

Financial Projections for Start-Up Businesses

Mark Leslie

mleslie@leslieventures.com

650.561.1228

Financial Projections

- ▶ Why do Financial Plan?
- ▶ Basic Building Blocks
- ▶ Key Variables
- ▶ Bottoms up / Tops Down
- ▶ Model Companies
- ▶ Planning Issues
- ▶ Financial Models – the crucible to test ideas
- ▶ “What-if” Scenarios
- ▶ Lest we forget...

Why do a financial Plan

- ▶ Can't raise money without one?
- ▶ Feasibility of business model
- ▶ Understand the key variables for your business
- ▶ Understand the cash requirements
- ▶ Sharpens focus on key planning areas
- ▶ Focus on key operating metrics
- ▶ Oh, yeah...
 - Can't raise money without one!!!

Basic Building Blocks – Department Budget

Eng Budget	q1	q2	q3	q4	y1	y2
head 1						
head 2						
Salary total						
Salary ovhd						
Depreciation						
expenses						
capital						



Key Variables

Department Budget

Dept Budget

- ▶ Headcount
 - Salary / overhead / recruiting
 - Facilities / communications / IT
 - T& E / other
- ▶ Capital Equipment

Key Variables

Department Budget

Dept Budget

▶ G&A

- Headcount
 - ▶ Exec office / CFO
- legal
- Accounting
- Corporate allocatable expenses
 - ▶ IT and communications infrastructure
 - ▶ Real estate

Key Variables

Department Budget

Dept Budget

- ▶ Engineering
 - Headcount
 - NRE
 - consulting (e.g. FCC approval)
 - prototypes, expensed materials
 - product enhancements and sustaining engineering

Key Variables

Department Budget

Dept Budget

▶ Marketing

- Headcount
- product launch
- Advertising / PR
- seminars, trade shows, web site
- brochures, literature

Key Variables

Department Budget

Dept Budget

▶ Sales

- Headcount
 - ▶ Mgrs, SE's
- Productivity model
- partnerships, coop. Advertising
- remote offices

