

Section 1 – Contact Details

Project Name: BabySister

Promoter Details

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Section 2 – Product or service

Product or service

BabySister is a smart wristband that is used to monitor babies' vital signs. This will give parents peace of mind, as all the information about baby's temperature, sleep pattern, heartbeat, and breathing, will be easily displayed on mommy and daddy's smart phone through an application developed for **BabySister**. Furthermore, if the baby has any irregular reaction out of the average vital signs for babies, **BabySister** will immediately send an alert to the parent's phone to check their baby, given them time to help their child and call for help at the right time.

BabySister will offer the smart wristband and a mobile application to be downloaded and used in conjunction with the product. The smart wristband will communicate with the phone to keep the child career updated with the baby health. The product is being designed putting baby's Health & Safety as priority.

Products available to buy today are not comparable with the one **BabySister**' bringing to the market. Competitor has only one feature, differing from **BabySister**, which is carrying all features in the same product. The materials that are being researched and are going to be used for the wristband are not harmful for babies' skin.



Future plans

Initially, **BabySister** will focus on a unique smart wristband, with the features being its selling point. Further work could bring to the market different bands and more sophisticated technology, such as tracking GPS for children over 36 months to avoid kidnaping or missing kids. The mobile application needs to be fully developed for iOS and Android users. Also, for future plans, **BabySister** will have a camera feature which the parents can also see their baby for peace of mind.

Section 3 - Marketing

Market research

BabySister belongs to the category of consumer durables in the technology industry. The start-up sees itself as an e-commerce company that has to operate in a regulated, saturated market, facing strong competition from international companies, such as Fisher-Price, Owlet and Mimo. Investment in innovative technologies, as well as omnichannel marketing and e-commerce operations, will render competitive advantage which further intensifies competition for the start-up.

The population of new born baby in Ireland is 63,894 in 2016. As **BabySister** is targeting on baby and toddler (age between 0 to 36 months), it is expected to have an approximate of 191,682 who will be the users of **BabySister**. For the purposes of planning, it is assumed that each month has 4 weeks and that there are 52 weeks in a year. In year one (2018), the **BabySister** targets 5% of the total market of 191,682 children which equals to 9,584 children. In year two (2019), the company targets 10% of the market, which accounts for 19,168 children. In year three (2020), the estimated 15% equals to 28,752 children.

Customers

BabySister is targeting on new parents who are expecting a baby or already has one between 0 to 36 months. They will more likely to appreciate on having a simple-to-use single device which will prevent the babies from sudden deaths either at home, on trips or anywhere. Many parents suffer from lack of sleep and it is difficult to cope with the new baby when parents are tired.

The product will give parents a good rest, as have all the information about baby's temperature, sleep pattern, heartbeat, and breathing, will be easily displayed on parent's smartphone through the app. **BabySister** will reduce the chances of anything abnormal to happen with the baby while parents are not focusing on them. Imagine being able to check on newborn no matter where parents are. **BabySister** will alerts immediately to parents' through the smartphone when their baby's vital signs get out of average.

Market trends or Issues

The market for **BabySister** is expanding due to changes in the external environment. According to the data released by CSO, the death rate of kid under one year is 237 in 2016. It was among the highest death rate as compared with other kid's categories. There are many reasons that cause high death rate on kid under one year and one of it is due to careless parents. In order to give a mind rest for the parent's and reduce accident happen on the babies will increase demand for the product.

According to the most recent research, United Nations estimates that the current world population is 7.6 billion as of April 2018. Global population is projected to increase to 8 billion by 2025 with birth rates going up in the world. Over five years till April of 2016, the total number of families increased by 3.3% to 1,218,370 in Ireland. The average number of children per family remained at 1.38 in 2011 and 2016. In the different countries, parents can find the product helpful to record baby's life and also give a mind rest to them. This fact offers the start-up a great potential to grow internationally. The increase in global population has create an opportunity for **BabySister** as this is because there will be more potential customers that can be targeted in the future.

There are good prospects for the start-up to grow in global and European markets, starting with Irish market. The start-up sees itself as an e-commerce company selling the product on national and UK markets expanding later abroad.

Competitors

Competitor	Strengths	Weakness
<p><i>Fisher-Price</i> (\$249.99) https://www.fisher-price.com/en_GB/index.html</p>	<ul style="list-style-type: none"> - Well established company since 1930 - Reputable brand name - Provide a variety range of products to children at different age - High product quality standards - Competent on research and product development - Provide free shipping 	<ul style="list-style-type: none"> - Price of product is relatively high - Product has only one feature
<p><i>Owlet</i> (\$299.99) https://owletcare.com/</p>	<ul style="list-style-type: none"> - Product uses pulse oximetry technology - Provide free shipping - Has its own Research and Development facility - Helps to solve incredibly needed problem e.g. SIDS - Information on infant health is collected and store in cloud - Strong financial investment 	<ul style="list-style-type: none"> - Price of product is extremely high - Product falls easily from baby's foot - Limited target market - Technical issue such as false alarm on product - Have to pay a monthly subscription fee of \$7 for mobile application
<p><i>Mimo</i> (\$199.99) https://www.mimobaby.com/</p>	<ul style="list-style-type: none"> - Product uses lowest power and machine washable fabrics - Collaboration with well-known brand in the industry such as Johnson & Johnson - Providing information needed for the target market 	<ul style="list-style-type: none"> - Only target on limited age group - Does not sell it directly to the customer but using B2B operation - Price of the product is high

