

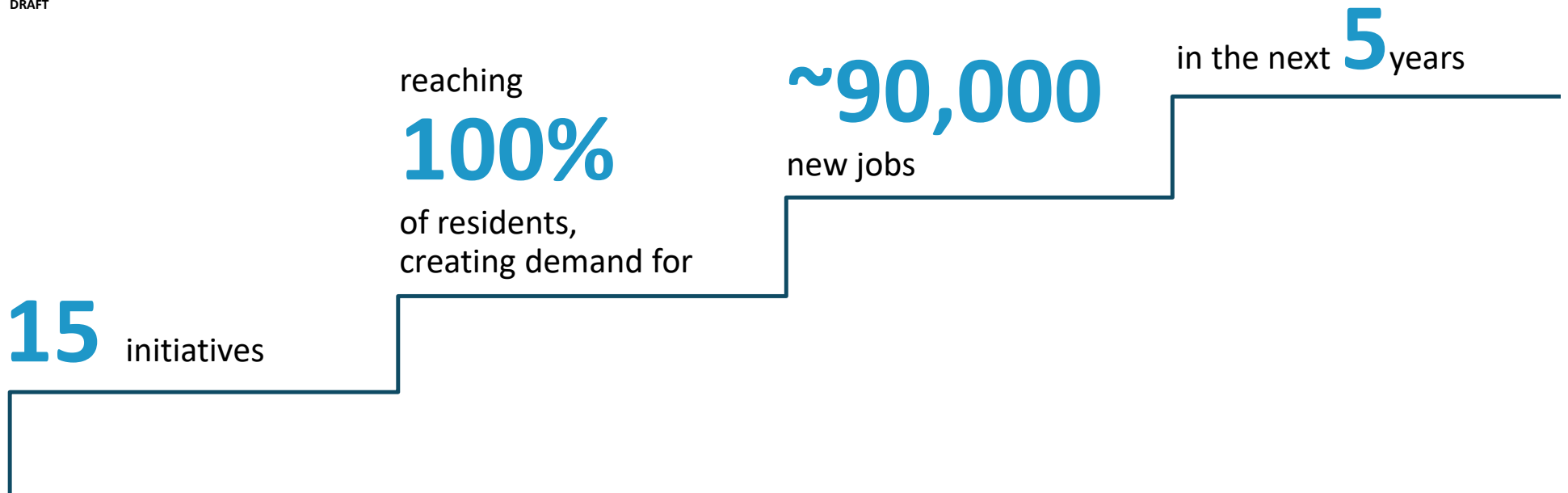
# Connecticut's Economic Action Plan: Driving inclusive growth

Full initiative compendium

Mar 12, 2020

## By the numbers: our vision for inclusively growing CT's economy

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**Benefits for CT and its residents will continue through the next decade**

## Our aspiration

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# CT will be a leading state in the nation for economic growth and job opportunities for all by 2025

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The fastest job growth in the Northeast



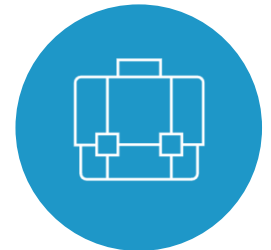
A top ten state for median household income growth



15,000 additional households lifted into earning an annual living wage



A top ten state for median household income of racial and ethnic minorities

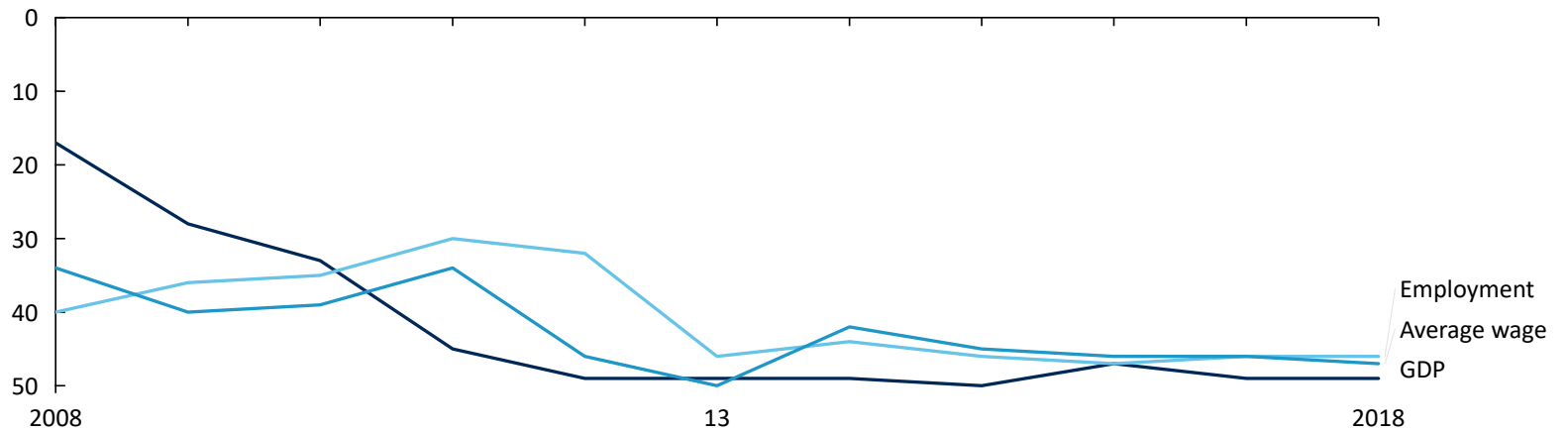


The most work-ready population in the US

# CT lags the nation in key growth indicators

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CT's growth rankings vs US states<sup>1</sup>, Rank



Employment growth rank	40	46	46
Average wage growth rank	34	50	47
GDP growth rank	17	49	49

<sup>1</sup> Growth rate defined as the CAGR for the trailing five years

SOURCE: US Bureau of Economic Analysis, US Bureau of Labor Statistics, Moody's Analytics

## CT saw mixed performance in key economic enablers over the last 10 years

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### Workforce

- Sustained outmigration (-65,000 residents since 2012)
- Working age population is expected to decline by more than 150,000 workers between its 2011 peak and 2025

### Innovation

- Strong innovation pipeline (6th in US for business R&D, 8th in patent generation per capita)
- Low R&D conversion rate (45th in start-up density, 36th in high growth company density)

### Business climate

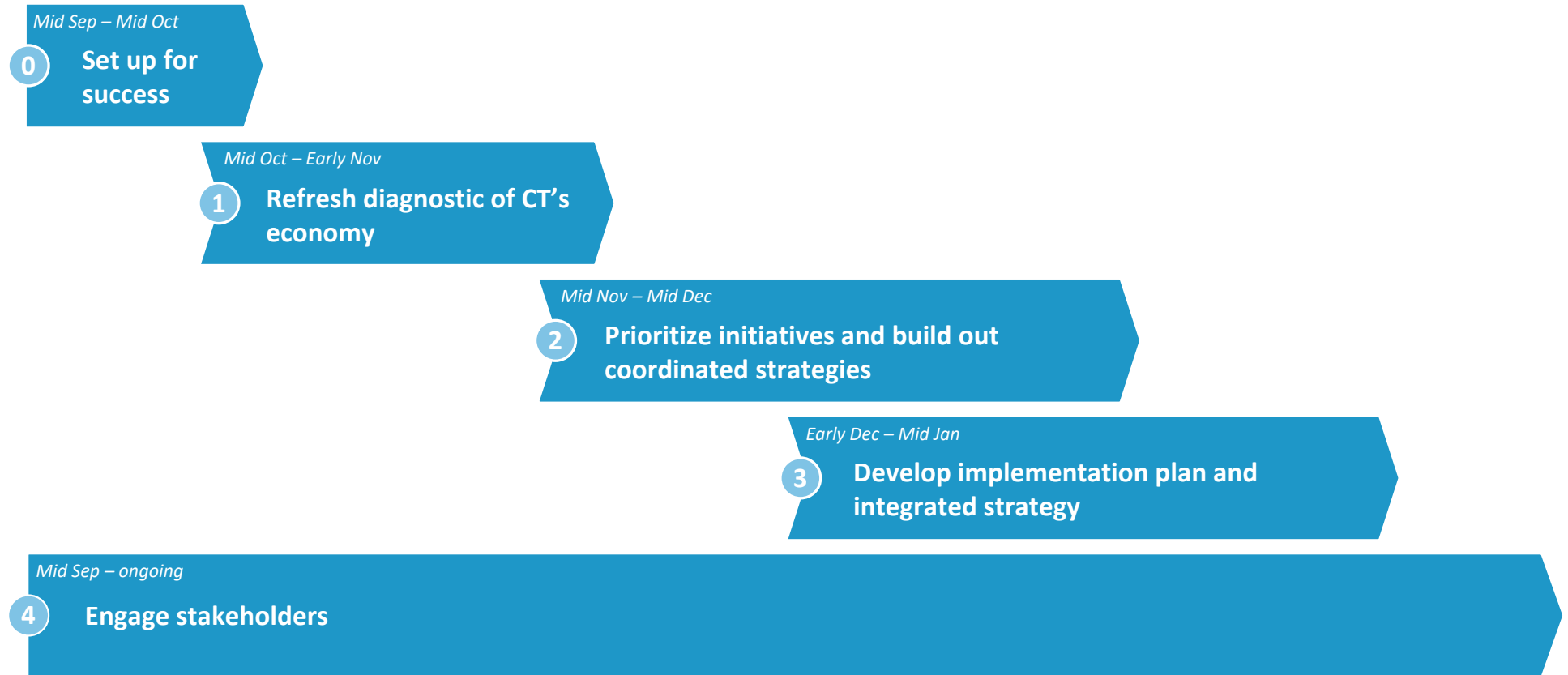
- Bottom 10 states for doing business across multiple indices
  - 48th in small business friendliness
  - Business costs are 10% higher than US average, though lower than MA and NJ
  - CT's corporate tax rates are comparable overall to other states (ranked 27th)

### Infrastructure

- 35th in commute times, 43rd in road quality
- Energy prices are the 3rd most expensive in US

## Our plan is rooted in robust diagnostics and stakeholder engagement

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# We conducted substantial stakeholder outreach to shape the action plan

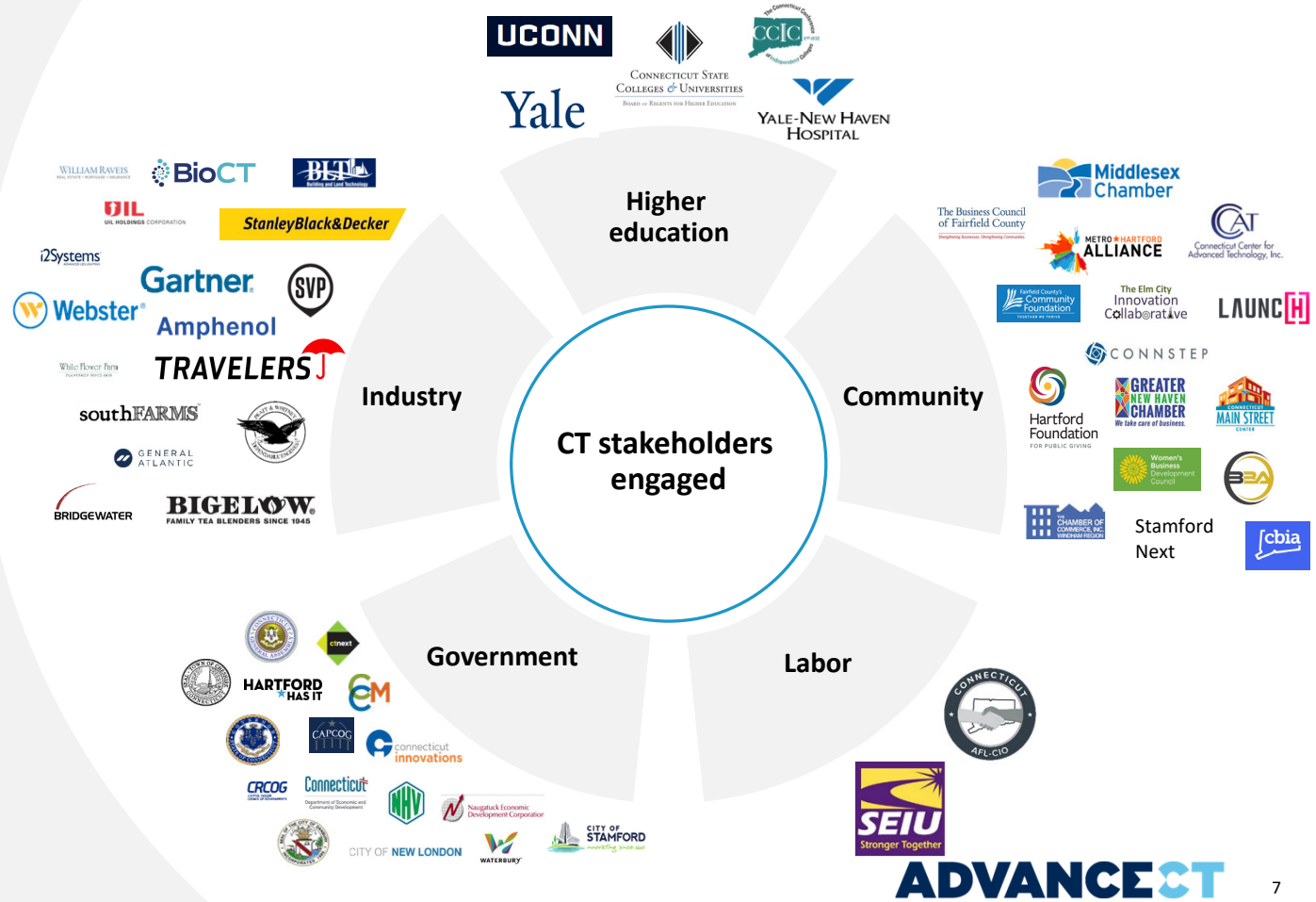
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~1000 survey respondents from all areas of the state and all target industries

90+ stakeholders from 50+ organizations interviewed or engaged in small group discussions

35+ Advisory Council members

20+ industry experts interviewed



## Our action plan for inclusive economic growth is built on 5 pillars

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A thriving,  
inclusive  
CT economy

1



### Communities

Attract and retain talent by investing in vibrant and affordable communities for all

2



### Innovation

Support growth and generate inclusive economic opportunity within CT's most innovative and specialized industries

3



### Infrastructure

Invest in safe, fast, & accessible infrastructure to enable sustainable growth

4



### Business environment

Improve CT's environment and reputation for starting and growing businesses

5



### Workforce

Broaden the base of skilled workers to meet increasing industry demand

**5 pillars, 14 initiatives, creating ~90K jobs at a state cost of ~\$510M<sup>1</sup> across five years**

<sup>1</sup> \$97M in tax credits, \$316M in capital grants and loans, and \$93M in operating grants

## Communities

● Priority initiative ● Signature initiative

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### **A** Communities Challenge<sup>1</sup>

Offer competitive community funds to spur investment in compact, high-quality, and transit-connected development, prioritizing our most strategic urban cores

### **B** CT Welcomes All

Retain and attract 4-year graduates by offering companies tax credits for repaying student loans of STEM employees

Attract and help immigrants make CT their new home by coordinating career services and community building support

### **C** Arts & Culture Studios

Draw upon historic preservation resources and real estate investment to create artist studios, live-work space, galleries, and cultural centers

<sup>1</sup> Hartford, New Haven, and Stamford are not eligible to compete for this funding due to the placemaking component of the Innovation Corridor initiative

## Vision

Attract and retain talent by investing in vibrant and affordable communities for all

## Innovation

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### **A** Innovation Corridor

Concentrate industrial and commercial activity and incentivize inclusive economic opportunity for local residents

Invest in livability and vibrancy of urban areas through dedicated placemaking fund

### **B** Support for Underserved Business Leaders

Grow enterprises owned by women, minorities, veterans, and people living with disabilities by providing technical assistance and increasing access to capital

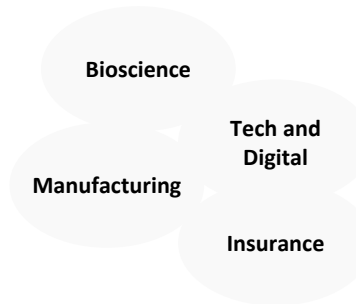
### **C** Smart Manufacturing

Accelerate modernization through technical support and workforce training, and work with third-party lenders to create a partial guarantee framework enabling investment for expansion and job creation

### **D** Greentech Fund

Advance nascent specialization in clean energy technology by investing in capital improvements and place-based development in greentech hubs

● Priority initiative ● Signature initiative



## Vision

Support growth and generate inclusive economic opportunity within CT's most innovative and specialized industries

## Business Environment

● Priority initiative ● Signature initiative

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### **A** Regulatory Modernization

Eliminate barriers and pain points in regulations and business processes to improve the perception and reality of doing business in CT

### **B** Smart Incentives and Business Concierge

Centralize the business attraction, retention, and expansion team to offer white glove concierge service for clients

Redesign incentive programs to offer consistent, transparent programs to spur high wage job growth, especially in disadvantaged areas

### **C** CT Brand

Launch a marketing campaign that appeals to tourists, residents, potential migrants, and businesses, highlighting the State's strengths and correcting misconceptions about its business climate

## Vision

Improve CT's environment and reputation for starting and growing businesses

## Workforce

● Priority initiative ● Signature initiative

DRAFT

### **A** Regional Sector Partnerships

Energize regional workforce-sector partnerships and jumpstart a responsive, demand-driven, skills-focused workforce system

### **B** Career Pathways and Skills Upgrading

Build pathways and credentialing opportunities for all CT residents to gain exposure, training, and opportunities around critical occupational skills

### **C** Labor Market Insights

Build a robust data and analytics platform to optimize workforce programming

**Additional initiatives to be designed and implemented by Governor's Workforce Council**

## Vision

Broaden the base of skilled workers to meet increasing industry demand

## Infrastructure

● Priority initiative ● Signature initiative

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### **A** CT 2030 Transportation Plan

Invest in CT's statewide road, rail, and other transit infrastructure to connect communities and empower a mobile workforce

### **B** Redevelopment of New London State Pier

Transform state pier in New London into facility capable of lifting heavy cargo, enabling it to serve as a world-class offshore wind center

**Specifics of transportation improvement to be approved by legislature**

## Vision

Invest in safe, fast, & accessible infrastructure to enable sustainable growth

Our action plan

## Our commitment to ensuring opportunities for all

We are making a series of commitments to all of Connecticut's residents:

We will only spend taxpayer money on incentives that create living wage jobs

We will provide additional benefits to companies who locate in economically disadvantaged communities

We will maintain a relentless focus on innovation—and on ensuring all residents share in that growth



## The plan is designed to create ~90K jobs, with strong leverage of State funds

★ Signature initiative

Initiative <sup>1</sup>	5-yr total jobs (K)	Direct costs					Tax credits (M)	Total State funding <sup>4</sup> (M)	Leveraged Private and other govt funding (M)	5-year State cost per job <sup>4</sup> (K)
		Shown by bonding year		Shown by expense type		Total State funding <sup>4</sup> (M)				
		Year 1 (M)	Years 2-5 (M)	Capital grants and loans (M)	Operating grants (M)					
★ Innovation Corridor	20	\$3	\$148	\$151		\$59	\$210	\$890	\$10	
Underserved Business Support	11	\$12	\$48	\$50	\$10		\$60		\$6	
Smart Manufacturing <sup>2</sup>	12	\$10	\$40		\$50		\$50	\$85	\$4	
Greentech Fund	5	\$5	\$20	\$20	\$5		\$25	\$150	\$5	
★ CT Communities Challenge <sup>3</sup>	8	\$7	\$68	\$75			\$75	\$200	\$9	
Welcome Home CT	11		\$2		\$2	\$38	\$40		\$4	
Arts and Culture Studios	2	\$3	\$12	\$15			\$15	\$65	\$9	
★ Regulatory Modernization	11	\$1	\$5		\$6		\$6		\$1	
Smart Incentives and Concierge	12								N/A	
CT Brand	N/A	\$5	\$20		\$25		\$25		N/A	
New London State Pier Redevelopment	1	\$40	\$40	\$80			\$80	\$78	\$63	
<b>Total:</b>	<b>91</b>	<b>\$86</b>	<b>\$402</b>	<b>\$391</b>	<b>\$98</b>	<b>\$97</b>	<b>\$586</b>	<b>\$1,468</b>	<b>\$6</b>	

1 CT 2030 Transportation Plan and Workforce initiatives have other owners and are not included on this list; see appendix for additional initiative detail

2 Smart Manufacturing is designed to grow and retain jobs in the state's manufacturing sector; numbers reflect new and retained jobs

3 The Communities Challenge is designed to increase livability to retain residents as well as to create jobs; it is estimated to create ~3K jobs and retain ~8K residents (inclusive) by increasing livability.

4 State funding includes costs paid (e.g., grants and loans through bonding) and future revenue forgone (e.g., tax credits)

# Our path to impact

Total project funding will include an overall **2.5:1 match from private non-profit, and other funding sources**

40-50% of public funding will come from **redirecting existing DECD resources**

**Rate of return is in excess of 10%**, even if we are only partially successful

The State's investment will be **paid back between 2026-2030**

**Overall cost per job is \$5-7K**, vs CT's history of \$15K+ per job

## How we will collaborate to drive growth

Ensuring the success of our state is a **team effort**, requiring collaboration across sectors, industries, and regions

We've spent the last year **breaking down silos to develop the action plan in close partnership** with business, government, and social sector leaders across Connecticut

**The real work begins now**—and our plan is to continue those close partnerships in execution

Can we  
count on  
your  
support?



Department of Economic and  
Community Development

**ADVANCECT**

*Formerly the Connecticut Economic  
Resource Center*

**ADVANCECT**

**Initiative detail—includes job and cost sizing, case studies**

## Diverse stakeholders informed our initiative prioritization and development

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### Sources of insight

- Advisory Council
- Industry associations
- Case studies from other states and cities
- Industry experts
- Stakeholder survey with ~1000 responses

- Advisory Council
- Key stakeholders
- Stakeholder survey
- Impact & feasibility
- Sector
- Geography
- Impacted population
- Timeline

- Advisory Council
- Key stakeholders
- Stakeholder survey
- Impact assessment
- Cost
- Impact
- Return on investment

# CT Communities Challenge

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## Context and rationale

**CT struggles to attract and retain residents, in part due to underinvestment in place-based community development**

- Drivers of perceived low quality of life and a lack of urban vibrancy vary by region
- Northwest CT identifies amenities for young talent as a major concern, while Bridgeport ranks housing and transportation as top needs

## Sources of inspiration



MI Redevelopment Ready helps cities implement planning, zoning changes, and marketing to jumpstart development



MassDev's TDI assigns Fellows to distressed Gateway Cities to coordinate transformative place-based investment



RCCF ESD Grants invest \$150M across 10 NY regions to fund capital projects that increase economic activity



The CA AHSC Program awards \$1-30M grants for affordable housing, public infrastructure, and streetscape



## Initiative detail

**Offer competitive community grant funds to spur investment in compact, high-quality, and transit-connected development, prioritizing our largest and most strategic urban cores<sup>1</sup>**

**Funded projects must demonstrate that they will:**

- Improve convenience, livability, and appeal of CT communities
- Densify commercial or residential development near transit hubs
- Provide project area residents with greater access to and/or opportunities for employment
- Attract private sector redevelopment of adjacent commercial or residential properties

**Municipalities can apply for funding for either development or pre-development<sup>1</sup>**

- Pre-development grants fund site design, financial feasibility analyses, and market studies
- Development grants fund capital improvements of up to \$10M
- To encourage partnership, awards from the Communities Challenge can represent no more than 20% of total project costs
- DECD will assign regional coordinators to help municipalities access and use funds

**Two-thirds of the funding will be reserved for applications from distressed municipalities**

## Inclusive growth elements

Funding conditional on anti-displacement strategy for existing residents

Funding criteria reward positive impact on underserved & marginalized communities

## Five-year impact and cost summary

Direct jobs

**3K**

Talent retained<sup>2</sup>

**8-10K**

Project cost<sup>3</sup>

**~275M**

Public cost<sup>4</sup>

**~75M**

<sup>1</sup> Innovation Hub anchor cities of Stamford, Hartford, and New Haven are not eligible for Communities Challenge funding due to dedicated placemaking funding included in Innovation Corridor initiative

<sup>2</sup> Inclusive of 3K direct jobs created

<sup>3</sup> Total project cost, includes upfront and annual operating costs, does not split share of public investment verses non-public investment

<sup>4</sup> \$100M in grants and loans for planning and capital investments; \$10M in Y1 bonding for planning and early execution funding and \$90M in Y2-5 bonding for execution

# CT Welcomes All

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## Context and rationale

### Workforce supply in CT faces decline due to aging workforce and high out migration

- CT is ranked 41st in US on net migration
- CT retains <40% of its university graduates
- CT employers have unmet demand across the education and skill spectrum

### CT is family and immigrant-friendly and can draw upon this reputation to address its workforce shortfall

- CT is in the top 6 in health, safety, education, child care, and affordability for families
- 34% of Stamford, 30% of Bridgeport, 30% of Dan-bury, and 22% of Hartford residents are foreign born
- Immigrants comprise ~18% of workforce and ~25% of CT business owners
- CT has large Indian, Jamaican, Polish, and Hispanic immigrant clusters

## Sources of inspiration



'Welcome Dayton' focuses on immigrant integration by providing business and economic development support and ensuring access to better healthcare, and education



Rhode Island's "Wavemaker Fellowship" provides grads pursuing a career in RI in STEM or design student loan forgiveness for up to 4 years



## Initiative detail

### Retain and attract college graduates to CT through employer tax credits for student loan repayment and young professional recruiting:

- Offer tax credits to companies who repay student loans of new STEM hires
- Collaborate with colleges, universities, and local employers to link talent to jobs

### Provide comprehensive programming and support centered on career assistance, community engagement and access to social services for immigrants

- DECD will partner with NGOs (e.g. CT Institute for Refugees and Immigrants, CT Immigrant & Refugee Coalition) to develop programming for pop-up resource centers and a website to assist immigrants with career, cultural, social, and financial tasks (e.g., school enrollment, bank selection)
- DECD will identify opportunities to provide accelerated credentialing and/or reciprocity for skilled immigrants (e.g., nurses)

### Inform college students and potential residents of CT's communities and cultural appeal

- Ensure CT Brand team showcases CT's family friendly culture, and the latest new entertainment and housing options in its cities
- Highlight CT's diversity, inclusivity, and welcoming communities and culture

## Inclusive growth elements

Initiative designed around empowering immigrant and refugee communities

Historically underrepresented and financially disadvantaged groups prioritized for loan repayment

## Five-year impact and cost summary

Direct jobs  
**5-6K**

Total jobs  
**10-12K**

Project cost<sup>1</sup>  
**\$40M**

Public cost<sup>2</sup>  
**\$40M**

<sup>1</sup> Total project cost, includes upfront and annual operating costs, does not split share of public investment verses non-public investment

<sup>2</sup> \$38M in tax credits for employers repaying student loans, \$2M in Y2-5 bonding in operating expenses for guidebook development and community partner services

SOURCE: Moody's Analytics; US Census Bureau, EMSI, 2014-2018 American Community Survey 5-Year Estimates

# Arts and Culture Studios

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## Context and rationale

**Investment in space for artists can help CT attract and retain talent by:**

- Catalyzing neighborhood investment
- Rehabilitating vacant buildings
- Enhancing community quality of life
- Animating street life in blighted areas
- Encouraging creative firms to move to CT

**Art space developments typically require multiple funding sources:**

- Financing often includes market-rate and federal loans, federal tax credits, and grants
- State funds are often used to fill small financing gaps
- Given this complexity, technical assistance can be vital in catalyzing development

## Sources of inspiration



Pittsburgh's Penn Avenue Arts Initiative developed art space alongside commercial district promotion, business assistance, and youth programming

## Initiative detail

**Appoint a DECD Art Space Officer to assist municipal agencies in planning and executing the development of artist spaces.**

**Responsibilities include:**

- Forming partnerships between arts organizations, real estate developers, and CDCs to develop space for visual artists, architects, designers, musicians, writers, and other creative professionals
- Identifying former mills, factories, and underutilized public and private buildings that could be acquired and rehabilitated into live-work lofts, studios, performance space, and galleries
- Assembling existing financing (e.g., low-income housing tax credits, historic preservation credits, Opportunity Zone tax credits, CDBG grants, HOME funds, community foundations, and CDFIs)
- Engaging the community in developing arts programming and setting eligibility criteria for artists (e.g., artist must agree to offer youth programming) and other tenants

**Art Space Fund to provide additional financing for art space developments**

- The Fund would offer \$2-\$4M loans or \$200-\$500K grants as necessary for project viability
- Similarly-sized state and local funding was offered in projects such as Ice House (Pittsburgh) and Toshiro-Kaplan (Seattle)

## Inclusive growth elements

Eligibility criteria for artists and commercial tenants consider cultural diversity and community orientation

Community Benefit Agreements and anti-displacement plans required

## Five-year impact and cost summary

Direct jobs<sup>1</sup>  
**~800**

Total jobs<sup>1</sup>  
**1.6K**

Project cost<sup>2</sup>  
**~80M**

Public cost<sup>3</sup>  
**~15M**

<sup>1</sup> Benchmarked to similar art developments at \$80K per studio created, \$80M in project costs can create space for 1K professional artists and creative firm professionals; assumes 80% are new to state

<sup>2</sup> Total project cost, includes funding from private developers and other existing federal and state programs of approximately 80% of total project costs

<sup>3</sup> \$3M/yr in loans and grants to fund 4 new ~50 studio rehabilitation projects; \$3M in Y1 bonding, \$12M in Y2-5 bonding

# Innovation Corridor: Innovation Placemaking Platform

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## Context and rationale

**Attractive, vibrant cities are needed to attract and retain residents and workers**

- Mixed-use and transit-oriented development increase livability and entertainment options
- Public space can be used to showcase local innovation and offer amenities like WiFi and free meeting space to jumpstart collaboration

## Sources of inspiration



Caltrans' Sustainable Planning Transportation Grant awards \$100K - \$1M grants for land use planning



RCCF ESD Grants invest \$150M across 10 NY regions to fund capital projects that increase economic activity



Twin Cities' \$12M Communities Demonstration Grant pool funds public infrastructure and space improvements



The CA AHSC Program awards \$1-30M grants for affordable housing, public infrastructure, and streetscape

## Initiative detail

**The Platform will award grants for transit-oriented development and urban revitalization**

**Hartford, Stamford, and New Haven metro regions may each apply for grants to fund development of a comprehensive urban design, vision, and blueprint**

- Plans can be developed with expert urban design firms and engage regional stakeholders
- Criteria for execution funding include talent attraction, displacement minimization, cultural asset preservation, and district-based placemaking
- Funding may be used to integrate or improve on existing urban and regional plans
- Approved plans are a prerequisite to receiving funding in years 2-5