Key Variables

Department Budget

Dept Budget

- ▶ Headcount
- ▶ Headcount
- ▶ Headcount

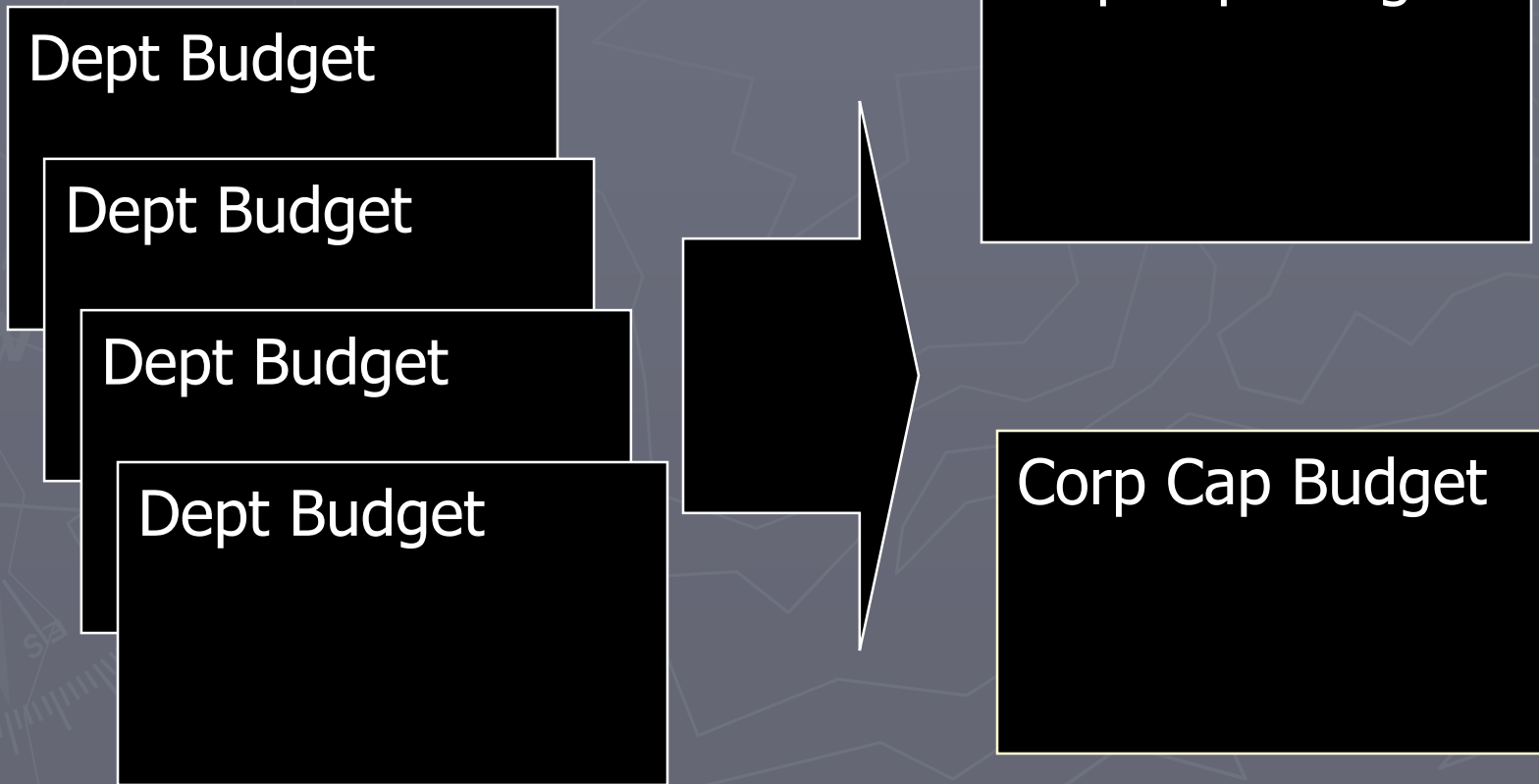
Key Variables – Capital Equipment

- ▶ Cost per head
- ▶ NRE
- ▶ Technology Buyout
- ▶ Tooling
- ▶ IT infrastructure
- ▶ Purchased Bldgs

Corp Cap Budget

Basic Building Blocks

Corp Rollup and Cap Schedule



Key Variables

Revenue Model (cross checked)

- ▶ Market
 - Available / Served
- ▶ Price
 - List / discount / Avg selling price
- ▶ Forecast – by Product
 - Product mix
 - Trajectory of Ramp
- ▶ Forecast – by Channel
 - Net cost by channel
- ▶ Forecast – by Sales Capacity
 - Sales Yield (sum of quota less safety margin)
 - Productivity ramp
 - Attrition calculation
 - Staffing plan
- ▶ Cost for customer acquisition



