Plux
Designing a Solution for Growth in the Sports Sector

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EXECUTIVE SUMMARY

This work project is aimed at cooperation with the company Plux towards a project, where we aim to solve a specific problem the company wants to tackle, thus simulating a professional consultancy project.

I started by discussing the problem with the company, where we agreed that the research question for my project would be “How to Increase Plux’s Market Share in the Sports Sector?” Towards this end I structured my work project in 4 key areas. First, I worked towards the Identification area, where I did an environmental, competitor and internal analysis to be able to correctly identify the problem and its context. Then, I proceeded to the Disaggregation area, where I performed a SWOT, Porter’s 5 Forces and Value Chain analysis to disaggregate the problem into its underlying components. This phase concluded with the postulation of 4 hypotheses as to the manifestations of the problem. After arriving at these hypotheses, I did a Validation phase, where I tested the validity of each hypothesis to determine its strategic importance and arrived at the conclusion that the problem was mainly a Marketing and P&S Offering issue. Finally, I provide recommendations to solve both these issues, as well as some limitations as to their applicability and impact.

In the course of my work project, I maintained a close relationship with Plux by way of email exchanges and periodic meetings at their office, conducted interviews to major clients and collected data from competitors and sector institutions. I considered it to be a very rewarding professional work, and I present my thanks both to Plux’s team, who have been extremely helpful throughout the whole semester, and my counselor, for his invaluable advice and support from beginning to end.

Key Words: Plux, Start Up, Brand, Distribution, Innovation, Sports
**IDENTIFICATION**

Plux is a Portuguese firm, founded in late 2007, currently employing 15 people, that develops, builds and sells biofeedback systems. These products consist of a hardware component (placed on the body of the user) that acquires the desired body signals and a software component (placed in a laptop or screen) that allows real time visualization and decoding of raw data for interpretation. All products are have non-intrusive application, possess wireless capabilities and are made to be as miniaturized as possible.

Currently Plux divides its products, and fields of application into 3 sectors: Health, for patient monitoring, follow-up and physiotherapy; Research, for institutions concerned with investigation of telemetry; and Sports, for lesion recovery and performance monitoring and enhancement. Innovation is very present in the firm, and it constitutes one of its greatest advantages. As I will explain later on, it shapes the way they approach the market. In terms of selling, the company has several distribution partners for some products, while others are sold directly by the team. Being a recent company, it is only normal for some areas to not be optimized yet, but Plux already demonstrates enormous potential and is a national benchmark of entrepreneurship and innovation in their sectors.

*Environmental Analysis*

In order to have a greater understanding of the implications and scope of this issue, it is useful to put it in a market perspective. First of all, it is important to note that market here means Portugal, as this is a national project in a primary stage, with future internationalization, if successful. This is useful because Plux’s strategic decisions have to take into account all possible players involved in this market, both as information
sources and as stakeholders. For this, I have drawn an Industry Map (Appendix A-1), to better see the main entities involved and typify their relationships with Plux.

After identifying key stakeholders, I have done a PEST analysis to understand the market landscape. Potential clients for the sports products of Plux are divided in two main groups: Gymnasiums and Sports Clubs or Associations. From a Political view, the environment is slightly positive. On one hand, there is a palpable growing recognition by the government of sport’s vital role in society\(^1\), and as such the state has encouraged the proliferation of sports. IDP has been increasingly active in the professionalization of major sports\(^2\), and initiatives such as the *Centros de Alto Rendimento*\(^3\) are growing. On the other hand, recent government austerity is threatening future investments. As an example, VAT recently increased from 6% to 23% in gymnasiums. Even so, sports’ growing position in society is not expected to disappear, but simply grow less. From a Social view, increased health awareness\(^4\) and aging population have created an increased physical form awareness, and people are changing towards a healthier lifestyle. From 600 private gyms in 2000, Portugal now has 1400, employing over 9.000 people, with members exceeding 600.000, around 5% of the population\(^5\). Moreover, the trend is for even more growth, as Portugal has not yet reached European average of 7,8% of market penetration. Likewise, federated athletes have increased from 260.000 to 500.000 in the last 14 years, with federated clubs now reaching 12.000\(^6\). Football is the most popular with 150.000, but volleyball, basketball and handball all sport over 30.000 federated athletes. From an economic standpoint, the market has been increasing

