

A Comparative Analysis of Technology Innovation Centers of Excellence Across the World: Secrets to Success

Dr. Michael J. Dyrenfurth, Purdue University, West Lafayette

Michael J. Dyrenfurth is a Professor of Technology Leadership and Innovation in the College of Technology at Purdue University. He is a member of the ASEE and he has served on the Board of the ETD and as program chair for the CIEC in New Orleans (2008). Previously he completed a four year term as Assistant Dean for Graduate Studies in Purdue University's College of Technology. His scholarship agenda focuses on technological innovation, technological literacy, workforce development, and international dimensions of these fields. Increasingly, he has turned his attention to the field of technological innovation and the assessment of technological capability, understanding and innovation. Internationally he has worked in Germany, South Africa, Poland, the USSR, Saudi Arabia, Canada, Ireland, Scotland, England, France, Czech and Slovak Republics, Finland, the Netherlands, Switzerland, and Taiwan His early experience involved teaching in Alberta and at universities in North Dakota and New Jersey. Immediately before coming to Purdue, he served as graduate coordinator for the Industrial Education and Technology Department at Iowa State University. Previously, for twenty years, he was on the faculty of the University of Missouri's Department of Practical Arts and Vocational Technical Education in various professorial, coordinator and leadership roles. He maintains a consulting practice in the area of third party evaluation, technology futuring and leadership and curriculum development. He received his Ph.D. from Bowling Green State University and his master's and bachelor's degrees at the University of Alberta in Edmonton, Alberta, Canada.

Dr. James L. Barnes, James Madison University

Dr. James L. Barnes is a professor of Integrated Science and Technology at James Madison University (JMU) and co-principal of Barnes Technologies International, LLC (BTILLC). He has over thirty-five years of experience in science and technology fields and has been the independent evaluator for many international programs. Prior to joining the JMU faculty, Dr. Barnes was the Director of NASA RISE, a NASA research institute at Eastern Michigan University and at the technology research center at The University of Texas at Austin. He earned his doctoral degree from Virginia Tech and authored numerous publications in Problem Solving, Sustainability, and Innovation.

Dr. Susan Kubic Barnes

A Comparative Analysis of Technology Innovation Centers of Excellence Across the World: Secrets to Success

Abstract

With increasing pressures for technology-oriented universities and their technology innovation centers to gain an international competitive advantage, these institutions must champion a leadership role for global economic development. Because of the exponential, fractal-like growth of knowledge due to scientific and technological advances, the solving of complex global problems will require a different way of thinking than was used to create them. No longer are solutions typically bound within a single domain, science or technology. Instead, solutions now more frequently require a highly integrated, systems approach across many domains, sciences, or technologies.

Thus, it is necessary for technology innovation centers to create unique niches that differentiate them from other technology-oriented universities focusing on the most significant problems facing our global society. This competitive focus emphasizes the intersection between innovation, technology, production, and the creation and diffusion of knowledge². It embraces how technology and innovation centers shape emerging methodology and environments to maximizing their capability to innovate.

Coupled with this reality, is the pressure for technology-oriented universities to meet the ABET standards for accreditation. Technology innovation and research centers provide an excellent vehicle for providing a value-added component for technology-oriented universities to extend the curriculum experience by providing both undergraduate and graduate students a research experience³ with real-world problems, opportunities and applications.

The authors of this paper present a comparative analysis of technology and innovationoriented centers. To gain an understanding of such centers, the authors focused on recognized centers to examine their mission, goals and objectives, research focus, business model, competitive perspectives, growth anomalies, principles of specialization, and innovation capabilities. Based on this comparative analysis, the authors developed a set of relevant conclusions and recommendations for technology innovation centers. The intent is to support increased attention to and wide application for engineering and technology institutions in their quest to advance technological innovation and economic development.

Introduction & Background

Contemporary pressures¹ on universities in the USA, and perhaps the world, are engendering extensive rethinking of their missions and activities to these ends. Generally the tradition tripartite missions of learning/teaching, research/discovery, and engagement/service remain but what changes is a more strategic deployment of resources and activities towards the effort in each of these missions.

Within the activities addressing innovation, of universities and technology innovation centers, the American psyche seems to encourage such entities champion a leadership role for global economic development. Thus, it is necessary for technology innovation centers to create unique niches that differentiate them from other technology-oriented universities. This competitive focus emphasizes the intersection between innovation, technology, production, and the creation and diffusion of knowledge². It embraces how technology innovation centers shape emerging methodology and environments to maximize their capability to innovate.

Coupled with this reality, is the pressure for technology-oriented universities to meet the ABET standards for accreditation. Technology innovation and research centers provide an excellent vehicle for providing a value-added component for technology-oriented universities to extend the curriculum experience by providing both undergraduate and graduate students a research experience³ with real-world problems, opportunities and applications.

Purpose

The goal of this paper is to make sense of some of the complexity of the current environment pertaining to the innovation imperative in the USA and around the world. Furthermore, as much as possible, the researchers sought to focus on <u>technological</u> innovation. Although the primary concern was with technological innovation in the USA, selected international examples^{4,5} will be employed to further clarify the situation. As such, the researchers sought to understand, with respect to innovation, who is working on what, why, and where. To this end, the research team raised the following research questions:

- 1. What centers are working specifically on the topic of innovation
- 2. What key innovation research and implementation agendas are being pursued pertaining to innovation?
- 3. How can the complexity of the innovation field be made more understandable?

Methodology

The reported study is constituted within the framework of descriptive research, and within that, as an initial exploratory study that is intended to provide a set of concepts and representations that could subsequently serve as the basis for subsequent more hypothesis-driven research. The researchers seek to present a comparative analysis of technology-oriented university centers of excellence. To gain an understanding of secrets to success for technology research centers, the authors focused on technology-related innovation centers to examine their

mission, goals and objectives, research focus, business model, competitive perspectives, growth anomalies, principles of specialization, and innovation capabilities.

The first phase of the methodology employed a review of the literature using conventional tools such as Purdue University's Library Database portal, Google Scholar, Google Web, and Wikipedia. The researchers are certainly aware that some of these sources are not considered scholarly by many academicians but they were explored because practitioners often report their activities in such venues.

The second phase of the research methodology, that of analysis and making sense of the identified sources and their program of work, involved:

- 1. Content analysis of the web sites and selected publications of the identified innovation centers
- 2. Recognizing patterns and conceptualizing an organization for the revealed centers, agencies, activity and agendas.

Delimitations

To gain at least some control of the multiplicity of information pertaining to innovation, the researchers decided to deliberately exclude formal degree or certificate granting programs from this study's scope.

Findings

Simply put, even with the delimitations employed for this study, the researchers identified a multitude of centers and agencies that claim to address innovation. For example, an advanced Google search reported about 3,110,000 results for the specific phrase search for "innovation center" and a similar search of Wikipedia resulted in about 13,200 for innovation center. Google Scholar reported about 16,200 articles (no citations) alone for the period of 2000 – 2013. This confirms the researchers' initial presumption about the complexity of the innovation field. Appendix A visibly highlights the diversity of innovation center activity in the USA and across the world. It contains 113 technology and innovation related centers and even this is clearly only a selective sample. There are many more economic development and entrepreneurship focused centers in the USA. Furthermore, the search of international centers was deliberately restricted to make this initial study manageable. Further evidence of the complexity of the innovation scene is provided by Appendix B to this paper. This presents over 100 acronyms for innovation centers in the USA and across the world.

