Northwest Pennsylvania
Entrepreneurial Market Assessment and Recommendations
Nearly 100% of net new jobs* in the last 30 years have come from companies 5 years old or younger.

*The number of newly created jobs after hirings, firings and voluntary separations; through expansion and recession, companies of all sizes are creating and destroying millions of jobs, and employees are leaving and joining (and starting) firms by the millions, in any year.

The Impact of Entrepreneurship

- Entrepreneurship is about more than starting new businesses—it’s a mindset, an approach to problem-solving, a path to innovative solutions that can be embraced by all members of a community.

- Leveraging and enhancing the region’s entrepreneurial ecosystem to create new, high potential companies is critical to a thriving economy.

- Conventional economic development approaches must be expanded to do more than attract and retain—NWPA must create more businesses.
Entrepreneurial Ecosystem

- **Resource Providers**
  - Incubators & Accelerators
  - Minority & Women Business Support Organizations
  - SBDCs

- **Idea Creators**
  - Centers of Research & Innovation
  - Higher Education Research Institutions

- **Sources of Risk Capital**
  - Angels
  - Microloan Funds
  - Pre-seed & Seed Funds
  - State & Federal Government
  - VCs and Private Equity

- **Entrepreneurs**
- **Educational Opportunities**
  - Higher Education Institutions
  - Youth Entrepreneurship Organizations
  - Internship Support Organizations

- **Advocates**
  - Chambers of Commerce
  - Business/Trade Associations
  - Policymakers & Governance

- **Ecosystem Funders**
  - Government
  - Foundations
  - Corporations & Law Firms

- **Stories & Storytellers**
  - Media
  - One-to-One Communications
  - Resource Provider Storytelling
  - Social Media
Glossary of Terms

• **Entrepreneurial Ecosystem**: all elements of the ecosystem are unique and essential, and together, can provide the culture and continuum of support entrepreneurs need

• **Deal Flow**: in this context, the number of high potential companies in a region; important to know quantity, quality and needs of these companies

• **High Potential Companies**: companies with the potential to create significant revenue, jobs and economic impact in a region; generally fall into two segments:
  - **High Growth Startups**: young, innovation-focused firms or scalable tech companies with the potential to create a new market or dramatically change an existing market via proprietary, technology-based products or services
  - **Potential Gazelles**: for-profit enterprises that have the potential to become dominant in their fields; at least three years old and have between $2-10M in revenue; companies able to achieve >20% growth per year for four years

• **Economic Gardening**: an entrepreneurial approach to economic development that seeks to grow the local economy from within by providing existing growth companies with critical strategic information customized to their needs

• **Gazelles**: high growth companies that increase revenues by at least 20% annually for four years or more, starting from a revenue base of at least $1 million

See the Appendix for *Entrepreneurial Companies – What Are the Different Types*
Contents

• Executive Summary
• Project Goals and Scope
• Market Assessment
  – Research Approach
  – Capabilities Assessment Approach
  – Capabilities Assessment
  – Capabilities Summary
• Strategic Recommendations
• Conclusion & Next Steps
• Appendix
Objective

• The following report includes an **Entrepreneurial Market Assessment** for Northwest Pennsylvania conducted by **JumpStart** on behalf of the Technology Council’s **Innovation Collaborative**.

• The report **summarizes findings** and provides a set of **Strategic Recommendations** to guide NWPA in the development of its **entrepreneurial ecosystem**.
Findings

• NWPA’s entrepreneurial ecosystem is significantly underdeveloped

• High growth startup deal flow is extremely low

• The region’s risk-averse culture does not encourage or support entrepreneurship

• Existing resource providers are designed to support existing companies; very few support high growth startups specifically

• Strategies and tactics that transform the region’s culture, develop deal flow and promote entrepreneurship should be initiated urgently
Strategic Recommendations

(1) Culture Building & Deal Flow Generation
Enhance the region’s entrepreneurial spirit and increase entrepreneurial deal flow through coordinated marketing, events and storytelling

(2) Regional Entrepreneurial Network
Develop a formal network of resource providers to share deal flow and referrals, and provide higher-quality service to entrepreneurs; effort should be led by an independent entity focused on facilitating collaboration, accountability and metrics collection

(3) Economic Gardening
Identify potential gazelles and provide strategic analysis and market intelligence to support their growth

(4) Enhanced Mentoring Network
Provide access to high-quality mentors through appropriate screening, matching and training

(5) High Growth Startup Support Services
Provide mentorship, expert technical assistance and funding support to high growth startups

(6) Student Entrepreneurship Programs
Collaborate with the region’s colleges and universities to encourage/reward student entrepreneurship through clubs, competitions, events and internships
PROJECT GOALS AND SCOPE
Project Purpose

• The Innovation Collaborative is partnering with resource providers to develop an environment where:

  high potential companies have access to the resources and funding they need to enable their success

• A critical first step was to develop a better understanding of the region’s entrepreneurial support assets and opportunities for improvement

Innovation Collaborative RFP, June 2013
The Territory

- Clarion, Crawford, Erie, Forest, Lawrence, Mercer, Venango and Warren Counties

<table>
<thead>
<tr>
<th></th>
<th>NWP A</th>
<th>PA</th>
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</thead>
<tbody>
<tr>
<td>Unemployment (2012)</td>
<td>8.2%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Adults with Bachelor's Degrees (2011)</td>
<td>17.1%</td>
<td>26.7%</td>
</tr>
<tr>
<td>Poverty Rate (2011)</td>
<td>16.3%</td>
<td>13.7%</td>
</tr>
</tbody>
</table>

The territory for this effort is defined by the DCED’s Northwest PREP Region
Project Goals

- JumpStart’s Proposal
  - Develop a better understanding of the region’s entrepreneurial potential through a combination of research and engagement
  - Identify and characterize the region’s entrepreneurial opportunities and challenges
  - Recommend strategic entrepreneurial programs and services
Project Scope: Phase I

• Develop an Entrepreneurial Market Assessment
  – Use research and engagement to:
    • Better understand NWPA’s capacity to better serve high potential companies (high growth startups and potential gazelles)
    • Identify gaps and areas of opportunity

• Develop Strategic Recommendations
  – Pilot programs
  – Approaches for collaboration and networking
  – Metrics to measure impact
Project Scope: Phase II

• Strategic Recommendation Implementation
  – Benefits to the region include:
    • Helping entrepreneurs develop their ideas and secure funding to create new businesses (high growth startups) and expand existing high growth businesses (potential gazelles)
    • Creating entrepreneurial success stories
    • Building momentum that supports entrepreneurial ecosystem development
    • Providing additional insight and data on the region’s potential to help the IC improve and enhance entrepreneurial support

JumpStart Proposal to the Innovation Collaborative, July 2013
RESEARCH APPROACH
Conduct Market Research
- Conduct both primary and secondary research to gain a thorough understanding of NWPA's entrepreneurial capabilities

Complete Capabilities Assessment
- Use JumpStart's proven Capabilities Assessment to identify and measure major opportunities

Develop Capability-Building Program Recommendations
- For each capability, identify a set of phased program recommendations to address opportunities

Prioritize Strategic Recommendations
- Consolidate individual strategic recommendations into a comprehensive, prioritized strategy
Research Approach: Primary

- ~60 entrepreneurs engaged via 1/1 interviews and focus group
- Over 300 people engaged since 2012

This is only a representative list
Research Approach: Secondary

- Reports and studies provided by the Innovation Collaborative
- Additional reports and studies identified by JumpStart
- Supplemental research conducted by JumpStart

This comprehensive secondary research effort—paired with extensive primary research—provided a holistic view of the region’s entrepreneurial climate.
The Innovation Index compares regional performance and is calculated using four primary component indices. The weight for each variable is listed below.

**Economic Dynamics**
- 30% Average Annual Rate of Change in GDP per Worker
- 12.5%
- Gross Domestic Product per Worker
- 12.5%
- Average Patents per 1,000 Workers
- 25%
- Change in High-Tech Employment Share
- 25%
- Job Growth to Population Growth Ratio
- 25%

**Human Capital**
- 30% Average High-Tech Employment Share
- 20%
- Ages 25-64 with Some College or an Associate’s Degree
- 20%
- Young Adult Population Growth Rate
- 20%
- Technology-Based Knowledge Occupations
- 20%
- Ages 26-64 with a Bachelor’s Degree
- 20%

**Productivity & Employment**
- 30% Average Small Establishments*
- 12.5%
- Change in Broadband Density
- 12.5%
- Broadband Connections per 1,000 Households
- 12.5%
- Average Venture Capital Investment per $10,000 GDP
- 25%
- Average Establishment Churn
- 25%

**Economic Well-Being**
- 10% Change in Proprietors Income per Proprietor
- 10%
- Change in Wage and Salary Compensation per Worker
- 10%
- Average Poverty Rate
- 20%
- Average Net Internal Migration Rate
- 20%
- Average Unemployment Rate
- 20%

Source: http://www.statsamerica.org/

See the Appendix for more information on the Innovation Index and related reports.
The Innovation Index uses a variety of economic and human capital measures to assess regional innovation capacity over extended periods of time. The U.S. provides a baseline of 100. Boston is included as a leading region for comparison.

![Low Innovation Index Ranking](http://www.statsamerica.org)
NWPA has experienced outmigration of its young adult population and its adult population is undereducated. Students often leave the region after receiving an education in NWPA.
There were no venture capital investments made in the region from 2003-2008 and just two investments totaling $1,070,000 from 2008 to 2012. Patent activity is low. Measures of this kind do not tell the whole story, but they demonstrate low entrepreneurial activity in the region.
Innovation Index

NWPA has experienced limited job growth and its employment share of high tech jobs is low.

