

New Jersey Institute of Technology (NJIT)  
&  
NJ Innovation Institute, an NJIT Corporation  
Enterprise Development Center (EDC)

Presentation to  
Rutgers PhD Candidates

Jerry Creighton, Sr., MBA  
Executive Director of EDC

# *Who am I?*

Jerry Creighton, Sr.

Executive Director of EDC at NJIT

Angel Investor – Co Founder NJITHAN

Adjunct Professor at NJIT

New Jersey Innovation Institute, an NJIT Corporation

Business Owner

Corporate Executive

- M&A

- Marketing

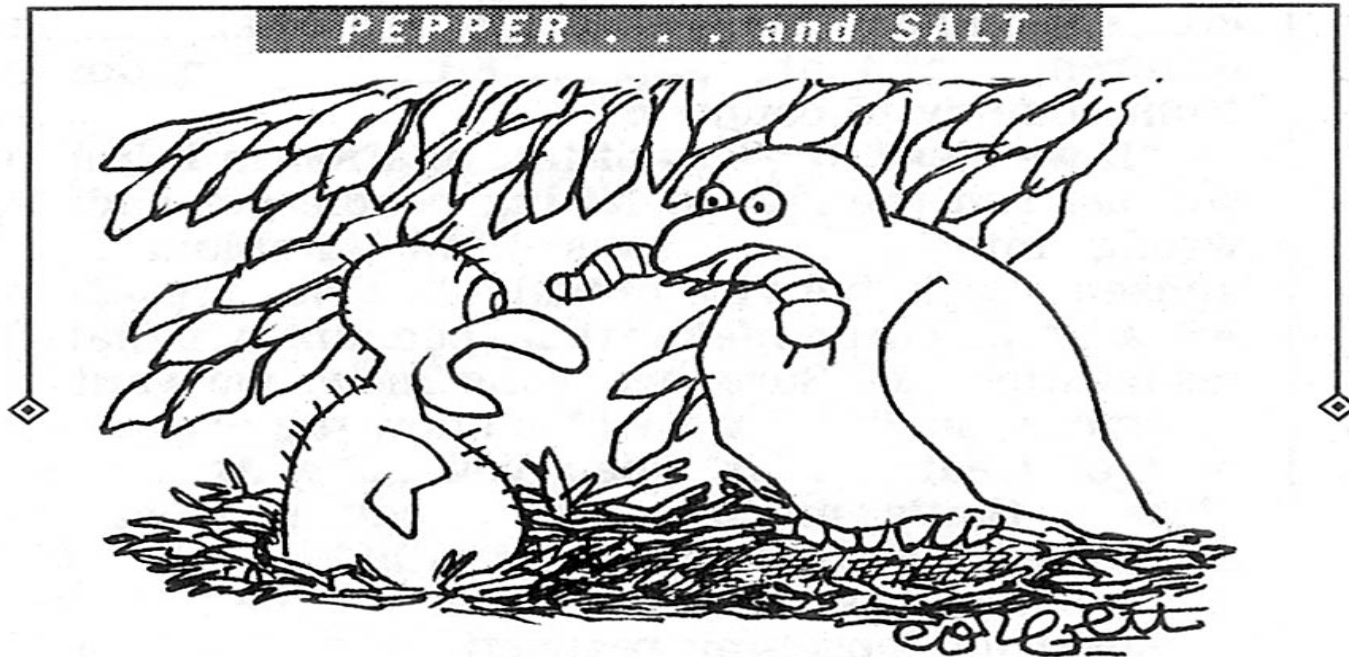
- Business planning / Financial Planning

## Topics

1. What you need in the early years to start a commercialization / venture
2. Introduction to the EDC at NJIT

# *The Entrepreneur*

# *The Entrepreneur's Challenge...*



**“Wait a minute! You expect me to mature, learn to fly, and migrate 2,000 miles, all in six weeks?”**

*Entrepreneurs are agents of change who are  
the catalyst for economic growth...*

Small Business at a Glance (less than 100 employees)

- Represent more than 99% of all employers
- Provides 60% to 80% of net new jobs annually
- Account for 97% of all U.S. exporters of goods
- Produce 13 to 14 times more patents per employee than large patenting firms

Data Source: Small Business Administration (SBA)

# *How do you know if you are an Entrepreneur?*

No measure to predetermine who will be an Entrepreneur!

