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 your 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...

START TALKING JACKSON. YOU'VE GOT THREE FLOORS TO JUSTIFY YOUR EXISTENCE
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
## 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 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?

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<tr>
<th>Year</th>
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<td>Revenue</td>
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<td>EBIT</td>
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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…

<table>
<thead>
<tr>
<th>Initial Meeting</th>
<th>Later Meeting (s)</th>
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<tbody>
<tr>
<td>CEO introduction</td>
<td>Presentation (investor deck)</td>
</tr>
<tr>
<td>Elevator pitch (1 minute)</td>
<td>Multi-page Exec. Summary</td>
</tr>
<tr>
<td>One page Exec. Summary</td>
<td>Business Plan</td>
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<tr>
<td>Brochures</td>
<td>Financial Plan</td>
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<tr>
<td>Website</td>
<td>Capitalization Plan</td>
</tr>
<tr>
<td>Short demonstration (optional)</td>
<td>Due Diligence Book</td>
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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

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