Revenue Model

Key Variables Cost Model

▶ Product

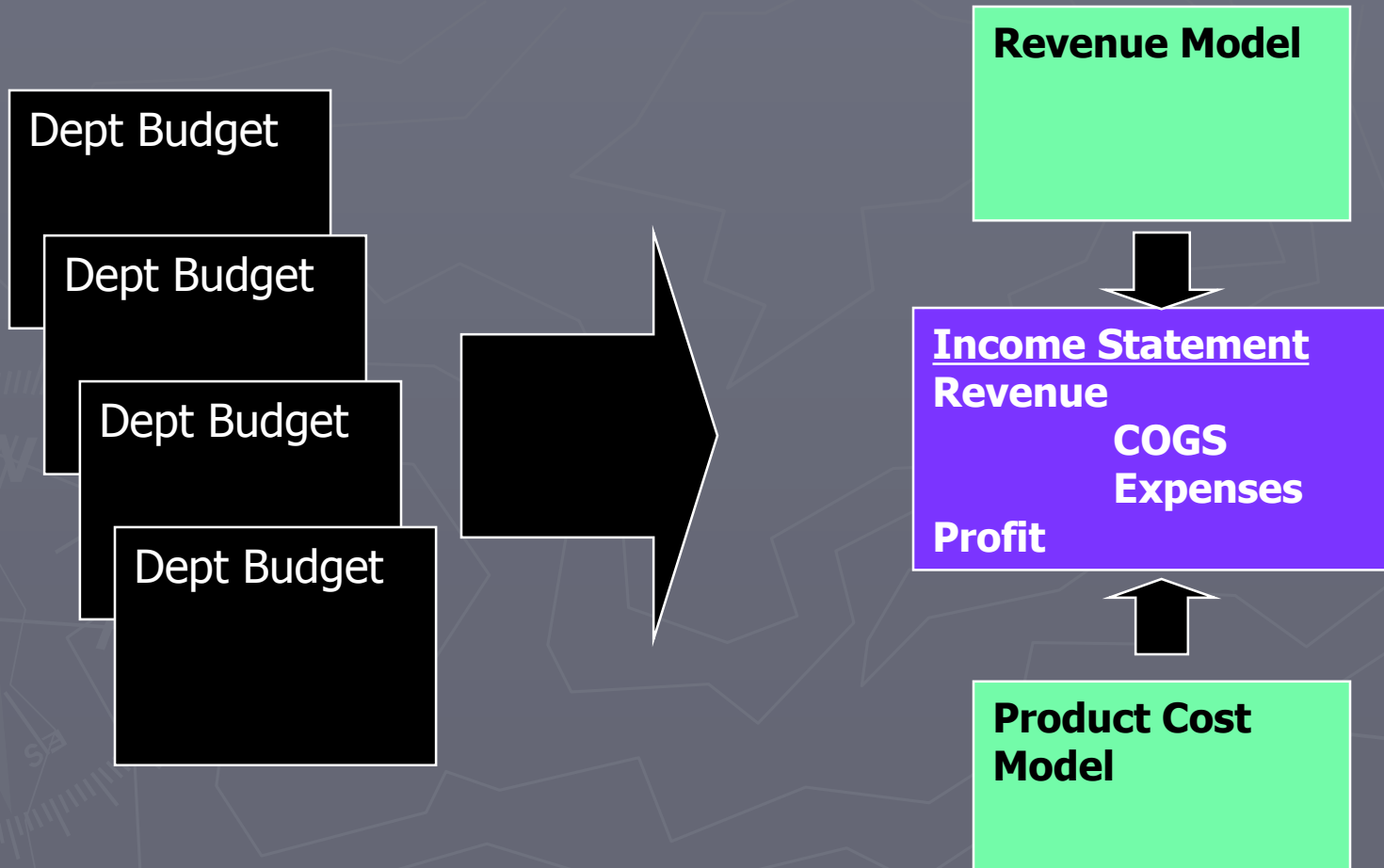
- Estimated BOM
 - ▶ Rush charges
 - ▶ Design changes
 - ▶ Warranty
 - ▶ Obsolescence / write-offs
- Labor
- Volume

▶ Services

- Labor
- Training
- Efficiency

Cost Model

Basic Building Blocks – Income Statement



Key Variables Capitalization (Funding) Plan

- ▶ Equity Financing – amount and timing
 - Seed
 - Startup A
 - Development B
 - Mezzanine C
 - IPO
 - Post IPO
- ▶ Debt Financing
 - Capital equipment Leasing
 - Working capital bank Line
 - Convertible debt securities