**Each metro region can apply for annual grants to execute their plan**

- Recipients may be public entities or a consortium of public and private partners
- State grants must represent no more than 20% of total project costs
- Applicants must demonstrate how plans will attract development, assist in linking urban centers to transportation systems, and advance equity and inclusion

## Inclusive growth elements

Funding conditional on anti-displacement strategy for existing residents

Funding criteria reward positive impact on underserved & marginalized communities

## Major funding sources (included in cost estimates for site pages that follow)

Total public funding for Innovation Placemaking Platform is \$100M<sup>1</sup>

Public-private partnerships highly encouraged; awards represent no more than 20% of total costs

Target private: public leverage for funding of 4:1

<sup>1</sup> \$3M in bonding in Y1 to cover plan design or integration of existing plans, remainder to be bonded in Y2-5 with split determined by results of planning and grantmaking process

# Innovation Corridor: New Haven Region Bioscience Hub

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## Context and rationale

### New Haven is a bioscience research powerhouse

- New Haven is 4th in NIH funding per capita
- Yale is 10th in institutional NIH funding
- New Haven is already home to a sizeable cohort of bioscience companies; Alexion w/ 10M USD R&D investment

### Commercialization opportunities are limited, driving small and large companies to leave

- Inadequate wet lab and graduation space limits growth of existing companies
- Lack of commercialization ecosystem leads to talent drain
- Limited late-stage funding opportunities
- Bayer, Bristol Myers Squibb, and Alexion have relocated HQs elsewhere, eliminating over 2000 jobs in the process

## Sources of inspiration

WEXFORD  
SCIENCE+TECHNOLOGY

Wexford Innovation Center in RI, new innovation hub w/ 190K sq. ft incubator, \$88M development

UNIVERSITY OF  
CAMBRIDGE

Cambridge UK / UofC: 61k people employed by 4.4k tech-based companies in local area

## Initiative detail

- **Public-private partnership will develop a bioscience incubator in New Haven dedicated to start-ups and early stage companies**
  - Private developer will build a facility with ancillary services, wet lab and office spaces, graduation space for start-ups, and anchor company space
  - Yale will extend research expertise and university resources to support start-ups centered around biotechnology, pharmaceuticals, med-tech and devices, and precision medicine
  - BioCT, CTNext, Yale and industry will recruit high-level, in-house mentors that will provide active mentorship, facilitate career opportunities, and improve commercialization
  - CI, CTNext, and BioCT work with a co-working provider to foster innovation through start-up competitions, hackathons, internships, and an in-house start-up residency
- **DECD, CERC, partners will develop other critical elements of an innovation ecosystem**
  - DECD supports placemaking to make New Haven more attractive for young professionals
  - CERC leads efforts to attract two anchor bioscience companies to New Haven
  - CI and BioCT spearhead a marketing campaign to tout CT and New Haven as a bioscience destination

## Inclusive growth elements

Targets set for start-ups in incubator founded by underrepresented minority groups

Ensure workforce pillar program efforts align with Hub needs and offer training and credentialing to local residents

## Five-year impact and cost summary

Direct jobs<sup>1</sup>  
**0.5-1K**

Total jobs  
**3-4K**

Project cost<sup>2</sup>  
**\$350M**

Public cost<sup>3</sup>  
**\$55M**

1 Job growth estimates provided for next five years assuming incubator launch in 2023; post-launch 5-year direct jobs estimate is 2.5-3K, total jobs 7-7.5K

2 Total project cost, includes upfront and annual operating, and placemaking costs; does not split share of public investment versus non-public investment

3 \$22M in tax credits for incubator space, \$1M in Y1 bonding for placemaking planning, \$32M in Y2-5 for execution

# Innovation Corridor: Stamford Region Tech and Digital Campus

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## Context and rationale

### Industry anchors rely on tech talent

- Software and data services is CT's 4<sup>th</sup> largest tradable cluster, and has highest expected growth
- From software development firms to manufacturers or insurance carriers, digital talent drives competitive advantages
- Job postings for computer science talent increased by over 11.5% p.a. in CT over the past 3 years

### Tech talent is scarce within CT

- There is an undersupply of computer science talent in CT, with ~2 CS job openings for every available CS worker
- CT produces ~1,000 computer science degrees a year, and is not keeping up with demand
- CT is projected to produce only 35% of the projected computer science jobs by 2022

## Initiative detail

### Develop CT's technology ecosystem by reducing talent shortages, creating a hub for research, and boosting commercialization

- DECD runs a competitive process to identify a leading higher education institution to create an anchor campus for the tech ecosystem in Stamford
  - DECD solicits interest from institutions with highly rated CS and digital programs
  - Higher education partner designs curriculum for and educates ~1,000 Bachelor's, Master's and PhD graduates per year, strengthening an undersupplied talent pool
  - The State uses the public process to improve global recognition of the quality tech talent trained and located in CT
  - AdvanceCT helps to attract anchor companies to collocate with the campus and collaborate with faculty to spur new ideas and increase innovation
- Higher ed partner brings new, innovative thinking on education program design and delivery, partnering with industry as needed to inform curriculum
- Faculty and industry talent leverage innovation ecosystem to create startups in the hub, creating a network of investors, accelerators, and supporting services

## Sources of inspiration



NYC used desirable land and \$100M in cash incentives to attract top institutions

The city used a stage-gated process to attract Cornell Tech, culminating in a competitive RFP

Partnership with local universities was encouraged, as was community engagement

## Inclusive growth elements

Demonstrated commitment to equity and inclusion is meaningful portion of RFP score (e.g., 20% in Roosevelt Island)

Public-private partnership to endow scholarships for minorities

Commit to local procurement of goods and services

## Five-year impact and cost summary

Direct jobs  
**5-6K**

Total jobs  
**10-12K**

Project cost<sup>1</sup>  
**\$550M**

Public cost<sup>2</sup>  
**\$105M**

<sup>1</sup> Total project cost, includes upfront and annual operating costs, does not split share of public investment versus non-public investment  
<sup>2</sup> \$20M in tax credits, \$1M in Y1 bonding for placemaking planning, \$84M in Y2-5 for development of tech campus (\$52M) and placemaking execution (\$32M)

# Innovation Corridor: Hartford Region Insurance and Manufacturing Hub

DRAFT

## Context and rationale

### Deep specialization in advanced manufacturing and insurance in Hartford

- CT is 5x as specialized as the average state in aerospace, electrical, and ship building, with ~160K manufacturing jobs
- CT ranks 3rd nationally in direct written premiums, with 47K insurance jobs, many centered in Hartford

### Existing innovation momentum is poised for acceleration

- Stanley Black & Decker and private sector development in Parkville; R&D activities underway at Manufactory 4.0
- CTNext Innovation Places built 7 industry partnerships and relocated 5 Insurtech companies in Hartford
- CCAT supports manufacturers with applied research and assistance, with a particular emphasis on energy and advanced manufacturing
- MetroHartford Alliance, CRCOG, and Hartford Foundation for Public Giving published “Hartford Metro Future” plan



## Initiative detail

- **A Hartford Region Hub working group led by DECD and MetroHartford Alliance will densify industrial and commercial activity, revitalize neighborhoods, and create inclusive opportunity**
  - Will include private, public, and social sector entities, (e.g., MetroHartford Alliance, Upward Hartford, Launc[H], Stanley Black & Decker, DECD, Advance CT, Connecticut Innovations, and CTNext)
  - The working group will collaborate to set priorities and assign roles
- **The working group will coordinate efforts around four priority activities:**
  - Attract and retain insurance and manufacturing firms, with place-based real estate investment as a core strategy for developing these two industrial clusters
  - Connect anchor firms with start-ups looking to pilot new B2B products
  - Catalyze angel investment and connect the local workforce with innovation opportunities
  - Engage the community in placemaking, using funding from the Placemaking Platform

## Inclusive growth elements

Set target percentage of WMBEs in incubator space and conduct outreach and technical assistance to achieve target

Working group members commit to local procurement of goods and services

## Five-year impact and cost summary

Direct jobs  
**~2.5k**

Total jobs  
**~5k**

Project cost<sup>1</sup>  
**~200M**

Public cost<sup>2</sup>  
**~50M**

<sup>1</sup> Total project cost, includes upfront and annual operating costs, does not split share of public investment versus non-public investment  
<sup>2</sup> \$17M tax credits estimated for Industry 4.0 hub, \$1M in Y1 bonding for placemaking planning, \$32M in Y2-5 for execution

# Support for Underserved Businesses

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## Context and rationale

### CT's women and minorities are under-represented in the state's economy

- ~16% of CT's businesses are minority-owned despite ~33.5% minority population
- In 2018, CT's unemployment rate was 5.5% overall but 9.5% for Black or African-American and 7.8% for Hispanics; opportunities exist to improve wealth generation and employment
- Women own ~33% of CT's businesses, and the state ranks 44th in women-owned business growth since 2014

### CT has a foundation of relevant programs

DECD's \$25M revolving loan fund created/retained ~700 jobs by lending ~\$4.5M in 2019 (through November)



## Initiative detail

### Launch an RFP to establish a network of coaching and mentorship offices to provide tailored technical assistance to businesses owned by women, minorities, veterans, and people living with disabilities

- Tailor programming to specific entrepreneurship barriers faced by different communities underrepresented in entrepreneurship and business ownership
- Focus curriculum on SBE/MWBE/DBE certification, business incorporation, financial literacy, payroll and tax filing, marketing and customer acquisition, and state contracting
- Staff mentors and coaches who relate to experiences of underrepresented communities in order to better meet their needs and overcome potential trust issues
- Choose easily accessible office locations for communities (e.g., near public transit)
- Conduct outreach in person and online to increase program utilization

### Restructure direct capital assistance programs to better address capital needs

- Augment third-party loans with a partial state guarantee program via a pooled "first loss" fund
- Qualified DBE loans would have an incremental state guarantee component

## Sources of inspiration



## Inclusive growth elements

Provide underserved business leaders with technical know-how to serve large state contracts

Work with qualified community lending institutions

## Five-year impact and cost summary

Direct jobs  
**5-6K**

Total jobs  
**10-12K**

Project cost<sup>1</sup>  
**~60M**

Public cost<sup>2</sup>  
**~60M**

<sup>1</sup> Total project cost, includes upfront and annual operating costs, does not split share of public investment versus non-public investment

<sup>2</sup> \$2M/yr in operating expenses and \$10M/yr in capital assistance loans; \$12M in Y1 bonding and \$48M in Y2-5 bonding

SOURCE: 2019 Fresno D.R.I.V.E. Initiative, Small Business Administration, US Census, DECD, American Communities Survey

# Smart Manufacturing Campaign

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## Context and rationale

### CT is a leader in advanced manufacturing

- 4,000+ enterprises exporting \$17B per year
- Strengths in aerospace, electrical equipment, and ship & boat building

### However, many CT manufacturers face modernization barriers

- Top modernization needs are R&D testing and production integration assistance
- 70% of manufacturers have <20 workers, and 35% of workers are over the age of 55
- Smaller firms face challenges modernizing due to capacity and capital constraints
- CONNSTEP1 assists manufacturers, but is at a remove from research emerging from CCAT and UConn Tech Park

## Sources of inspiration



Public-private partnership that supports >50% of manufacturing base in New York region, became 75% self-funded within 2.5 years due to demand for unique services

## Initiative detail

### Redesign and relaunch the existing Manufacturing Innovation Fund

- The relaunched \$10M fund will focus on small manufacturers' workforce training needs
- Approximately \$6M will fund apprenticeships and incumbent worker training for manufacturers with under 1,000 Connecticut employees, with a minimum 1:1 matching contribution
- Approximately \$3M will fund capital investments for manufacturers with under 150 Connecticut employees, with the required match ranging from 2:1 to 4:1 depending on the company's size

### Work with third-party lenders to create a partial guarantee framework that enables manufacturing expansion and job creation

- This first loss guarantee on loans from partnering financial institutions will expand access to capital for manufacturers with fewer than 150 employees
- Loans must be used to purchase equipment or machinery that will have a positive jobs impact

## Inclusive growth elements

Fund will identify solutions to improve transportation between underserved urban communities and manufacturers

Loan guarantee may also be used to finance employee equity ownership (e.g., ESOPs), broadening the base of wealth

## Five-year impact and cost summary

Direct jobs  
**5-6K**

Total jobs<sup>2</sup>  
**12K**

Project cost<sup>3</sup>  
**~135M**

Public cost<sup>4</sup>  
**~50M**

1 CONNSTEP is a large nonprofit that helps manufacturers statewide adopt new technologies, implement lean manufacturing, and optimize sales, pricing, and marketing strategies  
 2 Includes 6K direct jobs, 2K retained jobs, and 4K indirect jobs  
 3 Total project cost, includes upfront and annual operating costs, does not split share of public investment verses non-public investment  
 4 \$10M/yr in operating expenses; \$10M in Y1 bonding and \$40M in Y2-5 bonding



# Greentech Fund

DRAFT

## Context and rationale

- **With the highest average retail electricity price in the US, energy is expensive in CT**
- **CT has a growing clean energy sector with a large employment footprint**
  - The sector employs ~44K workers (2.6% of labor market); jobs grew 4.3% since 2017
  - CT is home to the nation’s first green bank, Connecticut Green Bank, and the Fraunhofer USA Center for Energy Innovation at UConn
- **CT is a national leader in fuel cell and wind**
  - CT ranks 5<sup>th</sup> in total fuel cell patents
  - In 2015, CT’s 600+ fuel cell and hydrogen supply companies realized ~\$700M in revenue
  - As of 2017, Bridgeport is home to the largest fuel cell power project in North America
  - 19% of CT’s electric load is under contract with offshore wind, compared with 5% NY, 13% MA

## Sources of inspiration

-  MassCEC is a state-linked agency in MA that invests ~\$44M<sup>1</sup> annually in the clean energy economy, funded by ratepayer surcharges
-  NYRSDEA’s 10-year, \$5B Clean Energy Fund operated four portfolios: market development, solar industry, investment (NY Green Bank), and research/innovation

## Initiative detail

- **The Greentech Fund will stimulate growth in CT’s clean energy sector by investing across four programmatic areas, with a special focus on wind energy along the CT coast**
  - **Greentech infrastructure and facilities:** Investment in capital projects with demonstrated potential to grow the greentech economy, such as testing and prototyping facilities, incubator space, and logistics infrastructure (e.g., New London Pier redevelopment for wind energy)
  - **Growth capital for clean technology:** Direct equity investment, administered by a third-party, in the state’s most promising early-stage and growth-stage clean technology companies, with a focus on wind energy and fuel cells
  - **Workforce development:** Open RFP for grant and loan support to programs that train Connecticut workers for clean energy careers, such as Green STEP, which prepares Connecticut technical high school students in the construction track for green energy jobs
  - **Market development:** Open RFP for grant and loan support to initiatives that create consumer demand for clean energy (e.g., rebates for renewable energy technology installation)

## Inclusive growth elements

Funded projects must demonstrate creation of living-wage jobs

Set targets for support of energy sector businesses owned by women, minorities, veterans, and people with disabilities

## Five-year impact and cost summary

Direct jobs  
**~2K**

Total jobs<sup>2</sup>  
**~5K**

Project cost<sup>3</sup>  
**~175M**

Public cost<sup>4</sup>  
**~25M**

SOURCE: MassCEC, NYRSDEA, NPR, CT Post, Commonwealth Magazine, BW Research, CT Business Portal, CT Green Bank, Brookings Institute, Center for American Progress

1 Average funding for the past six years

2 Benchmarked from MassCEC jobs creation per dollar and ROI numbers for clean energy investment reported by the Center for American Progress

3 Jobs multiplier for clean energy sector is 2.6, according to a 2009 report to DECD

4 Total project cost, includes upfront and annual operating costs, does not split share of public investment verses non-public investment; assumes 6:1 leverage, based on Connecticut Green Bank reports

# Regulatory Modernization

DRAFT

## Context and rationale

### CT's complex regulatory environment burdens entrepreneurs

- Highest cost to incorporate of any state: \$455
- Standard time to incorporate is 12-20 business days, compared to 2 days in best-in-class states
- CT has the 18th largest number of occupations requiring licenses
- CT received an "F" in regulation in Thumbtack's 2019 small business survey

### Regulatory processes are decentralized, difficult to navigate, and outdated

- CT's 169 municipalities each control their own zoning, land-use, and permitting
- Only 5% of CT's 2000+ forms can be completed online; statutory requirements exist for use of fax, payment by check, and other outdated processes

## Sources of inspiration

Within three years, British Columbia's "red tape review" program reduced regulation by 1/3



## Initiative detail

- **OTG will identify a regulatory "czar" to improve state's regulatory processes:**
  - Collaborate with leaders of prioritized regulatory agencies and leaders in target industries and small business organizations to identify major pain points
  - Support regulation modernization at other agencies, modeled on DEEP's "20 by 20"
  - Work with DECD to set target business friendliness metrics (e.g., time to incorporate) to measure the success of regulatory modernization efforts
  - Continue reduction of unneeded occupational licensing requirements and identify new areas to improve (e.g., analyzing compliance burdens, reducing number of occupational categories)
- **Regulatory czar will work with municipalities to reduce additional paperwork required for local business regulatory processes**
  - Collaborate with municipalities to identify business forms to simplify and digitize, and build on existing opt-in platforms supporting municipal regulatory coordination
  - Identify additional opportunities for state to support municipalities in simplifying duplicate information requests and modernizing processes (e.g., payment or info submission platforms)
- **AdvanceCT and DECD will support outreach as necessary and publicize business friendliness improvements**

## Inclusive growth elements

Set ambitious target for outreach to MWBEs and businesses owned by veterans and people living with disabilities

Include impact assessment for MWBEs and businesses owned by veterans and people living with disabilities in comparative burden analysis

## Five-year impact and cost summary

Direct jobs  
~6K

Total jobs  
~11K

Project cost<sup>1</sup>  
~6M

Public cost<sup>2</sup>  
~6M

<sup>1</sup> Total project cost, includes \$1.5M annual operating costs for 4 years; does not split share of public investment versus non-public investment

<sup>2</sup> \$1.5M/yr in operating expenses for 4 years; \$1.5M in Y1 bonding, \$4.5M in Y2-5 bonding

# Smart Incentives and Business Concierge

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## Context and rationale

**CT's existing tax incentives for businesses are costly, difficult to access, and inefficient at creating jobs**

- Business attraction programs such as First Five Plus do not calculate incentives in a standardized or transparent way
- Business tax credits are difficult to use; the cumulative volume of stranded tax credits in CT exceeded \$1.8B in 2016
- Credits are also costlier than the US average, with an average CT expenditure of ~\$25K per job created



## Initiative detail

- **CERC and DECD will establish a business recruitment team, including a concierge service with support for businesses interested in moving to or expanding their presence in CT**
  - Industry-specific teams will be accountable for recruiting and retaining target sector businesses
  - Staff will also assist companies with zoning and permitting processes for new development
  - Concierge staff will certify sites and publicize them on a website, including details such as electricity, water, sewage, internet, and transportation availability
- **DECD will restructure incentives to be standardized, transparent, and performance-based:**
  - Job creation will be incentivized through the JobsCT program
  - Capital investment will be incentivized through the urban and industrial reinvestment tax credit and/or sales and use tax exemptions
- **Job creation incentives will take the form of state employee withholding tax rebates:**
  - If a company creates at least 25 jobs in two years, it will receive a 25% rebate on state employee withholding taxes in years 3-5 or 3-7
  - If a company is located in an Opportunity Zone or distressed municipality, the rebate is 50%

## Sources of inspiration



JobsOhio created a business attraction team in 2011 led by industry experts. Since then, they have closed deals on 65% of all projects for which they submit an offer

## Inclusive growth elements

Only offer incentives for jobs paying 110% of area median income

Set recruitment targets for minority job creation

Offer additional incentives are available for jobs created in an Opportunity Zone or Distressed Municipality

## Five-year impact and cost summary

Direct jobs  
**6K**

Total jobs  
**12K**

Project cost<sup>1</sup>

-

Public cost<sup>1</sup>

-

<sup>1</sup> No new funding required from the State or other sources

# CT Brand

DRAFT

## Context and rationale

### CT has a high quality of life and an attractive location

- Ranked 5th in quality of life by Forbes
- Situated between New York City and Boston

### Despite these assets, CT struggles to attract businesses and residents

- CT is ranked in the bottom 10 for business friendliness
- CT ranks 41st in net migration

## Sources of inspiration



Virginia Economic Development Partnership administers a ~\$4M annual business marketing budget to aid in the cultivation of target industries



Michigan has dedicated ~\$29-38M annually to its Pure Michigan campaign, widely regarded as one of the most successful state tourism brands in recent years

## Initiative detail

### Launch a marketing campaign that highlights CT's strengths in tourism and business, and corrects misconceptions about CT's business climate

- Brand will be developed through an RFP for marketing and branding firms to help shape the State's marketing strategy
- Marketing strategy will include differentiated messaging for target audiences (e.g., target talent segments, tourism vs. businesses)
- Allocation of funding between tourism focused spending and business-oriented spending will be determined in consultation with the marketing and branding firm
- Track campaign effectiveness by surveying business leaders and the public annually
- Use survey results to adjust brand positioning and strategy
- Partner with industry stakeholders to pool advertising funding and disseminate marketing materials

## Inclusive growth elements

Test campaign with diverse audiences      Emphasize the inclusive, welcoming culture of the state

## Five-year impact and cost summary

Direct jobs <sup>1</sup>	Total jobs	Project cost <sup>1</sup>	Public cost <sup>2</sup>
-	-	\$25M	\$25M

<sup>1</sup> Total project cost, includes upfront and annual operating costs, does not split share of public investment versus non-public investment

<sup>2</sup> Incremental budget increase from existing \$4M annual budget; \$5M in Y1 bonding for ramp up, \$10M in Y2 and Y3 for execution; additional funds subject to efficiency evaluation

# CT 2030 Transportation Plan

DRAFT

## Context and rationale

### Aging infrastructure creates longer commute times for CT's residents

- 65% of CT's highways are over three decades old
- In 2017, 7.8% of CT's ~4,000 bridges were structurally deficient and 34% of CT's roads were in poor condition
- At 26.3 min, CT has the 36th longest average commute times in the nation
- Longer commute times are growing—from 2012-17, the share of residents commuting 60+ minutes grew from 7.6% to 8.9%
- Meanwhile, share of residents with <10 min commutes decreased from 13.5% to 12.2%
- US News ranks CT 37th in transportation infrastructure, driven by low scores in road quality (43rd) and commute times (35th) despite high public transit usage (19th)



## Initiative detail

- **Provide ~\$7B in targeted road and bridge improvements**
  - CT DOT to identify highway segments where traffic could be improved through targeted widening, including a new northbound lane between exits 19-27A in Bridgeport
  - Invest in safety improvements (e.g., traffic signals at exists, drainage, roadway upgrades)
  - Improve congestion at highway exits and interchanges through strategic redesign
  - Provide municipalities with funding for local improvements to be used at their discretion
- **Invest ~\$3B in improvements to public transportation**
  - Support rail service to New York City through bridge and track repair, signal system replacement, platform enhancements, new rolling stock, and new stations
  - Enhance bus service with improved signs, real-time service information, maintenance facility modernization, and digital fare collection
- **Improve access to air travel in central CT** by directly linking CT Rail service to Bradley and transforming either Tweed or Sikorsky into a regional airport serving 30+ destinations daily
- **Finance through low-interest federal loans, DOT grants, and new truck-only tolls**

## Inclusive growth elements

Provide funding to municipalities for local road improvements; invest in public transit

# Regional Sector Clusters

DRAFT

## Context and rationale

### CT faces workforce challenges...

- Mismatch between job seekers and job demand observed without enough qualified workers (e.g., healthcare occupations, computer related occupations)
- Limited granular, actionable data to inform decision-making, (e.g., skills demand, training program ROI)
- Poor completion rates across both 2-year and apprenticeship programs

### ...but has numerous assets to build on

- Unique concentrations of industries in regional areas creates pools of common needs to address, (e.g., in aerospace, insurance, business and financial services)
- Engaged and educated workforce (2nd in US on college readiness, 3rd in NAEP reading scores, 6th for higher ed attainment) has potential for strong workforce outcomes
- High commitment and experience in workforce development across the state with numerous smaller successful programs to learn from and/or scale



## Initiative detail

### Build regional sector driven partnerships between business, educators, government and nonprofits

- Identify clear regional sector clusters (e.g., insurance, bioscience) with distinct industry skills needs
- Engage C-suite business and academic leaders to develop partnerships of companies in the same industries and regional labor markets
- Work with K-12 schools, universities, workforce development organizations, human services agencies, economic development agencies, and community organizations to tackle common needs related to workforce readiness (e.g., career awareness, work-based learning)
- Create work-based learning programs that align with talent and recruiting strategies
- Ensure identification of needs and solutions is CEO and business driven, with public partners supporting solution design and implementation

### Create responsive education and career pathways for lifelong learning

- Shape curricula provided by education and training partners
- Tailor education and training to high-skill middle-skill, second chance and out of work needs
- Allow direct access to or joint partnerships using training funds

## Inclusive growth elements

Include a diverse set of participants, including women, minority, veteran, and disabled business owners and community organizations in underserved neighborhoods

# New London State Pier Redevelopment

DRAFT

## Context and rationale

### New London's port has been underutilized

- New London's State Pier is an important infrastructure asset in the state, as a deep water port with freight rail connections
- State Pier's infrastructure is outmoded, lacking heavy lift cargo capabilities now expected by many port customers (loads, cranes, and ships have grown nearly 3x in the last 15 years)
- State Pier's location makes it less desirable for traditional cargo

### New London's State Pier is well-positioned for supporting offshore wind development

- Transportation of offshore wind equipment requires deep water ports
- A major offshore wind development has been confirmed for federal waters south of Martha's Vineyard
- State Pier's location and depth enable it to serve as a hub for the storage, assembly, and transportation of equipment including turbines and tower casings



## Initiative detail

### Coinvest with joint venture partners Ørsted and Eversource to redevelop State Pier and make CT a leader in supporting offshore wind

- Infrastructure upgrades will augment State Pier with the modern, heavy-lift and size capabilities necessary to support the offshore wind industry and improved rail links
- Facility upgrades will begin in 2021 and are scheduled to finish in August 2022
- State Pier's freight rail link and operations of Cross Sound Ferry will be preserved during the upgrade project and in the final design of the upgraded port
- CT Port Authority is responsible for execution and oversight of the port redevelopment

### On completion of the port upgrade, Ørsted and Eversource's joint venture will sign a ten-year lease to use State Pier for wind turbine generator pre-assembly and staging

- The Joint Venture will lease the port at \$2M/year for 10 years
- The new port will support 3 planned offshore wind projects in the Northeast, generating more than 1.7GW, including 300MW for CT
- When the JV is not using the port, Gateway (State Pier's operator) will market it to other customers to keep utilization high

## Inclusive growth elements

Joint venture partners to provide host community payments to New London  
 Joint venture partners to provide grants for workforce and supply chain studies, research, and STEM education at regional institutions

## Five-year impact and cost summary

Direct jobs <sup>1</sup>	Total jobs <sup>2</sup>	Project cost <sup>3</sup>	Public cost <sup>4</sup>
~0.5K	~1.3K	\$157M	\$80M

<sup>1</sup> Direct construction jobs from pier upgrading

<sup>2</sup> Includes 460 direct construction jobs, 395 indirect or induced jobs, and 400 anticipated permanent jobs in offshore wind

<sup>3</sup> Total project cost, does not split share of public investment versus non-public investment

<sup>4</sup> \$79.5M in total public funding for capital investment between now and 2022; includes \$25.5M previously allocated to the project

# Career Pathways and Skills Upgrading

DRAFT

## Context<sup>1</sup> and rationale

### CT is home to leading institutions...

- Including renowned postsecondary institutions among 41 higher education institutions
- Producing nearly one-quarter (24%) of New England's digital tech-oriented degrees and certificates

### ...but has room to address challenges

- In an average month, only one out of six active job tech-related job postings are filled (3,288 of 19,149 of unique active tech-related job postings)
- Public financing for training and education is fragmented, with limited transparency on results

### Hard skill gaps remain in industry recognized credentials including:

- Agile Software Development
- Python
- Automation
- Amazon Web Services
- APIs
- NET Framework
- Software Engineering
- Java

## Initiative detail

### Align academic pathways in K-12 and higher education around critical skills and competencies for specific jobs; include opportunities and pathways for incumbent worker training

- Translate employer-led partnerships into transformative metrics-driven change
- Review company human-resource strategies and human-capital planning to effectively signal and recruit diverse STEM and digital-skills talent
- Provide wraparound services to make programming and connected employment accessible to all students (e.g., ESL classes, mental health and substance abuse support, affordable childcare, transportation)

### Develop a universal computer science curriculum for K-12

- Traditional academic programming should marry foundational skills with industry-recognized credentials

### Enable outcomes-based funding for flexibility, responsiveness, and accountability to the state's needs

- Redesign restrictions on state and local funding
- Deploy funding quickly and with agility, based on industry and learner needs, e.g., incumbent training or business attraction
- Consider personal learning account to fund life-long learning

## Inclusive growth elements

Prioritize underperforming K-12 schools in disadvantaged areas to address the state's large gaps in college and career readiness

Reduce barriers to employment and continuing education by providing wraparound services

<sup>1</sup> Digital Talent in Connecticut, New England Board of Higher Education, November 2019

# Labor Market Insights

DRAFT

## Context<sup>1</sup> and rationale

### CT faces workforce challenges...

- Mismatch between job seekers and job demand observed without enough qualified workers (e.g., healthcare occupations, computer related occupations)
- Limited granular, actionable data to inform decision-making, (e.g., skills demand, training program ROI)

### ...but has numerous assets to build on

- Unique concentrations of industries in regional areas creates pools of common needs to address, (e.g., in aerospace, insurance, business and financial services)
- High commitment and experience in workforce development across the state with numerous smaller successful programs to learn from and/or scale



## Initiative detail

### Build data platform to understand labor market insights powered by real-time advanced analytics

- Integrate workforce data and analyses (e.g., skill level, time-to-hire after graduation, rates of retention and advancement post-hire, and earnings) and demand-side data and analyses (e.g., job trends, projections, and qualitative input from employers) using traditional and new data sources
- Generate real-time labor market insights
- Enable a range of stakeholder interfaces (e.g., provide user-friendly reporting interfaces for employers and job seekers) and interventions

### Enable outcomes-based funding for flexibility, responsiveness, and accountability to the state's needs

- Deploy funding quickly and with agility, based on industry and learner needs, e.g., incumbent training or business attraction

### Inclusive growth elements

Use data platform to investigate racial and gender gaps in training and workforce readiness, as well as barriers to employment faced by people with disabilities and veterans; deploy funding to address these gaps

<sup>1</sup> Digital Talent in Connecticut, New England Board of Higher Education, November 2019

## Appendix: Additional detail

**Aspiration and targets**

Roles and responsibilities

Signature initiative detail

Appendix:

