N² Innovation Corridor

ECONOMIC DEVELOPMENT & MARKETING STRATEGY

June 2016

Prepared for:

Newton-Needham Regional Chamber 281 Needham Street Newton, MA 02464



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About Camoin Associates

Camoin Associates has provided economic development consulting services to municipalities, economic development agencies, and private enterprises since 1999. Through the services offered, Camoin Associates has had the opportunity to serve EDOs and local and state governments from Maine to California; corporations and organizations that include Lowes Home Improvement, FedEx, Volvo (Nova Bus) and the New York Islanders; as well as private developers proposing projects in excess of \$600 million. Our reputation for detailed, place-specific, and accurate analysis has led to projects in 27 states and garnered attention from national media outlets including *Marketplace* (NPR), *Forbes* magazine, and *The Wall Street Journal*. Additionally, our marketing strategies have helped our clients gain both national and local media coverage for their projects in order to build public support and leverage additional funding. The firm currently has offices in Saratoga Springs, NY, Portland, ME, and Brattleboro, VT. To learn more about our experience and projects in all of our service lines, please visit our website at www.camoinassociates.com. You can also find us on Twitter ocamoinassociate and on Facebook.



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The Newton-Needham Regional Chamber is a not-for-profit organization dedicated to championing economic and cultural vitality through advocacy, education, and networking. The chamber is not affiliated with the U.S. Chamber of Commerce or any other national organization. More information available at www.nnchamber.com.

Executive Summary

The Newton-Needham Regional Chamber, along with the City of Newton and the Town of Needham, has designated a 500-acre area along I-95/Route 128 as the N² Innovation Corridor. Straddling the Newton-Needham border, it is principally comprised of two business parks, Needham Crossing in Needham and Wells Avenue Office Park in Newton, as well as the Highland Avenue/Needham Street commercial corridor. Home to roughly 150 technology companies, including TripAdvisor whose new facility opened in 2015, software company PTC, and Karyopharm Therapeutics, a NASDAQ-listed life sciences company, the N² Corridor is well positioned for more innovation-related development.

This is an economic development and marketing strategy for the N² Corridor, addressing the desire of the stakeholders to be recognized as an innovation district. Using data-driven analysis, augmented by extensive interviews of local government, business, and nonprofit leaders, the N² Corridor Task Force, supported by Camoin, has identified the opportunity for this area to become more than just a redeveloped office park or series of business properties, but rather to achieve the vision of an innovation district where talent, innovation. and community converge to support a vibrant, entrepreneurial economy, a model for the integration of economic development, place-making and social networks. The innovation district is in itself an indication of the changing preferences for the density and diversity of urban areas over suburban regions, and for transitaccessible, wired, and mixed-used communities among the emerging workforce. The challenge for Newton and Needham is to adapt this model for an area that has historically supported traditional suburban office parks and retail.

What does this mean for the N² Corridor?

While the N² Corridor has some ingredients of what it takes to compete and participate in the regional innovation ecosystem, more needs to be done. Transformative thinking, approaches, process, and actions are needed. Specifically:

- The Greater Boston area has experienced strong growth for several decades, and as a result, its economic development infrastructure is less mature than in regions that are more competitive by necessity. Some basic building blocks for economic development attraction and retention need to be put into place.
- Since the Greater Boston area already has an innovation image, and other suburbs are better known as places for innovative companies to locate, a major challenge for the N² Corridor is to elevate its visibility as an innovation district—however, this must be authentic, not just an image. If N² wants to be an innovation district, rather than just a place where older technology companies move, then it needs to fill in the gaps with the elements commonly associated with such a district, namely innovators, entrepreneurs, and research entities. Fortunately, N² can borrow from and build upon the existing assets nearby.
- A huge asset for the N² Corridor is the high educational attainment of the Newton-Needham population, the high proportion of foreign-born residents, and the high levels of innovation as evidenced by patents. Although this population is older, these residents currently work for many of the companies the N² Corridor would likely target to attract. And, the residents appear to be quite entrepreneurial, although they currently don't stay in the

- area when they gain scale in their companies. This is therefore an opportunity to **keep these entrepreneurial residents closer to home** rather than having them commute away every day.
- Talent is a prerequisite for attracting, retaining and creating companies in the N² Corridor, but Newton and Needham's aging population means that companies need to be able to attract younger workers. However, high housing prices and lack of direct rapid transit service to the N² Corridor means that companies that want to attract Millennial workers to the area are having difficulty. There is a definite trend for young, highly educated professionals to opt to live in more urban areas such as Cambridge and Somerville, not suburban areas