\(^5\) All data regarding gymnasiums was collected through e-mail exchanges with AGAP, based on official releases of the International Health, Racquet and Sportsclub Association
\(^6\) All numerical data regarding sports associations was taken from the official release of INE, which can be seen in the Bibliography
as well, an important factor when considering my main research question. The gym industry has reported €310 M in profits in 2009, while funding for the development of major sports keeps increasing. The government funds the development of the major sports, with football receiving €5 M in 2007 alone, and each of the other mentioned sports receiving around €3 M. Lastly, from a technological point of view, the growing inclusion of technology in sports by the scientific community, as exemplified by Bar-Eli et al. (2002) is facilitating the appearance of companies such as Plux.

This makes for an overall positive environment and seems to create little resistance for market share growth in an innovative company such as Plux.

**Competitor Analysis**

A preliminary analysis is difficult to perform as there are several different companies that provide support for the activity of physical training. Several categories of products exist, ranging from other biofeedback providers to regular fitness machines (a list of main competitors is shown in appendix B-2). To help categorize competitors, I went to the main need these products answer. Each and every one of them aims to monitor a user’s training, and ultimately, improve their performance. The means differ, but ultimately, the overall purpose is the same. Thus, through this concept of *Performance Enhancement* it becomes easier to rank products against each other. In appendix A-2, I constructed a simple table with some key features that reflect a product’s value in the market. The main conclusion is that Plux is inserted in the Top Brands category, with products that are expensive but provide substantial improvement of performance through its innovative characteristics. A key disadvantage against the category I inserted it in is that Top Brands possess a communication strategy that reflects a deeper understanding of the market and a more entrenched position in it, something Plux does not have at this point.
Internal Analysis

Next followed the guidelines of the project itself. Plux is present in an emergent sector, where biofeedback is somewhat novelty and consequently trust and reputation have yet to be developed. Moreover, not only is the technology relatively unheard of, but the firm itself is obscure outside technology circles. This means that knowledge of Plux and its’ products is not easily available and validated. In an internal context, the company faces problems of market reach, as their sports products are sold directly by their small team. Moreover, Plux’s team is from an almost exclusively technological background, giving the company a very deep, but narrow perspective of their business (Appendix B-3). Also important to take into account is sustainability. This project is not aimed to be a temporary liquidity provider, but something that can incorporate expected growth in the company and in the market, while remaining viable.

This first section has allowed me to generate an overall “problem”, or explanation for the low market share Plux is experiencing in the sports sector: Lack of overall market orientation. As stated by Lam, Kraus & Ahearne (2010), “market orientation (MO), the organizational culture that provides strong norms for learning from customers and competitors, is instrumental in creating superior value for buyers, innovating successfully, and generating superior firm performance”. It is starting to become visible a certain lack of orientation in the midst of Plux’s remarkable forward motion.

DISAGGREGATION

The problem I just identified is complex and hard to pinpoint to a single process. This stage is concerned with performing more technical analyses in order to identify possible causes for the problem at hand.
**SWOT Analysis**

To this effect, I performed a Dynamic SWOT analysis on Plux, always with the research question in mind, which can be seen below:

![SWOT Analysis Diagram]

Taking some considerations on it, some managerial implications were formed. On the strengths section, an important implication would be to keep it up, obviously, but to avoid technological “obsession” and the inevitable market distance that would generate (indicating a loss of customer focus, a component of MO). On the weaknesses section, a conclusion would be to better communicate the competitive advantages Plux does have, and attempt to build new ones, in an effort to be more competitive (such as marketing and communication efforts already endeavored by their competitors). In terms of opportunities, management should try to stay close to the market, as it is a very emergent one, with plenty of opportunities and with government releasing a lot of information, which would enable them to more efficiently identify customer needs. Finally in threats, management should strive to protect their product advantage and build a financial sustainability to avoid risk exposure, such as a partnership with a distributor or with a Venture Capital firm, as they are currently reliant on outside financial backers, and as such exposed to external risk.
This Dynamic SWOT has enabled me to corroborate the overall lack of MO identified earlier, translated in part as a lack of marketing capabilities, market and customer understanding and an excessive focus on Technology Orientation\(^7\). The financial side of the issue also merits attention, as the growth Plux intends to have, and is indeed capable of having requires a certain financial leverage and stability to occur.