# For each metric, a wide range of aspiration levels was considered

CT baseline position<sup>3</sup>      CT 2025 target

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Aspiration metrics			Top 5	Top 10	Top 15	Top 20	Top 25	Top 30	Top 35	Top 40
Growth <sup>1</sup>	Net Jobs	CAGR	1.0%	0.7%	0.5%	0.5%	0.5%	0.4%	0.4%	0.3%
		Absolute value	84k	58k	47k	43k	40k	37k	36k	27k
		Incremental value	57k	31k	20k	16k	13k	10k	9k	1k
	Median household income	CAGR	3.5%	3.4%	3.2%	3.2%	3.0%	3.0%	2.9%	2.8%
		Absolute value	15.1k	14.6k	14.1k	13.7k	13.2k	12.9k	12.7k	12.1k
		Incremental value	1.0k	0.5k	0.0k	-0.4k	-0.9k	-1.2k	-1.4k	-2.0k
Inclusion	Households earning a living wage	Share	63.5%	62.8%	61.4%	60.0%	58.9%	57.9%	57.1%	55.2%
		Absolute value	861.9k	852.4k	833.4k	814.4k	799.4k	785.9k	775k	749.2k
		Incremental value	43.4k	33.9k	14.9k	-4.1k	-19k	-32.6k	-43.4k	-69.2k
	Median income of minority households	Absolute value	72.4k	59.3k	54.2k	51.9k	47.6k	44.8k	42.1k	39.9k
		Incremental value		3.0k	-2.1k	-4.4k	-8.7	-11.4k	-14.2k	-16.4k
	Population with a quality credential <sup>2</sup>	Share	54%	52%	51%	49%	48%	46%	45%	43%
		Absolute value	1,941k	1,873k	1,812k	1,773k	1,719k	1,633k	1,600k	1,543k
		Incremental value	0k	-68k	-129k	-169k	-223k	-309k	-341k	-398k

1 Growth metrics are driven by the 2020-2025 forecast for all US States 2 Statistics include the Lumina Foundation's estimates of the share of the population 25-64 with a high quality non-degree credential; 2025 target is to reach #1 on this measure 3 Baseline position is defined as the expected CT forecast for growth metrics and as the most recent reported historical value for inclusion metrics

## Each target is tied to a specific metric, relative ranking, and absolute value

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	Aspiration metrics	Draft public target	Suggested internal target for 2025 <sup>1</sup>	CT's current position	CT's historical position	What you need to believe to achieve it
Growth <sup>1</sup>	Net job growth (% CAGR) <sup>1</sup>	Have the fastest job growth in the Northeast	<b>20K net new jobs</b> above projected annual growth of 27k jobs (0.3% from 2020 to 2025), top 15 nationally	<b>41<sup>st</sup></b> with expected CAGR of 0.3% creating 27k jobs from 2020 to 2025	<b>46<sup>th</sup></b> with a CAGR of 0.3% creating 27k jobs from 2015 to 2020	CT creates 20K jobs above expected job growth in the next 5 years to meet an 0.5% p.a. growth target, creating a total of 47k net new jobs
	Median household income growth (% CAGR) <sup>1</sup>	Become a top ten state for median household income growth	<b>Top 10 in median income</b> , increasing annual median household income by \$500 above projections from 2020 to 2025	<b>15<sup>th</sup></b> with an expected CAGR of 3.2% for a \$14k increase in annual income from 2020 to 2025	<b>42<sup>nd</sup></b> with a CAGR of 2.6% for a \$10k increase in annual income from 2015 to 2020	New jobs created in CT will have an average annual wage of \$68K-\$83K to reach a top 10 median household income in the US
Inclusion	Households earning a living wage (%)	Lift 15,000 additional households into earning an annual living wage	<b>Enable 15K additional households</b> (1% of CT households) to earn a living wage (top 15 nationally)	<b>19<sup>th</sup></b> with 60% of households (818k) earning a living wage in 2018	65% of households in CT earned a living wage in 2014 <sup>3</sup>	At least 30% of net new quality credentials are earned by individuals in households currently below a living wage
	Median household income of racial and ethnic minority residents (\$)	Become a top ten state for median household income of minority residents	<b>Top 10 in MHHI of racial and ethnic minority residents</b> \$3K increase in MHHI	<b>13<sup>th</sup></b> with racial and ethnic minority households earning \$56k in 2018	<b>11<sup>th</sup></b> with racial and ethnic minority households earning \$49k in 2013	25K minority residents will attain new credentials beyond the 110k expected, with an incremental value of ~\$14k; 20k minority residents attain a net new job worth \$66k on avg.
	Population with a quality credential <sup>2</sup> (%)	Build the most work-ready population in the US	<b>#1 state for educational attainment</b> with a 51K incremental residents aged 25-64 with a quality credential	<b>5<sup>th</sup></b> with 54.1% of residents holding a quality credential in 2017	<b>3<sup>rd</sup></b> with 52.8% of residents holding a quality credential in 2013	CT will improve by 2.7 p.p. to reach MA's current level of 56.8% of the population with at least a quality credential, implying 10k net new credentials per year above the 50k degrees and certificates created today

<sup>1</sup> Growth metrics are based on a forward looking five year forecast for all US States, using most recent source available (Moody's Analytics, 2020-2025) <sup>2</sup> Statistics include the Lumina Foundation's estimates of the share of the population 25-64 with a high quality non-degree credential <sup>3</sup> Historic ranking data is limited for this metric.

## Appendix: Additional detail

Aspiration and targets

**Roles and responsibilities**

Signature initiative detail

Appendix:

## CERC and DECD: High-level overview of proposed roles

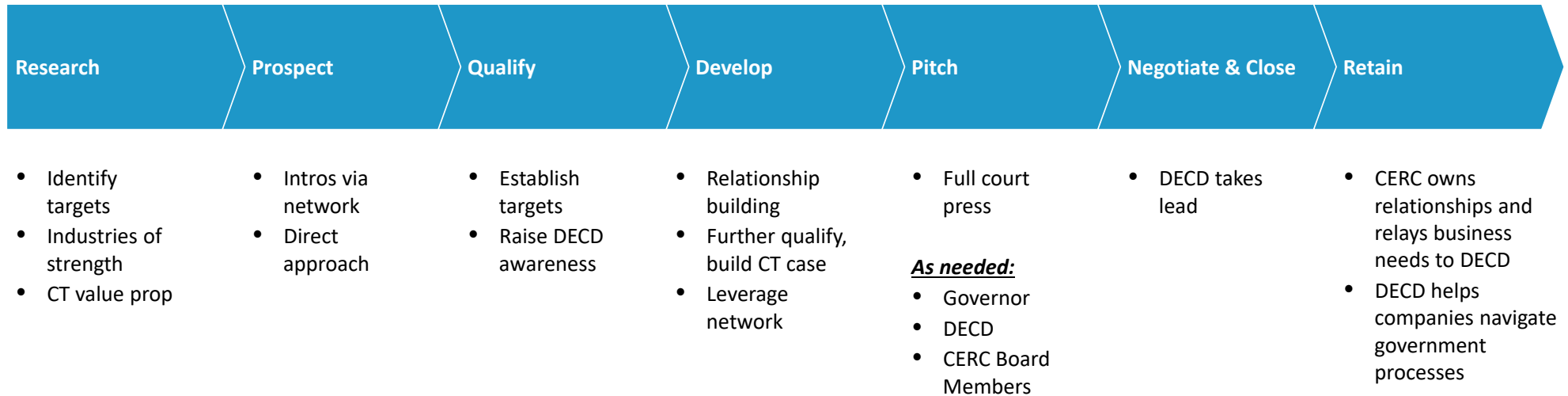
Additional detail on next page

DRAFT

Program	CERC	DECD
Business retention and attraction	<ul style="list-style-type: none"> <li>Primary interface for business relationships &amp; recruitment, in close partnership with DECD</li> <li>Lead outreach to targeted businesses and relationship management/calling of existing anchor businesses</li> </ul>	<ul style="list-style-type: none"> <li>Help companies navigate government processes and access incentives</li> <li>Weekly pipeline meetings with CERC to coordinate relationship management</li> </ul>
Marketing	<ul style="list-style-type: none"> <li>Create industry/cluster and region-specific marketing materials to attract firms, in conjunction with relevant organizations</li> </ul>	<ul style="list-style-type: none"> <li>Own the unified branding and advertising campaign for the State, ensure alignment with industry/cluster and regional efforts</li> </ul>
Research	<ul style="list-style-type: none"> <li>Conduct industry and regional research to inform strategy, marketing, retention, and recruitment</li> <li>Online investment guide (e.g., resources on state programs, taxes and regulations)</li> </ul>	<ul style="list-style-type: none"> <li>Audit financial incentives and analyze effectiveness of DECD-owned programs (e.g., placemaking grants)</li> </ul>
Workforce	<ul style="list-style-type: none"> <li>Communicate businesses' needs to the Governor's Workforce Council</li> <li>Identify relevant resources/organizations (w/ DECD)</li> <li>Direct businesses to appropriate workforce solutions</li> </ul>	<ul style="list-style-type: none"> <li>Continue to operate workforce programming in coordination with Workforce Council</li> </ul>
Other programs and incentives	<ul style="list-style-type: none"> <li>Help publicize DECD-managed programs</li> <li>Convene partners (e.g., municipalities, Chambers of Commerce, COGS) to develop or execute new initiatives</li> </ul>	<ul style="list-style-type: none"> <li>Leads development and placemaking efforts for Innovation Hubs and Communities Challenge</li> <li>Own and administer incentive programs</li> <li>Own small business support services</li> </ul>

# CT business retention and recruitment process

DRAFT



Lead



Support



## Appendix: Additional detail

Aspiration and targets

Roles and responsibilities

### Signature initiative detail

- Communities Challenge
- Innovation Corridor
- Business environment: Regulatory modernization

Appendix:

## Each signature initiative has a detailed business case and implementation plan

PRELIMINARY	Component	Description
Pillar strategy	Context	Provide a rationale for the initiative, including key issues within the pillar and unique assets found within Connecticut
	Vision	Define the vision for what the pillar strategy will accomplish and how the signature initiative fits in to that overall strategy
Business case	Solution design	Provide detail on the initiatives and design choices associated with each signature initiative
	Cost and impact	Estimate cost (both public expense and total investment needed) as well as impact across key measures (e.g., growth and inclusion targets)
	Sources of inspiration	Share case studies on any relevant components of the strategy
Implementation plan	Roles, responsibilities, and partners	Determine ownership, roles, and responsibilities of CERC, DECD, and other partners critical to successful execution of the initiative
	Actions, timelines, and milestones	Specific actions to be taken for each initiative, including timelines, milestones, and owners
	Measures of success	KPIs to track progress against stated goals and project milestones
	Risks and mitigating actions	Define elements of the strategy beyond the direct control of the owner, the risks they present, and the actions that can be taken

## Appendix: Additional detail

Aspiration and targets

Roles and responsibilities

Signature initiative detail

- **Communities Challenge**
- Innovation Corridor
- Business environment: Regulatory modernization

Appendix:

# Connecticut struggles to attract and retain residents

PRELIMINARY

## Statewide context and key issues

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- **Connecticut's working age population peaked in 2011** and is expected to see a 7% decline over the next decade
- **CT trails most peers in college graduate retention**, retaining 37.5% of its graduates vs MA (45.2%) and NY (54.5%)
- **CT is ranked 41st in the US on net migration, with rates varying by region**
  - Fairfield (-2.4%), Hartford (-1.2%), New London (-1.0%), and New Haven (-0.9%) counties have highest outmigration
  - Rural counties break nearly even on net migration, with Windham County experiencing positive net migration<sup>1</sup>
- **Compared to other states, CT provides less aid to local governments—despite a tax structure that puts disproportionate pressure on the state's urban cores**
  - In 2015, the state allocated 24% of revenues to local governments, compared to a 36% national average
  - Furthermore, CT's municipalities rely on property taxes to raise revenues, and a smaller property tax base in the state's more dense population centers makes it difficult for cities to provide best-in-class services to residents
- **CT's urban core's have undergone cycles of underinvestment, leading to concerns about meeting resident needs**
  - In a survey of ~16,000 residents, ~40% of urban residents agreed that their area does not have adequate goods and services to meet needs compared to ~17% suburban residents
  - In addition ~90% of suburban residents felt satisfied with their communities compared to only 68% of urban residents
- **At the state level, CT has a strong value proposition for resident attraction and retention**, ranked 6th in quality of life by Forbes and 8th in education by CNBC

<sup>1</sup> Litchfield County experienced -0.2% net migration, Tolland County: -0.1% net migration, Middlesex County: 0.1% net migration

## The CT Communities Challenge is designed to spur urban growth and vibrancy

DRAFT

The CT Communities Challenge offers \$75M in competitive grant funding to proposals that increase the attractiveness and livability of the state's largest and most strategic urban cores through place-based investments in compact, high-quality, and transit connected development. The Communities Challenge funds two types of proposals: pre-development and development.

### Pre-development (grants up to \$1M)

- For research and planning, including:
  - Conducting an economic impact study
  - Financing site planning and design
  - Sponsoring a market research study
- DECD will offer technical assistance to applicants, including:
  - Help developing competitive proposals
  - Identifying potential partners (e.g., private developers, philanthropic sponsors, other collaborators, etc.)

### Development (no maximum award)

- For capital investments in mixed-use development; successful application must demonstrate:
  - Improvements to the convenience and appeal of proposal area
  - Encouragement compact development near key transit hubs
  - Creation of greater access to employment opportunities
  - Creation of positive impact for disadvantaged populations
  - Attraction of significant private sector support— at least 2:1 leverage for proposals in Opportunity Zones or distressed municipalities and 4:1 leverage elsewhere
- DECD will offer technical assistance to selected proposals, including:
  - Expertise on zoning, land-use, and brownfield redevelopment
  - Best practices for inclusive growth
  - Sources and uses of additional funding (e.g., federal programs)

Selection criteria will prioritize the state's largest and most strategic urban cores outside the Innovation Corridor, with \$50M dedicated to distressed municipalities and \$25M available for open competition; Innovation Hubs (Hartford, New Haven, Stamford) are ineligible for this program

# Impact of Communities Challenge

PRELIMINARY

## Impact on growth over 5 years



~3K

Direct jobs created through mixed-use transit-oriented developments and other revitalization efforts

~8-10K

Residents retained<sup>1</sup> through improved housing quality and community vibrancy and livability

• Additional benefits include



- Improves quality of life, vibrancy, and walkability of communities
- Enables greater workforce connectivity by densifying development in transit corridors
- Addresses urban blight through streetscape investment and rehabilitation of vacant and underutilized storefronts

### Key assumptions and sources

- Job estimates are benchmarked from two case studies, with a leverage ratio reduction assumed to allow competitive proposals from less affluent areas
  - The “Arena District” in Columbus, OH:
    - Leveraged \$35M public funds to generate \$500M in private investment (~14:1 leverage ratio)
    - Created ~4K new jobs, which cost taxpayers ~\$10K each
  - MEDC’s “Downtown on Troy” mixed-use development:
    - Leveraged \$3M state grant to attract \$25M additional investment (~8:1 leverage ratio)
    - Sustained ~200 new jobs at a cost of ~\$16K each
  - Avg cost per job from case studies is ~\$13K
- If the state provides \$100M in grant funding, ~\$25K average cost means that the state would generate ~4K new jobs

## Impact on inclusivity

Funding criteria will prioritize positive impact on distressed and underserved communities

Funding will be conditional on anti-displacement strategy for existing residents

Funding criteria will reward resident participation in project design and execution

<sup>1</sup> Inclusive of jobs created

SOURCE: Michigan Economic Development Corporation, International Economic Development Council

# Cost of Communities Challenge

PRELIMINARY

## Cost over five years

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~\$75M

Public cost for **urban revitalization and placemaking grants, with \$50M ringfenced for distressed municipalities**

~\$275M

Total cost of **funded projects**

- Communities Challenge grants to fund no more than 25% of total project costs
- Required leverage is 2:1 for projects located in distressed municipalities (\$50M of available funding), and 4:1 for projects located in other areas (\$25M of available funding)
- Remaining funds to be contributed by federal and municipal programs, private partners, and social sector organizations

## Cost structure options to consider during implementation

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- Can projects use other State funds without it counting against the 25% project cost maximum?

## Key assumptions and sources

- Public cost:
  - Grant pool should be similar in size to placemaking funds dedicated to Innovation Corridor Initiative
- Total cost:
  - Benchmarked from demonstrations of private leverage in case studies:
    - The “Arena District” in Columbus, OH achieved ~14:1 leverage
    - MEDC’s “Downtown on Troy” mixed-use development generated ~8:1 leverage
  - Initiative design targets communities less able to leverage private investment—therefore, we scale back benchmarked ratios
  - We assume the more conservative 4:1 leverage ratio as the requirement for the open competition, and half that for distressed municipalities

# Twin Cities' LCDA serves as a source of inspiration for the Communities Challenge

*Source of inspiration*

PRELIMINARY

Case study	Goals	Design elements	Award size	Eligibility	Impact
<p>1</p> <p>Twin Cities Livable Communities Demonstration Account (LCDA)</p>	<ul style="list-style-type: none"> <li>Concentrate development near transportation hubs by conveniently linking residential, commercial, and civic spaces in mixed-use development</li> </ul>	<ul style="list-style-type: none"> <li>Provide grants for projects at both development and pre-development</li> <li>Host pre-application workshops to help draft competitive proposals</li> </ul>	<ul style="list-style-type: none"> <li>500k available funding for pre-development with \$100k award limit and two-year grant terms</li> <li>\$7.5M available funding for development grants, maximum award is \$3M</li> </ul>	<ul style="list-style-type: none"> <li>Eligible applicants are municipalities, county governments, and regional EDOs</li> </ul>	<ul style="list-style-type: none"> <li>From 1996-2007, LCDA gave ~\$75M in grants to create ~7k new jobs</li> <li>LCDA grants also helped attract \$650M in private investment</li> </ul>
<p>2</p> <p>Massachusetts Gateway Cities Program</p>	<ul style="list-style-type: none"> <li>Revitalize MA's most distressed cities by accelerating growth in high-opportunity, compact business districts</li> <li>Generate positive cycles of co-investment for distressed communities in MA's small-to-mid sized urban core</li> </ul>	<ul style="list-style-type: none"> <li>MassDevelopment supports Gateway Cities in TDI districts by providing:                             <ul style="list-style-type: none"> <li>Non-competitive capital assistance grant awards and equity programs</li> <li>Technical assistance from in-house fellows</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>For FY18, MassDevelopment invested ~\$2M through TDI, with an average award of ~\$70k</li> </ul>	<p>Municipalities meet the following criteria:</p> <ul style="list-style-type: none"> <li>Population between 35K-250K</li> <li>Median household income below state average</li> <li>4-year degree attainment below state average</li> </ul>	<ul style="list-style-type: none"> <li>MassDevelopment invested ~\$9M in TDI districts from 2014-2018</li> <li>Helped spur an incremental ~\$80M of public and private investment in TDI districts</li> </ul>
<p>3</p> <p>New York's Upstate Redevelopment Initiative (URI)</p>	<ul style="list-style-type: none"> <li>Jumpstart the economy in upstate NY by strategically investing in private sector projects</li> </ul>	<ul style="list-style-type: none"> <li>In 2015, NY ESD held a one-time competition between seven regional EDOs for three \$500M grant awards</li> <li>EDOs submitted regional plans that were evaluated, in part, on ability to achieve 5:1 private matching</li> </ul>	<ul style="list-style-type: none"> <li>\$1.5B total in grant funding                             <ul style="list-style-type: none"> <li>Award capped at \$500M</li> <li>Awards disbursed in \$100M increments, annually</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Eligible applicants are seven of NY's ten Regional Economic Development Councils (REDCs): Capital Region, Central New York, Finger Lakes, Mid-Hudson, Mohawk Valley, North Country, and Southern Tier</li> </ul>	<ul style="list-style-type: none"> <li>The Finger Lakes REDC created ~8k new jobs with its \$500M award while generating \$2.5B in private investment for the region</li> </ul>

**The LCDA model accommodates varying regional development needs and capabilities while maintaining a focus on compact, high-value TOD that catalyzes strong private investment and ROI**

SOURCE: Twin Cities Metropolitan Council, Metropolitan Council, Retrofitting Suburbia (Dunham-Jones and Williamson, 2011), MassDevelopment, MassINC, New York Empire State Development, New York Governor's Office

# Twin Cities LCDA is flexible and supports differentiated community needs through TOD (1/3)



PRELIMINARY

## Challenge

- The program was designed to foster communities where:
  - **Employment hubs** occupy once-polluted land
  - People can **afford to live in the same communities where they work**
  - Residents can shop, commute to work, or relax **all within walking distance of their front door**

## Overview

- In 1995, the Minnesota legislature passed the **Livable Communities Act**, which created the LCDA program
- LCDA grants support development/redevelopment efforts that **connect different land uses and transportation**
- LCDA provides **both development and pre-development grants**: the maximum award for a development grant is \$3M while the maximum for pre-development grant is \$100K
- The Metropolitan Council, who administers the program, offers **pre-application workshops to help communities form competitive proposals**
- Grant recipients are **selected by a fifteen member advisory committee** that considers criteria such as:
  - Efficient land-use and urban design
  - Connectivity
  - Impact on employment **or** housing
  - Inclusive processes
  - Private sector leverage

## Impact

- From 1996-2007, LCDA gave **~\$75M in grants to create ~7k new jobs** that helped **generate \$650M in private investment**
- Through 2018, LCDA grants have awarded **~\$161M in grant funding**
- LCDA projects in 2018 alone are expected to **leverage nearly \$202 million in other public and private funds**

## Stakeholders

- Twin Cities Metropolitan Council
- Local municipalities
- Private developers
- Community organizations

How can CT incorporate lessons and excel beyond the case?

- CT could **tailor the initiative** to different community needs by providing specialized services at **different points along the developer's journey**
- Relatively modest investments can **generate significant private investment**

# LCDA’s two step evaluation process exemplifies how thoughtful criteria can align projects with state development goals (2/3)



## Evaluation criteria for LCDA Development Grants – Step 1

PRELIMINARY

Goal	Considerations	Possible points	
Efficient land use and site design	<ul style="list-style-type: none"> <li>The project’s ability to maximize the potential of the location through intensified land use and increased density</li> <li>The development introduces a diversity of uses to the project area</li> <li>The project includes internal pedestrian circulation which is convenient, efficient, and attractive throughout and around the project site</li> <li>The site is designed to facilitate pedestrian activity and considers first floor activity, parking location, and wayfinding</li> </ul>	15	
Connections	<ul style="list-style-type: none"> <li>The development project takes advantage of or maximizes connections between or among housing, centers of employment, education, retail, and recreation uses through location or design</li> <li>The development provides convenient, efficient, and attractive access from the project site to the neighborhood or the surrounding community through Infrastructure that emphasizes pedestrian and/or bike mobility</li> </ul>	7	
Environmental design	<ul style="list-style-type: none"> <li>The project conserves, protects, and enhances natural resources</li> <li>The project incorporates green building design and/or energy efficiency standards</li> <li>The project utilizes sustainable site design</li> </ul>	8	
Projects scored either as jobs or housing projects	Jobs	<ul style="list-style-type: none"> <li>The project’s ability to expand employment opportunities through the creation or preservation of permanent employment opportunities with emphasis on including living wage jobs and increasing diversity of jobs type in the area</li> <li>The creation of jobs in or near areas of concentrated poverty</li> <li>There is an established process to advance and promote the employment of local workers</li> <li>The development prioritizes the preservation of existing small businesses</li> </ul>	12
	Housing	<ul style="list-style-type: none"> <li>The project provides or preserves housing choices to give people in all life stages and of all economic means viable choices for safe, stable, and affordable homes</li> <li>The development’s willingness to accept Housing Choice Vouchers</li> <li>The project’s ability to implement a displacement prevention strategy</li> </ul>	12
Partnerships and Process	<ul style="list-style-type: none"> <li>The project team involves partnerships among government, private for-profit and nonprofit sectors, and the local community</li> <li>The project team initiates community engagement early in the planning process and fills an identified and specific community need</li> <li>The project team has a clear engagement plan to maintain community involvement throughout the project</li> <li>Significant project changes lead to additional community engagement</li> </ul>	8	
<b>Subtotal</b>		<b>50</b>	

**Applicants must receive 25+ points to advance to the next step in the evaluation process**

# LCDA’s two step evaluation process exemplifies how thoughtful criteria can align projects with state development goals (3/3)



## Evaluation criteria for LCDA Development Grants – Step 2

PRELIMINARY

Goal	Considerations	Possible points
Innovation and Demonstration	<ul style="list-style-type: none"> <li>The project demonstrates value to the community and for the region through                             <ul style="list-style-type: none"> <li>New development concepts, strategies, elements in one or more of the scoring areas</li> <li>Other innovation</li> <li>Incorporation of equitable development strategies in planning or design</li> </ul> </li> </ul>	30
Catalyst	<ul style="list-style-type: none"> <li>Development will catalyze additional investment to future project phases and/or to the immediate area</li> <li>The inclusion of strategies to support wealth building for residents within the community where the project is located</li> </ul>	10
Readiness Assessment	<ul style="list-style-type: none"> <li>Proposed development is ready to use awarded funds within the 36-month term—assessment includes the status of funding commitments, implementation tools, and other readiness indicators</li> </ul>	10
<b>Subtotal</b>		<b>50</b>

**Applicants must receive a combined score of 60+ (100 total) to be considered for funding**

# The Massachusetts “Gateway Cities” program offers lessons for grants to distressed municipalities (1/3)

## Overview of Gateway Cities



PRELIMINARY

### Challenge

- MA’s robust economic growth was only benefitting the Greater Boston area
- The state’s former industrial centers struggled with chronic disinvestment, and many communities felt locked out of a state government dominated by Boston’s interests

### Overview

- In 2007, the Brookings Institute and MassINC released a report outlining the “Gateway Cities” concept: targeted, district-based investment to revive the economies of MA’s most distressed cities
- By 2010, the state legislature had adopted a definition that covers 25% of the state’s population:
  - Population between 35K-250K
  - Median household income below state average
  - 4-year degree attainment below state average
- MassDevelopment sponsors and runs the main program for Gateway Cities, Transformative Development Initiative (TDI)<sup>1</sup>, which supports projects in compact “TDI districts” with technical and financial assistance
- Chief executives of each Gateway City signed a compact to work together and support their communities
- Gateway Cities have become the focal point of many other programs, including:
  - Housing Development Incentive Program (HDIP)
  - Greening the Gateway Cities Program

### Impact

- MassDevelopment has directly invested ~\$9M in technical assistance, real estate, grant programs, and urban planning fellows to TDI Districts from 2014-2018
  - These investments were directly linked to ~\$40M in private sector funding
  - Investment helped spur an incremental ~\$80M of public and private investment in the districts

### Stakeholders

- “Gateway Cities”
  - Residents
  - Businesses
  - Civic leaders
- MassDevelopment
- The Massachusetts Institute for a New Commonwealth (MassINC)
- Department of Housing and Community Development
- Executive Office of Energy and Environmental Affairs
- Department of Conservation and Recreation
- Department of Transportation
- Local non-profit organizations

### How can CT incorporate lessons and excel beyond the case?

- Competitive grant programs can leverage eligibility criteria to achieve desired outcomes
- Cooperation across agencies toward a common goal helps generate strong tailwinds

<sup>1</sup> More detail to follow on MassDevelopment’s TDI

SOURCE: MassINC, Brookings Institute, Massachusetts Institute of Technology, Office of the Governor

# The Massachusetts “Gateway Cities” program offers lessons for grants to distressed municipalities (2/3)



MassDevelopment’s Transformative Development Initiative (TDI) is Gateway Cities’ main program

**PRELIMINARY**

**TDI supports compact “TDI Districts” in Gateway Cities**—dense, mixed-use neighborhoods with a primary land-use and a five minute walking radius. TDI Districts are selected through a competitive process, led by MassDevelopment, and once selected districts may receive support from the following six programs:

Program	Description
TDI Fellows	Deployment of urban development professionals, hired by MassDevelopment, to lead community development efforts by fostering partnerships between community organizations and local businesses or developers, building local development capacity, and providing data and expertise to stakeholders—specific workplans are defined by MassDevelopment and the Local Collaborative Partnership
TDI Technical Assistance	MassDevelopment offers planning and development services to TDI districts including strategy support, industry analysis, marketing/communications, community building expertise, financing strategies, and real estate expertise
TDI Local	Program that awards small block grants ranging from \$10-50K to support local market development, including placemaking, small business acceleration, and anchor employer engagement strategies; pending funding availability, MassDevelopment releases an annual RFP, and proposals that align with the TDI district workplan and overall strategy will be selected by the award committee
TDI Equity	MassDevelopment investment in any company, real estate, or assets in exchange for controlling ownership interest; MassDevelopment staff review possible investment opportunities and screen for economic impact, market demand, project visibility, cost and capital availability, demonstrated need for TDI investment, readiness to execute, and alignment with development priorities
TDI Creative Catalyst	Two-year competitive grant program that awards \$20-40K to support public-facing projects that enhance local arts and culture infrastructure
TDI Peer to Peer	Series of workshops, resources, and events to encourage collaboration and knowledge sharing across Gateway Cities

SOURCE: MassDevelopment, MassINC

# The Massachusetts “Gateway Cities” program offers lessons for grants to distressed municipalities (3/3)



MA state agencies have additional programs targeted at “Gateway Cities”

PRELIMINARY

Program	Description	Impact
English Language Learners	Competitive grant program that has awarded anywhere from ~\$300K (FY18) to ~\$3.5M (FY13) to summer schools seeking to improve English skills of middle and high school students	<ul style="list-style-type: none"> <li>• Recipient school districts served ~30% of eligible ELLs in their districts</li> <li>• Students saw up to 74% change in post-assessment from pre-assessment</li> </ul>
Gateway Cities Parks	Program awards ~10 grants annually of ~\$500K to preserve land and restore urban parks in Gateway Cities	<ul style="list-style-type: none"> <li>• Since program inception, ~\$36M state investment has created ~500 jobs</li> </ul>
Greening the Gateway Cities	Partnership of three state agencies to reduce heating and cooling expenses for Gateway Cities via targeted planting to increase canopy cover and reduce energy cost	<ul style="list-style-type: none"> <li>• Since 2014, ~20K trees have been planted across MA’s distressed municipalities</li> </ul>
Housing Development Incentive Program (HDIP)	DHCD program to encourage housing construction and rehabilitation through local tax exemptions and state tax credits, capped annually at \$10M and individually at \$2M	<ul style="list-style-type: none"> <li>• In 2016, HDIP supported ~433 housing units in Gateway Cities</li> </ul>
Transformative Transit Oriented Development (TTOD)	Led by MassINC, initiative explores the potential opportunity and impact of TOD in Gateway Cities	<ul style="list-style-type: none"> <li>• <i>Initiative too recent to show demonstrated impact</i></li> </ul>

# New York’s Upstate Revitalization Initiative (URI) used competitive revitalization grants to spur growth in areas with comparatively low investment in the state



PRELIMINARY

### Challenge

- New York’s upstate region had a **stagnating economy** and, in many regions, has **experienced population decline**
- Recent census data found that **forty-two upstate counties lost population between 2010 and 2017**

