VISIONING a greater RACINE

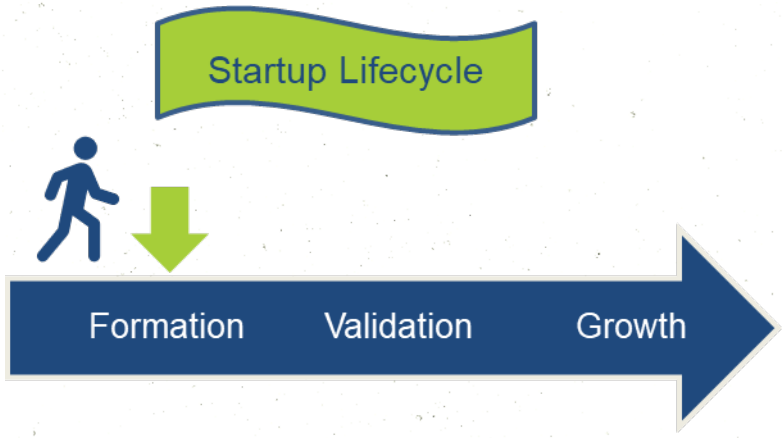
TECH-PRIZE

Finance Fundamentals for Startups

March 13th Session

AGENDA (60 min)

1. Introduction
2. Product Costing
3. Pricing Strategies
4. Understanding Key Financial Statements
5. Questions



Introduction

Story: Mike Hipp

- Married 14 years and have 2 kids
- From Michigan, lived in Milwaukee for 4 years
- Family Interests: Traveling, sports and spending summer weekends in Northern Wisconsin

Kettering University

Career:

- Mechanical Engineering, Finance
- Design Engineer, Manufacturing Engineer, Advanced Manufacturing Engineer, Product Financial Manager, Global Costing Director
- Knowledge Based Sourcing costing lead