- like Newton and Needham. The trend towards urbanization is due to both the greater number of cultural and recreational amenities in cities, and tighter networks. So, to be competitive, the N² Corridor will need to develop its networks, and add to its amenities, in addition to tackling its housing and transportation challenges.
- These challenges are regional, not confined to a single city or town, partially because the N² Corridor straddles the border of Newton and Needham, and because it's a relatively small area. There is not currently an entity or organization whose charter is to promote and develop the N² Corridor. In order to make this plan work, all concerned need to come together to contribute to its success.

To guide policies and actions, the Task Force adopted this vision statement for the N² Corridor:

The N^2 Corridor is home to an increasing number of innovative businesses—new and established, large and small. It features a mixed-use community with retail, office space and open space integrated with housing and nearby transit, providing an affordable and desirable place to create, prosper, and adapt to an evolving business climate. The N^2 Corridor will become increasingly recognized as a destination for investment by innovation-driven industries and will enhance the quality of life in the Newton-Needham region by providing employment, tax revenues, and educational, entertainment, recreational, and cultural amenities.

To achieve the vision the Task Force adopted six goals:

Goal	Motivation
Goal 1: Attract and retain innovative and growing companies in priority industries.	An essential goal is to attract new innovative and growing companies to the office parks in the N ² Corridor. It makes sense to target the priority industries that are already present in order to build up the networks and interconnections that come from denser clusters of businesses that share workforce, infrastructure and other needs. However, this should not be done at the expense of existing companies, so actions to retain the companies already here are also needed.
Goal 2 : Encourage entrepreneurship within the N ² Corridor.	Entrepreneurship is a key part of being an innovation district, so encouraging entrepreneurs to start their companies here, especially in the priority industries, will support the networks, increase the vibrancy of the area, and ultimately will grow companies that can fill the office parks. There is an opportunity to build upon the innovative workforce in Newton and Needham and also the local students who are interested in entrepreneurship.
Goal 3 : Attract, create, or partner with nearby research entities to serve as an anchor for the N ² Corridor.	To be a true innovation district requires an anchor to spur the development of new ideas, support the acceleration of a priority industry, attract an educated workforce, and act as a focal point for innovation. The anchor could be a research institute associated with a Boston-based institution of higher education or teaching hospital, an international university looking for a Boston base, or an industry-based research entity.
Goal 4: Create a mixed-use community with infrastructure and amenities that attract diverse groups of people.	Since the Newton-Needham area has small numbers of younger workers and local priority industry companies report difficulties recruiting these workers to the N^2 Corridor, it is essential to create the community that responds to the emerging desires to live, work, and play in the same place.
Goal 5: Forge an innovation identity.	The N ² Corridor needs to create its own identity as an innovation district within an innovative region, and rise above the noise created by the Greater Boston area in general and other suburbs in particular. The district is not isolated from the communities that encompass it—it is an innovation corridor within an innovative community.
Goal 6: Build capacity to accomplish the vision and goals.	In order to accomplish these goals, the capacity to act must be developed, with the people, funding, and determination to make the vision happen.

Introduction

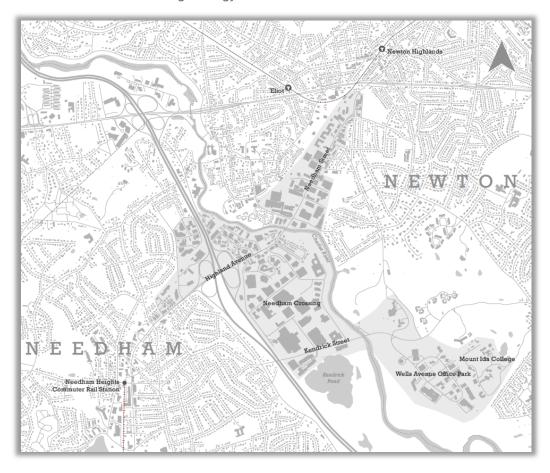
In partnership with the City of Newton and the Town of Needham, the Newton-Needham Regional Chamber has developed an economic development and marketing strategy for the N² Corridor. Straddling the Newton-Needham border along I-95/Route 128, the N² Innovation Corridor is principally comprised of two business parks, Needham Crossing in Needham and Wells Avenue Office Park

in Newton, as well as the Highland Avenue/Needham Street commercial corridor. Home to roughly 150 technology companies, including TripAdvisor whose new facility opened in 2015, software company PTC, and Karyopharm Therapeutics, a NASDAQ-listed life sciences company, the Corridor is well positioned for more innovation-related development.

