## Building Financial Projections

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## January 23, 2014

## Charlie Tillett

SM '91

## Agenda

## Business Plan Financials

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- What VCs (and \$100K Judges) Want
- What is a Business Model
- Building YOUR Financial Projections
- Sharing the Pie


## Background

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1991

Sloan SM: Entrepreneurial Finance

- Third Place 1990 \$10K Contest
- Summer Intern - Boston Capital Ventures

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CFO: NetScout Systems (NTCT)

- \$51M in 2 VC financings
- IPO in August 1999
`02 to `07 CFO: Reveal Imaging Technologies
- 9 financing transactions
- Sold to SAIC for \$230M in 2010

Raised $\$ 125$ million in $10+$ Transactions

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## I'm too busy to do Financials!

- It is going to be wrong
- VC's don't believe them anyway
- I have IMPORTANT things to do
$>$ Product
$>$ Technology
>Customers
> Team
$>$ etc.

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- Financials are the Scoreboard
- Understand Your Business

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## Here's Why!

>Assumptions
$>$ Drivers
>Milestones
>Exposures/Risks

## Failure to plan is planning to fail



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## The Startup CEO Role

- Job \#1
>Maintain oxygen supply!
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- You're not an accountant but need to understand
$>$ Average Selling Price (ASP)
$>$ Gross margins
$>$ Cost of R\&D
>Sales \& Marketing strategy \& expense
$>$ Start-up and/or Capital Expenses



## Are Financial Projections Important? Reveal Imaging Timeline - \$42.5M raised

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- Q4 '02 Founded
- Q1 '03
- Q3 '03
- Q2 '04
- Q3 '04
- Q1 '05
- Q2 '05
- Q3 '05
- Q2 '06
- Q3 '06

Angel Round
VC: Series A-1
Bank: Equipment Line
VC: Bridge Loan
VC: Series A-2
Venture Debt
VC: Series B
Bank: A/R Line of Credit
Private Equity: Debt
\$1M
\$5M
\$500k
\$1M
\$5M
\$4M
\$5M
\$6M
\$15M

Financial Plan provided the roadmap to DETERMINE cash needs and the VEHICLE to obtain that cash.

## What VCs Want

- VC Investment goals:
- $3 x$ to $5 x$ absolute returns
- 5 to 7 year investment horizon
- $4 x$ in 5 years $=$ IRR of $32 \%$
- VC Requirements
- Get a "significant" amount of \$ invested (at least \$5M - \$10M)
- Own a "significant" ownership \% (50\% +-)
- The "Formula"
- $\quad$ VC $\%=\$$ invested / (pre-money valuation + \$invested)
- Pre-money valuation is company's value prior to investment
- Post-money valuation = pre-money + \$invested
- Result
- $\quad 3 * \$ 15 \mathrm{M}=\$ 60 \mathrm{M} \quad-\quad 5 * \$ 15 \mathrm{M}=\$ 90 \mathrm{M}$
- Company valuation needs to be $\$ 85 \mathrm{M}$ and $\$ 130 \mathrm{M}$
- Your revenues need to be $\$ 40 \mathrm{M}$ to $\$ 60 \mathrm{M}$

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Angels $(\$ 500 \mathrm{~K}$ at $\$ 4.5 \mathrm{MM}$

VC Round (\$5MM at \$5MM)

VC Round (\$10MM at \$15MM)

Total Investors

Grand Total

At Founding
After Early Emp.

|  | Shares | \% | Shares | \% | Shares | \% | Shares | \% | Shares | \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Founders | 4,000,000 | 100.0\% | 4,000,000 | 88.9\% | 4,000,000 | 80.0\% | 4,000,000 | 30.3\% | 4,000,000 | 18.2\% |
| Key Early Employees | - | 0.0\% | 425,000 | 9.4\% | 425,000 | 8.5\% | 425,000 | 3.2\% | 425,000 | 1.9\% |
| Advisors | - | 0.0\% | 75,000 | 1.7\% | 75,000 | 1.5\% | 75,000 | 0.6\% | 75,000 | 0.3\% |
| Option Plan | - | 0.0\% | - | 0.0\% | - | 0.0\% | 1,610,000 | 12.2\% | 1,610,000 | 7.3\% |