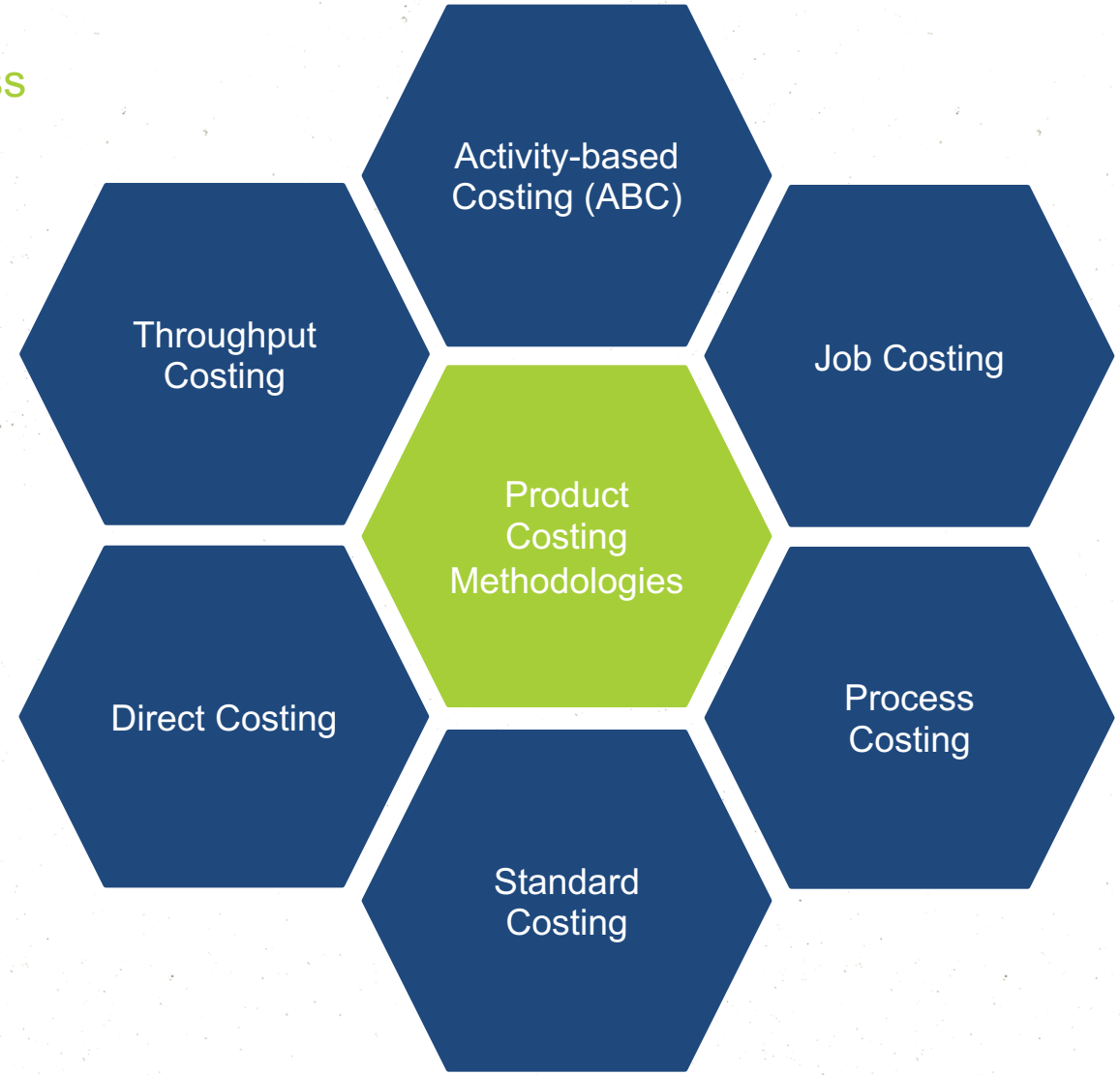
Visteon

Johnson Controls

Product Costing

Product Costing Definition: The accounting process of determining all business expenses pertaining the creation