

# MARKETING PLAN FOR SMARTSHIELD

- Team SPI



## **1.0 EXECUTIVE SUMMARY**

SPI designs, manufactures, and markets the SmartShield, a new powerful and reliable smartlock, that uses wireless power technology. Wireless power technology offers SmartShield's users a powerful battery. SmartShield is a technologically advanced product compared to existing smart locks and provides users added benefits of added security and freedom from keys. SPI's ultimate goal is to establish a smart lock using USG's technology canvas to give users peace of mind.

SmartShield's target customers are home owners with a focus on millennials and baby boomers. However, SmartShield can deliver powerful benefits to non residential buildings too.

This marketing plan outlines an analysis of the smart lock market, with an emphasis on competitors and customers. Based on this, a SWOT analysis for SmartShield is made. This is followed by the key product and marketing strategies for SmartShield. A financial projection is also included along with a plan to monitor and evaluate the performance of SmartShield in the market.

## **2. 0 MISSION STATEMENT**

Blend seamless engineering and innovative design using USG's technology canvas to create a next-generation, simple smart lock that provides users maximum convenience and reliability.

SmartShield leverages the benefits of wireless power technology to offer users an ever-lasting powerful and reliable smart lock, eliminating the need for keys. Wireless power is used to overcome the problem of frequent battery drain. SmartShield's failsafe mechanism allows users to operate their lock mechanically in case of a power shutdown.

### **Goals and Objectives**

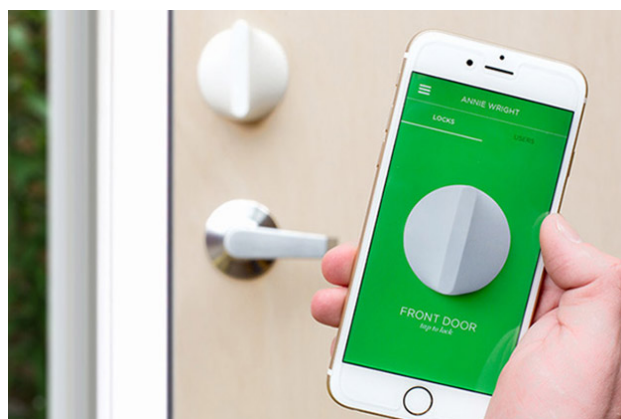
- Launch an innovative smart lock that can be easily embedded into retrofit construction using USG's technology canvas in 3 years.
- Expand SmartShield to be more than just a locking system by including other home security and automation features in 3 years. Offer smart lock and control

facilities for windows etc. Offer upgrades and packages to target different segments of market.

- Expand to commercial building markets such as corporate offices, educational institutions, hospitals, hotels, laboratories, etc. by customizing SmartShield as needed to fulfil the specific industrial requirements.
- Build and maintain a brand image known for simple, yet innovative products. Continue to learn about latest developments and trends in home improvement, and smart technology to be able to further differentiate our offerings from those offered by our competitors.
- Acquire a global market share of 0.5% in the first year after launch. Achieve net profit margin of 8% within one year.

### **3.0 MARKET OVERVIEW**

Millions of people, all over the world, use the lock and key solution to safeguard their homes. The advance of technology has allowed for inclusion of features that allow users to operate their locks with their phones giving buildings a new level of security and convenience. These smart locks are now expanding to even connect with the larger network of a home automation system allowing users to manage more of their homes, establishing a huge market.



