

# Financial Modeling for Entrepreneurs

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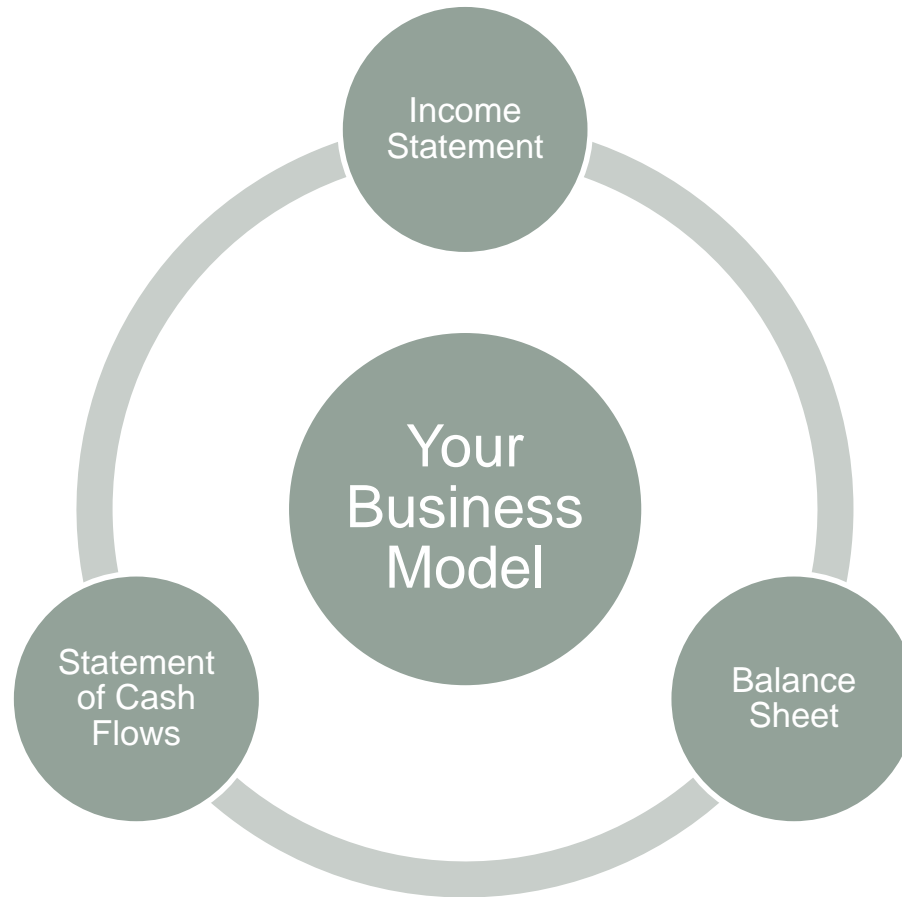
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Slides by Mike Lyons,  
Stanford University

# Why Do A Financial Plan?

- Need to Create and Validate Business Models
- Prove that Your Business Is Not Just An Expensive Hobby
- Test Your Business Model and How it Scales
- Understand the Drivers and Important Assumptions for Your Business
- Understand the Cash Requirements, Especially As the Business Scales
- Tells You What the Most Important Assumptions Are

# 3 Principle Financial Statements



# Preparation for Financial Statement Development



Business Model

Milestones

Forecasts  
and  
Operating  
Plan

Financial  
Statements

# Scalable Business Model

## Business Model

- What is your business?
- How do you plan to bring the product to market?
- Where does the money flow?
- How does the product move?
- What is your revenue model?

## Unit Economics

- What is the relevant “unit”?
- What are the costs and revenue associated with that unit?
- Fixed and variable?
- Customer acquisition costs?
- Lifetime value of a customer?

## Scalability

- What is lifetime value of Customer?
- How do economics change (improve) over time?
- What cost, revenue, customer acquisition assumptions change and why?
- How can you validate those assumptions?

# Let's Build a Business Model

- What do you sell?
- To whom do you sell it?
- What is a typical transaction?
  - Purchase, subscription?
  - How much?
  - How does money change hands?
  - Who is your customer?
- How does product flow?
- How will you go to market?
- Who else is involved (distributor, advertiser)?