Investors

- $0.0 \%$
- $0.0 \%$

Post Angel
Post VC 1
Post VC 2

500,000 10.0\%
10.0\%

500,000 3.8\%

6,610,000 50.0\%
6,610,000
$\qquad$ 8,813,333 40.0\%

| - | 0.0\% | - | 0.0\% | 500,000 | 10.0\% | 7,110,000 | 53.8\% | 15,923,333 | 72.3\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
| 4,000,000 | 100\% | 4,500,000 | 100\% | 5,000,000 | 100\% | 13,220,000 | 100\% | 22,033,333 | 100\% |

## What is "The Business Model"

An Income Statement in \% terms
> Once the business reaches "critical mass"

- Unit volume
o Geography
o Transactions or Customers
- Documents how KEY ASSUMPTIONS fit together to create a business that MAKES MONEY


## Income Statement Example

## For a generic technology company

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100\% After discounts
40\% Direct \& indirect costs but NOT R\&D
60\% Sales minus COGS

10\%
5\% Rent, Accounting, HR, IT
45\%

15\% Gross Profit minus Total Expenses


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## Example - 4 year Income Statement What Investors Look At

| P \& L by Year | Source | Year 1 |  |  | Year 2 |  |  | Year 3 |  |  | Yer 4 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Revenue |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Model 1 | P\&L By Qtr | \$ | 1,275,000 | 100\% | \$ | 10,500,000 | 88\% | \$ | 33,750,000 | 82\% | \$ | 37,500,0 | 00 | 50\% |
| Model 2 | P\&L By Qtr | \$ | - | 0\% | \$ | 1,400,000 | 12\% | \$ | 5,250,000 | 13\% | \$ | 27,500,0 | 00 | 36\% |
| Model 3 | P\&L By Qtr | \$ | - | 0\% | \$ | - | 0\% | \$ | 2,400,000 | 6\% | \$ | 10,500,0 | 00 | 14\% |
| Total Revenue |  | \$ | 1,275,000 | 100\% | \$ | 11,900,000 | 100\% | \$ | 41,400,000 | 100\% | \$ | 75,500,0 | 00 | 100\% |


| COGS | P\&L By Qtr | \$ | 425,000 | 33\% | \$ | 3,920,000 | 33\% | \$ | 13,385,000 | 32\% | \$ | 23,200, | 0 | 31\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gross Margin |  | \$ | 850,000 | 67\% | \$ | 7,980,000 | 67\% | \$ | 28,015,000 | 68\% | \$ | 52,300, | 00 | 69\% |
| Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Engineering | P\&L By Qtr | \$ | 1,326,625 | 104\% | \$ | 3,475,275 | 29\% | \$ | 7,212,188 | 17\% | \$ | 12,205, | 75 | 16\% |
| Marketing | P\&L By Qtr | \$ | 710,750 | 56\% | \$ | 1,810,750 | 15\% | \$ | 3,239,350 | 8\% | \$ | 5,300, | 00 | 7\% |
| Sales | P\&L By Qtr | \$ | 1,214,250 | 95\% | \$ | 3,466,500 | 29\% | \$ | 7,171,500 | 17\% | \$ | 12,393, 5 | Do | 16\% |
| G\&A | P\&L By Qtr | \$ | 964,575 | 76\% | \$ | 1,817,750 | 15\% | \$ | 3,117,000 | 8\% | \$ | 5,308,4 | 00 | 7\% |
| Operating Exp. |  | \$ | 4,216,200 | 331\% | \$ | 10,570,275 | 89\% | \$ | 20,740,038 | 50\% | \$ | 35,207,9 | 75 | 47\% |




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## Example - 4 year Income Statement What YOU should look at



## The Business Model

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## Business Models - Retail

## WAL*MART

Otarget
NORDSTROM ${ }^{\text {TM }}$

| Revenue | $100 \%$ |
| ---: | ---: |
| COGS | $76 \%$ |

100\%
100\%

| COGS | $76 \%$ | $66 \%$ |  | $63 \%$ |
| ---: | :---: | :---: | :---: | :---: |
|  | $24 \%$ |  | $34 \%$ |  |


| R\&D | $0 \%$ |
| :---: | :---: |
| SGA | $18 \%$ |


| $0 \%$ | $0 \%$ |
| :---: | :---: |
| $23 \%$ | $27 \%$ |
| $23 \%$ | $27 \%$ |



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## Business Models - Restaurant


