

# Commercialization 101: Taking the Next Big Step

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*DAWNBREAKER®*

*September 28, 2006*

# DAWNBREAKER®

- Professional Services firm - Rochester, NY
- Worked with over 2000 SBIR/STTR firms
  - Department of Energy, EPA, Navy, NSF ,NIH
  - Phase 2 - Commercialization Assistance Program (CAP)
    - Transition Assistance Program (TAP)
  - Phase 1 - Commercialization Planning Program (CP<sup>2</sup>)
- Business Planning for Scientists & Engineers
- 50% receive private sector investment
  - 12-18 months of completing Commercialization Assistance program (CAP)

# What is Commercialization?

“The process of developing markets and producing and delivering products or services for sale (whether by the originating party or by others)..... commercialization includes both government and non-government markets.”  
– *National Science Foundation SBIR Solicitation*

# What is a commercialization strategy?

- Not defined in solicitations.....but alluded to
  - “....your company’s strategy for converting your proposed SBIR research into a product or non-R&D service with widespread commercial use -- including private sector and/or military markets.”

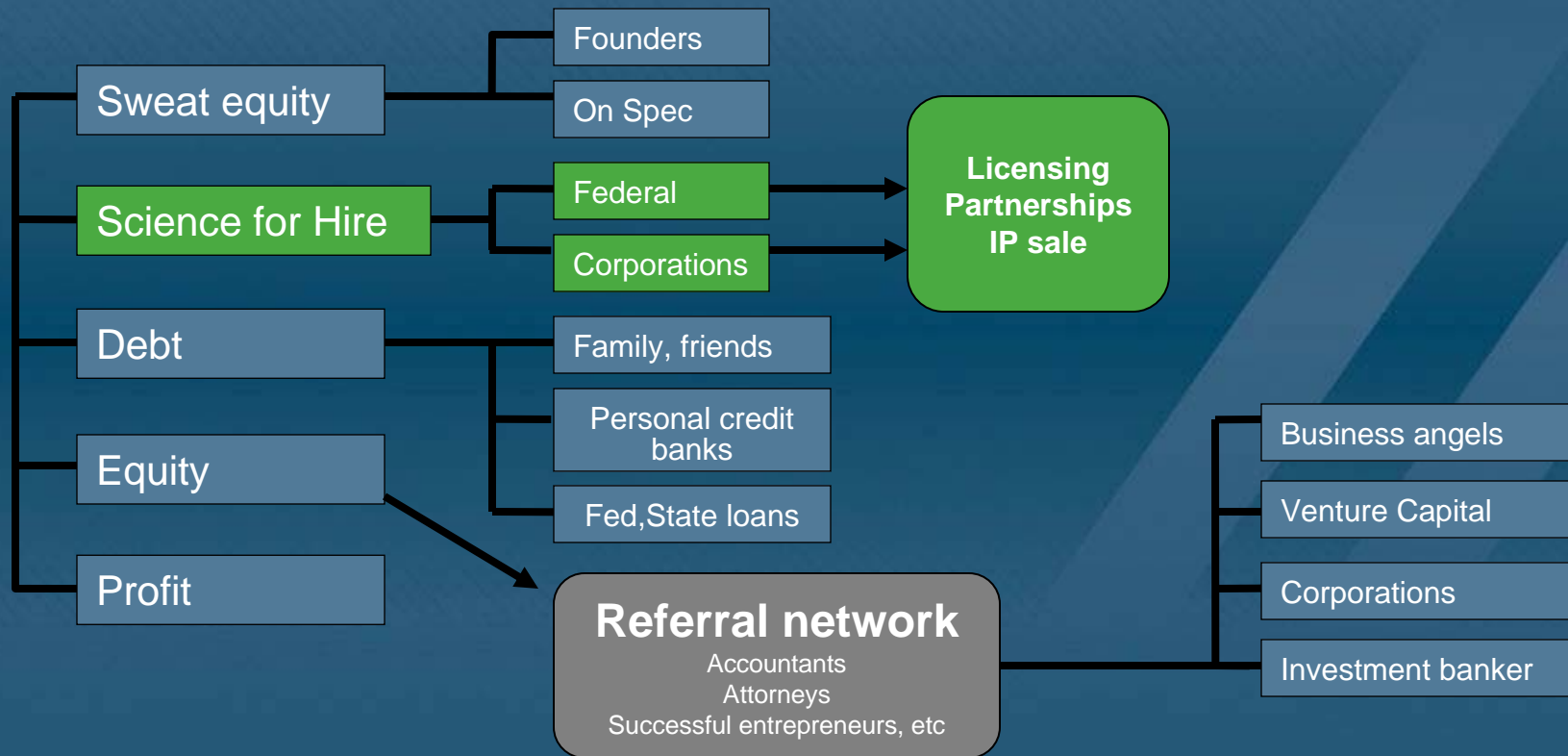
– *DoD SBIR solicitation*

# Commercialization Strategy

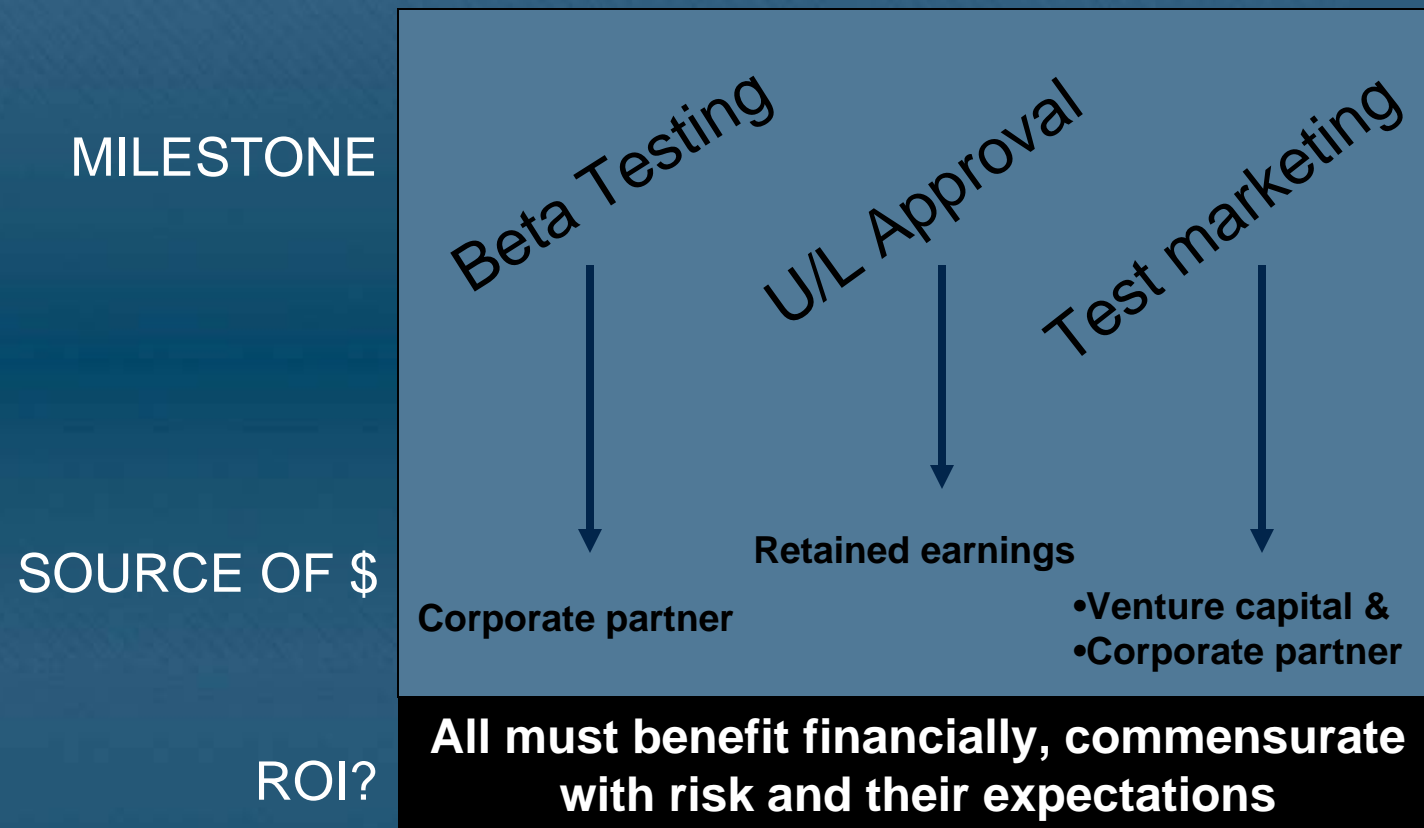
- The series of financing options that a company entertains to move its technology from concept to the marketplace