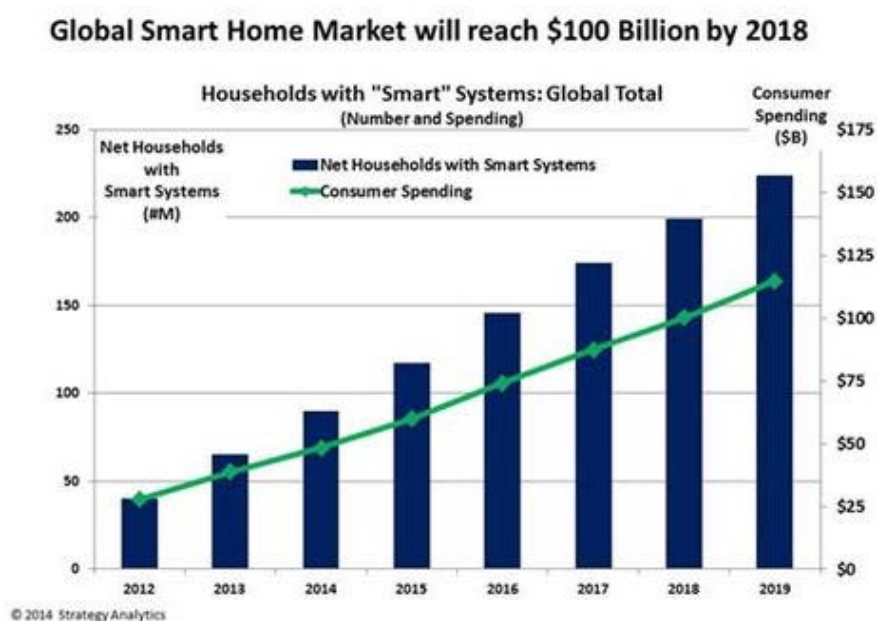
Source: aolcdn.com

There are 1.9 billion smart devices today. This is projected to grow to 9 billion by 2018.<sup>1</sup> Much of this growth can be associated to be a result of the increasing

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<sup>1</sup> Icontrol Networks blog: "2014 State of the Smart Home". Retrieved from <https://www.icontrol.com/blog/2014-state-smart-home/>

popularity of smart home services.<sup>2</sup> Juniper research predicts that the connected home product lines will continue to increase and by 2018, the market will be worth \$71 billion (U.S.). Strategy Analytics reports that 27 million U.S. homes have some form of smart home system, which is 30 percent growth over the previous year.<sup>3</sup> The factors that encourage this growth of the smart home market are the high-design features, decreasing prices, and increasingly simpler installation process.<sup>4</sup> This potential has led to the entry of large-scale service providers like Comcast, Verizon, and AT&T which have recently entered the smart home space creating intense competition.



### Non-residential customers:

In addition to homes, non-residential segments like banking, education institutions and hospitality are also customers to this market. Organizations are adopting these automated security devices to attract more consumers, expanding the prospects for market growth in the near future<sup>5</sup>. Improved convenience and security facilities offer

<sup>2</sup> Michael Wolf. Forbes. "Smart Locks expected to be \$3.6 billion slice of smart home pie". (Feb. 2014). Retrieved from. <http://www.forbes.com/sites/michaelwolf/2014/02/27/smart-locks-expected-to-be-3-6-billion-slice-of-smart-home-pie/#b99e124625e3>

<sup>3</sup> Raju Mudhar, Smart homes get a little brighter; Industry is growing fast, but companies need buyers to supply gadget research The Toronto Star January 11, 2016 Monday

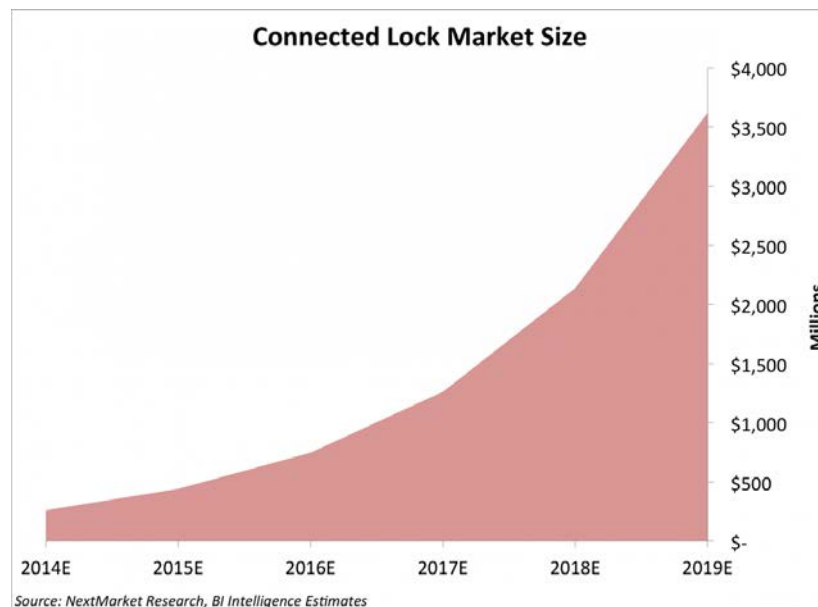
<sup>4</sup> Maya Dollarhide, Oct 2014, "The Buzz at the Door". Retrieved from <http://web.a.ebscohost.com.proxy.cc.uic.edu/ehost/pdfviewer/pdfviewer?vid=8&sid=12368b2e-a3ee-4326-a4b4-c8e6e8d20883%40sessionmgr4003&hid=4107>