Next I proceed with a Porter’s 5 forces analysis, to better understand the key dynamics of this market, their impact, and consequently the areas important for Plux’s success.

**Porter’s 5 Forces Analysis**

I have graded each force as either low, medium or high, and the higher the force, the more threatening to the company it is. Starting with **Suppliers’ Bargaining Power**, Plux has a well established policy regarding that topic. The firm creates an extensive list of potential suppliers for each component they need, and grade them based on price, delivery time and other contextual factors, revising it periodically. As there are several suppliers for each part, and component orders are more or less uniform (even for custom products), I rated supplier bargaining power as LOW. In terms of **Buyers’ Bargaining Power**, there are some conflicting factors at work. On one hand, Plux does not have any direct competitor in the sense of identical products, and relatively high prices coupled with need for assembly and calibration for most products presents some switching costs, but on the other hand there are several indirect competitors, as well as a huge variety of price/quality ratios for customers to choose from. Given these facts, I have rated **Buyers’ Bargaining Power** as MEDIUM. Again, Plux’s products do not face any strictly direct competitors, and come with distinguished competitive advantages, but the sheer number of choices the customer has, in terms of price and features, having freedom to

\(^7\) R&D captured around 42% of Plux’s 2008 sales revenues, as opposed to Marketing, which captured around 9%
choose between various levels of training rigor (and even among the same levels, competitors exist) leads me to consider the Threat of Substitutes as HIGH.

In terms of Threat of New Entrants, distribution networks are hard to obtain, as major brands are already present in Portugal, mostly through exclusive distributors, who have been present for some time and control most of the distribution channels. This last issue of exclusive deals makes it particularly hard for non producers to enter the market, so the Threat of New Entrants is LOW. Lastly, I have rated Competitive Rivalry as HIGH, as market characteristics shape competition into various forms. Players compete in distribution channels, due to their scarcity and importance, and the various price/quality ratios that clients have at their disposal means companies have been competing also on price and features, making competition significant. Thus, a differentiation strategy is crucial to gain sustainable competitive advantage in this market. Some red flags can also be drawn from this analysis, namely the lack of channel expertise Plux exhibits that is key in this type of market and a better communication, as Plux is capable of delivering a distinct offer to this market, but has been unable to effectively communicate it.

Given their scarcity of diverse resources and capabilities (which is normal for a start up), I have decided to do a Value Chain Analysis to better understand Plux’s core activities and resources.

Value Chain Analysis

In this light, the firm can be seen to have 2 different value chains. This stems from their business model, where innovation is highly present, meaning that any client can approach Plux to make an individual, custom made product. So, first there is what I deemed the Development step (appendix A-3), for these custom products that are tailor
made for a client. This workflow has a lead time of 6 months to a full year from the time the client approaches Plux to the delivery of the product. The main bottlenecks of this workflow are the development phase, where the team builds the hardware and the software algorithms, and the certification phase, as the government has to approve of every new product of this type, and it is a rather morose process. Then there is the Production step (appendix A-4) for “standard” products, fit for any client. This workflow has a lead time of 3 to 4 weeks, seeing as it is a repetition of a previous development and the major bottleneck is the Stock Management phase, where the team orders needed components. From this analysis we can, again, corroborate the overall research problem, as the value chain is mostly technology oriented, and Plux markets the products AFTER they are made, reflecting the lack of market closeness and exploitability. Finally, the issue of the varying time to market is relevant, as the amount of time it takes and the uncertain time window affects MO.