# Unit Economics: Building Blocks of Business Models

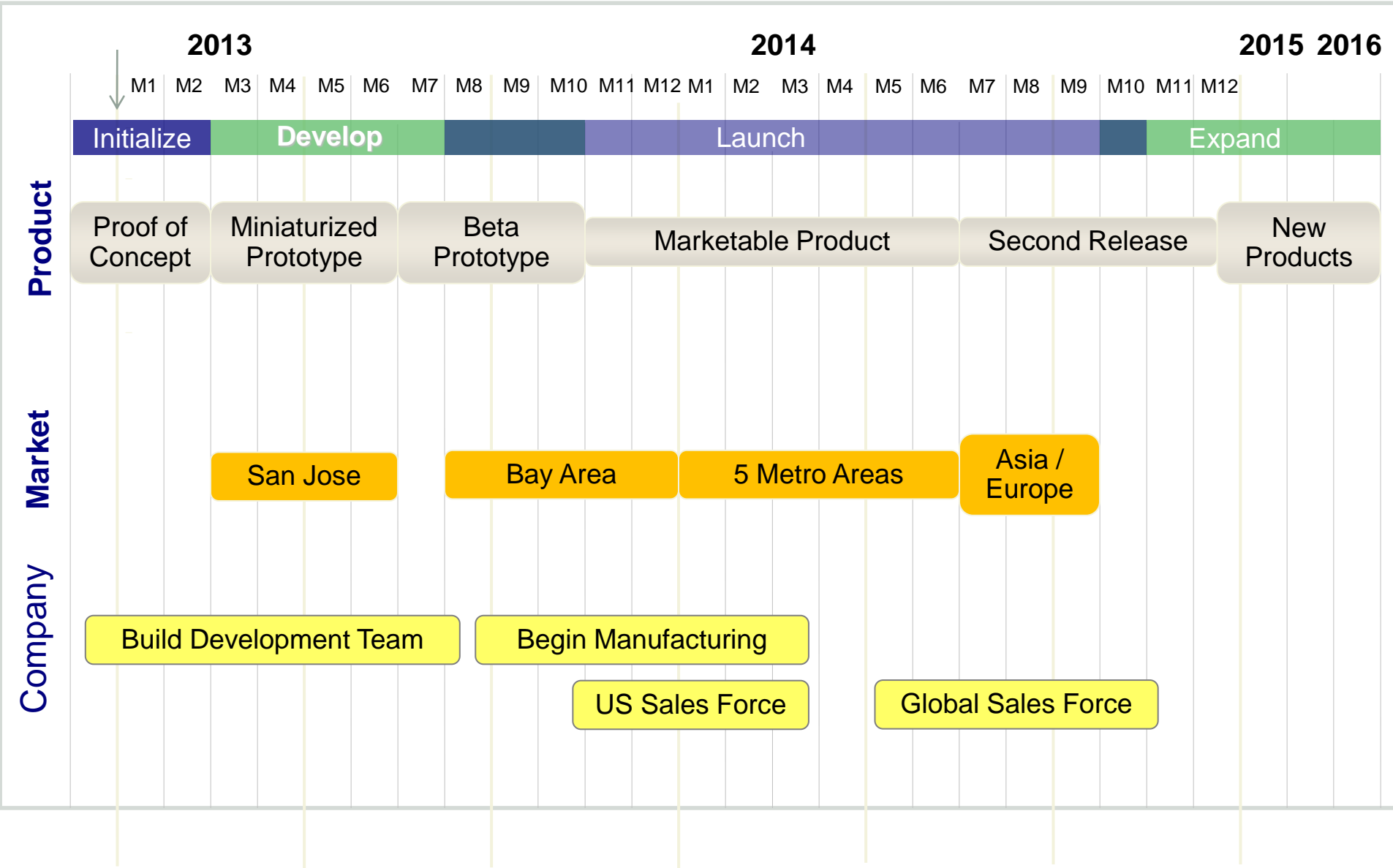
- What is a relevant unit?
  - 1 sale
  - 1 customer
  - 1 user
  - 1 advertiser
  - 1 blogger
  - 1 sales rep
  - 1 market
- Price and quantity – How to determine price
- Cost of goods sold – BOM (What's in COGS?)
- Customer acquisition cost
- Purchase patterns

# We've Got Business Model Figured Out; Now Let's Agree on the Milestones

- Create a Gantt Chart That Lays Out Key Milestones:  
(Heavily Influenced by Type of Company)
  - Product Development Timelines
  - Market Timelines
  - Company Timelines
  - IP and Regulatory Timelines, if any