<sup>5</sup> Technavio: Global Smart Lock Market 2016 – 2020. (Jan. 2016). Retrieved from <http://www.technavio.com/report/global-warehouse-and-storage-smart-lock-market>

players competitive advantage over other brands. International hotel and resort chain Hilton has recently announced that it was equipping about 4,000 hotels – 600,000 rooms with keyless entry facilities by the end of 2016.<sup>6</sup>

### **3.1 Market Profile**

By 2019, the global smart lock market is predicted to be \$3.6 billion with a Compound Annual Growth Rate (CAGR) of more than 75 percent. In North America, there are nearly 1 million homes using some form of smart lock.<sup>7</sup> This growth may attract security companies into integrating door locks with their security panels/systems. In the future, this integration can expand beyond the traditional “security only” concept into a convenience or lifestyle product.<sup>8</sup>



### **Smartphone integration with Door Locks**

Currently, about two-thirds (64%) of the U.S. adults (~160 million people)<sup>7</sup> own a smartphone, up from 35% in 2011.<sup>9</sup> One of the major factors that played a role in this growth is the convenience smartphones deliver. According to Donnie Beene, Schlage, Carmel, Ind., Product Manager, Residential Security Electronics, “Users

<sup>6</sup> Anthony, S., You can now open hotel rooms with just your smartphone and bypass checkin too, 2014.

<sup>7</sup> Technavio: Global Smart Lock Market 2016 – 2020. (Jan. 2016). Retrieved from <http://www.technavio.com/report/global-warehouse-and-storage-smart-lock-market>

<sup>8</sup> Maya Dollarhide, Oct 2014, “The Buzz at the Door”. Retrieved from <http://web.a.ebscohost.com.proxy.cc.uic.edu/ehost/pdfviewer/pdfviewer?vid=8&sid=12368b2e-a3ee-4326-a4b4-c8e6e8d20883%40sessionmgr4003&hid=4107>

<sup>9</sup> Battery University. “BU – 409: Charging Lithium-ion”. (Nov 2015) Retrieved from [http://batteryuniversity.com/learn/article/charging\\_lithium\\_ion\\_batteries](http://batteryuniversity.com/learn/article/charging_lithium_ion_batteries)

are looking to phone apps to make their physical life easier to manage – and that includes their home security.<sup>7</sup>”

### **Smart Locks and Security**

The need for security is big. Homes without security or alarm systems are up to 300% more likely to be broken-into.<sup>10</sup> A 2015 survey on smart homes conducted by Icontrol Networks indicated that 90% of respondents said personal and family security is one of the most important reasons for their purchase of a smart home system.<sup>1</sup>

Smart locks seamlessly combine and serve both the security and the connected automated home interests of home owners making them an important role player in the \$9.7 billion U.S. home security market.<sup>11</sup> Currently, about 18 million homes in the U.S. have security systems.

### **Existing Products**

Most smart locks work via Bluetooth connectivity or Wi-Fi connectivity.<sup>12</sup> The most basic smart locks are operated by keypads. The more sophisticated models allow owners to assign temporary or permanent digital keys to particular users. Entry-level locks cost roughly \$70, which is about twice as much as a traditional deadbolt. These keyless locks are operated either by using push-button pads or by an app or simply holding a connected phone near the lock. Some of these locks that are integrated as part of larger “smart home” systems also offer real-time monitoring.<sup>12,13</sup>



However, these smart door locks have high battery drain, needing frequent battery replacement. This limits the convenience of smart locks because users are forced to carry keys in order to not get locked out when their battery dies.

