Hartford/East Hartford Innovation Places Projects

Following is a summary of projects approved for funding:

**Hartford InsurTech Hub**
The InsurTech Hub will have two programmatic components, a technology-focused accelerator and innovation pilot partnerships in which startups partner with insurance anchors to pilot products. The two programs in this initiative will aim to both increase innovation activity within anchor corporations and attract and retain Hartford talent. The InsurTech Hub will also grow Hartford’s local talent pool, retaining graduating students, attracting new talent to Hartford, and equipping students and workers with skills to help anchors and new ventures succeed. Ultimately, the InsurTech Hub will improve the market position and valuation of anchor companies and new InsurTech companies, creating jobs and increasing the revenue and tax base for Hartford.

**Hartford MedTech Innovation District**
The healthcare sector is ripe for innovation and the development of disruptive technologies to achieve the Triple Aim. The MedTech Innovation District initiative will create a healthcare incubator/accelerator that will attract and support entrepreneurs by linking them with stakeholders including clinical providers, academics, government and other regulatory bodies, and corporate and risk capital sources, to support the development of minimum viable products and commercialization. Creating a formal infrastructure in which each institution applies its relevant resources and assets in a coordinated manner will create synergies to meet the goals of the Innovation Places program.

**Next Generation Technology & Talent in Aerospace & Advanced Manufacturing:**
A set of activities designed to increase access to R&D resources for aerospace and advanced manufacturing firms, while simultaneously strengthening the pipeline of talent needed to support growth in these industries. The Aerospace and Advanced Manufacturing Initiative will focus on (1) helping manufacturing firms experiment with new ways to use advances in technology and automation capabilities to increase their efficiency and accuracy of production and decrease costs in order to hold position in an increasingly-competitive marketplace and (2) raising awareness of the career opportunities available in the local aerospace supply chain for local high school students.

**Placemaking**
Activities designed to strengthen retail businesses in under-developed areas of Hartford, adding to the city's reputation as an attractive work/live/play environment for top talent.

**Social Capabilities**
Hartford and East Hartford’s existing assets are often disconnected and difficult to identify, leading to frustration and isolation. This issue was particularly pronounced for entrepreneurs, students, and those in need of sector-specific resources. Rather than build assets from scratch, Hartford and East Hartford will work to develop the social capabilities necessary to link existing communities and strengths, and ensure that the city’s resources and advantages are utilized and recognized.

CTNext FY18 Grant Award: $2,000,000
Hartford/East Hartford Cash Leverage: 2,958,540
Hartford/East Hartford In-Kind Contributions: $747,210
DISCLAIMER: THIS IS THE FULL AND ORIGINAL STRATEGIC PLAN. NOT ALL PROJECTS PROPOSED WITHIN THIS PLAN HAVE BEEN APPROVED OR FUNDED. REFER TO PROJECT SUMMARY ABOVE FOR LIST OF APPROVED PROJECTS.

Hartford/East Hartford
Innovation Places Strategic Plan

April 1, 2017
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Overview: Immediate and Emergent Conditions

Three overarching immediate and emergent conditions have shaped the Hartford/East Hartford Innovation Places Program design. The first is the jobs crisis in Hartford — exacerbated by the lack of a formal economic development strategy — which led the team to analysis and strategy creation, targeting Hartford’s key economic sectors. The second condition is the strength of Hartford as a mid-size city possessing many existing assets of an Innovation Place. With this recognition, the team’s place-making and networking strategies largely focused on enhancing and connecting existing communities and assets rather than imposing new identities and boundaries. Finally, the Innovation Places process assembled over 100 stakeholders, from neighborhood residents to early-stage entrepreneurs to C-suite leaders. The momentum, networks, and trust created by this process led to the selection of a diverse array of Innovation Places initiatives and strategies that will benefit stakeholders doing business in both Hartford and East Hartford.

Hartford’s Jobs Crisis

The City of Hartford lacks not only a formal economic development strategy or direction, but even a sense among relevant stakeholders as to the direction the city can or should take. Job trend numbers for the city reflect this and other weaknesses: between 2004-2014, the city lost jobs at four times the rate of the State of Connecticut (-13.4% versus -3.4%), bucking national job growth performance (+5.2%), as well as the jobs resurgence experienced in many cities across the United States. East Hartford fared no better, losing 18% of its job base in that period. It is not hyperbolic to conclude that there is a jobs crisis in Hartford and East Hartford and that, until solved, it will be difficult to make lasting improvements in the city’s fiscal and social challenges. It is imperative that the development of a robust innovation ecosystem be designed to address the short-term need for jobs as well as the longer-term development of innovation assets and opportunities.

Strong Existing Innovation Assets

The second set of observations regards the fact that unlike many of the other Innovation Places participants, Hartford is a mid-sized city with many of the elements of an innovation geography already in place. For example, Hartford has 35 institutions that would meet the Innovation Places definition of an anchor; mixed use zoning is the norm, not the exception; and the density of activity (employment and population) sets Hartford apart from most other areas in Connecticut. The city’s average employment density (6,600 jobs per mile) is 7.1 times greater than the average of the other eleven Innovation Places cities and towns, and its population density is 3.9 times greater. In short, the types of conditions that the Innovation Places process intends to create across Connecticut already exist in many areas in Hartford. Hartford and East Hartford also have a number of well-defined economic clusters with distinct identities and strengths, including healthcare, aerospace and insurance.

Hartford and East Hartford are not competing against the rest of the Connecticut, but in national and global markets for talent and investment. As such, the Innovation Places process must work to strengthen Hartford’s natural innovation nodes, while supporting promising initiatives to improve overall economic vitality and quality of life. Recognizing that a city as large and diverse as Hartford needs to have multiple neighborhoods with strong identities, the strategies presented here build on existing strengths while avoiding the imposition of new boundaries or identities under the rubric of the Innovation Places framework.

Building from Planning Momentum

The third observation is that the Innovation Places conditions analysis and engagement process should serve as a first step in a much longer process of building a sustainable and equitable vision for the Hartford economy. Assembling the number and breadth of stakeholders represented on the Innovation Places Planning Team was a unique effort that represents a tangible step towards coordinated vision, action and contribution. As such, the Planning Team determined that it was critical that the networks, commitments, and goodwill generated during the development of this plan be enhanced rather than undermined by the strategy selection.
The economic and networking investments proposed will be complemented by place-based initiatives that will improve the quality of life for existing and new residents, workers, and visitors. This combination of strategies will spark new innovation activity in traditional and emerging clusters and reverse the perception of Hartford as a city in decline, while ensuring that the benefits of innovation are distributed broadly across current and future residents and workers.

**Strategic Opportunities and Risks: Economic**

The lack of a formal economic development strategy in Hartford has almost certainly contributed to the jobs crisis in Hartford and East Hartford. The Planning Team, while of course unable to develop a full regional economic development strategy, made use of the planning process to identify Hartford and East Hartford’s strongest economic clusters and track their recent performance, to map the key stakeholders and SORs within each cluster, and to create initiatives to strengthen these clusters in Hartford and East Hartford. Three priority clusters were selected for their existing concentration, high employment, and strength nationally and within the state. These clusters were also considered for their compatibility with Innovation Places criteria (e.g. conducive to innovation and commercialization activity and compatible with dense, mixed-use environments). In addition, the team identified emerging clusters for future mapping and development. The three Innovation Places priority clusters are insurance, healthcare, and aerospace/advanced manufacturing. Each has cluster-specific opportunities and challenges that are discussed below.

**Cluster-Specific Opportunities & Challenges: Insurance**

Hartford is famous for its concentration of insurance anchors; our city has the fifth strongest insurance cluster in the nation, and the insurance industry employs almost 36,000 workers. However, Hartford’s historic strength in insurance is under threat. The insurance industry in Hartford has not significantly invested in creating local capabilities to lead (rather than just manage) the development of the new digital technologies that are certain to radically transform the industry. For the most part, the city’s insurance companies remain isolated and internally-facing. This failure to lead is reflected in the cluster’s performance: for the last decade for which there are data (2004-2014), Hartford’s insurance cluster lost almost 20,000 jobs — far more than changes in national employment would predict.

Hartford’s anchor corporations realize that they must innovate in order to maintain their market position. However, rather than partner and invest locally, our insurance companies have sourced innovations, partnerships, and talent from outside of Connecticut. For example, The Hartford sponsors an accelerator in San Francisco and Travelers partners with West Virginia University instead of local universities. Hartford’s insurance corporations are primarily engaged with the community through philanthropy, perceiving a weak entrepreneurial community in Hartford, and experiencing difficulty identifying talent.

Opportunities exist to strengthen insurance industry innovation and commercialization within Hartford. The Innovation Places process has already begun to strengthen the industry’s networks, with conversations linking insurance anchors to one another, existing talent pools, and the city’s entrepreneurial community. The city’s insurance anchors also have the opportunity to develop a home-grown cluster of insurance entrepreneurship activity and talent that could directly serve their needs.

**Cluster-Specific Opportunities & Challenges: Healthcare**

Healthcare is one of the most significant growth sectors for the State of Connecticut in generation of employment and revenue. The Hartford region, with its hospitals, colleges, and universities, boasts many emerging and startup companies related to the healthcare industry. However, the road to healthcare commercialization is long and expensive (involving extensive research, proof of concept, regulatory approval, and commercialization), with a high rate of failure. Due to tightened HIPAA regulations, it is increasingly difficult
for entrepreneurs to complete proof of concept testing with patients – and investors are increasingly demanding proof of concept before funding activity leading up to successful commercialization. Emerging and start-up healthcare companies and entrepreneurs also often lack ready access and working relationships with the target audience for their solutions (healthcare professionals, patient populations, payers, and organizations throughout the continuum of care). Accessing simulated and actual clinical environments and clinical expertise for product research and development (R&D), human factors studies, and beta testing is a costly and time consuming challenge that becomes prohibitive.

As a result, the “valley of death” in the healthcare community is widening, with many innovations never moving past the ideation or prototyping stages. These challenges are exacerbated in regions like Hartford, which have little in the way of local venture and angel funding. If Hartford is able to offer resources to help ventures cross this “valley,” attracting and developing successful innovative healthcare companies has the potential to create jobs that are accessible to community members through specialized training programs and able to entice college and university graduates to remain in or relocate to Hartford. Doing this successfully in a mid-sized region will require hyper-focus on a handful of world-class innovation assets that are already in place.

In many ways, Hartford’s healthcare institutions and college/university anchors are uniquely positioned to help entrepreneurs cross this “valley of death” and commercialize new products and ideas - and also to attract and develop local talent. The Trinity/Hartford Hospital impact area is home to premier healthcare and academic institutions, including Trinity College, Hartford HealthCare and Hartford Hospital, including the Center for Simulation, Education and Innovation (CESI), and the Connecticut Children’s Medical Center, both of which possess a strong track record of innovation, excellence, and community outreach and engagement. Detailed descriptions of these anchors and their strengths can be found in the “Hartford MedTech Innovation District” initiative below.

Cluster-Specific Opportunities + Challenges: Aerospace/Adv. Manufacturing
Two major trends currently impact the Hartford region’s aerospace/advanced manufacturing industry. First, the industry is expanding to meet commercial demand, creating increased need for workers and suppliers. Second, OEMs are increasingly outsourcing production to their supply chains, placing enormous pressure on suppliers to innovate and increase production. These trends create a need to develop talent for the industry as well as develop supplier capabilities.

