuse or cancel any orders that are suspected of being intended for resale. This policy helps AXEL maintaining the quality and integrity of the product and protecting the brand`s reputation.
- **Channels:** The bed will be sold through a combination of online and brick & mortar channels. Online sales will be conducted through the company's e-commerce platform, while offline sales will be conducted through retail partnerships.

## 6.2 HYPOTHESIS FOR THE MODEL

The concluded hypothesis of the model is that the company will experience significant growth in sales over the first three years of operation. Specifically, the company will sell 300 units in the first year, 700 units in the second year, and 1500 units in the third year. This represents a growth rate of 133.33% between the first and second year and a growth rate of 114.29% between the second and third year. These percentages indicate that the company's sales will be growing at an exponential rate, which can be attributed to a variety of factors such as increased brand recognition, improved marketing strategies, and expanding customer base. If this growth trend is match and it continues, the company is likely to experience continued success in the future.

Table 6: Annual growth

	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
<b>Units</b>	300	700	1500
<b>Growth</b>	N/A	133.33%	114.29%

## 7. OPERATIONAL PLAN

The purpose of this section is for the reader to understand how the company actually works from its simplest stage to the final product. In order to understand this perfectly an explanation of the resources needed, including HR team, must be provided. The importance and role of each of the parts and stages of this process is also explained, being able to completely understand how each partner and direct employee contributes successfully to the company`s value creation.

### 7.1 OPERATIONS WORKFLOW MAP

The following map explains what are the four major pillars of AXEL`s operations. Starting with the delivery of each of the parts manufactured by different partners, going through the warehouse/assembly shop where the product is assembled to be later transported to the retailers or directly to customers` homes. This summarizes and allows the reader to visually understand on a basic level how the product is built up and delivered. Nevertheless, a more comprehensive and detailed explanation of each of the parts is provided in the HR team section.

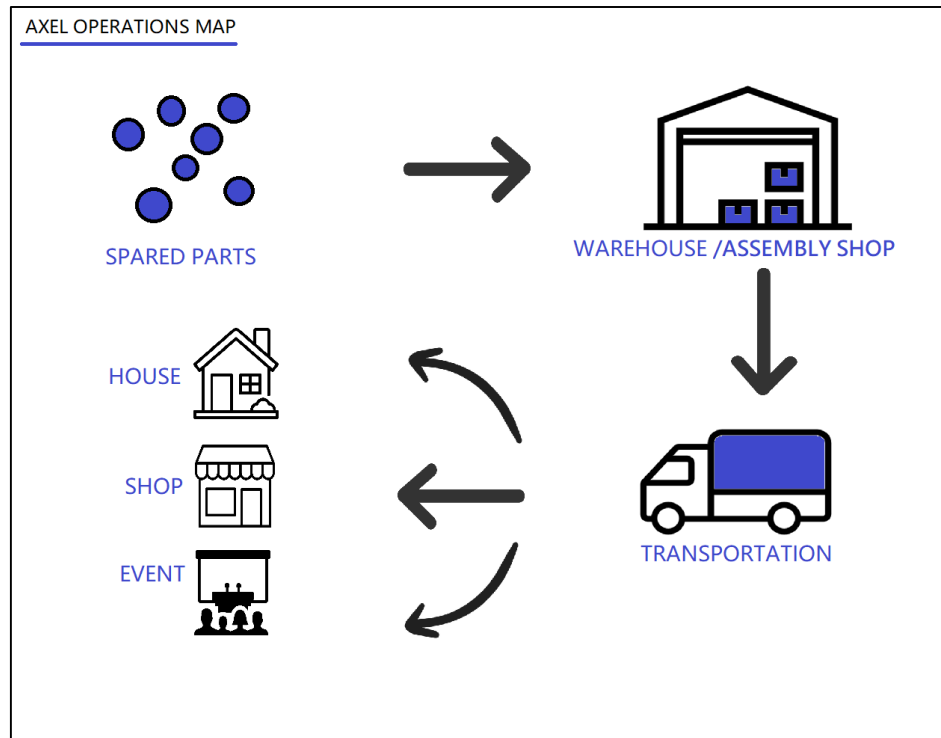


Figure 12: Operations map

## 7.2 HR TEAM

This is probably one of the most important parts of the business plan since it explains how the company works and the composition and sections needed to make it work. It is essential for the reader in this section to understand the function of each party, differentiating those internal and external workers. Both play an important role for the company but are not dealt with in the same way. However, both partners and direct workers must be treated so that they appreciate working for the company, resulting in a positive environment and potential positive progress for the company as well. With the aim of reducing costs as much as possible, this company will not have headquarters or central offices. For instance, tasks like accounting will be handled remotely from the employees' desired location. Workers such as technicians will work based on the calls and assignments they receive, eliminating the need for a central office. Meetings will be held virtually, gathering occasionally in person, in public spaces, to discuss important matters or to engage in events and activities that strengthen team unity.