<sup>10</sup> Safety and Home Security Statistics and Facts. Retrieved from <http://www.safewise.com/resources/security-stats-facts>

<sup>11</sup> Statista Market Forecast: Digital Market Outlook: Smart Home. 2016. Retrieved from <https://www.statista.com/outlook/279/109/smart-home/united-states#market-global>

<sup>12</sup> Great Valley Lockshop: Smartphone Door Lock Trends in 2016. (Jan. 2016). Retrieved from <http://www.gvlock.com/blog/smartphone-door-lock-trends-2016>

<sup>13</sup> Griffith, Eric (2015, Jan 7). August, Kwikset Add Remote – Access Features to Smart Locks Retrieved from <http://search.proquest.com.proxy.cc.uic.edu/abiqlglobal/docview/1643404271/fulltext/D57827D9E6AE4230PQ/3?accountid=14552>

### **3.2 Competitive Analysis**

Popular smart locks are from market leaders like August and Kwikset, along with a growing number of startups like Lockitron and Goji.

- **August:** Market leader August is a clean smart lock offering its users smartphone capabilities of connecting and controlling via Wi-Fi. August offers users to send out virtual keys to guests. These virtual keys can be managed. However, the lock can be unreliable and can sometimes unlock without user's control. Another known issue is the long time (30 seconds) needed to connect.<sup>14</sup>
- **Goji:** The Goji lock has an impressive sleek design. It allows users to connect to their locks using a password and sends real-time activity alerts. However, the Goji users pay high upgrade costs.<sup>14</sup>
- **Kevo:** Manufactured by a wellknown sixty year old traditional lock company, the Kevo has strong hardware. Kevo is compatible to work with smarthome systems like the Nest thermostat. This lock allows its owners to grant e-keys aito guests and charges for each key if needed valid for more than a day. Kevo's proximity unlock feature works through bluetooth but has occasional trouble detecting smartphone if inside a pocket.<sup>14</sup>
- **Lockitron:** Lockitron works with Bluetooth and allows for remote access.<sup>15</sup> However, software and connectivity issues exist limiting the performance of the lock. It replaces the dead bolt. The unit is perceived as expensive by consumers.<sup>16</sup>

All these smart locks include keys for use in case of a power shutdown or a battery problem.

### **Distribution and Marketing Channels**

It appears that players in this space implement distribution networks and advertising styles based on their brand image. Some smart lock manufacturers follow normal distribution by selling through locksmiths, builder supply companies, and online

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<sup>14</sup> Carley, K. "Smackdown: August Vs. Kevo Vs. Goji Vs. Lockitron Smart Locks", 2015, Retrieved from <http://carleyk.com/home/smackdown-smart-locks/>

<sup>15</sup> John Carlsen, Lockitron Review. <http://smart-locks-review.toptenreviews.com/lockitron-review.html>

<sup>16</sup> Consumer reviews, Amazon.com



retailers like Amazon.com. In order to maintain a high quality brand name, some choose to be sold only in-store.<sup>17</sup> Kevo is widely available in online retail websites like Amazon, large retailer chain stores, home improvement stores, hardware stores and even wireless service provider stores.<sup>18</sup> Online channels, consumer electronic chain stores and home improvement stores offer many choices of products and are popular among consumers.

### **The new “SmartShield”**

Existing smart locks have low battery life. Due to this, users are required to replace or frequently charge the batteries of their smart locks. In case of a power shut down, users can only operate their locks with keys. This limits the convenience of a smart door lock.

The new “SmartShield” smart lock eliminates the hassle of frequent battery drain. With wireless power capabilities, SmartShield stays powered “on” all the time. SmartShield’s battery life span is five times longer than the longest lasting smart lock currently on the market because the battery gets charged wirelessly when the door is locked. The existing smart locks do not get charged this way because they run off of AA batteries.<sup>23</sup>

					
	SmartShield	Goji	August	Lockitron	Kevo
Never replace batteries	x				
Keyless	x				
Live camera feed	x	x	x		
Proximity unlock	x	x	x	x	x
Remote unlock	x	x		x	
Create user profiles	x	x	x		x
Monitor access activity	x	x	x		
Forced entry alerts	x				

<sup>17</sup> Schuyler Towne, “The Current State of Smart Locks”. (Nov 2014). Retrieved from <http://schuydertowne.com/blog/smart-locks>

<sup>18</sup> Kwikset Company Website



## **SWOT Analysis - SmartShield**

### **Strengths**

- Use of wireless power technology allows SmartShield to better meet the needs of homeowners in ways that competitors do not, e.g., SmartShield provides users the convenience of long battery life.
- Unique powerful product allows SPI to charge higher price for SmartShield.
- Sleek and unique design allows customers to use with their existing door handles.