Talent pipeline development is the first SOR faced by the aerospace and advanced manufacturing industry in Hartford and East Hartford. Growing commercial demand, increased outsourcing, and high retirement numbers have created extraordinary worker demand – and employers are struggling to find the skilled workforce needed to keep up. On the supply side, the sector struggles with decreased student interest in pursuing careers in manufacturing/aerospace, due partially to misunderstood career advancement opportunities in the sector.

Increased outsourcing in the aerospace/advanced manufacturing industry and decreasing prices demand unprecedented supplier growth and innovation – but most suppliers are wary of investing in expensive and risky new technologies. Suppliers also often require support in scaling operations to meet increased demand, and many lack the technological capabilities now required by OEMs (such as additive manufacturing, precision machining, composite materials). Without networks, mentorship, and support, Hartford-area suppliers are struggling to remain competitive.

Strategic Opportunities and Risks: Physical Place

The Implementation Team selected two impact areas for strategic focus: Hartford’s central business district (“Downtown”) and the neighborhood encompassing Trinity College, Hartford Hospital, and the Connecticut Children’s Medical Center (“Trinity/Hartford
Hospital”). All initial physical place investments will be focused on the Trinity/Hartford Hospital Impact Area due to this area’s greater need for the development of the “live/work/play” environment that is required of an Innovation Place.

The Trinity/Hartford Hospital Impact Area contains a high level of research activity, is readily accessible by public transportation, and is home to several key anchor institutions including Hartford HealthCare, Hartford Hospital (and CESI), the Institute of Living (IOL), Connecticut Children’s Medical Center, and Trinity College. In addition, the area is also slated to become a new center of biomedical and life science entrepreneurship, with the addition of three new businesses, brought to the area by David W. Wagner, an alumnus and member of the Board of Trustees of Trinity College. In February of 2017, the Connecticut State Bond Commission approved $3,600,000 in loan assistance for the construction of a new facility in the Washington Street area of the proposed innovation place. The new facility will host Clinflow Technologies, LLC a holding company with investments in the three medical innovation companies.

To accelerate the Trinity/Hartford Hospital area’s development as an Innovation Place, improvements are needed to better connect anchor employees to the community and to strengthen amenities in the surrounding neighborhood. Currently, the Trinity/Hartford Hospital area has few food and beverage establishments, and those that do exist often close early. The surrounding area also lacks access to fresh, healthy food. Major anchors feel isolated and insular, turned away from surrounding commercial corridors, and their staff and visitors typically have limited interaction with local street life.

Strategic Opportunities and Risks: Social Capabilities

Hartford already possesses the assets required of a thriving Innovation Place. However, interviewees and roundtable participants emphasized that Hartford’s many assets are often disconnected and unrecognized and that anchors, rather than engage with the city, often keep their talent and intellectual property “locked” within their walls. Interviewees, although surrounded by programming and resources, experienced isolation and system fragmentation. This sentiment was particularly pronounced in three areas: entrepreneurship, talent, and sector-specific resources. Rather than build assets from scratch, a critical component of Hartford’s strategy must be developing information and social networks in the region in order to link existing communities and strengths and ensure that the city’s resources and advantages are utilized and recognized.

Hartford’s entrepreneurial community and ecosystem are growing. However, resources are difficult for entrepreneurs to find and networks are hard to navigate. Support services are not well-connected or coordinated, referrals are not readily made, and finding the right service for a company’s specific challenges and circumstances is a challenge. As mentioned earlier, an especially critical missing connection exists between Hartford’s entrepreneurs and the city’s large corporations. Little interaction occurs between the entrepreneurial community and large corporations, leaving entrepreneurs frustrated by their lack of access, and corporations at risk of missing disruptive innovations. Entrepreneurs also expressed difficulty identifying experienced mentors.

Networks between colleges and universities and the city’s corporate anchors and entrepreneurial community also require strengthening. Currently, corporate anchors experience difficulty finding local talent, entrepreneurs can’t find the team members required to start and scale ventures – and thousands of talented graduates from Hartford-area colleges and universities are leaving the state each year. This gap is particularly troubling for STEM and other innovation-based skill sets; the region has strong educational capabilities in these areas, but fails to match students to local career opportunities following graduation. Finally, Hartford lacks sector-specific networks and resources. Industry-specific peer groups and mentor networks are nonexistent or difficult to identify. Data also reveals that Hartford/East Hartford have latent or emerging clusters (e.g. robotics, energy) that are not formally organized or acknowledged. Companies in these emerging industries often feel isolated and operate without a formal or informal support network.
Summary

Taken together, these strategic opportunities and risks uncover clear themes for Hartford and East Hartford. The area’s strongest economic clusters - insurance, healthcare, and aerospace/advanced manufacturing - are each rapidly changing and in need of initiatives to increase local innovation and commercialization. The Trinity/Hartford Hospital Impact Area, while developing, requires additional amenities and community-building to become a thriving innovation place. Finally, Hartford’s many existing resources and assets are fragmented and underutilized due to underdeveloped social capabilities in the region. These themes, reflected in the specific SORs outlined above, guided the strategic initiatives developed by the Planning Team to transform Hartford and East Hartford into a thriving Innovation Place and accelerate innovation and commercialization throughout the region.

The most critical strength of the Hartford/East Hartford Innovation Places Strategic Plan is the commitment from Hartford and East Hartford’s powerful anchor institutions and leaders. A diverse array of champions has united around the new Innovation Places strategy - ranging from colleges and universities to corporate anchors to healthcare institutions to entrepreneurs and innovators. In the Downtown Impact Area, Hartford’s insurance anchors plan to invest $2.25 million over three years to launch a new InsurTech accelerator and programming. In the Trinity/Hartford Hospital Impact Area, Trinity College, Hartford HealthCare, and UConn are working to create a multi-million dollar Hartford MedTech Innovation District. In East Hartford, Goodwin College and CCAT are launching and expanding programs to bring next generation technology and talent to the aerospace/advanced manufacturing cluster. The University of Connecticut will commit in-kind resources valued at over $1 million to the MedTech initiative, InsurTech initiative, and management and coordination initiatives. Entrepreneurial organizations - including the University of Hartford Entrepreneurship Center, reSET, MakerspaceCT, SBDC, MetroHartford Alliance, and Trifecta Ecosystems - are leading initiatives to strengthen Hartford and East Hartford’s entrepreneurial resources and social capabilities. In addition, the City of Hartford is supporting placemaking and Innovation Places coordination efforts. The extraordinary creativity and commitment displayed by these Innovation Places partners is described in detail in each of the initiatives outlined below.
Hartford and East Hartford Innovation Places Initiatives

The Hartford/East Hartford Planning Team identified eleven Innovation Places Initiatives address the region’s strategic opportunities and risks. These eleven initiatives are divided into economic, physical place, and social capabilities, and map directly to the strengths and gaps identified during the planning process and described above.

Three economic initiatives will accelerate innovation and commercialization in insurance, medical technology, and aerospace/advanced manufacturing. A new InsurTech accelerator will attract next-generation insurance companies to Hartford. A new incubator/accelerator, established by Hartford HealthCare and Trinity College in partnership with the University of Connecticut, will support the development and testing of “minimum viable products” (MVPs) and new digital health technologies. Finally, aerospace/advanced manufacturing suppliers will benefit from technical assistance, training, and talent recruitment to develop next-generation products and methods.

Two physical place initiatives will focus on developing the Trinity/Hartford Hospital Impact Area as a thriving innovation place with diverse live/work/play opportunities. Local businesses will have access to space-matching and grant assistance which will improve area amenities. A new pop-up food park will provide healthy, affordable fresh produce while creating a shared “third space” for innovation places interactions.

Finally, six social capabilities initiatives will network and connect the region’s many assets. Asset mapping and new tools will support area entrepreneurs, while cluster mapping will identify and connect resources within emerging clusters. Two new initiatives will build networks between startups and corporations and between students and the Hartford region. A new makerspace will serve as a shared space for collaboration between InsurTech, MedTech, and aerospace initiative participants, as well as Hartford entrepreneurs. Finally, dedicated Innovation Places management staff will coordinate and promote each of the new initiatives and resources.

Economic Initiatives

Overview
The Planning Team designed economic initiatives to address the strategic opportunities and risks in Hartford and East Hartford’s strongest clusters. The InsurTech accelerator will capitalize on and strengthen Hartford’s position as an insurance capital. The MedTech incubator/accelerator will strengthen existing anchor partnerships and develop existing prototyping and digital health capabilities in order to better support entrepreneurs and startups. Finally, East Hartford’s anchors will participate in programs to develop next generation technology and talent to address changes in the aerospace/advanced manufacturing industry.

Hartford InsurTech Hub

Scope of Work
The InsurTech Hub will have two programmatic components, a technology-focused accelerator and innovation pilot partnerships in which startups partner with insurance anchors to pilot products. The two programs in this initiative will aim to both increase innovation activity within anchor corporations and attract and retain Hartford talent. For existing anchors, the proximity to accelerator and pilot test companies will engage anchor employees and challenge them to problem-solve in their own areas as well as help anchor corporations accelerate their own digital and technology advancement efforts. The InsurTech Hub will also grow Hartford’s local talent pool, retaining graduating students, attracting new talent to Hartford, and equipping students and workers with skills to help anchors and new ventures succeed. Ultimately, the InsurTech Hub will improve the market position and valuation of anchor companies and new InsurTech companies, creating jobs and increasing the revenue and tax base for Hartford.
Technology-Focused Accelerator

The Technology-Focused Accelerator will support emerging companies that are developing new technologies related to data collection, analysis, storage, and retrieval. Understanding how these capabilities could be used by the insurance industry to drive process and service delivery innovations. Through conversations with several anchor insurance carriers in Hartford, it has become apparent that different types of insurance carriers may have different technology needs. For instance, representatives from The Hartford and Travelers have identified particular interest in the fields of data mining, data analytics, artificial intelligence, cognitive analytics, and technologies related to the integration of data from the internet of things. Preliminary conversations with Aetna have indicated that other digital technologies, including encryption, edge computing, cyber-security, and the integration of blockchain may be more relevant for health insurers.

Over the next few months, as more insurance partners become involved, the working group that has committed to helping to develop and launch this accelerator will choose an initial set of technologies to focus on in the program’s first year (working group members listed below). These technology choices will be made based on each technology’s relevance to helping founding members increase the efficiency of their operations, and maintain their market position in an increasingly competitive environment that has also become incredibly prone to disruption.

Working group members will also develop the structure and programming of the accelerator based on lessons learned from their experience with similar programs in other parts of the country. Working group members representing Travelers and The Hartford have been participating in the Plug and Play accelerator based in San Francisco for the last two years and others have relationships with the Global Insurance Accelerator located in Des Moines. Connecticut Insurance Commissioner Katherine Wade has also sponsored travel for working group member Michelle Cote to the Global Insurance Symposium taking place in Des Moines, April 25-27. During that trip, Michelle will be meeting with Global Insurance Accelerator staff, and making connections with others in the industry who can help inform efforts to design a program that will attract high potential firms and top talent to Hartford. Working group members will also utilize their networks to identify local subject area experts, both currently employed and recently retired from the insurance industry, to develop and deliver programming critical to the success of the program.