- **Partners:**
  - **Manufacturing/Component Suppliers:** The goal is to eliminate the necessity of managing and constructing a manufacturing facility for each individual component that makes up the product. Therefore, several firms will be subcontracted as partners to provide the company with the different needs that will be later assembled to build up the final product. As the aim is to create a considerable number of units, the intention of the company will be negotiating the lowest possible price for each of the raw packages. As has been already explained in this work, these partners will have to be on track with the requirements previously set by the company regarding quality, durability, or overall aesthetic design.
  - **Assembly Line/Warehouse:** The warehouse will be a strategic point in the production chain since it has various functions. First of all, the main function of the warehouse is a destination for all of the pieces provided by the manufacturing partners. Next, the warehouse workers will be in charge of assembling those pieces following the instructions provided previously by the company to form the final product. Lastly, the space will serve as a storage unit until the product is picked up by the logistics company that will be in charge of the delivery.
  - **Logistics Company:** A transportation company that is able to take the product from the warehouse and deliver it to either homes, retailers or event halls on time will be contemplated as a partner.
  - **Marketing:** Having more expertise in the matter, a company dedicated to marketing services will be hired to manage marketing campaigns from time to time, always directed and supervised by the CEO and the company.
  - **Retailers:** Various retailers specified for the selling of home and technology products will be selected as partners so that AXEL can be not only sold digitally but also on-ground. This will allow the company to provide potential consumers with a hands-on experience without the need of owning and managing a private label shop. Examples of this potential retailers could include brands such as Conforama or Leroy Merlin, since they are big influencers in high demanded Spanish territories. Nevertheless, this will need to be studied in depth paying attention to the conditions established by each establishment.
  - **Web/Platform Developer:** Similar to the marketing services, a web development company will be firstly hired to build up the digital platform from where the product will be sold and then will also have the function of its maintenance. The intention is that this partner is always at the disposal of the company so that any new ideas or promotions can be quickly communicated digitally.



- **Software development:** The company will need a dedicated team of software developers who will be responsible for creating and maintaining the software required to control all the components of the bed. They will also handle the programming of the different systems' connections and the development of any mobile applications needed to collect sleep data and provide sleep improvement advices.
- **One-time Services:** Different services, apart from those present on a day-to-day basis, will be needed at certain points. An example of this could be the need for a lawyer consultant firm when dealing with patents or any topic not fully controlled by the company workers or the regular partners.
- **Direct Company Workers:**
  - **Technicians:** A certain number of workers will be trained to handle installation, repair, and other after-sales services for the life of the product. In addition to being instructed, they will have to wear the company's equipment that will be previously administered to them, serving as a marketing tool as well. A strategic positioning of these workers will be necessary, being able to cover territory in the most efficient and practical way.
  - **Customer Service Representatives (CSR):** Its main function will be to attend to consumer complaints or the pre-purchase questions potential customers may have. Extra activities include creation of reports and analysis in which consumer behavior and feedback will be studied.
  - **Accounting Services:** An accounting team will be in charge of keeping the ledger accounts up to date and making sure that the objectives are being met. The intention is for them to take care of legal issues as much as possible so that there is not so much need to depend on external consultants.
  - **Procurement Manager:** His or her job will involve different activities. Among them, coordinating the activity of the products, both deliveries and repairs, thus being a connection between customer service, transportation, manufacturing, and technical services. Additionally, it will be important for this person to always be aware of the competition and manufacturers in order to find the best prices and deals for the product. Both the procurement manager and the CEO will take charge on creating instructions and rules to onboard new workers and set expectations. The idea is that in the future this part is controlled by a specialized manager.
  - **CEO:** As any CEO, the primary duty is to lead and guide the company towards success, establish the company's vision and strategy, make critical decisions, supervise and motivate the team, and ensure that objectives and goals are met. Nevertheless, since this company will initially have limited resources and employees, the CEO's role will extend to areas such as

operations, where, for example, he or she will attempt to identify and solve bottlenecks in processes, or marketing, where he or she will continuously strive to build connections and organize events that promote the company's growth. Both the CEO and the procurement manager will work on bringing new models, designs and ideas to the table.

### 7.3 HR PLAN

There are various measures and programs that will be aimed and focused on the employee, not only for the sake of the company but also for the wellbeing of the worker. This will not be implemented from the start but always kept in mind and adapted as the company grows bigger. The plan should be periodically reviewed and adjusted as necessary to ensure it remains aligned with the organization's goals and objectives.