### **Weaknesses**

- No established brand image. Establishing a reputation will be challenging.
- Need to develop access to distribution.
- High dependence on core competitive advantage – wireless power technology.
- Single product portfolio.

### **Opportunities**

- Partnerships with brand names in home security like XFINITY Home Security.
- Partnerships with insurance companies like State Farm could ensure greater exposure and appeal to potential customers.
- Opportunity to expand into a service provider and offer manage security services of corporate offices, educational institutions. SPI can allow its users to grant digital keys to visitors and charge for each key
- Entry into commercial, residential, healthcare, and hospitality industries, prison facilities, and banks, and lockers in schools, offices, and gyms.
- SmartShield has the opportunity to be part of the repair and remodel markets.
- Entry into smart lock market can open up more opportunities for SPI into the home automation or smart home market. SPI can include more security and convenience features in the future.

### **Threats**

- Intense competition from existing brands like Kevo, August, Goji etc.
- Large companies like Samsung, Google may be looking to expand their business into smart home devices potentially challenging SmartShield.

- Vulnerability to hackers.
- Rapid technological changes in the future may make wireless power outdated.
- Uncertain global economic conditions.
- Increasing labor costs in the U.S.

### **3.3 TARGET AUDIENCES**

- **Generation Y:** Commonly known as millennials or as children of the 1980s, this population is beginning to comprise a higher percentage of new homebuyers. A number of large building developers have recognized this and have created communities targeted toward people in their 20s and early 30s with layouts suited to younger buyers, singles and young families. These homes feature open floor plans, energy efficiency, less formal spaces and more functional elements.<sup>20</sup> This generation will be the most important consumer segment that SmartShield will target.
- **Baby Boomers:** This generation, consisting of more than 76 million people, makes up the second largest portion of the American population, after millennials.<sup>21</sup> Born between 1946 and 1964, and mostly either retired or nearing retirement, they have disposable income and freedom to reshape their homes to suit their needs. This generation has lived through many technological advancements and they are trying to continue to adapt.<sup>22</sup> They are looking for ways to stay connected within their homes. Ease of use is important in many aspects of their lives. These characteristics make Baby Boomers an important target segment for SmartShield.

#### **The other consumer segment groups that SmartShield will target are:**

- **Small Families:** A study performed by McKinsey revealed that married individuals with 1-2 children showed high interests in security. This segment expressed preferences that included connected locks, smoke detectors and remote video feed.<sup>20</sup>
- **Mid to high-income households:** With security being a concern for most people, the comfort of home connectivity appeals to people of most ranges of incomes. The same research from McKinsey indicated that households with income over \$100K are 2.5 times more likely than the rest to be connected because they can afford the price of purchase and maintenance.<sup>20</sup>

- **Multi-family units:** SmartShield can be targeted towards residential units like apartment buildings, hostels, dormitory buildings and other multi-family housing buildings.
- **Hospitality market:** Hospitality industry which includes hotels, lodges, inns, b&bs and other short-term housing can be targetted. Analysts have estimated factors, such as the increasing in-room security measures and convenience in hotels, to drive market growth. Hotel businesses are showing interest in smart locks to satisfy the convenience and safety needs of international customers.<sup>23</sup>
- **Builders and Contractors:** SPI will also target builders and contractors because they are constantly involved in constructing and servicing buildings of homes, offices, hotels, recreation facilities (such as gyms), among other types. Their brand loyalty to SmartShield will result in long-term sales benefits.

## **4.0 PRODUCT STRATEGY**

### **4.1 Core Strategy**

*Use technological innovation to create and launch a new product – “SmartShield” into an existing market.*

Smart locks limit the security concerns of homeowners. They offer users more control of their homes. But, the existing products experience low battery lifetime that impacts the convenience they can provide the users.

Bluetooth and Wi-Fi are the main technologies used to trigger the locking and unlocking mechanism. Bluetooth emits a signal that can travel for about 30 feet and allows control of the lock when user is within range. A Wi-Fi signal on the other hand, allows users from anywhere to connect to the lock via Internet.

However, a reliable Wi-Fi signal requires about 40 times the power of Bluetooth. Due to this, current solutions either do not offer Wi-Fi, need additional hardware to do so,

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<sup>23</sup> Battery University. “BU – 409: Charging Lithium-ion”. (Nov 2015) Retrieved from [http://batteryuniversity.com/learn/article/charging\\_lithium\\_ion\\_batteries](http://batteryuniversity.com/learn/article/charging_lithium_ion_batteries)

or require batteries to be changed too often. All of these current solutions limit the functionality of smart locks.

