Business Plan 101
(For Engineers)

How to translate innovative ideas to marketable business plans.

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## Agenda

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Engineering to Business

• Why start an engineering business?
  – Technology is “cheap”
  – Innovation is “attractive”
  – Market is “ready”

• Think outside the box...
  – Creation vs Improvements
  – Changing perception of Engineers
What is a Business Plan

• Presenting On Paper
• Showcase Your Genius
• Structured Idea
• Revision Tracking
• Alleviate Investor Concerns
• Fully Thought-Out Plan
Section: Executive Summary

- MOST important section.
- Summary of each section AND current status.
- Be concise (1-2pgs) in length, but comprehensive in coverage!
- Hook the investor!
- Introduce the concept but PRESENT the opportunity and solution.
- Conclude with offering plan.
A high-growth and attractive industry is ESSENTIAL in evaluating any business opportunity.
• Customers
  – Who are they? How to find them?
  – What’s the lifecycle?
  – Is there a switching cost? Loyalty?

You must present a good way to Segment, Target, and Position yourself. (STP)

By the end of this section, the investor should be jumping to hear your solution at the OBVIOUS opportunity.
Section: Industry Landscape

• Competitors
  – Who are they? How strong and how many?
  – What’s our competitive position?
  – Possible competitors are more than just current incumbents (i.e. in the case of new offerings)

Do your research... be able to back up your comparative analysis with data and financials.
Section: Product / Service

- Company (if applicable)
- Product or Service
  - SPECIFIC description of flagship product(s)
  - Where do you fit in? (2x2, Value Chain)
  - Differentiating factors
  - Value to customers
Section: Product / Service

- Entry Strategy – Pricing, Channels, Timing
- Growth Strategy – Product Mix, Geographical

Be able to describe your product or service in such a way that investors can match purchase or adoption decisions to your value propositions.
• Marketing Plan
  – How are you going to get the word out? Social platform? WOM? Advertising?
  – What is the ideal platform to advertise for YOUR product and industry?
  – Are you going to have preliminary promotions or special arrangements?

The Marketing Plan is both a test of your credibility and assessment of your understanding of how YOUR market works.
Operations/Development Plan

- What’s the supply chain for your product?
- What’s the development cycle? Now? Eventual?
- TIMELINE!

The Operations/Development Plan should detail and schedule the steps you are taking to go from concept to prototype, and the necessary inputs.
Section: Marketing and Operations

• Distribution Plan
  – How are you going to reach your consumer base?
  – What are the critical establishments you need? Is this going to be a high cost barrier?
  – How does this change as the company grows?

The key here is to focus on the starting years. Investors must be assured that you can get your product out the door.
Section: Marketing and Operations

• Sales Plan
  – How are you going to sell? Online? Direct?
  – Quick forecasts? Assumptions needed to arrive at those forecasts?

In many cases, a Sales Plan includes numerical projections, sales time tables, and simple budgets.
Section: Team and Management

• Who are you?
  – Executive Team (Do your backgrounds make sense AND complement each other?)
  – Advisory Team (Do you have strong supporters?)

The “team” is THE MOST IMPORTANT aspect of your business. (Different expertise is critical to success...)

**A Team with B Idea** ALWAYS beats **B Team with A Idea**!
Section: Financials and Risks

• Financial Projections
  – Key Revenue Projections
  – Key Cost Analysis

DO NOT leave this out. All investors will look for this. It is the quantitative aspect that provides your business plan with substance.

DO YOUR HOMEWORK! Be able to back everything up. Be ready to get grilled on your assumptions.
## Section: Financials and Risks

**Extremely Simplified Example...**

<table>
<thead>
<tr>
<th>In USD</th>
<th>2H2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target games</strong></td>
<td>2</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td><strong>Monthly sales quantity (units)</strong></td>
<td>200</td>
<td>1,000</td>
<td>2,000</td>
</tr>
<tr>
<td><strong>Sales quantity (units)</strong></td>
<td>1,200</td>
<td>12,000</td>
<td>24,000</td>
</tr>
<tr>
<td><strong>Average sales price</strong></td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td><strong>Sales revenue</strong></td>
<td>240,000</td>
<td>2,400,000</td>
<td>4,800,000</td>
</tr>
<tr>
<td><strong>Cost of goods sold</strong></td>
<td>144,000</td>
<td>1,440,000</td>
<td>2,880,000</td>
</tr>
<tr>
<td><strong>Gross profit</strong></td>
<td>96,000</td>
<td>960,000</td>
<td>1,920,000</td>
</tr>
<tr>
<td><strong>Gross margin</strong></td>
<td>40%</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td><strong>R&amp;D (incl engineer salaries)</strong></td>
<td>165,000</td>
<td>459,000</td>
<td>800,000</td>
</tr>
<tr>
<td><strong>Sales &amp; marketing (incl S&amp;M manger salaries)</strong></td>
<td>51,000</td>
<td>51,000</td>
<td>100,000</td>
</tr>
<tr>
<td><strong>General &amp; Administrative</strong></td>
<td>79,000</td>
<td>183,000</td>
<td>300,000</td>
</tr>
<tr>
<td><strong>Total operating expenses</strong></td>
<td>295,000</td>
<td>693,000</td>
<td>1,200,000</td>
</tr>
<tr>
<td><strong>Operating profit</strong></td>
<td>(199,000)</td>
<td>267,000</td>
<td>720,000</td>
</tr>
<tr>
<td><strong>Operating margin</strong></td>
<td>-83%</td>
<td>11%</td>
<td>15%</td>
</tr>
</tbody>
</table>
Section: Financials and Risks

• Risks
  – Don’t be overconfident here… be honest.
  – Prioritize ones you can remedy or address.
  – Group them by category (sales, legal, etc)

Risk Sections generally showcase your awareness of the overall market and possible weaknesses in both your solution and execution. Are you prepared?

Have an EXIT STRATEGY!
Miscellaneous Tips

• Have a cover page!
• Draft multiple versions....
  – Executive Summary only
  – Truncated and Full Versions
• Revise your plan as you progress and... get funding, produce prototypes, receive press
Common Pitfalls for Engineers

• Bad team composition.
• Poorly chosen language.
• Weak research and due diligence.
• Jargon and acronyms. Know the audience!
• Focusing on technology and not opportunity.
• Inaccurate financial models that are based on too many unverified assumptions.
• Aggressive but inaccurate timeline in an attempt to seem efficient.
Final Takeaways

• The Business Plan is a medium of communication and presentation between the founder and the investors.

• Format and content can vary, but the key is to convey understanding of the industry, opportunity, risks, and value creation.

• Start with both the Team AND the Idea, don’t overlook one or the other.
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