- 1. Recruitment and selection:** Develop a recruitment and selection process to attract and hire qualified candidates. This may include creating job descriptions, posting job openings, reviewing resumes and applications, conducting interviews, and checking references.
- 2. Onboarding and orientation:** Develop an onboarding and orientation program to welcome new employees to the organization and ensure they have the tools and resources they need to be successful. Including introducing them to key team members, providing an overview of the company culture and values, and providing training on company policies and procedures.
- 3. Performance management:** Develop performance goals, conducting regular check-ins, providing formal performance evaluations, and offering development opportunities, thus creating a performance management process to evaluate employee performance and provide feedback and coaching.
- 4. Compensation and benefits:** Develop a compensation and benefits program that is competitive and aligns with industry standards by determining salaries, bonuses, and other incentives, as well as offering a comprehensive benefits package.
- 5. Employee relations:** Develop policies related to employee conduct, disciplinary actions, and grievance procedures to ensure fair and consistent treatment of employees.
- 6. Training and development:** Develop a “training and development” program to help employees grow and develop their skills such as, in-house training programs, sponsoring attendance at industry conferences and workshops, and providing tuition reimbursement for advanced education.
- 7. Succession planning:** Develop a succession planning process to identify key positions and develop plans to fill them in the event of unexpected departures or retirements. Identifying

potential successors, providing them with training and development opportunities, and creating contingency plans.

8. **Diversity and inclusion:** Developing policies to ensure fair treatment of all employees, promoting diversity and inclusion initiatives, and offering training to employees and managers on diversity and inclusion.

## 7.4 ACTION PLAN

Finally, after having explained how the company works, a schedule of how and when this is going to be implemented is provided. The main function of this part is to keep track of the progress and be able to create KPIs (key performance indicators) that will ensure that the company is moving on the right path at the right time. These goal times are set as a reference, although they can be slightly altered and adapted along the process.

<p><b>Research &amp; Collection (Jun. 1st, 2023 → Jan. 1st, 2024)</b></p> <ul style="list-style-type: none"> <li>• Find ideal partners</li> <li>• Find workers</li> <li>• Financial collection (Angels, incubators, rounds etc.)</li> </ul>
<p><b>Software Development (Jan. 1st, 2024 → Jul. 1st, 2024)</b></p> <ul style="list-style-type: none"> <li>• Development of AXEL needed software</li> <li>• Development of user app</li> <li>• Development of e-commerce &amp; product website</li> <li>• Social media profile development</li> </ul>
<p><b>Production Beginning (Jul. 1st, 2024)</b></p> <ul style="list-style-type: none"> <li>• Partners &amp; Workers Onboarding Phase</li> <li>• Start Producing</li> <li>• Storage of first assembled product</li> </ul>
<p><b>Initial Marketing Campaign (Aug. 1st, 2024)</b></p> <ul style="list-style-type: none"> <li>• Launch Event</li> <li>• Marketing campaign (S.M., magazines, advertisement, direct emails etc.)</li> </ul>

Figure 13: Action plan

## 8. FINANCIAL PLAN

Creating a financial plan is an essential step towards achieving long-term financial goals and securing a financial future. It is understood that a well-crafted financial plan takes into account the financial situation,

considers income and expenses, and establishes a plan to reach goals. Following a structured approach and focusing on key areas such as budgeting, saving, investing, and debt management, AXEL can optimize finances and achieve financial success.

## 8.1 MATERIAL COSTS

Below, the reader can see a chart representing the cost of producing each unit. This does not account for operations or any other type of expenses.

Part	Potential Brand	Expected Cost
Wooden Furniture Structure	Dica	500,00 €
Speakers (x2)	Wavemakers	30,00 €
LED Lights (x2)	LedBox	30,00 €
Control Screen	PC Componentes	180,00 €
Full Air Flow Unit	Mitsubishi Electric	700,00 €
Sensors (x3; Light, Humidity, CO2)	SparkFun	70,00 €
Retractable Ceiling System	Haartz Corporation	500,00 €
Sleep Tracker	Amazon (Halo Rise)	60,00 €
Electronic Componets (Wires, resistors, capacitors...)	Farnell	30,00 €
Hardware (PC)	PC Componentes	300,00 €
Microphone	Loudity	2,00 €
<b>TOTAL</b>		<b>2.402,00 €</b>
Selling Price		4.999,99 €
Material-Selling MARGIN		2.597,99 €
Material-Selling MARGIN in Percentage		52%

Figure 14: Material cost per unit

## 8.2 OPERATION EXPENSES

Following, a representation of the annual costs of running the business focusing on both partners and employees is projected. This account for the first three operation years. Salaries and deals are estimated based on gathered data.