Many initiatives are already underway, including transportation infrastructure improvements such as the Kendrick St. interchange with I-95 and the Needham Street/Highland Avenue upgrade recently funded. In addition, private developers are envisioning redevelopment of existing office parks, including Center 128, focused on the former General Dynamics site. The Wells Avenue Office Park in Newton was also the subject of a recent study, with transportation improvements and redevelopment as the primary recommendations. MassChallenge's new satellite operation in Newton Corner adds to this momentum.

This plan is the result of six months of collaboration among the N² Corridor Task Force, made up of representatives from the Newton-Needham Regional Chamber, the City of Newton, Town of Needham, and a task force of stakeholders, all facilitated by Camoin Associates. The plan includes our methodology, a

summary of our findings (with details included in the appendices), our conclusions, and our recommendations. The recommendations include a vision statement for the N^2 Corridor, a mission statement for the N^2 Corridor Initiative, six goals for the Initiative, an Action Matrix listing the specific actions for each of the goals, and a marketing strategy.



Methodology

Camoin Associates strongly believes in strategic decision-making grounded in data and analysis. For this strategy, Camoin used Economic Modeling Specialists Intl. (EMSI) data for its high-quality labor market data, economic analysis, and projections; IBISWorld for its leading global market research; and demographic and socioeconomic data from Esri and the U.S. Census Bureau. These data gave us very robust, highly useful, and comprehensive information on the historical and emerging trends of the industries in the N² Corridor, and beyond.

As the Newton-Needham Regional Chamber had already focused on the idea of the N² Corridor being an innovation district, Camoin also performed an analysis of existing sources of innovation and culture. Our intent was to distinguish between two alternative strategies: one being an integrated innovation district, and the other merely a place where innovative companies move to as an alternative to the high costs and commutes associated with a denser urban center.

Another dynamic we looked at is the impact of Millennials on the N² Corridor. While in their 20s, many Millennials have moved to downtowns and cities, and no doubt contributed to the recent successes in Kendall Square in Cambridge and the Boston Innovation District on the South Boston waterfront. However, new data suggests that as Millennials marry and start families, "inner suburbs" such as Newton and Needham are becoming more attractive if the right amenities and culture exist.

Our approach included substantial attention to interviews with local business and government leaders, as well as a community outreach session and the opportunity for the Chamber membership to provide input via a web-based survey. Using these data collection techniques in addition to traditional and innovation-focused economic data analysis enabled Camoin to provide the Chamber and the N² stakeholders with the foundational evidence on which to base their visioning and strategic planning.

At each stage of the process, Camoin reviewed its work with the Newton-Needham Regional Chamber and the N² Corridor Task Force. The members of the Task Force and the Chamber provided substantive input and reviewed all documents prepared for this report.



Findings

As part of its work, Camoin Associates completed a number of analyses of data associated with the N² Corridor, including:

- Situation Assessment
- Innovation Assessment
- **Economic Base Analysis**
- **Priority Industry Analysis**
- Real Estate Analysis
- Peer Set Analysis

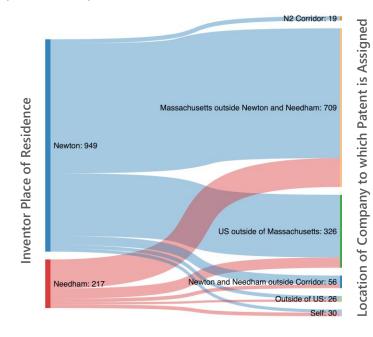
Each of these analyses are included in the Appendices which follow. Below is a summary of the findings contained in these analyses.

N² Corridor as an Innovation District

The data and analysis are not useful unless they are taken in a context that allows us to answer the "So What?" guestion. We analyzed the N² Corridor in the context of innovation districts, which have been thoroughly researched by the Brookings Institution. Brookings suggests that there are several components of an innovation district: sources of innovation, whether from anchor institutions such as universities, large companies, or entrepreneurs as well as a skilled workforce, vibrant communities, and adequate physical infrastructure, including telecommunications, appropriate roads, and alternative transportation. The literature also suggests that an innovative culture—one that is diverse, supportive of creativity and failure, and highly collaborative—is also required for success. Therefore, we organize our summary of the analyses into these elements of an Innovation District.