# Example: How We Get There: Milestones



# Let's Do the Revenue Plan – Forecast

- Create A Pro-Forma Sales Forecast Driven by Product Readiness
  - Do It Bottom Up w/Identified Customers for 2-3 Years
  - Match This to a Top Down Forecast In Out-Years (4 and 5)
  - Use Proxy's to Guide You
    - You Must Understand the Numbers

# Example of a Revenue Spreadsheet

	Jan-2012	Feb-2012	Mar-2012	Apr-2012	May-2012	Jun-2012	Jul-2012	Aug-2012	Sep-2012	Oct-2012	Nov-2012	Dec-2012
<b>REVENUE PROJECTIONS</b>												
<b>Units / Channel</b>												
Product A												
Product B												
Product C												
Total Units												
<b>Product Pricing Per Unit</b>												
Product A												
Product B												
Product C												
<b>Revenue per product</b>												
Product A												
Product B												
Product C												
Total Product Revenue				\$1,000	\$1,500	\$3,000	\$3,750	\$4,688	\$5,859	\$7,324	\$9,155	\$11,444
<b>Maintenance Revenue</b>												
<b>Consulting Revenue</b>												
<b>TOTAL REVENUE</b>				\$1,000	\$1,500	\$3,000	\$3,750	\$4,688	\$5,859	\$7,324	\$9,155	\$11,444

# Cost of Goods Sold (COGS)

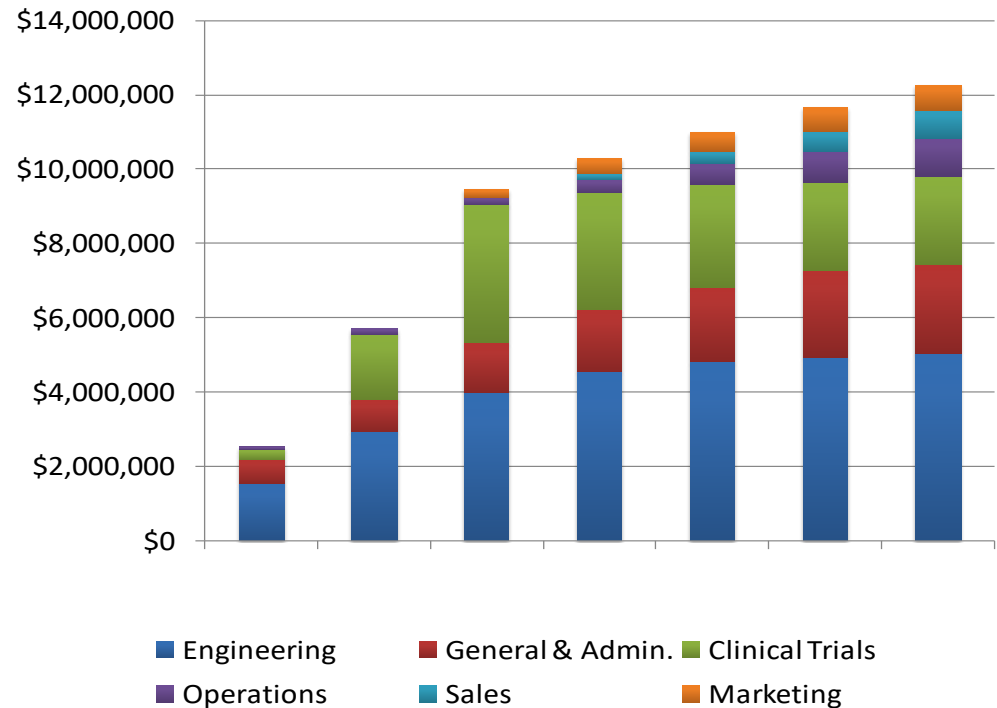
- Elements of COGS
  - Bill of Materials (BOM)
  - Other manufacturing and supply chain costs, including overhead (or more likely price from a contract manufacturer)
  - For IT businesses: costs associated with serving that customer – mostly variable or incremental, Including Royalties for licensed software, if any
- COGS varies with stage of business – can be substandard in early year(s)
- At maturity, reasonable COGS values vary by type of business, though >50% is important
- Understand how COGS is affected by distributors and other partners