Team	Potential Firm	Year 1			Year 2			Year 3		
		Unit Cost	Units	Total Cost	Unit Cost	Units	Total Cost	Unit Cost	Units	Total Cost
Warehouse (P)	DHL	90.000,00 €	1	90.000,00 €	150.000,00 €	1	150.000,00 €	500.000,00 €	1	500.000,00 €
Logistics Company (P)	DHL	100.000,00 €	1	100.000,00 €	200.000,00 €	1	200.000,00 €	300.000,00 €	1	300.000,00 €
Marketing Agency (P)	Bloop Agency	50.000,00 €	1	50.000,00 €	80.000,00 €	1	80.000,00 €	100.000,00 €	1	100.000,00 €
Retailer (P)	n.d.	50.000,00 €	2	100.000,00 €	50.000,00 €	3	150.000,00 €	50.000,00 €	6	300.000,00 €
Platform Developer (P)	Etnyka	50.000,00 €	1	50.000,00 €	40.000,00 €	1	40.000,00 €	60.000,00 €	1	60.000,00 €
One-Time Services (P)	n.d.	5.000,00 €	1	5.000,00 €	15.000,00 €	1	15.000,00 €	20.000,00 €	1	20.000,00 €
Technicians (EM)	n.d.	18.000,00 €	4	72.000,00 €	30.000,00 €	6	180.000,00 €	30.000,00 €	12	360.000,00 €
CSR (EM)	n.d.	18.000,00 €	3	54.000,00 €	30.000,00 €	3	90.000,00 €	36.000,00 €	3	108.000,00 €
Accountants (EM)	n.d.	18.000,00 €	4	72.000,00 €	30.000,00 €	4	120.000,00 €	36.000,00 €	4	144.000,00 €
Procurement Manager (EM)	n.d.	36.000,00 €	1	36.000,00 €	48.000,00 €	1	48.000,00 €	54.000,00 €	1	54.000,00 €
CEO (EM)	n.d.	36.000,00 €	1	36.000,00 €	48.000,00 €	1	48.000,00 €	54.000,00 €	1	54.000,00 €
<b>Total</b>				<b>665.000,00 €</b>			<b>1.121.000,00 €</b>			<b>2.000.000,00 €</b>

Figure 15: Annual team operation expenses

### 8.3 REVENUE SOURCES

Next, the reader can visualize through this table the way the business creates revenue. As explained before revenue sources do not just come from the selling of goods but also are obtained from post-purchase offered services, although this last one represents the smallest part.

Sold Units	Year 1		
	Units	Selling Price	Revenue
	300,00	4.999,99 €	1.499.997,00 €
Repair and Maintenance Interventions	Avg. Intervention Cost	Number of Interventions	Revenue (20%)
	50,00 €	5	50,00 €
Maintenance Plans	Avg. Cost	Number of Clients	Revenue (10%)
	283,33 €	5	141,67 €
Spare Parts	Avg. Cost	Parts	Revenue (10%)
	218,36 €	2	43,67 €
<b>Total</b>			<b>1.500.232,34 €</b>

Figure 16: Revenue Sources 1

Year 2			Year 3		
Units	Selling Price	Revenue	Units	Selling Price	Revenue
700,00	4.999,99 €	3.499.993,00 €	1.500,00	4.999,99 €	7.499.985,00 €
Avg. Intervention Cost	Number of Interventions	Revenue (20%)	Avg. Intervention Cost	Number of Interventions	Revenue (20%)
50,00 €	10	100,00 €	50,00 €	15	150,00 €
Avg. Cost	Number of Clients	Revenue (10%)	Avg. Cost	Number of Clients	Revenue (10%)
283,33 €	8	226,67 €	283,33 €	12	340,00 €
		Revenue (10%)			Revenue (10%)
218,36 €	4	87,34 €	218,36 €	6	131,02 €
		<b>3.500.407,01 €</b>			<b>7.500.606,02 €</b>

Figure 17: Revenue Sources 2

## 8.4 OTHER EXPENSES

Other expenses not included in the operation are contemplated for the first three years.

	Year 1	Year 2	Year 3
Extras (Business trips, emergencies, promotional events, etc.)	10.000,00 €	25.000,00 €	50.000,00 €
Defect Products	12.010,00 €	24.020,00 €	40.834,00 €
Social Insurance	5.040,00 €	7.980,00 €	12.180,00 €
Other Types of Insurances (non-payment, fire, pandemics etc.)	50.000,00 €	80.000,00 €	100.000,00 €
Promotional Units for Events and Stores	24.020,00 €	48.040,00 €	120.100,00 €
<b>Total</b>	<b>101.070,00 €</b>	<b>185.040,00 €</b>	<b>323.114,00 €</b>

Figure 18: Other expenses

## 8.5 PROFIT & LOSS STATEMENT

Continuing, the most important chart to understand the financials of the company is presented. It provides a snapshot of a company's financial health by summarizing its revenues, costs, and expenses during a certain period. By analyzing a start-up's P&L (Profit & Loss) statement, investors and stakeholders can assess the company's state and make strategic decisions regarding fundraising, hiring, and business expansion.