Content analysis of the identified centers has revealed that universities are not alone in addressing the innovation imperative. The researchers noted that, although a large number of university based centers were identified, corporate-based centers and various state, regional and locality – based centers were also found. Figure 1 illustrates the three primary hosts/authorities that initiate or otherwise provide the environment for technology innovation centers. One useful way of characterizing such centers is the extent/degree to which it involves each of the three

principal hosts. In essence, such centers could be categorized by the Cartesian resolution of the extent of control by or service to each of the three primary hosts.

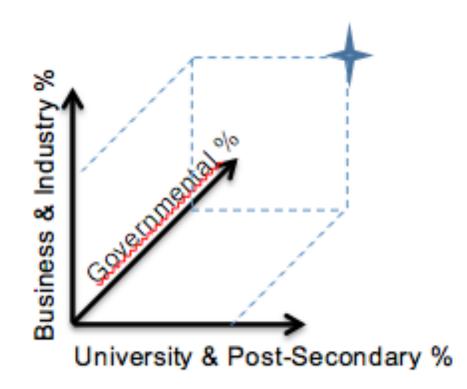


Figure 1. Categorizing a Technology Innovation Center by Focus Proportions

Table 3 presents a summary of another analysis of centers, in this case, by the primary host. It demonstrates that, at least for the centers selected for this study, that universities were only second ranked, as contrasted to corporations, in serving as the primary host for centers of technological innovation. Various governmental entities constitute the third most frequent type of host for such centers. It was notable, however, that a small number of such centers were being hosted by atypical institutions such as museums or even being established as independent centers. Readers should be aware that this latter category, despite being used relatively infrequently, does include as prestigious organizations such as the Smithsonian Institution which houses the Lemelson Center for the Study of Invention and Innovation.

One of the notable findings is the larger than anticipated numbers of different kinds of hosts for the innovation centers that were identified. Not only were universities prominent in such endeavors, but also economic development agencies at state, regional⁶ and local levels,

post-secondary institutions such as community colleges, national and international agencies, but also a surprising number of apparently independent centers and even a few museums.

Host	Number
University	34
Other Post-Secondary Institution	2
Government: National	5
Government: State and/or Regional	8
Government: Local	10
Corporate	41
Miscellaneous, e.g., Museums, Independent	9
International Setting	9

Table 1. Identified Hosts for Innovation Centers

The diversity found among centers for technological innovation is also exemplified by the variety of their foci. Table 2 presents the results of content analysis of the selected centers' foci. While the categorization is admittedly "broad brush" even it demonstrates the wide-ranging variety foci of such centers. Undoubtedly, the most frequently occurring foci are due to the center selection factors that the researchers employed, but even within this the proportions are illustrative. They were Engineering/Technology (15 University, 24 Corporate), Business, Management, Entrepreneurship & Incubator⁷ (15 University, 1 Corporate), and Health, Life Sciences & Pharma (5 University, 8 Corporate).

	Number of University,	Number of
Center Foci	Government & Other	Corporate
	Non-corporate Hosted	Hosted
Engineering/Technology	15	24
Business, Management, Entrepreneurship & Incubator	15	1
Health, Life Sciences & Pharma	5	8
Education & Training	4	
Student	4	
Miscellaneous, e.g., Journalism, Veterans, Museum,	4	
Security		
Food	2	2
Law	1	
Sociology	1	
General (or not specified)	25	3

To better illustrate the diversity of approaches employed across the world, the authors selected a sample of innovation centers to highlight. These came from Germany, Denmark, the USA, China, Singapore, Russia, Iran, and India and which, while certainly not a random sample, never-the-less presents samples from major OECD, BRIC and middle east regions. In addition, care was made to include samples from one of the world's major innovation-focused organizations, namely the Fraunhofer Gessellschaft. Vignettes of each of the samples highlighting their key contributions are provided in Figures 2 to ??.

USA

Fraunhofer Center for Manufacturing Innovation 15 St. Mary's Street, Brookline, MA 02446-8200; Tel: (617) 353 1888 http://www.fhcmi.org/



Figure 2. Fraunhofer USA Center for Manufacturing Innovation

Germany

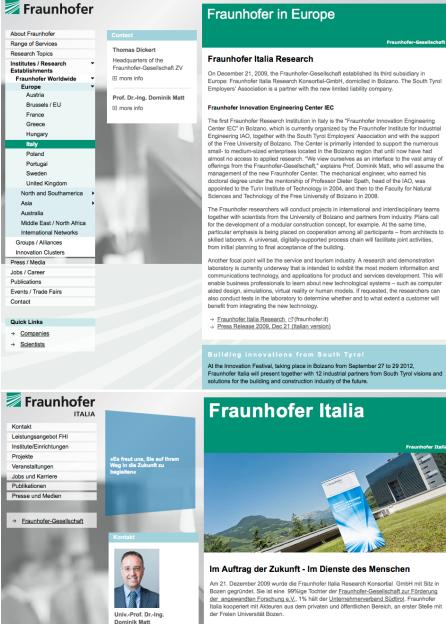
Fraunhofer Institute for Systems and Innovation Research ISI Breslauer Strasse 48, 76139 Karlsruhe, Germany; Phone +49 721 6809-0



Figure 3. Fraunhofer Germany Systems and Innovation Research

Italy

Fraunhofer (Italy) Innovation Engineering Center (IEC) Schlachthofstraße 57, 39100 Bozen, Italy; Phone +39 0471 1966900 www.fraunhofer.it



Wir betreiben anwendungsorientierte Forschung zum direkten Nutzen für Unternehmen und zum Vorteil der Gesellschaft. Unser Hauptaugenmerk liegt dabei vor allem darauf, kleinen und mittelsländischen Unternehmen einen Zugang zur angewandten Forschung zu bieten. Wie die Fraunhofer-Gesellschaft in Deutschland soll die italienische Tochter als Dachorganisation verschliedene Fraunhofer-Einrichtungen betreiben. Wir betrachten uns seibst auch als Schnittstelle zum breitigefächerten Angebot der Fraunhofer-Gesellschaft mit ihren 60 Instituten und über 18.000 wissenschaftlichen Mitarbeitern.

Neue Studie für das Bauen von morgen



Fraunhofer

Trendstudie »Schlanke Prozesse in Baunetzwerken – Studie des Südtiroler Innovationsnetzwerks build4future«

Effizienteres Bauen ist möglich – zumindest wenn es nach den Beschäftigten im Bauwesen geht. Das Forscherteam am Fraunhörte FLC hat über 360 Fachlaute und Arbeitnehmer der Baubranche zu Bewertungen und Einschätzungen des aktuellen Bauwesens befragt. Die Ergebnisse sowie Lösungsansätze werden in der Studie »Schlanke Prozesse in Baunetzwerkenn v präsentiert. Die Publikation ist für 50 Euro bei Fraunhört Italia erhältlich.