of company products or delivery of services.

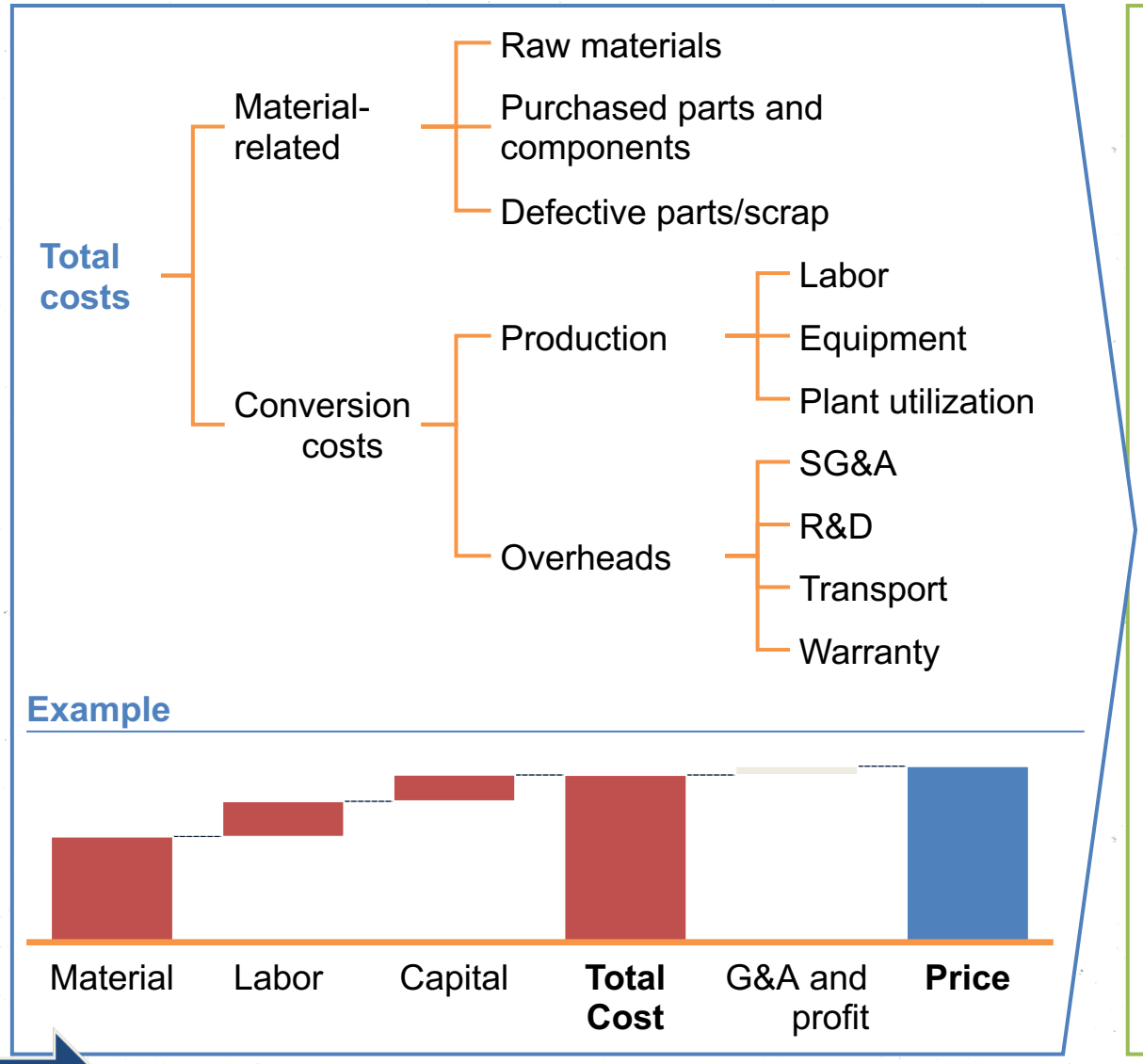
Prior to selecting a methodology, it is important to deep dive the cost drivers that impact your business.



