The Business Model for Sustainable Financing

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Who We Are

• We are a technology-focused organization that strengthens Northeast Ohio's economic vitality by accelerating the pace of innovation in the region.
What Sets Us Apart

- Aligned with Northeast Ohio’s strategic focus on emerging industries, we perform a specific role in the region’s innovation ecosystem.

- We help to grow industries not addressed by any other intermediaries: advanced energy, flexible electronics and water technologies.
Emerging Industry Clusters: Over 16,000 Jobs to NEO by 2020

Advanced Energy Cluster

- Energy Efficiency
  - Solid-State Lighting
  - Non-Fiberglass Insulation
  - Building Efficiency Services
  - 2,700 new jobs by 2020

- Smart Grid
  - Energy Management Systems & Services
  - Smart Meters Software & Communication
  - 1,040 new jobs by 2018

- Energy Storage
  - Lead-Acid Batteries
  - Lithium-Ion Cell Materials
  - Flow Batteries
  - Distributed Energy Storage Systems
  - 2,350 new jobs by 2018

- Fuel Cells
  - Solid Oxide Fuel Cell Systems (SOFC)
  - Proton Exchange Membrane (PEM) Fuel Cell Bipolar Plates
  - Reforming Fuel Production Reactors
  - 1,650 new jobs by 2019

- Waste & Biomass to Energy
  - Thermal Depolymerization
  - Anaerobic Digestion
  - Torrefaction
  - Reforming Fuel Production Reactors
  - 1,820 new jobs by 2018

- Flexible Electronics Cluster
  - Liquid Crystal Films & Devices
  - Complex Flexible Circuits
  - Roll-to-Roll & Automated Manufacturing
  - Functional Films & Materials
  - Biomass
  - 3,020 new jobs by 2018

- Water Technologies Cluster
  - Automation & Control
  - Sorbents
  - Water System Corrosion Protection
  - 3,510 new jobs by 2019

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## The Evolution of NorTech’s “Go Big” Strategy

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| 2010 – Present | Accelerate the Growth of Small & Medium Enterprises (SMEs) within Target Clusters | Project Acceleration              | - One of the first federally funded SBA clusters  
- Project pipeline consists of 56 active projects |
| 2012 – Present | Accelerate SME Growth by Helping Them Target & Engage NEO’s World Class Organizations | Anchor Customer Engagement        | - One of the first federally funded JIAC (Jobs & Innovation Accelerator Challenge) clusters  
- 24 successful engagements and counting |
| 2013 – Present | Help NEO Anchor Companies Solve Emerging Technology Needs by Connecting with Cluster Companies | Technology Scouting                | Client list includes Eaton, Avery Dennison, Lincoln Electric, Steris, Materion, Rockwell Automation, Cleveland Clinic, American Greetings, First Energy... |
| 2014 – Present | Organize world class innovation hubs focused on high-growth or large-scale markets | World Class Supply Chain Development | Identified wearable electronics as the first potential innovation hub then conducted the initial meeting, identified funding opportunities and organized project teams. |
Enhancing NorTech’s Financial Sustainability

• Regional funding environment changed dramatically and support from historic funders reduced;
• Success of cluster work created private benefit for client companies, raising the question of how firms should invest in NorTech’s work;
• Assessment of NorTech’s business model and financial stability strategy provided recommendations for evolving NorTech’s financial model and framed NorTech’s strategy and vision for the future.
NorTech’s Business Model Properties

• Evolution of business model incorporates the following priorities:
• Emphasis on NorTech’s core competencies and value to NEO;
• Continued work on regional cluster development and acceleration;
• Enhanced capacity within NorTech to address opportunities to work strategically to strengthen NEO innovation ecosystem;
• Development of metrics to more fully capture NorTech’s work;
• Focus through RECS to assure that emerging cluster services offered by NorTech partners are more strongly interconnected.
NorTech’s Development Strategy

• Diversify revenue stream through broader engagement with corporations, foundations, state and federal government agencies and other funders; Focus on multiyear commitments when possible;

• Refine strategy from the traditional approach to secure charitable gifts to one in which organizations “invest” in NorTech through financial support or in-kind support;

• Establish an annual contribution as the expectation for cluster members that will grow over time;

• Transition the culture of the NorTech team and board to more explicitly look for and leverage funding opportunities;

• Secure 100% participation from NorTech Board of Directors.
Potential Sources of Revenue
Foundation Grants

Pros

- Free money - Primary advantage of grants is that, unlike loans, they don’t have to be repaid.
- Enhances the prestige of the business that wins the grant, particularly for those given by notable organizations.