Figure 4. Fraunhofer Italy Innovation Engineering Center

Institutsleiter Fraunhofer Innovation Engineering Center IEC mehr Info

<u>Brazil</u>

Fraunhofer (Brazil) Center for Innovations in Food and Bioresources (ITAL)¹² Fraunhofer Institute for Process Engineering and Packaging at ITAL Institut of Foodtechnology, Campinas-SP, Brazil



Figure 5. Fraunhofer Brazil Center for Innovations in Food and Bioresources

Multinational

Fraunhofer (multinational) Innovation Clusters Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V. Postfach 20 07 33, 80007 Munich, Germany; Phone +49 89 1205-0

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Success built on cooperation

Fraunhofer innovation clusters

- → <u>Adaptronic Systems, Darmstadt</u>
 → Automotive Quality Saar AQS, Saarbrücken
- → <u>Automotive Quality Saar AQS, Saarbrucker</u>
 → <u>Bioenergy, Oberhausen</u>
- → <u>Cloud Computing for Logistics, Dortmund</u>
- → Digital Commercial Vehicle Technology, Kaiserslautern
- → Digital Production, Stuttgart
- → Electronics for Sustainable Energy Use, Nürnberg→ Future Urban Security, Freiburg
- → Future Urban Security, Freil
 → Green Photonics, Jena
- → <u>Maintenance, Repair and Overhaul in Energy and Traffic (MRO)</u>
- → Maintenance, repair and overhadrin Energy and Trance in → Mechatronic Machine Systems, Chemnitz
- → Multifunctional Materials and Technologies MultiMaT, Bremen
- → Nano for Production, Dresden
- → Plastics and Plastics Technologies for the Solar Industry, Halle/Leipzig
- → Personal Health, Region Erlangen, Nürnberg, Fürth
- → Secure Identitiy, Berlin / Brandenburg
- Technologies for hybrid lightweight construction KITe hyLITE, Karlsruhe
- → Turbine Production Technologies TurPro, Aachen
- → Virtual Development, Engineering and Training VIDET, Magdeburg

Regional structures with a global effect – the concept of innovation clusters



Linking skills and pooling resources are the right way to meet the challenges posed by globalization and the increasing dynamism of structural change. Knowledge-based industries, in particular, develop very successfully in regional clusters, which facilitate knowledge exchange and generate a critical mass of skills that complement one another. Geographical proximity between research organizations, investors and companies can produce networks that lead to new business ideas and the foundation of new enterprises.

Regional innovation clusters bridge the gap between industry and scientific research. Successful clusters can stimulate the competition on the market, and at the same time create fruitful collaborations which ultimately benefit everyone involved.

Impetus for regional development

A key element of the German government's high-tech strategy is therefore to promote cluster initiatives. In the <u>"Pact for Research and Innovation"</u>, the Fraunhofer-Gesellschaft has assumed the task of conceiving and implementing innovation clusters. Such collaborative ventures set themselves clear goals and define milestones for their development. The purpose of innovation clusters is to pool the strengths of a region and activate them to solve demanding tasks. In addition to industry and universities, the networks include local nonuniversity research institutes that can make important contributions in relevant thematic areas. Through this initiative, the Fraunhofer-Gesellschaft is providing impetus for the further development of regional centers of excellence, and is supporting the regions' skills and expertise. Innovationclusters will primarily serve as an instrument to help develop existing strengths. The collaborations will generally be restricted to within one federal state. Another important factor is how much money the industrial partners and the state are willing to invest in new projects within a region in addition tocurrent expenditure.

Shared objectives lead to fruitful collaborations

Collaboration within the clusters should extend beyond that of a mere communication network. The clusters are built on mutual respect for one another's strengths and are prepared to take on specific tasks in an end-to-end chain from the invention to the final product. It is important to work together towards a shared objective, which can best be achieved through concrete projects. That is why the Fraunhofer innovation clusters are, first and foremost, project clusters. This means that the funds provided are used for particularly attractive projects that can only be implemented within a given network.

The distribution of tasks within each innovation landscape is maintained. While the public establishments create the basis for new products and services, the funds provided by industry are used to implement and market these innovations. This promotes collaboration in the development of concrete products. The positive effects of jointly achieved success onfurther cooperation are invaluable.

Joint, harmonized research and development at Fraunhofer Institutes, universities and in industry not only provides stimulation and helps to forge links within a cluster, but also has a financial leverage effect. Being able to mobilize equal funding from the regions and the industry involved is a prerequisite for setting up an innovation cluster, and ensures commitment on the part of all those concerned.

Figure 6. Fraunhofer Multinational Innovation Clusters

Singapore

SPRING Singapore Centres of Innovation (SPRING Singapore is an agency under the Ministry of Trade and Industry) 1 Fusionopolis Walk, #01-02 South Tower, Solaris, Singapore 138628; Phone +65-6278 6666

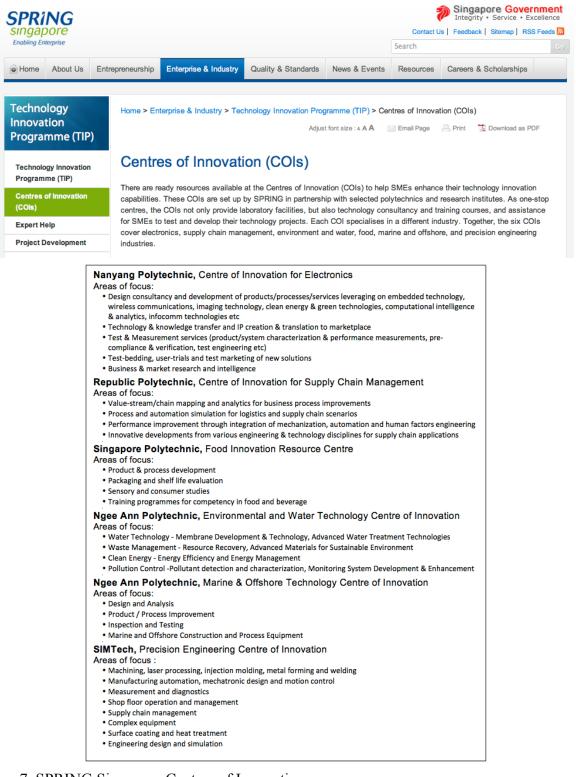


Figure 7. SPRING Singapore Centers of Innovation

Denmark

Innovation Centre Denmark Asiatisk Plads 2, DK-1448 Copenhagen; Phone +45 3392 1116 Mail: icdk@um.dk

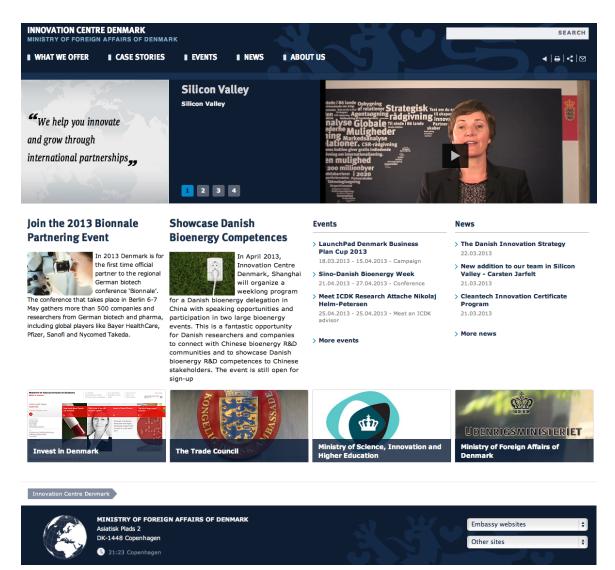


Figure 8. Innovation Centre Denmark

China

Shanghai Technology Innovation Center

100 Qin Zhou Road, Xuhui District, Shanghai, 200235, China; Phone: +86 21 64839007 E-mail: stic@stn.sh.cn Web: www.incubator.sh.cn



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the t/th International Training Workshop on Business Incubation Cultivating Industry Cluster by Innovation & Incubation Octo-23, 201, Shanghai, China