As phase 1 concludes with an overall answer to my research question – lack of Market Orientation – phase 2 concludes with a list of possible manifestations of this problem. Simply put, after phase 1 I have found that to increase market share I have to address the issue of MO, and after phase 2, I have a list of hypothesis as how to actually address that issue and what directions my suggestions should take:

- Product Portfolio Optimization
- Marketing Impact/ Adequateness
- Production Capabilities
- Financial Sustainability

Taking all this into account, I have developed four key hypotheses to be validated and prioritized in the Validation stage of the project:
VALIDATION

After creating the main set of hypotheses for my work, I validate them through interviews and collected data to prioritize them and focus on those whose solutions I conclude would be more effective in solving the research question.

H1 : Is It a Marketing Problem?

Starting with H1, it is important to divide it by sections, as it encompasses several different factors that need to be addressed. Overall, the main issue here is that Plux does not sufficiently differentiate its marketing efforts in the Sports sector from its other areas of business. This issue is seen mostly through 3 distinct areas:

- Brand Image
- Brand Awareness
- Distribution Channels

First topic is Brand Image. Brand image is vital to form pre conceptions about the company and helps to differentiate Plux from other competitors. In this light, Plux does not possess a completely adequate brand image for the sports sector. As I’ve described before, Plux is present in 3 different markets. Each of these markets has different needs. Accordingly, companies dealing in each market have a different positioning. Plux, however, is present in all of them and has a firm wide brand image. As I’ve seen in the

8 Fischer, Volckner and Sattler (2010) define it as “Perceptions about a brand as reflected by the brand associations held in consumer memory” and a valuable component of Brand Equity, which, in turn, is considered to have enormous importance to companies' economic performance
sector analysis, the sports market is driven primarily by performance monitoring and enhancement. It is this focus that is lacking in Plux. This can be seen in various ways. For example, when looking at Plux’s site\(^9\), there is an area for each sector, and product descriptions and objectives are differentiated and highlighted, but the language remains more or less the same and the focus is always on the technical aspects of the products and not its implications. Furthermore, when looking at the Facebook page of the company\(^10\), there is no way to tell them apart. Even so, Plux possesses a group of competitive advantages that correctly translate this focus and could very well be used to form a successful brand image in this sector.

Directly related with Brand Image is **Brand Awareness**\(^11\). Plux nowadays strives, correctly, to communicate itself and to let the market know of their added value. However, once again, we see that the Sports sector is not clearly highlighted in this strategy. Plux is mainly present in environments pertaining to innovation and technological breakthrough, such as tech forums, contests that grant financial backing to the best company/idea and collaboration with renowned institutions in innovative developments (for Plux’s recent activity in contests and partnerships, see appendix B-1). These types of events are very useful, not only to spread the word about Plux, but also to get financial backing, which is important for Plux right now. However, Sports targets are rarely present in this type of environments and as such clients have much more difficulty perceiving the added value Plux adds.

\(^9\) http://www.plux.info/
\(^11\) Brand Awareness is also an important aspect of marketing strategy as it is widely regarded as a KPI for a successful brand. Gogoi & Kumar (2010) state that brand awareness is important for customers to attain loyalty to a brand in a given product category
Distribution Channels are also having an impact in the performance of the Sports sector\textsuperscript{12}. Plux’s use of distribution partners aims to cover a self admitted weakness of their organization. They compile monthly reports with the number of confirmed sales, number of leads generated and information of new contacts. In some cases, such as for BioPlux, Plux’s best known medical product, a market test was taken before product launch, covering topics such as client satisfaction and final consumer acceptance. However, sports products are sold directly by Plux’s team who is not expected to have the know-how to sell in a competitive market. As a result, sales performance is below other areas of Plux\textsuperscript{13}. Channel Management can then be seen as an important area of improvement for the company.

\textit{H2: Is It a P&S Offering Problem?}

Another hypothesis that came as a conclusion of the disaggregation phase is the Product & Service Offering Hypothesis.