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## Business Models - Internet



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## Business Models Slowly Evolve

## Cisco Systems



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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | NetScout | NetScout | NetScout | NetScout | Cisco | Cisco | Cisco | Cisco |  |
|  | Q3 '98 | Q3 '00 | Q3 '06 | Q3 '09 | Q3 '98 | Q3 '00 | Q3 '06 | Q3 '09 |  |
| Revenue | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% |  |
| Cost of Goods Sold | 32\% | 28\% | 23\% | 22\% | 35\% | 36\% | 36\% | 35\% |  |
| Gross Margin | 68\% | 72\% | 77\% | 79\% | 65\% | 64\% | 64\% | 65\% |  |
| Sales \& Marketing | 29\% | 35\% | 48\% | 38\% | 19\% | 21\% | 25\% | 25\% |  |
| R\&D | 13\% | 13\% | 12\% | 14\% | 12\% | 14\% | 11\% | 13\% |  |
| G\&A | 6\% | 8\% | 7\% | 7\% | 3\% | 3\% | 3\% | 3\% |  |
| Total Expenses | 48\% | 56\% | 67\% | 59\% | 34\% | 38\% | 39\% | 41\% |  |
| Operating Profit | 20\% | 16\% | 10\% | 20\% | 31\% | 26\% | 25\% | 24\% |  |
| Annual Revenue/Emp. | \$ 350,000 | \$ 320,000 |  | \$ 300,000 | \$ 600,000 | \$ 675,000 |  | \$ 555,000 |  |

## Building a Tech Model

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- What is your product
$>$ Price that customer will pay
$>$ COGS - Unit costs \& mfg O/H \& support
- Distribution Strategy
> May impact your sales price
> May impact S \& M and support expenses
- R\&D should end up at $10 \%$ to 20
- G\&A should end up at $5 \%$ to $15 \%$
- Target an operating profit of $15 \%$ to $20 \%$


## First Major Decision: How will you sell your product?

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|  | Direct Sales Force |  |
| :--- | :---: | :---: |
| Revenue | $\$ 100$ | $100 \%$ |
| Cost of Goods Sold | $\$ 40$ | $40 \%$ |
| Gross Margin | $\$ 60$ | $60 \%$ |
|  |  |  |
| Sales \& Marketing | $\$ 23$ | $23 \%$ |
| R\&D | $\$ 12$ | $12 \%$ |
| G\&A | $\$ 5$ | $5 \%$ |
| Total Expenses | $\$ 40$ | $40 \%$ |
|  |  |  |
| Operating Profit | $\$ 20$ | $20 \%$ |



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## First Major Decision: How will you sell your product?

|  | Direct Sales Force |  |
| :--- | :---: | :---: |
| Revenue | $\$ 100$ | $100 \%$ |
| Cost of Goods Sold | $\$ 40$ | $40 \%$ |
| Gross Margin | $\$ 60$ | $60 \%$ |
|  |  |  |
| Sales \& Marketing | $\$ 23$ | $23 \%$ |
| R\&D | $\$ 12$ | $12 \%$ |
| G\&A | $\$ 5$ | $5 \%$ |
| Total Expenses | $\$ 40$ | $40 \%$ |
|  |  |  |
| Operating Proft | $\$ 20$ | $20 \%$ |


| Distributor |  |
| :---: | :---: |
| $\$ 80$ | $100 \%$ |
| $\$ 40$ | $50 \%$ |
| $\$ 40$ | $50 \%$ |
|  |  |
| $\$ 8$ | $10 \%$ |
| $\$ 12$ | $15 \%$ |
| $\$ 4$ | $5 \%$ |
| $\$ 24$ | $30 \%$ |
|  |  |
| $\$ 16$ | $20 \%$ |

Example - Distributor receives a $20 \%$ discount in return for Sales \& Marketing efforts

## Building YOUR Model

- Do NOT use Business Planning Software
- Build Sales Projections from the bottom up
- Do NOT project best-case/worst-case

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## Charlie's Rules-of-Thumb:

## Disclaimer

- Focused on making attractive to investors
- Most relevant for technology companies
- May not apply to your industry
- Most common Business Plan errors:
$>$ Revenue too high in year 4
$>$ Profit margin too high in year 4


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# Building Financial Projections Technology Company Rules-of-Thumb 