Figure 9. Shanghai Technology Innovation Center

India

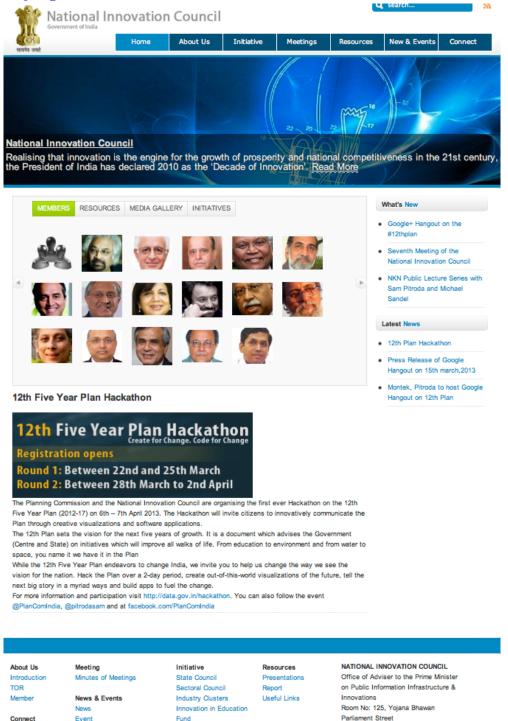
National Innovation Foundation – India Satellite Complex, Premchand Nagar, Jodhpur Tekra, Satellite Ahmedabad 380 015, Gujarat Telephone: +91-79-2673 2456,+91-79-26753501, +91-79-26732095 National Innovation Foundation, India PO Box 15051, Vastrapur Ahmedabad 380 015, Gujarat info @ nifindia.org



Figure 10. National Innovation Foundation - India

National Innovation Council (India)

Office of Adviser to the Prime Minister on Public Information Infrastructure & Innovations Room No: 125, Yojana Bhawan, Parliament Street, New Delhi 110001; Phone: +91 11 23096622 Email: officepiii@nic.in



New Delhi 110001

Ph: +91 11 23096622

Email: officepiii(at)nic(dot)in

Figure 11. National Innovation Council (India)

Media Gallery

Portal

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Russia

Center for Research, Education and Innovation

Skolkovo Institute of Science and Technology, ul. Novaya, d.100, Karakorum Building, 7th floor, Skolkovo 143025 Russian Federation

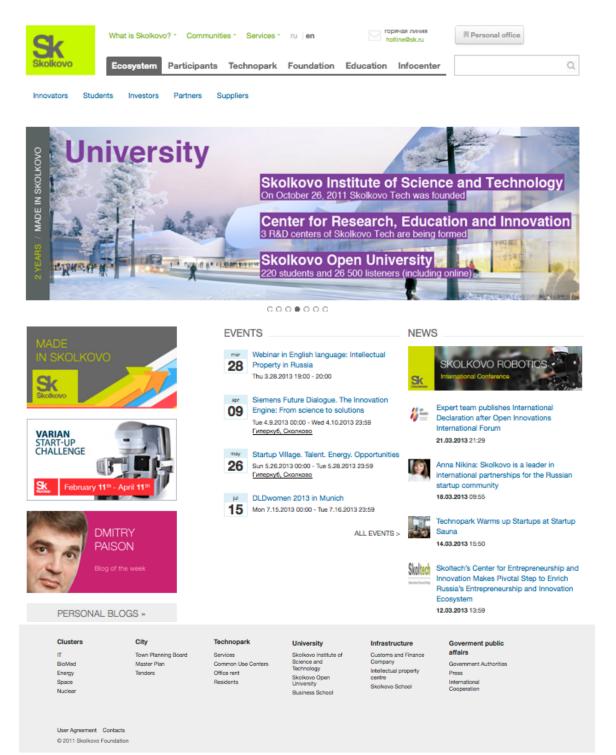


Figure 12. Skolkovo Center for Research, Education and Innovation

<u>Africa</u>

iHub Technology, Innovation, Community

4th floor, Bishop Magua Centre, Ngong Road, Nairobi Kenya. P.O Box 58275, 00200 Nairobi Kenya. Email: info(at)ihub.co.ke



Figure 13. iHub Technology, Innovation, Community

Middle East

Center for Innovation and Technology Cooperation CITC (Caution!) Technology Cooperation Office (TCO) of the Iranian President's Office, Tehran, Iran Phone: (+9821) 44667322-3 URL: www.citc.ir



Figure 14. Center for Innovation and Technology Cooperation CITC

Conclusions and Discussion, and Recommendations

Conclusions

The researchers concluded, on the basis of their initial analysis of this sample of technology and innovation centers that they encompass a tremendous diversity of hosts and foci. It is telling that more centers were found addressing health related innovation, admittedly many

of which involved extensive applications of technology, than centers referring specifically to industrial and/or an explicitly technological focus. Readers should note that not all of the health and life-science focused centers were reported in this paper.

It was also concluded that increasing attention is being paid to innovation as it pertains to engineering and/or technological education⁸. Mostly this attention occurred by industrial and business hosts. A significant exception to this is the exceptionally active Fraunhofer ISI Center's work in Karlsruhe, Germany⁹.

Perhaps one of the most important conclusions of this initial exploratory study is the noting of an absence of other studies with this cross-sectional focus. Relatively few studies analyzing the efforts of multiple centers of innovation, the exceptions was the relatively widespread analyses of university contributors to regional innovation systems, were found. In contrast, most of the identified reports were planning documents for a single center or case studies/descriptions of a single center's activity.

Recommendations

The primary recommendation advanced by the researchers is that more attention be paid to establish centers that focus on the process of innovation. We need to know more about how people go about coming up with an innovation^{5,10,11}. What pattern recognition occurs? How does cognitive science inform us as to innovation processes. How can we evolve a theory of innovation.

Through this presentation the authors present a study that has wide application for all facets of engineering and technology education as an integral component of continuous program improvement.

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Appendices

Appendix A. Sample of identified Innovation Centers

University & Post-Secondary Level Centers - USA

- <u>Center for Global Innovation</u> University of Southern California's Marshall School of Business' Center creates and disseminates cutting edge research on how innovation helps firms compete, growth, and succeed in today's global environment.
- <u>Center for Innovation</u> The University of Maryland, Department of Sociology. The center is dedicated to organizational innovation research and ...
- <u>Center for Innovation and Entrepreneurship</u> University of Washington, Seattle, WA, Learn more about the student-led companies coming out of UW. We have 10 start-ups in the Foster Accelerator. Center for Innovation and Entrepreneurship ...
- <u>Center for Student Innovation</u> Rochester Institute of Technology, A round glass building on a campus of brick cubes, RIT's Center for Student Innovation is a "mixing bowl" where students, faculty, mentors, and partners mix ...
- <u>Center for the Study of Innovation Management</u>, Delaware State University. Successful entrepreneurship innovation requires rigorous process to harvest and manage ... It is a strategic goal of the state of Delaware to strengthen its capacities for ... organizations to assist these in their efforts to incorporate center's study ...
- D.J. Bordini Technological Innovation Center Fox Valley Technical College
- Deshpande Center for Technological Innovation MIT
- <u>Developer's Program: Innovation Center</u> University of North Carolina-Chapel Hill, The Innovation Center, will provide a unique set of resources to accelerate select ...
- <u>Energy and Innovation Center</u> The McCombs School of Business at The University of Texas at Austin established the Energy Management and Innovation Center to serve as ...
- Engineering Education Innovation Center The Ohio State University
- <u>Faculty Innovation Center</u> Loyola Marymount University, The Instructional Technology Group supports the Faculty Innovation Center (The FIC) located in the William H. Hannon Library as well as faculty within each ...
- <u>Food Innovation Center</u> The Ohio State University, The Food Innovation Center at Ohio State University brings together more than 80 faculty members from 13 colleges to collaborate for a healthier, hunger-free ...
- <u>Food Systems Innovation Center</u> University of Kentucky, The Food Systems Innovation Center at the University of Kentucky. Providing technical and business development services to facilitate the profitable production, ...
- <u>Foster Center for Student Innovation</u> University of Maine, The Center was named the Foster Center for Student Innovation following a generous donation from UMaine alums Bion '68 and Dorain Foster, '68H.
- <u>Hammond INnovation Center</u> Purdue University Calumet's Hammond INnovation Center, a technology business incubator, a joint development of the City of Hammond and Purdue University Calumet.
- <u>Innovation Center</u> Clemson University, The Innovation Center was created in 2007 to focus on the needs of rural South Carolina. The center derives its funding from Clemson ...
- <u>Innovation Center</u> Rogers State University, The Innovation Center is charged with fostering economic development and addressing the educational needs of area business and industry.