In order to maximize the chances that accelerator participants will permanently relocate in Hartford, and create new jobs locally, the accelerator program will target early stage companies with two to three founders, a minimum viable product, and a defined customer and revenue model. It will also be desirable for participants to have demonstrated initial signs of traction against their concept by having raised $150,000–$500,000 and assembled at least an advisory group of technology experts to help provide operational and governance support. Participants in the program must also commit to spending a year in Hartford after the end of the accelerator program and agree to provide a small equity stake in their venture to the accelerator program in exchange for funding and support received - comparable to industry standards and best practices set by other model programs.

An open call for applications will be issued and publicized within both national and international networks. Founding Partners will then select companies for participation based on their likelihood to positively contribute to their innovation goals.

Innovation Pilot Partnerships

Innovation Pilot Partnerships will help local carriers pilot test technologies with potential to aid in their innovation efforts, while simultaneously providing more mature startups with the opportunity to establish proof of concept, and establish relationships with a first paying customer. Founding Partners will select the most promising technologies from national accelerator programs (and through an open call) and invite these companies to spend a year in Hartford pilot testing their products. Local carriers will serve as “Pilot Partners,” mentoring and supporting pilot companies as they pilot their work in Hartford, and technical assistance will be provided to both the Pilot Partners and the startups in order to help navigate the integration of new technology into Pilot Partners’ existing operations.
Founding Partners of the InsurTech Hub will issue invitations to startups according to several maturity and technological fit criteria, including: IP potential, demonstrable traction in the marketplace (including previous revenue earned), and institutional investment raised. Teams must also have technical expertise and a Board of Directors with credible subject matter experts.

Companies participating in these pilot partnerships must commit to sending their Technical/R&D teams to Hartford for at least one year, in order to work side-by-side with their Pilot Partner’s innovation team. Company representatives based in Hartford must also commit to spending a minimum number of hours mentoring companies in the accelerator program.

**Timing**

The Technology-Focused Accelerator will launch with the opening of applications in late 2017. A call for participation in the Innovation Pilot Partnerships program will be issued in the first half of 2018.

Working group members will use the preceding months to secure financial investments from Founding and Associate partners, develop a governance and operating structure for the two programs, and build programming and recruit the experts needed to deliver value added assistance to all participants.

The working group aims to field an initial cohort of eight accelerator companies and four innovation pilot companies during the initiative’s first year. Once the pilot initiative has gotten off the ground, lessons are learned through implementation, and financial and in-kind commitments from additional partners are developed, the group will seek to increase participation to 15-30 accelerator companies and 12-15 innovation pilot companies per year in years two to five of the programs.

**Initiative Responsibility**

The activities described above are being developed by a working group of professionals, each of whom brings unique perspective and skills to the process. This working group will identify the structure most appropriate to organize and implement each component of the programming envisioned, and raise private capital + develop the partnerships needed to establish and grow this effort over time.

**Working Group Members:**

- Beth Maerz, Vice President Strategy & Execution, Travelers
- Paul Tyler, Chief Marketing Officer, Phoenix
- Devi Mohanty, Head of Strategy, Innovation & Strategic Partnerships, The Hartford
- Patrick Sullivan, Chief Enterprise Architect, Hanover Insurance Group
- Alpa Patel, Managing Director, XL Catlin
- Frank Sentner, Principal Sentwood Consulting, representative ACORD
- Bob Mattison, Senior Sales, SherborneSoft & DAVID Corporation
- Mike Kalen, Senior Advisor, Aquiline Capital Partners
- Shana Schlossberg, Founder, Innovate Hartford
- Michelle Cote, Managing Director, Connecticut Center for Entrepreneurship & Innovation

**Additional Supporters**

1.) Susan Winkler, Executive Director, Connecticut Insurance and Financial Services Cluster (CTIFS): As the head of the business association dedicated to the advancement of the IFS industry as a critical economic driver in the state, Susan has been incredibly supportive of this initiative, and is helping to connect the working group to other companies with the potential to become key partners in this initiative. She has also suggested opportunities to connect the InsurTech Hub’s efforts with the CTIFS Annual Insurance Market Summit, an event that raises $500,000 and gathers over 300 insurance leaders in Hartford each year.
2.) Katherine Wade, Connecticut Insurance Commissioner: Commissioner Wade has offered to help encourage connections with the Global Insurance Accelerator in Des Moines, and will be funding a trip for working group member Michelle Cote to the Global Insurance Symposium held by that organization April 25-27. She has also pledged her support in convening other key stakeholders in conversations to further refine this initiative in the next 30 days and beyond.

3.) Catherine Smith, Commissioner, Connecticut Department of Economic and Community Development: Commissioner Smith had preliminary talks with insurance leaders involved in the inaugural 2016 VentureClash event about creating an initiative to encourage InsurTech in Hartford. Members of this working group have coordinated with her on the development and increasing interest in the activities being proposed in this document. In March, she endorsed the actions of this group at a gathering of CT-IFS members and encouraged interested parties to get involved.

4.) Stacey Brown, Founder, InsurTechHartford.com: Within the past six months, Stacey Brown, Digital Analyst at XL Catlin, has launched a website, InsurTechHartford.com, and a meetup group dedicated to bringing together individuals with insurance expertise to lead the next wave of innovation in the industry in Hartford. Stacey has organized an InsurTech Hackathon for April 1 and is interested in coordinating and collaborating with this working group in order to make Hartford a global leader in InsurTech.

Other Potential Partners

As the initiative is developed and launched, we anticipate engaging the following additional partners:

**VentureClash** – Connecticut Innovation’s VentureClash Competition shares many of the same goals as this initiative – principally, top provide mentorship to firms with promising technologies that are relevant to local industry, and to provide incentives for them to relocate to Connecticut. The Hartford InsurTech Hub will seek ways to coordinate closely with VentureClash to both provide mentoring and coaching during the competition, and help winning firms find attractive homes for operations in Hartford. By working together to create the conditions necessary for winning firms in the areas of InsurTech, Digital Health, and IoT, the Hartford InsurTech initiative hopes to help VentureClash build upon the success of the initial mentorship and funding provided to participating and winning firms.

**TechStars** – City of Hartford leadership is exploring an accelerator partnership with Techstars. Techstars is a worldwide network that helps entrepreneurs succeed, and has programs that range from community-based Startup Weekend and Startup Week to mentor-based Accelerators. Techstars has nearly 30 accelerators operating throughout the United States, Europe, and Australia. Developing a concentration around supporting emerging ventures that can provide value to the insurance industry is one of the most immediate opportunities under discussion, and the InsurTech Hub working group looks forward to exploring how Techstars resources could assist in achieving the goals of this initiative.

**Colleges and Universities** – Hartford is home to a number of top-quality schools. The University of Connecticut has strong academic programs in data analytics, cyber-security, and computer science which would be obvious assets to this initiative. In addition, UConn’s Technology Commercialization staff will offer connections to unique expertise in these areas and may generate new venture opportunities. Finally, UConn shows a strong commitment to innovation and entrepreneurship, with experience in running programs that help technical innovators translate new technologies into viable ventures through the Connecticut Center for Entrepreneurship and Innovation. The University of Hartford also has strengths in both engineering and business programs, including insurance-specific programming. Trinity College has a growing robotics and digital science initiative that could help to develop and supply key talent related to this initiative.
**Initiative Cost and Funding Sources**

A detailed budget and revenue model will be developed in the next month. However, launch of these two InsurTech Hub programs are expected to cost $1.5M in their first year, including:

- $500,000 including setup, governance, operating expenses
- $250,000 in technical assistance for pilot partnerships, and
- $750,000 in company investments (up to 15 $50,000 investments per year)

The working group seeks to launch this initiative through a mix of both private and public investment. Fundamental to the initiative’s success will be significant industry leadership in the form of both funding and active mentorship of the participant companies. Private funds will be used to provide the initiative with the investment capital necessary to attract high-quality companies, and public funds will be used to help cover the startup and operating costs in the initiative’s first year.

The proposed initiative funding structure will be:
- Five Founding Partners commit $100K/year for 3 years
- Five Associate Partners commit $50K/year for 3 years
- CTNext provides 1:1 match to private investment up to $750K

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<th>Initiative</th>
<th>CTNext Funding</th>
<th>Matching Funds &amp; Contributions</th>
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<td>Hartford InsurTech Hub</td>
<td>$750,000/year</td>
<td>$750,000/year, see narrative above for match detail</td>
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**Hartford MedTech Innovation District**

**Scope of Work**

Improving the US healthcare system requires the simultaneous pursuit of improving the experience of care (quality outcomes and satisfaction), improving the health of populations, and reducing the cost of care (known as the “Triple Aim”). The healthcare sector is ripe for innovation and the development of disruptive technologies to achieve the Triple Aim. Medical devices, digital health technologies and healthcare analytics are among the med-tech areas that are essential to this achievement.

The MedTech Innovation District initiative will create a healthcare incubator/accelerator that will attract and support entrepreneurs by linking them with stakeholders including clinical providers, academics, government and other regulatory bodies, and corporate and risk capital sources, to support the development of minimum viable products and commercialization. Creating a formal infrastructure in which each institution applies its relevant resources and assets in a coordinated manner will create synergies to meet the goals of the Innovation Places program.

The incubator/accelerator is not a just a physical space or location but a density of resources attractive to a start-up company or entrepreneur. It is a coalescence of the assets of partner organizations, people and resources to accelerate the commercialization rate of biomedical and health-related technologies and spur related job growth and economic development. The Director, supported by a coordinator, will be responsible for creating the pathways and connections to leverage these assets, and will work with partners to advance four specific strategies:
1. **Develop a Hartford Biomedical Innovation Institute**: a program offering emerging start-up and healthcare companies educational services, access to patient care and healthcare administration specialists, and assistance in developing minimum viable product (MVP) through product testing in a simulated environment. To maximize staff, resources, programming and other assets, CESI is an ideal location to host the Hartford Biomedical Innovation Institute.

2. **Create a Digital Health Technology Program**: a program specializing in the development of technologies related to healthcare analytics (descriptive, predictive, prescriptive), biomedical informatics, and the emerging fields of telehealth, population health assessment, and biometric device integration.

3. **Develop a Hub of MedTech Companies**: following proof of concept success in the Hartford Biomedical Innovation Institute, emerging MedTech companies will be incentivized to stay in the neighborhood, and companies in complementary fields from throughout the state will be made aware of the benefits of relocating to the Trinity/Hartford Hospital corridor. This will require partnering with state agencies, such as the Department of Economic and Community Development (DECD) and Connecticut Innovations, and also the City of Hartford to create economic conditions necessary to make Hartford, and specifically President’s Corner (Washington and Jefferson Streets) and the larger Trinity/Hartford Hospital corridor, an attractive and feasible option. Workforce development activities that create a high concentration of skilled workers in this region will complement these efforts. The resulting influx of businesses will create jobs and spur the redevelopment of the area.

4. **Workforce Development**: assessment of the needs of new, existing or expanded, and relocated companies, and the development of formal partnerships and programs across the continuum (technical high schools, community college system, colleges and universities) to fuel the pipeline of skilled workers.

**Initiative Leaders**

**Hartford HealthCare (HHC)** is a $2.6 billion dollar integrated health care system with 5 acute care hospitals, a behavioral health network, post-acute care division, and clinically-integrated physician networks. HHC employs approximately 18,000 individuals and serves as a major teaching hospital for the UConn School of Medicine. Hartford Hospital has a long and successful history of biomedical research and performs numerous clinical trials, particularly in cancer care and antimicrobial therapy. HHC’s **Center for Simulation, Education and Innovation (CESI)**, located on the campus of Hartford Hospital, is a 45,000 SF simulation training center promoting excellence in clinical care, advancing patient safety and quality, and improving multi-disciplinary team performance through high-fidelity medical simulation. Hartford Hospital has strong research infrastructure including biostatistics, clinical research support and research administration.