Typical Examples of Cost

	Product	Service
Direct costs	▪ Raw materials (e.g., paper) ▪ Parts ▪ Other materials ▪ Manufacturing costs	▪ Direct labor ▪ Materials ▪ Capital equipment
Indirect costs	▪ Packaging & transportation ▪ R&D ▪ SG&A ▪ Other overhead (e.g., licensing costs)	▪ Indirect labor ▪ IT, rent, and utilities ▪ SG&A ▪ Other overhead
Other	▪ Margin ▪ Company specific costs (e.g., sample units for client testing)	▪ Margin ▪ Company specific costs

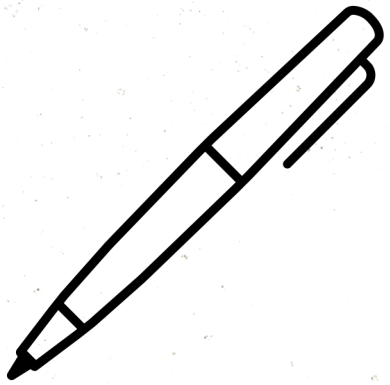
Costing Tree

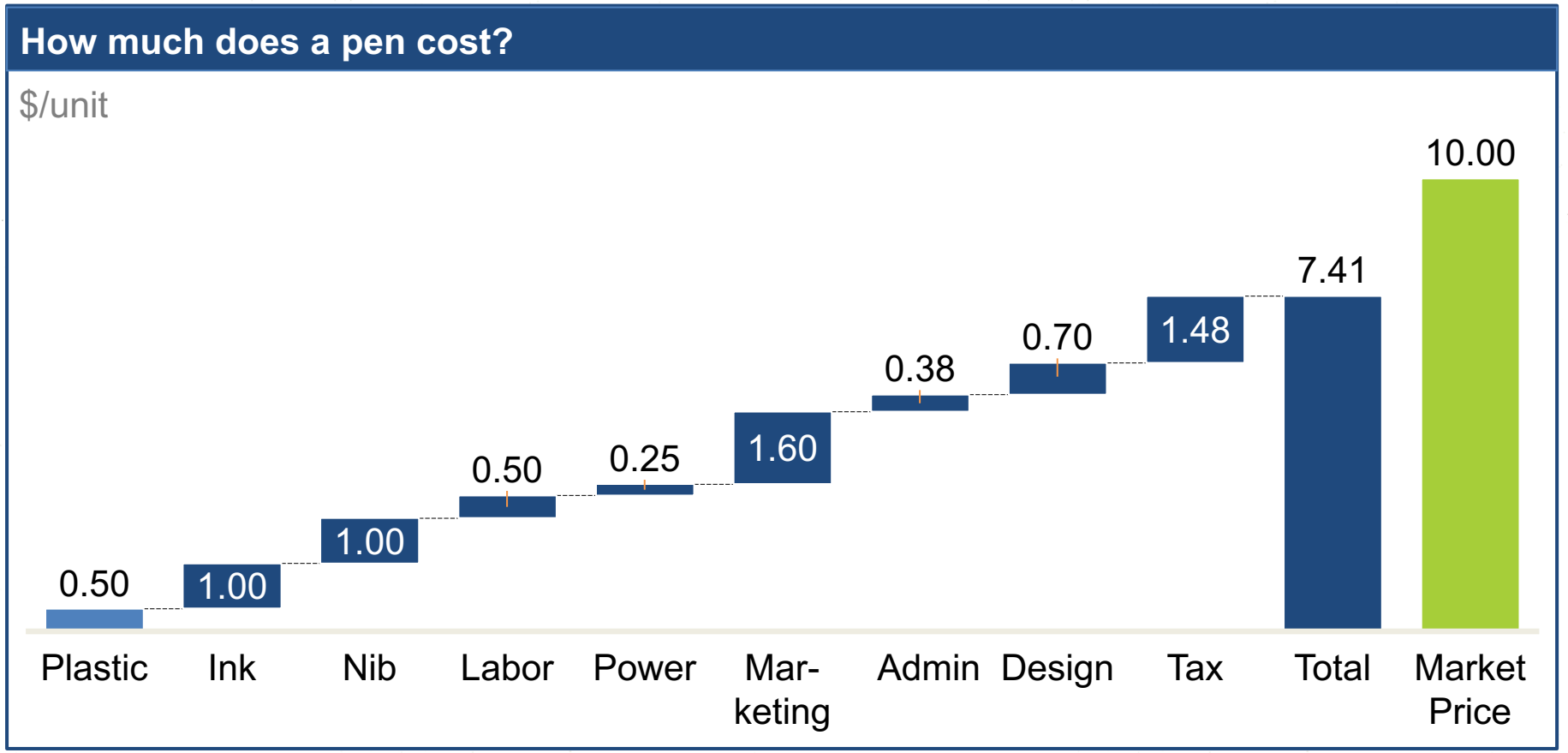


Example

- **Bottom-up calculation** to go as deep as needed
- **Structure can be adapted** to the situation (purchased parts, complex or simple assembly, etc)
- **Level of details must be adjusted based on the objectives** (e.g. business plan, sizing cost reduction ideas, initial target cost, etc)

Product Costing Example





Pricing Strategies

COST DOES NOT NECESSARILY DETERMINE PRICE!

However….

Understanding costs is instrumental in determining minimum prices to ensure profitability and expected return on investment (ROI)

Factors that influence Pricing Strategy
• Market conditions • Competitor actions • Input costs • Distribution channels • Variable costs • Legal and regulatory requirements • Pricing objective