### Overview

- The program was inspired by the “**Buffalo Billion**” initiative, which helped jumpstart the economy in western New York
- In 2015, Governor Andrew Cuomo created the **Upstate Revitalization Initiative (URI)** alongside the fifth round of the state’s annual REDC competition to **strategically focus on upstate New York’s economic development**
- The URI was a **one time competition** that awarded three Regional Economic Development Councils (REDCs)
- Eligible REDCs submit revitalization plans alongside annual progress reports through the **Consolidated Funding Application (CFA)**
- “Winners” are selected by the **State Implementation Assessment Team**, chaired by the Secretary of State and receive up to **\$500 million over five years to implement regional revitalization plans**, designed to make transformative improvements in region’s economy
- Selected plans must be **data-driven and demonstrate job impact, significant leverage, careful planning, community engagement, and alignment with state economic development goals**
- Competition is **funded from settlements with financial institutions**
- Beyond financial support, URI “winners” also receive access to University at Buffalo’s **data and economic indicators**

### Impact

- Three REDCs were selected for their revitalization plans: **Central New York, Finger Lakes, and the Southern Tier**
  - The Finger Lakes REDC created **~8k new jobs with its \$500M award while generating \$2.5B in private investment** for the region
- **Each project has a distinct focus** based on the region’s assets
  - Central NY prioritized advanced manufacturing, veterans affairs, and government modernization
  - Finger Lakes region built its plan around growing key industry clusters: photonics, agriculture, and advanced manufacturing
  - Southern Tier focused on innovation, advanced manufacturing, and agriculture

### Stakeholders







- NY Regional Economic Development Councils (REDCs)
- NY Office of the Governor
- NY Secretary of State
- Private sector developers
- Community advocacy organizations
- Upstate residents

### How can CT incorporate lessons and excel beyond the case?

- URI incentivized EDOs to craft comprehensive revitalization plans; CT’s should **encourage community-driven planning**
- Much smaller than NY’s regional EDOs, CT’s municipalities may need **more intensive technical assistance**

## Proposed partners with mission-critical roles for Communities Challenge

PRELIMINARY

Implementing partner	Role(s)	Responsibilities
	Leader	<ul style="list-style-type: none"> <li>Design selection criteria, run the grant application process, select winners, and administer funds</li> <li>Designate technical assistance resources to assist municipalities in creating an urban revitalization vision, writing application, forming partnerships, and executing plans</li> </ul>
	Advisor	<ul style="list-style-type: none"> <li>Raise awareness of competition and its successes</li> <li>Encourage private and social sector participation</li> </ul>
 Municipal governments	Leader, Advisor	<ul style="list-style-type: none"> <li>Compete for funding and technical assistance, crafting inclusive proposals that match community needs while attracting significant private investment</li> <li>Partner with other municipalities to propose large-scale regional plans</li> <li>Advise DECD on the alignment of proposals with planning goals and priorities</li> </ul>
 Councils of Government	Sponsor	<ul style="list-style-type: none"> <li>Coordinate with applicants to encourage alignment with regional economic development plans and to assist design regional partnerships</li> <li>Support DECD as needed to determine degree that proposals align with the state's economic development plan</li> <li>Help make municipalities aware of the program</li> </ul>
 Private sector	Sponsor	<ul style="list-style-type: none"> <li>Help shape urban revitalization vision in communities</li> <li>Partner with communities to design, fund, and execute revitalization projects</li> </ul>
 Community foundations	Advisor	<ul style="list-style-type: none"> <li>Represent the needs and interests of residents in proposed project areas</li> <li>Provide input to DECD on proposals and their implications for area residents</li> </ul>

# Action plan, timeline, and milestones for Communities Challenge

PRELIMINARY			
Phase	Design and plan	Launch and operate	Evaluate and publicize
Timeline	Year 1	Years 2-4	Year 5
Activities	<ul style="list-style-type: none"> <li>DECD to <b>allocate a project coordinator</b> to lead effort and monitor key metrics</li> <li>DECD will <b>specify evaluation criteria</b>, eligible applicants and uses, and key dates</li> <li>DECD to <b>select a 10-15 person panel to evaluate proposals, ensuring the panel is balanced for expertise and demographic and geographic representation</b></li> <li>DECD to release program details and RFP</li> <li>CERC and DECD will <b>publicize the initiative</b> for the public and, with support from COGs, municipalities</li> <li>DECD will <b>offer technical assistance</b> to applicants, with focus on distressed municipalities</li> </ul>	<ul style="list-style-type: none"> <li>DECD to <b>execute the competition</b>:                             <ul style="list-style-type: none"> <li>Evaluation panel will <b>review applications from municipalities and regional partnerships, and select winning proposals/funding level</b></li> </ul> </li> <li>DECD can choose not to allocate all funding in the first round                             <ul style="list-style-type: none"> <li>If funding remains, DECD will run a second round of competition</li> <li>DECD will provide additional technical support to promising non-winners to improve their applications</li> </ul> </li> <li>DECD will <b>offer technical assistance</b> to “winners” to assist in execution</li> <li>DECD’s project coordinator will <b>review annual progress reports</b> from grant recipients and monitor key metrics</li> </ul>	<ul style="list-style-type: none"> <li>DECD’s project coordinator to <b>publish outcomes in a report for public transparency and accountability</b></li> <li>DECD to <b>evaluate need for</b></li> <li>CERC and DECD to <b>publicize success across the state</b></li> </ul>
Milestones	<i>Timeline set for first round of competition</i>	<i>DECD has disbursed awards for first round</i>	<i>DECD issues reporting initiative impact to date, lessons learned; makes decision on interest in renewing program</i>

## Key metrics to monitor initiative implementation progress and impact

PRELIMINARY

Implementation metric	Type	Description	Rationale
Job growth	Quantitative	Direct jobs created by mixed-use developments sponsored by initiative awards	Demonstrates ROI in income tax revenue for state and employment opportunities for residents
Private investment leveraged	Quantitative	Ratio of private investment for every public dollar awarded through the initiative	Success or failure of initiative will depend on ability to generate significant private investment
Local migration rate	Quantitative	Difference between the annual number of immigrants (incoming residents) and emigrants (outgoing residents)	Measure of the initiative's success in attracting and retaining residents
Public transportation usage rate	Quantitative	Share of community using public transportation to get to work	Indicator of successful transit-oriented development
Community satisfaction	Qualitative	Community survey with opportunity for free-text responses to gauge local impression of sponsored developments	Inclusive development must consider implications for project area residents

## Communities Challenge: key risks and mitigating actions

<b>Risks</b>	<b>Mitigating actions</b>
<b>Diffuse allocation of resources lowers impact</b>	No maximum award for development grants, which provides flexibility to fund a large, concentrated capital investment with demonstrated high ROI
<b>Applicants that don't "win" feel alienated</b>	Pre-development grants support communities not well-positioned to "win" the competition, setting them up for success in later rounds or with other funding sources
<b>Reinforcement of cycles of investment (e.g., the "winners" keep winning)</b>	Innovation Hubs (Hartford, New Haven, Stamford) are excluded from this initiative; initiative design prioritizes high need areas
<b>Smaller municipalities lack staff and expertise to execute on large projects</b>	DECD provides technical assistance for execution
<b>Proposals do not have significant impact on local employment</b>	Criteria defined to reward demonstrated employment impact in proposals

## Appendix: Additional detail

Aspiration and targets

Roles and responsibilities

Signature initiative detail

- Communities Challenge
- **Innovation Corridor**
  - Stamford Tech Campus
  - New Haven Bioscience Hub
  - Hartford Hub
- Business environment: Regulatory modernization

Appendix:

## Context: CT innovation ecosystem struggles to compete nationally but has strong assets

PRELIMINARY

### Local context and key issues

Connecticut has a history of innovative companies, and CTNext-launched Innovation Places builds on those assets

#### R&D and patent generation are top 10 in the US

- CT is ranked 8th in concentration of academic R&D and 6th in concentration of business R&D
- CT generates the 8th highest number of patents per capita

#### Patents not translating into startups and growth

- Despite the 8th highest number of patents granted per capita, CT is 35th in startups formed per patent granted
- CT is 31st in entrepreneurs per capita
- **State faces challenges attracting and retaining talent**
- Lack of Tier 1 cities in the state
- CT was 41st in net migration per capita in 2018



### Unique assets to build on

#### Tech companies and location appeal around Stamford

- Multiple large internet-based companies, including Bookings Holdings, Indeed, and Synchrony
- Connectivity and access to NYC is attractive to top talent
- **Bioscience IP and leadership clustered near New Haven**
- New Haven has a large cohort of locally anchored bioscience companies, including Pfizer
- Connecticut Innovations and BioCT have developed a comprehensive plan for the bioscience cluster
- Yale is 10th in NIH funding and 15th in overall R&D expenditures with almost ~\$1bn invested in 2017

#### Industry 4.0 and insurance ecosystem around Hartford

- Hartford has a high concentration of national leaders in Aerospace and Defense as well as Insurance
- Existing innovation investments include Stanley Black and Decker's Manufactory and the Insurtech Hub

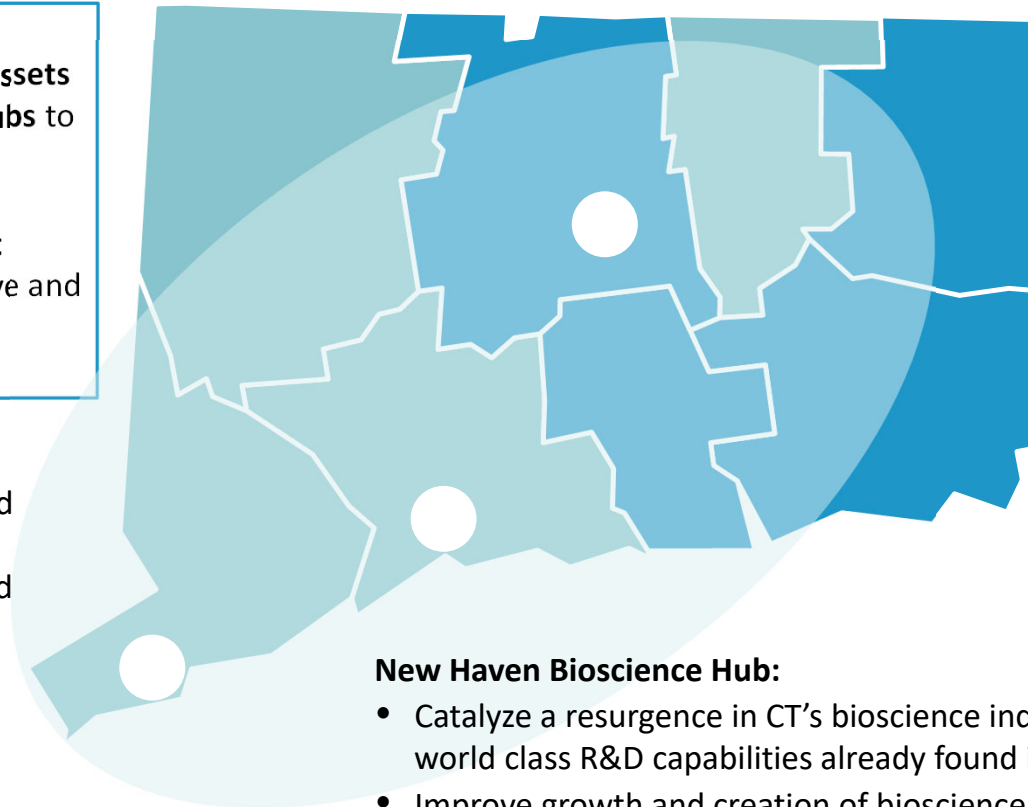
## Vision: Accelerate statewide innovation and job creation through thematic investments around CT's core geographic hubs

PRELIMINARY

Build on CT's unique economic assets to build three core **innovation hubs** to **accelerate job growth** in tech, manufacturing, insurance, and bioscience while **building vibrant urban hubs** across the state to live and work

### Stamford Tech Hub:

- Build a new, globally recognized tech campus with access to CT and NYC talent, companies, and capital
- Focus on talent creation and tech research and commercialization



### Hartford Hub:

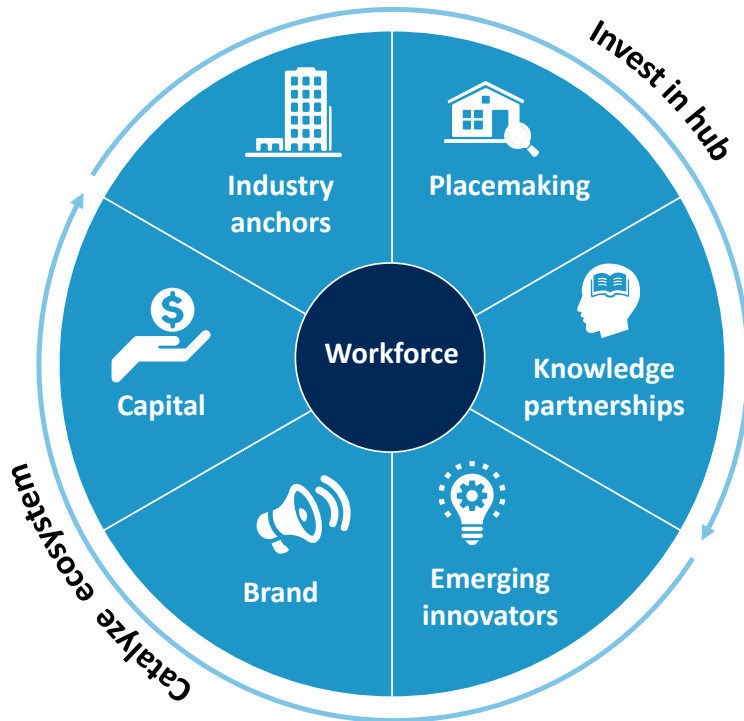
- Capitalize on world-leading companies in manufacturing and insurance
- Develop the capabilities of startups and mid-sized companies while pushing the state of the art

### New Haven Bioscience Hub:

- Catalyze a resurgence in CT's bioscience industry by enhancing the world class R&D capabilities already found in New Haven
- Improve growth and creation of bioscience companies

## Each hub should excel in six areas to build a robust innovation ecosystem

PRELIMINARY



**Industry anchors:** Mix of sub-sectors and anchor companies that attract talent and supply chain



**Placemaking:** Mixed-use real estate projects, public assets, and community programming for innovation districts to encourage work, live, and play



**Knowledge partnerships:** Direct linkages to education institutions, R&D centers, and technical assistance providers that accelerate innovation and create a robust talent pool



**Emerging innovators:** Startups, growth companies, and supports, e.g. accelerators, incubators, hackathons, and industry anchor partnerships



**Brand:** Distinctive, buzz-worthy identity that defines competitive niche and attracts talent and capital



**Capital:** Adaptive and flexible government support that flexes with the evolution of the hub; risk and growth capital for range of investments

# CT can support innovation hubs via existing and new programs and services


Tools to be strengthened for use across Connecticut and applied with different levels of depth in each hub

PRELIMINARY


● Deep dive follows

● Detailed in separate initiative




**Leadership sponsorship**  
Public promotion of priorities and sponsorship of owners who will be taking action



**Strategic guidance**  
Oversight and technical assistance to align and equip publicly-funded resources to work towards shared goals




**Capital support**  
Direct investment combined with cultivation of private capital sources



**Ensuring shared benefit**  
Practice of engaging and protecting communities around development, e.g., community benefit agreements, reinvestment funds, land trusts

*Various economic development orgs*




**Placemaking platform**  
Pooled funding and technical assistance for placemaking proposals, leveraging private sector resources



**Marketing**  
Pooled existing and new sources of funding for coordinated marketing to promote CT



**Concierge and business attraction**  
Team to execute targeted strategy to retain, expand, and attract anchors and emerging innovators, encouraging them to invest in CT and addressing roadblocks that emerge as businesses reinvest or relocate in Connecticut



## Hubs would be supported by a Placemaking Platform

PRELIMINARY

For an innovation hub to successfully attract and retain talent and cultivate a vibrant business ecosystem, it must be an attractive place to live and work. The Placemaking Platform would be a dedicated \$100M pool of competitive grant funding available to the Innovation Network cities of Hartford, Stamford, and New Haven for the purposes of innovation district placemaking, urban revitalization, transit-oriented development, and other enhancements to the livability of local communities.

### Year 1: Metro Land Use Planning and Design Phase

- In the first year after the platform's launch, each of the three cities may apply for \$200K - \$1M grants to fund the development of a comprehensive urban design, vision, and associated blueprint for investment
- Funding may be used for the improvement or consolidation of existing plans
- This vision should be developed in partnership with an expert urban design consultancy, engage regional stakeholders, and uphold the objectives of talent attraction, displacement minimization, cultural asset preservation, transit-oriented development, and district-based placemaking
- This master plan will serve as a blueprint for and prerequisite to receiving funding in years 2-5 of the program, detailing capital needs, uses, and expected positive and negative impact on region and its existing residents







### Years 2-5: Placemaking Plan Execution Phase

- Upon completion of the comprehensive urban design and investment plan, each city can apply for annual grants of up to \$8M per city
- Recipients may be public entities or a consortium of public and private partners, and the grant must represent no more than 20% of total project costs
- Grant funding may be used for public space creation and enhancement; public art and cultural amenities; architectural and engineering fees; community engagement; site acquisition; site preparation; infrastructure investment; construction of public, nonprofit, or commercial facilities; and other related investments in placemaking and livable communities
- Successful applicants must articulate how the funded activities will attract commercial and residential development, assist in linking urban centers to transportation systems, and advance equity and inclusion

# Grant programs referenced to inform design of Placemaking Platform

PRELIMINARY

	<u>Purpose</u>	<u>Annual Pool</u>	<u>Award Size</u>	<u>Eligible Uses</u>	<u>Eligible Applicants</u>
 <p><b>Sustainable Communities Planning Grant</b></p>	Encourage local and regional land use and transportation planning that advances state goals	\$17M competitively; \$12.5M by formula	\$100K-\$1M, with 11% match	Land use and transportation studies, plans, and need assessments	MPOs, RTPAs, transit agencies, cities, counties, Tribal Governments
 <p><b>RCCF Empire State Development Grants</b></p>	Support capital-based projects that create or retain jobs and increase economic activity	\$150M, divided among 10 regions	~\$10-20M per region, fund up to 20% of total project cost	Site and building acquisition, furniture and fixtures, non-residential construction	Localities, public agencies, for-profits, non-profits, BIDs, incubators, academic or R&D institutions
 <p><b>Twin Cities Communities Demonstration Grants</b></p>	Demonstrate innovative approaches to community development	\$5M for TOD and \$7.5M for other	Up to \$2M for TOD over 3 years, no limits or matches for other non-TOD	Design fees, site acquisition and prep, public space and infrastructure development	Cities, towns, counties, and development authorities
 <p><b>CA Affordable Housing and Sustainable Communities Program</b></p>	Reduce emissions through compact land use, affordable housing, and connectivity enhancements	\$550M	\$1-30M	Streetscape improvement, public infrastructure and affordable housing development	Localities, public agencies, schools, transportation commissions, developers

## Appendix: Additional detail

Aspiration and targets

Roles and responsibilities

Signature initiative detail

- Communities Challenge
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  - New Haven Bioscience Hub
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Appendix:

# Context: Rationale for Stamford Region Tech Campus

PRELIMINARY

## Local context and key issues

### Industry anchors

- From software development firms to manufacturers or insurance carriers, digital talent drives competitive advantages
- Job postings for computer science talent increased by more than 11.5% p.a. in CT over the past three years, with sectors like manufacturing, finance, and insurance playing critical roles

### Knowledge partnerships

- CT produces ~1,000 computer science degrees a year
- There is an undersupply of computer science talent in CT, with an estimated ~2 CS job openings for every available CS worker

### Emerging innovators

- Despite being 8th in the US for patents generated, CT is 31st in the rate of new entrepreneurs and 45th in startup density
- The state is 36th in growth company density

### Brand

- CT lacks a reputation for producing top tier tech talent

### Capital

- CT's availability of angel funding ranks 26th among states



## Unique assets to build on

### Industry anchors

- CT is home to 15 Fortune 500 companies that could collocate with a highly innovative campus
- Large tech and data services firms in state include Bookings Holdings, Synchrony, and Indeed, FactSet, Charter Communications, Gartner
- Top tech firms such as Amazon, Google, and Facebook have expanding presences in the NYC area that could be leveraged

### Placemaking

- Located less than an hour from Midtown Manhattan, Stamford has access to the talent, companies, and amenities of New York City
- Planned transportation investments would reduce congestion and increase accessibility and further reduce travel times of Stamford from NYC

### Knowledge partnerships

- Connectivity and access to New York is attractive to top talent, increasing availability of top faculty and students in Stamford

### Brand

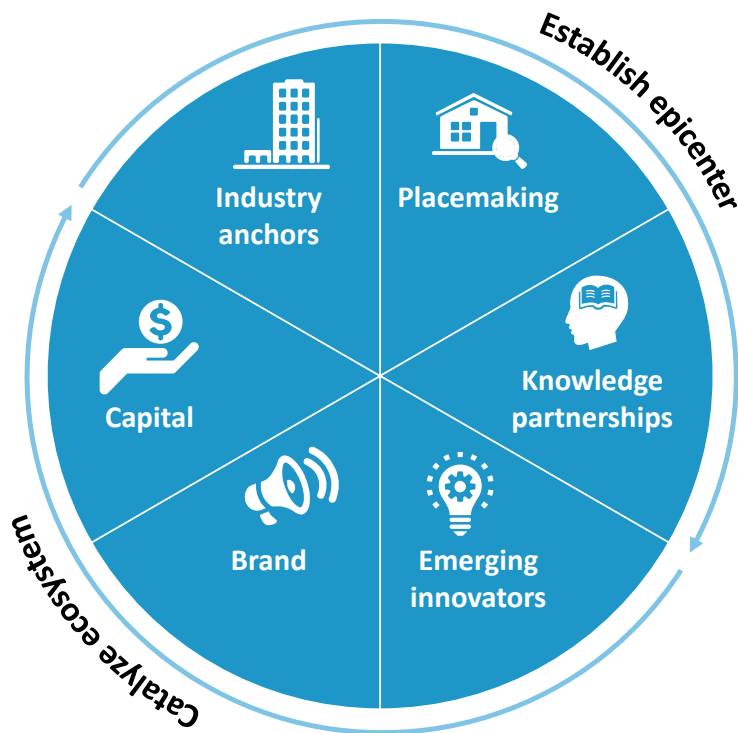
- Stamford is known for its financial services and emerging tech expertise

### Capital

- CT's venture capital funding as a share of GDP is 11th nationally

# Vision: Stamford Region Tech Campus will create a thriving technology ecosystem

PRELIMINARY



## Initiative detail


**Objective: Develop Connecticut's technology ecosystem by reducing talent shortages, creating a hub for research, and boosting commercialization**

- DECD solicits interest from leading institutions with highly rated computer science and other technology-related programs to create a ~500k SF campus
  - Higher education partner designs curriculum for ~500 Bachelor's, Master's and PhD graduates per year, strengthening an undersupplied talent pool
  - The State uses the public process to improve global recognition of the quality talent tech talent trained and located in CT
  - CERC helps to attract anchor companies to collocate with the campus and collaborate with faculty to spur new ideas and increase innovation
- Top faculty at the university expand leading edge R&D capabilities, establishing an additional R&D hub within the state and creating startups in the collocated incubator space
- The City of Stamford partners with key stakeholders to improve transit connections and walkability
- Inclusion will be a priority for both the city and the partners it works with, and will be a formal piece of the selection process for a new university partner

# Impact of Stamford Region Tech Campus


PRELIMINARY

## Impact on growth over 5 years<sup>1</sup>

 **~10-12k** Total jobs created

**~5-6K** Direct jobs created


**~10-12K** Indirect jobs created<sup>3</sup>


 **~100%** of direct jobs created impact *median household income* target


**+** Additional benefits include

- Improves CT's reputation for tech talent
- Builds pathways to high-paying jobs for CT residents while allowing them to remain in-state for education

## Impact on inclusivity over 5 years<sup>2</sup>

 **<25%** of direct jobs created impact *living wage* target

 **<25%** of direct jobs created impact *median household income for racial minorities* target

 **<25%** of direct jobs created impact *quality credentials* target

### Key assumptions and sources

- 1,000 graduates in Y5 with 66% retention (~2x state average) for 660 jobs
- Cornell tech 30 year direct employment estimate linearly scaled down to Y5, taking 8k jobs down to 1.3k jobs
- 10 startups per year with an average of 5 employees, 45% growth p.a., and 40% survival rate for 2 years for 42 jobs
- One large employer (1k jobs) on the campus and five mid sized hubs (500 jobs) located nearby for ~3k jobs
- ~500 indirect jobs created as a result of placemaking initiatives

<sup>1</sup> Impact metrics expressed in % terms are estimated based on quartile estimates 25%, 50%, 75%, and 100% of direct jobs created

<sup>2</sup> Impact estimated for five years, but substantial impact on inclusivity targets requires generational lens beyond five years and consideration of impact beyond direct jobs

<sup>3</sup> Indirect jobs calculated from a 2.0 jobs multiplier, based on average impact of economic activity in Connecticut

# Cost of Stamford Region Tech Campus

PRELIMINARY

	Public cost 5-year total	Total cost 5-year total	Assumptions and sources
Investment in Hub real estate development	~\$75M	\$3-400M	<ul style="list-style-type: none"> <li>Assumes ~25% of cost to build is covered by the public sector</li> <li>Full cost of \$300-400M is based on estimated cost of a 500k SF build out</li> </ul>
Placemaking Platform projects	~\$30M	~\$150M	<ul style="list-style-type: none"> <li>\$33M placemaking fund based on case comparison with NY Empire State Development Grant Fund with extrapolation based on CT size and needs; includes up to \$1M for Year 1 planning and up to \$8M in subsequent years</li> <li>\$150M private sector cost for placemaking assumes 4-to-1 leverage for placemaking fund</li> </ul>
	~\$105M	~\$550M	

## Cost structure options to consider during implementation

- How can one-time sources of funding such as naming rights and other university-led fundraising be leveraged?
- Can Opportunity Zones be used as a vehicle to help attract private investment in or around the campus?

## Key lessons from innovation campus and university attraction efforts

PRELIMINARY

### Case study

### Key learnings

**New York City: Cornell Tech**

NYC used desirable land and \$100M in cash incentives to attract top institutions  
The city used a structured process to attract Cornell Tech, culminating in a competitive RFP  
Process was stage gated, with clear go/no-go decision points after each phase of attraction  
Partnership with local universities was encouraged, as was community engagement

**Virginia: Virginia Tech**






Virginia looked to local universities to help expand the production of computer science talent in state ahead of Amazon's HQ2 announcement  
Virginia Tech committed to building a new campus in Northern Virginia, estimated to cost \$500M by 2025 for phase 1, with the state covering ½ of the anticipated costs (total costs of \$1B are planned for 2035 which would double the size of the planned campus)

**Singapore: Global Schoolhouse program**

Singapore cultivated prestigious universities from around the world as the peak of their education strategy, aiming to become the "Boston of the East"  
They leveraged a combination of marketing, incentives for universities, and financial aid for students to build a diverse global education cluster

# Proposed partners with mission-critical roles and responsibilities for Stamford Region Tech Campus

PRELIMINARY

Implementing partner	Role(s)	Responsibilities
	Leader	<ul style="list-style-type: none"> <li>Running the bid process and selecting the winning institution(s)</li> <li>Securing public funding towards the development</li> <li>Interfacing with other state agencies who may play a role in the development of the campus (e.g., Department of Transportation)</li> </ul>
	Convener	<ul style="list-style-type: none"> <li>Leading recruitment of anchor tenants to the campus</li> <li>Raising awareness of the effort</li> <li>Coordinate private sector support for the campus</li> </ul>
	Leader, Convener	<ul style="list-style-type: none"> <li>Lead placemaking planning and execution</li> <li>Convening local stakeholders to gather feedback and ensure an inclusive approach to the development of the campus</li> <li>Identify the likely sites for the campus to be developed around</li> </ul>
	Convener	<ul style="list-style-type: none"> <li>Provide links to the state's venture capital and entrepreneurial communities for the campus</li> </ul>
 Private sector	Sponsor	<ul style="list-style-type: none"> <li>Support through direct capital and in-kind support such as internships</li> <li>Co-locate on the Stamford Region Tech Campus, engaging with students and faculty</li> <li>Help shape curriculum and keep training in line with industry needs</li> </ul>

## Groups with a stake in the success of the Stamford Region Tech Campus

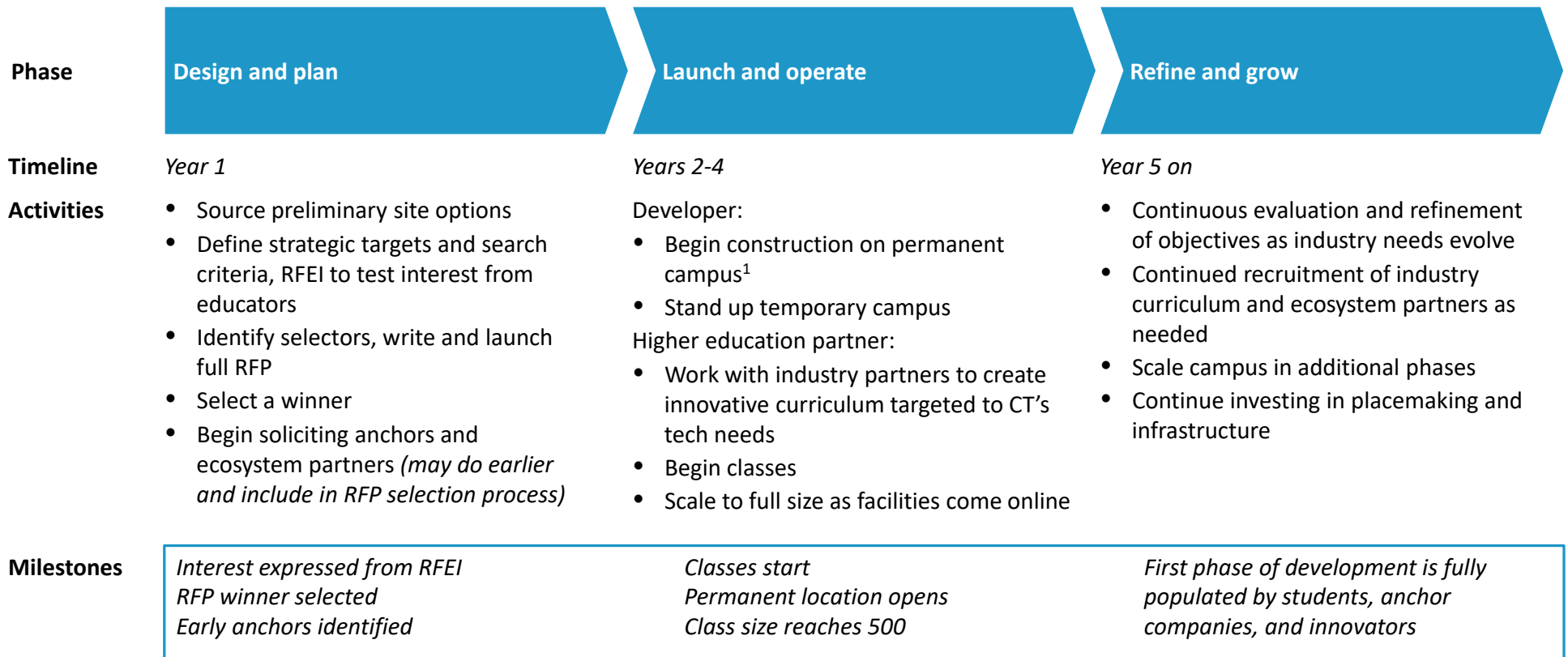
PRELIMINARY

Stakeholder	Potential activities related to initiative	Value of initiative to stakeholder
<p><b>Top tier national and international technical programs</b></p>	<ul style="list-style-type: none"> <li>Express interest in RFP, providing feedback and helping refine State support to match educator need</li> <li>Develop plans for delivering high quality education, local partnerships, and community engagement</li> </ul>	<ul style="list-style-type: none"> <li>Potential for state support to expand in an attractive market and high demand field</li> </ul>
<p><b>Local higher education institutions</b></p>	<ul style="list-style-type: none"> <li>May consider a joint proposal with an out of state institution (foreign or domestic)</li> <li>Can leverage complementary educational or research functions and share services with new campus</li> </ul>	<ul style="list-style-type: none"> <li>Potential for complimentary educational activity in state</li> <li>Potential for direct state support if a local institution partners for a winning RFP response</li> </ul>
<p><b>Residents of communities surrounding the tech campus</b></p>	<ul style="list-style-type: none"> <li>Engagement in the RFP process, actively shaping partnership opportunities between the community and the</li> </ul>	<ul style="list-style-type: none"> <li>Potential to spur vibrant new development, but risk of gentrification and displacement of current residents</li> </ul>