	Year 1	Year 2	Year 3
<b>Revenue</b>			
<b>Product Sales</b>	1.499.997,00 €	3.499.993,00 €	7.499.985,00 €
<b>Services Revenue</b>	235,34 €	414,01 €	621,02 €
<b>Total Revenue</b>	1.500.232,34 €	3.500.407,01 €	7.500.606,02 €
<b>COGS</b>			
<b>Material Costs</b>	720.600,00 €	1.681.400,00 €	3.603.000,00 €
<b>Gross Profit</b>	779.632,34 €	1.819.007,01 €	3.897.606,02 €
<b>Operating Expenses</b>			
<b>Operation Expenses</b>	665.000,00 €	1.121.000,00 €	2.000.000,00 €
<b>Other Exoenses</b>	101.070,00 €	185.040,00 €	323.114,00 €
<b>Total Expenses</b>	766.070,00 €	1.306.040,00 €	2.323.114,00 €
<b>EBITDA</b>	13.562,34 €	512.967,01 €	1.574.492,02 €
<b>Depriciation</b>	- €	- €	- €
<b>EBIT</b>	13.562,34 €	512.967,01 €	1.574.492,02 €
<b>Interest Expense</b>	- €	- €	300.000,00 €
<b>EBT</b>	13.562,34 €	512.967,01 €	1.274.492,02 €
<b>Income Tax Expense</b>	3.390,58 €	128.241,75 €	318.623,00 €
<b>Net Income</b>	10.171,75 €	384.725,26 €	955.869,01 €

Figure 19: Profit &amp; Loss statement

## 8.6 FINANCIAL NEEDS SUMMARY

The necessary resources to be able to support the operations of the first three years of birth are summarized below:

Table 7: Financial expenses

	Year 1	Year 2	Year 3
<b>COGS</b>	720.600,00€	1.681.400,00€	3.603.000,00€
<b>Operating Expenses</b>	766.070,00€	1.306.040,00€	2.323.114,00€
<b>Resulting Expenses:</b>	1.486.670,00€	2.987.440,00€	5.926.114,00€

## 8.7 FINANCIAL NEEDS OBTAINING

We present an attractive financial obtaining plan for potential investors, outlining the conditions and benefits of investing in our venture. The total initial investment required is 3,000,000 €, which will be collected from various types of investors, including individuals, angel investors, and institutions. The minimum investment amount for each investor is set at 50,000 €, ensuring manageable control with a maximum of 60 investors.

In the third year of operations, as evidence of profitability and the company's well-being, a return of 10% of the initial investment will be distributed to the investors. This means that if an investor contributed 50,000 €, they will receive a return of 5,000 € at this milestone.

From the 5th year until the 11th year, investors will receive an annual return of 22.22% on their initial investment. This consistent return over a period of seven years offers a compelling opportunity for long-term growth and financial gain.

It is important to note that investors will not have the power or right to withdraw their initial investment at any point. Instead, they will patiently wait for the natural return of their invested capital, which will provide them with greater financial benefits in the long run.

The investment structure will be operated as debt, and in the unfortunate event of the business not being solvent, investors will only receive their initial investment back and not the potential profits earned.



However, this debt will be paid over a period of 30 years in the case of default, ensuring a reasonable timeframe for recovery.

The projected profitability for investors, assuming all goes as planned, is approximately 66.67% over an 11-year period. This represents a substantial return on investment and compares favorably to other investment options, such as the profitability of Spanish bonds in 10 years, which stands at 3,501% as of 23 of April, 2023 (Investing.com, 2023).

By presenting this comprehensive financial obtaining plan, we invite investors to join us in the journey towards success, offering them a solid investment opportunity with significant potential for long-term profitability.

## 8.8 INVESTING INFORMATION

This section provides useful information for the potential investor to consider. Although due diligence is normally done by the investors and this metrics are obtained through their methods it can be a good sign to provide extra clarifying information when facing an investing round.

- **Break-Even Point:** Calculating the break-even point is crucial for businesses as it determines the minimum sales or units needed to cover costs and achieve profitability. It aids in pricing decisions, cost management, financial planning, and attracting investors. For the following calculations the same operation costs as in the forecasted scenario are used. These are taken as fixed costs, meaning that no matter how many units are sold things such worker numbers or logistic costs are maintained.

Table 8: Break-Even point

	Year 1	Year 2	Year 3
<b>Margin per Unit</b>	2.598,77€	2.598,58€	2.598,40€
<b>Fixed Costs</b>	766.070,00€	1.306.040,00€	2.323.114,00€
<b>Break-Even Point (Units)</b>	≈ 295	≈503	≈895

- **ROE (Return On Equity):** It is a critical metric to assess a company's profitability and efficiency in generating returns for shareholders. It helps investors gauge the company's financial performance, compare it with peers, and evaluate management effectiveness. A higher ROE attracts investors and indicates the company's ability to fund growth while maintaining financial stability. In this case the three million euro's equity obtained through investors is split evenly throughout the three operation years. In that way the calculations are done with the same equity value for all years.

