

GUIRR – TrUE Alliance Pilot

Innovation Network Based Economic Development

Presented at the National Academies of Sciences, Engineering, and
Medicine – Government-University-Industry Research Roundtable.

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by

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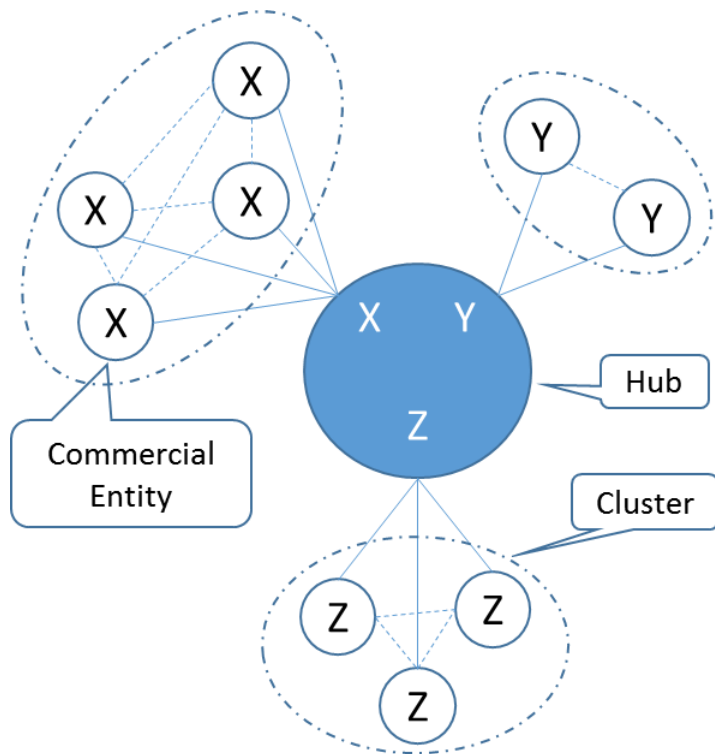
Innovation Business Partners, Inc.
Connecting Minds to Markets™

Quick Background

- Innovation Network Based Economic Development
 - GUIRR workshop 28 February 2017
 - http://sites.nationalacademies.org/PGA/guirr/PGA_177710
- Tri-State University Energy Alliance
 - <https://true-alliance.org/>
- Innovation Genotype™ Analysis
 - <http://www.innovationbp.com>



Collective Intelligence Clusters (CIC)



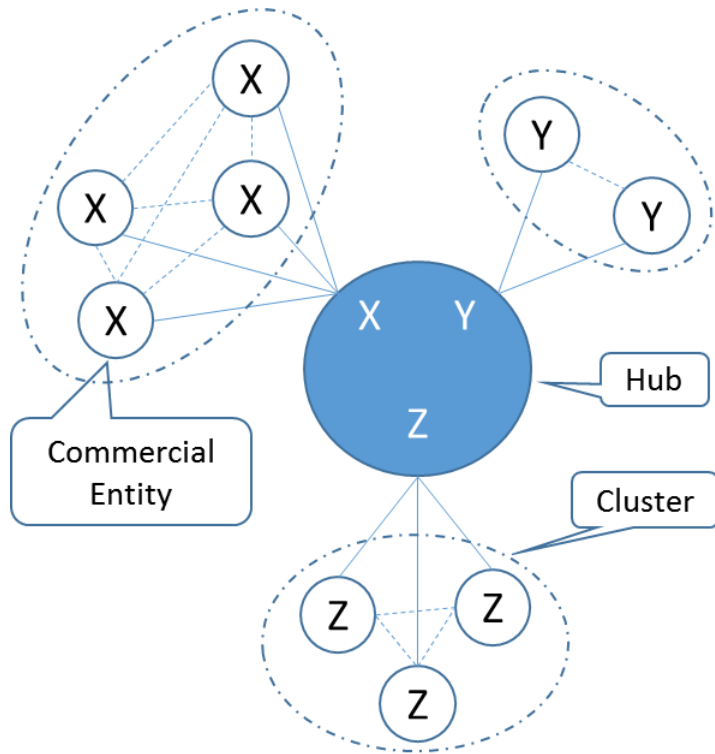
- Connecting inventors based on similarities and innovating based upon differences
- Hub provides neutral ground with expertise in X, Y, and Z
- Informal to formal structure
- From risk pooling to client specific R&D
- Generation and transfer of knowledge and skills

[“SEMATECH and collaborative research: Lessons in the design of high-technology consortia”](#), Grindley et al, September 1994.

[“A Preview of the MIT Production in the Innovation Economy Report”](#), Massachusetts Institute of Technology, February 22, 2013.



TrUE Alliance CIC Potential



- Hub
 - Carnegie Mellon University
 - Case Western Reserve University
 - Pittsburgh University
 - West Virginia University
- Clusters
 - Tri-City Commercial and TrUE ⇒ 69 Technical Domains
 - Ranging from surgery to converting waste into fuel
 - 17 Domains with two or more TrUE Universities
- Commercial Entities
 - 212 Tri-City Companies
 - 88 Cleveland
 - 117 Pittsburgh
 - 7 Morgantown



Innovation Network Based Economic Development Process

- Define the Geographic Region of Interest
- Define the Innovation Genotype™ of Interest
- Build University and Industrial Genotypes
- Identify Technical Domains for Collaborations
- Identify Organizations for Collaboration
- Combinatorial Analysis of University-Industry Invention Pairs to Catalyze Collaboration
- Identify University and Industry Inventors to Convene



Carnegie Mellon INBED Example

- Carnegie Mellon and City of Pittsburgh
- 35 TrUE Energy Related Technical Domains
- Build University and Industrial Genotypes
 - Carnegie Mellon 56 Inventions 35 TrUE Technical Domains
 - Pittsburgh 98 Companies 346 Inventions 52 TrUE Technical Domains
- Identify Technical Domains for Collaborations
 - Carnegie-Pittsburgh Industry 29 Technical Domains
- Identify Organizations for Collaboration (Example)
 - Focus on “Surgery” Resulted in 14 Pittsburgh Companies
- Combinatorial Analysis of University-Industry Invention Pairs to Catalyze Collaboration (Example)
 - Combinatorial Analysis of CardiacAssist, Body Media (Jawbone) and Alcoa
- Identified University and Industry Inventors to Convene



West Virginia University INBED Example

- West Virginia University and the United States
- 20 WVU TrUE Energy Related Technical Domains
- Build University and Industrial Genotypes
 - Most recent 8 months of inventions
 - 678 US Companies 1,283 Inventions 20 True Technical Domains
- Identify Technical Domains for Collaborations (Example)
 - Conversion of Animal Waste into Fuel
- Identify Organizations for Collaboration (Example)
 - KiOR Inc. of Pasadena, TX
- Combinatorial Analysis of University-Industry Invention Pairs to Catalyze Collaboration (Example)
 - Combinatorial Analysis of thermal uniformity + catalyst
- Identified University and Industry Inventors to Convene



Next Steps

- Explore pursuit of a detailed INBED analysis for one or more of the TrUE Alliance university partners
- Explore funding options and business model
- Pursuing with other organizations, cities, states

Q&A