# Action plan to execute on the Stamford Region Tech Campus

Details to follow

PRELIMINARY



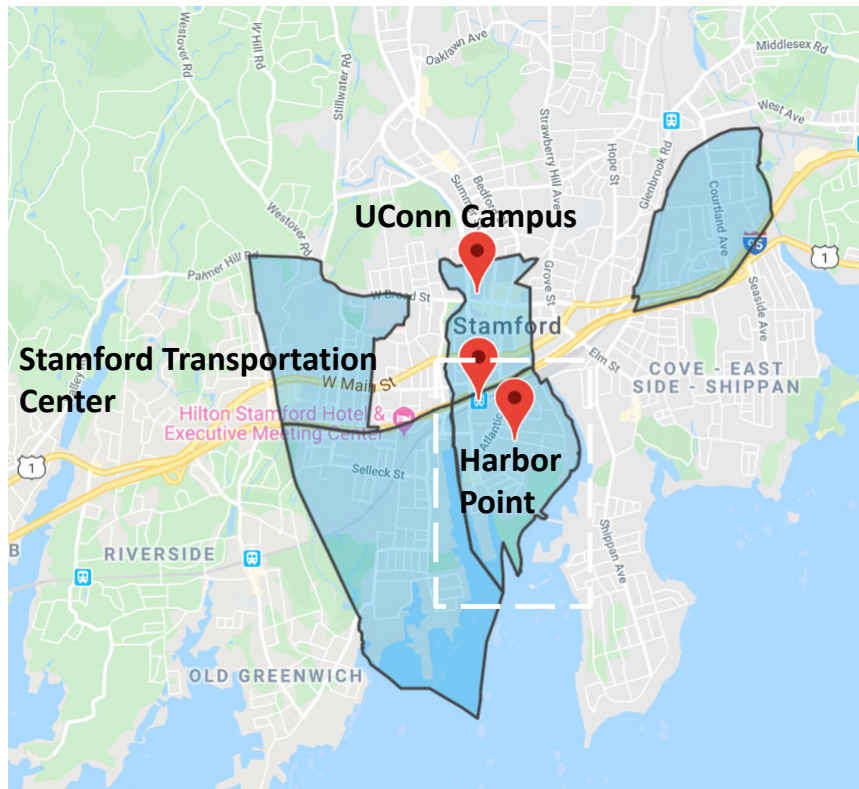
<sup>1</sup> If campus is located in an existing site requiring minimal modification, these timelines can be accelerated

# Sites for the Stamford Region Tech Campus could be located within opportunity zones, potentially amplifying existing activity

Details to follow

PRELIMINARY

## Stamford opportunity zones



SOURCE: State of CT opportunity zone database

## Ongoing opportunity zone investments

- **Harbor Point:** The area undergone a \$3.5 billion transformation over the last 10 years. The City is finishing its Stamford Southend Master Plan to allow for multiple projects to be expedited over the next several years. There are currently three large residential buildings under construction in the area, with another ten residential buildings proposed
- **Stamford Transportation Center:** The area surrounding the transportation center has undergone a \$400 million transformation over the past twenty years through commercial and residential development
- **UConn Campus:** New development around the new \$500 million Stamford Hospital and UConn campus is ongoing. Charter Oak has partnered with the Hospital in creating the Vita Health District that serves local residents and businesses in the area

## Current property with the potential for development is located within the Harbor Point neighborhood, specifically near the former Pitney Bowes complex

PRELIMINARY

### Known Stamford development opportunities



SOURCE: Expert Interviews, City of Stamford Economic Development, CERC Site Finder, CityFeet.Com

### Site location options

- **Off-market properties:** Private developers control sites that may be suited to the Tech Campus
  - **The former Pitney Bowes complex** located near the Harbor Point development
  - **The 14 acre parcel** adjacent to the Pitney Bowes complex could accommodate up to 750k SF of new development along the waterfront
  - **Other nascent opportunities** may exist, and can be explored with local developers (e.g., BLT)
- **Government owned property:** Potential to redevelop property owned by the City of Stamford or State of Connecticut should be explored
- **Publicly listed properties:** Sites currently listed within Stamford for lease or development do not appear suited to housing the permanent location for the tech campus, with limited square footage

## Key metrics to monitor initiative implementation progress and impact

PRELIMINARY

Implementation metric	Type	Description	Rationale
Number and quality of RFEI respondents	Quantitative and qualitative	Measure the quality and quantity of responses that the RFEI generates as an early indicator of the viability of a competition	Once the RFP is issued, it is more difficult to walk back the competition
Number and quality of RFP respondents	Quantitative and qualitative	Consider the quality and quantity of responses that the RFP generates as an early indicator of the viability of a competition	If no sufficiently compelling response emerges, the State can consider not awarding funding and support to any organization
Graduates per year <sup>1</sup>	Quantitative	The number of new computer science graduates produced each year by level of degree	One of the core goals of the campus is to provide an alternate source of computer science talent
Startups per year	Quantitative	The number and growth of startups generated from students and faculty	A supporting goal of the campus is to boost Connecticut and Stamford's innovation ecosystems

<sup>1</sup> As the State refines its strategic goals for this effort, it may choose to track additional metrics on graduates (e.g., how many were from CT, how representative are they of CT or of Stamford, how many remain in CT, how many are employed in their field of study within a certain timeframe)

## Stamford Region Tech Campus key risks and mitigating actions

PRELIMINARY

<b>Risks</b>	<b>Mitigating actions</b>
<b>Insufficient interest from high caliber institutions</b>	Test for interest one-on-one with top targets, including parties that expressed interest in Cornell Tech Use RFEI as a public test point to gauge overall sentiment
<b>Local stakeholders resist the development of a new campus</b>	Engage the local community early in the process to gather input and feedback
<b>Industry needs shift but curriculum stay unchanged</b>	Build strong linkages to industry into the governance of the campus Ensure ongoing dialogue on skills and industry needs
<b>Existing CT higher ed institutions push back</b>	Emphasize that local universities are welcome to participate in the competition
<b>Existing important but subscale efforts slow momentum / case for change</b>	Emphasize that the ecosystem provided by a flagship computer science campus will only enhance existing efforts, and is necessary to build a thriving innovation community

## Cornell Tech: New York City, NY

PRELIMINARY



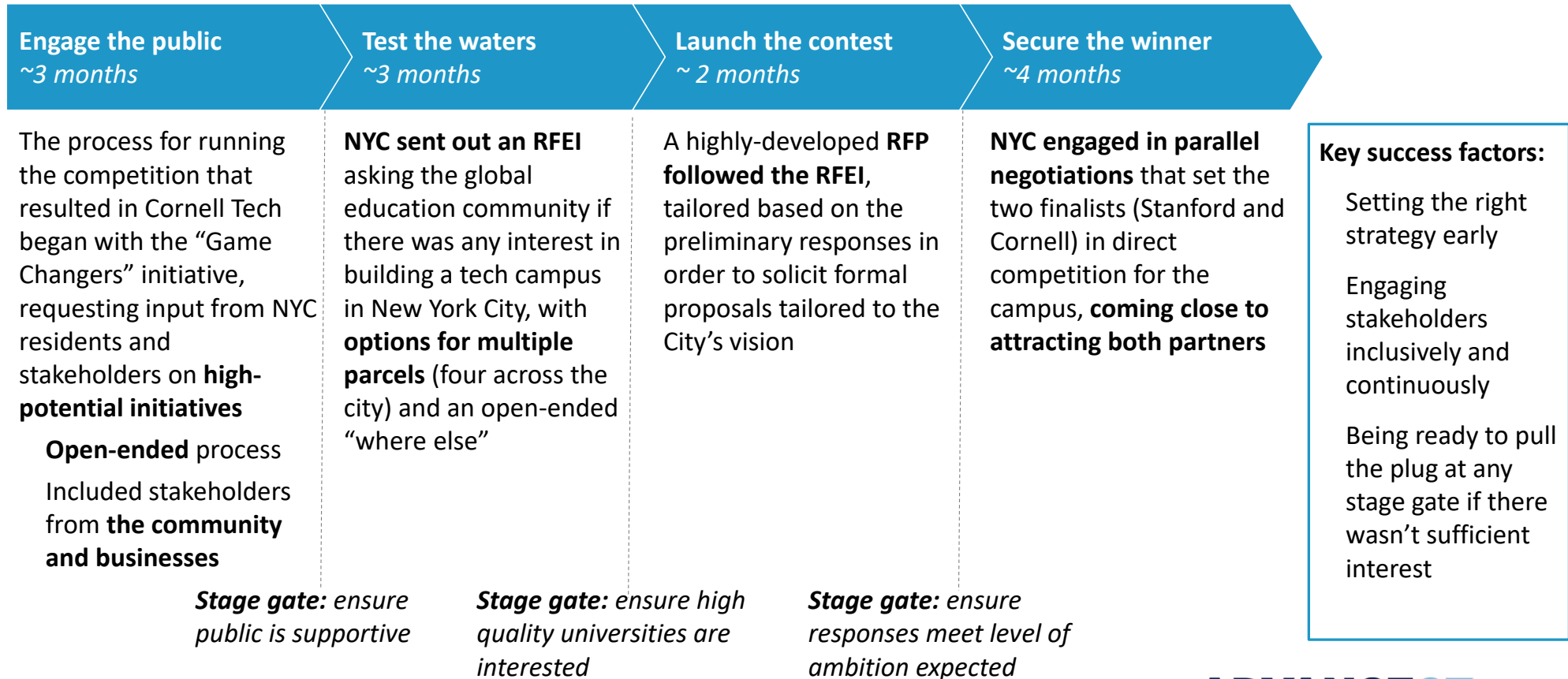
Cornell Tech's two-acre campus on Roosevelt Island is a joint partnership between Cornell University and Technion-Israel Institute of Technology, which serves as the flagship campus of "Applied Sciences NYC."

Its primary innovation space, The Tata Innovation Center, is a 230,000 square foot building home to startups, corporations, and academics.

Currently, the campus includes ~0.8 million square feet and is expected to be 2.1 million square feet at full buildout.

# Cornell Tech: New York City followed a year long process to attract Cornell Tech

PRELIMINARY



SOURCE: New York City press releases, expert interviews

## Cornell Tech: The City received 18 responses to the RFEI and had 7 bids for the RFP

### PRELIMINARY

#### RFEI respondents

- Åbo Akademi University, Finland
- Amity University, India
- Carnegie Mellon University with Steiner Studios
- Cornell University
- Columbia University and the City University of New York
- The Cooper Union
- École Polytechnique Fédérale de Lausanne, Switzerland
- Indian Institute of Technology Bombay, India
- Korea Advanced Institute of Science and Technology, Korea
- New York University, Carnegie Mellon, the City University of New York, the University of Toronto, and IBM
- The New York Genome Center, with Albert Einstein College of Medicine, Columbia University Medical Center, Memorial Sloan Kettering Cancer Center, Mount Sinai School of Medicine, New York University, Rockefeller University, and the Jackson Laboratory
- Purdue University
- Rensselaer Polytechnic Institute
- Stanford University
- The Stevens Institute of Technology
- Technion-Israel Institute of Technology, Israel
- The University of Chicago
- The University of Warwick, United Kingdom



#### RFP bids

- Amity University bid for Governors Island
- Carnegie Mellon University and Steiner Studios bid for Brooklyn Navy Yard
- Columbia University bid for Manhattanville
- Cornell University and Technion–Israel Institute of Technology bid for Roosevelt Island
- New York University, University of Toronto, University of Warwick, Indian Institute of Technology Bombay, City University of New York, and Carnegie Mellon bid for Downtown Brooklyn
- New York Genome Center, Mount Sinai School of Medicine, Rockefeller University, and State University of New York bid for Stony Brook
- Stanford University and City College of New York bid for Roosevelt Island.

## Cornell Tech: The City scored RFP respondents across three categories

PRELIMINARY

RFP chapter	Key criteria
<b>Economic impact and feasibility (40%)</b>	<ul style="list-style-type: none"> <li>• Proposal quality</li> <li>• Project commitments</li> <li>• Site control and project transaction structure</li> <li>• Proven net new growth</li> <li>• Financial plan</li> <li>• Economic impact on the city</li> </ul>
<b>Qualifications and track record (40%)</b>	<ul style="list-style-type: none"> <li>• Institutional quality</li> <li>• Respondent team qualifications and track record</li> <li>• Fundraising track record</li> </ul>
<b>Institutional connections to the city (20%)</b>	<ul style="list-style-type: none"> <li>• Relationship to the community</li> <li>• Design and operational sustainability plan</li> <li>• Hiring and workforce development</li> </ul>

### Components of NYC's RFP that Connecticut can emulate

- **Bias towards impact:** Connecticut can prioritize high quality institutions with a credible plan to build a campus and drive economic growth
- **Focus on inclusion:** Connecticut can devote a meaningful portion of its selection criteria to key inclusion topics including:
  - Ability to integrate with underrepresented high schools across CT
  - Community oriented hiring practices
  - Integration with existing CT higher ed providers

## Cornell Tech: Key lessons (1/2)

PRELIMINARY

### Mission and values

- **Mission:** “Creating pioneering leaders and technologies for the digital age, through research, technology commercialization, and graduate-level education at the professional masters, doctoral and postdoctoral levels”
- **Value proposition:** The prospective two million square foot campus **combines a new graduate school, startup incubator, and collaborative offices across two acres** of open space to bring together faculty, business leaders, tech entrepreneurs, and students to foster an innovation-friendly environment.
- **Areas of focus:** Digital Tech, engineering, computer science, and applied sciences

### Programs / services

- The school offers a range of **Master’s degrees & PhD programs**, aiming for ~2k graduates per year
- **Runway Startups program** combines service offerings for postdocs to engage in a **1-3 year program for entrepreneurial idea generation, management education & incubation** for resulting spinoff companies
- **Studio programs** provide **experience-based learning for project management and tech development**, including opportunities to secure funding for real startups
- **Targeted programs to support community involvement (e.g., K-12 education & women’s initiative)**

### Tenants

- Cornell occupies nearly 90,000 square feet (40%) of the campus’ main innovation hub (Tata Innovation Center)
- Currently, ~95,000 of the Tata Innovation Center’s 230,000 square feet are unoccupied (~40%)
- Retailers are ~3%, with large corporate tenants (e.g., Citigroup has 11,000 square feet) occupy the balance (~17%)

## Cornell Tech: Key lessons (2/2)

PRELIMINARY

### Partners

- NYC engaged global universities in competition to develop an applied sciences site, offering prime real estate, capital, and full government support for the winning bid
- Cornell, recognizing opportunities in its own commercialization efforts, partnered with the Technion-Israel Institute of Technology, a leader in commercialization, and put forward a joint winning bid
- Cornell Tech has leveraged its brand and the hub's prime location to secure partnerships and collaborations with high caliber corporates such as Bloomberg, Verizon, Alphabet, and Amazon
- **Cornell owns the academic buildings** and leverages developers for ownership and development of other real estate; **~600,000 square feet of Phase I's 800,000 square feet (75%) is owned in whole or part by developers**
- **Forest One is master campus developer and developer / owner of the Tata Innovation Center**; Cornell Tech has a **joint venture agreement with the Hudson Companies** in developing its residential property

### Governance

- Cornell Tech is led by a 15-member core team, which includes the leadership of the graduate school
- Its 14-member Board of Overseers is comprised of various business, academic advisors, and financial contributors including Michael Bloomberg, Dr. Paul Jacobs, and Chairman Lowell McAdam (CEO & Chairman of Verizon)

### Financial model

- Cornell Tech developed through a **shared-cost model** – campus funded through a combination of **University capital, city funding, naming right for buildings, and contributions from individual donors**
- Cornell Tech's operating finances are not yet disclosed, however, campus likely operates akin to an independent graduate school program, funded through student tuition, federal grants, and external contributions

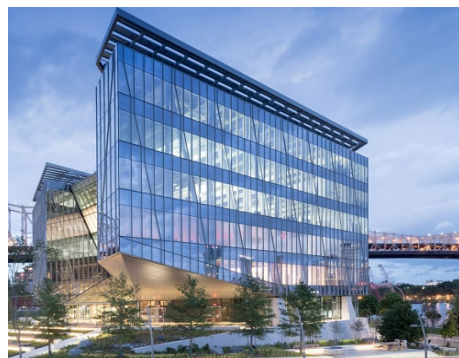
## Cornell Tech: For its 4 Phase I buildings, Cornell has utilized outside real estate players in ownership and development of most buildings

**Bloomberg Center  
(academic)**



- **Owned** by Cornell
- **Developed on fee basis** by Forest City
- **Size:** ~150,000 square feet

**Tata Innovation Center  
(innovation hub)**



- **Owned and developed** by Forest City
- Cornell in 35-year lease agreement for ~40% of space
- **Size:** ~230,000 square feet

**'The House'  
(residential)**



- **Owned by joint venture** between and Hudson Companies Cornell (Cornell is 87% equity holder)
- **Size:** ~250,000 square feet

**Verizon Exec. Education Center  
(academic/corporate)**



- **To be owned and develop** by Cornell
- **Size:** ~45,000 square feet

# Cornell Tech: The campus has leaned on a shared cost model, funded primarily through private contributions and partnerships to drive its development

## Getting started

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- In December 2011, Cornell University in partnership with Technion-Israel Institute of Tech, won the Applied Sciences NYC competition issued by NYC and the Mayor's Office to build and operate a new applied sciences and engineering campus on Roosevelt Island, NYC.
- The New York City Economic Development Corporation **committed the land and ~\$100 million in city capital** to begin the initial construction of the new campus under a **99-year lease with the University**.
  - In 2013, Dr. Irwin Mark Jacobs, Founding Chairman and CEO Emeritus of Qualcomm, and his wife, Joan Klein Jacobs, announced a **\$133 million gift** to Cornell University and the Technion – Israel Institute of Technology to create the Joan & Irwin Jacobs Technion-Cornell Institute
- Cornell Tech committed to create the new campus in three phases, with milestones in 2017, 2027, and 2037. The University also has enrollment, faculty, and other operational commitments as part of its agreement.
- The total cost of demolition of the existing structures on the site is considered to be a **prepaid cost of the ground lease, and will be amortized over the term of the lease** (as of June 30, 2017, the unamortized amount of the demolition costs is ~\$53,000)

## Campus development

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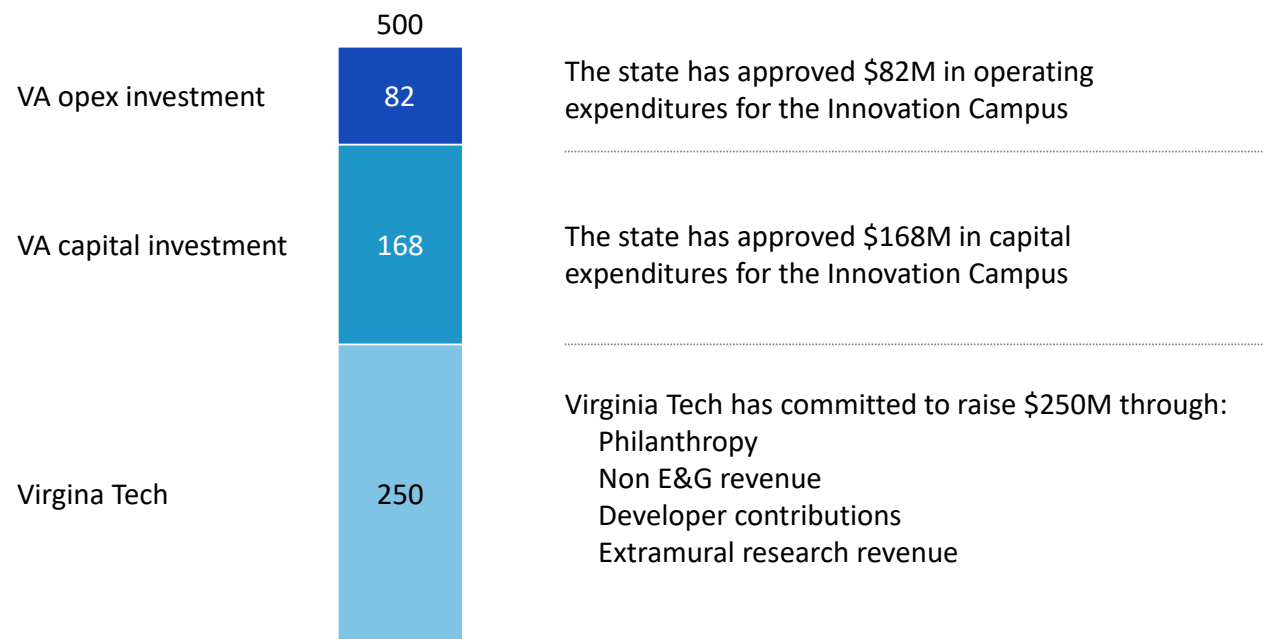
- After three years of construction, Phase 1 of development commitments were completed in 2017 including the opening of first academic building (Bloomberg Center), a corporate colocation space (Tata Innovation Center), a residential building ('The House'), and initial planning on the executive education facility (Verizon Executive Education Center)
- **Bloomberg Center:** Cornell Tech's academic hub made possible through a \$100 million donation from Bloomberg Philanthropies
- **Tata Innovation Center:** Center where established companies, startups, entrepreneurs, investors, and academics "accelerate the commercialization of new products and technologies."
  - Tata provided a \$50 million gift in 2017 for the naming rights to the center
  - 230,000 square foot building owned by Forest City in which Cornell Tech has a 35-year capital lease for 89,000 square feet (39%); Retail space occupies ~6,500 square feet (~3%)
  - Other established companies and startups make up the remainder of the space (e.g., Citigroup has ~11,000 square feet)
- **'The House':** In 2016, the University entered into a joint venture with the Hudson Companies to construct and operate new residential facilities on the Cornell Tech campus; the University has an equity interest of ~87% and controlling financial interest
- **Verizon Executive Education Center:** Funding for center made possible from private contributions of \$50 million naming gift

# Virginia Tech: VT will match contributions from the state to help cover the \$500M in total costs for phase 1, with day to day operations expected to generate positive cashflow

PRELIMINARY

## State & Virginia Tech funding commitments

\$M



Total costs of the new Innovation Campus are anticipated to be \$500M by 2025 and \$1B by 2035

Beyond the commitments shown here, made over a 20 year timeline, the additional funding needed to complete the Innovation Campus will be raised through:

- Private sector investment in return for ownership and revenues generated from commercial or residential spaces
- Site specific incentives from localities and the Commonwealth
- Additional fundraising efforts by VT
- Debt issuance

## Singapore Global Schoolhouse program: Singapore's Global Schoolhouse program set ambitious targets for the international education plan

PRELIMINARY

### Goals

---

**Mission:** To invite the best universities abroad to develop Singapore as a world-class education hub offering a diverse and distinctive mix of local and international quality education services

**Objectives:**

- To build the higher education sector to roughly 5% of Singapore's GDP
- To attract 150,000 foreign students by 2015
- To transform the education sector into an engine of economic growth
- To build industry-relevant manpower capabilities for the economy
- To help attract, develop and retain talent for the economy

## Singapore Global Schoolhouse program: Singapore has been successful in attracting several top international institutions (1/2)

PRELIMINARY

Institution	Collaboration form	Disciplines
	<ul style="list-style-type: none"> <li>University of Chicago Graduate School of Business offering Master's programs in Singapore</li> </ul>	<ul style="list-style-type: none"> <li>Graduate business administration – MBA</li> </ul>
	<ul style="list-style-type: none"> <li>INSEAD campus offers Master's-level degree programs in Singapore</li> </ul>	<ul style="list-style-type: none"> <li>Graduate business administration – MBA</li> </ul>
	<ul style="list-style-type: none"> <li>Georgia Institute of Technology and NUS collaboration offering dual MSc degrees</li> </ul>	<ul style="list-style-type: none"> <li>Logistics</li> </ul>
	<ul style="list-style-type: none"> <li>NUS-NTU/MIT partnership offering graduate programs</li> </ul>	<ul style="list-style-type: none"> <li>Graduate engineering program</li> </ul>
	<ul style="list-style-type: none"> <li>NTU-Cornell partnership offering graduate programs</li> </ul>	<ul style="list-style-type: none"> <li>Graduate programs in hospitality management</li> </ul>
	<ul style="list-style-type: none"> <li>DigiPen offers undergraduates degrees in gaming development</li> </ul>	<ul style="list-style-type: none"> <li>Undergraduate programs in gaming development</li> </ul>
	<ul style="list-style-type: none"> <li>NUS-Duke partnership offering graduate medical programs</li> </ul>	<ul style="list-style-type: none"> <li>Graduate medical program</li> </ul>
	<ul style="list-style-type: none"> <li>ESSEC offers Master's-level degree programs in Singapore</li> </ul>	<ul style="list-style-type: none"> <li>Graduate business administration – MBA</li> </ul>

1 Excluding executive program. 280 students enrolled for executive program in 2010

SOURCE: Web search; press search

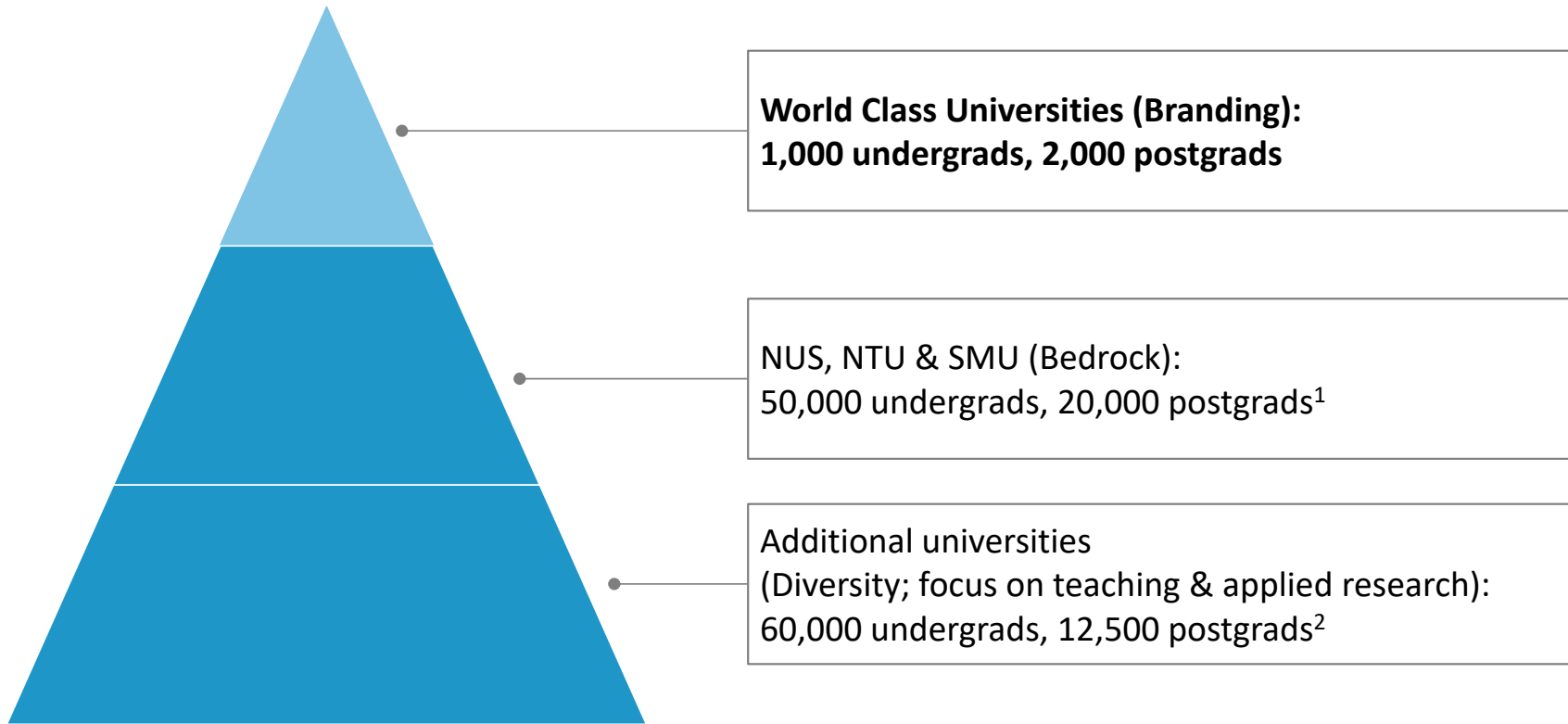
## Singapore Global Schoolhouse program: Singapore has been successful in attracting several top international institutions (2/2)