Table 9: Return on equity

	Year 1	Year 2	Year 3
ROE	1.02%	38.47%	95.59%

## 9. BUSINESS EVALUATION & FUTURE VISION

In this section both the possible outcomes and the future vision of how the company could evolve are contemplated. For these different scenarios and suppositions are created, being able to visualize how the company could behave in the near future.

### 9.1 EXPECTED OUTCOMES

The idea of this section is providing a view of how the company would be affected by different results during the first three operation years. Mainly, the changes in situations are determined by changes in selling units but also resources and operating costs need to be adapted, since not as much materials and labor hand is needed for a smaller-size business. Taking this into consideration the following potential P&L statement outcomes are forecasted.

- **Pessimistic Scenario:** The following scenario is based on the assumption of 100, 200, and 300 sold units during the first years. As it can be seen in the P&L, the company would not survive these figures. Not only would it not be profitable during the first year, but the situation would worsen over the years, increasing debt and inevitably leading to the closure of the business. During these estimations expenses have also been reduced since manufacturing 300 units requires very different resources compared to 100. However, there are certain expenses that cannot be eliminated in order to aim to achieve profitability, such as marketing. Without investing in marketing, it would not be possible to reach even those low figures. On the other hand, one thing that has been reduced is salaries. This has a positive impact in the short-term if the company is able to find workers, but it

is highly negative in the long-term. Treating workers poorly is reflected in their efficiency and loyalty to the company in the future, completely destroying the internal health of the firm.

	Year 1	Year 2	Year 3
<b>Revenue</b>			
<b>Product Sales</b>	499.999,00 €	999.998,00 €	1.499.997,00 €
<b>Services Revenue</b>	98,50 €	197,01 €	257,17 €
<b>Total Revenue</b>	500.097,50 €	1.000.195,01 €	1.500.254,17 €
<b>COGS</b>			
<b>Material Costs</b>	720.600,00 €	1.681.400,00 €	3.603.000,00 €
<b>Gross Profit</b>	- 220.502,50 €	- 681.204,99 €	-2.102.745,83 €
<b>Operating Expenses</b>			
<b>Operation Expenses</b>	454.000,00 €	695.000,00 €	950.000,00 €
<b>Other Exoenses</b>	75.460,00 €	123.766,00 €	187.368,00 €
<b>Total Expenses</b>	529.460,00 €	818.766,00 €	1.137.368,00 €
<b>EBITDA</b>	- 749.962,50 €	-1.499.970,99 €	-3.240.113,83 €
<b>Depriciation</b>	- €	- €	- €
<b>EBIT</b>	- 749.962,50 €	-1.499.970,99 €	-3.240.113,83 €
<b>Interest Expense</b>	- €	- €	300.000,00 €
<b>EBT</b>	- 749.962,50 €	-1.499.970,99 €	-3.540.113,83 €
<b>Income Tax Expense</b>	- €	- €	- €
<b>Net Income</b>	- 749.962,50 €	-1.499.970,99 €	-3.540.113,83 €

Figure 20: Pessimistic scenario

- Optimistic Scenario:** Although the realistic scenario is already quite positive and optimistic, the intention of presenting this scenario is to simulate the possible unexpected luck that sometimes occurs in the business world. By simulating sales of 500, 1000, and 2000 units during the first three years, the results are extremely positive. Just like in the previous scenario, expenses need to be adjusted on relation to the realistic scenario. The cost of goods sold (COGS) will be considerably higher, and more workers will be needed to serve a larger number of customers. On the other hand, profits from services will also be higher since, for example, more customers are expected to result in more repairs, spare parts purchases, maintenance, etc. It is important to consider that this scenario is less likely than the pessimistic one, as a relatively small percentage of startups succeed, and even fewer at that scale. Nevertheless, luck is something that should always be taken into account and considered.