**Trinity College** is a top liberal arts institution that enrolls approximately 2,200 undergraduates, with nearly 800 primary and affiliated employees. Trinity faculty conduct research in disciplines as diverse as neuroscience, engineering, chemistry, biology, mathematics, and computer science. Unique to a liberal arts institution, undergraduates have the opportunity to conduct faculty-mentored research.

**University of Connecticut**. In addition to the School of Business, and new Downtown Campus opening in fall of 2017, UConn has strong ties to the Hartford region, particularly in life sciences and biomedical research and entrepreneurship. A very significant share of UConn’s $260 million in annual research expenditures are focused on research related to improving health outcomes and achieving the Triple Aim in healthcare, and it is anticipated that the University can be a source of technical expertise, technology and new ventures to support the MedTech efforts. UConn’s Technology Incubation Program (TIP) is also dedicated to helping fledgling technology companies (most of whom are pursuing biomedical entrepreneurship). For the MedTech initiative, UConn’s commitment includes the commit of the Office of the Vice President for Research, Technology Commercialization Services (OVPR) leadership.
and selected staff (five people in all) for up to a 10 percent effort each, with a total value of $434,275 over four years. The office is comprised of professionals proficient in technology transfer, new venture development and industry partnership formation who offer a bird’s eye view of commercially viable research, faculty expertise as well as new inventions emanating from UConn labs that can be put to work in Hartford. The OVPR will also consider case by case commitments of funds currently dedicated for technology commercialization uses such as SPARK and patent expenses as allowed by university policy for eligible requests.

**Hartford Biomedical Innovation Institute**

Through the tightening of HIPPA regulations, it is becoming more and more difficult for healthcare entrepreneurs to complete MVP testing for new devices in real patient care settings. At the same time, MVP testing and the concept’s stage of development are among the most important criteria that healthcare investors are looking for before committing funds. In addition, with more compelling MVP and advanced stage of development data, a company will be in a better position to assert a higher pre-money valuation to investors. Without the ability to obtain compelling MVP data, entrepreneurs face significant barriers in bringing to market products that address unmet medical/healthcare needs, improve quality of care and reduce the cost of care.

The development of the Hartford Biomedical Innovation Institute on the currently vacant 3rd floor of CESI, in cooperation with HHC, UConn, and Trinity, will help biomedical entrepreneurs overcome this hurdle. UConn and Trinity staff will work directly with teams at Hartford Hospital and CESI to connect emerging entrepreneurs who have developed the most promising new technologies with the technical and patient care expertise needed to determine if a team’s product concept and/or prototype delivers the value that is intended for patients, clinicians, and healthcare providers. CESI affords a unique opportunity to demonstrate proof-of-concept in a simulated setting – accelerating the move to a clinical trial.

Formal connections to Hartford Hospital and CESI, and the assistance of medical professionals in the research and design process, will help to fill a critical gap in CT’s MedTech entrepreneurship ecosystem, and increase the chances that the significant amount of biomedical research and ideation activity happening in the greater Hartford area will make it to market. It will also attract companies, employees, and investment dollars to the region.

In order to launch the Hartford Biomedical Innovation Institute, UConn, Trinity, and HHC staff will determine and plan the steps necessary to formally connect entrepreneurs with the expertise and product testing services available at CESI, including creating a master services agreement, an intellectual property policy, and developing participation and eligibility criteria and fees schedule for emerging companies. This group will also develop an outreach and communication strategy that helps emerging companies understand the services available through the MedTechDistrict, as well as the means to access other types of available funds – including various CT Innovations investment programs such as the Connecticut Bioscience Innovation Fund, The CI Pre-seed Program, and the statewide CI supported BioPipeline operated by Yale. In certain cases, projects may be eligible for the UConn SPARK Technology Commercialization Program. Further, should the CTNext Higher Education Working Group propose Proof of Concept funding, it too would be of great value to the efforts of the institute.

Hartford Hospital and CESI have a strong track record of providing R&D and training services to the medical device industry, working with the largest, global medical device firms as well as emerging and start-up companies. CESI’s unique set of capabilities and expertise can similarly be provided to entrepreneurs and emerging companies in this space. Building on strengths possessed by CESI, Hartford Hospital, and the IOL, a special emphasis will be placed on supporting companies developing the following types of innovations: surgical technologies (minimally invasive, cardiovascular); critical/intensive care; emergency services, including paramedic and defense industry first response; and, technologies addressing pre- and post-acute care settings (e.g. health maintenance and prevention, management of chronic diseases) and behavioral health services. The wide scope of support services available to MedTech entrepreneurs at Hartford Hospital includes clinical feedback and
evaluation, support with device interface development (including clinician, EMR, and patient devices), beta testing, and human factors studies. Hartford Hospital also has the capability to work with entrepreneurs to develop and implement proof of concept studies and obtain “voice of the customer” input on technology and design. Through several pilot initiatives, implementing partners will determine other support elements necessary for success in these types of engagements.

**Hartford Biomedical Innovation Institute - Digital Health Tech. Emphasis**
The Biomedical Innovation Institute will place a particular emphasis on recruiting and supporting digital health companies, leading to collaboration opportunities. HHC and CCMC (the latter having been part of initial conversations and expressing an interest in engaging with the MedTech Innovation District) have identified the development of telehealth initiatives as one of the key priority areas for growth in the industry. HHC has embarked on an ambitious telehealth initiative in multiple clinical domains and use cases, with the goal to be at the forefront of this disruptive innovation as a vehicle to transform delivery of healthcare.

To take advantage of advances in connectivity, new technologies are needed to capture, analyze, and store information gathered from areas outside of the primary clinical care setting, and through telehealth interactions between physicians and patients. The Innovation Places Planning Team proposes the creation of specialized programming designed that will attract and support emerging companies developing technologies that can help healthcare providers and networks overcome these challenges. Specific technologies sought for participation in this program include: Predictive and Prescriptive Analytics; Informatics; Cyber-security; and Software Development. Entrepreneurs with technologies relevant to digital and telehealth will also benefit from access to both clinicians and administrative professionals within HHC’s system. To that end, the team will work in its first year to identify ways to connect these innovators to services available at CESI.

**Creating a Hub of MedTech Companies**
Working with the City of Hartford, CRDA and other logical partners, including the Innovation Places Physical Place Working Group, the implementation team will identify areas that are ready for investment and will evaluate opportunities and locations for emerging medical device and digital health companies. The team will catalog these physical “landing spaces” for companies who pursue commercialization following MVP testing or participation in digital health programming. In addition, companies that “graduate” from the University of Connecticut’s early-stage support programs and grow out of spaces currently available in Farmington through their Technology Incubation Program (TIP) will be encouraged to relocate to the MedTech Innovation District.

Hartford HealthCare has identified property at President’s Corner that is ripe for development, and has recently invested more than $130,000 in environmental testing of parcels. Trinity holds many real estate assets within the Allen Place/Broad Street corridor that will be considered as part of the MedTech district planning. Inventory includes 9 residential properties totaling more than 30,000 SF, approx. 2.7 acres of vacant land, and the 2,167 SF Trinfo.Cafe which houses a computer lab, media lounge and adjacent community garden and can support medical technology training and health and wellness programming. The capacity for business development, entrepreneurial programming, training, and collaboration also extends downtown through Trinity’s lease of approx. 21,000 SF of property at One and Ten Constitution Plaza.

The development of ideally suited locations for emerging and growing companies in this sector will solidify the area as a logical destination for MedTech (biomedical and digital health) companies, leading to the creation of local jobs and an increase in municipal revenue. Activity in this area has already begun with the commitment of state bond funding to CliniFlow Technologies to move three medical innovation startups to the neighborhood between Trinity College and Hartford Hospital. By kickstarting this initiative, the Innovation Places team improves the chances of creating a truly vibrant live/work/play corridor between Trinity and Hartford Hospital, and eventually, Hartford Hospital and Downtown Hartford.
Workforce Development

Many Trinity/Hartford Hospital Impact Area residents face significant educational barriers to accessing new jobs created by the MedTech initiatives. According to an economic development study commissioned by SINA:

“Adults in the SINA neighborhood have an extremely low level of educational attainment, lower than the city as a whole and far lower than the MSA. About 40 percent of SINA neighborhood residents age 25 and over do not have a high school diploma or equivalent. Less than 20 percent have earned an associate’s degree or higher.”

Educational attainment has a strong influence on employment status, thus a comprehensive workforce development strategy is needed to ensure that the benefits of bringing new businesses and economic activity to the area are enjoyed by the residents who live in the neighborhood.

Beginning in the second year of Innovation Places programming, the implementing partners will establish relationships with area workforce development partners such as Capital Workforce Partners and community colleges to identify pathways for Hartford residents to obtain the necessary training and/or certification to take advantage of new opportunities. In addition, the employee needs of existing, expanded and relocating companies will be assessed as new firms relocate to the area. From this information, the implementing partners will work to establish formal partnerships with relevant programs that can help area residents obtain employment. A marketing initiative will publicize the programs that are available to neighborhood residents. Programming will cut across Hartford/East Hartford initiatives to identify and leverage programs that develop transferable skills that can be applied to jobs in the MedTech, InsurTech and Aerospace arenas, ensuring the highest and best use of resources and maximum effectiveness and efficiency.

Timing

Year 1: Continued Assessment, Groundwork & Feasibility

In year one, partners will establish a MedTech Innovation District corporate entity and organizational structure, and appoint a Board of Directors comprised of representatives from all implementation partners. The Directors will formalize job descriptions, determine an office location for the MedTech Innovation District director and coordinator, and launch searches to fill the positions. Partners will also lay the groundwork for increasing venture access to CESI and develop cost estimates for participating companies.

At the same time, partners will assess the demand for dedicated space for biomedical device and digital health entrepreneurs, as well as avenues for securing additional financing for such development, and begin property development initiatives. Partnership with UConn’s TIP program will be vital to this assessment, as the partners seek to create synergies, rather than duplication of services offered in Farmington.

Year 2: Scale Up + Build Out

In year two, partners will launch a formal program linking biomedical entrepreneurs to MVP testing and assistance programs at CESI. The program will initially target companies launching from UConn, including its Technology Incubation Program, and Trinity College. Partners will encourage companies to participate in all MedTech Innovation District programs, as well as connect with companies specifically aligned with the needs of insurance carriers and related industries.

The partners will assess physical space demand and financing options, and move forward with building out space to house the Hartford Biomedical Innovation Institute. A logical starting place for this activity is the currently vacant 3rd floor of the building that houses CESI at Hartford Hospital. Partners will also identify logical ‘next-step’ spaces within the newly formed MedTech Innovation District for incubated companies to grow following success in MedTech programs, and/or TIP.
Finally, partners will work with existing and emerging companies to identify workforce development needs, in collaboration with workforce intermediaries, high schools, colleges and state university system.

**Year 3: Biomedical + Digital Health Cluster Support**

In year three, partners will expand MVP and digital health technologies assistance to biomedical device and digital health companies from across the state and offer in-residency opportunities designed to grow the number of biomedical device and digital health companies in Hartford.

Partners will promote new spaces in the MedTech Innovation District, and continue to work to have companies physically locate in the area. During this year, partners will also develop 6-10 year strategic plan addressing growth and sustainability. Finally, partners will work to design workforce pilot programs in collaboration with workforce development providers.