- Has vision + optimistic, visible passion and high energy
- Has persistence and determination
- Can see opportunities and need
- Can build relationships
- Likes to be in control of their lives

*Can become an entrepreneur at all stages of career  
Exist in business, government and universities, etc.*

# *Entrepreneurs balance a risk and reward tradeoff...*

*Situations often drive the decision!*

- Harlan Sanders started KFC at 65 years of age
- Gary Burrell was 51 years of age when he left Allied Signal to start Garmin
- Daymond John (The Shark) developed FUBU line of clothes
- Steve Jobs (CEO Apple, Inc., Pixar, iPod) reinvented himself
- Mark Zuckerberg (founded Facebook in college dorm) business model changing notions about connecting & privacy

*Entrepreneurial Behavior is needed everywhere!*



*Current economy is an opportunity for an entrepreneur with vision...*

- Large firms outsourcing R&D & other services
- More advisors / employees available due to downsizing
- Large firms have excess distribution & mfg facilities
- Domestic and global markets expanding
- Some firms and universities are making patents available
- Vendors may be more willing to discuss terms
- Technology emerging rapidly

*Growing business opportunities are evolving rapidly!*

# The Venture

# *Six Major Ingredients for a Successful Early Stage Company...*

- Can see a customer solution
- Has an actionable idea (not all ideas can be commercialized)
- Credible, dedicated team + advisors and alliances
- Innovated business model
- Business plan
- Program to obtain financial resources

# *Ventures Progress Through Growth Stages...*

5. Exit / Harvest (growing / profitable)
4. Expansion stages (shipping product / breakeven)
3. Early stage (producing product / revenue)
2. Start-up (assembling business)
1. Seed (concept development)

*Each stage must have a clear commercialization and funding plan!*

## *Eight Challenges of a venture...*

1. Customer need – *can you provide a necessary solution?*
2. Realistic Business Model – *can you make money?*
3. R&D – *can a product or service be developed?*
4. Manufacturing & Sourcing – *can it be produced?*
5. Marketing & Sales – *can it be sold, delivered & serviced?*
6. Financial – *can business have positive cash and profits?*
7. Sustained growth - *can business reach mainstream markets with sustained profitability*
8. Exit – *can founders and investors obtain financial rewards and reach exit goals*