See the Appendix for supplemental data on household income comparisons prepared by the Erie Regional Chamber and Growth Partnership.
Commercialization Framework

Startups

1. Imaging: the commercial opportunity
2. Incubating: to define commercial potential

Later Stage Companies

1. Demonstrating: products and processes in commercial context
2. Market entry: to prove commercial viability
3. Growth & sustainability: to generate financial returns

Valley of Death

Accessing risk capital in the “Valley of Death” is very challenging for most entrepreneurs, and making it through this period is critical to their success.

Community intervention helpful

Mobilizing resources for the next stage
Findings: High Growth Startup Deal Flow

Several organizations were interviewed to help gather the Deal Flow data.

FINDINGS:
• Region has extremely low **high growth startup activity**
• Qualified deal flow as a percentage of raw inquiries is very low
• Bulk of the region’s Resource Providers focus on **existing businesses and did not have data about startup deal flow**

<table>
<thead>
<tr>
<th>Raw Inquiries / year</th>
<th>Qualified Deal Flow: Opportunities that are:</th>
<th>Due Diligence: Companies that warrant additional discovery/technical assistance investment</th>
<th>Funded: Companies that receive pre-seed investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>~150</td>
<td>~ High Tech</td>
<td>~ High Tech</td>
<td>~12</td>
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<td></td>
<td>~ Early Stage</td>
<td>~ Early Stage</td>
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<td>~ In the region</td>
<td>~ In the region</td>
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<td>~6</td>
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Findings: High Growth Startup Deal Flow
High Growth Startup Deal Flow Comparison

HEALTHY DEAL FLOW FUNNEL FOR TECH BASED HIGH GROWTH STARTUPS

1,000

500

200

100

20

50% drop out before due diligence

30% warrant due diligence (discovery & technical assistance)

About 10% receive pre-seed investment

About 2% secure venture capital

980 startups need additional assistance

ESTIMATED NWPA DEAL FLOW FUNNEL FOR TECH BASED HIGH GROWTH STARTUPS

150

30

12

6

1

80%

12%

4%

3%

.06%

149 startups need additional assistance

High Growth Startup Deal Flow Comparison

980 startups need additional assistance

149 startups need additional assistance
Findings:
Potential Opportunity to Grow Existing Companies

- **High Tech NAICS codes, with known sales, under $5M**: 1529 companies
- **High Tech NAICS codes, with known sales, under $5M, under 5 years old**: 598 companies
- **~50% Subset**: Companies that demonstrate year over year growth and demonstrate a potential fit for the program: 300 companies
- **~15% Subset**: Companies with leadership interested in growth coaching: 45 companies
- **~20% Subset**: Prioritized list of companies that would participate in the pilot program in year 1: ~10 companies

*Hoovers Database
**JumpStart Estimates

See the NWPA High Growth Analysis in the Appendix for additional detail
CAPABILITIES ASSESSMENT APPROACH
Capabilities Assessment: Entrepreneurial Ecosystem

See the Appendix for the NWPA Entrepreneurial Ecosystem Graphic
# Capabilities Assessment: Leading Profile

<table>
<thead>
<tr>
<th>Capabilities</th>
<th>CULTURE</th>
<th>ECOSYSTEM FUNDERS</th>
<th>RESOURCE PROVIDERS</th>
<th>EDUCATIONAL OPPORTUNITIES</th>
<th>STORIES &amp; STORYTELLERS</th>
<th>ADVOCATES</th>
<th>SOURCES OF RISK CAPITAL</th>
<th>IDEA CREATORS</th>
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<tbody>
<tr>
<td>Leading Practices</td>
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<td>...</td>
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<tr>
<td>Activities, Tools &amp; Events</td>
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<td>Metrics</td>
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</table>
Capabilities Assessment: Template

**Description**

<table>
<thead>
<tr>
<th>DEFINITION</th>
<th>LEADING PRACTICES</th>
<th>TOOLS</th>
<th>METRICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placeholder</td>
<td>• Placeholder</td>
<td>• Placeholder</td>
<td>• Placeholder</td>
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</tbody>
</table>

**NWPA Current State**

**SNAPSHOT:**
• Placeholder

**INTERVIEWS:**
• Entrepreneur: Quote
• Resource Provider: Quote

**Underdeveloped** — **Leading**

**NWPA Program Recommendations**

**PHASE 1:**
• Placeholder

**FUTURE PHASE:**
• Placeholder

**Time to Launch**
- Low: ~1 Year
- High: ~5+ Years

**Opportunity Size (Impact)**
- Small
- Medium
- Large

**Note:** The information included in the Capabilities Assessment is intended to provide a sample of leading practices, tools and recommendations to guide the region in developing its entrepreneurial ecosystem. The information included is not exhaustive.
Capabilities Assessment: Quadrant Assessment Key

- Time to Launch
  - Low: ~1 Year
  - High: ~5+ Years

- Resources (People, Funds)
  - Low impact
  - High cost
  - Long path to implementation
  - High impact
  - Low cost
  - Short path to implementation

- Capability Impact Potential
  - Small
  - Medium
  - Large

*Ideal*
# Capabilities Assessment: 1. Culture

<table>
<thead>
<tr>
<th>Definition</th>
<th>Leading Practices</th>
<th>Activities, Tools &amp; Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activities illustrating the vibrant, connected, collaborative community where entrepreneurship is understood, appreciated and celebrated.</td>
<td>(a) <strong>Promote “entrepreneurship for everyone”—</strong> the idea that everyone can benefit from embracing an entrepreneurial mindset&lt;br&gt; (b) Recognize the <strong>economic benefits of entrepreneurship</strong> and value it as a critical component of the region’s economic development efforts&lt;br&gt; (c) <strong>Celebrate entrepreneurs:</strong> embrace successes and tolerate risk&lt;br&gt; (d) Provide <strong>expert assistance, mentorship and capital to businesses</strong> in all phases of commercialization&lt;br&gt; (e) <strong>Attract and retain top talent</strong> to work at high potential companies&lt;br&gt; (f) Generate <strong>healthy deal flow</strong> from all types of entrepreneurs at all stages of business development</td>
<td>(a, b, c, e, f) <strong>Develop formal partnerships between Stories &amp; Storytellers and Resource Providers</strong> to share local entrepreneurship news, stories of success and failure, events and meetings&lt;br&gt; (a, b, c, d, e, f) <strong>Identify regions known for their entrepreneurial Culture</strong> and study best practices&lt;br&gt; (a, b, d) <strong>Fund an entity</strong> (or entities) to organize ecosystem activities, ensure collaboration and manage back office functions&lt;br&gt; (a, c, e, f) <strong>Build “rock star” persona</strong> to acknowledge current entrepreneurs and create excitement around launching businesses and working at startups&lt;br&gt; (a, c, f) <strong>Conduct surveys</strong> to establish a baseline and measure change in perception about the region’s entrepreneurial ecosystem and Culture&lt;br&gt; (d) <strong>Connect Resource Providers to improve the overall breadth and quality of services</strong> available to entrepreneurs (see Resource Providers and Regional Entrepreneurial Network Recommendation)</td>
</tr>
</tbody>
</table>
## Capabilities Assessment:

### 1. Culture

### NWPA Current State

**SNAPSHOT:** NWPA’s entrepreneurial Culture is severely underdeveloped. The region is not viewed by most entrepreneurs as a place where they can receive the expert assistance or funding they need to grow their high growth startups. There is no inspirational leader of entrepreneurship, and entrepreneurial stories and news are not often covered in the media. High growth startup deal flow is extremely low, though the region has a significant number of existing businesses with growth potential.

- **(a, b, c, d, e, f) 75.7 Innovation Index rank:** low levels of regional innovation (see Innovation Index slides and Appendix for more)
- **(a, b, c, d, e, f) Low VC or federal grant activity; minimal tech transfer; low number of patents; very few high growth startup (5-10) deals**
- **(a, b) Poverty is the region’s #1 priority:** entrepreneurship is not on the radar of Ecosystem Funders or most Advocates
- **(a, e, f) Very little coverage of entrepreneurship** in the media, and programs and events supporting entrepreneurship are not well-promoted to engage the community
- **(b, c, f) Severely risk-averse Culture** prevents NWPA from utilizing entrepreneurship as a necessary component of economic development
- **(b, e, f) Small educated workforce** (19% with bachelor’s degree); low high-tech employment share (2.9%); high outmigration; low broadband density; low job growth
- **(d) Several Resource Providers exist,** though most are expected to be all things to all entrepreneurs; Resource Providers are better equipped to support existing small businesses and many business owners leverage their personal networks rather than Resource Providers for support; informal collaboration, generic referrals; tendency is to keep clients even if another organization might be better equipped to provide the support; no Accelerators in the region (not enough deal flow to support need as this time)
- **(d, f) ~600 existing small businesses with growth potential:** real opportunity to identify and provide the targeted resources these companies need to accelerate growth, revenue generation and job creation

### INTERVIEWS:

- **Entrepreneurs:** (a, c, d) We don’t have an organized, thriving ecosystem—we have entrepreneurial assets to support an infrastructure; (b) People need to align around the same goal
- **Resource Providers:** (a, f) [Deal flow is low but] if there was a pot of money and the message was out, there would be a response—it would probably take help from the State
Capabilities Assessment: 1. Culture