- <u>Innovation Center</u> The Ohio University *Innovation Center* has been helping entrepreneurs turn their promising ideas into flourishing businesses since 1983. The Innovation Center provides valuable business incubation resources to fuel the economy in Athens, Ohio and surrounding regions
- <u>Innovation Center</u> University of Dayton, Ohio's Innovation Center in the School of Engineering stresses project-based learning through real problems from external clients to create future leaders and problem ...
- <u>Innovation Center</u> Utah Valley University, Innovation in Instruction and Technology leverages exciting educational approaches and new technologies to promote ...
- <u>Innovation Center for Health Quality and Innovation</u> The University of California's Center for Health Quality and Innovation is designed to promote, support and nurture ...
- Innovation Center University of Illinois Chicago,
- <u>Innovation Center</u> University of Missouri-Kansas City, UMKC's Innovation Center is awarded a federal grant that will fund a collaborative 'Proof of Concept" center for the KC region. A Digital Sandbox will ...
- <u>Innovation Center University of Wisconsin Whitewater</u>, The Innovation Center, located in the Whitewater University Technology Park, is rapidly becoming a leading hub of innovation, entrepreneurship and business ...
- John Deere Technological Innovation Center, Urbana-Champaign, IL
- <u>Kennedy Pharmacy Innovation Center</u> University of South Carolina, To promote entrepreneurism and interest in independent community pharmacy ownership the Kennedy Pharmacy Innovation Center (KPIC) has established the ...
- <u>Law Enforcement Innovation Center</u> The University of Tennessee, Provides innovative and technologically based training and technical assistance to law enforcement agencies and communities in the fields of community ...
- <u>Lemelson Center for Invention, Innovation and Entrepreneurship</u> Smithsonian Institution, Mission is: To document, interpret, and disseminate information about invention and innovation; To encourage inventive creativity in young people; To foster an appreciation for the central role of invention and innovation in the history of the United States
- <u>Mack Center for Technological Innovation</u> mackcenter.wharton.upenn.edu/ http://whartonmackcenter.com.
- Medical Innovation Center University of Michigan Medical Center
- <u>Rajiv Gandhi Centre for Innovation and Entrepreneurship</u> Imperial College London, The Rajiv Gandhi Centre Leading innovation in British and Indian companies, was established to help Indian and UK companies improve performance in innovation and entrepreneurship.
- <u>Robert Mehrabian Collaborative Innovation Center</u> Carnegie Mellon University, The vision of the Robert Mehrabian Collaborative Innovation Center (CIC) is to create the optimal environment to serve the next generation of university-industry ...
- <u>The Don Beall Center for Innovation and Entrepreneurship</u> The University of California Irvine ... Activities sponsored by the Beall Center draw upon the local expertise that has ... the business and organizational enterprise, and who are involved in the study of ... most influential approaches to strategic innovation and entrepreneurship will ...
- University of New Mexico Technological Innovation Center
- Van de Kamp International Education & Workforce Los Angeles Community College District, is the district's effort to offer a wide variety of globally-focused effort to offer a wide variety of globally-focused education and career-readiness services. In collaboration with the City of Los Angeles and its Workforce Investment Board / Community Development Department, ...

International

- Innovation Africa Innovation Africa Organization
- Technology Innovation Agency Republic of South Africa
- World Bank
- <u>Center for the Study of Innovation</u> School of Mines, Paris, France. As the leading academic institution in France by virtue of its volume of contractual research, MINES ParisTech contributed to the competitiveness of companies. Via its 5 research departments, the School meets challenges in three main socio-economic sectors: future energy sources and the environment, the harnessing and exploitation of resources and new materials, and innovation methodologies and processes. In anticipation of the needs of industrial players, it has pioneered the creation of company chairs on emerging themes. MINES ParisTech is a founding member of ParisTech, which has brought together 12 of the leading executive engineering and management schools in Paris. Since its creation in 1783, MINES ParisTech has trained high-level engineers capable of solving complex problems in a wide variety of fields.
- <u>Politechnic City of Innovation</u> Polytechnic University of Catalonia, Spain. The CPI: a tool for regional development by an entrepreneurial university and is comprised of a Research groups organization that Creates a technological base with commercializing possibilities; an Organizational mechanism to transfer research results outside the university by means of protected intellectual property; with the capability of creating enterprises in the university, Integrating academy and enterprise elements into new operating units, such as joint research centers
- Fraunhofer ISI Institute of Systems and Innovation Research, Germany. The Fraunhofer Institute for Systems and Innovation Research ISI analyzes the origins and impacts of innovations. We research the short- and long-term developments of innovation processes and the impacts of new technologies and services on society. On this basis, we are able to provide our clients from industry, politics and science with recommendations for action and perspectives for key decisions. Our expertise lies in a broad scientific competence as well as an interdisciplinary and systemic research approach.
- FUCAPI Research and Technological Innovation Center, Brasil www.fucapi.br
- <u>Innovation in science, technology and industry</u> The Organisation for Economic Co-operation and Development (OECD), Paris, France.

Government Centers

- <u>US Department of Commerce</u>, Economic Development Administration, Office of Innovation and Entrepreneurship
- National Institute of Standards and Technology http://www.nist.gov/index.html
- National Science Foundation, Directorate for Engineering, Industrial Innovation and Partnerships (IIP)
- <u>Picatinny Technology Innovation Center</u> www.picinnovation.org/home.html The goal of the Picatinny Technology Innovation Center is to accelerate the successful commercialization of new products by entrepreneurial technology ...
- <u>High Performance Computing Innovation Center</u> Lawrence Livermore National Laboratory hpcinnovationcenter.com/ By providing U.S. industry the opportunity to harness the power of supercomputing, the HPCIC boosts the nation's competitiveness in the global marketplace.

Independent Centers

- <u>Boston Innovation Center</u>: There are lots of ways that the Boston Innovation Center, now being built near the Institute of Contemporary Art, could turn ...
- <u>Cambridge Innovation Center</u> cic.us/ (seems more of a building than a center) Neighboring the MIT campus and steps away from the Red Line in the heart of Kendall Square, Cambridge Innovation Center is the largest flexible office facility ...