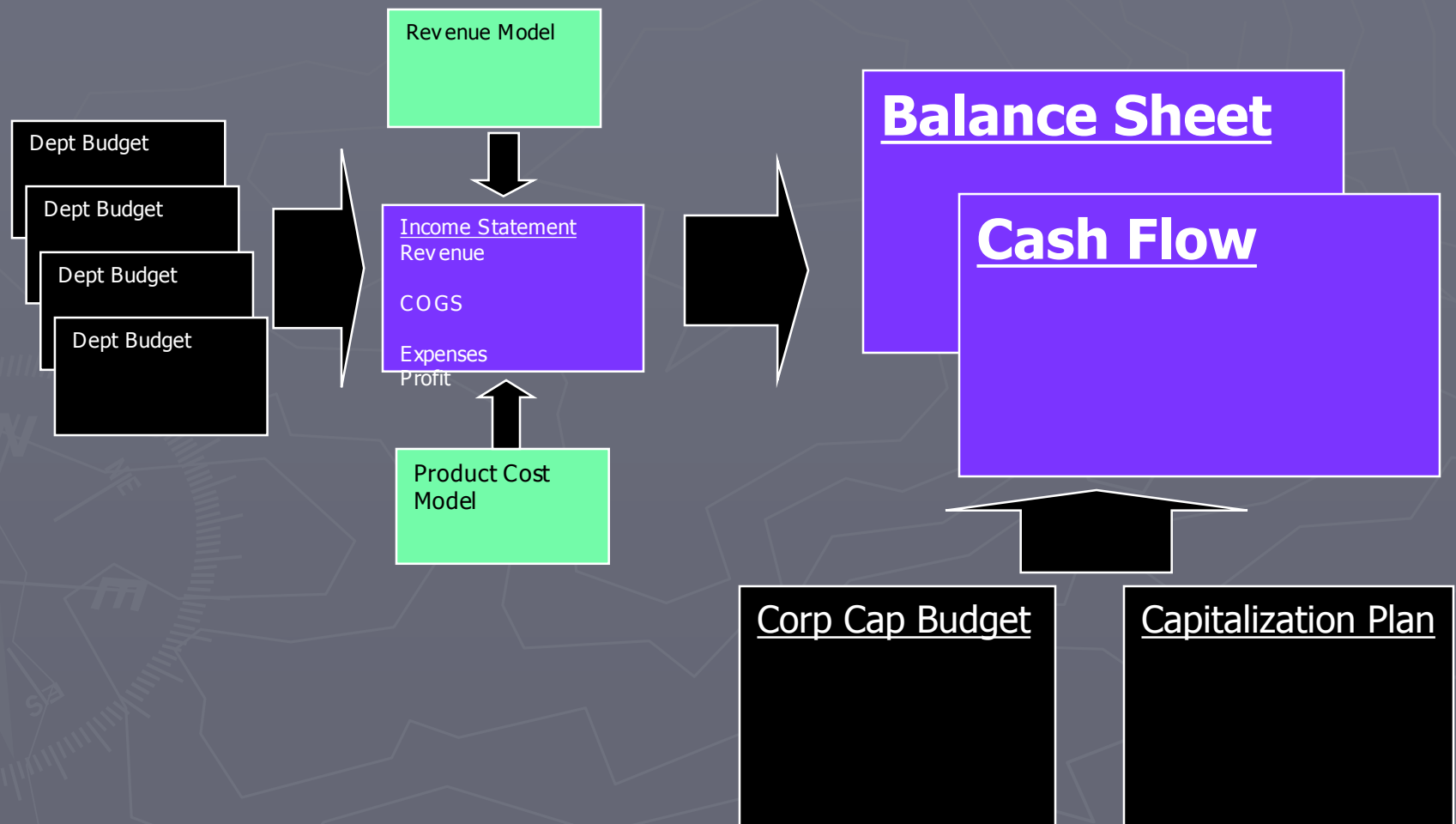
Capitalization Plan

Key Variables – Capital Equipment

- ▶ Cost per head
- ▶ NRE
- ▶ Technology Buyout
- ▶ Tooling
- ▶ IT infrastructure
- ▶ Purchased Bldgs

Corp Cap Budget

Basic Building Blocks – Balance Sheet and Cash Flow



Bottoms-up / Tops-down

▶ Bottom-up

- Built from details
- Variable assumptions
- Start up and growth stage

▶ Top-down

- “model” of the mature company
- Similar to other companies / products / markets

▶ The Five-Year Plan

- Year 5 = model company (or close to it)
- Year 1 = raw start up
- Year 2 → 5 development stage to mature company