NWPA Program Recommendations

PHASE 1 in bold:
• (a, b, c, d, e, f) Identify a handful of regions known for their entrepreneurial Culture and identify cost-effective activities to emulate
• (a, b, c, e, f) Develop a central repository of success stories and disseminate this information across various media outlets, including a region-wide email newsletter with content from various Resource Providers
• (a, b, c, e, f) Develop formal partnerships between Stories & Storytellers and Resource Providers to share local entrepreneurship news, stories of success and failure, events and meetings
• (a, b, c) Identify passionate individuals who advocate for entrepreneurship and have the influence to change its regional perception (see Advocates)
• (a, c, d, f) Host entrepreneur-only events with education and networking components; sponsorship opportunities should be made available to Resource Providers; design series using a collaborative, regional approach for maximum reach
• (a, c, d) Approach the Erie County Public Library with a monthly entrepreneurial events series featuring successful entrepreneurs and investors with Resource Providers in attendance to answer questions and develop relationships
• (a, c, e) Begin developing inclusive entrepreneurial clubs and organizations in the region
• (a, c, f) Promote the NWPA Inventory of Ecosystem Assets and Ecosystem Graphic to the community via partner websites, email newsletters, print copies, etc.; begin to generate ‘buzz’ around entrepreneurship
• (regional libraries are a great, underutilized resource for these efforts)
• (a, c, f) Conduct buzz-generating events; a few examples: TechPint (entrepreneur happy hours: www.techpint.org/), Hackathons (intense networking and code development sessions), 1 Million Cups (entrepreneur education and networking: www.1millioncups.com/), business plan competitions
• (a, c) See the Culture Building and Deal Flow Generation Recommendation for related activities/recommendations

METRICS
• Track opinions regarding the ability of entrepreneurs to receive needed mentoring and capital; measure changes in perception (survey)
• Traffic to ecosystem email newsletters and webpages
• Number of Resource Providers collaborating on joint entrepreneurship events
• Changes in Innovation Index measures over time
• # of entrepreneurship stories in the media
• Number of successful referrals shared among Resource Providers
• Increased qualified deal flow over time

Time to Launch

Resources (People, Funds)

Capability Impact Potential

Small  Medium  Large

CULTURE

CULTURE

CULTURE

CULTURE
## Capabilities Assessment:
### 2. Ecosystem Funders

<table>
<thead>
<tr>
<th>Description</th>
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<tbody>
<tr>
<td><strong>DEFINITION</strong></td>
</tr>
<tr>
<td>These are the entities that fund the development of the underlying infrastructure that facilitates entrepreneurship in a community. They recognize the value in supporting region-wide entrepreneurial endeavors. This element does not include direct funding to entrepreneurs.</td>
</tr>
</tbody>
</table>

Sources include:<br>• Local, State and Federal Government<br>• Foundations<br>• Corporate Businesses (law firms, etc.)<br>• Business/Trade Associations<br>• High net worth philanthropists
### NWPA Current State

**SNAPSHOT:** NWPA does not have sufficient ecosystem funding sources. Primary support is provided by the State at decreasing levels and there are no local entrepreneurial Ecosystem Funders. The region has a real opportunity to tap into local foundations, corporations, government and high net worth individuals to fund and develop the entrepreneurial ecosystem.

- (a) Potential Ecosystem Funders do not currently require that grant recipients focus on entrepreneurship in order to receive financial support
- (b, c, f) State support for entrepreneurship has dropped over recent years (at one point, Ben Franklin’s budget was cut by nearly 2/3, demonstrating a shift in priority by state government); existing programs and resources are poorly publicized and unknown to many of the region’s entrepreneurs
- (b) Political leadership hasn’t historically focused on supporting entrepreneurship
- (c) NWPA has a few philanthropic organizations/foundations, but none have a mission to support entrepreneurship
- (c) Issues of poverty and unemployment overshadow the need for entrepreneurship support at the local level
- (c) Region has wealth, though high net worth individuals invest in companies outside the region or in community development projects
- (d) No common set of metrics to measure the impact of Resource Providers
- (e) Lack of measured collaboration among Resource Providers; until recently, no entity has engaged to organize ecosystem activities and ensure collaboration; ecosystem activities are disconnected and each organization manages back office functions independently
- (f) No tax credits are available to encourage angel investment activity

**INTERVIEWS:**

- **Entrepreneurs:** (c, d, e) People need to align around the same goal; (e) We don’t have an organized ecosystem—we have disconnected or ‘loosely affiliated’ entrepreneurial assets to support an infrastructure
- **Resource Providers:** (c) [Deal flow is low but] if there was a pot of money and the message was out, there would be a response—it would probably take help from the State
PHASE 1 in bold:

- (a) Host a series of seminars and 1:1 meetings to educate the Erie Community Foundation, ECGRA, City and County officials and other Ecosystem Funders about the regional economic impact of entrepreneurship and the benefits of collaboration and measurement
- (b) Regularly survey Resource Providers, Sources of Risk Capital and entrepreneurs to gather feedback on the state of local entrepreneurship
- (c) Host events with top and potential donors of local foundations and other Ecosystem Funders to educate them about the regional economic impact of entrepreneurship and encourage them to require that grantees focus on entrepreneurship to receive financial support
- (c) Develop a process to help potential Ecosystem Funders align their investments with their missions and the needs of the ecosystem
- (d) Periodically identify and contact representatives from leading entrepreneurial ecosystems to seek information about what metrics best measure ecosystem development
- (e) Empower an entity to organize ecosystem activities, ensure collaboration, manage back office functions on behalf of Resource Providers and advocate for entrepreneurship
- (e) Secure funding for the entity to organize ecosystem activities, ensure collaboration and manage back office functions on behalf of Resource Providers
- (f) Meet with state and local government officials to discuss the economic impact of entrepreneurship and advocate for tax credits and incentives to encourage entrepreneurship and early-stage investment
- (f) If needed, launch a petition campaign to demonstrate community support for tax credits and incentives

NWPA Program Recommendations

**METRICS**

- Number of **attendees** at seminars and meetings; number of Ecosystem Funders that require a focus on entrepreneurship
- Baseline and **changes in the perception** of entrepreneurship; number of respondents; dollars invested; hours of technical assistance provided
- Number and amount of **grants** made annually
- Number of **hours spent seeking information** from leading ecosystems
- Track changes in sources of ecosystem funding
- **Measure change in functionality of the ecosystem (survey)**
- Value of available **tax credits and incentives** and the amount granted in NWPA annually; number of petition signatures

**Time to Launch**

- Low: ~1 Year
- High: ~5+ Years

**Capability Impact Potential**

- Small
- Medium
- Large
### Capabilities Assessment:

#### 3. Resource Providers

<table>
<thead>
<tr>
<th>Description</th>
<th>LEADING PRACTICES</th>
<th>ACTIVITIES, TOOLS &amp; EVENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MENTORING AND ADVISING</strong></td>
<td>(a) Structure business support programs to <strong>screen, recruit, prepare and retain quality mentors and coaches</strong> to support entrepreneurs across industries and stages of business development</td>
<td>(a) Survey entrepreneurs to <strong>understand unmet needs</strong></td>
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<tr>
<td></td>
<td>(b) <strong>Recommend mentors and advisors</strong> based on entrepreneur needs and interest and experience of the mentor</td>
<td>(a) <strong>Invite successful professionals</strong> to volunteer their time as mentors</td>
</tr>
<tr>
<td></td>
<td>(c) Establish policies to <strong>prevent predatory mentor/entrepreneur relationship</strong></td>
<td>(a) Develop <strong>required training program</strong> and associated materials that outline best practices and guidelines for the mentor/entrepreneur relationship</td>
</tr>
<tr>
<td></td>
<td>(d) Create a mechanism to ensure entrepreneurs are able to easily <strong>navigate available resources</strong></td>
<td>(a) Develop a social component to <strong>encourage ongoing participation</strong> of mentors, advisors and entrepreneurs</td>
</tr>
<tr>
<td></td>
<td>(e) Coordinate <strong>referrals</strong> among various Resource Providers and make warm hand-offs between the entrepreneur and the referred resource</td>
<td>(a) Identify gaps in the region’s technical expertise and build a virtual network of experts to supplement</td>
</tr>
<tr>
<td></td>
<td>(f) Promote programs to <strong>increase awareness of available resources</strong> (see Stories &amp; Storytellers)</td>
<td>(b, e) <strong>Maintain a catalog of mentors</strong> for use by program administrators that lists mentors’ interests, experience and specialties; proactively align them to entrepreneurs across programs</td>
</tr>
<tr>
<td></td>
<td>(g) Implement a process to regularly <strong>educate program administrators</strong> on best practices</td>
<td>(b) Host events to <strong>introduce Resource Providers and mentors to entrepreneurs</strong></td>
</tr>
<tr>
<td></td>
<td>(h) <strong>Connect professional services associations and organizations to the ecosystem</strong></td>
<td>(c) <strong>Include contracts</strong> for mentors and entrepreneurs that clearly define conflicts of interest</td>
</tr>
<tr>
<td></td>
<td>(i) Agree on a <strong>common set of metrics</strong> to measure the impact of Resource Providers</td>
<td>(d, e) <strong>Fund an entity</strong> (or entities) to organize activities, <strong>ensure collaboration</strong> and manage back office functions on behalf of Resource Providers</td>
</tr>
</tbody>
</table>

### Support organizations

- including accelerators and incubators, economic development organizations and networking groups
- and specialty resources, such as sector-specific business support groups

Major components of a robust Resource Provider Capability include:

- Mentoring
- General Business, Professional Services
- Core Technical, Product Assistance
- Physical Facilities and Infrastructure
- Funding and Capital (see Sources of Risk Capital)

---

**MENTORING AND ADVISING**

- Survey entrepreneurs to understand unmet needs
- Invite successful professionals to volunteer their time as mentors
- Develop required training program and associated materials that outline best practices and guidelines for the mentor/entrepreneur relationship
- Develop a social component to encourage ongoing participation of mentors, advisors and entrepreneurs
- Identify gaps in the region’s technical expertise and build a virtual network of experts to supplement
- Maintain a catalog of mentors for use by program administrators that lists mentors’ interests, experience and specialties; proactively align them to entrepreneurs across programs
- Host events to introduce Resource Providers and mentors to entrepreneurs
- Include contracts for mentors and entrepreneurs that clearly define conflicts of interest
- Fund an entity (or entities) to organize activities, ensure collaboration and manage back office functions on behalf of Resource Providers
- Develop a website that outlines the programs available to entrepreneurs
- Share success stories with the community through events, social media and traditional press to encourage participation
- Review national best practice models regularly to iterate and improve programs
- Survey mentors, Resource Providers and entrepreneurs to measure satisfaction with programs
- Highlight professional services organizations that offer pro-bono support to entrepreneurs through media and events
- Identify best practices in metrics collection from highly collaborative entrepreneurial ecosystems
## Capabilities Assessment: 3. Resource Providers