Cost-plus pricing

Penetration Pricing

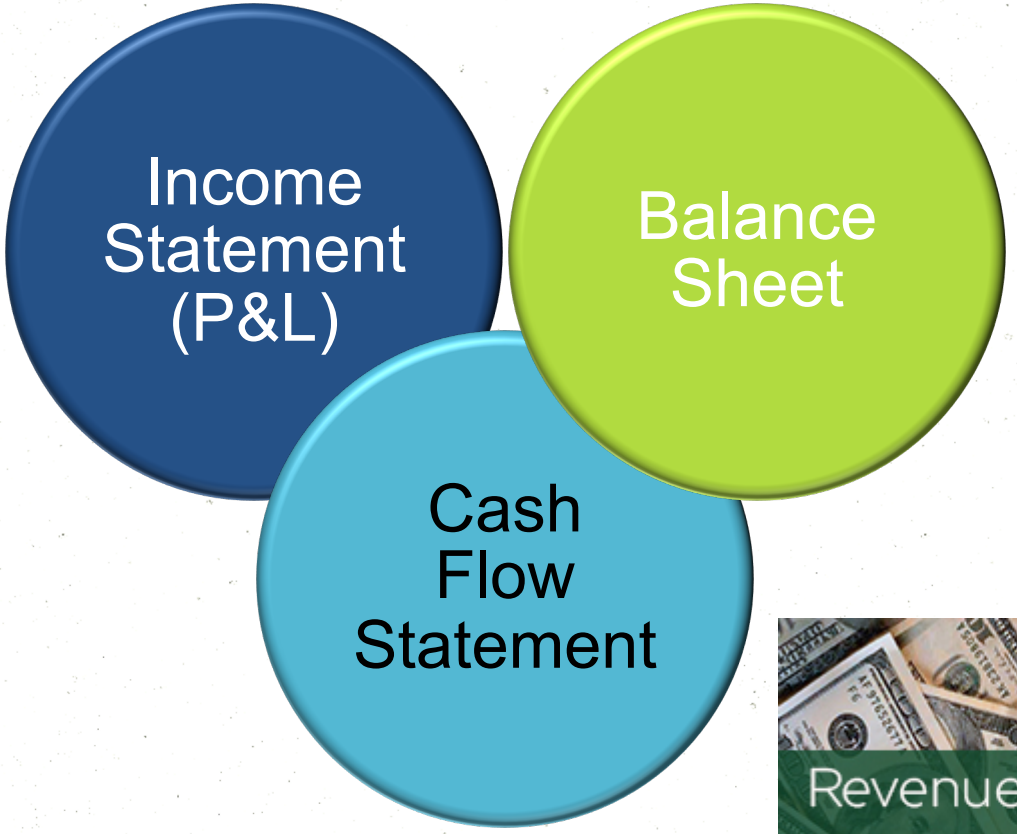
Price Skimming

Bundle pricing

Economy pricing

Premium pricing

Key Financial Statements



Income Statement (P&L – Profit & Loss Statement)

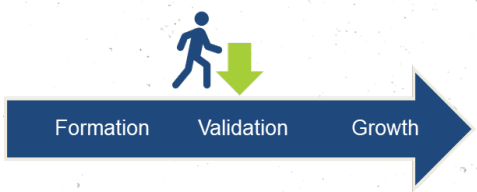
- **Ability to generate profit**

Balance Sheet

- **Amount of Investment needed to support the sales & profits shown on the Income Statement**

Cash Flow Statement

- **Clear view of cash inflows & outflows**



Income Statement

Income Statement or Profit & Loss Statement (P&L)