**Initiative Responsibility**

Hartford HealthCare and Trinity College are the largest employers in the MedTech Innovation District and serve as the lead partners and champions of the initiative. The president of Trinity College and Chief Executive Officer of Hartford HealthCare are both fully invested and have committed significant in-kind staff support, facilities and land resources, and direct financial support to the initiative.

The initiative also has the advocacy of the Southend Institutions Neighborhood Alliance (SINA) which includes the Connecticut Children’s Medical Center and Institute of Living. The City of Hartford has been integral to the planning of the Innovation Places application and will work to engage partners and champions, such as CRDA and DECD, across all sectors of the plan. The University of Connecticut will also play a major role in helping to fill the pipeline of emerging medical device and digital health companies that will benefit from proof of concept services provided, and in encouraging the transition of companies from its Technology Incubation Program locations throughout the state to locate in the MedTech Innovation District.

**Initiative Cost and Funding Sources**

Funding received from CTNext, in support of each of these activities would be complemented by private investment, philanthropy, and in-kind and financial contributions from implementing partners.

<table>
<thead>
<tr>
<th>Initiative</th>
<th>CTNext Funding</th>
<th>Matching Funds &amp; Contributions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 1</strong></td>
<td></td>
<td></td>
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<tr>
<td>MedTech Innovation District – Administration</td>
<td>Director, Office of Med-Tech Innovation: One FTE @ $237,600 ($180,000 plus benefits)</td>
<td>Estimated in-kind staff support $150,000 (Hartford HealthCare)</td>
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<td></td>
<td>Administrative Coordinator – One FTE $85,000 ($65,000 plus benefits)</td>
<td>$100,000 (Trinity College)</td>
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<tr>
<td></td>
<td>Total: $322,600</td>
<td>$112,700 (UConn and TIP)</td>
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<td></td>
<td></td>
<td>Total: $362,700</td>
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<tr>
<td>Description</td>
<td>Year 1</td>
<td>Year 2</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>MedTech Innovation District Operations</td>
<td>$50,000</td>
<td>$50,000</td>
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<tr>
<td>MVP Services Cost-Sharing with Entrepreneurs</td>
<td>$70,000</td>
<td>$70,000</td>
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<tr>
<td>Innovation District Property Development and Remediation</td>
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<td>$130,000 (HHC; already invested)</td>
</tr>
<tr>
<td></td>
<td>$120,000 (Estimate/TBD match source)</td>
<td></td>
</tr>
<tr>
<td><strong>Year 1 Total</strong></td>
<td><strong>$442,600</strong></td>
<td><strong>$732,700</strong></td>
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<tr>
<td>MedTech Innovation District – Administration</td>
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<tr>
<td>Director, Office of Med-Tech Innovation: One FTE @ $242,352</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative Coordinator – One FTE $86,700</td>
<td></td>
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<tr>
<td>Total: $329,052</td>
<td></td>
<td>Total: $362,700</td>
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<tr>
<td>MedTech Innovation District Operations</td>
<td>$50,000</td>
<td>$50,000</td>
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<tr>
<td>MVP Services Cost-Sharing with Entrepreneurs</td>
<td>$70,000</td>
<td>$70,000</td>
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<tr>
<td>Hartford Biomedical Innovation Institute – Build-out of 3rd Floor of CESI</td>
<td>$500,000</td>
<td>$250,000 HHC</td>
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<td></td>
<td>$750,000 Grant Funding and Corporate Investment</td>
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<tr>
<td>Innovation District Property Development and Remediation</td>
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<td>Workforce Development</td>
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<td>TBD</td>
</tr>
<tr>
<td><strong>Total Year 2</strong></td>
<td><strong>$949,052 + TBD funds for workforce development</strong></td>
<td><strong>$1,732,700 + TBD funds for workforce development</strong></td>
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</tbody>
</table>
Next Generation Technology + Talent in Aerospace/Adv. Manufacturing

**Scope of Work**
The Aerospace and Advanced Manufacturing Initiative will focus on two types of activities:

1. **Next-Generation Technology**: Helping manufacturing firms experiment with new ways to use advances in technology and automation capabilities to increase their efficiency and accuracy of production and decrease costs in order to hold position in an increasingly-competitive market.

2. **Career Pathways in Aerospace**: Raising awareness of the career opportunities available in the local aerospace supply chain for local high school students.

**Innovation Technology Labs**
A number of partners on the Hartford/East Hartford Innovation Places Planning Team, including CCAT, Goodwin College, University of Hartford, UConn, and Trinity, have equipment and technology that would help local manufacturers and entrepreneurs increase their innovation efforts. Increasing connections between firms in the aerospace supply chain and these resources would help to spur new innovation by allowing manufacturing teams to develop prototypes and experiment with new processes without taking their own production equipment offline. Having assistance from staff trained in new product development, production, and automation methodologies at these facilities could also help existing firms think through the production challenges that they are facing in new ways and pilot test new methodologies, materials, and process improvements to determine what types of gains in both cost
efficiency and quality might be realized through the adoption of new technology.

The knowledge and data collected through these experiences will also help participating firms make the business case for new products and investments. Some of this investment could be in training staff in new skills required to keep pace with the rapidly advancing technology in manufacturing and automation, or the acquisition of new equipment that could help increase the quantity and quality of output, while reducing per-unit production costs.

Representatives from CCAT, Goodwin College, University of Hartford, UConn and Trinity will kickstart this initiative by developing a process for cataloging existing equipment at each of their facilities. Information will be recorded in one central place, accessible to all manufacturers in the state and to each of the partner organizations, so that future purchases made by each organization are not duplicative and efficient referrals can be made between entrepreneurs using each facility.

Cost of use for the equipment and consulting services available at each location will also be identified and clearly marked, along with contact information for personnel who can help entrepreneurs access services at each facility. Sources of funds that could be used to defray the costs of using the equipment, such as the Connecticut Manufacturing Supply Chain initiative (CMSCI), will also be cataloged and shared.

Finally, as part of the communication strategy for these newly-organized assets and resources, implementing partners will hold information sessions for both emerging entrepreneurs and established supply chain partners to collect information about how the available equipment might aid ventures’ innovation goals. This information will be used to gain a better understanding of the specific skills and other assistance needed by firms in the aerospace supply chain to experiment with and/or consider adopting new technology.

**Industry-Focused Robotics Competitions**

Robotics competitions increase student interest in pursuing careers in technology-related fields. Partners on the Hartford/East Hartford Planning Team are uniquely positioned direct the popularity of robotics competitions towards applications that will help to advance local industry while providing local students with meaningful learning opportunities. Trinity College has experience hosting robotics competitions centered around the completion of specific tasks, CCAT has sponsored First Robotics teams in East Hartford and is familiar with factors for success of these types of competitions, and the University of Connecticut is a named partner in the National Robotics Institute and has faculty and students capable of serving as coaches or mentors to teams.

By partnering with local manufacturers and members of the aerospace supply chain, the implementing partners will design competitions and solicit participation from existing school-based teams and encourage the formation of community-based teams comprised of students from some of the most under-served areas of Hartford and East Hartford. Partners will also solicit sponsorships from local corporations to support participation costs for student team members.

**Expansion of High School Outreach Programs - Manufacturing in Motion**

Goodwin College currently works with area high schools to raise student awareness about career opportunities in advanced manufacturing. This is done in collaboration with and will extend CCAT’s efforts with middle school students. Organizers will partner with Hartford and East Hartford traditional, magnet, and technical high schools to provide information about career pathways and introduce information sessions for parents and other role models.

In 2016, Goodwin College unveiled a 44 foot trailer which is used as an Advanced Manufacturing Mobile Training Lab. This mobile laboratory delivers programs for the purpose of introducing careers in manufacturing and to demonstrate the manufacturing flow process, including specific skillsets. One of these initiatives is Goodwin’s “Manufacturing in Motion” presentation. In this
presentation, students are introduced to careers in modern manufacturing and the high-tech skills that are required for today’s advanced manufacturing environment. Using a holistic approach, the students are then escorted through the mobile lab workstations, where they are guided through the manufacturing process from design stages through product shipment to the end customer.

In Year 1, Goodwin College will work with Hartford and East Hartford school districts, as well as Prince Tech and Hartford/East Hartford based magnet high schools to offer outreach and education programs. Funding provided by CTNext will support 20 visits to area schools and reach over 1,000 students.

This initiative will also capitalize and build on strong existing momentum and focus on advanced manufacturing by CCAT and Goodwin College. It should also be noted that CCAT is also working with a variety of partners, including Goodwin College, to redefine models for incorporating manufacturing education in comprehensive high schools that will develop an alternative pathway for foundation content, skills-based instruction, and work-based learning opportunities. In addition, Goodwin’s CT River Academy High School is also investing $10,000,000 in expanding its curriculum into Advanced Manufacturing. In partnership with the CT State Department of Education, CT River Academy will be constructing a training facility specifically focused on high school students. Goodwin would coordinate and provide access for Hartford and East Hartford high schools, technical high schools, along with regional magnet high schools to utilize this specialized space and equipment. As these initiatives continue to mature, Goodwin will look for opportunities to connect them to Innovation Places efforts within this industry, and use lessons learned to plan new ways of activating this workforce in support of strengthening the aerospace supply chain.

**Timing**

**Innovation Technology Labs**
- Cataloging of equipment (June – September 2017)
- Establishing access fees for equipment/each facility (June – September 2017)
- Identifying funds available through DECD and other sources that entrepreneurs can use to offset use costs (June – September 2017)
- Holding information sessions designed to get feedback from potential users (September – October 2017)
- Piloting a mini-grant program that would allow manufacturers to receive discounts or credits towards use costs (seeded with CTNext funds, but additional support will be sought from other sponsors in the initiative’s first year) (September – October 2017 Launch)

**Industry-Focused First Robotics Competitions**
- Identification of challenges relevant to local aerospace supply chain firms (January-June, 2018)
- Identification of new students interested in participating in robotics competition (January-June, 2018)
- Pilot competition designed to test student engagement and value to industry partners (January-June, 2018)

**High School Outreach - Manufacturing in Motion**
- Identification of Hartford/East Hartford Schools for participation (June – October 2017)
- Implementation and begin school programming (October 2017 –June 2018)

**Initiative Responsibility**
- Goodwin College, University of Hartford, UConn, Trinity, CCAT, industry partners including primes/supply chain.

**Initiative Cost and Funding Sources**
- Funding received from CTNext in support of each of these activities will be complemented by private investment and also in-kind and financial contributions from implementing partners.
During the first year of implementation, implementing partners will look for ways to increase industry participation and conduct a deeper assessment of their needs. With this increased understanding, the partners expect to propose new initiatives to expand support in areas critical to innovation, competitive and continued growth of the sector.