- <u>Cary Innovation Center</u> The mission of the Cary Innovation Center is to help entrepreneurs create, launch and operate their businesses by providing professional mentoring and business education programs that maximize the opportunity for success, resulting in incremental economic growth in revenue and jobs.
- <u>Fairfax Innovation Center</u> www.fairfaxinnovationcenter.org/ The Fairfax Innovation Center is a business incubation program designed to help start-up businesses achieve maximum success. We offer everything your firm ...
- <u>Georgia Centers of Innovation</u> Georgia.org www.georgia.org > Home > Business Resources Georgia Centers of Innovation accelerate the growth of technology-based companies and start-ups in Georgia, helping them to create new products and ...
- <u>Germantown Innovation Center</u>, Montgomery County Innovation ... www.mcinnovationnetwork.com/facilitiesandtenants/.../germantown-i... The Germantown Innovation Center is located in the heart of the world-renowned I-270 Technology Corridor. The Center opened its doors October 2008. It is.
- <u>Innovation Center of the Rockies</u>, www.innovationcenteroftherockies.com/ Founded in 2005, the Innovation Center of the Rockies (ICR) is one of America's premier entrepreneurial support organizations. With its highly specialized team ...
- <u>Innovation Center, Corning Museum of Glass</u> www.cmog.org Collection Glass changes the world—see how in our award-winning, state-of-the-art, interactive science and technology exhibit called the Innovation Center. Do It! stations ..
- <u>Innovation Center</u>, innovationtoday.com/ The approximately 9 acres of University Square is a commercial and retail center at the southeast corner of Stevens Drive and University Drive. MORE INFO > ...
- <u>Lowcountry Innovation Center</u> lowcountryinnovationcenter.com/ The Lowcountry Innovation Center was founded to meet the needs of today's knowledge-based companies and their highly-skilled employees. By combining ...
- <u>Magazine Innovation Center</u> www.maginnovation.org/ Last October, the Magazine Innovation Center introduced its annual ACT Experience. ACT stands for Amplify, Clarify and Testify. The Experience lasts for two ...
- <u>McKinstry Innovation Center</u> www.mckinstryinnovationcenter.com/ Innovation is not a final destination; it's a journey as much as a process. The creative act—seeing old problems from a new angle, adjusting to and being open to ...
- <u>Michigan Life Science and Innovation Center</u> www.annarborusa.org/.../michigan-life-science-innovationcenter Designed specifically for life science research and business development, MLSIC Michigan Life Science and Innovation Center (MILSIC) provides crucial ...
- <u>Mid Michigan Innovation Center</u>: Turning Innovation Into Success! www.mmic.us/ Mid Michigan Innovation Center is a private, non-profit organization created to provide entrepreneurs and start-up companies a supportive and collaborative ...
- Northeast Indiana Innovation Center, www.niic.net/ The Innovation Center is a place dedicated to developing ideas and growing business. We believe this can be done by fostering an ...
- <u>Rockville Innovation Center</u>, www.rockvilleredi.org/business/incubator.html located at 155 Gibbs Street in Rockville Town Center (DIRECTIONS) formally opened on June 12, 2007. The RIC provides ...
- <u>Shady Grove Innovation Center</u>, Montgomery County Innovation ... www.mcinnovationnetwork.com/facilitiesandtenants/.../shady-grove-i... Shady Grove Innovation Center (SGIC) is the county's first incubator, in operation since 1999 (formerly the Maryland Technology Development Center). It set the.

<u>Sierra Health Foundation, Nonprofit Innovation Center</u> www.sierrahealth.org, We're proud to present Sierra Health Foundation's Nonprofit Innovation Center, a multitenant, sustainable office and conference space in Sacramento for ...

- <u>Southwest Michigan Innovation Center</u> www.kazoosmic.com/ The Southwest Michigan Innovation Center is a 69,000 square-foot business incubator/accelerator which provides a comprehensive range of support and ...
- <u>Stamford Innovation Center</u> Stamfordicenter.com/ As part of the CT Innovation Ecosystem, the Stamford Innovation Center wants to help your company grow. If you have a startup, please register at CTNext to get ...
- <u>Tampa Bay Innovation Center</u>, www.tbinnovates.com/ Our vision is to serve as the focal point of innovation for the State of Florida and the Tampa Bay region.
- <u>Technology Innovation Center</u> has been dedicated to early stage business growth in technology sectors for 25 years, and has served more than 300 startup companies. Established in 1986 by Northwestern University and the City of Evanston, the TIC is one of the oldest and best-known technology incubators in the United States. Over 25 years, TIC has accumulated an unmatched wealth of experience in entrepreneurial innovation to share with early-stage companies. http://www.theincubator.com/about
- <u>Technology Innovation Center</u>, www.cityofeastlansing.com/tic The Hatch Student Business Accelerator · Important Ordinances (One-Pager Plus) · Legal Assistance · Library · Michigan State University ...
- <u>The Innovation Center</u> www.innovationcenter.com/ The Innovation Center. Our business is new businessTM. For more than a decade, we've been conceiving, launching and marketing new consumer products and ...
- <u>The Innovation Center</u>, Biloxi, Mississippi_www.innovatems.com/ The Innovation Center provides a place to release your ideas and realize your potential. It's an enriching environment where sharing space, business basics and ...
- <u>Veterans' Innovation Center</u>, helping our troops on the homefront future4vets.org/ The VIC focuses on immediate improvements in the quality-of-life for service members and veterans. VIC volunteers work aggressively with leaders throughout ...
- <u>Watervliet Innovation Center</u> www.ceg.org/wic/ The Innovation Center utilizes a depth of business, technology and market expertise to aid the rapid expansion of homeland security, national security and ...

Corporate Centers

- <u>Accenture Innovation Center for Open Source</u> www.accenture.com/.../service-technology-innovationcenter-open-s... Accenture's Innovation Center for Open Source shows how OSS can work in simulated environments.
- <u>AT&T Foundry Innovation Centers to Accelerate Technology</u>, AT&T www.att.com/gen/pressroom?pid=2949 AT&T Foundry innovation centers are the home to technology collaboration, innovative ideas, new apps, and more. Learn more about AT&T Foundry and ...
- <u>AT&T innovation center</u>, The AT&T Innovation Center highlights AT&T's leadership role in developing innovative applications and integrated solutions for businesses and consumers and provides the opportunity to share AT&T's vision of the future impact of technology in an ever-changing global community.
- <u>Battery Innovation Center</u> www.bicindiana.com/, The BIC is a customer-driven single point of access for battery research, development, testing and commercialization.
- <u>CA Technologies Innovation Center at CEWIT</u> CA Technologies www.ca.com/.../Innovation/CA-Technologies-Innovation-Center-at-C... CA is committed to advancing technology research in areas of strategic importance to our company.
- <u>Center for the Study of Innovation and Productivity</u> Federal Reserve ... www.frbsf.org/economics/conferences/0711/agenda.pdfShare, Center for the Study of Innovation and Productivity. Federal Reserve Bank of San Francisco. Recent Trends In Economic Volatility: Sources And ...