PRELIMINARY

Institution	Collaboration form	Disciplines
	<ul style="list-style-type: none"> <li>NUS/NTU-GIST partnership offering undergraduate and postgraduate programs in engineering</li> </ul>	<ul style="list-style-type: none"> <li>Engineering</li> </ul>
	<ul style="list-style-type: none"> <li>NYU Tisch School offers Master's-level degree programs in Singapore</li> </ul>	<ul style="list-style-type: none"> <li>Fine arts</li> </ul>
	<ul style="list-style-type: none"> <li>University of Hawaii School of Travel Industry Management offers postgraduate programs in travel and hospitality</li> </ul>	<ul style="list-style-type: none"> <li>Travel and hospitality</li> </ul>
	<ul style="list-style-type: none"> <li>SP Jain offers undergraduate and post-graduate programs in business</li> </ul>	<ul style="list-style-type: none"> <li>Business</li> </ul>
	<ul style="list-style-type: none"> <li>NTU-Shanghai Jiaotong partnership offering graduate programs</li> </ul>	<ul style="list-style-type: none"> <li>Graduate business administration – MBA</li> </ul>
	<ul style="list-style-type: none"> <li>NTU-Stanford partnership offering graduate executive programs</li> </ul>	<ul style="list-style-type: none"> <li>International management</li> </ul>
	<ul style="list-style-type: none"> <li>UNLV offers undergraduate and post-graduate programs in hospitality</li> </ul>	<ul style="list-style-type: none"> <li>Hospitality</li> </ul>
	<ul style="list-style-type: none"> <li>NUS-Waseda student exchange partnership program</li> </ul>	<ul style="list-style-type: none"> <li>Multidisciplinary</li> </ul>

## Singapore Global Schoolhouse program: Singapore envisioned a three-tier university system to cater to the demands of domestic and international students

PRELIMINARY



1 The figure represents organic growth, currently, NUS, NTU and SMU enroll approximately 37,000 undergrads and 15,000 postgrads

2 These would be new students, of the total, an estimated 50,000 would be international students (40,000 undergrads, 10,000 postgrads)

SOURCE: Ministry of Trade and Industry

# Singapore Global Schoolhouse university attraction: key lessons

PRELIMINARY

## Initiatives

Attracting international universities	<ul style="list-style-type: none"><li>• Emphasizing Singapore's <b>natural advantages</b> as a potential hub for education<ul style="list-style-type: none"><li>– Strategic geographical position within Southeast Asia</li><li>– High quality of life for visiting international students and faculty</li><li>– Large number of transnational corporations with presence in Singapore</li><li>– Political stability</li><li>– Presence of relatively high quality local universities</li></ul></li><li>• <b>Subsidizing and incentivizing entry</b> of international universities by the Economic Development Board (EDB) through:<ul style="list-style-type: none"><li>– Direct public grants and soft loans (e.g. to University of New South Wales, NYU Tisch School of Arts, INSEAD)</li><li>– Reduced land values</li><li>– Easier-to-get work permits and housing access</li></ul></li></ul>
Marketing initiatives	<ul style="list-style-type: none"><li>• Setting up a <b>nodal agency</b> – Education Services Division of the Singapore Tourism Board – to coordinate all marketing</li><li>• Setting up an <b>official website</b> to interface with international students</li><li>• Operating <b>overseas offices in 18 countries</b>, providing services in student counseling, student visas, marketing/promotion</li><li>• Appointing <b>agents to guide overseas students</b> looking to study in Singapore, and awards for outstanding agents</li><li>• Holding Singapore Education Awards to <b>motivate more industry collaboration</b> and exchange of strategies and ideas</li></ul>
Ensuring financial viability	<ul style="list-style-type: none"><li>• <b>Tuition Grant Scheme</b> – subsidizes up to 80% of fees if students work in Singapore for 3 yrs after graduation</li><li>• Offering <b>targeted scholarships</b> to ASEAN students</li><li>• Providing <b>bursaries</b> based on financial need</li><li>• Ensuring <b>favorable rate on student loans</b></li></ul>

## Singapore Global Schoolhouse program: Singapore has developed a clear organizational structure incorporating various stakeholders

PRELIMINARY

<b>Promoting Ministries</b>	<ul style="list-style-type: none"><li>• Ministry of Trade and Industry (MTI)</li><li>• Ministry of Education</li></ul>
<b>Key nodal agencies (under MTI)</b>	<ul style="list-style-type: none"><li>• Economic Development Board – overall strategy and coordination with international stakeholders including international universities</li><li>• Singapore Tourism Board – promotion of Singapore as a premier education destination; runs an Education Services Division comprising 3 units<ul style="list-style-type: none"><li>– Education Market Development - exhibitions and seminars, education counselor training</li><li>– Education Strategic Marketing – brand advertising, publicity and research</li><li>– Student Services Division – support services for international students attending Singaporean institutions</li></ul></li></ul>
<b>Monitoring of private institutions</b>	<ul style="list-style-type: none"><li>• Council for Private Education – establishing academic standards</li><li>• Spring Singapore – accreditation for private educational organizations</li><li>• Singapore Quality class for private education operators – Regulating governance and business structures</li><li>• Consumers association of Singapore – registration of private education providers and redressing grievances of students</li><li>• International Education Singapore – helps quality domestic institutions in setting up campuses overseas</li></ul>

## Appendix: Additional detail

Aspiration and targets

Roles and responsibilities

Signature initiative detail

- Communities Challenge
- **Innovation Corridor**
  - Stamford Tech Campus
  - **New Haven Bioscience Hub**
  - Hartford Hub
- Business environment: Regulatory modernization

Appendix:

# Context: Rationale for New Haven Bioscience Hub

PRELIMINARY

## Local context and key issues

### Industry anchors

- Bayer closed its facility in West Haven in 2006 to consolidate R&D efforts, eliminating 1000 jobs
- Bristol Myers Squibb left Wallingford in 2018 to consolidate R&D efforts in other states, eliminating 700 jobs
- Alexion moved HQ from New Haven to Boston in 2017 to join thriving bioscience ecosystem there, eliminating 400 jobs
  - Alexion announced \$10M R&D expansion in New Haven

### Placemaking

- Young STEM graduates are not drawn to living in CT cities

### Knowledge partnerships

- Inadequate wet lab and graduation space for existing companies forces companies to look outside CT

### Emerging innovators

- Exodus of large companies has caused shortage of top managerial talent

### Brand

- CT has not been able to garner a reputation of a bioscience innovation center of excellence akin to neighboring Boston

### Capital

- Limited late-stage funding opportunities



## Unique assets to build on

### Industry anchors

- New Haven is home to a sizeable cohort of bioscience companies, and serves as a major R&D hub
- Connecticut Innovations and BioCT are both heavily invested in supercharging bioscience growth in CT; drafted comprehensive 10-year strategic plan for bioscience in Dec 2018
- New Haven plans to build large bioscience incubator at 101 College St.

### Placemaking

- Planned transportation investments would reduce congestion and increase talent draw from Boston and NYC

### Knowledge partnerships

- New Haven is 4th in NIH funding per capita, and Yale is 10th in total institutional NIH funding
- Yale has top ranking bioscience and medical school programs; cancer center ranked 19th in NCI funding, with history of seminal discoveries

### Emerging innovators

- Large number of Yale graduates in life sciences, particularly biology

### Brand

- CT in initial stages of statewide bioscience marketing campaign

### Capital

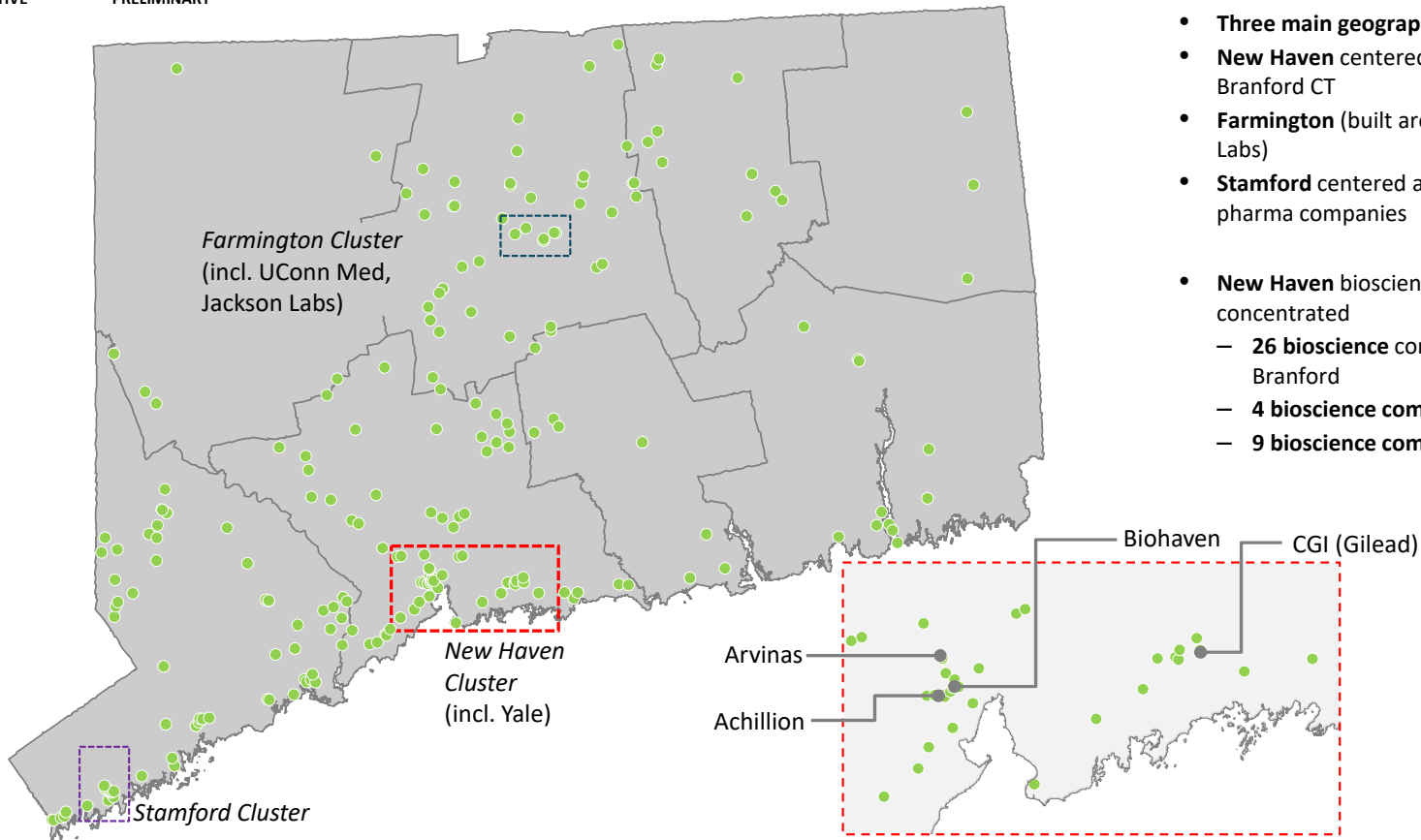
- CT's venture capital funding as a share of GDP is 11th nationally

# Context: There is an existing bioscience ecosystem in CT and New Haven

● Bioscience/pharma company  
(including R&D, manufacturing,  
and associated services)

NOT EXHAUSTIVE

PRELIMINARY

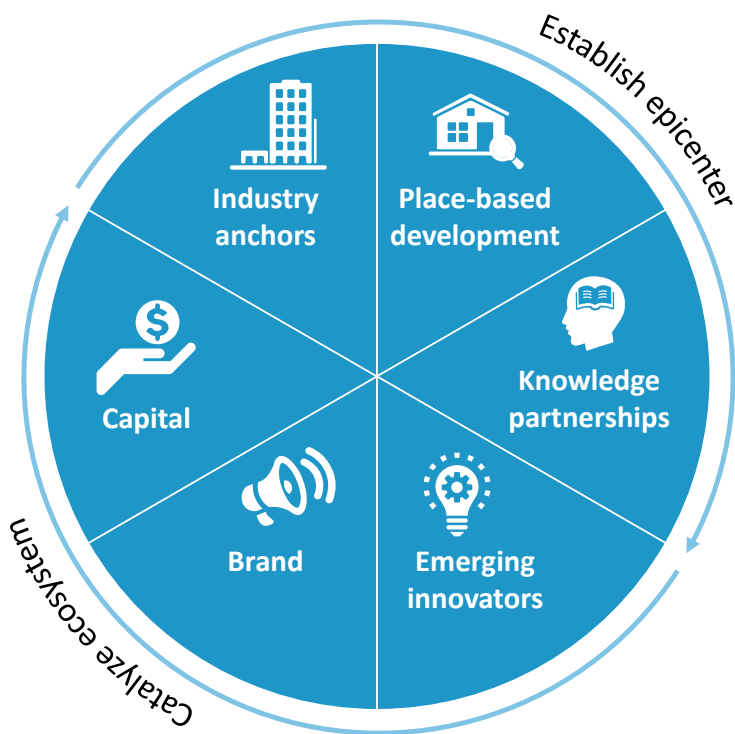


- **Three main geographical clusters** exist for R&D
- **New Haven** centered around Yale University and Branford CT
- **Farmington** (built around UConn Hospital / Jackson Labs)
- **Stamford** centered around medical device and pharma companies
- **New Haven** bioscience cluster most developed and concentrated
  - **26 bioscience** companies in New Haven and Branford
  - **4 bioscience** companies in Farmington
  - **9 bioscience** companies in Stamford area

SOURCE: Web search of databases including D&B, BioPharmaGuy, CT Economic Development, Nasdaq, followed by manual verification process

# Overview of Bioscience New Haven

PRELIMINARY



## Initiative detail



**Objective: Boost commercialization of research, retain companies, and attract talent in biosciences**


- **Private-public partnership** between CI, state government and bioscience industry to build a **100,000 sq. ft bioscience incubator** in New Haven with ancillary services, wet lab and office working spaces, graduation space for growing start-ups
- DECD works to recruit bioscience companies to co-locate within the innovation hub
  - Yale **extends its robust research and faculty expertise, commercialization pipeline, and university programming and resources** to support start-ups centered around biotechnology, pharmaceuticals, med-tech and devices, data science and precision medicine
  - BioCT, CTNext, Yale and bioscience industry **recruit high-level, in-house mentors** that will provide active mentorship, facilitate career opportunities, and improve commercialization
  - CI, CTNext, and BioCT work with a co-working provider to **foster a vibrant culture of innovation** through start-up competitions (e.g., Yale 100k competition), hackathons (e.g., AI for bioscience), internships, and an in-house start-up residency
- State government and CI **coordinate initial capital** via engagement with academia (e.g., Yale), bioscience companies (e.g., anchor pharma), and VC companies (foreign or domestic)
  - CI leads efforts to bolster CBIF and coordinate with CTNext to **increase funding for early-stage start-ups**
- CERC and DECD work with academic institutions and companies on **retaining and cultivating entry-level and managerial talent** via **bolstering existing programs** (e.g., ABCT, CTNext initiatives), **designing incentives** (e.g., preferential minority start-up placement, STEM loan forgiveness, workforce training programs) to ensure that bioscience growth is inclusive, and **supporting placemaking programs** to make New Haven more attractive for young professionals
- CERC leads efforts to **attract two anchor bioscience companies** to New Haven
- CI and BioCT **spearhead a marketing and branding campaign** to tout CT and New Haven as a bioscience destination

# Cost & Impact: Bioscience New Haven<sup>1</sup>

PRELIMINARY

## Impact on growth

 <b>~3-4K</b>	Total jobs created in five years	<b>~0.5-1K</b>	Direct jobs created in five years
 <b>~7-7.5K</b>	Total jobs created post-launch <sup>4</sup>	<b>~2.5-3K</b>	Indirect jobs created in five years <sup>3</sup>


 **~100%** of direct jobs created impact *median household income* target


- +** Additional benefits include
- Retention of young talent with increased opportunities
  - Attracts other innovative businesses
  - Attracts commercial and real estate developments


### Key assumptions and sources

- Bioscience New Haven experiences growth rates similar to that of CIC Miami incubator
  - Source: CIC Miami Launch + Growth Report 2016-2019
- New direct bioscience jobs will earn median salary equivalent to CT bioscience sector salary
- Bioscience multiplier for indirect jobs of 2.9
  - Source: Weighted average of EMSI database multipliers stratified by industry

## Impact on inclusivity over 5 years<sup>2</sup>

 **<25%** of direct jobs created impact *living wage* target

 **<25%** of direct jobs created impact *income equity* target

 **<25%** of direct jobs created impact *quality credentials* target

<sup>1</sup> Impact metrics expressed in % terms are estimated based on quartile estimates 25%, 50%, 75%, and 100% of direct jobs created  
<sup>2</sup> Impact estimated for five years, but substantial impact on inclusivity targets requires generational lens beyond five years and consideration of impact beyond direct jobs  
<sup>3</sup> Indirect jobs calculated from a 2.9 bioscience jobs multiplier, based on average impact of economic activity in Connecticut  
<sup>4</sup> Post-launch total job estimates based on 5-year total job growth period (2023-2027) following prospective launch of incubator in 2023

## Cost & Impact (continued): Bioscience New Haven

PRELIMINARY

	Public cost 5-year total	Total cost 5-year total	Assumptions and sources
Investment in Hub real estate development	~\$10-25M	\$200M+	<ul style="list-style-type: none"> <li>• Cost estimates sources from CT DECD</li> <li>• 100% of public cost as tax credits or abatements</li> <li>• 90% private investment cost from academia, private sector, VC</li> <li>• 10% existing public funds (e.g. tax credits and incentives)</li> <li>• 0% philanthropic, although this is a potential funding avenue</li> </ul>
Placemaking Platform projects	~\$30M	~\$150M	<ul style="list-style-type: none"> <li>• \$33M placemaking fund based on case comparison with NY Empire State Development Grant Fund with extrapolation based on CT size and needs; includes up to \$1M for Year 1 planning and up to \$8M in subsequent years</li> <li>• \$150M private sector cost for placemaking assumes 4-to-1 leverage for placemaking fund</li> </ul>
	~\$55M	~\$350M	

### Cost structure options to consider during implementation

- Incubator size of 100,000 sq. ft + two mature anchor pharmaceutical companies each occupying 30,000 sq. ft
- Costs for innovation center development sourced directly from CT DECD

## Case study: Bioscience cluster and Science Park in Cambridge, UK

PRELIMINARY



SOURCE: University of Cambridge, Cambridge Science Park

### Cambridge, UK and New Haven are comparable cities

- Population of ~130,000: almost exactly the same as New Haven (although metro area is smaller, and university is twice as large)
- Historic city where a top 10 global university accounts for much of the city's fame
- 1 hour by train from London, 2.5 hours from Birmingham (same size as Boston)
- ~50 miles from London (~50% closer than New Haven to New York)

### Cambridge is Europe's largest technology cluster

- ~61,000 people are employed by 4,700 technology-based firms in the area, which have combined revenue of over \$17bn
  - Most companies are in the telecoms or IT sectors
  - More than 400 are healthcare-focused
- More patents per resident than the next four UK cities combined
- The Science Park received a \$276M investment from Tsinghua University in 2017

# Cambridge University and the private sector collaborated on the innovation ecosystem

PRELIMINARY

Academic actors and researchers

- Academic institutions include:
- Cambridge University's Judge Business School
- Cambridge Enterprise
- Individual colleges operating programs aimed at innovation (e.g., Trinity, St. John's)



Incubators for small startups

- Academic actors each operate their own start up incubator, providing space and varying levels of service to small companies



Graduation space and wider ecosystem

- Science Park, operated by Trinity College with a large (\$276M) investment from Tsinghua University, offers 1.4M sq ft of lab and office space for expansion
- Many multinational corporations further the ecosystem with offices or headquarters in the Science Park



## Key lessons from Cambridge for New Haven Region Bioscience Hub

PRELIMINARY

- **The Cambridge example contains several lessons applicable to New Haven:**
- **Investing in innovation spaces** can help small cities retain and capitalize on intellectual property
  - **Versatile incubators and graduation spaces** are essential to turn research expertise into economic development
- **Developing resources for companies at different stages of maturation** helps cultivate a vibrant ecosystem
  - A small city only 50 miles from a major one can **avoid “brain drain” of companies by fostering a collaborative and diverse environment of companies**
- Successfully building a cluster can channel direct investment and economic development
  - Incubator space and **innovation can attract substantial foreign direct investment** when centered around a prestigious university



## Case study: Utilizing CIC as a co-working space provider

PRELIMINARY

Typical arrangement	Market examples	Pros for hub	Cons for hub
<ul style="list-style-type: none"> <li>• CIC sub-leases co-working space after securing long-term lease agreements with hub</li> <li>• To generate profits, CIC sublease sets higher rates and often offers additional paid services</li> </ul>	<ul style="list-style-type: none"> <li>• Cortex St. Louis – CIC occupies ~160,000 sq. ft in the Cortex complex over three separate locations, including a 41,000 sq. ft expansion in 2018</li> <li>• CIC Miami – CIC occupies 32% of the Converge Miami innovation park, including shared office space and wet labs</li> <li>• Providence Innovation – CIC occupies 35% of Phase I building, ~66,000 sq. ft. of office space and on-site café</li> <li>• Science Center Philadelphia – CIC occupies 37% of 3675 Market building, 127,000 sq. ft. (including 107,000 sq. ft. of shared office space and 20,000 sq. ft. of shared wet lab space)</li> </ul>	<ul style="list-style-type: none"> <li>• Expertise in working with innovation hubs (e.g., Kendall Square, Cortex)</li> <li>• Manages conference rooms, enterprise services, event spaces, offices, seminars, wet labs</li> <li>• Can support innovation programming (e.g., hosting networking events, hackathons, start-up competitions)</li> </ul>	<ul style="list-style-type: none"> <li>• Rent subsidy (often ~50%)</li> <li>• Typically has more input / influence on programming than national providers</li> </ul>

## Case study: CIC Miami



### PRELIMINARY

#### Challenge

- **Develop** Miami into a **regional hub for innovation**, and economic development
- **Connect** the second largest **health district** in the US with Miami's **innovation corridor**

#### Overview

- **Converge Miami** is a **~252,000 sq. ft** innovation park **affiliated with University of Miami** built in 2011
  - Total build cost was **~\$112M** with **\$31M** public cost
    - **~27%** of cost was publicly funded
  - Houses several UMiami centers including the **UM Nanotechnology Institute** and the **UM Center for Innovation**
- The main tenant of Converge Miami is **CIC Miami**, which occupies **80,000 sq. ft**, or roughly **32%** of space within Converge Miami
  - CIC Miami **surpassed 200 in-house companies** in January 2018, just three years after launching in the space
    - Currently hosts **250+ companies**
    - **25% of companies** are Life Science/Health focused
    - More than **70% of companies** 1-5 years old
    - Inclusive focus: **37% minority founded, 27% immigrant founded, 28% female founded**
- **Private offices** (1-50 people) and **co-working spaces** available
- **Laboratory space** includes access to core lab equipment, shared office workspace, conference and event spaces

#### Impact

- **900+ local and global jobs** created in the last two years by CIC Miami clients
- **\$163M funding** raised by CIC Miami companies in last two years
- **82%** of CIC Miami startups have **hired new employees** within the **last two years**
- **65% of businesses** were started in Miami
- **35% of companies** expanded their business to Miami from around the globe
- **25% of companies** only conduct business in South Florida

#### Stakeholders








- University of Miami
- CIC
- Biotech and pharmaceutical companies
- Startups

How can CT incorporate lessons and excel beyond the example?

- Leverage unique bioscience intellectual capital and resources to supercharge growth
- Boost synergies by hosting neighboring bioscience companies
- Foster collaboration with world-class Yale research scientists

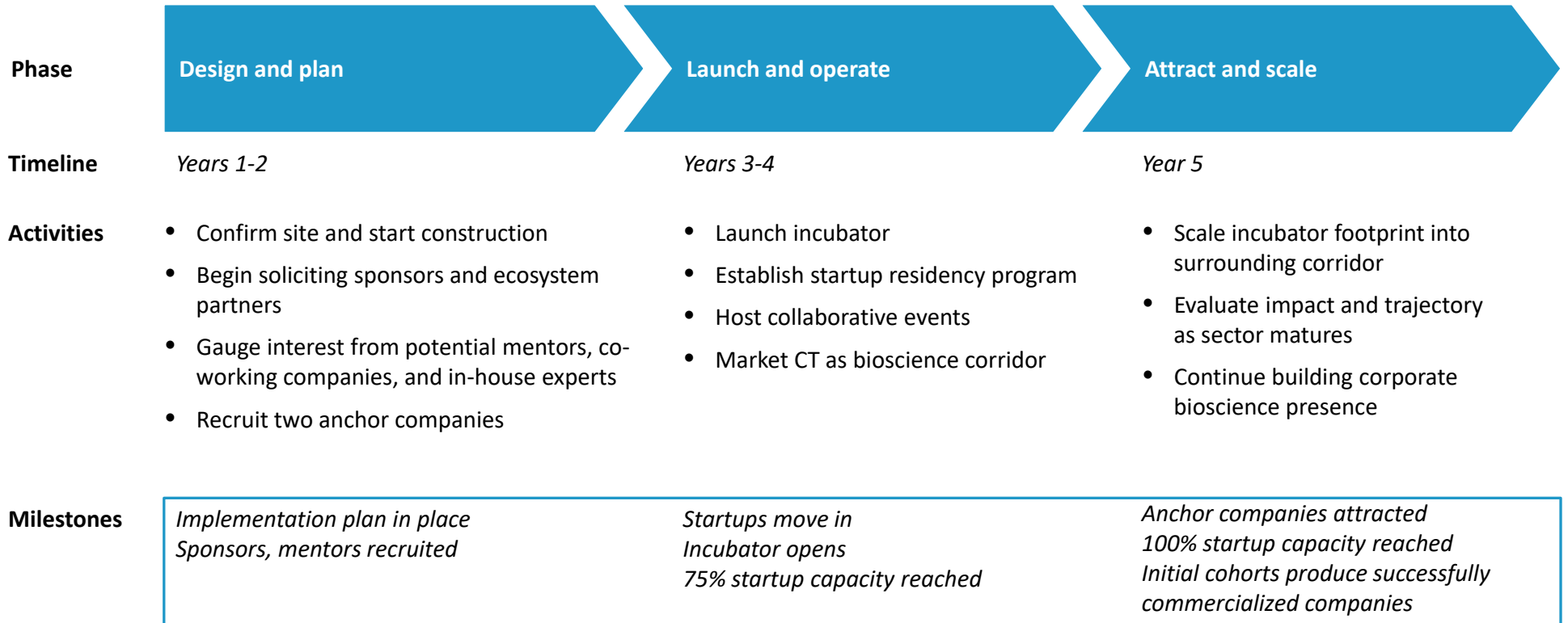
# Proposed partners with mission-critical roles and responsibilities for Bioscience New Haven

PRELIMINARY

Implementing partner	Role(s)	Responsibilities
	Convener	<ul style="list-style-type: none"> <li>• Lead recruitment of anchor bioscience companies</li> <li>• Leverage opportunity zones for bioscience real estate development</li> </ul>
	Sponsor	<ul style="list-style-type: none"> <li>• Coordinate bioscience network to drive bioscience strategic plan forward</li> <li>• Design incentives for company attraction and talent retention (e.g. loan forgiveness programs, tax incentives for relocation)</li> </ul>
	Sponsor	<ul style="list-style-type: none"> <li>• Extends robust research and faculty expertise, corporate relationships, and university resources to recruit start-ups and companies</li> <li>• Provides mentoring, programming, and career opportunities within hub</li> </ul>
	Convener	<ul style="list-style-type: none"> <li>• Coordinate with DECD to secure public funding for development</li> <li>• Recruit bioscience VC funds</li> </ul>
	Convener	<ul style="list-style-type: none"> <li>• Provide access to the state's venture capital and links to entrepreneurial communities for funding incubator and startup companies</li> <li>• Leverage existing funds and establishing new funding sources for startups</li> </ul>
	Convener	<ul style="list-style-type: none"> <li>• Coordinating stakeholder responsibilities</li> <li>• Designing initiatives to push bioscience plan forward</li> </ul>
 Private sector	Convener	<ul style="list-style-type: none"> <li>• Commits to leasing space in bioscience innovation center</li> <li>• Facilitates collaboration and employment opportunities for incubator tenants</li> </ul>

## Action plan, timeline, and milestones for New Haven Region Bioscience Hub

PRELIMINARY



## Key metrics to monitor initiative implementation progress and impact

PRELIMINARY

Implementation metric	Type	Description	Rationale
Number of start-ups in incubator	Quantitative	The number and growth of startups benefitting from incubator resources	A key goal of the incubator is to develop and support startups and early stage companies on the path to commercialization
Total amount of capital raised by start-ups	Quantitative	Measure the ability of start-ups to turn intellectual capital and research expertise into capital investment	Early process measure that helps quantify value creation by startups and early stage companies supported by the incubator
Number and quality of bioscience jobs created	Quantitative and qualitative	The number, growth and quality of new direct jobs created in the bioscience sector in New Haven	One of core goals of the initiative is to boost economic development via growth of quality jobs in the sector
Bioscience companies attracted or retained	Quantitative	The number and growth of anchor bioscience companies drawn to New Haven	A core goal of creating a bioscience ecosystem is to attract and retain anchor bioscience companies

## New Haven Region Bioscience Hub key risks and mitigating actions

PRELIMINARY

<b>Risks</b>	<b>Mitigating actions</b>
<b>Incubator is underutilized and does not fill with start-ups</b>	<ul style="list-style-type: none"><li>▪ Partner with academic organizations and bioscience companies to drive interest</li><li>▪ Design ‘launch’ activities and events that help promote incubator</li></ul>
<b>Incubator and startups face funding challenges</b>	<ul style="list-style-type: none"><li>▪ Secure commitments for initial and maintenance funding from government, academic and private sector stakeholders</li><li>▪ Design self-sustaining funding structure for incubator</li></ul>
<b>Trouble retaining young talent and attracting management talent</b>	<ul style="list-style-type: none"><li>▪ Support placemaking efforts to make CT cities and towns more vibrant</li><li>▪ Develop attractive training programs (e.g. upscaling programs, bioscience certification programs)</li></ul>
<b>Difficulty attracting bioscience companies to New Haven</b>	<ul style="list-style-type: none"><li>▪ Engage with anchor bioscience companies in CT and solicit their input on successful design and implementation</li><li>▪ Launch branding campaign to lure domestic and international companies</li><li>▪ Ensure close coordination with business attraction and concierge leads to design compelling incentives in line with economic development goals</li></ul>

## Appendix: Additional detail

Aspiration and targets

Roles and responsibilities

Signature initiative detail

- Communities Challenge
- **Innovation Corridor**
  - Stamford Tech Campus
  - New Haven Bioscience Hub
  - **Hartford Hub**
- Business environment: Regulatory modernization

Appendix:

## Context: Key issues facing the greater Hartford innovation ecosystem

### PRELIMINARY

#### Employment growth in key sectors lags US; automation looms

- Insurance jobs growing at -0.7% in CT compared to 0.8% nationally, and manufacturing jobs growing at -0.1% in CT compared to 0.9%, especially driven by gaps in backfill rates against retiring population
- High automation potential: 58% (manufacturing) and 41% (insurance) of work activities have potential to be automated<sup>1</sup>