Although Plux’s products are recognized by the scientific community and by clients as technically gifted, there are yet some issues, such as reliability (i.e. measuring values in a coherent way throughout time) that keep clients from viewing the cost/benefit relation as ideal. In a sense, although the product itself is good, Plux’s Value Proposition is incomplete. According to Clarke III (2008), “Value propositions define the relationship between supplier offerings and consumer purchases by identifying how the supplier fulfills the customer’s needs across different consumer roles.” In this context, it is from the identification of customers’ needs that commercial success can be gained. Prof.

\textsuperscript{12} As one of the P’s of the Marketing Mix first proposed by McCarthy in 1975, and subsequently widely used in marketing strategy, the issue of “place” or distribution is seen as consequential for a company’s success
\textsuperscript{13} Sales amount to a single sale in 2007, one in 2008 and another in 2009
Paulo Rocha\textsuperscript{14} considers the major KPIs the performance monitoring of athletes, with a view to enhance their performance over time, credibility of product, reliability of product, ease of use and information extracted. Plux’s product offering for Sports is rated below (scale of 1 to 4, 4 being the best):

\begin{center}
\begin{tabular}{|c|c|c|c|c|}
\hline
Credibility & Performance & Reliability & Ease of Use & Quality of Info \\
\hline
2 & 4 & 2 & 3 & 4 \\
\hline
\end{tabular}
\end{center}

A motive for the least positive aspects is the constant innovation Plux pursues. While their expertise in innovation is a clear competitive advantage, it is important to consider the added value their innovations carry. While, for example, they are commercializing PowerPlux, their “standard” sports product, they are already developing a custom product for one client, and are planning 2 different new products. Notwithstanding the clear passion and expertise Plux brings to each project, products end up losing focus over a relatively short period of time.

\textit{H3 & H4: Is It a Production or Financial Problem?}

After dissecting both H1 and H2 and drawing some considerations from them, as well as some preliminary directions for solutions, I have decided to restrict my project to these 2 hypotheses, and not pursue H3 and H4. H3 is mainly concerned with the small size of the production team and the discrepancy between Production and Development steps. However, Plux is already recruiting for multiple positions and an attempt to stabilize the P&S offering will simultaneously contribute to minimize the problem. In terms of finance, solutions for both H1 and H2 aim to make Plux more competitive and increase performance while avoiding excessive costs, indirectly tackling this issue as well, by increasing sales revenues significantly through measures that do not require

\textsuperscript{14} Prof. Paulo Rocha is currently employed by IDP, where he serves as Director for the Training Evaluation, Counseling and Monitoring Service of the institution.
significant investments. As such, the result of the Validation phase is to focus on H1 and H2. This result meets parameters initially discussed with the company\textsuperscript{15}, as I was given some initial subjects they feel could be improved (like market knowledge and analysis, marketing issues and financial sustainability) but was given the freedom to externally analyze the more relevant factors in increasing market share in the Sports sector and proceed with them.

\textbf{RECOMMENDATIONS}

Keeping in mind the priorities I took with the Validation phase, my recommendations are Marketing and P&S offering recommendations, attempting to solve the factors I highlighted earlier.

\textit{P&S Offering Recommendations}

Starting with the P&S Offering hypothesis, recommendations have 3 key drivers:

- Product Portfolio
- Innovation
- Pricing

As I have previously pointed out, Plux is balancing the commercialization of PowerPlux, the introduction of two new products\textsuperscript{16} and the development of custom made products for clients who request them\textsuperscript{17}. In order to achieve market share in a competitive market a stronger commercial leaning is needed. A solution for this would be to create a “Flagship” product that would be the focus of their business in Sports in the short term. My recommendation would be PowerPlux. First of all, when coupling