Milestone	How Funded?
Concept development	Phase I SBIR
Business case analysis	G&A
Prototype development	Phase II SBIR
Intellectual property protection	Retained earnings
Beta testing	Corporate partner
U/L approval	Retained earnings
Test market introduction	Equity investment
Marketing	???
Scale-up of Production	???

# Roadmap to Financing Options



# All require a Return on Investment!



# Strategy selection process

- Iterative ..... build and test
- Articulate at the outset and
- Revisit
  - as you collect additional market data
  - as you develop the business case
  - during negotiations with partner/investor

# Factors which effect your commercialization strategy

- Mission
- Vision
- Business philosophy
- Your current situation
- Customer requirements of supplier
- Window of opportunity
- Competitors

# Mission

- Business functions
- Products and technologies
- Markets served
- Sustainable competitive advantage

# Sample Mission Statement

“Soarrell Medical Systems develops, produces, markets, and supports proprietary, patient-oriented software, biometric smart cards and readers which interface with computerized patient record (CPR) systems. We offer outstanding customer support and share the financial risk with medical practitioners. We are dedicated to making it easier for physicians in private practice to spend more time providing quality care.”

# Elements of Vision

- 5-years out
  - Financial goals - revenue goals, profit margin goals
  - Market goals - customers served, market niche, geographic region, market share
  - Products and services
  - Image- How will you be perceived by customers, competitors, employees, community

# Typology of Visions

	<b>Revenue</b>	<b>Employees</b>	<b>Purpose</b>	<b>Public</b>
<b>Life-Style</b>	\$2 million	30-40	Support owners	Private
<b>Foundation</b>	\$10 – 30 million	40-400	Start new industry	Private
<b>High Potential</b>	\$20 – 30 million	500+	Growth & value	Go public

# Business Philosophy

- I don't want to give to control
- I want to try it all
- I want to enjoy myself
- I don't care who gets rich

# Current situation

- Financial health
- Sustainable competitive advantage
- Stage of product/technology development
- Management
- Market readiness
- Risk: technology, market, management

# Competitors

- Positioning to
  - Take advantage of a window of opportunity
  - Broaden a customer base
  - Expand services

# Customer requirements of suppliers

- Financial stability
- Platform interface issues
- Quality - ISO, CE certified
- Continuous improvements
- Quantities and delivery schedules
- Customer support

# Sample strategy - Licensing

- Vision: Life-style company
- Philosophy: Do what I enjoy
- Financing methods

Start-up

Concept development

Intellectual property

Application development

Production

Sweat equity

SBIR

Retained earnings

Licensee

Licensee

# Strategy - Strategic alliance

- Vision: Foundation company (R&D and manufacturing)
- Philosophy: Conservative
- Financing methods

Start-up

Concept development

Intellectual property

Prototype development

Production scale up

Marketing/sales

Sweat equity

SBIR

Retained earnings

SBIR

Equity investor, converted to debt

Strategic alliance

# Strategy - Equity Investment in Parent Company

- Vision: High potential venture
- Philosophy: Rich is good
- Financing options

Concept development

Prototype development

Production introduction

Market penetration

Sweat equity

Science for hire

Private placement

Debt financing from equity investors

# Sample Strategy - IPO

- Vision: High potential venture
- Philosophy: I want to try it all
- Financing options