Wireless power technology can be leveraged to overcome the battery power down issues resulting in increased functionality and security. In addition to a more efficient and sturdier locking system that protects the main door, SPI's SmartShield will eliminate the user's need for keys even in case of unwanted power shutdown or any type of electronic malfunctioning.

#### **4.2 Value Proposition**

SmartShield is powered "on" all the time, providing users more security, more control and more peace of mind.

#### **4.3 Positioning**

Position Statement: SmartShield is the reliable smart lock with wireless power convenience that takes the worry out of home security!

### **5.0 MARKETING PROGRAMS AND TACTICS**

#### **5.1 Product**

**Wireless Power:** SmartShield's main product differentiator is its constant power availability. It is powerful and reliable because it does not need downtime to charge like the other smart locks do. SmartShield delivers owners continuous security and control of their homes.



SmartShield provides more functionality to users due to the availability of constant power when the door is closed and power from the lithium ion battery when the door is open. When the door is closed, power is supplied by a wireless power emitter

from the door frame lock plate. This also keeps the battery in a charged state. Time duration of this setup is limited by the lifetime of the battery, which is approximately five years. This is five times the battery life span of the longest lasting product currently on the market, which currently runs off of AA batteries.<sup>23</sup>



Above: Working of SmartShield

**Power override:** SmartShield permits power override in case a power failure occurs. The mechanical fail safe technology allows users to operate their locks mechanically in the event of a power failure or outage. This mechanism will work similar to a combination lock. In such situations, the button used for the doorbell will extrude allowing users to rotate and input the combination password to unlock the deadbolt.

**Additional Features:** In addition to wireless power, keyless system and the functions that existing products provide, SmartShield also offers users motion and theft sensing, optical surveillance, face recognition, real-time video feed, alerts, and personal reminders. SmartShield also has proximity sensing which enables auto-open.

## **Customer Support**

SmartShield locks will be backed by excellent customer support. SPI will provide customers with online help resources in its website. SPI will offer phone support, live chat support, and email support that users can access when they encounter any issues involving installation, troubleshooting, and maintenance of their smart lock.

## **Limited Warranty**

SmartShield will be warranted against defects in materials and workmanship under normal use for a period of one year from the date of purchase. If a product is determined defective during this warranty period, SPI will repair or replace the product at no cost.

The warranty does not cover damage caused by

- Acts of God, or forces beyond SPI's reasonable control, such as Internet or power outages, floods, earthquakes, accidents, abuse
- Connecting or operating SmartShield to any third party product, service or system
- Use of device for purposes other than for which it was designed or intended

## **Satisfaction Return Policy**

If the original purchaser of the product is not satisfied with SmartShield for any reason, they may return it in its original condition within thirty days of the original purchase and receive a full refund.

## **5.2 Price**

Existing smart locks in the market cost between \$200 and \$220. SmartShield will be providing advanced technology and added reliability compared to these smart locks. SmartShield will be sold at a slightly higher price of \$250. This price is chosen on the basis of psychological pricing strategy. The slight price difference allows SPI to remind consumers that SmartShield provides additional benefits compared to other smart door locks and at the same time be perceived as an affordable product to value-seeking consumers.

## **5.3 Distribution**

SmartShield will be sold through its own website, online retailers (such as Amazon.com), builder supply stores, hardware and home improvement stores (such as Lowe's, Home Depot), consumer electronics chain stores (such as Best Buy), and mass merchandiser stores (such as Walmart, Target and Costco).

## 5.4 Promotion

### Advertising

With its ability to stay powered on continuously, SmartShield is a very reliable smart lock. SPI will use peace of mind as a platform to promote this advantage in its advertisements.

**Print:** In addition to peace of mind, advertisements will promote SmartShield's brand image of simplicity and sophistication in its composition and design. Color advertisements in home magazines (like Real Simple, Automation World, and Home Smart Home), technology magazines and blogs (like Wired) will help SPI 's product gain brand awareness among the target consumer market.