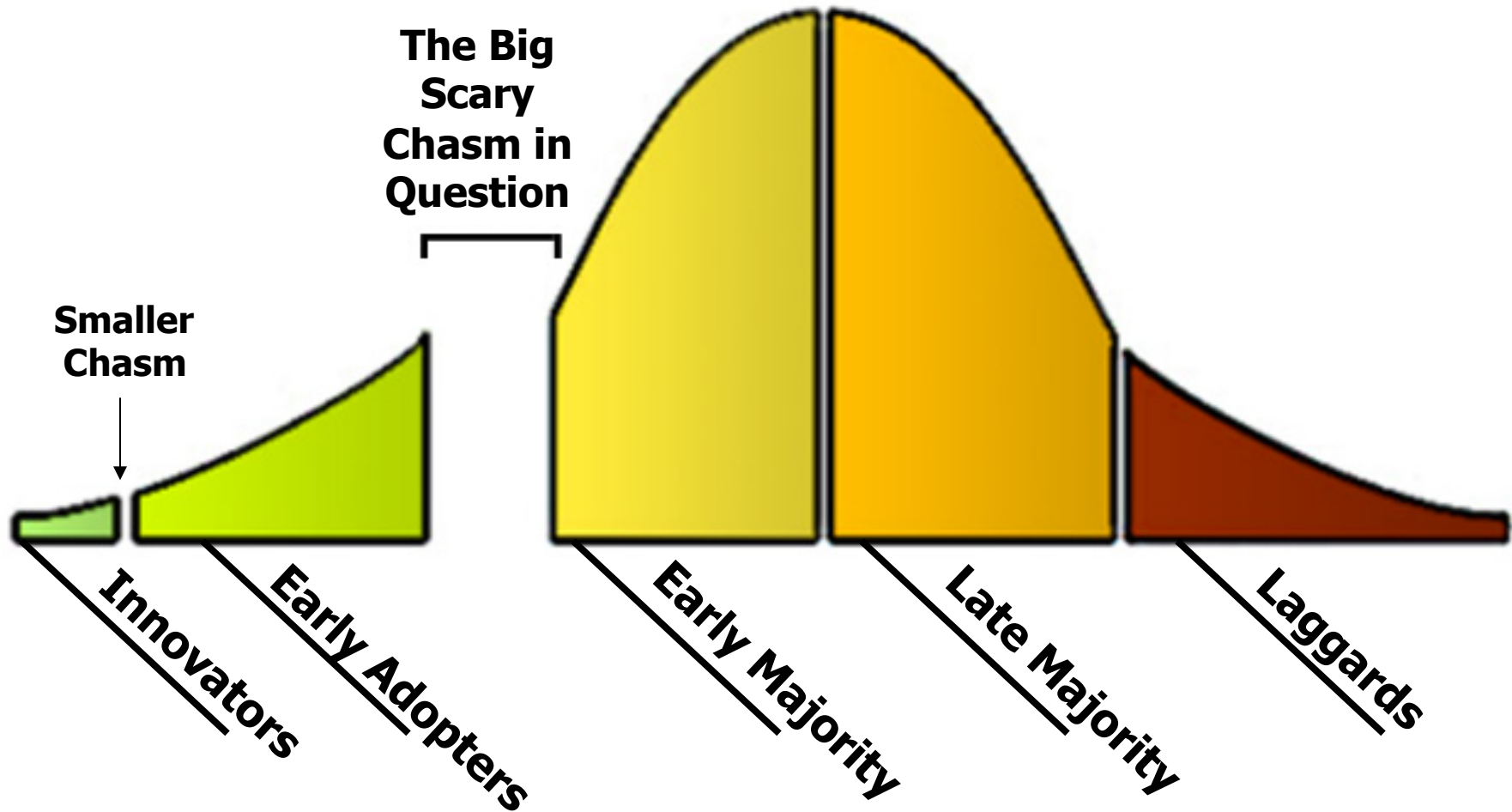
## *Biotechnology & Life Sciences Companies Have Unique Challenges...*

- Generally secured by patent(s)
- Regulatory, clinical or other approvals required
- Long development cycle
- Detailed milestone + fundable milestone identified
- Capitalization plan & follow-on funding
- Initial funding from grants
- Have complex business models (fit into market)
- Biotech entrepreneurs (scientist + business)

## *Ways to gain experience...*

- Strength through management partnerships:
  - Chief Scientific Officer of new company
  - Co-founder with experienced CEO partner
  - VP of R&D
  - Advisory board member

# The *Revised* Technology Adoption Life Cycle



\*Reference: Geoffrey A. Moore's "Crossing the Chasm" Diagram



*You can sell almost anything...*



**The Pet Rock Story: One million rocks sold in a few months for \$3.95 apiece in a few months with \$1.00 profit per box...**

- Invention of Gary Dahl in 1975
- Introduced at a San Francisco gift show
- Neiman – Marcus orders
- Newsweek article & 2 appearances on The Tonight Show”
- Quite his job and formed Rock Bottom Productions
- New copy-cat market started