### Description

<table>
<thead>
<tr>
<th>DEFINITION</th>
<th>LEADING PRACTICES</th>
<th>ACTIVITIES, TOOLS &amp; EVENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Support organizations</strong> (including accelerators and incubators, economic development organizations and networking groups) and specialty resources, such as sector-specific business support groups. Major components of a robust Resource Provider capability include: • Mentoring • General Business, Professional Services • Core Technical, Product Assistance • Physical Facilities and Infrastructure</td>
<td><strong>PHYSICAL FACILITIES AND INFRASTRUCTURE</strong> • (j) Develop a catalog of facilities and equipment that exist in the community, including cost and availability</td>
<td><strong>PHYSICAL FACILITIES AND INFRASTRUCTURE</strong> • (j) Host open houses for entrepreneurs to tour available facilities • (j) Market available facilities and equipment • (j) Develop public/private partnerships to subsidize the use of facilities and equipment for students and entrepreneurs • (j) Develop relationships with universities, laboratories and research centers to make additional equipment and facilities available</td>
</tr>
<tr>
<td>(See Sources of Risk Capital for Resource Providers that offer funding)</td>
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</table>

(See Sources of Risk Capital for Resource Providers that offer funding)
NWPA Current State

SNAPSHOT: Collaboration among Resource Providers is relatively low and informal. There is no entity that organizes ecosystem activities or ensures collaboration. Entrepreneurs find it difficult to navigate the ecosystem and resources are not well-publicized. Many Resource Providers offer general business support rather than industry- or technology-specific expertise.

- (a, b) Mentorship is typically provided by generalists rather than specialists; entrepreneurs need more technical assistance from experienced entrepreneurs and mentors
- (a, e, f, g, h, i) Although some programs focus on tech and high growth startups, not much is being done to leverage the collective value of their strengths; there are no formal collaborative processes and/or associated metrics in place to measure regional outcomes. Lead Economic Development Team brings together several Resource Providers for regular meetings but does not focus on entrepreneurship
- (d, f) Entrepreneurs find it difficult to navigate available Resource Providers and don’t always understand what they offer
- (e, h) Referrals are sometimes made between Resource Providers, but are not always sent to the most appropriate resource
- (f) Efforts are underway to develop additional resources to support entrepreneurs; some proposed projects include: Ben Franklin TechCelerator, Quickstarter (Kris Wheaton, Mercyhurst), PSU Sam & Irene Black School of Business’s Center for Immersive Learning & Innovation, ERIE’s proposed Entrepreneurship & Innovation Index
- (g) Many have redundant capabilities (lending, general business planning, etc.) and serve the same customer base;
- (g) There are few differentiated services for high growth startups, such as accelerator programs, incubators, co-working spaces, etc.
- (h) Many professional services (marketing, law, consulting, accounting firms) exist, but few are regularly tied into the ecosystem
- (i) No common set of metrics to measure the impact of Resource Providers
- (j) Available facilities and equipment have excess capacity; no mechanism to educate entrepreneurs on what exists

INTERVIEWS:
- Entrepreneurs: (a) Resources for entrepreneurs are a problem; (a) Don’t have [access to] people who have done this before; (a) Economic development agencies run like banks, and they shouldn’t; (a) System is designed to help the entrepreneur when they already have a company; (a, d) Other entrepreneurs are more helpful than anyone else; (d) Difficult to navigate the system; (d, f) Can’t understand what the local organizations offer entrepreneurs; (e) Referrals do not often lead to a resource that can help
- Resource Providers: (a) NWPA doesn’t have the resources or capacity to support some of the ideas that come through; (a) Need to improve quality of the services to help entrepreneurs; (a, d) Mentors aren’t formally connected—there isn’t enough structure to allow mentors to be effective
Capabilities Assessment:
3. Resource Providers

NWPA Program Recommendations

PHASE 1 in bold:
• (a, c, g, i) Engage with best practice mentor programs to develop training materials, qualifications, policies and metrics
• (b) Identify entrepreneurs looking for expert mentoring and invite them to monthly matching events
• (b, e) Develop a prospect list of successful professionals, technical experts and serial entrepreneurs (in-region and virtual) with a range of expertise and invite them to participate as mentors; request additional referrals
• (d, e, i) Meet with stakeholders to assess the need for an entity (or entities) to organize activities, ensure collaboration and manage metrics collection and back office functions on behalf of Resource Providers
• (d, f) Develop a website that outlines the programs available to entrepreneurs
• (f) Promote mentoring resources through a website resource center, success stories, press releases, events, etc.
• (g) Survey mentors, Resource Providers and entrepreneurs to measure satisfaction with programs
• (h) Invite professional services firms offering pro-bono support to monthly matching events
• (j) Market available facilities and equipment
• (j) Develop public/private partnerships to subsidize the use of facilities and equipment for students and entrepreneurs
• (j) Develop relationships with universities, labs and research centers to make additional equipment and facilities available as needed
• (j) Develop a referral program to connect businesses—company 1 has equipment company 2 needs

METRICS
• Number of organizations trained on best practice mentoring
• Number of hours of technical assistance provided
• Number of active mentor/entrepreneur matches
• Track opinions regarding the need for an entity to organize Resource Provider activities and mentoring programs
• Number of successful referrals
• Number of entrepreneurs who learn about mentors/Resource Providers through marketing efforts
• Track changes in perception of service experience (survey)
• Number of professional services firms offering pro-bono assistance to entrepreneurs
• Number of pro-bono hours offered to entrepreneurs by professional services firms
• Number of facilities available (cost/time) to entrepreneurs
• Number of hours of facility and equipment use by entrepreneurs

See the Enhanced Mentoring Network Recommendation
See Inventory of Ecosystem Assets for a list of Resource Providers
### Capabilities Assessment: 4. Educational Opportunities

<table>
<thead>
<tr>
<th>Description</th>
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<tbody>
<tr>
<td><strong>DEFINITION</strong></td>
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<tr>
<td><strong>LEADING PRACTICES</strong></td>
</tr>
<tr>
<td>(a) <strong>Develop curricula and Culture</strong> around entrepreneurship and innovation at the region’s colleges and universities</td>
</tr>
<tr>
<td>(b) <strong>Offer college credit</strong> for mentoring entrepreneurs, interning at startups and participating in competitions and accelerator programs</td>
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<tr>
<td>(c) <strong>Provide access to a variety of educational resources</strong> for entrepreneurs, investors, students and community members outside of traditional university programs</td>
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<tr>
<td>(d) <strong>Create Incentives for students to stay in the region</strong> and consider starting businesses or working for startups</td>
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<tr>
<td>(e) <strong>Participate in national entrepreneurship programs</strong> and initiatives that build awareness and generate interest in entrepreneurship (local chapters)</td>
</tr>
<tr>
<td>(f) <strong>Understand student perceptions</strong> of entrepreneurship</td>
</tr>
<tr>
<td>(g) <strong>Promote available Educational Opportunities and resources</strong></td>
</tr>
<tr>
<td><strong>ACTIVITIES, TOOLS &amp; EVENTS</strong></td>
</tr>
<tr>
<td>(a, c, d) <strong>Conduct workshops led by serial entrepreneurs</strong> that provide information on starting up and growing businesses</td>
</tr>
<tr>
<td>(a, d) <strong>Start entrepreneurship-focused clubs, courses, competitions and programs</strong> to encourage entrepreneurial career paths</td>
</tr>
<tr>
<td>(a) <strong>Offer cross-enrollment opportunities at colleges and universities</strong> for entrepreneurship-related courses</td>
</tr>
<tr>
<td>(a) <strong>Create technical training programs</strong> to prepare the regional talent pool to work in high tech industries and startups</td>
</tr>
<tr>
<td>(b, d) <strong>Create partnerships between industry and educational institutions to develop internship programs</strong> at startups and growth-stage businesses</td>
</tr>
<tr>
<td>(b) <strong>Develop entrepreneurship-specific degree programs</strong>, certificates, clubs and experiential learning opportunities</td>
</tr>
<tr>
<td>(c) <strong>Provide online courses and other resources</strong> for information about entrepreneurship and investing</td>
</tr>
<tr>
<td>(d, g) <strong>Engage with Storytellers</strong> to share opportunities, success stories and best practices (see Stories and Storytellers)</td>
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<tr>
<td>(d) <strong>Develop funds</strong> to support student led startups and initiatives</td>
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<tr>
<td>(d) <strong>Spotlight student entrepreneurs and startup interns</strong> in local media</td>
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<tr>
<td>(e) <strong>Start local chapters</strong> of programs such as One Million Cups, Blackstone Launch Pad, 10K Small Businesses, Entrepreneurs Organization, etc.</td>
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<tr>
<td>(f) <strong>Conduct surveys</strong> to establish a baseline and measure change</td>
</tr>
<tr>
<td>(g) <strong>Map</strong> the institutions providing entrepreneurial education (Inventory of Ecosystem Assets); develop programs to address needs</td>
</tr>
</tbody>
</table>
SNAPSHOT: The region is home to several colleges and universities. Efforts are underway to make entrepreneurship a greater focus at these institutions, but current cultures do not encourage students to focus on starting businesses. Community-based programming for entrepreneurship is not widely available outside of university offerings. Networks, clubs and other social forums for entrepreneurship education are also limited.