The Income Equation

Net Income = Revenue - Expenses

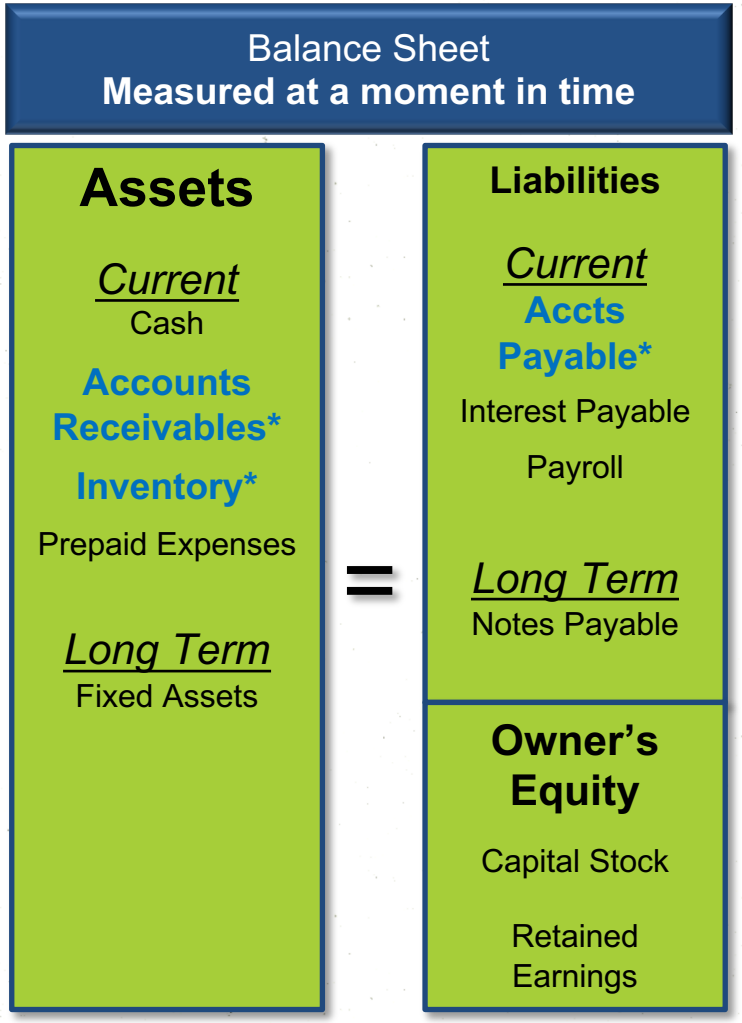
The Income Statement

Simply a detailed version of the Income Equation showing revenue & expenses by category

Created for a specific time period – Month, Quarter or Year

Used to Evaluate and Manage Financial Performance

Balance Sheet



* *Trade Working Capital Components*

The Balance Sheet gives Investors an idea as to what the company:

- Owns (Assets)
- Owes (Liabilities)
- Amount invested by Shareholders (Equity)

Working Capital

- Current Assets minus Current Liabilities
- Measure of efficiency & short term health

Trade Working Capital (TWC)

- Accounts Receivable + Inventory – Accounts Payable = TWC
- Measure of current cash required to run the day-to-day operations.

Cash Flow

Small Business Cash Flow Projection

Starting date: Jan-21

	Beginning	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Total
Cash on hand (beginning of month)	100	100	-479	-501	-366	29	664	1,299	1,934	2,569	3,204	1,839	2,474	

CASH RECEIPTS		Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Total
Collections on accounts receivable		400	1,000	1,600	2,200	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	26,000
TOTAL CASH RECEIPTS		400	1,000	1,600	2,200	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	26,000
Total cash available	100	500	521	1,099	1,834	2,629	3,264	3,899	4,534	5,169	5,804	4,439	5,074	

CASH PAID OUT		Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Total
Advertising		10	10	10	10	10	10	10	10	10	10	10	10	120
Commissions and fees		5	5	5	5	5	5	5	5	5	5	5	5	60
Insurance (other than health)		2	2	2	2	2	2	2	2	2	2	2	2	24
Materials and supplies (in COGS)		420	780	1,140	1,440	1,560	1,560	1,560	1,560	1,560	1,560	1,560	1,560	16,260
Office expense		1	1	1	1	1	1	1	1	1	1	1	1	12
Rent or lease		50	50	50	50	50	50	50	50	50	50	50	50	600
Rent or lease: vehicles, equipment		5	5	5	5	5	5	5	5	5	5	5	5	60
Taxes and licenses		1	1	1	1	1	1	1	1	1	1	1	1	12
Utilities		2	4	6	6	6	6	6	6	6	6	6	6	66
Wages (less emp. credits)		80	160	240	280	320	320	320	320	320	320	320	320	3,320
Miscellaneous		3	4	5	5	5	5	5	5	5	5	5	5	57
SUBTOTAL		579	1,022	1,465	1,805	1,965	1,965	1,965	1,965	1,965	1,965	1,965	1,965	20,591
CASH PAID OUT		Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Total
Capital purchases		400									2,000			2,400
TOTAL CASH PAID OUT		979	1,022	1,465	1,805	1,965	1,965	1,965	1,965	1,965	3,965	1,965	1,965	22,991
Cash on hand (end of month)	100	-479	-501	-366	29	664	1,299	1,934	2,569	3,204	1,839	2,474	3,109	