<table>
<thead>
<tr>
<th>Initiative</th>
<th>CTNext Funding</th>
<th>Matching Funds &amp; Contributions</th>
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</thead>
<tbody>
<tr>
<td>Innovation Technology Labs</td>
<td>$50,000/year</td>
<td>In-kind staff time: $10,000/year - Goodwin College $15,000/year - CCAT $10,000/year - University of Hartford</td>
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<tr>
<td></td>
<td></td>
<td>Capital Expense for machinery: $23,365/year (see budget for in-kind estimation)</td>
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<tr>
<td>Industry-Focused Robotics Competitions</td>
<td>$50,000/year</td>
<td>$10,000/year in-kind staff time (CCAT)</td>
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<tr>
<td>Expansion of High School Outreach</td>
<td>$20,000/year</td>
<td>$20,000/year in direct funding support $10,000/year in-kind support of additional resources to deliver educational programming</td>
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**Physical Place Initiatives**

**Overview**

The following physical place activities are designed to complement the existing development momentum of the Trinity/Hartford Hospital Impact Area, and focus on making the Trinity/Hartford Hospital area a healthier work/live/play environment. Two key initiatives – improving amenities, and creating a food park – will increase the density and vibrancy of the Innovation Place and attract new energy to the area.

**Improving Amenities**

**Scope of Work**

Of the six potential impact areas assessed during the planning process, the Trinity/Hartford Hospital Impact Area ranked lowest in available amenities, including diversity of retail and restaurants. To improve area amenities, the Planning Team proposes two related initiatives – a retail space assessment/matching program and a small business grant program.

**Retail Space Assessment and Matching**

Opportunities exist to develop neighborhood properties that are already controlled by the Southside Institutions Neighborhood Alliance (SINA) or Trinity College for local retail. These properties include existing but vacant retail, buildings for sale, and developable land that will be identified and cataloged. Initial work has already begun, with a recently completed SINA economic development study and Trinity College in the process of meeting with development companies to explore the development a master plan for the neighborhood around the college. The Master Plan will focus on private and public financing programs in addition to the utilization of Tax-Increment-Financing.
Early existing opportunities include a college-owned property on Zion Street that has underutilized first floor commercial space with residential units above, and an open lot on New Britain Avenue that will be a component of an intended mixed-use development project that will include street-level retail in proposed new building projects. Once the inventory of available spaces is complete, marketing efforts will be made to match small business entrepreneurs with these sites, and linkages made to sources of capital, financing, and business development support necessary for the businesses to succeed.

**Small Business Grants**

To support local restaurants and retailers, a grant program modeled after Detroit’s NEIdeas program, will be administered by Trinity College. A total of five $10,000 grants and one $50,000 grant per year will be made available to area businesses to enhance the quality and attractiveness of the neighborhoods. Funds will be used to improve winning businesses’ physical spaces (e.g. façade and signage improvements and/or new features such as an outdoor patio or improved indoor seating).

**Timing**

The retail space matching and small business grant programs will both begin in the first year of the Innovation Places program.

**Initiative Responsibilities**

**Retail Space Matching**

SINA will take responsibility for the coordination of the retail space matching initiative and the compilation of information and will work with Hartford Hospital, Trinity College, and the City of Hartford to share this information with entrepreneurs.

**Small Business Grant Program**

The City of Hartford will take the lead role in administering the Small Business Grant program. This initiative will be led by Hartford Hospital, Trinity College, SINA, and the City of Hartford.

**Initiative Cost and Funding Sources**

Trinity College will contribute $40,000 per year for two years to the Small Business Grant program and the City of Hartford will contribute $10,000 in the initiative’s first year. The City of Hartford will also contribute $10,000 of staff time to administer the program to ensure that all financial contributions can be awarded as grant funds. $50,000 in funding is requested from CTNext. SINA will contribute staff time to the compilation and communication of information through the Retail Space Matching Program.

<table>
<thead>
<tr>
<th>Initiative</th>
<th>CTNext Funding</th>
<th>Matching Funds &amp; Contributions</th>
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<tbody>
<tr>
<td>Retail Space Matching Program</td>
<td>$25,000/year for 3 years</td>
<td>$10,000/year for 3 years of SINA in-kind staff time,</td>
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<tr>
<td>Small Business Grant Program</td>
<td>$50,000/year for 3 years</td>
<td>$40,000/year for two years from Trinity $10,000 cash (year 1) and $10,000 in-kind administrative support (years 1-3) from the City of Hartford</td>
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</table>
Pop-up Placemaking: Creation of a Food Park

Scope of Work
Residents and workers in the Trinity/Hartford Hospital Impact Area currently do not have access to fresh, healthy food. There are also very few regular events in the Impact Area that activate the public realm. The Pop-up Placemaking Food Park pilot initiative will begin as a monthly community event centered on local food. The initial design of the Food Park will include space for food trucks and food trailers to park and provide fresh prepared food, space for vendor booths to provide groceries (such as local produce and value-added products), and an area for programming and events (e.g. live music, community outreach with local anchors, and pop-up farm-to-table restaurant events with local chefs). The Food Park will act as a stimulus to existing local businesses and act as a low-risk launchpad by providing new food businesses a low-cost market testing opportunity to validate their business proposition. The Food Park will also provide a meaningful “third place” for networking and cross-pollination for the currently siloed populations in the Trinity/Hartford Hospital Impact Area.

Timing
Planning for this Pop-up Placemaking Food Park initiative will begin in year one of the Innovation Places program.

Initiative Responsibilities
To help local food businesses grow and thrive, the members of the Implementation Team listed below are contributing consulting and other resources based on their organizations’ food industry expertise. The initiative implementation team includes:

Spencer Curry, cofounder and CEO of Trifecta Ecosystems, Food Park initiative lead
Martha Page, executive director of Hartford Food System
Ron Pitz, executive director of Knox, Inc. and program director of Knox Parks Foundation
Cary Wheaton, executive director of Billings Forge
Barbara Shaw, executive director of Hands on Hartford
Rob Ferrie, founder and event organizer of US Food Truck Fest
Jeff Devereux, partner at breakfastlunchdinner, cofounder Know Good Market
Jacquelyn Rose, Advancing Kids innovation program manager at Connecticut Children’s Medical Center
Jason Rojas, State Representative and Chief of Staff at Trinity College
Dan Rosow, partner at Real Estate Advisory Group
Matthew Furst, Goodworks Insurance
Jim Palma, community network builder at Foodshare
Ken McAvoy, owner of Hartford Restaurant Group

Funding Required
The total estimated cost of the project per annum is $135,000. This total includes management, fiduciary responsibility, event start-up fees, permits, event labor, event insurance, marketing, use of shared assets (including a shared kitchen), + consulting hours for food startups.

The initiative implementation team will contribute a variety of in-kind investments, including $10,000 cash from Trinity College, mgmt. and fiduciary responsibility from Trifecta Ecosystems, man-hours for planning events, event labor from Knox, Billings Forge, Hands on Hartford, and the Foodshare Hunger Action Teams. In-kind donations also include consulting hours from food experts and shared space. In addition to these commitments, the project Implementation Team is working with other anchor institutions, including SINA, Trinity College, and Capitol Region Education Council (CREC) to explore the donation of a location for the project.
SINA + Trinity own two lots within the impact area to the project and CREC operates two schools at the Learning Corridor in the area. The amount requested from CT Next for this project is $75,000 per year. The requested total covers four categories of costs: repeating event costs, pre/post season planning, marketing, and start up costs each season. This breaks down into $10,000 per month for six months for event staffing, management, and oversight, $5,000 each for the preseason and postseason planning periods, $2,000 a month for marketing and outreach, and a startup cost for all events of $15,000.

<table>
<thead>
<tr>
<th>Initiative</th>
<th>CTNext Funding</th>
<th>Matching Funds &amp; Contributions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creation of a Food Park</td>
<td>$75,000/year</td>
<td>$10,000 from Trinity $50,000/year in-kind</td>
<td>Matching funds and contributions reflect $10,000 contribution from Trifecta Ecosystems, in-kind donations of management time, consulting time, and space.</td>
</tr>
</tbody>
</table>

**Social Capabilities Initiatives**

**Overview**
Hartford and East Hartford’s existing assets are often disconnected and difficult to identify, leading to frustration and isolation. This issue was particularly pronounced for entrepreneurs, students, and those in need of sector-specific resources. Rather than build assets from scratch, Hartford and East Hartford will work to develop the social capabilities necessary to link existing communities and strengths, and ensure that the city’s resources and advantages are utilized and recognized. Initiatives to build Hartford and East Hartford’s social capabilities will be focused around five principal activities:

**Asset Mapping and Entrepreneurial Navigation Tools** – developing and coordinating electronic and print materials to help area entrepreneurs identify and utilize available support resources.

**Cluster Mapping** – mapping existing activity in emerging clusters (e.g. energy, robotics) and identifying opportunities to create connections between firms in related industries in order to strengthen these areas in Hartford and East Hartford and identify growth opportunities.

**Building Startup-Corporate Connections** – helping innovators to develop a visible entrepreneurial community in Hartford and East Hartford, partner with corporations and anchors, and spur interaction that creates advances in innovation and application of new technologies.

**Attracting and Retaining Student Talent** – providing clear pathways to experiential education, internships, and employment to retain student talent in Hartford and East Hartford.

**Shared Space and Resources at MakerspaceCT** – leveraging a new community makerspace as a shared, collaborative resource center for participants in the InsurTech, MedTech, and aerospace initiatives, as well as for Hartford’s entrepreneurial community.

**Innovation Place Management & Coordination** – creating staff position(s) responsible for convening, coordinating, and promoting Innovation Places activities. The Innovation Places staff member(s) will be responsible for coordinating activity amongst initiative champions, tracking and measuring benefits created through programming, raising awareness of resources available, and marketing the area to innovators and entrepreneurs.
Asset Mapping and Entrepreneurial Navigation Tools

Scope of Work
Entrepreneurs repeatedly noted a fragmented support ecosystem in Hartford. A number of efforts are currently underway to map the assets that could be used to help entrepreneurs grow in the greater Hartford region, including office and meeting space, capital and financing, and support services. Current efforts include the creation of the Launch E-Z platform and its adoption by several area entrepreneurship centers and incubators; the creation and ongoing development of the Innovation Destination Hartford website; and the development of a new app by Innovate Hartford, designed to connect its members to resources and events in the area.

By connecting these efforts, and the information provided between them, the Innovation Places Planning Team believes that the abundant assets already in the Hartford region will become better recognized and utilized. The Innovation Places management staff will convene a working group on this topic in the first year of the Innovation Places program. Members of this working group would include the MetroHartford Alliance staff responsible for the Innovation Destination Hartford website, Tim Laubacher, developer of the Launch E-Z platform, and the developers of Innovate Hartford’s forthcoming app. The working group will identify ways to coordinate and synchronize these different platforms, as well as to create printed material promoting the three tools. Funding will be used to pay for the development of the technology needed to support new abilities for each platform to “talk” to each other and ensure that information input into one platform is available on all three, and for the development of a piece of print material communicating how entrepreneurs can access more information about entrepreneurial resources through all three initiatives.

Timing
The group will meet to discuss actions needed in summer of 2017 with the goal of being able to complete the technical work needed to sync platforms by the end of the year and distribute print materials and promote resources and tools for entrepreneurs in early 2018.

Initiative Responsibilities
The Innovation Places management staff will take responsibility for convening each of the partners, determining what type of technical assistance is needed, and sourcing assistance in designing the print and communication materials that will support the initiative.

