



Market Analysis



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Markets – Introduction

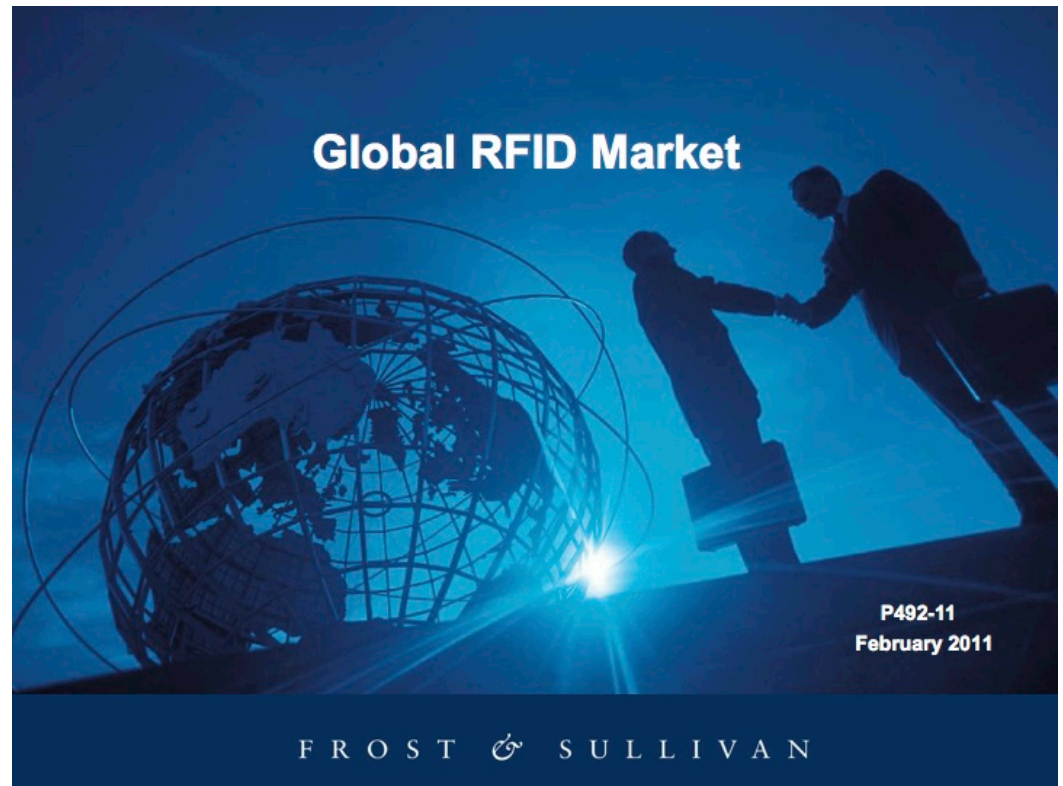
- **The questions**
 - How much \$\$ is spent globally on your product ?
 - How much of that will you be able to capture ?
- **Investors**
 - Want to see potential for profits
- **Funding Agencies**
 - Want to see potential for profits, number of hires
- **You**
 - Need to decide which area to focus on
- For the right answer we need a crystal ball
 - What else can we do ?

Difficult Points

- #1 problem with scientists:
 - “My technology does everything” and therefore “everyone will want it” – DO NOT DO THIS
- The Billion Dollar Slide
 - Often shown
 - No-one believes it, yet expects it
 - Need to show realism

Market Reports

- Very detailed (hundreds of pages)
- Very expensive
- Get them from MaRS
- Do homework first:
 - Learn language
 - Google
 - AcademicMarketResearch.com



Market Segmentation – Top-Down

- Market Size for lighting: **\$100 B** in 2010
 - General lighting: 75% => \$75B
 - Automotive lighting: 27 % = > \$20B
 - LEDs in automotive: 12% => \$2.4B
 - Exterior lighting (tail lights): 20% => \$480 M
- Your total addressable market = **\$480 M**
 - You hope to capture 5% of this market
- Your projected sales: **\$24 M**

Different Markets

Target Market:
Your priority.
Most desirable,
most feasible

Total Addressable Market:
No competitors
Infinite resources

Sales Addressable Market:
Constrained by
geography,
competition, sales
channels

Bottom Up

- We sell to hospitals
- A salesperson can handle **10** hospitals
- Yearly sales per hospital are **\$10,000**
- Sales cycle on the order of 1.5 years
- Can only afford **2** sales people
- Your sales will be **\$200,000 / year**

Market Decisions

- Must understand the industry
 - Which **pain** will you attack ?
- Barriers to entry
 - E.g. diagnostic market needs FDA approvals
 - Research market does not need FDA approval
- Low hanging fruit
 - Do what is easy first
- Loss leaders
 - Not every service must make a profit