Sources of Innovation

The single most striking finding from our analysis of sources of innovation in the N² Corridor and in the City of Newton and the Town of Needham is how creative and inventive the residents are. We looked at patents issued in 2015 where at least one inventor listed their home address as either Newton or Needham. There were 1,166 unique patents in this category, or 8.98 per 1,000 residents. To put this in context, Massachusetts has a patenting rate of 1.52 per 1,000 residents, and the U.S. rate is 1.02.

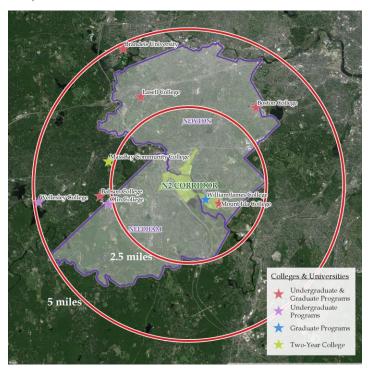


¹ Katz, Bruce and Wagner, Julie. 2012. The Rise of the Innovation District: A New Geography of Innovation in America. Washington, DC: The Brookings Institution.

http://www.brookings.edu/about/programs/metro/innovation-districts.

However, only 19 of these patents were assigned to companies located in the N² Corridor; 56 were assigned to companies in Newton or Needham but outside the N² Corridor, and 30 were assigned back to the inventors. The rest went to Massachusetts companies outside of Newton or Needham (709), U.S. companies headquartered outside Massachusetts (326) and foreign-headquartered companies (26).

Only 6 of the patents were assigned to colleges or universities in Newton or Needham, all of which to Boston College. The other institutions of higher education in the area are primarily known for their entrepreneurship focus and undergraduate or professional education programs. This is significant because most innovation districts have research universities and/or medical schools ("Meds and Eds") as anchor tenants.



Companies, Large and Small

There are some innovative companies in Newton and Needham, but few in the N^2 Corridor itself. Those that currently exist in the N^2 Corridor are generally later-stage companies that have passed the startup stage, have raised significant venture capital, and have patent portfolios. On the other hand, startup and early stage entrepreneurial companies started by Newton and Needham residents appear to generally move to Cambridge or Boston, the perceived center for entrepreneurship in the Greater Boston area.

Newton and Needham have experienced strong growth in jobs over the past ten years, showing 6% growth in employment from 2005 to 2015. Employment is concentrated in these five sectors:

- Biotechnology and Life Sciences
- Educational Services
- Information Technology
- Professional, Scientific and Technical Services
- Real Estate

Some of the innovative companies located in the N² Corridor itself include:

TripAdvisor

Founded in 2000 by Stephen Kaufer and Langley Steinert, TripAdvisor is a travel website that provides reviews and other information for consumers about travel destinations around the world. The company is now pervasive, with 65 million unique visitors each month scouring the site for reviews of hotels, restaurants, and sites around the globe. TripAdvisor is traded on the NASDAQ with a \$4.8 billion market capitalization as of this writing.



PTC

PTC was founded in 1985 and went public in 1988. Since then, the company has acquired 24 other software companies, including Prime Computer and Computervision, relics of Boston's early minicomputer industry. Today, PTC transforms the way customers create, connect, operate, and service smart things and systems through the combination of process know-how and best of breed capabilities, all delivered through a flexible platform. The combination delivers a disruptive suite of technology that enables companies to securely connect smart things, quickly create applications, and ultimately transform the value chain, and is well-known in the emerging Internet of Things market.

Turbine

Turbine is a pioneering developer and operator of online entertainment, with breakthroughs in the free-to-play model and successful long-running titles like The Lord of the Rings Online™ and Dungeons & Dragons Online™. Founded in 1994, Turbine has been developing acclaimed online games for over 20 years. Turbine

recently expanded its 45,000-square-foot facility to incorporate a 24,000-square-foot addition. The studio employs more than 350 people.

SharkNinja (formerly Euro-Pro)

Founded in 1993, this company has two major brands, Shark vacuums and Ninja food processors/blenders. The company has been on the INC 500 for five of the last six years and is experiencing rapid growth. With more than \$1.6 billion in annual revenue, the company has the top-selling and highest consumer-rated vacuum cleaner in the U.S., and #1 market share across the motorized kitchen appliances space.