# **Care and Training Of Your Pet Rock, a users guide included...**

- Doesn't need to be fed or watered
- Doesn't need to be walked
- Easy to keep clean
- Doesn't need training
- A GREAT PET and COMPANION

*A follow-on product...*



## *Types of ventures...*

- Disruptive technologies = microwave
- New & Improved technologies = color TV
- Licensing companies = IP assets
- Customer driven = Post It

## *About technology based companies...*

- Disruptive vs. not disruptive influences fundability
- Not all technologies can be commercialized
- The business not the technology is of greatest interest to investors
- Proof of Concept and life cycle stage are critical strategic components
- Barriers to competitive market entry must include intellectual property

**Start with a strategic evaluation / plan!**

Organize your thinking!

## *First questions to ask...*

- What is the opportunity? business concept & investor offerings
- What customer need are you filling? compelling solution
- What is the market for your idea? drivers, size & growth
- What product / service? unique features / differentiation
- What is your business model? source of revenue / margins / profits
- Who are your competitors? alternative customer choices
- What is your path to market? sales & distribution
- Who will be on your management team? advisors & board members
- What resources will you need? R&D, operations, market development
- What have you accomplished to date? milestones completed
- What are the risks anticipated? alternate plans



## *Suggestions for venture success...*

- Focus on creating value for the customer & investors
- Develop a unique brand identity & message
- Prepare a clear Milestone Plan, and follow it
- Hire right and continuously monitor for employee value
- Utilize multiple customer benefits to create a competitive advantage
- Find partnerships and alliances to grow you company

## *Venture Tasks during Growth Stages ...*

- Complete proof of concept & produce product / service
- Develop brand (name, image & market positioning)
- Validate customer solution / business model attributes
- Validate market opportunity / addressable market
- Develop a clear path to market
- Prepare barriers to competitive market entry
- Prepare a bottoms-up, forward-looking financial plan
- Get ready for funding / investors / collaborators / exit

## *Start with a pre-business plan feasibility study...*

- Problem to solve
- Product / service
- Market / size / dynamics
- Customer characteristics
- Business model
- People resources
- Sales & distribution
- Competition
- Technical challenges
- Manufacturing / sourcing
- Advisory board (s)
- Customer testimonials
- Sales forecast
- Asset resource forecast
- COGS / expenses
- Financial statements
  - Revenue / expenses
  - Profits
  - Burn rate (cash)
  - Breakeven (date)
  - Capital requirements

# Funding sources

# Type of investors...

- Strategic investors
  - Corporations
  
- Financial investors
  - Business Angels
  - Venture Capitalists

# *Receiving Funding from any Source is a Continuing Get-Ready Task...*

- Founders, Friends & Family Financing
- SBIR / STTR (Federal grants)
- State and other grants
- Business Angels
- Venture Capitalists
- Private placements of equity or debt
- Banks / lenders / factoring
- Crowdfunding
- Corporate investors
- Vendor supplier terms
- Mergers & Acquisitions
- R & D partnerships / alliances / joint ventures

# ***Small Business Innovative Research Program (SBIR)...***

- Federal contracts (Phase I & II funding)
- Grants (free money)
- Fundamental research and technology development
- Eleven federal agencies participate e.g.
  - DARPA – R&D office of DOD
  - NASA – satellites, fuel cells
  - NIH – human genome

# *The Communications Tool Kit*



# *Tools for business development*

Elevator pitch

Executive summary for your business

Business plan

Financial plan

# *Coaching Tools - The Elevator Pitch...*



*The Executive Summary is the most important document...*

- Initial document for interested parties
- One page plus multi-page versions (optional)
- Synopsis of your business
- Usually completely read
- Opens the door for the next meeting

**Contact Information**

<Company Name>  
<Street Address>  
<City, ST ZIP>  
<Telephone>  
<url>  
<contact email>

**Management Team**

<List the names and titles of the management team>

**Industry**

<List the applicable industries (e.g., telecom, life sciences, system software, etc)>

**Company Resources**

<Include resources such as facilities, # of employees, special licenses or major existing customers>

**Type of Financing Sought:**

<Amount and type: e.g., \$500K seed, \$3M growth>

**Pre-Money Valuation for this Round:**

<Targeted valuation for this financing>

**Total External Capital Invested**

<Indicate amount of external capital invested to date. Include investor names if appropriate>

**Professionals**

<Accounting firm, contact>  
<Corporate Legal, contact>  
<IP Legal, contact>  
< Bank, contact>

**Use of Funds**

Brief paragraph describing how the funds will be used.