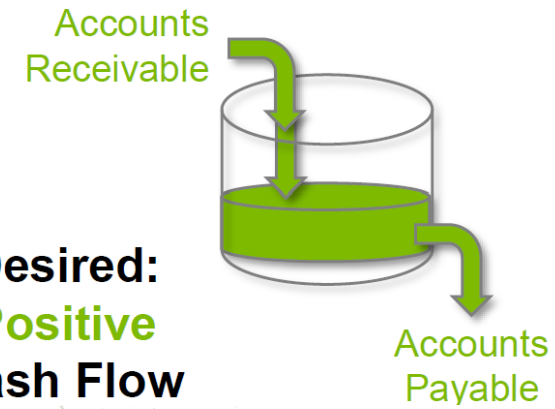
OTHER OPERATING DATA		Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Total
Accounts receivable balance		700	1,300	1,900	2,400	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	27,100
Inventory on hand		551	903	1,255	1,501	1,525	1,525	1,525	1,525	1,525	1,525	1,525	1,525	16,412
Accounts payable balance		600	960	1,290	1,500	1,560	1,560	1,560	1,560	1,560	1,560	1,560	1,560	16,830
Depreciation		10	13	13	13	13	13	13	13	13	13	13	13	153
Change in Working Capital		651	592	622	537	164	0	0	0	0	0	0	0	

Formation Validation Growth

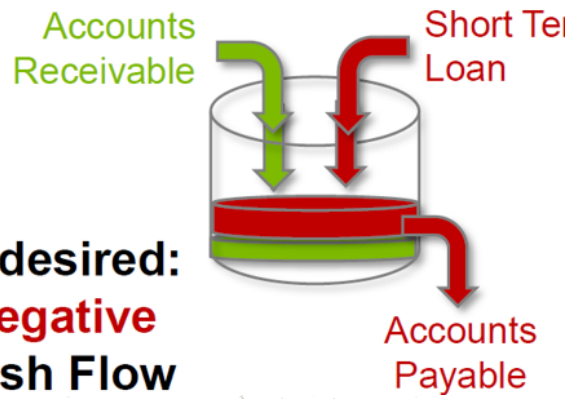
Cash Flow Forecasting

Accurate cash flow forecasting enables the business to:

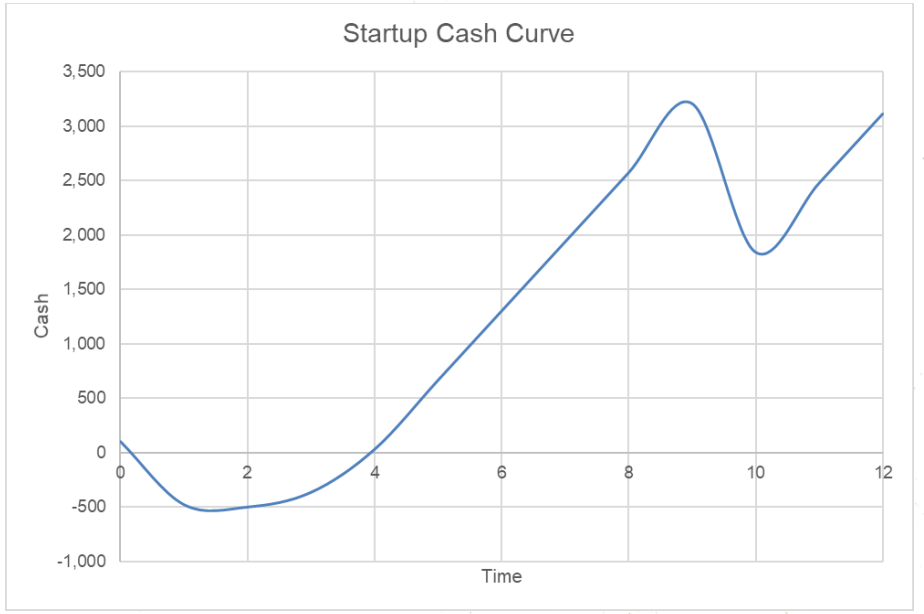
1. Make informed investment decisions that align to organization financial needs.
2. Ensure short term liquidity goals are achieved.
3. Organize short and long term financing arrangements.