• (a) Several colleges/universities in NWPA, but entrepreneurship support efforts are still developing

• (a) Some efforts are underway to make entrepreneurship a focal point of higher education; The Path Forward, a white paper written by four of the region’s universities, outlines several ideas to connect entrepreneurship to higher education; a few schools offer degree/certificate programs focused on entrepreneurship; Penn State Behrend has an Interdisciplinary Business with Engineering Studies program; Erie Technology Incubator and SBDC at Gannon and STARTup Incubator in Edinboro serve entrepreneurs, but have limited resources and could benefit from better connecting student populations; Gannon plans to collocate their SBDC, Incubator and School of Business in 2015; The Young Entrepreneurs’ Society has developed K-12 entrepreneurship education programs

• (b, e) There is little incentive or opportunity for students to seek out entrepreneurial education/experiences or for mentors to connect with students interested in starting businesses

• (c) Lower adult population with ‘bachelor’s degree or higher’ than U.S. average (19.6% vs. 26.5%)

• (c, e, g) Entrepreneurs generally reach each other through personal connections to seek information; the first organized meetings for early-stage entrepreneurs began in late 2013 as an outgrowth of this project
NWPA Current State

SNAPSHOT: The region is home to several colleges and universities. Efforts are underway to make entrepreneurship a greater focus at these institutions, but current cultures do not encourage students to focus on starting businesses. Community-based programming for entrepreneurship is not widely available outside of university offerings. Networks, clubs and other social forums for entrepreneurship education are also limited.

- (c, g) SBDC offers First Step Workshops (for a fee) to prospective entrepreneurs as a prerequisite for counseling sessions; other community-based free workshops related to entrepreneurship and investing are not well publicized; entrepreneurs perceive a gap in this space

- (d) OH-Penn and Innovation Erie offer opportunities for students to participate in design and business plan competitions, but could be better publicized to attract broader participation from students; the first competition specifically targeting the four Erie County-based universities will be held April 2014 (the Collegiate Innovation Showcase, an outgrowth of this project)

- (d, f) Outmigration of young people is a concern (-1.8% NWPA vs. U.S. -.2%); Community Connections initiative in Hermitage is helping to reverse this trend

- (d, f) Few opportunities for students to be exposed to entrepreneurship outside of business school coursework (startup internships, speaker series, etc.); Career Street will offer experiential learning/internship opportunities to K-12 students and will include entrepreneurship as an option

INTERVIEWS:

- Entrepreneurs: (a, c, d, e, g) There are not enough “pre-entrepreneurial activities” that encourage people to take an entrepreneurial path; (c) Who offers guidance on what insurance to buy, healthcare, liability, etc.?; (c) SBDC curriculum is not designed for tech entrepreneurship

- Resource Providers: (a, b, d, f) We could triple innovation entrepreneurship through proactive ecosystem support of students/talent; (a, c) Need for education about the entrepreneurial lifestyle and the personal tradeoffs required for success; (a, d) Innovation/entrepreneurship is not a focus of the universities here; (d) There was a student business plan competition, it wasn’t continued and it’s a shame

- Educational Opportunities: (a, b, d) We are creating an incubator where students can start their own businesses as early as freshman year; (a, d, g) Want to see students consider entrepreneurship early; it can’t be an afterthought
Capabilities Assessment:
4. Educational Opportunities

NWPA Program Recommendations

PHASE 1 in bold:
- (a) Increase the number of entrepreneurship-specific degree programs, certificates, clubs and experiential learning opportunities
- (a) Offer cross-enrollment opportunities at colleges and universities for entrepreneurship-related courses; universities collaborate around shared resources
- (a) Create technical workforce development programs to prepare the region’s talent pool to work with high potential companies
- (a, c, d) Support and promote existing entrepreneurial education programs, such as Young Entrepreneurs Society
- (a, b, d) Host new business plan competition at each university where winners compete at a larger, regional competition with Pitch Day
- (a, c, d) Offer workshops or produce podcasts led by serial entrepreneurs that provide information on starting up and growing businesses
- (c) Develop a website/portal with online courses, resources and information about entrepreneurship and investing
- (d) Develop a micro granting fund to support ideas and initiatives brought forward by students and other participants in the region’s entrepreneurial education programs
- (d) Spotlight student entrepreneurs and startup interns though social media, on-campus publications and traditional media
- (d, g) Engage with on-campus and external Storytellers to share opportunities, success stories and best practices (see Stories & Storytellers)
- (e) Apply for permission to start local chapters of One Million Cups, Blackstone Launch Pad, Entrepreneurs Organization, etc.
- (f) Conduct surveys to establish a baseline and measure change

METRICS
- Number of people attending entrepreneurship classes, training programs and workshops
- Number of classes, programs and training opportunities offered in the region
- Number of programs offering cross-enrollment opportunities
- Number of internship opportunities offered at high potential companies
- Number of applications received
- Number of students expressing an interest in entrepreneurship (survey)
- Number of impressions made by marketing and promotional efforts
## Capabilities Assessment: 5. Stories & Storytellers

### Description

**DEFINITION**

Inspirational stories about entrepreneurs and their successes and failures told via various media channels, by entrepreneurs themselves and through organizations in the ecosystem.

*Educate, inform, generate interest, excitement and awareness about entrepreneurship in and outside the region*

Sources include:
- Media
- One-to-One Communications
- Resource Provider Storytelling
- Social Media

Stories & Storytellers touch all elements of the ecosystem. Each Capability section includes information on promotion and storytelling.

**LEADING PRACTICES**

- (a) Produce **region-wide publications** that cover news, events and information about the entrepreneurial ecosystem

- (b) Develop a culture of **regular and positive reporting** on entrepreneurial activity across sectors and phases of commercialization through traditional and grassroots channels

- (c) Establish **clear communication channels** between entrepreneurs, investors and Storytellers

- (d) **Celebrate risk taking**, failures and lessons learned, and support the growth of the ecosystem

- (e) Seek out and share **best practices** and information from other regions to support the growth of the ecosystem

- (f) **Position** the region as an attractive place for entrepreneurs, students and investors

**ACTIVITIES, TOOLS & EVENTS**

- (a, b, c, d, e, f) Designate an **entity to gather stories and data**, develop copy, organize, disseminate entrepreneurship-related information to appropriate audiences via a regional email newsletter and track related metrics on behalf of the ecosystem in conjunction with efforts of individual organizations.

- (a, e) Attend **regional and national entrepreneurial events** to gather best practices, share them with the region and educate individuals outside the region about in-region activities (build a regional brand)

- (a, f) Launch a **website that centralizes regional information** and coordinates messaging about early-stage entrepreneurship and innovation, including a calendar of events, links to social media and a resource center

- (b) Develop Twitter feeds, social media pages, blogs, weekly newspaper columns, radio shows, podcasts and local television spots **that cover developments in the entrepreneurial ecosystem and promote events** and opportunities related to entrepreneurship (primarily for Resource Providers)

- (c, d) Establish a **social media site(s) for the region’s entrepreneurs and investors** to post their accomplishments and share information about upcoming events, best practices, needs, etc.
## NWPA Current State

**SNAPSHOT:** NWPA has few dedicated Storytelling resources focused on region-wide entrepreneurship. Some existing organizations have newsletters that target their respective members, but do not seek to engage the broader community in entrepreneurial activity.

- **(a)** Resource Providers tell stories of their own clients, but **few have a regional focus** and subscriber lists are low, limiting community-wide reach.
- **(a, b, c, f)** Few regional **media outlets exist with an entrepreneurial focus**: Ben Franklin’s statewide email newsletter regularly contains one NWPA focused story/publication; The Erie Times-News and Erie Reader have committed to covering entrepreneurship, but have not had bandwidth to write and pitch stories.; the Erie Chamber has recently featured articles about entrepreneurship in its quarterly publications.
- **(a, b, c, f)** **Improvements to Stories & Storytellers** could significantly impact Culture and the Marketing and Culture Building & Deal Flow Generation Recommendation.
- **(a)** There is no coordinated effort to tell entrepreneurial stories from a regional perspective or track impressions made by existing efforts.
- **(d, f, e)** The **region’s risk-averse Culture** is not known for attracting entrepreneurs.

### INTERVIEWS:

- **Entrepreneurs:** *(b, d, f)* Disrupt dialog around negativity and re-focus energy toward creating new opportunities and companies; *(d, f)* We want entrepreneurs to be sought after and respected as rock stars like they are in other communities.
- **Resource Providers:** *(a, b)* I get an email about the Big Idea contest once a year and that’s it; *(b, d, f)* Erie has an inferiority complex and needs something for people to rally around; *(d, f)* Biggest problem—lack of imagination for what the region could be; *(f)* Creative class is not drawn to this area—we’re good at educating people here and then exporting them to vibrant cities.
- **Stakeholders:** *(b, c, d, e)* Need to keep banging the drum every day for media support of entrepreneurship to build awareness; *(a, b, c, f)* Need to create a buzz around entrepreneurship; it’s just not there.