Marketing Persona

- Meet Cindy:
 - 37 years old
 - Mother of 2
 - College degree
 - Likes mountain biking and classical music
 - Often shops at upscale locations
- Target your product to her

Selling to Businesses

- Bottom line very important
- Deals still made with people
 - Need to understand them, their values
 - Can use persona
- Positions
 - Decision maker
 - Buyer
 - User
 - Champion

Technology vs. Product

- **Technology:**
 - E.g. A new way to do IR Spectroscopy
 - Not something you can sell
- **Product:**
 - E.g. A glucose monitoring system
 - A device / service that addresses a market need
- Must sell products, not technologies

Placing the Product

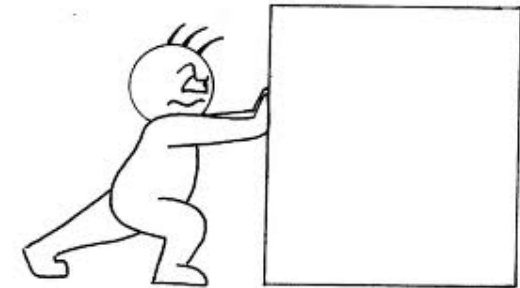
- Products very specific to target market
- Medical device could be used:
 - On ambulances ?
 - In hospitals ?
 - In the homes of seniors ?
 - In nursing homes ?
 - In gyms / schools ?
- “Shape” of product will be different
- Marketing & sales will be very different

Push vs. Pull

- Investors love “Market Pull”
 - Let the market decide what it wants



- Scientists love “Technology Push”
 - I know everyone will want my stuff



- Neither is perfect by itself
 - E.g. “Nobody will want a computer at home”
(CEO at Digital Inc., 1977)

Need to Answer

- What are the objectives for your company ?
- Is there a market worth going for ?
- Can your technology address market needs ?

Market Analysis Results

- You know what your product can do
- You understand the competitive landscape
- You found there is a large-enough market
- You convinced yourself, team, investors that it is worth going ahead

- Raise the money and do it



Business Models



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Value Proposition vs Business Model

- Value Proposition
 - How is your invention benefiting others?
 - E.g. A gadget that makes car engines 10% more efficient
- Business Model
 - How will you make money from this?
 - Stereotypical example: razors & blades
- The two are **different** things
 - You need to have both

What Do We Value ?

- High-quality
- Cheap
- Good-looking
- Long-lasting
- Rugged
- Fashionable
- Light
- ...

Value Proposition

- Concise placement of product:
 - What you offer
 - For whom
 - What are the unique values
- E.g:

Drei Inc. offers an **efficient** catalyst that allows **plastic manufacturers** to reduce the **cost** and **environmental impact** of their products

Values for Businesses

- Increase revenues
- Reduce costs
- Satisfy regulations

- All the others

Business Models

- Sell a product
- Rent a product
- Keep the product – sell a service
- License the whole thing out
- Take a fee on a transaction (e.g. brokers)
- Get someone else to pay for it (e.g. TV ads)
- Offer one part for free, charge for the other
- ...
- Some can be very creative



E.g. Waiting Room App

- (From Entrepreneurship 101)
- An App to tell you when your turn comes in the doctor's waiting room
- Who should pay for it?
 - Patients (but will the doctors also do it ?)
 - Doctors (why would they?)
 - The insurance industry (what's in it for them?)
 - The government ?
 - ...
- Business Model = The answer to this question

In the Simpler Cases

- For many simple, non-software startups:
 - Sell directly to users?
 - Need to establish contact with many customers
 - Lots of travel, each sale will be quite small
 - Sell to a reseller ?
 - They can just add it to their catalogue
 - Will you get the best deal ?
 - What is their negotiating power ?
 - License it out ?
 - Can you be sure that you won't lose it?
 - Sell the company

Negotiating Power

- Who would be your preferred retailer:
 - Walmart ?
 - A few corner stores ?
- E.g. Device improves fuel efficiency for exotic cars
 - Ferrari says their not interested – what's in it for them
 - Contacting the owners might make more sense

Two-Sided Market Problems

- Chicken and Egg problem
- E.g. A car that runs on Hydrogen
 - Nobody buys it until there are fuelling stations
 - Nobody builds fuelling stations until there are customers
- Need to be creative and find one party that can influence both sides

Other Tips

- Align customer's incentives with yours
 - With a creative business plan
 - E.g. commission for brokers
- Buy low – sell high (everyone knows this)
- Collect early – pay late (much more important for cash flow)