- <u>Columbus Regional Hospital, Innovation</u>, CRH Innovation Center www.crh.org > Innovation. The Innovation Center at Columbus Regional Hospital. "The Innovation Center is the place where we create, adapt, and test ideas to deliver smarter healthcare.
- <u>David Druker Center for Health Systems Innovation</u> invents, catalyzes & deploys breakthrough innovations in advancing the health & wellbeing of communities.
- Deloitte Innovation Centers: Research Think Tanks United States www.deloitte.com > Global > United States > Insights, Innovation Centers. Lots of executives talk about innovation, but how does it actually happen? In our experience, innovation results from the convergence of a ...
- Energy Innovation Center, San Diego Gas & Electric www.sdge.com/eic
- <u>Global Cardiovascular Innovation Center</u> in Cleveland, Ohio gcic.org/, The Global Cardiovascular Innovation Center acknowledges the contribution of the State of Ohio Department of Development and the Ohio Third Frontier ...
- <u>HP Innovation Centers, HP</u> www.hp.com/innovationcenters/ HP Innovation Centers focus on creating innovative business breakthroughs and helping business executives to explore and expand their business vision.
- IBM Cognos Innovation Center www.ibm.com/software/data/cognos/innovation-center/
- <u>IBM Centers for Solution Innovation</u> www.ibm.com/services/innovation/, We partner with you to provide true business value. You'll collaborate with a centralized, multidisciplinary team of seasoned professionals who approach ...
- IBM Innovation Centers Worldwide listing
- <u>IBM PartnerWorld</u> IBM Business Partner Innovation Centers www.ibm.com/partnerworld/bpic, Overview of IBM Business Partner Innovation Centers (BPICs). Centers are owned and operated by IBM Premier Business Partners who provide local delivery of ...
- <u>Innovation Center</u> Nottingham Spirk www.nottinghamspirk.com > Vertical Innovation, Research, product design, prototyping, and testing are all conducted at our Innovation Center, ensuring efficiency, confidentiality and IP protection.
- <u>Innovation Center</u> department of ... www.craftsman.com/innovation-center...innovations/dcp-100000000... Learn More... | Craftsman Club; | My Profile. My List · Tools I Own. Get rewarded for shopping. Join now. Exploring the Garage; Innovation Center. Sort Products ...
- <u>Innovation Center for Business Analytics</u> is a forum and resource center that was created to assist organizations seeking innovative concepts, functions and ...
- <u>Innovation Center</u> Humana News www.humana.com/resources/about/news/.../innovation_press_kit.asp... Humana is working to help develop technological advancements that assist Humana members in their pursuit of greater health and lifelong well-being.
- <u>Innovation Center</u>, FHC, Inc www.fh-co.com/innovation-center, Innovation Center. FHC is founded on the tradition of collaboration with our customers, vendors and even competitors. We are humbled to have worked with ...
- <u>Innovation Center</u>, Rehabilitation Hospital of the Pacific rehabhospital.org/professionals/innovationcenter, seek. inspire. advance. a revolutionary concept in patient care. rehab's InnovationCenter (IC) is a dedicated clinical "think tank' and ...
- <u>Innovation Center, AT&T</u> www.corp.att.com/innovationcenter/, The AT&T Innovation Center highlights AT&T's leadership role in developing innovative applications and integrated solutions for businesses and consumers and ...
- <u>Innovation Centers</u> DuPont www2.dupont.com/Innovation_Centers/en_US/ Any customer or partner who visits an Innovation Center gains access, not just to the local innovation team, but to the global DuPont R&D community. Innovation ...

- Johnson & Johnson to open 'innovation centers' in Bay Area, globally www.bizjournals.com/.../johnsonjohnson-innovation-cente... Johnson & Johnson will establish an innovation center in the Bay Area as part of...
- <u>Madison Electric Products</u> :: Sparks Innovation Center meproducts.net/sparks, That legacy of innovation and inventiveness has helped our company grow and is the reason we've established the Sparks Innovation Center. It's a place where ...
- <u>Microsoft Innovation Center</u>
- <u>NanoMaterials Innovation Center</u> www.nanomic.org/ An open access laboratory research facility for technology transfer in inorganic nanomaterials science and microwave processing technology. Prototyping center ...
- PAMF Innovation Center, Systems Innovation for Healthy ... innovation.pamf.org/
- <u>Panasonic 3D Innovation Center</u>, AVC Networks Company ... panasonic.net/avc/3d-innovation/, This page introduces 3D Solution News of solutions provided by Panasonic 3D Innovation Center.
- <u>Pfeil Innovation Center</u> pic.wakeupandsmelltheinnovation.com/ The Pfeil Innovation Center helps leaders of all types of organizations develop Innovation as a core competency. We are currently accepting registrations for the ...
- <u>Qualcomm Innovation Center</u>, Our Businesses and Organizations ... www.qualcomm.com/about/businesses/quicinc Open source and community-driven software development is becoming increasingly important to the wireless industry. As connected consumer products ranging ...
- <u>Samsung Innovation Center</u> www.samsung.com/us/it_solutions/innovation-center/ All the information you need is right here. Explore white papers that share tech and industry insights, and review case studies on the ...
- SDE&G Energy Innovation Center
- <u>Sidney R. Garfield Health Care Innovation Network</u>: xnet.kp.org/innovationcenter/about/index.htm, Center The Garfield Innovation Center is a living laboratory where ideas are tested and solutions are developed in a hands-on, mocked-up ...
- <u>Verizon Innovation Centers</u> innovation.verizon.com/ Our Innovation Centers inspire, enable, and showcase new innovations that tap the power of the Verizon Wireless 4G LTE network—the fastest, most advanced ...
- <u>Wichita Innovation Center Cargill</u> www.cargill.com/company/research...innovation-center/index.jsp The Cargill Innovation Center in Wichita, Kansas is one of the world's most advanced food innovation facilities. The center features research, development, ...
- <u>Wrigley Global Innovation Center</u> www.wrigley.com/global/about-us/global-innovation-center.aspx Wrigley's Global Innovation Center (GIC) was built on the belief that best-in-class Innovation can only be achieved if high-performing associates are brought ...

Appendix B. Acronyms for Centers and Agencies Addressing Innovation

From the acronym geek website:

http://www.acronymgeek.com/reverse/Technological_Innovation_and_Entrepreneurship_Center

- <u>3IE</u>: International Institute for Innovation and Entrepreneurship
- AASIE: Association for Academic and Scientific Innovation and Entrepreneurship
- AASIE: Association for Advanced Studies, Innovation and Entrepreneurship
- <u>ACEI</u>: Australian Centre for Entrepreneurship and Innovation
- ACTI: Advisory Committee on Technological Innovation
- AGCETI: Annual Global Conference on Entrepreneurship & Technology Innovation
- AGISE: Applied Global Innovation & Social Entrepreneurship
- AIE: Academy Innovation and Entrepreneurship
- AIEC: Agribusiness Innovation and Entrepreneurship Center
- <u>AITT</u>: Agency for Innovation and Technological Transfer
- ASEI: Association for Social Entrepreneurship & Innovation
- BCIE: Beall Center for Innovation and Entrepreneurship
- BOSTI: Buffalo Organization for Social and Technological Innovation
- <u>CCEI</u>: Connecticut Center for Entrepreneurship & Innovation
- CCEIS: China Center for Entrepreneurship and Innovation Studies
- CEATI: Centre for Energy Advancement through Technological Innovation
- **<u>CEBI</u>**: Center for Entrepreneurship and Business Innovation
- CEEI: Center for Engineering Entrepreneurship & Innovation
- <u>CEI</u>: Center for Entrepreneurship and Innovation
- <u>CEI</u>: Center of Entrepreneurship & Innovation
- <u>CEI</u>: Center on Entrepreneurship and Innovation
- <u>CEI</u>: Collaborative for Entrepreneurship and Innovation
- CEIM: Centre for Entrepreneurship and Innovation Management
- CEIs: Center for Entrepreneurship and Innovation's
- CERI: Center for Entrepreneurship, Research & Innovation
- CERVIE: Centre of Excellence for Research, Value Innovation and Entrepreneurship
- CGEI: Center for Global Entrepreneurship and Innovation
- CIE: Center for Innovation and Entrepreneurship
- CIE: Center for Innovation Entrepreneurship
- CIE: Center für Innovation & Entrepreneurship
- CIE: Centre of Innovation and Entrepreneurship
- CIEL: Center for Innovation & Entrepreneurship in Lidk
- CIEL: Center for Innovation, Entrepreneurship and Leadership
- CIEL: Copenhagen Innovation and Entrepreneurship Lab
- CIEP: Corporate Innovation and Entrepreneurship Program
- CIIE: Center for Innovation, Incubation, and Entrepreneurship
- CIIE: Centre of Innovation, Incubation and Entrepreneurship
- CISE: Center for Innovation Systems Entrepreneurship
- CISEG: Center for Innovation Systems Entrepreneurship and Growth
- CITE: Center for Innovation and Technology Entrepreneurship
- <u>CITT</u>: Centre of Innovation and Technological Transfer
- <u>CRIE</u>: Center for Research in Innovation and Entrepreneurship
- <u>CTIEM</u>: Center for Technological Innovation and Entrepreneurship Management
- <u>DCTI</u>: Deshpande Center for Technological Innovation
- DTIIS: Development and Technological Innovation Industrial Survey
- <u>E&I</u>: Entrepreneurship and Innovation
- <u>E&IP</u>: Entrepreneurship & Innovation Policy
- <u>ECEI</u>: European Conference on Entrepreneurship and Innovation