### Underdeveloped to Leading

<table>
<thead>
<tr>
<th>Underdeveloped</th>
<th>Leading</th>
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<tbody>
<tr>
<td>NWPA Current State</td>
<td>Stories &amp; Storytellers</td>
</tr>
</tbody>
</table>

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**5. Stories & Storytellers**
PHASE 1 in bold:

- (a, b, c, d) Invite Storytellers to regular information sessions about entrepreneurship in the region
- (a, f) Develop a central repository where local wins related to the entrepreneurial ecosystem can be captured and disseminated
- (b) Develop weekly newspaper columns, radio shows, podcasts and local television spots that cover developments in the entrepreneurial ecosystem and promote events and opportunities related to entrepreneurship (primarily for Resource Providers)
- (b, f) Make communicating about entrepreneurship in NWPA a dedicated component of any regional marketing plans
- (c) Launch social media pages for entrepreneurs to post their accomplishments and share upcoming events
- (e) Provide examples of great storytelling assets from other regions as models for Erie Storytellers
- (a, b, c, d, e) Identify an entity to manage the process of gathering, writing and sharing success stories and activities specifically related to the early stage entrepreneurial ecosystem

METRICS

- Number of **people who attend events** or learn about programs based on information shared by Storytellers
- **Audience size** for existing Storytellers
- **Number of organizations contributing** stories to the central repository
- **Number of entrepreneurial stories appearing in media outlets** on a monthly basis
- Number of **positive stories about risk-taking** and rewards
- **Number of best practices implemented** in NWPA based on research to learn about leading regions

**Capabilities Assessment:**

5. Stories & Storytellers

**NWPA Program Recommendations**

**Resources (People, Funds)**

- Low: ~1 Year
- High: ~5+ Years

**Time to Launch**

**Capability Impact Potential**

- Small
- Medium
- Large
## Capabilities Assessment: 6. Advocates

### Description

<table>
<thead>
<tr>
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<th>ACTIVITIES, TOOLS &amp; EVENTS</th>
</tr>
</thead>
</table>
| Organizations, government officials and business groups that advocate for the needs of entrepreneurs to policymakers and leaders who can influence government funding and programmatic opportunities. | - (a) **Recognize the value of entrepreneurship** and encourage and lobby for it  
- (b) **Provide support for entrepreneurs and startups**  
- (c) Understand the **value of high potential companies** to create jobs and generate revenues quickly  
- (d) Create an **environment that is attractive to entrepreneurs**, including government regulation and incentive programs | - (a, d) Identify or create an entity (or entities) to **champion the entrepreneurial cause**, mobilize the community and educate leaders  
- (a, d) **Lobby** for increased entrepreneurship support from state and local government  
- (b) Initiate new programs and efforts that **support entrepreneurs and increase chamber and/or association membership**  
- (b) Identify high-performing chambers across the country that embrace and focus on supporting startups; **inventory the best practice programs** and incentives used to attract startup members  
- (c) Educate regional chambers and business and trade associations about the **value of existing high potential companies** and how to identify them  
- (c) Develop **programs to support rapid growth** of existing high potential companies through business assistance and funding (begins with identifying potential gazelles and their most pressing needs impeding growth)  
- (d) **Develop regional identity** as one that is supportive of entrepreneurship and innovation regional email newsletter, social media, PR (see *Culture and Stories & Storytellers*) |
The NWPA Current State

**SNAPSHOT:** NWPA is not known for having a supportive entrepreneurial environment, and most regional Advocates are strong supporters of traditional, existing businesses. Chambers and business and trade associations primarily support existing businesses rather than startups. State and local government have historically focused on issues other than entrepreneurship and have not viewed entrepreneurship as a critical component of their economic development strategies.

- (a, b, c, d) County and city governments have not recently acted as major proponents of entrepreneurship
- (a, d) The State has reduced its support for entrepreneurship and the current administration’s agenda focuses on support for existing businesses (see Ecosystem Funders); Discovered and Developed in PA (D2PA) and Ben Franklin remain vital contributors/supporters, though impact in NWPA has been less significant than in other regions of the state
- (a, c) Erie Regional Chamber and Growth Partnership (ERCGP) and the Erie County Gaming Revenue Authority (ECGRA) play active entrepreneurship advocacy roles
- (c) Chambers of commerce focus support more on existing businesses with large employment shares, than on support to startups through business assistance and access to funding
- (c) Northwest PA Industrial Resource Center (NWIRC) is supportive of entrepreneurship, but has limited or no financial resources to support high potential companies

**INTERVIEWS:**

- **Entrepreneurs:** (a, d) Would like the State to begin to value entrepreneurship
- **Resource Providers:** (a, b, c, d) The State is focused on growth and expansion of existing big businesses; (a, d) Entrepreneurship is not part of the Governor’s agenda
- **Stakeholders:** (a, d) Inconsistent leadership and transitions among those in power
Capabilities Assessment: 6. Advocates

NWPA Program Recommendations

PHASE 1 in bold:
• (a, b, c, d) Identify 5-10 champions in the community who are willing to commit real time to advocating for entrepreneurship (must be accountable to each other)
• (a, b, c) Meet with chambers and associations to assess their interest and ability to serve more early-stage businesses
• (a, b, d) Educate Advocates on the benefits and impact of entrepreneurship and prepare them to advocate formally for increased support to government, chambers and associations
• (a, d) Ensure stories of Advocates and entrepreneurs are told to the community (see Stories & Storytellers); budget/time allocations to support efforts
• (a, d) Develop entrepreneur attraction efforts (marketing, discounts to join, benefits/incentives) with chambers and associations
• (b, c) Identify high-performing chambers across the country that embrace and focus on supporting startups; inventory the best practice programs and incentives used to attract startup members
• (c) Educate regional chambers and business and trade associations about the value of existing high potential companies and how to identify them
• (c) Work with the various chambers and associations to identify existing companies with high growth potential and make serving these companies a priority
• (c) Develop programs to support rapid growth at existing high potential companies through business assistance and funding
• (c, d) Build formal referral relationships between chambers and associations (business assistance) and funding sources (risk capital)
• See Economic Gardening Recommendation for more information on supporting existing high potential companies through chambers and associations

METRICS
• Number of chambers and associations interested/able to provide increased levels of support to early-stage companies
• Number of Advocates who commit to promoting and lobbying for entrepreneurship
• Number of high-performing chambers engaged to learn about best practice programs and incentives to attract startup mentors
• Number of high potential companies as new members of chambers and/or associations
• Number of successful referrals made between chambers and associations and funding sources for entrepreneurs

Time to Launch
Low: ~1 Year
High: ~5+ Years

Capability Impact Potential
Small
Medium
Large
## 7. Sources of Risk Capital

### DEFINITION
High-risk funding available to early stage (Imagining, Incubating, Demonstrating Phase) companies not likely to qualify for traditional forms of financing due to the speculative nature of the opportunity. This category includes angel investors, micro-lenders, seed funds, grants and venture capital.

Sources include:
- Angels
- Microloan Funds
- Pre-seed & Seed Funds
- State & Federal Government
- Venture Capital Funds

### LEADING PRACTICES

- (a) **Fund high potential company deal flow** across industries at all phases of commercialization creating incentives for entrepreneurs to bring forward new ideas and grow existing companies.

- (b) **Strengthen the regional tolerance for risk** and understand it as an important part of the learning process for entrepreneurs and the ecosystem.

- (c) Provide or **direct entrepreneurs** to sources of expert assistance that increase the likelihood of success.

- (d) **Refer entrepreneurs** to the most appropriate funder.

- (e) **Prioritize investment in local deals** and seek out opportunities to engage with entrepreneurs.

- (f) Make investing a **fun and educational experience for investors**.

### ACTIVITIES, TOOLS & EVENTS

- (a) **Encourage new deal flow** by starting or supporting funds and programs specifically for Imagining Phase opportunities including micro granting funds, micro-lending, Kickstarter campaigns, business plan competition awards, etc.

- (b) Organize investment funding groups to encourage new investors to participate.

- (c, d) **Map the institutions and mentors** providing expert assistance (Inventory of Ecosystem Assets); provide information to funders.

- (c, d) Identify gaps in the region’s technical expertise and **build a virtual network** of experts.

- (e, f) Organize pitch nights, matchmaking events and demo days to **introduce investors to the most promising opportunities**.

- (f) Host **networking events, education forums and seminars** featuring experienced investors offering best practices to newer and prospective investors.
SNAPSHOT: Risk capital is extremely limited in NWPA, particularly as related to early stage and startup funding sources. This is due in large part to low deal flow in the region (see Culture) and pervasive aversion to risk, which leads institutional and individual investors to focus on existing businesses and later stage opportunities. Few institutions offer funding for high growth startups based on speculative returns. Other funders, including the economic development community, base funding decisions on historical financial data or asset-based lending. There is only one local professionally managed angel group and they’ve historically invested outside the region in high growth startups. Other local angel investors are investing inside the region with no formal mechanism to connect to entrepreneurs. There is no documented venture capital activity in the region.

• (a, b, e) **Tolerance for risk is extremely low**; there are no funds or programs specifically for Imagining Phase opportunities including micro granting funds, micro-lending, Kickstarter campaigns, business plan competition awards, etc. There is no prioritization of investment in local deals.

• (a, d) **State and local grant opportunities are limited**, as entrepreneurship is not a focus for local foundations and the State prioritizes support of existing small businesses. Also, NWPA companies have secured only four federal SBIR awards since 2008.

• (a, b) **Funding sources for Imagining, Incubating and early Demonstrating stage deals are extremely limited**; Ben Franklin and ECGRA are the two main Sources of Risk Capital for early stage tech and high growth startup opportunities. BlueTree, the existing angel group, has not invested in any of the region’s opportunities as local deals have not met Blue Tree’s criteria which are based on national standards for angel investment.

• (a) **Loan programs offered by economic development-focused Resource Providers are abundant**, often duplicative and serve established businesses (Market Entry or Growth and Sustainability Phase); they provide very limited if any risk capital to startups with more speculative return prospects (Imagining, Incubating and early Demonstrating Phase).
Capabilities Assessment:
7. Sources of Risk Capital

NWPA Current State

SNAPSHOT: Risk capital is extremely limited in NWPA, particularly as related to early stage and startup funding sources. This is due in large part to low deal flow in the region (see Culture) and pervasive aversion to risk, which leads institutional and individual investors to focus on existing businesses and later stage opportunities. Few institutions offer funding for high growth startups based on speculative returns. Other funders, including the economic development community, base funding decisions on historical financial data or asset-based lending. There is only one local professionally managed angel group and they’ve historically invested outside the region in high growth startups. Other local angel investors are investing inside the region with no formal mechanism to connect to entrepreneurs. There is no documented venture capital activity in the region.