\textsuperscript{15} Although I had initial meetings with both the CEO, Hugo Gamboa, and the COO, Hugo Silvam my main contact throughout the semester on this issue was Hugo Silva
\textsuperscript{16} PowerPlux Mini, a “mass market” version of PowerPlux, intended for home use, and GPS for Sports, a player tracker for team sports
\textsuperscript{17} such as Aqua Plux, a product for swimmers that works underwater
this with the marketing issue, it is easier for Plux to structure a successful market entry strategy focusing on a single product. Secondly, when viewing client KPIs, PowerPlux is the best prepared product to handle those concerns. It is in the market longer (having been sold since 2007), is more tested and, when asked, Prof. Paulo Rocha stated that the information it provides is useful for the vast majority of major sports (as well as being the product best suited for gymnasiums as well). Furthermore it is the only mass market product currently available, meaning it takes 3 to 4 weeks as opposed to 6 months to a year as is the case of the custom products. Considering time to market is critical for Market Orientation, PowerPlux is then, the ideal Flagship for Plux to consolidate their strategy, establish a strong market position, financial income and brand equity.

Closely related with this issue is the innovation pursuit of Plux. The company nowadays seems to be heavily focused in Explorative Innovation, which is discovery driven, venturing into new products and markets, while neglecting the refinement driven Exploitive Innovation, improving their existing products. According to Hughes et al (2010) in high technology ventures, it is important to have Ambidextrous Innovation (balance between both forms) to achieve market differentiation advantage. Moreover, this focus on exploitive innovation, together with the focus on the flagship PowerPlux, would seriously improve the credibility and reliability of their products (a current issue for Plux), and thus generate more value for customers, helping to achieve greater market share.

Lastly, in terms of pricing strategy, the company pursues a version of Market Penetration strategy. They check competitors’ prices, and price their own products to be parallel to competitors in the premium segment. As Plux’s products add value to the market, they do not charge a premium for that added value. The problem, however, is that clients are not perceiving that added value. As previously pointed out, sales amount
to 3 instances in 3 years. So, a further recommendation would be to tweak this strategy.

Plux could apply a 10% discount on PowerPlux, enabling a stronger market penetration, while not losing significant margins (which, for PowerPlux, go from 110% to 90%).

Marketing Recommendations

Tackling the marketing hypothesis, solutions are based on the same three bases:

- Brand Image
- Brand Awareness
- Distribution Channels

In terms of Brand Image, Plux’s innovative qualities and recent appearance can transmit a feeling of novelty in the market. However, the fact they are present in other, completely different markets presents a risk of dilution of brand strength, as well as confusion and uncertainty regarding the brand’s key values. It is then advantageous to create a strong Brand Architecture. According to Aaker & Joachimsthaler (2000) “A coherent brand architecture can lead to impact, clarity, synergy, and leverage rather than market weakness, confusion, waste, and missed opportunities”. I recommend the development of a brand architecture for PLUX containing the following:

For Plux, the focus would be on the technical expertise of the company, inherent in all their sectors (state-of-the-art technology, quality acquisition and visualization of data).

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18 I conducted a small survey with 10 fellow graduate students, and, by looking at Plux’s site and how each sector is communicated and “sold”, they could not differentiate key values across sectors, meaning Plux uses the same core values for both sectors.
Plux Sports would focus on the sports implications of Plux qualities (leads to significant performance enhancement, offers localized monitoring on several body parts) and the product brand, which initially is PowerPlux, focuses on product characteristics (user friendly software, variety of data acquired). This enables Plux to stretch their brand across different products and sectors and balance conflicting characteristics that each requires (in appendix A-5 the intended positioning is shown). Here a synergy with the P&S Offering recommendation is visible, as the consolidation of a flagship product makes it even less likely for brand image to be diluted over various categories.