Profit & Loss Statement	Year 1	Year 2	Year 3
<b>Revenue</b>			
Product Sales	2.499.995,00 €	4.999.990,00 €	9.999.980,00 €
Services Revenue	410,51 €	534,35 €	799,69 €
<b>Total Revenue</b>	<b>2.500.405,51 €</b>	<b>5.000.524,35 €</b>	<b>10.000.779,69 €</b>
<b>COGS</b>			
Material Costs	720.600,00 €	1.681.400,00 €	3.603.000,00 €
<b>Gross Profit</b>	<b>1.779.805,51 €</b>	<b>3.319.124,35 €</b>	<b>6.397.779,69 €</b>
<b>Operating Expenses</b>			
Operation Expenses	749.000,00 €	1.261.000,00 €	2.272.000,00 €
Other Exoenses	129.564,00 €	230.650,00 €	399.110,00 €
<b>Total Expenses</b>	<b>878.564,00 €</b>	<b>1.491.650,00 €</b>	<b>2.671.110,00 €</b>
<b>EBITDA</b>	<b>901.241,51 €</b>	<b>1.827.474,35 €</b>	<b>3.726.669,69 €</b>
Depriciation	- €	- €	- €
<b>EBIT</b>	<b>901.241,51 €</b>	<b>1.827.474,35 €</b>	<b>3.726.669,69 €</b>
Interest Expense	- €	- €	300.000,00 €
<b>EBT</b>	<b>901.241,51 €</b>	<b>1.827.474,35 €</b>	<b>3.426.669,69 €</b>
Income Tax Expense	225.310,38 €	456.868,59 €	856.667,42 €
<b>Net Income</b>	<b>675.931,13 €</b>	<b>1.370.605,76 €</b>	<b>2.570.002,27 €</b>

Figure 21: Optimistic scenario

- **Realistic Scenario:** As already presented this is the realistic forecast for the first three operation years. It is based on selling units of 300, 700 and 1500 along the years. This would represent a very positive scenario first years of a start-up that would lay the foundations for a successful future.

	Year 1	Year 2	Year 3
<b>Revenue</b>			
<b>Product Sales</b>	1.499.997,00 €	3.499.993,00 €	7.499.985,00 €
<b>Services Revenue</b>	235,34 €	414,01 €	621,02 €
<b>Total Revenue</b>	1.500.232,34 €	3.500.407,01 €	7.500.606,02 €
<b>COGS</b>			
<b>Material Costs</b>	720.600,00 €	1.681.400,00 €	3.603.000,00 €
<b>Gross Profit</b>	779.632,34 €	1.819.007,01 €	3.897.606,02 €
<b>Operating Expenses</b>			
<b>Operation Expenses</b>	665.000,00 €	1.121.000,00 €	2.000.000,00 €
<b>Other Exoenses</b>	101.070,00 €	185.040,00 €	323.114,00 €
<b>Total Expenses</b>	766.070,00 €	1.306.040,00 €	2.323.114,00 €
<b>EBITDA</b>	13.562,34 €	512.967,01 €	1.574.492,02 €
<b>Depriciation</b>	- €	- €	- €
<b>EBIT</b>	13.562,34 €	512.967,01 €	1.574.492,02 €
<b>Interest Expense</b>	- €	- €	300.000,00 €
<b>EBT</b>	13.562,34 €	512.967,01 €	1.274.492,02 €
<b>Income Tax Expense</b>	3.390,58 €	128.241,75 €	318.623,00 €
<b>Net Income</b>	10.171,75 €	384.725,26 €	955.869,01 €

Figure 22: Realistic scenario

## 9.2 POTENTIAL SOCIAL & ENVIROMENTAL IMPACT

There is a strong belief that this product can be relevant in today`s society. It combines the integration of technology, which mostly all individuals are already accepting as part of their lives, and the need for having a good rest and sleep. Nowadays is hard to conciliate sleep, more than ever before. This is due to the fast-pace society surrounding us, the pressure that we put under our shoulders and the constant evaluation and comparison of who we are through social media. For this reason, the development of this business plan could not come in better time. It will not only hopefully create value towards founders, but towards a society that is screaming for help. It is not just a product but a new step in society, a change that could be followed by big companies in the industry starting a disruption that will be soon seen as a normal part of our lives.

It is socially oriented, having the goal of positively influencing society. It complies with all seventeen Development Goals (SDGs) of the United Nations. Not only that, but it contributes to the third one: "Good Health & Well Being". When it comes to the environment, choosing the right partners will determine its

either positive or negative impact. Since basic steps in the supply chain such as manufacturing or logistics are all outsourced, the way AXEL can contribute the most is by spending time looking for the right partners that align with values that prioritize the protection and preservation of the natural environment and promote sustainable practices.

### 9.3 EXISTING RISKS

The biggest risk is not being able to achieve the forecasted sales. This would reduce the projected profits and jeopardize the entire project. There may be different factors causing this, with the most important being the inability to transmit the message to the customer and therefore not being able to convince them of the great importance of their purchase. Additionally, customers may not agree with the sale price or simply may not be willing to pay for it. Therefore, marketing will be crucial in the project, as through social media and advertising, AXEL will have the opportunity to communicate its usefulness to potential buyers. Ultimately, the success of the project depends on the investors. Their belief in the project will highly determine its future outcome.

While the product holds significant potential, one possible risk is the threat of idea replication. A competitor with stronger financial resources could copy our idea and create a similar product at a lower cost. To mitigate this risk, we need to implement various forms of protection, such as copyright and design rights. If our product features something truly innovative, we may also explore options like patents or utility models. These legal safeguards will provide a level of protection against direct copying and imitation.