Desired: Positive Cash Flow



Undesired: Negative Cash Flow



Financial Definitions

Hurdle Rates set the minimum acceptable rate of return for a project

Measure	Description
Payback Period	Time in years to recover the investment (not discounted)
Internal Rate of Return (IRR)	Measure of financial attractiveness and should exceed hurdle rate. IRR considers cash inflows and outflows along with timing. It is the discount rate required to achieve a Net Present Value of 0 on future cash flows. Higher is better!
Net Present Value (NPV)	Uses the discount rate to calculate the present value of cash outflows and inflows with the consideration of timing.

Internal Rate of Return (IRR)

IRR: The discount rate that generates a zero net present value

Using future year cash flow projections, based on cost and price assumptions. You can calculate IRR%

- Total cost: $7.41/unit
- Premium price: $20.00/unit

Cash Flow Projections →

	Undiscounted	Rate	Discounted
Year 0	$ (5,000)	100%	$ (5,000)
Year 1	$ 3,109	59%	$ 1,844
Year 2	$ 3,731	35%	$ 1,313
Year 3	$ 4,290	21%	$ 895
Year 4	$ 4,719	12%	$ 584
Year 5	$ 4,955	7%	$ 364
Total	$ 15,805	**NPV =**	**$ (0)**
Internal Rate of Return (IRR%)		68.6%	

↑

Higher is better!

Net Present Value (NPV)

NPV: The total present value of a time series of cash flows

Discount Rate: Typically, the weighted average cost of capital, cost of debt + cost of equity (including risk factor). The minimum expected return by investors can also be used.

- Total cost: $7.41/unit
- Minimum price: ?/unit

Cash Flow Projections @ price solved for 25% IRR: $9.41/unit

	Undiscounted	Rate	Discounted
Year 0	$ (5,000)	100%	$ (5,000)
Year 1	$ 1,463	80%	$ 1,170
Year 2	$ 1,755	64%	$ 1,123
Year 3	$ 2,018	51%	$ 1,033
Year 4	$ 2,220	41%	$ 909
Year 5	$ 2,331	33%	$ 764
Total	$ 4,787	**NPV =**	**$** -
Internal Rate of Return (IRR%)		25.0%	

NPV @ Premium Pricing: $20/unit

	Undiscounted	Rate	Discounted
Year 0	$ (5,000)	100%	$ (5,000)
Year 1	$ 3,109	80%	$ 2,487
Year 2	$ 3,731	64%	$ 2,388
Year 3	$ 4,290	51%	$ 2,197
Year 4	$ 4,719	41%	$ 1,933
Year 5	$ 4,955	33%	$ 1,624
Total	$ 15,805	**NPV =**	**$ 5,628**
Internal Rate of Return (IRR%)		25.0%	

Best Practices

- Assessing all elements of cost in your business is critical to building financial projections.
- Assumptions are part of the process. Document them and perform sensitivity analysis.
- Investors expect business projections in terms of the 3 key financial statements.
- You should be comfortable interpreting financial results and use financial analysis to make business decisions.

Questions