In terms of Brand Awareness, it is important to effectively communicate their brand to the market. Media partners are a great conduit for this type of awareness. For example, one needs to look no further than the AGAP website19 to see both their search for new partners and their extensive list of events and workshops, addressed specifically for the gymnasium sector, in collaboration with those partners (some of them close competitors of Plux). Parallel to this, IDP’s website20 follows the same direction. This type of events is ideal for Plux to create awareness of their company next to their target markets, while at the same time demonstrating know how and value (for example, instructional events like IDP’s international seminar on youngster’s training21).22 Approaching big clients as trend setters is another way of creating buzz. Plux has established a commercial relationship with Sporting’s Alcochete Academy, the most well known youth football facility in Portugal, but has not taken advantage of that relationship and used Sporting as a vehicle for media attention23. Lastly, Plux’s nationality could play a significant role, albeit only in terms of the Portuguese market. Plux’s competitors are all foreigners

20 http://www.idesporto.pt/
22Most major competitors follow this trend, indicating their recognition of it as important for success
23This issue is recognized by Plux, as, when asked, Hugo Silva identified lack of “opinion makers” as a weakness
that possess distributors in Portugal. Plux is then the only Portuguese producer around. This creates advantages not only on emotional terms, but also in terms of proximity and communication between all players in the market.

The last point of my Marketing recommendations is Distribution Channel Management. One of the staples discussed with the company was their desire to create a partnership with a prominent Sports distributor. This partnership would enable Plux to sell through the partners’ established channels and improved know how, while allowing Plux to maintain close contact with the market. This is essential for mutual success, as supported by Mangin, Valenciano & Kopylay (2009) that postulate that high levels of cooperation between distribution partners lead to better performance. As Plux will no longer contact the market directly, their partner becomes their only link to market feedback, trends and evolution. This way, close contact, coordination and information exchange is vital to maintain the market orientation I have recommended before.\textsuperscript{24}

Conclusions

My goal was to build a project that could incorporate future growth. The recommendations I’ve discussed are a basis for Plux’s business going forward and are consolidated in a 5 year plan, laying the foundation for future growth.

\begin{tabular}{|c|c|}
\hline
2011-2015 & 2016-Onwards \\
\hline
• Apply Recommendations & • Introduce Niche Products in the Market \\
• Achieve 7.5% Market Share with PowerPlux & • Explore International Expansion \\
• 2.5% Clubs : 5% Gyms & • Reclaim custom developments \\
• Introduce PowerPlux Mini in 2013 & \\
\hline
\end{tabular}

\textsuperscript{24} As stated in the Validation phase, Plux allocates almost no resources (other than time) to the distribution of Sports products. Including a distribution partner would mean much more resources are allocated for channel management, a success factor for market share increase.
A 7.5% market share objective was settled as market penetration is intended as top down. Plux offers premium products, and only about 10% of gyms and 5% of sports clubs currently have financial and professional leverage to take significant advantage of these products. A conservative 2.5% and 5% objectives were established for the first 5 years (a sales projection can be seen in appendix A-6). This percentage of gyms and clubs is expected to grow, not only environmentally, but also from the actions of Plux itself by spreading knowledge through proposed partnerships and trend setters.

Assuming success of this plan, Plux should have financial sustainability to build their plans for international expansion, its brand should be rooted enough to allow for niche products to enter without diluting brand equity and this financial and brand “health” should allow for a refocusing on custom developments without risks.

**Limitations**

It is important to note that the project is contingent on the quantity of information I have been able to gather, and in this regard, a more comprehensive analysis of competitors may be needed, as they are hard to categorize, many in number, and I have not been able to access as much information as I would have liked, and analyzing competition is an intrinsic aspect of market orientation. Another aspect worth noting is that the recommendations I provide represent a detachment from the way Plux has been operating thus far, and given that Sports is but one of their concerns, implementation of my recommendations may take some time or may need to suffer adjustments.

Overall, this Work Project aims to represent but one consolidation of Plux’s remarkable competitive advantages into viable market share growth, instead of an exclusive and indivisible route to success in the Sports Market.


Appendix A-1 – Industry Map.