## Staffing DRIVES departmental expenses

- Average employee salary will be $\$ 90 \mathrm{~K}+$ -
- Employee benefits will add just 15\%
- Salaries will be 60\% to 70\% of total expenses (non-COGS)
$>$ Remainder will be rent, utilities, travel, etc.
$>$ UNLESS you have extraordinary marketing!!!
$>$ Will reduce to $50 \%$ to $55 \%$ over time
- Sales staff will cost $\$ 175$ to $\$ 250 \mathrm{k}$ per person per year $>\sim \$ 200 \mathrm{k}$ compensation (50\% base, $50 \%$ commission)
$>\$ 50 \mathrm{k}$ in annual travel costs

Disclaimer - May not apply to your company


## Building Financial Projections Technology Company Rules-of-Thumb

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- Revenue per Salesperson
> Between \$1MM and \$3MM


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## Case Study:

## OpenTable

Restaurants 12,300 ('09) -> 15,200 ('10) +2,900
Diners Seated 43M ('09) -> 65M ('10)

Subscription
Reservations
Installation
TOTAL
Expenses
\$27M 27\%
166
\$20M 20\%
\$11M 11\%

| $\$ 15 M$ | $15 \%$ | 71 |
| :--- | :--- | :--- |
| $\$ 73 M$ | $73 \%$ | 493 |

Operating Profit
\$44M
\$48M
\$7M
\$99M
Staff
Operations
Sales
R\&D
G\&A
TOTAL

## Case Study:

## OpenTable

Subscription
Reservations Installation TOTAL
$\$ 44 \mathrm{M} \quad(13,750) \rightarrow \quad \$ 260 /$ month
\$48M (65M) $\rightarrow \quad 60$ cents/diner
$\$ 7 \mathrm{M} \quad(2,900) \rightarrow \quad \$ 2,400$ per

Revenues \$99M/year - \$200k revenue per employee/year Expenses $\$ 73 \mathrm{M} /$ year - $\$ 148 \mathrm{k}$ expense per employee/year

- Estimate: salaries are $66 \%$ of expenses $\rightarrow \$ 100 \mathrm{k}$ avg salary

No print, broadcast, or online ads. Search Engine Positioning
If Sales Staff $=160 \rightarrow \$ 125 \mathrm{k}$ annual expense per staff member
If Sales Staff $=80 \rightarrow 36$ restaurants per rep/year ( $50 \%$ staff sell)
Only $\$ 311 \mathrm{k}$ revenue per sales staff
RED FLAGS
Target market - 20,000 restaurants (vs 15,200 already installed)
Opportunity - 700M diners (vs 65M)

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## Case Study:

## OpenTable

## Customer Acquisition v Customer Value

```
Acquisition Cost*:
\(\$ 20 \mathrm{M}\) for 2,900 customers \(=\mathbf{\$ 6 , 9 0 0}\) average per customer
```

5-Year Customer Value (1 \& 5 year):

Installation Fee
Subscription Fees
Per-Diner Fees (360/mth)
Total Year 1

Total year 1-5
12 * $\$ 260$
12 * $\$ 210$
\$2,400
\$3,120
\$2,560
\$8,080
\$70,560

* Sales \& Marketing ONLY

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## Case Study:

## OpenTable

## KEY BUSINESS DECISIONS

Who Pays? Restaurant, diner, advertiser?
What would they pay for?

- Restaurant: Installation, Monthly fee, Volume based fee
- Diner: Per Reservation Fee
- Advertiser: CPM

How Much Do They Pay?

- Installation
\$2,400
- Monthly fee
\$260
- Volume based fee $\$ 0.60 /$ diner

Other Decisions

- No Advertising but Customer Bonus (frequent diner plan)


## Cash Flow Projections

 Happiness is a positive cash flow Or at least knowing when you need to raise more- Burn Rate
$>$ Monthly operating loss plus capital expenditures
- Cash Flow Projection
$>$ Cumulative operating losses excluding depreciation
$>$ Plus cumulative capital expenses
- To determine the total cash required
> Cumulative operating losses PLUS
> Cumulative capital expenses
$>$ On the month that you turn cash positive