• (a) From 2008 to 2012, there were just two venture capital investments made in the region totaling $1,070,000 (see NWPA Venture Capital Investments data in the Appendix); there were no venture investments made from 2003-2008
• (c, d) Ben Franklin is one of the only entities specifically designed to provide expert assistance to early stage high growth startups seeking risk capital
• (e) There are few organized opportunities for entrepreneurs to engage with risk capital providers; those with early stage opportunities outside the Ben Franklin model have few options and generally rely on personal relationships to get risk capital from individual investors on a one-off basis
• (a, b, e, f) Aside from BlueTree member meetings, there are no organized forums for investors to learn about investing, network with each other or discuss their experiences with new potential investors

INTERVIEWS:
• Entrepreneurs: (a) Need seed funding for startups; (a) No growth capital in the $1-5M range; (a, b) Access to capital is a persistent problem for entrepreneurs; (b) I had a personal guarantee and it was still very difficult to get a loan; (b) the City has been burned on a couple of ideas that didn’t work and has gone very conservative; (b) We would like to see improved acceptance of risk taking
• Resource Providers: (a, b) Need follow-on capital that’s accessible—usually good opportunities are funded from outside the region and then the company leaves; (a, b, e) Not a lot going on with SBA banking now; no one’s leading it in the region; (a, b) The economic development organizations are led by realtors and bankers and have a low tolerance for risk
Capabilities Assessment:
7. Sources of Risk Capital

NWPA Program Recommendations

PHASE 1 in bold:

• (a, b, e, f) Start an investors group or fund to engage investors in the defined geography; request State match dollars or other incentives to encourage earlier stage investments

• (a, b, e) Request that local foundations, ECGRA, and traditional funders donate philanthropic dollars as matching funds to encourage investors to consider earlier stage opportunities

• (a, b, e, f) Establish micro grant funds to encourage risk taking and allow for investment in early phase opportunities on a trial basis

• (a, c, d, e) Schedule opportunities for local startup entrepreneurs to pitch to local investors on a regular basis for constructive feedback

• (b, f) Host networking events, education forums and seminars featuring experienced investors offering best practices to newer and prospective investors

• (c) Promote available grant opportunities to entrepreneurs through the existing resource providers and provide assistance with grant applications (SBIR awareness and support on applying for grants, etc.)

• (c, d) Map the institutions and organizations providing expert assistance and risk capital (Inventory of Ecosystem Assets); provide information to Resource and Risk Capital Providers to encourage referrals

• (e, f) Organize pitch nights, matchmaking events and demo days to introduce investors to the most promising opportunities in the region

• See Culture for recommendations on how to increase deal flow

METRICS

• Number of **match dollars allocated**

• Number of risk funds, **dollars invested** and opportunities receiving funding

• Follow on investments received

• Number of **entrepreneurs** that pitch or receive investment post-pitch

• Number of **deals that get investment** from sources of risk capital on an annual basis; dollars invested

• Number of **quality deals that do not get investment** on an annual basis because there is not an appropriate resource in the region

• Number of SBIR/STTR applications **filed; grants received**

• **Amount invested** in companies at each stage of commercialization per year by industry by location

• Amount of money available for investment in the region through institutional investment **sources**

• **Number of participants** in the investor groups and in attendance at events
## Capabilities Assessment: 8. Idea Creators

<table>
<thead>
<tr>
<th>Description</th>
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<tbody>
<tr>
<td><strong>DEFINITION</strong></td>
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<tr>
<td>Sources of intellectual property or ideas with commercial potential from research centers, universities or entrepreneurs.</td>
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<tr>
<td>Sources include:</td>
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<tr>
<td>• Centers of Research &amp; Innovation</td>
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<tr>
<td>• Higher Education Research Institutions</td>
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<tr>
<td>• Entrepreneurs</td>
</tr>
<tr>
<td>• Private Industry</td>
</tr>
<tr>
<td>• Research Hospitals</td>
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</table>

| **LEADING PRACTICES** |
| • (a) **Specialize in licensing and/or commercializing promising research** from universities |
| • (b) Develop program(s) to **encourage spinout of corporate research** and development |
| • (c) **Develop trusted relationships** between university research faculty, industry partners and entrepreneurs to develop relevant technologies |
| • (d) Promote **notable commercial wins**, success stories and grant opportunities |
| • (e) **Support idea creation activities** across the ecosystem (see Educational Opportunities, Culture and Stories & Storytellers) |

| **ACTIVITIES, TOOLS & EVENTS** |
| • (a, b, c, d) Share commercial opportunities with successful **entrepreneurs ready for their next startup** |
| • (a, b, d, e) **Socialize success stories** and activities in research commercialization |
| • (a, c, d, e) Establish favorable policies and **incentives for faculty** to conduct applied research for technology licensing and commercialization |
| • (a) Fund and model **tech licensing/commercialization programs** at colleges/universities using examples from prominent research institutions |
| • (b, c) Develop a **database/inventory of commercial opportunities** |
NWPA Current State

**SNAPSHOT:** Idea Creators are not well-leveraged by the region’s entrepreneurial ecosystem to commercialize technology and spin out startups. Some of the region’s colleges and universities conduct some applied research. Private businesses do not typically spin out pilot products into new companies. Efforts to develop the region’s entrepreneurial Culture and enhance Student Entrepreneurship Programs could increase the number and productivity of Idea Creators and the number of new companies.

- (a, b) There are several colleges/universities, but **applied research activities are limited** and faculty is not incentivized to generate new technologies (encouraging signs are that leadership at Penn State Behrend is developing more opportunities and incentives for applied research by changing its intellectual property policy; Mercyhurst Center for Intelligence Research, Analysis and Training engages students in applied research projects)
- (a, e) Minimal patent activity, SBIR grant awards and R&D funding indicate that **idea creation capability is underdeveloped**
- (c) Private businesses in NWPA **do not play a significant role in the ecosystem by spinning out new technologies** or engaging with entrepreneurs
- (d) Many organizations promote their own successes, but there is **no entity responsible for sharing successes across the entire ecosystem**

- See Culture, Educational Opportunities and Stories & Storytellers for more on entrepreneurs as Idea Creators

**INTERVIEWS:**

- **Educational Opportunities:** (a) Approach has been more focused on getting students to grad school, but not as focused on connecting with industry; (b, e) Universities aren’t encouraging entrepreneurship to faculty or students in a meaningful way; (b) Faculty are largely incentivized through publications rather than community engagements/spinouts

- **Resource Providers:** (a, c) Innovation/entrepreneurship is not a focus of the universities here; (a, c) Graduate schools with research and development are missing here and there are no professionals to help with commercialization—they don’t have that expertise; (b) Someone should be working with GE to spin out their R&D; they have lots of good ideas just sitting on a shelf
Capabilities Assessment: 8. Idea Creators

NWPA Program Recommendations

PHASE 1 in bold:
- (a, b, c) Hold regular meetings for Idea Creators to identify and inventory overlap between industry need and available expertise, share ideas and report progress
- (a, b) Advocate for technology transfer to be an increased focus; explain the financial and faculty talent benefits to the university and share examples of favorable intellectual property policies
- (a, e) Use The Path Forward white paper as a guide to support entrepreneurial and innovation efforts at the universities; serve as support assets to these efforts
- (a) Make state and federal R&D grant opportunities more accessible to university faculty and entrepreneurs; promote grants and aid in the grant writing process
- (a) Research licensing and commercialization programs and applied research incentives at prominent research institutions
- (b, c) Meet with private businesses to educate them on the benefits of encouraging innovation (for the company directly) and spinouts (as future customers)
- (b) Meet with private businesses to inventory any existing pilot products that have commercial potential and share appropriately with entrepreneurs
- (d) Spotlight grant opportunities and applied research and commercialization stories though social media, on-campus publications and traditional media
- (e) Support existing and new idea creation efforts, such as the Erie Collegiate Innovation Showcase, Immersive Learning and Open Labs at Penn State Behrend and Quickstarter to name a few
- See Educational Opportunities, Culture and Stories & Storytellers for recommendations on encouraging individual entrepreneurs to generate ideas

METRICS
- Amount spent annually on applied research
- Baseline and changes in the perception about commercialization opportunities from universities and private companies
- Number of patents issued
- Number of conversations with prominent research universities
- Number of conversations with regional universities regarding enhancements to entrepreneurial support
- Number of federal and state grants accessed now and measure change over time (particularly SBIR grants via sbir.gov)
- Number of ideas with commercial potential in the inventory being developed/deployed
- Number of active efforts underway as a result of The Path Forward white paper

Time to Launch

Capability Impact Potential

 incapacity: High

Low: ~1 Year High: ~5+ Years

Resources (People, Funds)

Small Medium Large
CAPABILITIES SUMMARY
NWPA Capabilities Summary

NWPA Current State

<table>
<thead>
<tr>
<th>Capability</th>
<th>Underdeveloped</th>
<th>Leading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture</td>
<td></td>
<td></td>
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<tr>
<td>Ecosystem Funders</td>
<td></td>
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<tr>
<td>Resource Providers</td>
<td></td>
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<tr>
<td>Educational Opportunities</td>
<td></td>
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<tr>
<td>Stories &amp; Storytellers</td>
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<tr>
<td>Advocates</td>
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<tr>
<td>Sources of Risk Capital</td>
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<tr>
<td>Idea Creators</td>
<td></td>
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</tbody>
</table>
## Capability Impact Map