Name of the Magazine	Monthly advertising cost for a color half page ad
Automation World	\$10000
Real Simple	\$12400
Wired	\$6800

To maximize the reach and optimize costs, advertisements will be published in one magazine per month and alternate each month i.e., each magazine will feature an ad once in 4 months.

**Internet Advertising:** Pay-per-view ads on Youtube allow companies to choose to target specific type of videos or views. SPI will choose to target technology and home improvement related videos.

Average price of a pay-per-view ad = \$0.1 to \$0.3 per view<sup>24</sup>

Annual cost of having 10,000 per month =  $10,000 \times 12 \times 0.2 = \$2,400$

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<sup>24</sup> Jason Alleger,\_. How much do ads on YouTube cost? Retrieved from [www.pennapowers.com](http://www.pennapowers.com)



## **Personal Selling**

5 national/key accounts sales personnel will be used to call on wholesalers and retailer headquarters corporate buyers. Their function will be to demonstrate the quality and benefits of SmartShield to end users, as well as demonstrate to distribution channels the profitability of carrying the product in inventory.

Sales force cost per annum = Base Salary + Commission + Bonus on sales + Benefits ~ \$150,000

Total annual sales force cost for a team of 5 = 5 x \$150,000 = \$750,000

## **Sales Promotion**

To generate consumer awareness, SPI can host promotional events during key occasions like product launch. These events will also include demonstration of product benefits, as well as press release.

Average cost of hosting a press release = \$2500

SPI will host promotional events for pre-launch, launch and post launch.

Total cost in the first year = 3 x \$2500 = \$7500

**Trade shows:** Participating in trade shows like International Home and Housewares Show, Consumer Electronics Show etc., will help the SmartShield connect with end users, distributors and other types of buyers.

The Exhibit Designers & Producers Association (EDPA) estimates an industry average of \$138 to \$154 per square foot for exhibits. Total cost of attending one trade show including cost of space, marketing material, shipping charges, travel and other service costs will be about 3 times the cost of the exhibit cost.<sup>25</sup>

Total cost of attending a trade show for a 10 X 10 booth = 100 X \$140 X 3 = \$42000.

Implementing this for two trade shows a year = \$84000.

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<sup>25</sup> Exhibit Budgeting 101: Retrieved from: <http://expooutfitters.com/trade-show-costs-planning-budget-budgeting-101/>

<sup>26</sup> Kevan Lee: You have \$100 to spend on social media marketing. Retrieved from <https://blog.bufferapp.com>

<sup>27</sup> DeMers, J. "How much should you spend on SEO Services?", 2013. Retrieved from: <https://searchenginewatch.com/sew/how-to/2267471/how-much-should-you-spend-on-seo-services>

## Online and Digital Marketing

**Social media** tools like Facebook, Twitter, Youtube are very effective channels to reach the users. Connecting with technology or gadget blogs like The Verge, CNet, Digital Trends will help establish an online reputation that will impact its sales. Online technical support for customers through the SmartShield website will also strengthen consumer's perception of SPI's reliability, allowing for word-of-mouth marketing. Average expense including the costs for outsourcing all the social media marketing tasks = \$4000 - \$7000 per month.<sup>26</sup>

**Web Search Optimization** will improve the visibility of SmartShield's website and make it well positioned on the Internet. This will direct Internet users to the main website and give SPI an opportunity to engage the customers and make a sale. SPI will use a monthly retaining model to have access to regular analytics reports, on-site improvements and up-to-date optimization. Average cost per month for SEO services = \$750 to \$5000. Upper range businesses pay between \$2,500 and \$5,000.<sup>27</sup> SPI will allocate a budget of \$3000 a year for this purpose.

## 6.0 FINANCIALS

### 6.1 Budget

(All in thousands)

Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
<b>Marketing/ promotion</b>													
Marketing agency and Material developing costs	\$50.00			\$50.00			\$50.00			\$50.00			\$200.00
Print advertising	\$12.40	\$10.00	\$6.80	\$12.40	\$10.00	\$6.80	\$12.40	\$10.00	\$6.80	\$12.40	\$10.00	\$6.80	\$116.80
Online advertising	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20	\$2.40
Social media	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$48.00
Web search optimisation	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$30.00
Sales Promotion Events (Launch, press releases)	\$2.50				\$2.50				\$2.50				\$7.50
Events (Trade Shows)	\$40.00						\$40.00						\$80.00
Sales Force	\$62.50	\$62.50	\$62.50	\$62.50	\$62.50	\$62.50	\$62.50	\$62.50	\$62.50	\$62.50	\$62.50	\$62.50	\$750.00
<b>Marketing/ promotion total</b>	<b>\$174.10</b>	<b>\$79.20</b>	<b>\$76.00</b>	<b>\$131.60</b>	<b>\$81.70</b>	<b>\$76.00</b>	<b>\$171.60</b>	<b>\$79.20</b>	<b>\$78.50</b>	<b>\$131.60</b>	<b>\$79.20</b>	<b>\$76.00</b>	<b>\$1,234.70</b>