## How Much to Pay Yourself

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- VCs don't want their entrepreneurs to starve BUT
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They want them to be hungry
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## End Result 4 year Profit and Loss Statement

| P \& L by Year |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Source | Year 1 |  | Year 2 |  | Year 3 |  | Year 4 |  |
| Revenue |  |  |  |  |  |  |  |  |  |
| Product Revenue | P\&L By Qtr | \$1,700,000 | 95\% | \$12,180,000 | 93\% | \$34,810,000 | 92\% | \$60,200,000 | 90\% |
| Support Revenue | P\&L By Qtr | \$87,656 | 5\% | \$910,649 | 7\% | \$3,037,887 | 8\% | \$6,431,460 | 10\% |
| Total Revenue |  | \$1,787,656 | 100\% | \$13,090,649 | 100\% | \$37,847,887 | 100\% | \$66,631,460 | 100\% |
| COGS |  |  |  |  |  |  |  |  |  |
| Product COGS | P\&L By Qtr | \$598,063 | 33\% | \$3,009,288 | 23\% | \$9,366,100 | 25\% | \$16,216,400 | 24\% |
| Support COGS | P\&L By Qtr | \$326,975 | 18\% | \$754,040 | 6\% | \$1,355,383 | 4\% | \$2,294,416 | 3\% |
| Total COGS |  | \$925,038 | 52\% | \$3,763,327 | 29\% | \$10,721,483 | 28\% | \$18,510,816 | 28\% |
| Gross Margin |  | \$862,619 | 48\% | \$9,327,322 | 71\% | \$27,126,404 | 72\% | \$48,120,644 | 72\% |
| Expenses |  |  |  |  |  |  |  |  |  |
| Engineering | P\&L By Qtr | \$1,746,688 | 98\% | \$3,824,863 | 29\% | \$6,685,350 | 18\% | \$11,415,663 | 17\% |
| Marketing | P\&L By Qtr | \$811,375 | 45\% | \$2,076,000 | 16\% | \$3,448,350 | 9\% | \$5,268,750 | 8\% |
| Sales | P\&L By Qtr | \$1,316,500 | 74\% | \$3,370,650 | 26\% | \$6,016,050 | 16\% | \$10,001,750 | 15\% |
| G\&A | P\&L By Qtr | \$1,091,625 | 61\% | \$2,161,100 | 17\% | \$3,593,250 | 9\% | \$5,138,250 | 8\% |
| Operating Exp. |  | \$4,966,188 | 278\% | \$11,432,613 | 87\% | \$19,743,000 | 52\% | \$31,824,413 | 48\% |
| Operating Profit |  | \$(4,103,569) | -230\% | \$(2,105,291) | -16\% | \$7,383,404 | 20\% | \$16,296,232 | 24\% |

Red - Input
Black - Calculated

Magenta - TO another spreadsheet
Blue - FROM another spreadsheet


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## Profit and Loss Statement Quarterly

| P \& L by Quarter | Source | Q1 <br> Year 1 | Q2 <br> Year 1 | Q3 <br> Year 1 | Q4 <br> Year 1 | Q2 <br> Year 2 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Revenue |  |  |  |  |  |  |
| Year 2 |  |  |  |  |  |  |

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## Sel ES

Unit Sales

|  | Source |
| :--- | :--- |
| Model 1 | Input |
| Model 2 | Input |
| Model 3 | Input |


| Q1 | Q2 | Q3 <br> Year 1 | Year 1 | Year 1 | Qear 1 | Q1 | Q2 <br> Year 2 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  | Qear 2 | Q3 |  |  |
| Year 2 |  |  |  |  |  |  |  |

Sales Price

| Model 1 | Input |
| :--- | :--- |
| Model 2 | Input |
| Model 3 | Input |


| $\$ 10,000$ | $\$ 10,000$ | $\$ 10,000$ | $\$ 7,500$ | $\$ 7,500$ | $\$ 7,500$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\$ 12,000$ | $\$ 12,000$ | $\$ 12,000$ | $\$ 7,500$ |  |
|  |  | $\$ 12,000$ |  |  |  |