Promotion

Method	How	When	Cost
<i>Trade Show</i>	BabySister will be participating in Pregnancy and Baby Fair which held by SMA Baby Club in Dublin. This helps to get more people to know about the product at the same time gain useful advices from the parents in order to improve the features of the product.	Starting in the Second Half of 2021	Estimated in €75,000/Year Including; the exhibit space, exhibit design, labor cost, promotional materials (poster, banner and flyers) and show services.
<i>Social Media</i>	BabySister will be using Facebook, Instagram and Twitter in order to promote its product to the target market. Content of the posts are tailored by the marketing department and fit well in its target market.	Throughout the business year.	In order to get more people to view the posts from social media which might link them to purchase action, BabySister will be spending a budget of €2,000 per month to boost the posts across the social media platforms.
<i>Press Release and Advertisement</i>	Press release will be sent out to the local newspaper in Ireland once the product has official launched. This can help BabySister in promoting the product as people read the news regularly. BabySister will advertise on family and parenting magazines in Ireland as well as it focuses on the target market. It is expected to advertise at least 3 advertisements per year.	First and Second Year of business operation.	Press release is an inexpensive way for BabySister to promote the product as the editors will publish it for free as long as the press release is newsworthy. It is expected to spend €10,000 per half page advertisement on the magazines.

Place / channels of distribution

BabySister will be distributed to the customer through the Internet, as an e-commerce. By selling the product only online, it helps the company to save the cost of paying the rent for the retails. However, the main reason **BabySister** decided to distribute online is because high potential global market can be reached through the Internet in a short period of time. Besides, instead of setting up an own retail shop, **BabySister** will then sell the product to other toys and juvenile retailers such as Smyths, Toys Superstore, Mother care and Little Dreamers through B2B operation. By doing so, more potential customers will know about the product through their local trusted retailers.

The products will be manufactured and stored in the warehouse which is located in Galway, Ireland. Once the customer places an order online through the **BabySister**'s website, the warehouse staff will then dispatch and ready to send the package to the customer through Irish local courier service such as DPD Ireland and A Post. Free shipping will be given to the local market and global market once the customer purchased the product.

Is there evidence of a real international business opportunity?

There are of course evidences of real international business opportunity. As the Sudden Infant Death Syndrome (SIDS) in Ireland was of 237 only in 2016. According to the data released by CSO, it is among the highest death rate for kids. This is not only happening in Ireland but everywhere and **BabySister** is not only helping parents in Ireland but aiming in helping the parents worldwide.

Besides, researches have been done by the team members and noticed that there are few baby monitor products which help in tracking the baby's sleeping patterns but higher in price and only focusing one feature, unlike **BabySister** which is cheaper in price and carries all the features needed in monitor the baby's vital signs. Thus, **BabySister** will be the alternative for the parents who are looking for better quality baby monitor product in cheaper price as compared with others.

Section 4 - Intellectual Property

Have you legally protected your Product/Service to date?

No, **BabySister** has not yet legally protected the product. The design still in progress and researches being done to turn an outstanding product, so it is in a constant change to better suit the developers and customers' needs. **BabySister**'s team will wait until the design is fully decided, and then a patent application will be done. Our team are already working on writing the report for the application to apply for the patent. It will be applied for an International Patent. Also, a trademark for the logo will be done. The logo that will be in the future legally only used for our product/company, which was created especially for **BabySister** and developed by our team, is the following;



A lot of researches was completed before bringing the idea of this product forward, about patents, trademarks and copyrights. Those researches were done to check if we were really innovating with **BabySister**, or if there was any similar product already in the market. There was not found any patents, trademarks or copyrights that could have any issues with **BabySister**. Of course, there were few products that are already in the market that today became our competitors (mentioned on competitor's chapter), but none were similar to **BabySister**, as our product combines all features in one. **BabySister** will seek with Enterprise Ireland for help on the application of copyright and Intellectual Property.

Section 5 – People

BabySister company is owned by five professional people who has equal ownership. As it is a start-up in its initial phase and first year, the aim is to grow faster as possible. At the beginning of the company, to save money and apply more to materials and advertises, the owners will do most of the jobs needed to bring the product from idealization to the market. The owners are all well prepared to drive the company to success, as the CEO, Operational and Product Development managers are Mechanical Engineers, and specialized in Product Design. For the financial and marketing, the company has the other two owners who are from Business and Marketing field.

Of course, as none of the owners has experience in the field of electronic, programming and accounting, which are one of the most important processes to function the product, the company will start hiring a part-time Electronic Engineer, a Software Developer and an accountant consultant.