Total marketing and sales costs for the first year = \$1,235,000.

### 6.2 Break-Even Analysis

Break-Even Point (BEP) is the point at which the total of fixed and variable costs of a business becomes equal to its total revenue.

At break-even point: Revenues = Variable cost + Fixed cost

- ⇒ Sales price per unit x Number of units sold = (Manufacturing cost of a unit x Number of units manufactured) + Total Fixed (Operating) costs for the period.
- ⇒  $\$250 \times Q = \$150 \times Q + \$1735000$
- ⇒ **Quantity to be sold to achieve break-even =  $Q = 17350$**



The break-even point in units is 17350 units and the break-even point in dollars is  $17350 \times \$250 = \$4,337,500$

### 6.3 Financial Projections and Forecast

#### Forecast for the first year

BI Intelligence predicts a global market of \$1200 millions in the year of 2017.<sup>7</sup> SPI targets to acquire 0.5% of the global market share in the first year of launch. This target is chosen considering the time needed to establish a brand value, distribution network, and manufacturing capacity while keeping it high enough to be able to achieve a break-even point in the first year.

This implies that SPI aims to earn revenue of \$6 million in the first year. With a unit selling price of \$250, the number of sales to be made in the first year would be  $\$6 \text{ million} / \$250 = 24,000$  units. This is slightly above the break-even point.

## Profit and Loss (Income) Statement

Income statement for the first year: (All values in thousands)

Gross Revenues	Product Sales	\$6000
Cost of Goods Sold		\$3600
Gross Profit		<b>\$2400</b>
Operating Expenses		
	Sales & Marketing (Calculated)	\$1235
	General & Administration (Estimate)	\$500
	Total Operating Expenses	<b>\$1735</b>
Operating Income		\$665
	Provision for Taxes (25%)	\$166
<b>Net Income</b>		<b>\$499</b>
<b>Net (Profit) Margin</b>		<b>8.31%</b>

The global smart lock market is projected to grow at 75%.<sup>7</sup> Assuming a conservative 20% annual growth rate in the business given that it takes time to establish a brand image, product portfolio, distribution network, infrastructure, manufacturing capacity, and other framework, the five-year financial projections for SmartShield are:

	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Revenue	\$6000	\$7200	\$8640	\$10368	\$12441
COGS	\$3600	\$4320	\$5184	\$6220	\$7464
Gross Profit	\$2400	\$2880	\$3456	\$4148	\$4977
Oper Exp.	\$1735	\$2082	\$2498	\$2997	\$3596
<b>Net Income</b> (All values in thousands)	<b>\$499</b>	<b>\$798</b>	<b>\$958</b>	<b>\$1151</b>	<b>\$1381</b>

## **7.0 MONITORS AND CONTROLS**

Market research in the form of consumer surveys to understand customer's brand awareness of SmartShield, brand recall and purchase intentions will be utilized to get up-to-date information to make accurate decisions for growth after the completion of the first year of launch. These studies help identify the areas that need to be managed to stay on par with the changing consumer needs and habits. Implementing these surveys one year post-launch will also help understand if any feature should be modified to suit the customer better. After the first year, follow up market research studies will be made once every 3 to 4 years to understand consumer's perception of all aspects of SmartShield.

Market share analysis will be used to compare SmartShield with the other popular smart locks and make improvements to the product or sales strategy. Industry analysis will be used to understand the economic, political and market factors that influence the smart lock industry to make strategic decisions accordingly.

Constant monitoring of financial performance to ensure that SPI is on track toward achieving financial goals will be made. The key financial metrics will be net revenues, sales revenues, and growth in sales. In addition to tracking financial performance, SPI will actively seek product-related feedback from existing end users and distributors to improve SmartShield through surveys and interviews.