Concept development

Prototype development

Market test

Market introduction

Scale-up

New facility

Expansion

Market penetration

Federal funding

Seed financing from angels

Retained earnings

Equity - Fortune 500 company

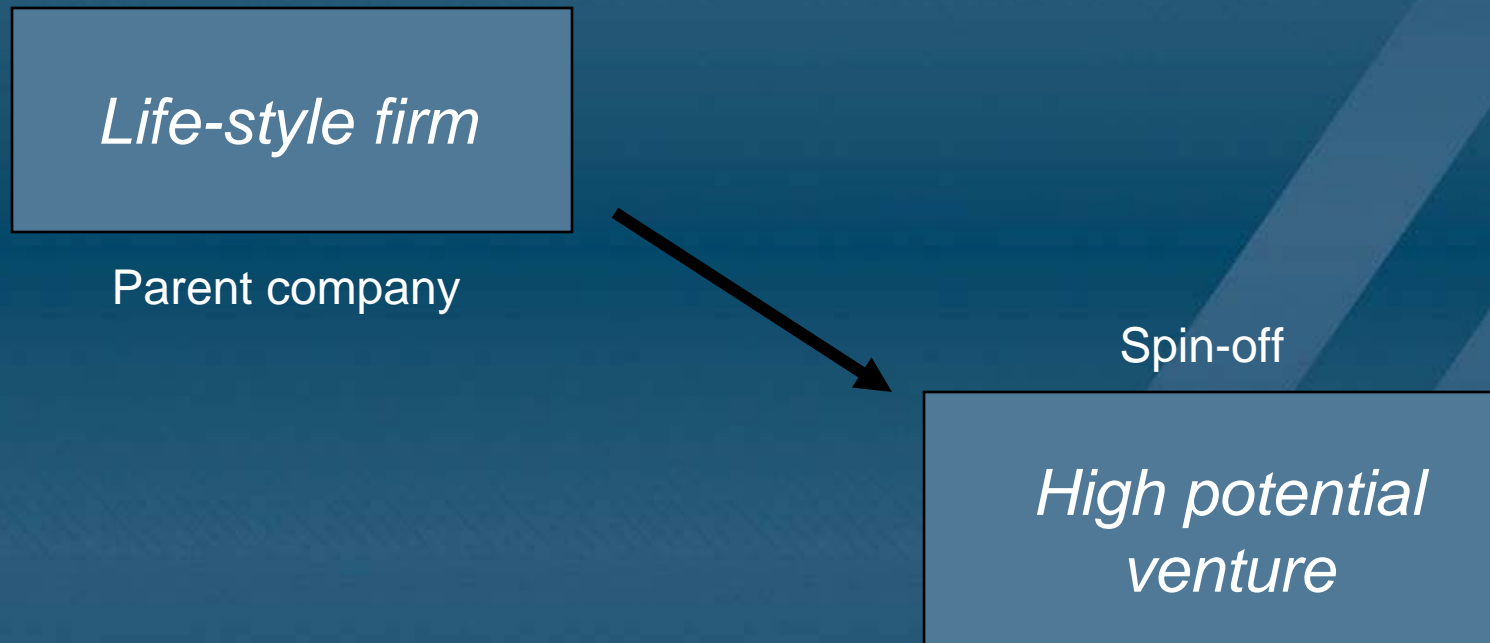
Second round financing from VC

Private placement

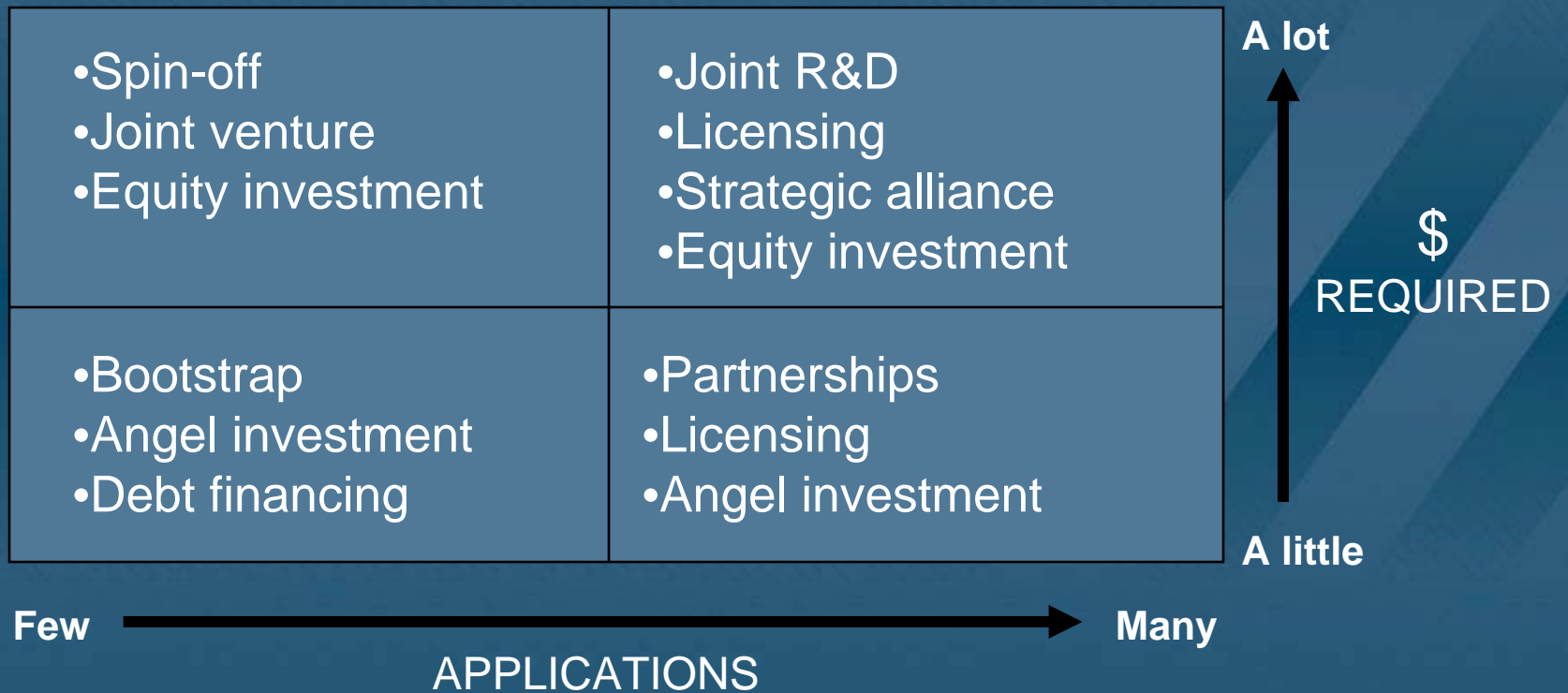
Line of credit, profits

IPO

# Combination of strategies



# Financing Options as a Function of Application & Resources Required



# Business Planning

- A method for
  - Determining if the opportunity exists
  - Charting a course for realizing your objectives - 5 years
  - Determining the financial benefit and value-added for those involved
  - Transforming management team
- The results are packaged as a business plan
  - A business plan is only as good as the research that precedes it
  - A business plan has internal and external value
  - A business plan is a communication tool - you need to clarify the audience

Plans are nothing.  
Planning is everything

*Dwight D. Eisenhower*

# Relative time spent on Various Business Planning Activities

Hypothesizing	5%
Data gathering	10%
Review & Synthesis	15%
Decision Making	5%
Strategizing	10%
Number crunching	15%
Re-evaluation	5%
Writing	20%
Editing	10%

# Business Plan Outline

- Executive Summary
- Company & Technology
- Industry Overview
- Customers
- Market
- Competitors
- Marketing/Sales Plan
- R&D Plan
- Manufacturing/Engineering Plan
- Human Resource Plan
- Contingencies
- Financials