Initiative Cost and Funding Sources

<table>
<thead>
<tr>
<th>Initiative</th>
<th>CTNext Funding</th>
<th>Matching Funds &amp; Contributions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset Mapping and Entrepreneurial Tools</td>
<td>$20,000/year</td>
<td>$20,000/year Innovation Destination Hartford in-kind donation of time Innovation Destination Hartford in-kind donation of time Innovate Hartford App Development (in-kind)</td>
</tr>
</tbody>
</table>

Cluster Mapping

Scope of Work
Data reveal that Hartford and East Hartford have emerging clusters that are not formally organized or even understood as potential economic engines. Companies in these clusters often feel isolated and operate without a support network. Hartford and East
Hartford clusters with emerging potential include: energy, robotics, internet of things, and food/agtech. Mapping existing activity in these clusters and identifying opportunities to create connections between firms in related industries will strengthen these areas in Hartford and East Hartford and identify cluster support opportunities. Cluster mapping activities to be conducted in the first year of the Innovation Places program will include a selection of the following activities:

- Analytics to identify national, state, and regional cluster trends. This analysis will be performed at the cluster, sub-cluster, and industry-level to identify existing areas of strength and projected cluster performance/growth;
- Identifying, mapping, and interviewing major cluster employers;
- Assessing the regional workforce for its compatibility with cluster workforce demands;
- Mapping and interviewing members of the existing cluster support ecosystem, including relevant university programs and workforce training programs, as well as cluster-specific business service organizations, networks, and shared spaces;
- Identifying cluster land and building needs and assessing existing land and space;
- Identifying relevant existing federal and local government programs, incentives, regulations, and policies;
- Mapping the availability of relevant capital and capital gaps (e.g. industry-specific venture funding);
- Conducting a peer analysis of highly successful national and/or state cluster peers to identify case studies and practices.

Once complete, this mapping process will lead to the creation of new programs and policies that will close identified gaps and improve access to cluster-specific programming, capital, networks, space, and other supports needed for cluster members.

**Timing**

Cluster mapping activities will occur on a rolling basis. Two clusters will be chosen each year, based on potential identified by Implementation Team partners and complementarity to other initiatives being sponsored within the Innovation Place.

**Initiative Responsibilities**

The Innovation Places management staff will work with the Implementation Team to determine clusters to be mapped each year and to hire a consulting firm to complete the work.

**Initiative Cost and Funding Sources**

Funds: $25,000, used to pay for consulting services. The CTSBDC may be able to provide some in-kind support in choosing clusters based on activity in the area, or information available through SBA databases, and other tools. In addition, local cluster stakeholders will work with the consultants to define the clusters, identify firms, and map relationships (estimated $25,000 of in-kind support for hours).

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<thead>
<tr>
<th>Initiative</th>
<th>CTNext Funding</th>
<th>Matching Contributions</th>
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</thead>
<tbody>
<tr>
<td>Cluster Mapping</td>
<td>$25,000/year one</td>
<td>$25,000/Y1 in-kind support from CTSBDC and local cluster stakeholders</td>
</tr>
</tbody>
</table>

**Building Startup-Corporate Connections**

**Scope of Work**

Little interaction currently occurs between Hartford’s entrepreneurial community and its large corporations. This leaves entrepreneurs frustrated by their lack of access, and corporations at risk of missing disruptive innovations and stagnating. To begin to close the gap
between startups and large corporations, the Innovation Places Implementation Team proposes four programs: venture showcases, industry-specific mentoring, a corporate innovation program, and the expansion of a University of Hartford matchmaker program.

**Venture Showcases**
Venture Showcases will provide entrepreneurs with a unique spotlight to pitch their innovations and ideas for a prize. Program partners and judges will include experts from local corporations that will provide feedback and insight to top startups from the region.

**Industry-Specific Mentoring**
The industry-specific mentor program will support participants in the new Pop-up Placemaking Food Park physical place initiative and potentially expand to other industries, as needed. The program will align startups with industry-specific mentors and provide specialized assistance and networks to help them refine and grow their business.

**Corporate Innovation Program**
reSET’s Corporate Innovation Program will train corporate employees in entrepreneurship and innovation by providing hands-on experience working with startups and helping them identify opportunities and grow and scale a business. reSET will first work with a corporate client to assemble a group of employees, either from a single department, or across several departments. After the corporate team is formed, reSET will assess the team’s skill set and recruit a start-up business dealing with a problem compatible with the team’s expertise.

Through this program, the team of corporate employees will learn principles of entrepreneurship and innovation and witness these principles in action. The team will obtain hands-on practice identifying start-up challenges and opportunities, as well as in designing and recommending strategies. Throughout the program, participants will bring these new skill sets to their corporations.

**University of Hartford Matchmaker Program**
The existing CT Business Matchmaker annual event offers an opportunity for small to large businesses to expand their subcontracting and government contract opportunities. At the event, small businesses meet with “Primes” (including large and medium-sized companies, municipalities, government agencies, and educational institutions) to present their products and services in a series of one-on-one interviews. This process allows businesses to quickly identify potential partnerships. Small and large businesses also participate in pre-event workshops to help them develop their procurement needs and services pitches.

For the Innovation Places program, the University of Hartford will host smaller, industry-specific matchmaker events (e.g., events focused on Aerospace & Technology and Healthcare). Within the first year of the Innovation Places program, the University aims to hold three of these types of events with support from CTNext.

In addition to these matchmaking events, the Innovation Places management team will pursue opportunities to work with implementing partners of each of the economic initiatives (InsurTech, MedTech, and Aerospace/Advanced Manufacturing) to create opportunities to strengthen connections between innovators in established and emerging companies, and the visibility of Hartford/East Hartford’s innovation community as a whole.

**Timing**
**Venture Showcases**
Venture Showcases will be held twice a year (Spring and Fall events).
Industry Specific Mentor Matchmaking
Mentor network recruitment will begin in the fall of 2017 and continue into the winter of 2018. The network will be launched in coordination with the Pop-up Placemaking Food Park physical place initiative.

Corporate Innovation Program
This program will begin in the first year of the Innovation Places program with a partnership with Travelers. Based on a successful partnership with Travelers in year one, reSET will launch the program open to other corporate partners in Q3 of 2018.

University of Hartford Matchmaker Program
Three new industry-specific matchmaker events will be hosted by the University of Hartford in the first year of the Innovation Places initiative. Industry focus areas will be chosen in consultation with Implementation Team partners, based on complementarity with the areas of focus in other programming, and the ability to leverage partnerships with the leaders of other Innovation Places initiatives.

Initiative Responsibilities

Venture Showcases
Partner universities and Hartford and East Hartford accelerators will provide a pipeline of companies to choose from for the showcase. Corporate partners such as Bank of America, Webster Bank, the Walker Group, Murtha Cullina, and HYPE will provide matching funds and prize pools, and reSET will organize and manage these events in collaboration with the SBDC.

Industry Specific Mentor Matchmaking
reSET will recruit, train, and manage mentors and will also process the needs and inquiries from entrepreneurs and startups. reSET will work with Launch EZ to host the network on an easily accessible online platform. The City of Hartford will bring AgTech and Food companies to the table to expand the networks and build out guidelines and expectations for the use of the network. The Hartford and Aetna will provide financial support to the program. The Swift Factory, Hands on Hartford, and Billings Forge will provide a pipeline of food and agtech entrepreneurs, consultation, as well as food incubator space to support the entrepreneurs.

Corporate Innovation Program
reSET will work with corporate partners in Hartford that are interested in developing their employee engagement programs. reSET will initially pilot this program with Travelers in the beginning of 2018.

University of Hartford Matchmaker Program
The University of Hartford will develop three industry-specific matchmaker programs in the first year of the Innovation Place effort. Specific timing of these events will be coordinated with other partners so that maximum efficiencies and shared benefits can be attained for all stakeholders.

Initiative Cost and Funding Sources

<table>
<thead>
<tr>
<th>Initiative (Lead)</th>
<th>CTNext Funding</th>
<th>Matching Contributions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venture Showcases (reSET)</td>
<td>$10,000/year</td>
<td>$15,000/year</td>
<td>$5,000 committed from Bank of America, $10,000 to be raised, cash prizes raised separately.</td>
</tr>
</tbody>
</table>
| Industry Specific Mentoring (reSET) | $35,000/Y1  
| | $25,000/Y2  
| | $15,000/Y3 | $20,000 | $5,000 committed from The Hartford, $15,000 to be raised. 

| Corporate Innovation Program (reSET) | $30,000/Y1  
| | $20,000/Y2 and Y3 | $20,000/Y1  
| | $10,000/Y2 and Y3 | To be raised, includes cash and in-kind for staff, resources and direct investments. 

| Industry Specific Matchmaking Events (University of Hartford) | $22,500/year | $52,500/year | $45,000 UHart in-kind staff; $7,500 sponsorships to be raised. 

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**Attracting and Retaining Student Talent**

**Scope of Work**

To retain talent from area educational institutions and attract new talent to the area, the Innovation Places Team proposes:

**Cataloging Experiential Learning and Employment Opportunities** at emerging and growing ventures in the area. This effort will be lead by the Innovation Places management staff and include experiential learning opportunities offering students the ability to help both emerging ventures overcome startup and growth challenges for credit during the academic year; internships available over the summer and the academic year; and job opportunities at growing and established firms within the area’s growing innovation economy. Innovation Places management will coordinate with efforts being made by institutions participating in CTNext’s Higher Education Consortium to identify and promote these types of activities.

**Making Connections to Next-Step Resources for College/University-Based Startups.** The Innovation Places Manager will work with leadership from area entrepreneurship programs to provide access to resources for startups formed at the University of Connecticut, University of Hartford, Trinity College and Goodwin College.

**Internship Program.** In the summer of 2016, reSET piloted a program that provides an immersive experience in social enterprise to undergraduate students while simultaneously supporting the efforts of start-ups in our community. Students need meaningful experience to prepare them for the job market or to become entrepreneurs and also need stronger connections to Hartford to see the city as a vibrant place to start their careers. At the same time, early stage startups can’t afford to hire a full-time team, but need support building their businesses—making student partnerships an excellent opportunity. In the internship program expansion, each intern will work on a portfolio of projects with multiple start-ups. reSET will oversee the cohort of student interns and start-ups, offer professional development opportunities, and work individually with interns to support them with a portfolio of projects.

**Timing**

**Cataloging Experiential Learning and Employment Opportunities** and **Making Connections to Next-Step Resources for College/University-Based Startups** — The Innovation Places management team will begin this work in year one of the Innovation Places program.

**Internship Program** — In year one, reSET will focus on matching undergraduate students with ventures in the Innovation Place. In year two, based on the success in engaging local students and new ventures in year one, reSET will aim to expand the program to work with graduate students and stage two companies.
Initiative Responsibilities

**Cataloging Experiential Learning and Employment Opportunities and Making Connections to Next-Step Resources for College/University-Based Startups** – The Innovation Places management team will lead and be accountable for this work.

**Internship Program** – reSET is the sole host and implementer of this initiative and will be responsible for raising matching funds needed to implement the program. So far, the University of Hartford’s School of Engineering has committed to supporting the stipends for students from their program. reSET is also exploring partnerships with Trinity College, University of Hartford’s Barney School of Business, Goodwin College, and UConn to support stipends for their students as well. Finally, reSET is approaching Newman’s Own Foundation, who has been a financial supporter of this program in the past, in order to support expansion of the program.