The Model Company

▶ Income Statement

- Revenue
- Gross Margin
- Departmental expenses as percentage of revenue
- Operating Income

▶ Balance sheet items

- DSO (A/R days sales outstanding)
- Inventory turns

▶ Employee Metrics

- Revenue / employee
- Expense / employee
- Expenses as a percent of revenue

Basic Building Blocks – Department Budget

Startup



Model

Y1

Y2

Y4

Y5

Income
Statement

Income
Statement

Income
Statement

Income
Statement

Balance
Sheet

Balance
Sheet

Balance
Sheet

Balance
Sheet

Cash Flow

Cash Flow

Cash Flow

Cash Flow



Intergalactic Optical Nanotubes, Inc.

Income Statement



	<u>Y2</u>	<u>Y3</u>	<u>Y4</u>	<u>Y5</u>
Revenue	2.0	20.0	128.0	350.0
Gross Mrg	<u>1.6</u>	<u>16.0</u>	<u>128.0</u>	<u>30.0</u>
Engineer	2.0	2.5	2.5	2.5
SG&A	<u>0.5</u>	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>
Total Op Ex	2.5	4.0	4.0	4.0
Op Profit	(.5)	(2.0)	124.0	176.0

Model Companies – Operating Stacks (\$M)

	Cisco	Dell	Microsoft	Yahoo	Rambus
Revenue	18,878	35,404	32,187	953	97
Cogs	5,645	29,055	5,686	163	8
Gross Margin	13,233	6,349	26,501	790	89
Eng	3,135	455	4,659	143	22
SG&A	4,818	3,050	8,625	537	35
Total Op Exp	8,351	3,505	13,284	702	57
Operating Income	4,882	2,844	13,217	88	31
Net Income	3,578	2,122	9,993	43	25
EPS	.50	.91	.19	.20	.20

Model Companies – Common Sizing (%)

	Cisco	Dell	Microsoft	Yahoo	Rambus
Revenue	100	100	100	100	100
Cogs	30	82	18	17	8
Gross Margin	70	18	82	83	92
Eng	17	1	15	15	23
SG&A	25	9	26	56	36
Total Op Exp	44	10	42	74	59
Operating Income	26	8	41	9	32
Net Income	19	6	31	4.5	26

Model Companies – Market Value

	Cisco	Dell	Microsoft	Yahoo	Rambus
Market Cap (\$B)	146	95	317	3	2
Revenue (\$B)	19	35	32	1	.1
Multiple of Revenue	8	3	10	3	20
Earnings (\$B)	3.6	2.1	10	.04	.02
Multiple of Earnings	41	38	31	75	100

Planning Issues

- ▶ Revenues (always) take longer
 - Sales forecasts are optimistic
 - Un-tested “sales model”
 - Unrealistic productivity assumptions
- ▶ Margins aren't as great as planned
 - Design creep
 - Hidden costs like yield, scrap, obsolescence, warranty
- ▶ Operating expenses higher than plan
- ▶ Capital needs are high . . . and not free
 - Cost of capital is inversely proportional to the execution of the plan

Sanity Testing

- ▶ Rate of Sales Growth
- ▶ Staffing
 - Growth
 - Non-growth
 - ▶ (engineer one product, sell it forever)
- ▶ Profits
- ▶ Proxy – compare your plan to the experience of existing companies

Financial Models -- The crucible to test your ideas!

- ▶ If you understand the model, feasibility of ideas are more self-evident
- ▶ Make Key Assumptions into variables
 - Investigate alternatives
 - Sensitivity Analysis
- ▶ Determine CASH consumption
- ▶ Understand the path to profitability

Modeling – “What-if” Scenarios

- ▶ Document assumptions
 - Facilitates changes in future
 - Operational (e.g., product engineering plan/milestones)
- ▶ Develop a feel for the dynamics
 - E.g., Reduced investment in engineering = product schedule slip of X months = revenue delay

Lest we forget...

Cash....

...is King.

Again!

Financial Projections for Start-Up Businesses

Mark Leslie

mleslie@leslieventures.com

650.561.1228