# We've Got Revenue and COGS Figured Out; Now Let's Build the Whole Company Model

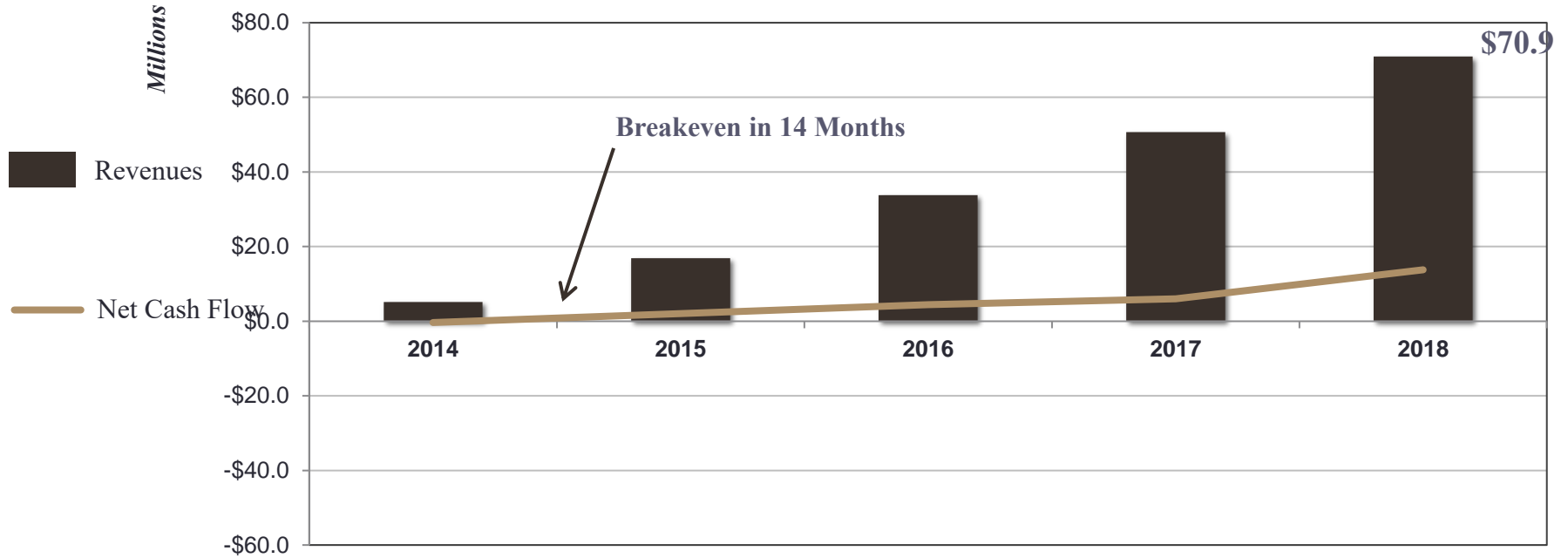
- Develop a Headcount Plan That Supports The Milestones
  - Operating Stacks Are Driven Heavily by Headcount
  - G&A, Operations, Marketing, Product Development (R&D)
  - Proxy Companies Can Be Helpful Here
- Revenue Does Not Come Without Significant Costs
- The Biggest Errors in Financial Modeling Usually Involve Ignoring the Significant Go to Market and Product Development & Support Costs

# Operating Costs – Bottom-up and Top-Down

- Built up from detailed assumptions for first 2 – 3 years
- Then % of revenue in for years 4 and 5 (proxies)
- In what ways do (and don't) we look like a typical \_\_\_\_\_ company?



# Financial Projections



Main Drivers	Year 1	Year 2	Year 3	Year 4	Year 5
# of Units Sold / Year	2,000	4,200	6,800	10,200	14,280
Enterprise Customers	1	6	18	48	122
Gross Margin	-	41%	63%	72%	74%

# Income Statement

	Year 1	
	FY 2013	
<b>INCOME STATEMENT</b>	<b>Actual</b>	
Revenue	100	Business Model, Revenue Model
Cost of Revenue	40	BOM, Supply Chain, Hosting
Gross Profit	60	
Gross Margin	60%	
OPERATING EXPENSES		
Sales	100	Selling Model and Customer Acquisition Cost
Marketing	150	Customer Acquisition Cost, Brand
Engineering	300	Milestones, Headcount
Operations	-	
General & Admin.	30	Very Small – Accounting, CEO
Total Oper. Exp.	580	Bottoms up from headcount, and Proxies
NON-OPERATING INC. (EXP.)		
Interest Income	-	
Other Expense	-	
Total Non-Op. Inc. (Exp.)	-	Generally zero
Pre-Tax Profits	(520)	
Taxes	-	
Net Income	(520)	NOT CASH