SharkNinja has also implemented an aggressive real estate strategy, announcing its signing of a lease for a new 150,000-square-foot world-class corporate headquarters in Needham.

Verastem

Verastem, Inc. (NASDAQ: VSTM) is a clinical-stage biopharmaceutical company focused on discovering and developing drugs to treat cancer by the targeted killing of cancer stem cells. Cancer stem cells are an underlying cause of tumor recurrence and metastasis. Verastem is developing small molecule inhibitors of signaling pathways that are critical to cancer stem cell survival and proliferation. In October 2015, the company announced a reduction of its workforce by approximately 50% to twenty full time employees. This was likely related to the announcement only a week before of disappointing results from a clinical study of a mesothelioma drug, and that the drug was pulled from further research.

In 2015, the company moved to Needham from Cambridge amid much fanfare. It signed a lease for a 15,000-square-foot space on Kendrick Street in Needham.

CyberArk

CyberArk touts itself as the only security company laser-focused on striking down targeted cyber threats, those that make their way inside to attack the heart of an enterprise. Dedicated to stopping attacks before they stop business, CyberArk's clients include some of the world's leading companies—in fact, 40% of Fortune 100 companies—who entrust CyberArk to protect their highest-value information assets, infrastructure, and applications. The company started in 1999 and in 2011 raised \$40 million in investment led by Goldman Sachs and Jerusalem Venture Partners. The deal included the purchase of stock from existing shareholders as well as growth capital. CyberArk had previously raised \$25 million in venture and angel capital. In September 2014, CyberArk raised \$92.5 million in its IPO. As of 2011, the company had 170 employees worldwide.



Bigbelly Solar

Trash-can maker Bigbelly Solar Inc. more than doubled the size of its headquarters when it moved to Needham in June 2015, leaving its home in Newton behind.

Bigbelly was founded in 2003 with

the goal of transforming one of the least efficient and resource-intensive industries on the planet—waste collection. Cities typically either collect too often and waste fuel and labor while creating CO_2 emissions, or are not able to keep up with the demands and overflowing trash cans and the associated litter, creating health and safety issues.

Karyopharm Therapeutics

Karyopharm Therapeutics Inc. is a clinical-stage pharmaceutical company focused on discovery and development of novel first-inclass drugs directed against nuclear transport targets for the treatment of cancer and other major diseases. In May 2015, Karyopharm expanded its presence in the its Wells Street building in Newton by 16,000 square feet, bringing its total footprint to 46,000 square feet of office and laboratory space on the second and third floors. Karyopharm selected the location in May 2014 after outgrowing its Natick facility.

Highly-skilled Workforce

The workforce in the N² Corridor as well as Newton and Needham is extraordinarily well-educated. Almost half of residents over 25 have a graduate or professional degree, and as a result, have relatively high incomes. Median household income stands at \$118,000 in Newton and \$131,000 in Needham, compared to \$75,000 in the Boston MSA. This points to the high desirability of the two communities and the demand for amenities sought by high-income, highly educated residents.

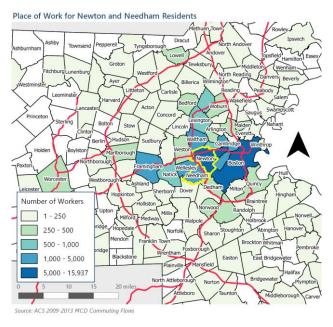
There is also a significant percentage of residents who were born in other countries (21%) which contributes to the vibrancy and cultural diversity of the area. Newton and Needham have proportionately more white and Asian residents, and fewer black and Hispanic residents, when compared to the Boston MSA, Massachusetts, and the nation.

Top 10 Countries of Origin of the Foreign-Born Population, Newton and Needham

Place of Birth	Foreign-Born Population	Pct. of All Foreign-Born
China	4,382	20.0%
Russia	1,809	8.2%
India	1,318	6.0%
Korea	1,317	6.0%
Ukraine	951	4.3%
U.K.	834	3.8%
Iran	711	3.2%
Canada	650	3.0%
Germany	568	2.6%
Israel	542	2.5%
Total (Top 10)	13,082	59.6%
Total (All Foreign-Born)	21,953	100%

Source: 2014 ACS 5-Year Estimates

However, population growth has been relatively flat, with a slight uptick in recent years, and a bimodal age distribution: there is a high share of population within the adolescent/young adult and later middle-age cohorts. Both communities have a significant lack of young adults (25- to 40-year-olds) relative to the MSA and state overall. This bimodal age distribution is, in part, a function of the communities' housing market, which is skewed toward single-family homes and has limited affordable options for young adults.