Owners' strategy to drive the business at the beginning will be only until the first target of 5% of the 190,000 prospective buyers are reached. When this first step is achieved, it will allow the company resources to hire two Sales Agents and more time will be applied into Research & Development to help the **BabySister** sell abroad and succeed.

Job Title	Full Time	Part Time
CEO	1	
Research & Product Development Manager	1	
Financial Manager	1	
Marketing Manager	1	
Operational Manager	1	
Electronic Engineering		1
Software Developer		1
Accounts Consultant		1
Sales Agent (Expected for Year 2)		2
Double number of employees (Expected for Year 3)	10	
Total:	15	5

Section 6 – Finance

Capital costs

Capital items owned	Value €	Capital items required	Value €
Equipment/tools	350	Equipment/tools	5,000
ICT	2,700	ICT	5,000
Office Furniture	200	Office Furniture	500
Total	3,250	Total	10,500

The smart wristband is on prototype phase and uses standard parts. For the final product, **BabySister** will have its own motherboard, with all the sensor allocated on the board instead of dongles adding space. The table below shows the parts price breakdown for the prototype;

	Part	Farnell	Mouser	CPC	AliExpress	Link for the cheapest
Main board for wristband	Tiny Tile	31.52	39.23	43.47	-	http://ie.farnell.com/element14/tinytile/intel-tinytile-quark-mcu/dp/2611579?ost=tinytile&ddkey=http%3Aen-IE%2FElement14_Ireland%2Fsearch
To use in the base	Raspberry Pi 3	32.09	43.23	32.33	-	http://ie.farnell.com/raspberry-pi/2773729/raspberry-pi-3-model-b/dp/2842228
Charge	Lion Battery	6	-	-	-	-
	Qi Standard Board	-	-	-	11.69	-
	NFC Charging	7.65	-	-	-	http://ie.farnell.com/tdk/wr524830-16f3-nf-g/charging-coil-nfc-antenna-rx-19/dp/2790534?st=nfc%20charging
Sensors	Temperature	2.59	-	-	-	-
	Heart Rate	4.8	-	-	-	-
Wristband	Rubber Mold	10	-	-	-	-
TOTAL	106.34					

The cost of the prototype was based on batches for each product. For the final product, the price of the motherboard created specifically for the use of **BabySister** by Analog Devices based in Limerick or Celestica based in Galway. It will make the product have its price diluted, making it cheaper, more efficient and smaller. Making our own motherboard it will increase the price of raw material about 50% from the total price of prototype.

Variable costs

Variable costs e.g. stock, materials	Costs per annum
Raw material	€228,807
Manufacture	€47,500
Total variable costs	€276,307

Fixed costs

Fixed costs	Costs per annum
Rent & rates	€12,000
Heat, Light & power	€2,000
Tel & internet	€600
Vehicle expenses	€4,000
Advertising & promotion	€109,000
Office supplies and postage	€5,000
Accountancy & legal	€2,000
Insurance	€2,200
Sundries	€1,500
Staff costs	€180,000
Finance charges	€4,880
Drawings	€0
NIC (Class II)	€60,000
Packaging	€35,840
Logistic	€61,577
Interest on Loans & OD	€2,500
Total	€483,097

Pricing

The pricing for the smart wristband needs to integrate many costs that can be broken down into different categories; expenses, technology (sensors), material, production and design (table with prices showing on previous page). The owners of **BabySister** has a RRP expected to be **€220** whereby the pricing will be less than the competitors such as Mimo, Fisher-Price and Owlet (see competitors section).

Sales

Month	1	2	3	4	5	6	
Sales €	33,000	38,500	44,000	66,000	82,500	88,000	
Month	7	8	9	10	11	12	Total
Sales €	93,500	99,000	110,000	126,500	132,000	132,000	€1,045,000

Sales Assumptions

The total estimated prospective buyers of **BabySister** is 190,000 and the company is targeting on 5% of the total market in the first year. Due to distribution and communication factors, the total market narrows down to another 50%. As mentioned before, the unit price for a **BabySister** smart wristband is €220. Thus, the forecasted sales of **BabySister** in first year will be €1,045,000.

Funding

Project Costs	€	Sources of Funding	€
Capital Costs	10,500	Promoter	150,000
Variable Costs	276,307	Family/Friends	130,000
Fixed Costs	483,097	Banks	250,000
		Entrepreneurs Awards Prize (Expected)	10,000 + 50,000

Exports

In the first year, the company will focus in growing inside the UK and Irish market. When **BabySister** meets a growth of 10% in the Market Share, **BabySister** will then start to exploit its potential towards Europe. With further growth, the plan is to export to North America and South America. The last step is to export to Asia, as it is the biggest consuming market.

BabySister has with its five owners, 4 different origin countries and we are keen to export the technology to those countries. The birth countries of the owners are, Brazil, Malaysia, Oman and China. It will make it easier to start the exportation process as they have professional contacts inside of each country. Globalization and a free movement of people within and between countries can facilitate product's demand due to the following characteristics: lightweight, portable, compact. Globalization also creates an opportunity for **BabySister** as there will be more international target market that can be reached. Having the contacts in different continents it will allow to easily export.