<table>
<thead>
<tr>
<th></th>
<th>Price</th>
<th>Technology</th>
<th>Comfort/Usability</th>
<th>Communication</th>
<th>Cost/Quality</th>
</tr>
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<tbody>
<tr>
<td>Plux</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>4 / 12</td>
</tr>
<tr>
<td>Top brands (Ginato; Life Fitness; Technogym)</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4 / 11</td>
</tr>
<tr>
<td>Mass Market Brands (Kettler, Suunto, BH Systems)</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>2 / 8</td>
</tr>
</tbody>
</table>

Appendix A-2 – Competition Evaluation

Appendix A-3 – Development Workflow
Appendix A-4 – Production Workflow

Appendix A-5 – Brand Positioning

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
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<tbody>
<tr>
<td><strong>Pro</strong></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Sales</td>
<td>35</td>
<td>42</td>
<td>57</td>
<td>86</td>
<td>150</td>
</tr>
<tr>
<td>% Growth</td>
<td>20%</td>
<td>35%</td>
<td>50%</td>
<td>75%</td>
<td></td>
</tr>
<tr>
<td>Revenue</td>
<td>333900</td>
<td>400680</td>
<td>543780</td>
<td>820440</td>
<td>1431000</td>
</tr>
<tr>
<td>Costs</td>
<td>175000</td>
<td>210000</td>
<td>285000</td>
<td>430000</td>
<td>750000</td>
</tr>
<tr>
<td>Sales Result</td>
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<td>190680</td>
<td>258780</td>
<td>390440</td>
<td>681000</td>
</tr>
<tr>
<td><strong>Amateur</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Sales</td>
<td>25</td>
<td>35</td>
<td>74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Growth</td>
<td>40%</td>
<td>110%</td>
<td></td>
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</tr>
<tr>
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<td>52500</td>
<td>111000</td>
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<td></td>
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<tr>
<td>Costs</td>
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<td>38500</td>
<td>81400</td>
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<tr>
<td>Result</td>
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<td>190680</td>
<td>268780</td>
<td>404440</td>
<td>710600</td>
</tr>
</tbody>
</table>

PowerPlux (Pro) cost: 5.000€

PowerPlux Mini (Amateur) cost: 1.100€

PowerPlux (Pro) price: 9.540€

PowerPlux Mini (Amateur) price: 1.500€

Appendix A-6 – 5 year sales projection
## SECONDARY APPENDIXES (B)

### Appendix B-1 – Plux’s recent activity in events and partnerships

<table>
<thead>
<tr>
<th>Events/ Partnerships</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi Finalist, European Venture Contest in Healthcare</td>
<td><a href="http://www.plux.info/node/142">http://www.plux.info/node/142</a></td>
</tr>
<tr>
<td>BIOSTEC 2011 Exhibition</td>
<td><a href="http://www.plux.info/node/150">http://www.plux.info/node/150</a></td>
</tr>
<tr>
<td>ECSS 2010 Exhibition</td>
<td><a href="http://www.plux.info/node/135">http://www.plux.info/node/135</a></td>
</tr>
<tr>
<td>Partnership with Adl</td>
<td><a href="http://www.plux.info/node/141">http://www.plux.info/node/141</a></td>
</tr>
<tr>
<td>QREN Funding</td>
<td><a href="http://www.plux.info/node/131">http://www.plux.info/node/131</a></td>
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</table>

### Appendix B-2 – Main Competitors

<table>
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<tr>
<th>Top Brands</th>
<th>Mass Market Brands</th>
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<tr>
<td><strong>Biofeedback</strong></td>
<td><strong>Biofeedback</strong></td>
</tr>
<tr>
<td>• Noraxon</td>
<td>• Suunto</td>
</tr>
<tr>
<td>• Biopac</td>
<td>• Polar</td>
</tr>
<tr>
<td>• Myotest</td>
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</tr>
<tr>
<td><strong>Fitness</strong></td>
<td><strong>Fitness</strong></td>
</tr>
<tr>
<td>• Life Fitness</td>
<td>• BH Systems</td>
</tr>
<tr>
<td>• Gimatlo (distributor)</td>
<td>• Kettler</td>
</tr>
<tr>
<td>• Technogym</td>
<td>• Marcy</td>
</tr>
<tr>
<td>• Sorisa (distributor)</td>
<td></td>
</tr>
</tbody>
</table>
Appendix B-3 – Plux team’s Expertise