Cons

- Difficult to get - Application process requires businesses to spend money and other resources to apply for grants they are unlikely to win.
- Strings attached - Rarely come without conditions; the donor expects grantee to act in the agreed-upon way to secure the funding.
- Uncertain future - Grants may be renewed from year to year in some circumstances, but they can vanish with little notice.
**Pros**

- Increased money to underwrite programs.
- Receipt of public dollars may bring increased credibility to the FBO (Federal Business Opportunity).
- Government funding is sometimes accompanied by free technical assistance (workshops, seminars, or on-site consults).
- May be introduced to a broader network of resources or potential partners.
- May enjoy an increased ability to influence public policy.

**Cons**

- Red tape - paperwork, record-keeping, and potentially cumbersome reports.
- Increased monitoring of program activities. Increased accountability.
- Slow reimbursements.
- It is possible that the receipt of government dollars will displace donations from private sources.
Potential Sources of Revenue
Membership Fees

**Pros**
- Predictable funding stream.
- Fairness issue – all members invested, by definition.
- Simplicity and transparency.
- Could be easily tiered to address member size / growth stage.

**Cons**
- Requires new systems (member recruiting, financial management, etc.) and staffing (0.5 – 1.5 FTE?) to execute successfully.
- Would likely cause a reduction in number of active cluster members.
- Would likely limit NorTech’s ability to engage appropriate partners on project teams.
- Implies a shift in focus: more emphasis on serving member immediate needs and less on leading and driving longer-term regional economic growth.
- May be difficult to generate significant revenues unless a clearly defined set of benefits is made available to all members.
Potential Sources of Revenue

Fee for Service

**Pros**
- Straightforward transactions.
- Transparency.
- Clear exchange of value.
- Can implement for selected activities.
- New systems and staffing requirements likely lower than membership model.

**Cons**
- Places sales function at initiation of engagement; potential to negatively impact position in region as trusted advisor/honest broker.
- More directly integrated into cluster acceleration team operations than other options.
- Would likely limit ability to engage appropriate partners on project teams – success of members may be contingent on involvement of non-member.
- Upfront requirements to establish framework and set pricing structure more complex.

**Possible Implementation**
- Most likely would include a multi-faceted structure, includes specified fees for training classes and other group services, as well as products characterized by clear input requirements and outputs (e.g., market research studies), in addition to hourly rate charges for advisory services.
- Revenue generation not likely to be significant, at least initially.
Potential Sources of Revenue

Equity

**Pros**
- Defers expenditure for company.
- Decouples – to an extent – provision of services from payment.
- Share in longer-term upside of cluster company success.
- Potentially large returns over longer term.
- Administration fairly easy.

**Cons**
- Highly uncertain from perspective of revenue forecasting; revenue dependent on investor exit.
- Longer-term approach – investment by cluster companies occurs after delivery of services, rather than prior (membership model) or at the time of (fee-for-service).
- Getting agreement seems challenging without financial investment in companies.
- Difficult to address dilution of equity in subsequent funding rounds.
- Less applicable / not applicable to companies not at startup stage; needs to be coupled with additional solution(s).

**Possible Implementation**
- Size of equity would need to be determined by value of services provided and length of commitment; not certain what the market would bear.
- Difficult to model revenue stream given need for investor exit to monetize.
Potential Sources of Revenue
Success Fee / Milestone Payment

**Pros**
- Defers expenditure for company.
- Decouples – to an extent – provision of services from payment.
- Clear exchange of value.

**Cons**
- Longer-term approach – investment by cluster companies occurs after delivery of services, rather than prior (membership model) or at the time of (fee-for-service).
- Some impact on position in region as trusted advisor / honest broker (still a fee-for-service, simply delays payment).

**Possible Implementation**
- Requires clear understanding at start of process of milestones and “what success looks like”.
- A standard agreement would likely be difficult to develop; each contract would have unique elements based on company situation.
- Monitoring needed across portfolio.
Potential Sources of Revenue
Voluntary Success-Based Contribution

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- Defers expenditure for company.
- Decouples – to an extent – provision of services from payment.
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**Possible Implementation**
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Entering 2014, NorTech’s evolving financial model included:

- Solicitation of success-based contributions from cluster companies;
- Continued exploration of transaction-based revenues (Fee structure for specific products/services, referral fees from partners, etc.);
- Expanded corporate fundraising (focus on large-company cluster members and leading regional companies);
- Additional in-region and out-of-region foundation proposals;
- Ongoing federal and state engagement.
NorTech Revenue Streams

Diversification of Revenue Streams

2012 Revenue: $3,558,537
- Chambers of Commerce: 13%
- Private & Community Foundations: 25%
- Corporations: 58%
- Government: 6%
- Other: 0%

2013 Revenue: $3,023,070
- Chambers of Commerce: 5%
- Private & Community Foundations: 25%
- Corporations: 59%
- Government: 4%
- Other: 0%

2014 Revenue: $2,458,061
- Chambers of Commerce: 5%
- Private & Community Foundations: 27%
- Corporations: 49%
- Government: 15%
- Other: 4%