**Year Founded**

<Indicate Year Founded>

**Type of Entity**

<Indicate S-Corp, C-Corp, LLC>

**Business Description**

<This should be a one or two paragraph summary of your business opportunity. This should also include your product/service, vision, mission, and business model.>

**Management**

<Indicate why your team is ideally suited to capitalize on the opportunity discussed in the business description - one paragraph>

**Company Background**

<Describe the process that brought to you to discovery of the opportunity and assembly of the team - one paragraph>

**Technology/Proprietary Rights**

<Describe the factors that will provide your company with significant competitive barriers to entry. This can include intellectual property, trade secrets, key relationships, etc.>

**Marketing, Sales and Customers**

<Describe the size, characteristics and key trends in your market. Who are your top customers (current and/or projected - be very specific)? What is your value proposition to these customers?>

**Competition**

<Who are your primary competitors and what is your key competitive position?>

**Year**                    **20xx**    **20xx**    **20xx**    **20xx**    **20xx**

**Revenue**

**EBIT**

## *Why prepare a business plan...*

- Focus vision and mission
- Investors and collaborator documents
- Grant and loan applications
- Attracting and retaining employees
- Supplier and dealer applications
- Attracting partners and alliances
- Delineate development, mfg. and sales requirements
- Basis to quantify your business plans
- Explain how you will make money
- BASIS for any DUE DILIGENCE

## ***Business Plan must tell a compelling story...***

- Tailor plans for financial investor vs. strategic investors
- Must be believable and can be “reverse engineered”
- Numbers and assumptions need to be validated
- Understand market and how to sell into that market
- Clearly understand competition and alternative solutions
- Know strengths & weaknesses (have contingency plan)
- Include customers testimonials & sales pipeline info
- Identify team / advisors filled positions & vacancies
- Highlight major milestones and accomplishments
- Have an exit strategy for founders and others
- **HAVE a LINKED FINANCIAL PLAN**

***You will need a full set of communication tools containing a consistent message...***

Initial Meeting

- CEO introduction
- Elevator pitch (1 minute)
- One page Exec. Summary
- Brochures
- Website
- Short demonstration (optional)

Later Meeting (s)

- Presentation (investor deck)
- Multi-page Exec. Summary
- Business Plan
- Financial Plan
- Capitalization Plan
- Due Diligence Book

## *Financial Plan has multiple uses...*

- Funds required to start your business
- Funds needed to reach each stage over time
- Depicts cash burn rate
- Depicts sustainable breakeven point



# *The all important financial plan shows the financial worth and earning power of your business...*

Included in three financial statements: Balance Sheet, Income Statement & Cash Flow Statement

- Cash burn rate vs. growth objectives
- EBITDA
- Margins
- Breakeven point (sustainable positive cash flow)
- Amount of funding required at each stage
- Use of funds
- Fund raising strategies
- Valuation (multiple methods)
- Exit plans with founder and investor payout formula

***The Enterprise Development  
Center (EDC) at NJIT***

***211 Warren Street  
&  
105 Lock Street***

# *Why Enter a New Business Incubator...*

It is not the will to win that's important. Everyone wants to win! It is the will to prepare to win that makes the difference.