Most residents commute elsewhere to work: only 29% of Newton and Needham residents also work in the two municipalities. This means that 71% of residents are commuting to other cities and towns for work. Conversely, 78% of people working in Newton and Needham in-commute, meaning they live outside of the two communities. This highlights the crucial role of efficient

Science, Technology, Engineering and Math (STEM) Workforce

Newton and Needham show a significantly higher concentration of STEM occupations than the nation: 9.3% of their jobs are in STEM occupations compared to 5.5% nationally. There are strong concentrations of computer engineers, psychologists, and medical scientists.

Infrastructure

Innovation Infrastructure

While traditional elements of infrastructure are critical for an innovation district, there are also elements that are unique. Fortunately, the N² Corridor is rich in these assets. First, an innovation district requires fast and ubiquitous broadband availability. In the case of the N² Corridor, broadband availability is very high, with Middlesex and Norfolk counties topping the list of highest available speeds in the state.²

Second, the entire Boston area has the second highest concentration of venture capital investment in the U.S. Third, the Greater Boston area enjoys the protection of the U.S. Patent regulations, and a significant professional services sector dedicated to supporting innovation-based companies.

Housing and Transportation

Housing prices are extraordinarily high in Newton and Needham, with Newton's median housing price exceeding \$1 million. Most housing is single-family and is bifurcated between large new homes

² National Broadband Map. http://www.broadbandmap.gov.



transportation connections between Newton and Needham and the surrounding region. In order for innovative businesses to be successful in these communities, they must be accessible to the skilled workforce they employ.

and those that are older and require significant upkeep. A lack of affordable workforce housing in the municipalities is a major feature of the local real estate market and looms as a negative factor in potential business relocation and growth decisions.

There has, however, been considerable movement on the affordable housing front, with several recent and planned housing developments incorporating affordable components (e.g. Charles River Landing, a 136-unit project on Greendale Avenue in Needham, 28 Austin Street in Newtonville, and a 390-unit Normandy project in Needham Crossing that is in the approval process).

This represents real momentum on the sometimes-divisive idea of adding a significant volume of affordable, denser housing suitable for seniors, students, and younger workers—a necessity for attracting Millennials and building a culture of diversity and innovation. This is a regional challenge as well as a local one, and the local municipal leaders recognize it: a major housing study is underway in Newton.



Of note, Needham recently passed the threshold of the statemandated level of affordable housing, meaning it will now be exempt

from Massachusetts' 40B law that allows developers to bypass local zoning laws if they are offering enough affordable units. However, in May of 2016, even after reaching the 40B requirement, Needham Town Meeting approved a mixed-use residential overlay for up to 250 units in the Wexford Ave section of the N² Corridor.

Heavy traffic and a lack of sufficient public transit to the N² Corridor are significant constraints on the area's attractiveness to younger and senior residents and new and expanding businesses. Talent recruitment and livability stand to be significantly improved if new transit options become available. Examples of solutions that have been explored include shared bicycle services, additional bus service, such as a line from the Wells Avenue Office Park to a T stop, and the potential for transit service and/or paths along an unused rail rightof-way. A 2013 MAPC concept plan showed that the unused MBTA right of way running parallel to Needham Street and Highland Avenue could accommodate a rapid transit bus together with bicycle and pedestrian amenities. In the meantime, shuttle buses are proving to be an important way to move workers and students from transit stops to key employers, office parks, and colleges, and there may be potential to better coordinate these services. Newton and Needham have good, wide roads and have invested in roadway improvements that are currently or will soon be under construction. The new dedicated exit ramp off of Route 128/I-95 at Kendrick Street represents a watershed improvement to the Corridor's accessibility and driveability. The changes to be implemented on Highland Avenue/Needham Street are also promising, but access and egress in the Wells Avenue Office Park is particularly problematic, and the reality of its single-access-point roadway is a barrier to redeveloping it in ways that are aligned with the preferences of 21st century companies and their workforces.