#### Challenges impeding game-changing industry leadership

- Competition: CT insurers lured by states with stronger tech talent pools and CT manufacturers competing against lower cost production states
- Urban vibrancy: Lack of vibrancy impedes talent and business attraction
- Workforce: Difficulty recruiting production, digital, and data talent, and upskilling incumbent workers
- Mindsets and capabilities: Technology adoption requires (a) mindset shifts, especially for manufacturing supply chain where 70% of firms have fewer than 20 employees and (b) capability development for manufacturers who identify needs for technology adoption as production integration assistance and R&D testing

#### Technology evolution presents opportunity for both Manufacturing and Insurance companies

- Hartford area companies want to harness trends for growth: advanced analytics, artificial intelligence, IoT, and cyber
- Insurance 4.0 and Industry 4.0 impact product development and process improvement, e.g. robotic process automation, connected sensors, predictive analytics

<sup>1</sup> Based on current demonstrated technology

# Context (continued): Four distinct assets make the Hartford area a promising place for industry-leading innovation

PRELIMINARY

## 1 Deep specialization and leadership legacy in greater Hartford

- Manufacturing ecosystem of 4,500+ enterprises, ~160K jobs, and \$17B exports, and is **5X as specialized** as average state in aerospace, electrical, and ship & boat building with **multi-year, high-end contracts** secured
- Insurance ecosystem of 47K jobs, 3rd rank nationally in direct written premiums, and **3X as specialized** as US average

## 2 Density of economic assets and ease of reach is catalytic for emerging innovators

*“ In what other place can an InsurTech entrepreneur open doors **within weeks** to test ideas with **both** payors and providers? ”*

*“ “Our R&D experts and physical equipment available is **on par** with Oak Ridge and MIT ”*

*“ Other states – including MA and RI – see our manufacturing resources as the **gold standard** ”*

*“ The opportunity is huge for Hartford - for insurers to manage risk for next-generation production standards in manufacturing – delivery, quality, etc. – with **IoT** capabilities like sensors and real time **data** ”*

## 3 Robust physical assets for research and development

- UConn Tech Park has researchers and state-of-the-art equipment: electron microscopy, x-ray characterization, ion beam milling, reverse engineering, 3D printing, materials testing, robotics and automation
- CCAT with experts on staff and advanced equipment for additive technologies, composites, and Industry 4.0
- Center of gravity for insurers

## 4 Existing momentum to accelerate further

- CTNext Innovation Places built 7 industry partnerships, received ~1.3K startup applications, helped form 50+ companies in only 2 years, and relocated 5 Insurtech companies in Hartford
- Hartford Metro Alliance, Capitol Region council of Governments, and Hartford Foundation published ‘Hartford Metro Future’ plan
- Stanley Black & Decker and employer consortium underway for Parkville Project 224 and activities underway at Manufactory 4.0

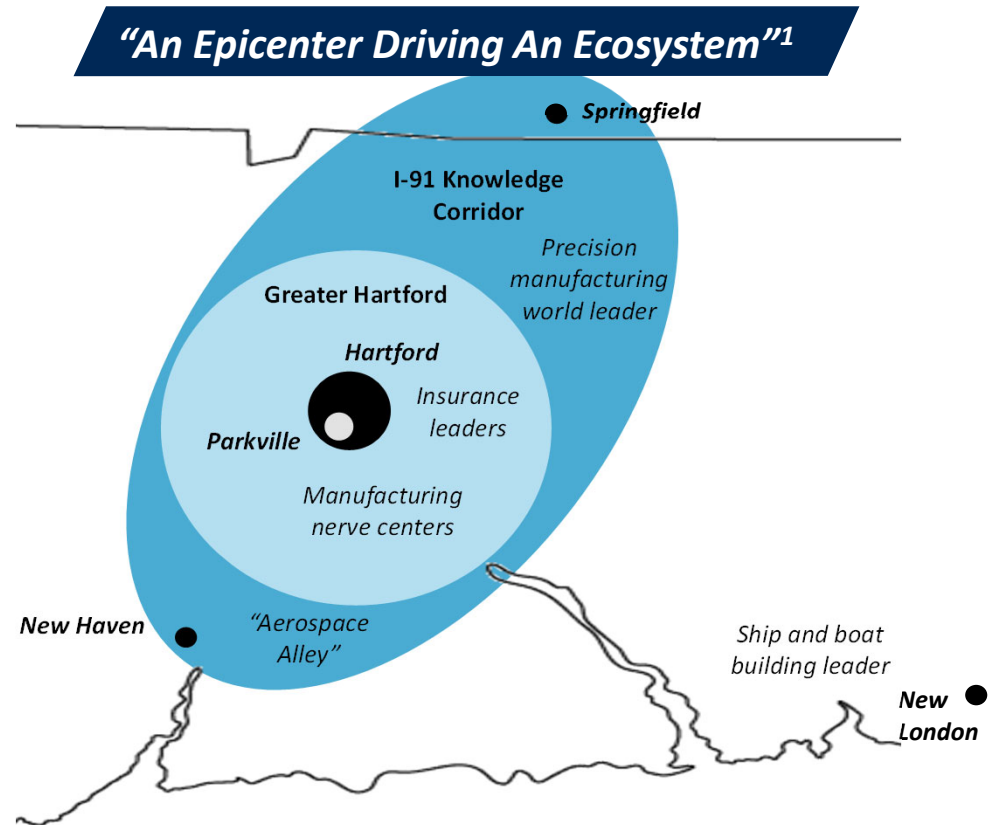
1 Based on current demonstrated technology

SOURCE: EMSI, 2019 Connecticut Manufacturing Report, MGI, InsurTech Hartford, Moody’s Analytics, Hartford Courant, Upward Hartford, Interviews

## Vision: Hartford Innovation Hub

PRELIMINARY

Become the **global epicenter of industry-leading innovation in InsurTech and Advanced Manufacturing** and an ecosystem where CT residents, communities, and companies want to **connect and collaborate**



<sup>1</sup> Adapted from SB&D presentation on Project 224 (from 'Industry 2.0' to 'Industry 4.0'); Visual represents hubs of economic activity and geographic lenses with stake in initiative

# Strategy to build on existing momentum in Hartford

Equip what works to keep working and adopt coordinated strategy to accelerate impact

- ▶ Existing momentum
- ▶ New activities and resources

PRELIMINARY

Component	Existing momentum	Emerging strategy
 <b>Industry anchors</b>	<p>A <b>few</b> anchor employers championing development of emerging innovators</p>	<p>▶ Many anchor employers <b>directly sandbox</b> startups and <b>directly invest</b> in co-located development that attracts Industry 4.0 movers</p>
 <b>Placemaking</b>	<p><b>Independent visions</b> for revived, vibrant urban core taking shape, e.g. Parkville, Pratt St, Riverfront</p>	<p>Game-changing <b>placemaking fund</b> catalyzes private sector investment in neighborhood revitalization that aligns with economic strategy</p>
 <b>Knowledge partnerships</b>	<p><b>Partnerships</b> to support innovation ecosystem from UConn, Trinity, and Goodwin College</p>	<p>▶ Innovation economy tightly integrated with <b>workforce system</b> – including not just higher education system but also Hartford Public Schools</p>
 <b>Emerging innovators</b>	<p><b>Six</b> accelerators, incubators, and makerspaces created in last two years</p>	<p>▶ Innovation programs, linkages to anchor companies, and vibrant core, rapidly increase number of new businesses <b>“sticking around”</b></p>
 <b>Brand</b>	<p><b>Separate pools</b> of funding and plans to promote innovation, sectors, and cities across CT</p>	<p><b>Empowered “quarterback”</b> coordinates and launches comprehensive global and place-based marketing</p>
 <b>Capital</b>	<p><b>Accessible</b> capital for seed+ rounds<sup>1</sup> and \$10M fund underway from DECD</p>	<p><b>Re-energized angel investment</b> campaign fills gaps in early stage capital and innovators increase runway for pilots and proof of concepts with industry anchors</p>

Shared **board** that sets **bold strategy** and empowers **local organizations and private sector** to get things done

<sup>1</sup> Connecticut ranks 26th in angel funding per capita, significantly lower than its rank of 4th in seed capital funding

# Coordinated strategy implemented by public and private partners

Partners utilize shared services and tools to address critical gaps holding back impact

- Existing momentum
- New activities and resources

## PRELIMINARY



### Engagement of industry anchors to leverage Hartford area density

- Leading CT employers, led by SB&D, **privately develop and anchor Parkville opportunity zone development** as home of Industry 4.0
- CERC leads **Industry 4.0 and Insurance 4.0 business attraction** efforts for additional anchors and established companies
- DECD concierge supports site-based expansions and investments



### Focus on placemaking as critical missing component

- DECD increases funding and technical assistance available for **place-based neighborhood strategies** that increase vibrancy, support innovation agenda, and work towards inclusion goals
- Private sector investing in real estate (Parkville, Pratt St, Riverfront, etc.) **engage community** on programming for vibrancy, while DECD advises community benefits agreements



### Coordination of knowledge partners to amplify their impact

- Launc(H) coordinates Industry 4.0 linkages between insurance and manufacturing supply chains and higher ed, e.g. Goodwin, Uconn
- Regional Industry Clusters out of Workforce Council integrate education pipeline into innovation ecosystem



### Growth of startup-anchor ecosystem

- DECD supports Innovation Places funding (Y4-5)
- Launc(H) grows application, success, and retention rate of **incubators and accelerators**<sup>1</sup>
- Leading CT insurance and manufacturers **scale their commitment** to actively incubate and provide sandbox resources and “open doors” for startups



### Global and place-based branding

- MetroHartford Alliance builds and cascades regional **branding strategy**
- Private consortiums implement **neighborhood branding** (e.g. physical assets in Parkville)










### Expand access to pre-VC capital

- Launc(H) coordinates streamlined **demo days**
- Connecticut Innovations **collaborates** with Launc(H)
- Connecticut Innovations energizes **angel network**

<sup>1</sup>Accelerators and incubators in Hartford include: Stanley + Techstars, Hartford InsurTech Hub, Startupbootcamp Life, Annuity & Retirement Program Nassau Re/Imagine Incubator, MakerspaceCT

## Proposed partners with mission-critical roles and responsibilities for Hartford Hub

PRELIMINARY NOT EXHAUSTIVE

Implementing partner	Role(s)	Responsibilities
	Leader ("Quarterback")	<ul style="list-style-type: none"> <li>Coordinate portfolio of activities and identify when partners need to engage, e.g. business attraction, placemaking funding, community engagement</li> <li>Lead branding and marketing efforts</li> <li>Provide fiduciary support to Launc(H)</li> <li>Oversee corresponding activities in support of broader Metro Hartford Future</li> </ul>
Private sector consortium(s), including: 	Leader and Sponsor	<ul style="list-style-type: none"> <li>Fund or anchor place-based developments, e.g. Parkville, Downtown, and Pratt St.</li> <li>Fund and support ("sandbox" / "open door") emerging innovators and programs</li> <li>Advise collaboration opportunities between sectors and across supply chains, e.g. emerging technologies</li> </ul>
	Leader and Convener	<ul style="list-style-type: none"> <li>Coordinate and fund programming to support emerging innovators</li> <li>Establish industry partnerships for anchors to invest and sandbox startups</li> </ul>
	Sponsor and Convener	<ul style="list-style-type: none"> <li>Aggregate and direct funding and technical assistance for placemaking proposals</li> <li>Extend Innovation Place funding and technical assistance to operate Launc(H) for years 4 and 5</li> <li>Co-develop (with CERC) and implement operating model for development and site concierge</li> <li>Advise and support community engagement, especially community benefit agreements</li> </ul>
	Convener	<ul style="list-style-type: none"> <li>Develop and execute business attraction strategy in collaboration with implementing partners, especially MetroHartford Alliance</li> <li>Co-develop (with DECD) operating model for development and site concierge</li> <li>Build excitement around angel investor network (TBD)</li> </ul>
	Convener	<ul style="list-style-type: none"> <li>Provide risk capital to qualified investments</li> <li>Collaborate with Launc(H) on expanding capital networks to Hartford ecosystem, including angels</li> </ul>
	Convener	<ul style="list-style-type: none"> <li>Provide strategic oversight and support to Launc(H) and broader strategy for Hartford ecosystem</li> </ul>

Lead partners responsible for working towards **inclusion** across activities, e.g., involving stakeholders like Hartford Next

## Organizations with a stake in the success of Hartford Hub

PRELIMINARY NOT EXHAUSTIVE

Stakeholder	Current activities
<b>Aerospace Components Manufacturers (ACM)</b>	Represents independent CT and southwestern MA based aerospace companies Runs tradeshow with linkages to
<b>Capital Region Council of Gov'ts</b>	Co-developed Metro Hartford Future plan
<b>City of Hartford and public school departments</b>	Represents constituents and provides high quality education for residents
<b>Connecticut Center for Advanced Technology (CCAT)</b>	Provides support in applied research and workforce development, across business sizes and sectors, with particular emphasis on energy and advanced manufacturing
<b>Connecticut Manufacturing Collaborative (CMC)</b>	Represents all major regional and statewide manufacturing member organizations across CT Develops legislative priorities for manufacturing
<b>Connecticut State Colleges &amp; Universities (CSCU)</b>	Provides programs that permit students to achieve their personal and career goals Oversees innovative and successful manufacturing programs, i.e. Asnuntuck
<b>CONNSTEP</b>	Runs the National Institute of Standards and Technology (NIST) Manufacturing Extension Partnership (MEP) Offers services to manufacturers: continuous improvement, quality/certifications/compliance, business growth, training
<b>Girls for Technology</b>	Inspires and equips girls of all backgrounds to pursue science, technology, engineering, and math professions
<b>Goodwin College</b>	Runs Goodwin College Insurance Institute aimed at agents and brokers Leads Mobile Manufacturing Laboratory to stimulate career pathways in advanced manufacturing
<b>Hartford Foundation</b>	Co-developed Metro Hartford Future plan Works to achieve greater racial, geographic and economic inclusion
<b>Hartford NEXT</b>	Forms coalition of all Hartford's Neighborhood Revitalization Zones (NRZ's) and the City of Hartford
<b>Trinity College</b>	Partners with Hartford Healthcare, Uconn, and Startupbootcamp for the Digital Health CT accelerator and events
<b>UConn Tech Park</b>	Provides vital expertise and equipment for applied research across energy, cybersecurity, materials, manufacturing, data science, and artificial intelligence and robots
<b>Upward Hartford</b>	Provides access to innovative space, collaborative networks, and inspiring industry events

# High-level view of MetroHartford Alliance implementation plan



MetroHartford Alliance takes lead on coordinating activities to amplify existing efforts and introduce new focus

Phases	Prepare	Launch	Grow
Timeline	<p><b>Current - April 2020</b></p> <ul style="list-style-type: none"> <li>Engage critical stakeholders around vision for Hartford hub</li> <li>Identify clear swim lanes and collaboration points across organizations</li> <li>Establish lightweight governance, e.g., decide on shared metrics, targets, and milestones, align project plans, and decide if to use existing or new board</li> </ul>	<p><b>May 2020 – April 2021</b></p> <ul style="list-style-type: none"> <li>Engage community to craft shared aspiration around:                             <ul style="list-style-type: none"> <li>Placemaking vision</li> <li>Diversity and inclusion</li> </ul> </li> <li>Launch regional branding and marketing and cascade to partners</li> <li>Solicit financial and strategic commitments from anchor companies to support:                             <ul style="list-style-type: none"> <li>Real estate development, e.g., Parkville</li> <li>Innovation programming, e.g., mentorships, partnerships, sandboxes</li> </ul> </li> <li>Collaborate on business attraction strategy for insurance and manufacturing</li> <li>Collaborate on blueprint to advance linkages between workforce system and innovation ecosystem</li> </ul>	<p><b>May 2021+</b></p> <ul style="list-style-type: none"> <li>Assess maturity of Hartford hub ecosystem</li> <li>Identify new resources or owners needed to continue growth</li> </ul>
Milestones	<p>Detailed project plan cutting across plans, sectors, and functions</p>	<p>Funding and operating model finalized for major new activities, including real estate development, placemaking investments, capital attraction, and education partnerships</p>	<p>National brand recognition for industry leading innovation, and improved perception of quality of place</p>




# Impact of Hartford Hub

PRELIMINARY

## Impact on growth over 5 years

	~7K	Total jobs created	~2.2K	Direct jobs created
			~4.9K	Indirect jobs created <sup>2</sup>
	~100%	of direct jobs created impact median household income target		
+	Additional benefits include Builds community energy and physical space and around industries with high-paying jobs Creates linkages with Hartford Public Schools Attract other tech-focused economic activity, beyond core insurance and manufacturing sector			

## Impact on inclusivity over 5 years

	<25%	of direct jobs created impact <i>living wage</i> target
	<25%	of direct jobs created impact <i>median household income for racial minorities</i> target
	N/A	of direct jobs created impact <i>quality credentials</i> target

### Key assumptions

- Support of emerging entrepreneurs creates ~200 direct jobs
  - Three incubators/accelerators with 10-15 startups per class by Y5
  - Average 5 employees, 45% growth p.a., and 40% survival rate
- Relocation of two large employers in insurance and manufacturing (not necessarily production) creates ~1,500 direct jobs
- Attraction of ~15 business services firms with ties to Industry 4.0 (advanced analytics, R&D, innovation centers) creates ~500 jobs
- Placemaking induces ~500 jobs
- Living wage jobs, minority wages, and credentials will largely follow current distribution of CT's economy

<sup>1</sup> Indirect jobs calculated from a 2.0 jobs multiplier on direct jobs, based on average CT economic activity, plus 500 jobs induced by placemaking investment, calculated at a 60K investment per job benchmark set by NY REDC for urban revitalization and place-based development

# Cost of Hartford Region Hub

PRELIMINARY

	Public cost 5-year total	Total cost 5-year total	Assumptions and sources
Investment in Hub real estate development	~\$20M	~\$50M	<ul style="list-style-type: none"> <li>Assumes \$50M real estate development based on stakeholder interviews and case study of Cortex in St. Louis, MO (\$29M fund for land acquisition, expansion of building assets, in house programs)</li> </ul>
Placemaking Platform projects	~\$30M	~\$150M	<ul style="list-style-type: none"> <li>\$33M placemaking fund based on case comparison with NY Empire State Development Grant Fund with extrapolation based on CT size and needs; includes up to \$1M for Year 1 planning and up to \$8M in subsequent years</li> <li>\$150M private sector cost for placemaking assumes 4-to-1 leverage for placemaking fund</li> </ul>
	~\$50M	~\$200M	

### Cost structure options to consider during implementation

- How will business incentives be structured to attract manufacturing and insurance technology anchor firms?
- Can Opportunity Zones be used as a vehicle to help attract private investment in or around the hub?

## Key metrics to monitor initiative implementation progress and impact

PRELIMINARY

Metric <sup>1</sup>	Description	Rationale
Anchors substantively engaged in hub	Number of anchors passing threshold for substantial involvement, e.g., support of emerging innovators (active mentorships, sandbox environments, and investment) or support of quality of place (anchor tenancy, investment)	Leading edge involvement from CT anchors is an attraction point for startups, and a necessary spark for transformative place-based development
Businesses relocating to CT in target/adjacent sectors	Number of businesses relocating to the state in insurance and manufacturing supply chain or adjacencies	Density of economic assets in target sectors is an advantage that CT can use to narrow its business attraction strategy
Startups supported through hub	Number of startups supported through accelerator and incubator ecosystem, e.g., TechStars, Startupbootcamp, etc.	CT has set up a strong accelerator/incubator ecosystem in last three years and growth should be monitored
Startups retained and locating in CT	Number of startups supported through accelerator and incubator ecosystem that choose to stay in CT	Five of 20 startups in the InsurTech Accelerator’s first two cohorts established local presence in CT, metric to be monitored with goal of increasing “stickiness”
Underserved population substantively engaged in hub	Number of minority, women, or otherwise defined underserved populations engaged substantively through hub activities, e.g., community benefit agreements related to any construction, community college partnerships, Hartford Public Schools partnerships, startup founders and team members	There are multiple pathways for innovation activities to be more inclusive and connected to residents in the City of Hartford, setting meaningful targets and designing activities to work towards those targets is important
Capital raised by startups supported by hub	Amount of capital raised by startups supported through accelerator and incubator ecosystem, split by type, e.g., angel, seed, etc.	Tracking the type of capital raised can help diagnose any gaps in the capital ecosystem
Media imprints positively reflecting on hub	Number of media imprints with positive coverage of Hartford Hub activities, anchors, and innovators, split by type, e.g. social media, television, print	Changing perception of Hartford was identified as an important challenge to overcome to spark optimism locally and to support global reputation

1 Metrics to be evaluated annually

## Hartford Hub key risks and mitigating actions

PRELIMINARY

<b>Risks</b>	<b>Mitigating actions</b>
<b>Insufficient strategic coordination between existing stakeholders</b>	<ul style="list-style-type: none"><li>• Establish shared board to oversee whole innovation strategy with inclusive mandate: anchor company engagement, placemaking, entrepreneurship, branding, capital attraction, etc.</li></ul>
<b>Lack of commitment from anchor institutions and companies</b>	<ul style="list-style-type: none"><li>• Engage anchors early with sponsorship from respected sponsors</li><li>• Start with one anchor in each sector, prove a few early successes and expand involvement</li></ul>
<b>Existing important but subscale efforts slow momentum / case for change</b>	<ul style="list-style-type: none"><li>• Emphasize that a shared visioning and governance model can enhance existing efforts by identifying areas for collaboration, not necessarily consolidation</li></ul>

## Appendix: Additional detail

Aspiration and targets

Roles and responsibilities

Signature initiative detail

- Communities Challenge
- Innovation Corridor
- **Business environment: Regulatory modernization**

Appendix:

# Regulatory Modernization

DRAFT

## Context and rationale

### CT's complex regulatory environment burdens entrepreneurs

Highest cost to incorporate of any state: \$455

Time to incorporate ranges from 12-20 business days, compared to 2 days in best-in-class states

CT has the 18<sup>th</sup> largest number of occupations requiring licenses

CT received an "F" in regulation in Thumbtack's 2019 small business survey

### Regulatory processes are decentralized, difficult to navigate, and outdated

CT's 169 municipalities each control their own zoning, land-use, and permitting

Only 5% of CT's 2000+ forms can be completed online

## Sources of inspiration

Within three years, British Columbia's "red tape review" program reduced regulation by 1/3



## Initiative detail

### OTG and OPM will coordinate efforts to identify and improve regulatory processes:

- Leaders of prioritized regulatory agencies will meet with leaders in target industries and small business organizations to identify major pain points
- OTG will support regulation modernization efforts at other regulatory agencies, leveraging DEEP's "20 by 20" initiative as a model
- OTG will work with DECD to set target business friendliness metrics (e.g., time to incorporate) to measure the success of regulatory modernization efforts
- OTG and OPM will reach out to municipalities to identify business forms to simplify and digitize
- OTG will continue existing work on occupational licensing and expand analysis to the comparative burden of different licenses

### CERC and DECD will support outreach as necessary and publicize business friendliness improvements

## Inclusive growth commitments

Set ambitious target for outreach to MWBEs and businesses owned by veterans and people living with disabilities

Include impact assessment for MWBEs and businesses owned by veterans and people living with disabilities in comparative burden analysis

## Five-year impact and cost summary

Direct jobs  
~12K

Total jobs  
~24K

Project cost<sup>1</sup>  
~6M

Public cost<sup>2</sup>  
~6M



<sup>1</sup>Total project cost, includes \$1.5M annual operating costs for 4 years; does not split share of public investment versus non-public investment

<sup>2</sup>Public portion of total project cost; \$6M to be paid through bonding



# Impact of Regulatory Modernization

PRELIMINARY

## Impact<sup>1</sup> on growth over 5 years

	<b>~11K</b>	Total jobs created	<b>~6K</b>	Direct jobs created
			<b>~5K</b>	Indirect jobs created <sup>3</sup>
	<b>~25%</b>	of direct jobs created impact median household income target		

## Impact on inclusivity over 5 years<sup>2</sup>

	<b>~50%</b>	of direct jobs created impact living wage target	
	<b>~25%</b>	of direct jobs created impact income equity target	

- + Additional benefits include
- Increased perception of CT as a business friendly environment
  - Lowers barriers to entry for new businesses looking to establish operations in CT

## Key data and sizing assumptions

- Impacts small business net job creation—increasing rate from 1.5% p.a. today to 1.94% p.a. over five years to match NY’s rate (~510K small business jobs in CT today)
- Average household living wage in CT is ~\$55K, average employee wage in CT small business (<100 employees) is ~\$49K; average household includes ~1.2 workers, meaning representative household income is ~\$59K
- Median household income in CT is ~\$75K but average household income for small business employees is ~\$59K
- Share of minority-owned businesses in CT is ~16%, MWBE initiative is designed to increase that share

<sup>1</sup>Impact metrics expressed in % terms are estimated based on quartile estimates 25%, 50%, 75%, and 100% of direct jobs created  
<sup>2</sup>Impact estimated for five years, but substantial impact on inclusivity targets requires generational lens beyond five years and consideration of impact beyond direct jobs  
<sup>3</sup>Indirect jobs calculated from a 2.0 jobs multiplier, based on average impact of economic activity in Connecticut

# Cost of Regulation Modernization Initiative

PRELIMINARY

## Cost over five years

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~\$6M

Public cost, incremental (net new)

- Includes cost of any net new FTEs spearheading the initiative and IT contractors to assist with modernization

~\$6M

Total cost, excluding costs for existing efforts underway (e.g., OTG occupational licensing effort, DEEP “20 by 20” initiative, DAS “digital front door” initiative) and future initiatives in other regulatory agencies

## Cost structure options to consider during implementation

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State to reallocate existing human capital, make temporary hires, or bring in contractors?

## Key assumptions and sources

- Initiative team: 1 FTEs
  - Coordinator: \$170k fully-loaded for ~4 years
- Additionally, team of six IT consultants:
  - 1 Manager: \$210k contract rate, for ~4 years
  - 6 Software developers: \$155k rate, for ~4 years
  - 1 Network architect: \$185k rate, for ~4 years

## Opportunity exists to improve the reality and perception of CT's regulatory environment

PRELIMINARY



- **CT's regulatory environment is complex and poses comparatively high costs in money and time**
  - Interviews highlight the difficulty of navigating state and municipal business formation, licensing, and permitting
  - Connecticut has the highest cost to incorporate of any state at \$455 and standard time to incorporate ranges from 12-20 business days (vs. best-in-class states where standard incorporation requires two business days)
  - Connecticut's occupational licensing requirements (12th highest share of licenses, and 18th highest number of licensed occupations) place significant burdens on residents and businesses
- **CT's regulatory environment is decentralized, difficult to navigate, and outdated**
  - The state's 169 municipalities each control their own zoning, land use requirements, licensing, and permitting
  - Ability to complete processes online is rare—only 5% of Connecticut's 2000+ forms can be completed online
- **CT underperforms in regulatory elements of fact-based and perception-based "business friendliness" rankings**
  - Regulatory environment is one of six factors in the Forbes "Best States for Business" rankings,<sup>1</sup> CT is 43rd
  - In CNBC's "Top States for Business", CT is 21st in business friendliness<sup>2</sup> and 43rd in cost of doing business<sup>3</sup>
  - Small business owners answering Thumbtack's annual survey gave Connecticut an "F" in regulation for 2019

<sup>1</sup>Includes regulatory system for liability, property rights, health insurance, and the labor market; also includes tax incentives, economic development efforts, state bond rating, fiscal health, infrastructure, and anti-discrimination protections

<sup>2</sup>Includes regulatory climate, legal climate, and economic freedom, counts for 7% of overall Top States for Business ranking

<sup>3</sup>Cost of doing business includes tax climate, state sponsored incentives, and utility costs, and counts for 14% of ranking

# CT can build on earlier reforms by targeting industry needs and expanding modernization

-  New activities and resources
-  Existing momentum

PRELIMINARY

	Effort	Impact	Lesson(s)	Opportunities for improvement
Regulation modern-ization	2019 #CutRedTapeCT social media outreach by Governor Lamont to publicly source regulatory reform ideas	<ul style="list-style-type: none"> <li>Over a month, received ~100 suggestions from the public, with 60% of feedback focused on state services</li> </ul>	<ul style="list-style-type: none"> <li>Targeted outreach could generate feedback with higher relevance to business formation and growth</li> <li>State needs to double down on outreach</li> </ul>	<ul style="list-style-type: none"> <li><b>A</b> Regulatory agencies conduct outreach to priority groups (e.g., small businesses, target industries) to identify biggest pain points and actionable solutions</li> </ul>
	2014 Malloy administration bill to eliminate obsolete, duplicative, and excessively burdensome regulations, drawing upon public and agency suggestions	<ul style="list-style-type: none"> <li>~1,000 pages of regulations eliminated</li> <li>Helped clarify regulatory code via removal of outdated / duplicative rules<sup>1</sup></li> </ul>	<ul style="list-style-type: none"> <li>Proposed changes could more meaningfully affect entrepreneurs and businesses</li> </ul>	<ul style="list-style-type: none"> <li><b>B</b> Set ambitious targets on highest opportunity business friendliness metrics (e.g., time to start a business) and systematically address issues</li> </ul>
Process modern-ization	Business assistance hotline helps firms navigate interactions with the state	<ul style="list-style-type: none"> <li>Processed ~5,000 inquiries in 2018, with 84% of calls about licensing requirements</li> </ul>	<ul style="list-style-type: none"> <li>Utilization is highly correlated with marketing<sup>2</sup>—at its peak, the hotline processed ~20,000 calls annually</li> </ul>	<ul style="list-style-type: none"> <li><b>C</b> Promote the hotline to priority groups (e.g., SEO, inclusion on government websites/forms)</li> </ul>
	Capital Region Council of Government (CRCOG) effort to streamline and modernize local regulatory processes and municipal systems	<ul style="list-style-type: none"> <li>Created online building permitting platform used by ~46 municipalities</li> <li>Developed online HR and office management systems for municipalities</li> </ul>	<ul style="list-style-type: none"> <li>Opt-in approach respects local decision-making while enabling streamlining</li> <li>Municipal participation depends on platform quality and outreach</li> </ul>	<ul style="list-style-type: none"> <li><b>D</b> Expand platform to include additional regulatory processes and recruit additional municipalities to existing platform</li> </ul>
	2012 effort by Malloy administration to publish all agency regulations online	<ul style="list-style-type: none"> <li>All regulations are online and easily accessible to small business owners and the broader public</li> </ul>	<ul style="list-style-type: none"> <li>Digitization increases regulatory accessibility and transparency</li> </ul>	<ul style="list-style-type: none"> <li>No action needed</li> </ul>