Product Revenue


Support Revenue

| Installed Base |  |
| :---: | :---: |
|  |  |
| Supported Base (retention) | $75 \%$ |
|  | $15 \%$ |


| $\$-$ | $\$ 200,000$ | $\$ 700,000$ | $\$ 1,700,000$ | $\$ 3,440,000$ | $\$ 6,050,000$ | $\$ 9,530,000$ | $\$ 13,880,000$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $\$-$ | $\$ 200,000$ | $\$ 650,000$ | $\$ 1,487,500$ | $\$ 2,855,625$ | $\$ 4,751,719$ | $\$ 7,043,789$ | $\$ 9,632,842$ |
| $\$-$ | $\$ 7,500$ | $\$ 24,375$ | $\$ 55,781$ | $\$ 107,086$ | $\$ 178,189$ | $\$ 264,142$ | $\$ 361,232$ |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| $\$-$ | $\$ 200,000$ | $\$ 500,000$ | $\$ 1,000,000$ | $\$ 1,740,000$ | $\$ 2,610,000$ | $\$ 3,480,000$ | $\$ 4,350,000$ |
| $\$-$ | $\$ 7,500$ | $\$ 24,375$ | $\$ 55,781$ | $\$ 107,086$ | $\$ 178,189$ | $\$ 264,142$ | $\$ 361,232$ |
| $\$-$ | $\$ 207,500$ | $\$ 524,375$ | $\$ 1,055,781$ | $\$ 1,847,086$ | $\$ 2,788,189$ | $\$ 3,744,142$ | $\$ 4,711,232$ |

Red - Input
Black - Calculated
Magenta - TO another spreadsheet
Blue - FROM another spreadsheet


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## cogs

## Cost of Goods Sold

Unit Sales


Model 1
Model 2
Model 3
Total Units

Total Installed Units
Sales Plan
Sales Plan Sales Plan

Source

| Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year 1 | Year 1 | Year 1 | Year 1 | Year 2 | Year 2 | Year 2 | Year 2 |
|  | 20 | 50 | 100 | 200 | 300 | 400 | 500 |
|  |  |  |  | 20 | 30 | 40 | 50 |
| - | 20 | 50 | 100 | 220 | 330 | 440 | 550 |
| - | 20 | 70 | 170 | 390 | 720 | 1,160 | 1,710 |


| Total Supported Base | Sales Plan | \$0 | \$200,000 | \$650,000 | \$1,487,500 | \$2,855,625 | \$4,751,719 | \$7,043,789 | \$9,632,842 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Product COGS | Source | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
|  |  | Year 1 | Year 1 | Year 1 | Year 1 | Year 2 | Year 2 | Year 2 | Year 2 |
| Mfg Staffing Plan |  |  |  |  |  |  |  |  |  |
| VP Mfg |  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Supervisor | 1 per 10 |  |  |  | 1 | 1 | 1 | 2 | 2 |
| Technician | 1 unit/day | 1 | 1 | 1 | 2 | 5 | 8 | 11 | 13 |
| Other/Admin |  | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| Total MFG Staff |  | 3 | 3 | 3 | 5 | 8 | 11 | 16 | 18 |

Variable COGS per Unit
Model 1
Model 3

Model 1
Model 2
Model 3

Total Variable Costs

Product COGS

| Salaries \& Benefits |  |
| ---: | :--- |
| Variable Costs | from above |
| Facilities |  |

Total Product COGS

| $\$ 69,000$ | $\$ 69,000$ | $\$ 69,000$ | $\$ 113,563$ | $\$ 172,575$ | $\$ 233,538$ | $\$ 338,800$ | $\$ 384,375$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $\$-$ | $\$ 30,000$ | $\$ 62,500$ | $\$ 125,000$ | $\$ 290,000$ | $\$ 435,000$ | $\$ 460,000$ | $\$ 575,000$ |
| $\$ 15,000$ | $\$ 15,000$ | $\$ 15,000$ | $\$ 15,000$ | $\$ 30,000$ | $\$ 30,000$ | $\$ 30,000$ | $\$ 30,000$ |
| $\$ 84,000$ | $\$ 114,000$ | $\$ 146,500$ | $\$ 253,563$ | $\$ 492,575$ | $\$ 698,538$ | $\$ 828,800$ | $\$ 989,375$ |

Red - Input
Black - Calculated
Magenta - TO another spreadsheet
Blue - FROM another spreadsheet


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## Staffing Plan

Staffing Plan
Engineering
CTO
VP Engineering
Project Manager
Programmer
Tech Writer
Other
Total Eng