<table>
<thead>
<tr>
<th>Elements</th>
<th>Program Recommendations</th>
<th>Size of Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Culture</td>
<td>Promote success stories, sponsor/support entrepreneur-led activities, community events and networking opportunities</td>
<td></td>
</tr>
<tr>
<td>(2) Ecosystem Funders</td>
<td>Educate Ecosystem Funders, incentivize network collaboration and organization, make entrepreneurship a funding priority</td>
<td></td>
</tr>
<tr>
<td>(3) Resource Providers</td>
<td>Enhance resources available to entrepreneurs, collaborate to further develop a high quality mentoring program</td>
<td></td>
</tr>
<tr>
<td>(4) Educational Opportunities</td>
<td>Develop programs to educate would-be and first-time entrepreneurs and investors, support student entrepreneurship, business plan competitions</td>
<td></td>
</tr>
<tr>
<td>(5) Stories &amp; Storytellers</td>
<td>Encourage local media to cover entrepreneurial stories/news, amplify successes, create original content, social media</td>
<td></td>
</tr>
<tr>
<td>(6) Advocates</td>
<td>Support and lobby for the needs of entrepreneurs, educate Advocates, identify champions for entrepreneurship, work with Storytellers to promote entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>(7) Sources of Risk Capital</td>
<td>Generate opportunities for entrepreneurs to pitch to investors, establish funds to encourage investing, promote grant opportunities</td>
<td></td>
</tr>
<tr>
<td>(8) Idea Creators</td>
<td>Work with existing companies to commercialize new technologies, promote grant opportunities, inventory commercialization opportunities</td>
<td></td>
</tr>
</tbody>
</table>
See *Recommendations by Capability* in the Appendix for a complete list of Program and Strategic Recommendations.
## Prioritized Strategic Recommendations

<table>
<thead>
<tr>
<th>Strategic Recommendation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(1) Culture Building &amp; Deal Flow Generation</strong></td>
<td>Create excitement about entrepreneurship and build the deal flow pipeline through proactive marketing, events and storytelling</td>
</tr>
<tr>
<td><strong>(2) Regional Entrepreneurial Network</strong></td>
<td>Develop a formal network of resource providers to share deal flow and referrals, and provide higher quality experience to entrepreneurs</td>
</tr>
<tr>
<td><strong>(3) Economic Gardening</strong></td>
<td>Identify existing companies with high growth potential (potential gazelles) and provide strategic analysis and tools to speed their growth</td>
</tr>
<tr>
<td><strong>(4) Enhanced Mentoring Network</strong></td>
<td>Provide access to high-quality mentors through appropriate screening, matching and training</td>
</tr>
<tr>
<td><strong>(5) High Growth Startup Services</strong></td>
<td>Provide mentorship, expert assistance and funding support to high growth startups</td>
</tr>
<tr>
<td><strong>(6) Student Entrepreneurship Programs</strong></td>
<td>Collaborate with colleges and universities to encourage entrepreneurship among young people through clubs, competitions, events, internships, etc.</td>
</tr>
</tbody>
</table>

### Circle Size and Impact
- **Circle size** indicates the potential impact of the recommendation, e.g. Recommendation (1) Culture and Deal Flow Generation is expected to have the greatest impact on the regional ecosystem and could require the smallest amount of resources to have an impact in the short term.

### Resources and Time to Launch
- **Resources** (People, Funds)
  - **Low**: ~1 Year
  - **High**: ~5+ Years

**Note:**

- **Time to Launch**
  - **Low**: ~1 Year
  - **High**: ~5+ Years

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Strategic Recommendations

• The following six slides serve as high level summaries of the six proposed Strategic Recommendations

• Two-page summaries of these Recommendations are provided in the Appendix

• The Strategic Recommendation summaries provided in the Appendix must be further developed into actionable projects
## (1) Culture Building & Deal Flow Generation

### OVERVIEW

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>Create a more vibrant entrepreneurial culture by aggressively promoting entrepreneurial stories, hosting events and coordinating activities that encourage and support entrepreneurship, increase tolerance for risk and generate deal flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOW IT WORKS</td>
<td>Develop a marketing plan that identifies key audiences, messages, channels and timelines for capturing and sharing stories; use online newsletters, an events series, social media and other efforts such as micro grant funds to position entrepreneurship as an exciting opportunity to engage the entire ecosystem</td>
</tr>
<tr>
<td>TARGET AUDIENCE</td>
<td>Entrepreneurship should be positioned as an opportunity for the entire community to support the region’s economic future; messages and events should be tailored to engage key constituencies, including current and future entrepreneurs, investors, students, advocates, minorities and women, to name a few</td>
</tr>
<tr>
<td>COST ESTIMATE</td>
<td>There is a broad range of potential costs associated with marketing and culture-building efforts; the region could expect to invest between $70K-$200K</td>
</tr>
<tr>
<td>IMPACT</td>
<td>Increased excitement about entrepreneurship, greater acceptance of risk, increased deal flow and investment activity, increased optimism and regional pride (particularly among entrepreneurs)</td>
</tr>
<tr>
<td>NEXT STEPS</td>
<td>Review current marketing assets and Stories &amp; Storytellers storytelling and identify an appropriate entity to spearhead the initiative; develop a marketing plan, timeline and list of participating organizations; raise the appropriate funding (see Culture Capability)</td>
</tr>
</tbody>
</table>

See Strategic Recommendations in the Appendix for an extended description.
## (2) Regional Entrepreneurial Network

### OVERVIEW

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>To generate new deal flow and provide more effective support to entrepreneurs by aligning Resource Providers around a common set of regional goals, metrics and language; creates a road map for entrepreneurs wishing to navigate the ecosystem</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOW IT WORKS</td>
<td>Resource Providers agree to collaborate in support of the region’s entrepreneurs; Network participants will share deal flow data, data collection systems and high-cost services (to realize economies of scale); seek feedback from entrepreneurs, refer entrepreneurs to other Network members or outside Resource Providers as appropriate; participants collaborate on funding requests, marketing, outreach and promotional activities to engage and promote entrepreneurs and attract funders</td>
</tr>
<tr>
<td>TARGET AUDIENCE</td>
<td>Key initial participants will include regional Resource Providers, entrepreneurs, storytellers; ideally, the network will eventually link all elements of the ecosystem as shown on the ecosystem map (See NWPA Entrepreneurial Ecosystem Graphic in the Appendix)</td>
</tr>
<tr>
<td>COST ESTIMATE</td>
<td>The region could expect to spend more than $500K to build and fund operations of a complete network; however, the process can be phased to address entrepreneurs’ greatest needs first</td>
</tr>
<tr>
<td>IMPACT</td>
<td>Entrepreneurs are better able to navigate the ecosystem and access the appropriate resource at the right time; Resource Providers are better able to make referrals for entrepreneurs; increased funding to the ecosystem based on demonstrated functionality of the Network; improved perception of NWPA as a region where entrepreneurs are supported and can achieve success</td>
</tr>
<tr>
<td>NEXT STEPS</td>
<td>Select guidelines and incentives for Network participation, develop a marketing plan to attract new deal flow, promote startups and entrepreneurs and publicize entrepreneurial events and news; use the NWPA Entrepreneurial Ecosystem Graphic to design an interactive website that outlines resources available to entrepreneurs by phase of commercialization; raise the appropriate funding</td>
</tr>
</tbody>
</table>

See Strategic Recommendations in the Appendix for an extended description.
(3) Economic Gardening

<table>
<thead>
<tr>
<th>OVERVIEW</th>
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<tbody>
<tr>
<td><strong>PURPOSE</strong></td>
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<tr>
<td><strong>HOW IT WORKS</strong></td>
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<tr>
<td><strong>TARGET AUDIENCE</strong></td>
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See Strategic Recommendations in the Appendix for an extended description
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<th><strong>OVERVIEW</strong></th>
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<td><strong>PURPOSE</strong></td>
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<td><strong>HOW IT WORKS</strong></td>
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<td><strong>IMPACT</strong></td>
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<td><strong>NEXT STEPS</strong></td>
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</table>

See Strategic Recommendations in the Appendix for an extended description.
(5) High Growth Startup Support Services

<table>
<thead>
<tr>
<th>OVERVIEW</th>
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</thead>
<tbody>
<tr>
<td>PURPOSE</td>
<td>To support high growth startups (companies too early in their commercial development to attract investment capital from most angel and institutional investors, but still hold great promise for rapid growth) and accelerate their growth</td>
</tr>
<tr>
<td>HOW IT WORKS</td>
<td>Enhance capabilities that provide immediate support to tech startups; examples of support include: mentorship, funding support and assistance from expert, technology resources (e.g. Ben Franklin TechCelerator is one existing model)</td>
</tr>
<tr>
<td>TARGET AUDIENCE</td>
<td>A small number of tech-based entrepreneurs; potential deal flow from local universities</td>
</tr>
<tr>
<td>COST ESTIMATE</td>
<td>$100-150K per year + in-kind support from partners</td>
</tr>
</tbody>
</table>
| IMPACT | Short term impact is low; startups can take 3-5 years or more to have a substantial financial impact  
Long term impact is high; venture capital investment, high tech employment growth, etc. |
| NEXT STEPS | Work with partners to determine what assets can be utilized to support this initiative; design program structure; raise appropriate funding |

See Strategic Recommendations in the Appendix for an extended description
# (6) Student Entrepreneurship Programs

<table>
<thead>
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<td><strong>HOW IT WORKS</strong></td>
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<td><strong>IMPACT</strong></td>
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<td><strong>NEXT STEPS</strong></td>
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</table>

See Strategic Recommendations in the Appendix for an extended description
Conclusion and Next Steps

- We believe the Strategic Recommendations offer the greatest opportunity to impact NWPA’s entrepreneurial ecosystem over the next 3-5 years.

- Combined, these programs can help NWPA develop its core capabilities and develop an engine for economic sustainability and job creation.

- As a next step, the region should identify the appropriate partners to transform the Strategic Recommendations into actionable plans.
“This program is funded [in part] by the Pennsylvania Department of Community & Economic Development’s *Discovered in PA, Developed in PA* program.”