- ECI: Entrepreneurship & Corporate Innovation
- ECIC: Entrepreneurship Commercialisation and Innovation Centre
- ECIE: Emirates Center for Innovation & Entrepreneurship
- ECIE: European Conference on Innovation and Entrepreneurship
- EDTI: Economic Development and Technological Innovation
- EI: Entrepreneurship and Innovation
- **<u>EIBIE</u>**: European Institute for Business Innovation and Entrepreneurship
- EIC: Entrepreneurship and Innovation Center
- EIC: Entrepreneurship Innovation Center
- **<u>EII</u>**: Entrepreneurship and Innovation Institute
- EILC: Entrepreneurship & Innovation Learning Community
- **<u>EIP</u>**: Entrepreneurship and Innovation Program
- **<u>EIX</u>**: Entrepreneurship and Innovation Exchange
- ELITE: Entrepreneurship, Leadership, Innovation and Technology in Engineering
- ETI: Economics of Technological Innovation
- **<u>ETI</u>**: Entrepreneurship, Technology and Innovation
- FCEI: Farley Center for Entrepreneurship and Innovation
- FEI: Forum on Entrepreneurship and Innovation
- **FSRTI**: Forum on Scientific Research and Technological Innovation
- FSRTI: Foundation for Scientific Research and Technological Innovation
- GIEI: Global Innovation Entrepreneurship Institute
- HSIEC: Homeland Security Innovation and Entrepreneurship Center
- I.E.I.: Innovation and Entrepreneurship Initiative
- I.E.I.: Innovation and Entrepreneurship Institute
- I.E.I.: Institute for Entrepreneurship and Innovation
- <u>I4IE</u>: Institute for Innovation & Entrepreneurship
- I4IE: Institute for Innovation and Entrepreneurship
- <u>IAE</u>: Innovation and Entrepreneurship
- IATI: Integrated Approach to Technological Innovation
- ICE: Innovation, Creativity, and Entrepreneurship
- ICEI: Interdisciplinary Centre for Entrepreneurship and Innovation
- ICEIRD: International Conference for Entrepreneurship, Innovation and Regional Development
- ICIE: International Center for Innovation & Entrepreneurship
- ICIE: International Conference on Innovation and Entrepreneurship
- IDEA: Innovation, Design and Entrepreneurship Alliance
- IDEA: Innovation, Design, Entrepreneurship, and Arts
- IEC: Innovation and Entrepreneurship Center
- IEDC: Innovation & Entrepreneurship Development Centre
- **IEDC**: Innovation and Entrepreneurship Development Cell
- IEDC: Innovation and Entrepreneurship Development Centre
- <u>IEI</u>: Innovation & Entrepreneurship Institute
- **IEI**: Institute for Entrepreneurship and Innovation
- IEIG: Institute for Entrepreneurship Innovation and Growth
- IICIES: Indonesia International Conference on Innovation, Entrepreneurship, & Small
- IIE: Institute for Innovation and Entrepreneurship
- IIE: Institute of Innovation and Entrepreneurship
- **IIEM**: Industrial Innovation, Entrepreneurship and Management
- IMETI: International Multi-Conference on Engineering and Technological Innovation
- IREI: International Roundtable on Entrepreneurship and Innovation
- ISEMI: Institute for the Study of Entrepreneurship and Management of Innovation
- ITC: Innovation and Technological Center
- ITI: Institute for Technological Innovation

- <u>JCEI</u>: Johnson Center for Entrepreneurship and Innovation
- JCEMSI: Johnson Center for Entrepreneurship & Medical Science Innovation
- JCIE: Joint Centre of Innovation and Entrepreneurship
- LCIIE: Lemelson Center for Invention, Innovation and Entrepreneurship
- MCIIE: Malaviya Centre for Innovation, Incubation and Entrepreneurship
- MCTI: Mack Center for Technological Innovation
- MDIE: Medical Device Innovation and Entrepreneurship
- MIIE: Michigan Initiative for Innovation and Entrepreneurship
- NACIE: National Advisory Council on Innovation and Entrepreneurship
- NCIIE: National Centre for Innovation Incubation and Entrepreneurship
- NCIIE: North Carolina Initiative for Innovation and Entrepreneurship
- NCTI: National Centre for Technological Innovation
- NIE: Network for Innovation and Entrepreneurship
- OSTI: Organization for Social and Technological Innovation
- **PFCIE**: Path Forward Center for Innovation and Entrepreneurship
- <u>R&TIA</u>: Research and Technological Innovation Agency
- <u>RCIE</u>: Research Center of Innovation and Entrepreneurship
- **<u>RICIE</u>**: Rhode Island Center for Innovation and Entrepreneurship
- RTIC: Research and Technological Innovation Center
- <u>RTIF</u>: Research and Technological Innovation Fund
- SATI: State Agency for Technological Innovation
- SEIA: Sustainable Entrepreneurship & Innovation Alliance
- SELIG: Strategic Entrepreneurship and Leadership for Innovation Group
- SETI: Society for Entrepreneurship and Technological Innovation
- SETI: Society for Entrepreneurship, Technology and Innovation
- SIE: Society for Innovation and Entrepreneurship
- SIIE: Strascheg Institute for Innovation and Entrepreneurship
- SSMIE: Society for Strategic Management, Innovation and Entrepreneurship
- <u>TECH</u>: Technology and Entrepreneurship Center at Harvard
- TEIC: Technology Entrepreneurship and Innovation Center
- TIA: Technological Innovation Agency
- TIEC: Technological Innovation and Entrepreneurship Center
- TIEL: Technology Innovation and Entrepreneurship Labs
- TIWG: Technological Innovation Working Group
- UCIE: University Center for Innovation and Entrepreneurship
- VCEI: Virtual Center for Entrepreneurship and Innovation
- WCEI: Wageningen Center for Entrepreneurship and Innovation
- WSIE: World Summit for Innovation and Entrepreneurship
- WSIE: World Summit on Innovation and Entrepreneurship
- XCEEI: Xerox Centre for Engineering Entrepreneurship and Innovation