Real Estate

Key developable parcels are concentrated in the Needham Crossing area of the N² Corridor, where the new state-of-the-art TripAdvisor

headquarters is located and where additional commercial office and mixed-use developments have been approved. The communities face opportunities for redevelopment at key sites as tenants relocate, in order to keep properties relevant to current and future work and living preferences. The facility that Clarks Americas currently occupies and will vacate in 2016 is a key example. Many structures in the Wells Avenue Office Park are considered ripe for updating (and in some cases updates and expansions are underway), and the park requires other improvements—especially a second road access and dining, retail, or other amenities—to maintain existing tenants and compete successfully for new tenants going forward. This is part of a national trend of suburban commercial landlords facing the need to reimagine existing office parks and to adopt mixed-used and smaller-tenant leasing strategies.



Business Climate

Newton and Needham have recently forged a strong and effective working relationship between the executive branches of their municipalities. This has included regular meetings that have produced real benefits around the funding of infrastructure investments throughout the core of the Corridor.

Needham has a reputation for being quick, flexible, and cordial in its interactions with developers and the business community, and is widely considered to have been far-sighted in putting new zoning rules five years ago and tax incentives in place a decade ago that allowed the town to easily accommodate the TripAdvisor location decision.

A political divide between smart growth and affordable housing supporters and those who feel Newton is already too built out was the central issue of a 2015 municipal election, with the results decisively favoring the pro-smart growth/affordable housing candidates. Also in 2015, a contentious proposed mixed-use project at 28 Austin Street narrowly met the two-thirds supermajority necessary for approval by the city's aldermen (now city council).

Both events have given pro-growth advocates reason for cautious optimism that the city may be reversing a long-held perception of opposition to new development at a time when the city's zoning code is undergoing review and a Charter Commission could potentially alter the land use decision-making process.

Meanwhile, Newton's mayor is enthusiastically championing an innovation-focused economic development vision, has traveled to Israel to champion the N² Corridor and recruited the world renowned MassChallenge to open a satellite office at Newton Corner.

Business and property taxes are high in the N² Corridor, but not higher than elsewhere in Metro Boston, so this is not an issue to the extent that competition is within the Bay State.

Entrepreneurial Ecosystem

In terms of the traditional elements of an entrepreneurial ecosystem, Newton and Needham are thinly served. Although the Cambridge Innovation Center and MassChallenge have opened the Newton



Innovation Center in Newton Corner, there are no such facilities in the N^2 Corridor.

These elements of an innovation district are summarized below:

Elements of an Innovation Economy	N ² Corridor	Newton and Needham	Greater Boston
Source of innovation	Few	Many	Many
Companies, large and small	Some, mostly larger	Some, mostly larger	Many, both
Skilled STEM knowledge workers	Many, skewed older	Many, skewed older	Many
Innovation infrastructure	Good	Good	Excellent
Entrepreneurial community	Thin	Emerging	Very Strong

Priority Industry Analysis

The priority industry areas include:

- Information technology
- Professional, scientific, and technical services
- Biotech and life sciences

These sectors were identified as having potential for the N² Corridor, either for their component industries' concentration in employment (e.g. software publishing, with a location quotient of 6.39); growth over the last decade (e.g. management consulting added over 300 jobs); or recent national trends that show increasing demand (e.g. biotechnology). It should be noted that these are highly aligned with

Projected Growth for Priority Industries (Nationally)

Industry	Projected Annualized Growth Rate for 2015-2020
Biotechnology	8.3%
Pharmaceutical manufacturing (brand name)	6.2%
Internet publishing and broadcasting	5.6%
Medical equipment and supplies manufacturing	5.3%
Scientific and economic consulting	3.8%
Management consulting (inclusive of marketing consulting	g) 3.6%
IT consulting	3.2%
HR consulting	3.2%
Software publishing	3.0%
R&D in the physical, engineering, and life sciences	2.8%
R&D in the social sciences & humanities	1.2%
GDP	2.2%

Source: IBISWorld reports.

the MassTLC 2015 State of Technology Report that names the Internet of things, security, and health care/life sciences information technologies as three emerging technology areas that Massachusetts has the potential to dominate.

Our research of Newton and Needham's economic base and national trends for these industries has further affirmed that the N² Corridor should prioritize these areas as industries to monitor, cultivate, and target in marketing efforts.

Of the industries studied, Newton and Needham have performed particularly strongly in the past five years in internet publishing; custom computer programming; marketing consulting; process, physical distribution, and logistics consulting; R&D in the physical,

engineering, and life sciences; and other scientific and technical consulting services. Computer facilities maintenance services also grew significantly, albeit at a lower overall employment level.