It is crucial for us to continuously innovate, not only AXEL but also by developing a bigger portfolio expanding our product's offering. Beds are not something bought often but just a few times in a lifetime. Therefore, having loyal customers does not guarantee solid constant revenues. Nevertheless, by offering more opportunities AXEL will serve as a first step and help to establish the brand image and gain the first loyal customers that hopefully will continue buying other products.

While these risks exist, we are confident in our ability to navigate the market and leverage our strengths to maintain a competitive advantage. We will closely monitor the industry landscape, adapt our strategies accordingly, and stay at the forefront of innovation to ensure the long-term success of our product.

### 9.4 FUTURE IMPLEMENTATIONS

In future years the company would like to offer the customer new adaptations and specializations. It is envisioned a wide product portfolio, with new beds for different sizes, for kids, for disabled people, for specific sicknesses and for professional athletes among other ideas. In this way, each individual or

association could choose what they believe can serve them better. A hospital might want to bring beds with the intention of improving the patient's health and happiness, or a high performance training center might want to improve the performance of their athletes. Apart from this, different gadgets might be offered to the customer beyond the strictly standard ones, making it a more personal purchase.

Finally, although all these stated goals revolve around AXEL, it is a dream that this company will be able to become a technological innovation firm. In this way being the potential future duty of the company helping and providing society with many new ways of looking at things, not just focused on the bedding industry.

## 10. CONCLUSION

This product has great potential. Being an innovative idea different from the rest in the market, it has possibilities to differentiate itself and make a name for itself, both the brand and the product. Some key strengths are the time-frame, the innovative part of the product, the relatively blue ocean space among competitors and the social tendencies looking at personal health. It is true that we are in a social moment where this product could come in handy, due to the increased difficulty of sleeping and resting more than ever before, however, there are risks. The product is targeted at a privileged audience with the ability to invest in something that is not necessarily essential or a priority in their lives. Not having the expected reception in the market could affect the sales of units, turning into a pessimistic scenario, already simulated, that would ultimately finish with the idea and the company immediately. Exhaustive control over partners and employees will be necessary. Quality and performance must be constantly reviewed since early stages of a company's life, issues like these can be decisive. This product not only aims to profit the team members but also to generate a social change always lead by a responsible behavior towards the environment.

Lastly, throughout this journey and the creation of the business, the SMART methodology will be used in order to make sure that the work is present and progress is made correctly: Specifically, a minimum of 8h a day will be dedicated to the development of AXEL. Moreover, starting with the time-line presented in the action plan, a more detailed and day by day one will be developed, similar to the one earlier created for tracking the development of this business plan. Additionally, the team will seek guidance from experienced entrepreneurs, investors, and industry experts to ensure our business idea is feasible and our strategies are effective, thus making it attainable. Launching this product can be relevant not only to society but also to the team members' lives, providing the opportunity for personal fulfillment and satisfaction as the company is being shaped. As for the time-bound aspect, the launch of the product is

projected for August 1st, 2024. From today onward, effort and dedication will play a crucial role and will, of course, continue to do so even after the product is released into the market.



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## APPENDIX

Next, the calculation needed to obtain the break even and the return on equity values are provided for the reader:

• Break Even Calculation in Units

The following formula is used:  $X \cdot M - F.C. = 0$

$\downarrow$        $\downarrow$        $\downarrow$   
 Units    Margin    Fixed Costs  
           per unit

• Year 1

F.C. = 766070,00 €

M =  $\frac{1500232,34}{300} - \frac{720600,00}{300} = 2598,774467 \text{ €}$

X = 294.93 Units

• Year 2

F.C. = 1306040 €

M =  $\frac{3500407,01}{700} - \frac{1681400}{700} = 2598,5814 \text{ €}$

X = 502,59729 Units

• Year 3

F.C. = 2323114,00 €

M =  $\frac{7500606,02}{1500} - \frac{3603000,00}{1500} = 2598,404 \text{ €}$

X = 894,65419 Units

### ROE Calculation:

Year 1:

$$\frac{\text{Net Profit}}{\text{Equity}} \times 100 = \text{ROE} = \frac{10171,75\text{€}}{1000000\text{€}} \times 100 = \underline{1,0172\%}$$

Year 2:

$$\text{ROE} = \frac{\text{Net Profit}}{\text{Equity}} \times 100 = \frac{384725,26\text{€}}{1000000\text{€}} \times 100 = \underline{38,4725\%}$$

Year 3:

$$\text{ROE} = \frac{\text{Net Profit}}{\text{Equity}} \times 100 = \frac{955869,01\text{€}}{1000000\text{€}} \times 100 = \underline{95,5869\%}$$