Marketing
VP Marketing
Product Manager
Mar-Com
Other
Total Mktg

Red - Input
Black - Calculated

| Staff | Staff | Staff | Staff | Staff | Staff | Staff | Staff |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Year 1 | Year 1 | Year 1 | Year 1 | Year 2 | Year 2 | Year 2 | Year 2 |


| Input | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Input |  |  |  |  | 1 | 1 | 1 | 1 |
| Input | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| Input | 4 | 8 | 10 | 12 | 14 | 16 | 18 | 22 |
| Input | - | 1 | 1 | 2 | 2 | 4 | 4 | 4 |
| Input | - | - | - | - | - | - | - | - |
|  | $\mathbf{6}$ | $\mathbf{1 2}$ | $\mathbf{1 4}$ | $\mathbf{1 7}$ | $\mathbf{2 0}$ | $\mathbf{2 5}$ | $\mathbf{2 7}$ | $\mathbf{3 1}$ |


| Input | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Input | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 |
| Input | - | - | 1 | 1 | 2 | 2 | 2 | 2 |
| Input | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 |
|  | $\mathbf{3}$ | $\mathbf{3}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{8}$ | $\mathbf{8}$ | $\mathbf{1 0}$ | $\mathbf{1 0}$ |

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## Salary Expenses

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## Marketing

| VP Marketing | $\$ 175,000$ |
| ---: | ---: |
| Product Manager | $\$ 120,000$ |
| Mar-Com | $\$ 75,000$ |
| Other | $\$ 80,000$ |
| Total Mktg |  |


|  | $\$ 50,313$ | $\$ 50,313$ | $\$ 50,313$ | $\$ 50,313$ | $\$ 51,188$ | $\$ 52,063$ | $\$ 52,938$ | $\$ 53,813$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\$ 34,500$ | $\$ 34,500$ | $\$ 69,000$ | $\$ 69,000$ | $\$ 105,300$ | $\$ 107,100$ | $\$ 145,200$ | $\$ 147,600$ |
|  | $\$-$ | $\$-$ | $\$ 21,563$ | $\$ 21,563$ | $\$ 43,875$ | $\$ 44,625$ | $\$ 45,375$ | $\$ 46,125$ |
|  | $\$ 23,000$ | $\$ 23,000$ | $\$ 23,000$ | $\$ 46,000$ | $\$ 46,800$ | $\$ 47,600$ | $\$ 72,600$ | $\$ 73,800$ |
|  |  | $\$ 107,813$ | $\$ 107,813$ | $\$ 163,875$ | $\$ 186,875$ | $\$ 247,163$ | $\$ 251,388$ | $\$ 316,113$ |

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## Non-Salary Expenses

Departmental Expenses
Source

|  | Staffing Plan | $\$ 184,000$ | $\$ 334,938$ | $\$ 383,813$ | $\$ 449,938$ |
| ---: | :---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |
| $\$ 2,000$ | input/formula | $\$ 36,000$ | $\$ 72,000$ | $\$ 84,000$ | $\$ 102,000$ |
|  | input | $\$ 10,000$ | $\$ 20,000$ | $\$ 30,000$ | $\$ 40,000$ |
|  | To P\&L | $\$ 230,000$ | $\$ 426,938$ | $\$ 497,813$ | $\$ 591,938$ |

Marketing
Salaries \& Benefits
Literature / PR
Trade Shows
Misc / Other
Total Marketing

Red - Input
Black - Calculated

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## Non-Salary Expenses

Sales

| Salaries \& Benefits |  | Staffing Plan | $\$ 136,563$ | $\$ 201,250$ | $\$ 345,000$ |
| ---: | ---: | ---: | ---: | ---: | ---: |
| Travel (PP/PM) | $\$ 3,000$ | input/formula | $\$ 9,000$ | $\$ 18,000$ | $\$ 36,000$ |

General \& Admin

| Salaries \& Benefits | Staffing Plan | $\$ 107,813$ | $\$ 127,938$ | $\$ 185,438$ | $\$ 185,438$ |
| ---: | :---: | ---: | ---: | ---: | ---: |
| Legal / Audit |  | $\$ 30,000$ | $\$ 30,000$ | $\$ 30,000$ | $\$ 30,000$ |
| Rent | See Below | $\$ 50,000$ | $\$ 50,000$ | $\$ 50,000$ | $\$ 50,000$ |
|  |  |  |  |  |  |
| Tel \& Internet (PP/PM) | $\$ 200$ | input/formula | $\$ 10,200$ | $\$ 15,600$ | $\$ 22,800$ |
| Misc / Other |  | input | $\$ 15,000$ | $\$ 20,000$ | $\$ 25,000$ |
| Total G\&A | To P\&L | $\$ 213,013$ | $\$ 243,538$ | $\$ 313,238$ | $\$ 321,838$ |