# 1. Executive Summary

- Company & background
- Market Opportunity
- Management Team
- Investment Highlights

# 2. Company & Technology

## 2.1 Brief company introduction

- Mission
- Location, size, history
- Overview of company capabilities
- Customers & past performance

## 2.2. Technology

- Brief description
- Applications

## 2.3. Product/Service

- Brief description
  - 2.3.1. Intellectual property status

## 2.4. Commercialization strategy - brief overview

# 3. Industry Overview

## 3.1 Industry definition and description

- New products and developments within industry
- Major players within the industry, factors driving dynamics

## 3.2. Legislation and policies driving the industry

- Future and historical trends

# 4. Customers

## 4.1. Customers and end-users

- Need addressed by the technology/product/service
- How the need is currently filled
- Features, advantages, benefits; price point
- Who has the need? Differentiate between end-users and customer needs
- Distribution channels used

## 4.2. Buying behavior

- Decision makers
  - Who makes the decision to buy
  - Who makes the purchase decision
  - Characteristics of decision makers
- Basis for purchase decisions
  - Frequency of purchase decisions
  - Basis for purchase decisions

# 5. Market

## 5.1. Market definition

5.1.1. Primary market

5.1.2. Secondary markets

## 5.2. Market size and trends - primary market

- Current total and served available markets
- Predicted annual growth market

# 6. Competitors

## 6.1. Indirect competitors

## 6.2. Direct competitors

- Who are they?
- Strengths & weaknesses
- Market share of competitors

# 7. Marketing/Sales Plan

7.1. Opportunity statement

7.2. Marketing & sales objectives

7.3. Current customers, if appropriate

7.4. Potential customers

- Customers targeted for intensive selling efforts
- How other customers will be identified and qualified
- Product features emphasized and contrasted with competitors

7.5. Pricing

- Basis for targeted price point
- Margins & levels of profitability at various levels of production & sales

## 7.6 Sales plan

- Sales force analysis (reps, distributors, direct)
- Sales expectations for each salesperson & each distribution channel
- Margins given to intermediaries
- Service and warranties
- Organizational chart for sales/marketing staff

## 7.7. Advertising

- Year 1 - Detailed Marketing Communications plan
- Year 2-5 (more general)

## 7.8 Sales/Marketing Budget

- Assumptions

# 8. R&D Plan

8.1. R&D objectives

8.2. Milestones and current status

- What remains to be done to make the product marketable?

8.3. Difficulties and risks

8.4. Staffing

8.5. R&D budget

- Assumptions

# 9. Manufacturing/Engineering Plan

9.1. Objectives

9.2. Use of subcontractors

9.3. Quality control

9.4. Staffing

9.5. Manufacturing/Engineering budget

- Assumptions

# 10. Human Resource Plan

## 10.1. Staffing objectives

## 10.2. Organizational structure phased over 3 - 5 years

- Introduction of management team
- Key individuals to be recruited and plans for doing so
- Board of Directors, Advisory Board
- Incentives for commitment

## 10.3. Human Resource Budget

- Assumptions

# 11. Contingencies

## 11.1. Potential risks

- Impact and responses

# 12. Financials

## 12.1. Financial objectives

- Commercialization strategy
- Use of funds
- Terms & conditions of any previous financing arrangements

## 12.1. Plans for obtaining investors or strategic alliance

- Profile of investor or partner sought
- Leveraging advantage for investor/partner
- Detailed plans for obtaining investor/partner
- Costs and time associated with securing investor/partner

## 12.3 Pro Forma Profit and Loss statements

12.4. Pro Forma Cash Flow Projections

12.5. Pro Forma Balance Sheet

12.6. Alternative return scenarios

- Exit scenarios

# Appendices

- Analysis of potential teaming partners
- Patent information
- Detailed market surveys
- Customer endorsements
- More detailed technical information
  
- References
  - Bibliography
  - Industry experts consulted