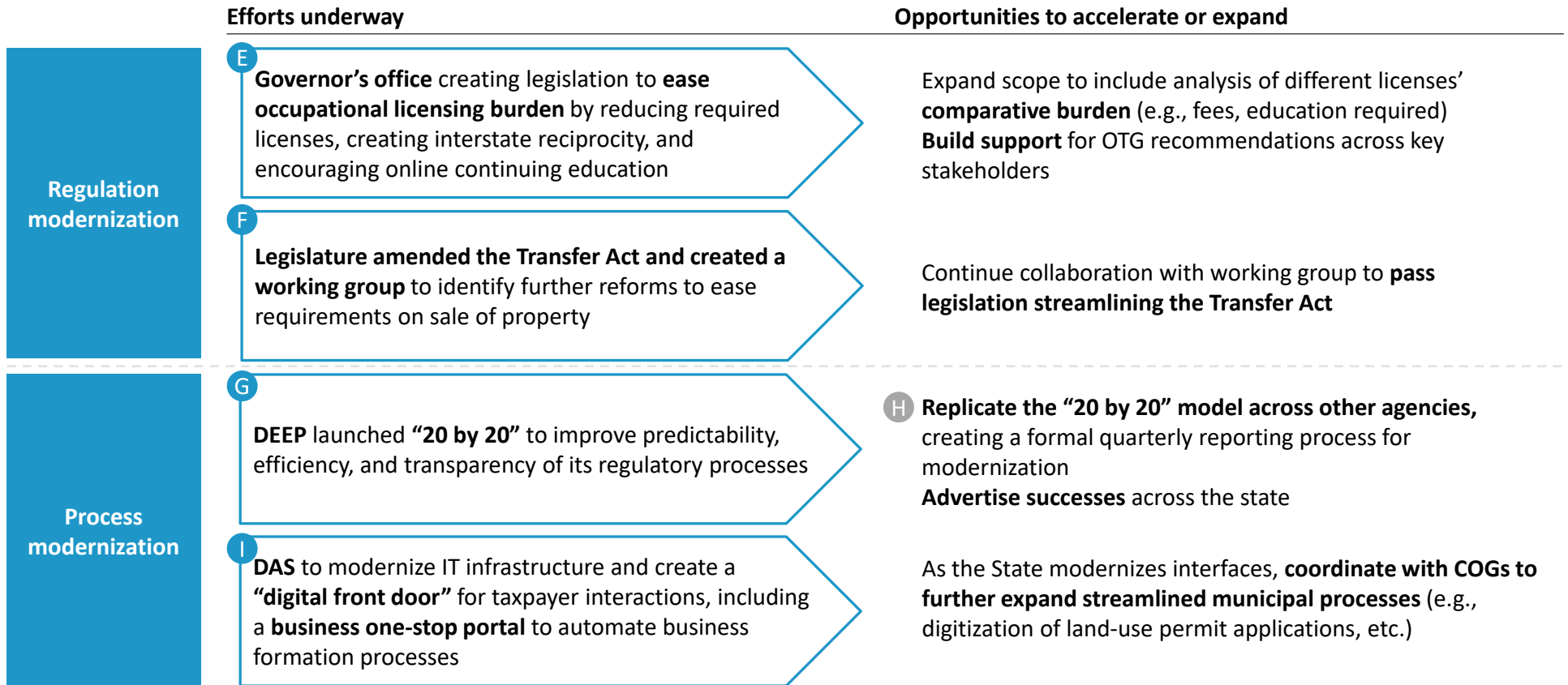
<sup>1</sup>Regulations eliminated largely focused on obsolescence and duplication (e.g., regulations prohibiting women working alone during certain hours, or duplication of federal laws or CT state legislation)

<sup>2</sup>The hotline's 2019 call volumes (~3,700) declined (from ~5,000 in 2018) due to less prominence on CT's redesigned business portal (<https://portal.ct.gov/en/Services/Business>)

# CT can also build on existing efforts to make improvements to its business environment

- New activities and resources
- Existing momentum

PRELIMINARY



SOURCE: Interviews, CT Governor's Office, CT Department of Energy and Environmental Protection, CT Department of Administrative Services

# Actions discussed impact “business friendliness” rankings across the board

- New activities and resources
- Existing momentum

PRELIMINARY

	Initiative	Leader(s)	Ranking affected		
			Forbes	CNBC	Thumbtack
A	<b>Conduct outreach to ~1000 priority group stakeholders</b> (e.g., small businesses, target industries) to identify biggest pain points and actionable solutions	OTG, OPM, regulatory agencies	✓	✓	✓
B	<b>Set ambitious targets on key business friendliness metrics</b> (e.g., time to start a business) and systematically address issues, <b>monitoring targets</b> for impact	OTG, OPM, DAS, CERC, DECD	✓	✓	✓
C	<b>Promote the hotline to priority groups</b> to ensure businesses can easily navigate State processes; track utilization, call content and impact to identify level of demand and priority pain points to reform	OTG, OPM, DECD regulatory agencies	✓	✓	✓
D	<b>Achieve 50% participation in streamlining business-related municipal processes and forms</b> by adding new forms and recruiting new municipalities	OTG, OPM, CRCOG	✓	✓	✓
E	<b>Relieve occupational licensing burden</b> through license reduction, interstate reciprocity, fee reduction, and lead time optimization—using top-down analysis to identify high-value areas	OTG, OHE, regulatory agencies	✓	✓	✓
F	<b>Introduced proposed changes from Transfer Act working group</b> and introduce proposed changes to legislature	Legislature, DEEP, DECD	✓	✓	
G	<b>Increase ease of compliance with environmental regulations</b> by improving DEEP’s processes (20 by 20), creating a <b>roadmap for reform in other agencies</b>	DEEP	✓	✓	✓
H	<b>Increase predictability, efficiency, and transparency</b> of business-related processes in regulatory agencies, following the roadmap from DEEP’s 20 by 20	Regulatory agencies	✓	✓	✓
I	<b>Digitize interactions with state government</b> by creating efficient back-office systems and migrating paper forms to the web	DAS			✓

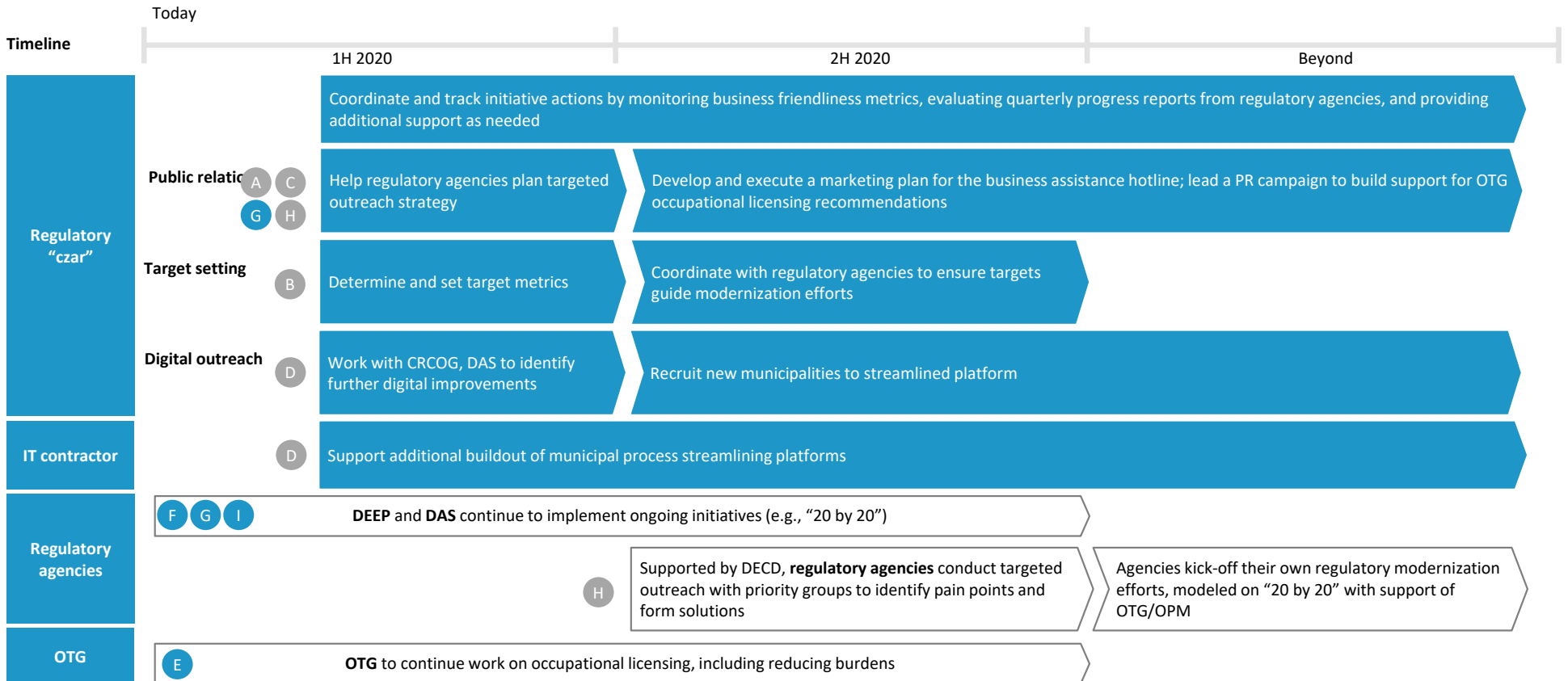
1 Inclusion of these rankings for reference does not constitute an endorsement of their elements, assessments, or veracity

SOURCE: Forbes, CNBC, Thumbtack









# OTG/OPM could implement with ~1 FTE, an IT contractor, and manpower in other agencies

- New activities and resources
- Existing momentum

PRELIMINARY



## Proposed partners with core roles and responsibilities

PRELIMINARY		
Implementing partner	Role(s)	Responsibilities
 Connecticut Economic Resource Center	Leader, Convener	Engage priority groups for input and promote successes of initiative Support OTG occupational licensing effort with top-down comparative burden analysis Recruit municipalities to streamline local forms and permits
 Department of Economic and Community Development	Leader, Sponsor	Provide incremental funding for initiative Support targeted outreach to key stakeholders Advise target setting and top-down analysis of business friendliness metrics
 Office of the Governor	Leader, Convener	Collaborate with General Assembly on reduction of occupational licensing burden Bring together relevant parties to execute on regulation modernization Promote successes of the initiative
 Dept of Administrative Services	Leader, Advisor	Lead IT infrastructure modernization through “Digital Front Door” initiative Assist in identifying processes that would benefit from modernization or streamlining
 General Assembly	Advisor	Write and pass legislation arising from Transfer Act working group Collaborate with OTG on reduction of occupational licensing burden Consider additional legislation arising from initiative
 Dept. of Energy and Environmental Protection	Leader, Advisor	Streamline environmental permitting and regulatory processes by providing greater predictability, efficiency, and transparency of agency interactions (e.g., 20 by 20 initiative) Advise other regulatory agencies considering process transformation
 CRCOG	Advisor	Advise on approach to streamlining municipal forms Assist in outreach to municipalities
Regulatory agencies	Leader	Conduct outreach to priority business groups to understand pain points, generate solutions Collaborate with OTG to improve predictability, efficiency, and transparency, following DEEP playbook
 Office of Policy and Management	Advisor	Assess feasibility and risk of ideas sourced through targeted outreach Manage engagement with other regulatory agencies

## Key metrics to monitor initiative implementation progress and impact

PRELIMINARY

Implementation metric	Type	Description	Rationale
Count of stakeholders providing input	Quantitative	Number of organizations, business, or individuals engaged as part of outreach effort	Measure of the effectiveness and comprehensiveness of outreach
Cost of doing business	Quantitative	Average or cumulative dollar savings created for CT's businesses by modernizing CT's business environment	Reduction in cost of doing business will encourage business growth in CT and may attract new businesses
Change in average costs from licensing requirements	Quantitative	Change in average direct (e.g., fees) and indirect (e.g., testing) cost for licensing workers	Demonstrates impact on barrier to entry for workers
Perceived regulatory burden	Qualitative	Representative survey of businesses inside and outside CT to measure perception of regulatory change	Additional data beyond rankings to provide targeted information on changes made
Time to incorporate a new business	Quantitative	Average number of days needed to incorporate a new business	Proxy for ease of doing business and interacting with government

## Appendix: Additional detail

Aspiration and targets

Roles and responsibilities

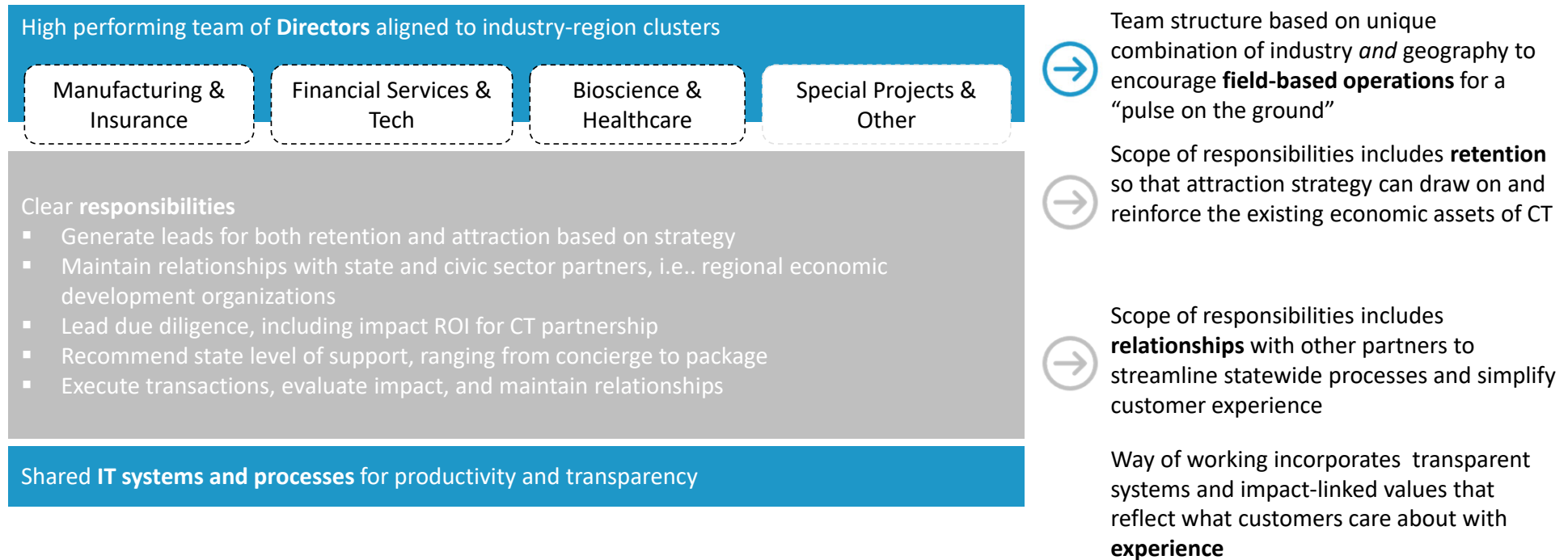
Signature initiative detail

Appendix:

- **Additional detail on priority initiatives**
- Long list of initiatives considered for prioritization

# CT Concierge: What a Connecticut-specific business attraction approach can look like

PRELIMINARY



Differentiation of roles, responsibilities, and processes between **CERC** and **DECD** to be determined

# Case study: What a high performing business attraction engine looks like



Independent review of Jobs Ohio shows operating model and impact

PRELIMINARY

## Operating model

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- **Designated sector expert teams** with 4 Managing Directors and 8 Directors aligned to specific sectors -
- **Strong regional network** for coordination and oversight, linking directly to 6 regional partner networks
- **Transparent reporting**, recognized as leader in transparency from third party sources (e.g., GuideStar)
- **Integrated operates**, across software systems, delineated process steps, and reporting structures
- **Governance model** that resembles private sector, with smaller and private-sector leaning board
- **Highly educated** team with 93 % of staff holding a bachelor's degree or higher

## Performance

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- Strong **deal pipeline**, ranking in top 5 among peers in total deals and jobs
- **Closes ~65%** of all projects for which it submits an offer
- Top 3 among its peers<sup>1</sup> in **deals and jobs per front office staff** resource
- Top 51 in overall **customer satisfaction** and likelihood to be recommended relative to peers; 80% of JobsOhio customers report being **satisfied or very satisfied** in working with JobsOhio
- **Impact** from JobsOhio's deals more closely aligns with promised impact relative to peers



## Implications for CT

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- Strong sector expertise important lever for success (and not ubiquitous across EDOs)
- Seamless way of working internally translates positively to customer satisfaction
- Integration between CERC, DECD, and regional EDOs critical

<sup>1</sup> Compared against 17 peers; Regional peers are Indiana, Illinois, Kentucky, Michigan, Pennsylvania, West Virginia; Competitive peers are Alabama, California, Florida, Georgia, New York, North Carolina, South Carolina, Tennessee, Texas, Virginia, Wisconsin

## Appendix: Additional detail

Aspiration and targets

Roles and responsibilities

Signature initiative detail

Appendix:

- Additional detail on priority initiatives
- **Long list of initiatives considered for prioritization**

# Long list of initiatives (1 of 12)

PRELIMINARY

Pillar	Initiative	Description
Workforce	Employer informed solutions	Work-based learning Launch work-based learning program, securing annual commitments from Connecticut employers to participate in higher-ed sponsored internships, apprenticeship programs, and work-for-credit programs across priority sectors
		STEM promotion in K-12 Strengthen the K-12 STEM pipeline by shaping primary and secondary education (e.g., curriculum, after school programs) to provide additional exposure to skills that have high future demand (e.g., computer science)
		STEM higher ed investment Increase number of STEM degree graduates and improve alignment with occupational demand across 2-year and 4-year degree programs
		STEM credentialing Invest in non-degree credentialing program for critical STEM-related skills, (e.g., designing new credentials to fit gap, publicizing existing and new credential paths, providing grants to workers to pursue credentials, and engaging employers around credentials for skill-based hiring)
		STEM incumbent training Rapidly upskill incumbent workers by organizing collaborative employer sponsored tech bootcamps focused on developing hard-to-source skills
		Higher education fellowship Create a prestigious fellowship to retain top higher ed talent in select fields (e.g., computer science, engineering, healthcare provision), providing scholarship or student loan forgiveness to top performers who remain in Connecticut after graduation
		Relocation concierge Launch campaign to attract professionals in high-demand fields, leveraging alumni networks and employer recruiting pipelines to identify candidates (e.g., late 20s/early 30s getting ready to have kids) and provide them with job concierge, education and real estate navigation, and/or relocation funding
		Apprenticeship financing Offer subsidies/tax credits for educators and employers introducing apprenticeships: Provide 1:1 no-cost consultants to support employers in setting up apprenticeships and securing DOL and state funding, i.e. \$1,000/apprentice annual tax credit
	Reskill grants Offer grants/subsidies for adult learners for reskilling, in target populations, or in target sectors: Set-up funding pool for job seekers to access up-front or finish-line grants to complete critical reskilling or skilling pathways	

## Long list of initiatives (2 of 12)

PRELIMINARY

Pillar	Initiative	Description
Workforce (contd.)	Education pathways	CTE pathway campaign  Prioritize and publicize high-demand pathways within the pre-employment, career and technical ecosystem: Leverage the population of high school students and early adult learners who are committing to non-traditional, college-alternative career pathways, and funnel them into priority, employer-informed pathways
		Apprenticeship revamp  Revamp state sponsorship of apprenticeship program spanning target industries: Assemble partner companies to guarantee jobs and training stipend to high school graduates contingent on completion of apprenticeship program that splits 50-50 time between community college curriculum and on-the-job training
		Apprenticeship technical assistance  Provide direct support to help employers stand up apprenticeship programs: Create a regional talent pipeline for specific occupation, e.g. medical assistants, to provide paid training and direct career pathway to job seekers without ability to enroll fulltime in higher education
		Job guarantee program  Facilitate job-guarantee programs between anchor employers and higher education programs: Structure agreement for higher education to build degree program and employer to hire from program, along with other research/lifelong learning collaboration
		Community college completion rate transformation  Incorporate best practices into community college transformation for dropout rate improvement: Create an early warning system to identify student challenges, simplify program offerings to increase likelihood of alignment with employer demands, shorten terms, and train faculty for engagement/support
		Community college agile curriculum  Introduce agile curriculum development into community college transformation: Create a "SWAT" team to champion new or improved curriculum that responds to demand from employers and shifts expected from automation / Future of Work

# Long list of initiatives (3 of 12)

PRELIMINARY

Pillar	Initiative	Description
Workforce (contd.)	Data for outcomes	Labor data observatory Build real-time labor data observatory (including localized stats on job demand, labor skills and supply) to improve decision making of employers, job seekers, educators, and funders
		Employer feedback loop Stand up an organization to facilitate connection and collaboration between employers, job seekers, educators, and funders, including formal and informal communication, collaboration, education, and fundraising
	Support and coaching	Job seeker coaching revamp Elevate role of one-on-one coaching and wraparound services model across workforce services: Work with workforce development partners to improve quality/consistency of 1:1 advising and access to wraparound services (e.g. transportation, childcare)
		Job seeker navigation platform Aggregate incumbent worker resources into one engaging platform for job seekers: Launch an interactive website and workforce campaign designed specifically for adult learners, e.g. learning assessment, training/credential navigation
		Coaching program Launch academic and career coaching program to address job seeker needs and leverage Connecticut civic spirit: Provide 1:1 coaching (potentially volunteer based) to address challenges in job seeker training/journey, and complement with automated nudges, digital content, and alert system
		Job seeker assessment tool Build or promote tool for personalized career navigation and matching: Develop resource for job seekers to identify their interests, diagnose skill sets, map to careers, and determine path for education or training
		Upskill grants Offer grants for companies to upskill incumbent workers: Put funding in the hands of industry and their higher education partners to recruit and train incumbent workers

## Long list of initiatives (4 of 12)

PRELIMINARY

Pillar	Initiative	Description
Workforce (contd.)	Job training campaign	Encourage employers to improve access to training for incumbent workers: Support employers – especially in lower-wage industries – to provide the time and funding for incumbent workers to upskill and obtain education certifications
	Community college completion grants	Provide completion grants to students within one year of graduating but facing financial hardship
	Loan forgiveness	Provide loan forgiveness to top higher education graduates staying in (or relocating to) Connecticut
	<b>Other</b>	
	Good job employer network	Build network of “good job” champions amongst Connecticut employers: Support employers in diagnosing job quality challenges facing employees and assessing business case for change across areas, e.g. earnings and compensation, safety and security, benefits and support, opportunity and empowerment
	Curriculum de-regulation	Simplify process for public and independent institutions of higher education to innovate with programs: Review policy impacting institutions’ agility to respond to employer and job seeker needs and simplify or remove roadblocks
	Occupational licensure simplification	Simplify occupational licensure requirements and scope of practice regulations: Review policy impacting job seeker and employer requirements and identify where licenses are impeding job quality and employment outcomes
Immigrant attraction	Stand up an organization to improve the state's attraction to immigrant talent and families, e.g. building immigrant friendly services and welcome funds	

# Long list of initiatives (5 of 12)

PRELIMINARY

Pillar	Initiative	Description
Infra-structure	Highway decongestion	Reduce chokepoints, provide alternative means of transportation, and shortening commute times
	Rail improvements	Modernize rail transport, expand rail access, and increase train speeds and reliability
	Fiber internet hubs	Support construction of fiber infrastructure in targeted business hubs for Connecticut to attract and retain employers, especially in finance and insurance sectors
	5G investment	Incentivize the build out of comprehensive 5G coverage across Connecticut
	Site readiness	Invest in a portfolio of shovel ready sites for select industrial needs in order to improve company attraction efforts
	“White glove” concierge service	Set up initiative that provides strategic and implementation advice for potential business investors and developers
	Real estate technical assistance	Provide assistance in master planning and vision, financial analysis and feasibility, and other development planning
	Property search function	Provide inventory of properties available for industrial use
	Constituent hotline campaign	Revamp 311 service for engagement and accountability

# Long list of initiatives (6 of 12)

PRELIMINARY

Pillar	Initiative	Description
Business environment	Marketing campaign	Launch a marketing campaign focused on rebranding the state to employers, families, and workers
	Regulation modernization commission	Launch a commission focused on streamlining the experience of doing business in Connecticut, streamlining processes and removing barriers to competition
	Affordable commercial space strategy	Develop strategy and mechanisms to support small and locally owned businesses with real estate acquisition or rent in key urban centers
	Local business council scaling	Coordinate local business councils to scale effectiveness
	Affordable commercial space strategy	Assess zoning laws and roadblocks to development to expand office inventory and improve affordability
	Blue chip business liaison team	Formalize approach to business attraction used to bring Infosys to the state, setting up business attraction infrastructure leveraging local industry leaders
	Occupational licensing	Assess the public benefit of occupational licensing requirements, prioritizing occupations representing the greatest number of licensed individuals in CT for reform

# Long list of initiatives (7 of 12)

PRELIMINARY

Pillar	Initiative	Description
Cities and towns	Placemaking competition and fund	Establish a placemaking competition and fund, enabling communities to inclusively select placemaking initiatives that make CT's cities attractive places to live and work (e.g., targeted public private partnerships for real estate development)
	Housing modernization	Create public private partnerships to modernize Connecticut's housing stock, leveraging opportunity zones and place based development strategies to create new housing stock in growing neighborhoods
	Childcare vouchers	Provide vouchers to support access to childcare for dual income families below a living wage, building an image of Connecticut as the most family friendly state
	Universal pre-K	Build system for universal pre-K in CT
	Universal early childcare	Build system for universal early childcare (0-3) in CT
	Quality of work-life pledge	Structure a "Connecticut Compact" for employers to commit to work-life practices that make a meaningful difference to CT workers and potential workers
	Business improvement district ("BID") platform	Revamp and support business improvement districts or Main Street collaborations
	Art and culture fund	Develop community-driven fund to support public art and culture appreciation
	Downtown student housing	Encourage vibrant downtowns by partnering with nearby universities to build housing for students in CT's city centers

# Long list of initiatives (8 of 12)

PRELIMINARY

Pillar	Initiative	Description
Cities and towns (contd.)	Community fund	Provide small grants to community-driven initiatives, e.g. community gardens, neighborhood connectivity, park revitalization
	Events campaign	Target flagship events for rotation through CT and support with streamlined permitting
	Participatory budgeting	Establish participatory budgeting for major cities
	Urban marketing fund	Provide funds or expertise for cities to invest in their brand
	Intermediary streamlining	Coordinate and/or consolidate efforts across economic development / innovation ecosystem initiatives
	Public parks campaign	Revitalize community-identified parks and playgrounds
	Affordable housing strategy	Assess and renew affordable housing strategy
	Minority owned business support	Create an organization to support minority and immigrant owned businesses, which could help revitalize CT's "main streets" by providing minority-owned small to medium enterprises with technical assistance, business advice, and access to capital

## Long list of initiatives (9 of 12)

PRELIMINARY

Pillar	Initiative	Description
Bio-science	Attract flagship firm	Attract or retain anchor biopharmaceutical companies and establish New Haven area as a bioscience cluster
	Cluster formation	Partner with key academic, medical, and private sector stakeholders to establish New Haven as a biotech and pharma-specific cluster
	Management expertise on-demand	Establish a VC-like "operating partner bench" to provide management talent to qualified companies on-demand for targeted or time-bound needs
	Biotech incubators	Expand number of bioscience specific incubators with increased seed funding from academia and private sector
	Attract external VC	Attract private venture capital to bioscience to invest alongside Connecticut Innovations
	Biotech ambassador	Appoint a state biotech ambassador to act as liaison to top established companies and startups
	Growth incentives	Evaluate targeted financial incentives as appropriate for growing companies, such as through the First Five program
	Prioritize core competencies	Leverage and invest behind competitive strengths to prioritize specific specialties where CT can compete globally
	Employment recruitment programs	Increase exposure via targeted mentoring programs, university co-ops, experiential learning programs, loan forgiveness
	Land use grants	Introduce land use policies / grants to incentivize clustering around industrial areas
	Foreign bioscience company recruiting	Expand outreach to attract foreign bioscience players who wish to establish a US presence
	Branding campaign	CI and BioCT or other agency can launch marketing campaign to promote CT as a bioscience destination

# Long list of initiatives (10 of 12)

PRELIMINARY

Pillar	Initiative	Description
Insurance and financial services	Fintech incubator	Create a fintech startup accelerator in Stamford to signal Stamford’s leadership as a fintech hub for use cases ranging from asset management to private equity
	Innovation crowdsourcing	Sponsor a crowdsourcing platform to channel global talent towards Connecticut financial services companies’ critical business challenges, providing a path towards commercializing new ideas for growth
	Hedge fund attraction	Attract more asset management funds to Connecticut by leveraging the state’s existing specialization and proximity to New York City
	Sustainable investment hub	Expand the presence of investment services focused on sustainability within the state
	Data sandbox	Create a data sandbox for researchers by forming partnerships between insurers and Connecticut’s universities with the goals of unlocking new research and retaining top data science talent
	Insurtech hub expansion	Invest in the “insurtech” hub and data sandbox in Hartford by further consolidating higher education, industry, and innovation accelerators into a single, co-located development with a data sandbox accessible to all key partners
	Insurance rotational program	Set up a shared service among local employers targeting specific needs (e.g., data science) that can accomplish business objectives as well as provide a venue to give existing talent exposure to hard to recruit skillsets
	Big data concierge	Create a "chamber of commerce" like organization for financial services firms struggling to navigate an increasingly complex big data and AI landscape
	Diversity and inclusion program	Facilitate collaboration between secondary schools, higher education, and employers to produce a formal pipeline for underrepresented students in local communities to jobs in insurance and finance
	Drone partnership	Encourage partnership between insurance providers and drone manufacturers to help automate claims assessment

## Long list of initiatives (11 of 12)

PRELIMINARY

Pillar	Initiative	Description
Manu- facturing	Turn-key training	Stand up a turn-key training platform to provide quick, end-to-end workforce solution for targeted advanced industry employers (e.g. training partner directly recruits, trains, supports, and connects talent directly to specific employers based on targeted and time-specific needs)
	CTE investment	Invest in career and technical education pathways in Connecticut by expanding access to technical pathways in high school, aligning curriculum with targeted employer needs, and providing paths for manufacturing professionals to teach and mentor
	Industry 4.0 advisory	Establish 'Industry 4.0' advisory service for manufacturers across CT to access technology adoption advisory and implementation services and leading-edge research
	Modernization financing	Expand financing mechanism to support manufacturing investments for manufacturing firms to modernize and advance operations towards leading rather than lagging performance, building on Voucher Program
	Innovation center facility	Support development of an advanced manufacturing innovation facility and district in Hartford by recruiting 1-2 manufacturing anchors who will establish innovation centers in CT and advise on branding
	Supply chain attraction	Attract companies within the manufacturing supply chain to locate functions in Connecticut by targeting specific segments and innovation-leaning firms, (e.g. advanced analytics, design, connected devices)
	Wind supply chain	Develop a thriving offshore wind supply chain around New London by investing in the port and expanding the manufacturing workforce

# Long list of initiatives (12 of 12)

PRELIMINARY

Pillar	Initiative	Description
Software development and data services	CS inclusion campaign	Invest in tools to promote interest and access to computer science education for women and minorities throughout Connecticut
	Tech campus attraction	Attract a computer science program from a top technical school to Connecticut
	Skills based hiring for tech talent	Promote skills based hiring within Connecticut for tech talent, putting mechanisms in place to certify relevant industry skills and positioning employers to accept those skills