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## Profit and Loss Statement Quarterly

| P \& L by Quarter | Source | Q1 <br> Year 1 | Q2 <br> Year 1 | Q3 <br> Year 1 | Q4 <br> Year 1 | Q2 <br> Year 2 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Revenue |  |  |  |  |  |  |
| Year 2 |  |  |  |  |  |  |

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## CAPEX \& Cash Flow

| Cash Flow | Source | Q1 | Q2 | Q3 | Q4 | Q1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Year 1 | Year 1 | Year 1 | Year 1 | Year 2 |
| Beginning Cash |  | \$- | \$4,019,713 | \$2,607,275 | \$923,950 | \$11,090,650 |
| Investment | Input | \$5,000,000 | \$- | \$- | \$12,000,000 |  |
| Total Revenue | From P\&L Quarterly * | \$- | \$- | \$207,500 | \$524,375 | \$1,055,781 |
|  | * delay 1 quarter |  |  |  |  |  |
| COGS Expenses | From P\&L Quarterly | \$(159,900) | \$(191,900) | \$ $(228,900)$ | \$( 344,338 ) | \$(645,736) |
| Departmental Expenses | From P\&L Quarterly | \$(736,388) | \$(1,068,538) | \$(1,435,925) | \$(1,725,338) | \$(2,227,838) |
| Capital Expense | From P\&L CAPEX | \$(84,000) | \$(152,000) | \$(226,000) | \$(288,000) | \$(312,000) |
| Change in Cash |  | \$4,019,713 | \$(1,412,438) | \$(1,683,325) | \$10,166,700 | \$(2,129,793) |
| Ending Balance |  | \$4,019,713 | \$2,607,275 | \$923,950 | \$11,090,650 | \$8,960,858 |
| Capital Expenses |  | Q1 | Q2 | Q3 | Q4 | Q1 |
|  |  | Year 1 | Year 1 | Year 1 | Year 1 | Year 1 |
| Employee Workstations (PP) | \$2,000 | \$34,000 | \$52,000 | \$76,000 | \$88,000 | \$112,000 |
| Prototype Expenses | Input | \$50,000 | \$100,000 | \$150,000 | \$200,000 | \$200,000 |
|  |  | \$84,000 | \$152,000 | \$226,000 | \$288,000 | \$312,000 |

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## Financial Data

 Presentation Suggestions- Steady, consistent evolution of your model
$>$ Revenue growth in \$
> Expenses over time in \%
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- Show pre-tax only
- Don't allocate G\&A expenses



## Executive Summary Presentation Suggestions

- Annual P\&L for 4 or 5 years (with \%)

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- What quarter you will be profitable
- Your total cash requirement
- Data to justify revenue projections $>$ Unit sales
$>$ Average selling price (ASP)


## Full Business Plan Presentation Suggestions

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- Page 1: Annual P\&L for 4 years

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- Page 2 \& 3: Quarterly P\&L for all 4 years
- Page 4: Quarterly Staffing plan for 4 years
- Page 5: Quarterly cash flow for 4 years


## Sharing the Pie

## Thoughts on Equity Distribution

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## Equity Distribution Philosophy

- Compensate for:
> Ownership of IP
> COMMITTMENT
$>$ Risk (stage of company, e.g. pre-funding)
$>$ Sacrifice (e.g. external compensation)
> Past \& future contribution
- Work to be Completed > Work Completed
- Maintain internal equity
- EVERYONE should vest - 4 years


## Employee Specifics

## Ownership \% after 2 rounds of financing

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CEO
VP
Sr Manager
Sr Ind Contributor

5\%
$1 \%$ to $21 / 2 \%$
.25\% (1/4 of 1\%)
.1\% (1/10 of 1\%)

- Founding management might get $2 x$ to $3 x$
- Founding employees might get $5 x$ to $10 x$

YOU CAN ALWAYS GRANT MORE LATER


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## Equity Distribution Example




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## At Company Founding




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## After Early Employees




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## After Angel Round




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## After VC Round 1




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