### Initiative Cost and Funding Sources

<table>
<thead>
<tr>
<th>Initiative</th>
<th>CTNext Funding</th>
<th>Matching Funds &amp; Contributions</th>
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</thead>
<tbody>
<tr>
<td>Cataloging Experiential Learning and Employment Opportunities and Making Connections to Next-Step Resources for College/University-Based Startups</td>
<td>The cost for these initiatives is included within the Innovation Places Management budget below.</td>
<td>The cost for these initiatives is included within the Innovation Places Management budget below.</td>
</tr>
<tr>
<td>Internship Program</td>
<td>$20,000</td>
<td>Year One: $20,000-$30,000 from institutional partners. $15,000 from Newman’s Own Foundation.</td>
</tr>
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</table>

### Shared Space and Resources at MakerspaceCT

**Scope of Work**

MakerspaceCT is a proposed 15,000 square foot makerspace with a planned opening in Hartford in the summer of 2017. The space will serve as a place for entrepreneurs and innovators to connect and invent, and will focus on product development, innovation, and technical education. Once operational, MakerspaceCT will offer sophisticated equipment and technology to the public, supporting entrepreneurs by providing the equipment, tools, and technical assistance to enhance and actualize their innovation ideas. In this way, MakerspaceCT will lower the barriers to entry for product development, prototyping, and manufacturing.

Many entrepreneurial efforts find hardware innovation difficult to fund because of large upfront costs and lengthy development cycles. MakerspaceCT will make this process more affordable by providing entrepreneurs with the tools to develop and produce working prototypes, products, and IP at a fraction of traditional costs. This hardware resource is critical to the innovation ecosystem in Hartford/East Hartford and will function as a vital part of the region’s innovation infrastructure. MakerspaceCT will support the very first spark of product innovation, enabling entrepreneurial ideation.

MakerspaceCT will collaborate with the Innovation Places Initiatives by providing a world-class facility with multiple capabilities and services as well as specific Innovation Places programming. The space will also coordinate services with incubator and accelerator partners (reSET, the UHart Entrepreneurial Center, SBDC, Innovation Hartford and CCAT) – which will further enhance Innovation.
Places social capabilities and networks. MakerspaceCT will offer 25 annual memberships to the Innovative Places Initiative for participants in the InsurTech, MedTech, and Aerospace/Advanced Manufacturing initiatives. More broadly, the space will naturally support attracting and retaining talent by serving as an innovation and startup center for the region.

**Timing**
This initiative will launch when MakerspaceCT opens - projected for the summer of 2017.

**Initiative Responsibilities**
MakerspaceCT will coordinate with the Innovation Places management team to develop eligibility criteria for memberships. MakerspaceCT staff will also field applications for memberships, consult with Innovation Places staff to approve members, and then be responsible for awarding memberships and welcoming and integrating recipients of memberships into the community.

**Initiative Cost and Funding Sources**

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<thead>
<tr>
<th>Initiative</th>
<th>CTNext Funding</th>
<th>Matching Funds &amp; Contributions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared Space and Resources at MakerspaceCT</td>
<td>$45,000 for 25 annual memberships</td>
<td>Matching Funds: $45,000 from the Rutledge Foundation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>In-Kind Service Donations: access to nearly $1M worth of equipment and tools, technical staff, classes and business support services, including conference and classrooms, office equipment.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Annual equipment use estimation: $1,923/year (see budget)</td>
</tr>
</tbody>
</table>

**Innovation Place Coordination and Marketing**

**Scope of Work**
Dedicated efforts to maintain connections between implementing partners, collect and share information about progress and lessons learned between them and with CTNext, and develop productive relationships with entrepreneurs within the community will be critical to the success of the Hartford/East Hartford Innovation Places. Especially in the first year of implementation, the Hartford/East Hartford Planning Team feels that one of the most critical efforts that can be made to create a stronger and more cohesive entrepreneurial ecosystem in the community is to hire Innovation Places staff to professionalize the effort that has been kick-started by this planning process.

There are several convening, coordination, and promotion responsibilities that will be crucial for one, or possibly two dedicated staff members, including:

- Serving as the primary point of contact for Hartford/East Hartford Innovation Places initiatives to outside organizations and interested parties
- Cultivating and maintaining relationships with participants in the innovation economy;
- Overseeing outreach and communication with all Innovation Place stakeholders including the entrepreneurial community, property owners, businesses, community groups, government and business organizations;
- Coordinating and overseeing two student retention programs: Cataloging Experiential Learning and Employment Opportunities and Making Connections to Next-Step Resources for College/University-Based Startups;
- Coordinating and overseeing the Asset and Cluster Mapping initiatives;
- Marketing Hartford/East Hartford as an Innovation Place and attracting resources and talent;
- Creating connections between colleges and universities and ventures participating in Innovation Place programming to encourage experiential learning, internship, and job placement opportunities;
- Working with entrepreneurial programs at colleges and universities to identify “next step” resources available through Innovation Place initiatives;
- Working with anchor corporations to host innovation events designed to provide stronger linkages between established and emerging companies in Hartford and East Hartford;
- Developing a monitoring and evaluation framework that includes each of the initiatives proposed and setting up a system for ongoing measurement and reporting of success;
- Providing reporting and coordination assistance to CTNext;
- Developing relationships with leaders of other Innovation Places, and entrepreneurial programs across the state in order to strengthen the ecosystem as a whole.

**Timing**

Once the governance structure and fiduciary agent are in place for the Innovation Places program, staff job descriptions will be drafted. After funding is awarded, a call for applications will be made.

**Initiative Responsibilities**

The governance committee of the Planning Team, together with the fiduciary agent, will take responsibility for proposing the Innovation Places staffing structure necessary for success and for drafting the job description(s) that fit those roles. The fiduciary agent will then take responsibility for posting the position(s) and work with the newly formed Implementation Phase governance committee/board to interview applicants and fill the position(s).

**Initiative Cost and Funding Sources**

The estimated annual budget for this initiative is $400,000. This total covers staff time as well as an operating budget to help execute several key functions on behalf of the Hartford/East Hartford Innovation Place. These management functions will include: marketing, communication, and branding of the overall program and its initiatives; setting up a visible and accessible ‘home’ for the program; establishing and maintaining accounting and financial management processes for receipt and distribution of payments, including ‘sub-awards’ to the implementing partners of individual initiatives; and creating and maintaining monitoring and evaluation efforts of individual programs.

In the process of developing a governance structure and choosing a fiduciary agent, the Planning Team will seek opportunities to secure in-kind contributions to cover some of these expenses where possible, and establish a specific budget for funds requested from CTNext.

To support the Innovation Places Coordination and Management initiative, the University of Connecticut School of Business will offer in-kind services of faculty and staff valued at $687,109 over four years. The final use of these in-kind services will be determined by the governance team. For example, UConn’s in-kind donations of faculty time and university space could be used entirely for the InsurTech initiative, spread across various social capabilities initiatives, or managed by the new Innovation Places management team. In-kind contributions could include a continued share of Michelle Cote’s time to provide leadership and facilitation to the overall effort as the governance structure evolves and the development of the InsurTech initiative, which includes advising and coordinating the efforts of the industry partners and participants.
With the relocation of the Connecticut Center for Entrepreneurship & Innovation (CCEI) to downtown Hartford, it is UConn’s expectation to also dedicate some time from additional CCEI staff to support activities that CCEI becomes involved within the Innovation Place. The School of Business is also prepared to offer access to academic leaders that can ensure continued long term support to participating industry, including Associate Dean Sulin Ba to align UConn’s academic programs with relevance to the insurance industry to the initiatives being proposed; Professor Suresh Nair’s time to assist with varied business graduate programs related to industry; Professor Ram Gopal’s time to consider opportunities to align Operations and Information Management department offerings with the needs of industry. Additionally, UConn will offer time from two staff members assigned to experiential learning programs and career development to help engage graduate students in opportunities to work with industry partners including internship opportunities in these sectors. Finally, UConn is able to offer $15,000 in in-kind space for hosting meetings of Innovation Place partners, events, or other activities at either CCEI or the Graduate Business Learning Center’s Observation Deck.

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<thead>
<tr>
<th>Initiative</th>
<th>CTNext Funds</th>
<th>Matching Contributions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation Place Coordination and Marketing</td>
<td>$400,000/year</td>
<td>$181,777/year</td>
<td>Matching contributions include $10,000 from the City of Hartford in space and supplies and $171,777 in in-kind donations from UConn, described above.</td>
</tr>
</tbody>
</table>

**Innovation Places Implementation and Governance**

Having completed the conceptual development of each element of the Hartford/East Hartford Innovation Places Strategy, the Planning Team is now ready to develop a structure capable of supporting it. The Planning Team’s Governance Committee has agreed to take a lead role in proposing this structure, and in developing relationships with organizations who have not been previously involved in the planning efforts to assist with governance. Principal amongst these is approaching organizations capable of serving as fiduciary agents of the group during the Implementation Phase.

The Planning Team has also discussed the need to establish a formal Board of Directors, or similar structure, that would give the anchor institutions and principal investors of this effort a formal role to provide some input and assessment of progress made during implementation.

However, the Planning Team also recognizes that organizational ownership and accountability are integral to the success of each of the initiatives proposed in this strategy. Therefore, initiatives proposed in this strategy will be implemented and governed by representatives of the lead partners listed for each initiative, who will ultimately be responsible for demonstrating results of investments. Staff employed by the Hartford/East Hartford Innovation Places effort will coordinate with leaders of each initiative in order to identify opportunities for collaboration between initiatives and synergies of activities during implementation, but decisions about whether or not to act on those opportunities will be left to the owners of each initiative.

The Planning Team Governance Committee will meet in the next month to identify options to create a supportive advisory structure, and potential fiduciary agents for the Implementation Phase. Once the structure is developed and fiduciary agent is chosen by the group, and if funding is awarded, job descriptions for management and coordination of the Innovation Places initiatives proposed here will be drafted and posted for applications.
Hartford/East Hartford Innovation Places Governance Committee:

Todd Andrews, Vice President for Economic & Strategic Development, Goodwin College
Jamie Bratt: Director, Economic Development, City of Hartford
Beth Chaty, Chief of Staff, Hartford HealthCare
Michelle Cote, Managing Director, Connecticut Center for Entrepreneurship & Innovation
Spencer Curry, Principal, Trifecta Ecosystems
Rich Hollant, President, Co:LAB
Lou Manzione, Dean, School of Engineering, University of Hartford
Ojala Naeem, Managing Director, reSET
Jason Rojas, Chief of Staff, Trinity College
John Shemo, Vice President, MetroHartford Alliance

Hartford and East Hartford already posses the ingredients of a thriving Innovation Place: concentrated economic clusters, committed anchors, vibrant physical places, and growing social capabilities. As the state capitol, Hartford even symbolically serves as the perfect location for a flagship Innovation Place. The Innovation Places planning process alone has already strengthened each of Hartford and East Hartford’s existing assets. The process has caused anchors to open and connect; potential impact areas to recognize their strengths and needs; and entrepreneurs, innovators, and civic and industry leaders to share the same tables and expand and deepen their networks. We look forward to working with CTNext in continuing this process and formally launching the initiatives and partnerships that will accelerate innovation and commercialization in Hartford and East Hartford.

Appendices

Appendix A - 1.6.17 Hartford East Hartford Innovation Places Presentation
https://masseconomics.egnyte.com/dl/ydwXBNAvzQ

Appendix B - 2.3.17 Hartford East Hartford Innovation Places Presentation
https://masseconomics.egnyte.com/dl/xs5P4fNIQ1

Appendix C - Planning Team Experience
https://masseconomics.egnyte.com/dl/OIwkixBpIV

Appendix D - Supplemental Letters of Support
https://masseconomics.egnyte.com/dl/5BbmJ07oB

Appendix E - Related Past and Planned Future Investments
https://masseconomics.egnyte.com/dl/nf0z90qzHQ