Quote from Bobby Knight

# ***The EDC is a major contributor to economic growth in NJ...***

- The EDC is the largest high-tech business incubator in New Jersey – supports the NJIT Mission
  - Create jobs
  - Nurtures the development of new technologies
  - Contributes to economic growth
  - Helps develop a world class workforce
  - Encourages entrepreneurship
  - Attracts and retain business investors / businesses to NJ
  - Fills commercialization needs of portfolio companies
- The EDC has a “Softlandings” designation from the National Business Incubation Association (NBIA)

# *Enterprise Development Center (EDC)*

## *A High - Tech Business Incubator...*

- **Mission:** Help innovators commercialize ideas, reduce start-up risk & increase chances of success
- **Focus:** Entrepreneurial community environment
- **Location:** NJIT campus (two buildings)
- **Venture Types:** Seed / start-up / early stage / expansion
- **Tenants:** Averages 90 portfolio companies per month
- **Fields:** Mixed types of technologies (Life Science, IT/ Com, Tech)
- **Tenant Cost:** Flexible pricing + key svcs / coaching incl.
- **Advantages:** Improved speed to market and better ROI

## ***EDC Offers Access To NJIT Resources...***

- NJIT Tech Centers / faculty / R&D resources
- Intern, Co-Op & Institute Work-Study program
- Laboratory services / instrumentation (NJIT York Center)
- Defense Procurement Technical Assistance Center (DPTAC)
- Public Relations via University Communications
- On – Campus recruiting (students & graduates)
- Others – cafeteria, gym facilities
- Technology transfer opportunities / collaborations
- Work with New Jersey Innovation Institute (NJII)

# *EDC Offers Access To Shared Services...*

- Mailing address / mailbox services
- Cubicles, offices and laboratories (various sizes)
- Shared conference rooms
- Internet connectivity / Cablevision
- Copying and fax services
- 24 / 7 building access
- Utilities
- Security
- Vending Cafe
- Custodial services

## *EDC at a Glance...*

- Number of Companies: average 90 per month
- Jobs in Companies: 300 – 465 (full time)
- NJIT Students Employed: 100 - 335
- Client Company Revenue: \$ 40 - \$82 mil
- Third Party Funding: \$ 58 - \$67 mil



## *EDC Entry Requirements...*

- Management team with relevant experience / plans
- Developing / advancing technology / processes
- Business model / plan demonstrating a believable potential growth program
- Anticipated competitive advantage
- Logical plan to grow employment in New Jersey
- Would benefit from incubator residency

# *EDC Management Model...*

- Application process
- Advisory services (Entrepreneurs in Residence - EIR)
- State-of-the art facilities
- Access to capital (NJITHAN, private, federal & state)
- Networking opportunities
- University linkages
- Statewide collaboration (NJBIN, NBIA, BioNJ, NJTC)
- Monthly seminars
- EDC advertising & promotion
- Pro Bono and discounted services
- “Get Ready for Funding Program”™

# ***EDC Get Ready for Funding Program™***

## *A “Best Practices” Program:*

- Entrepreneurs in Residence (EIR coaching)
- SBIR training, search and proposal review
- Business plan and presentation coaching
- CFO coaching
- Legal seminar, chats / services (some pro bono)
- Investor / collaborator presentation coaching
- Seminars
- Grant development assistance
- Revolving Loan Fund (RLF)
- People 2 Business (P2B™ program)

# *Student Participation Programs*

- CCS Capstone Program
- Institute Work Study (IWS) hires
- Cooperative Program & Internships
- NJIT Career Fair

## *Suggested reading...*

- Crossing The Chasm - Geoffrey A. Moore
- The Lean Startup - Eric Ries
- Business Model Generation – Alexander Osterwalder
- Value Proposition Design - Alexander Osterwalder
- The Startup Owners Manual – Steve Blank
- Disciplined Entrepreneurship – Bill Aulet

# **NJIT - Enterprise Development Center**

*A great place to develop technology,  
showcase and grow your business!*

View NJIT- EDC on website [www.njit-edc.org](http://www.njit-edc.org)

Thank you - I'm Jerry Creighton, Sr., MBA

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