Most of the industries of highest relevance to the N² Innovation Corridor vision are in the growth stage of the business life cycle, that is, they are increasing in their importance to the overall economy. All the industries studied are projected to outpace gross domestic product growth over the next five years, with the exception of R&D in the social sciences and humanities, as shown in the table here. Biotechnology's growth is expected to be nearly quadruple that of GDP, and robust growth rates are also projected for pharmaceutical manufacturing, internet publishing, and medical equipment and supplies manufacturing.

Peer Set Analysis

Camoin Associate's peer set analysis compared Newton and Needham with other high-end suburbs of metropolitan areas with strong innovation centers. Our findings are summarized below and in the table on the following page:

- Newton and particularly Needham are less racially diverse than the peers.
- Newton and Needham's population is older than that of the peers.
- Newton and Needham have dramatically higher education attainment than the peers do on average.
- Home prices are much higher in Newton and Needham than in the peer communities, again with the exception of Bethesda. The same is true of median household income. When comparing home values to income, however, the ratios in Newton and Needham are roughly comparable to the peer set.
- Median household income is much higher in Newton and Needham than in the peer communities, again with the exception of Bethesda.
- Newton and Needham have very strong relative patent intensities. The peers, on average, have a rate of 5.28 patents per 1,000 residents, while Newton's figure is 10.91 and Needham's is 7.35.
- Newton performs very highly in comparison to the peers in terms of number of venture capital deals and the average

- size of those deals. Only Boulder, CO, had a larger value of deals than Newton, while the next most competitive peer had less than half that value. Needham only had two deals and a very low average deal size; in this respect, Needham is more comparable to Ellicott City, MD, and Alexandria, VA, where venture capital activity is also guite low.
- The Boston metro area compares well to the other metros in terms of concentration of STEM (science, technology, engineering, and math) occupations and the number of STEM-related education program completions. Only the Washington, DC metro area has a comparable number of STEM related completions.
- Newton and Needham's 8% employment growth over the past 5 years is a slightly lower rate of growth than the peer average of 10%.
- When looking at employment in the priority industries studied for the N² Corridor,³ Newton and Needham have a solid national location quotient of 3.20. But six of the eight comparison geographies had even higher location quotients, with Burlington, MA and Bellevue, WA both exceeding an LQ of 6.
- Commercial real estate inventory in Boston's downtown is comparable to the average for the corresponding central business districts of the peer suburbs. However, in comparing inventory for these metros' suburbs, the Boston suburban market (about 113 million square feet) is somewhat tighter than the peer average (about 142 million square feet).

³ The priority industries studied included relevant industries within the Information Technology sector; the Professional, Scientific, and Technical Services sector; and the Biotech and Life Sciences sector. See Appendix D: Priority Industry Analysis.

 Commercial real estate prices for the Boston area exceed those of the peers for almost every category of office space.
 However, the gap is much less pronounced when comparing only suburban commercial space. Suburban Boston commercial space prices are competitive with prices in the suburbs of Seattle and Washington, DC.

Peer Analysis: Socio-Demographics

Location	Population	White & Nonhispanic Population	% Nonwhite and/or Hispanic	Median Age	Working Age Population Growth (Ages 20- 64, 2010-2014)	% of 25+ Popn. With Bachelors or Higher	Median Value of Owner- occupied Units	Median Household Income	Ratio of Median Home Value to Median Income
Newton, MA	86,945	65,327	25%	40.2	0.4%	75.9%	\$715,000	\$118,639	6.03
Needham, MA	29,540	25,559	13%	42.9	1.4%	74.1%	\$668,900	\$129,154	5.18
Burlington, MA	25,190	19,670	22%	41.8	2.1%	47.3%	\$419,000	\$95,465	4.39
Boulder, CO	102,002	84,317	17%	28.3	2.7%	71.5%	\$499,200	\$58,062	8.60
Cary, NC	146,041	96,737	34%	36.9	8.3%	61.8%	\$301,600	\$91,481	3.30
Bellevue, WA	132,268	75,179	43%	37.9	9.4%	62.1%	\$538,300	\$92,524	5.82
Alexandria, VA	146,422	77,220	47%	35.8	4.0%	61.5%	\$494,400	\$87,319	5.66
Bethesda, MD	62,024	47,606	23%	43.2	0.0%	82.2%	\$821,000	\$145,288	5.65
Aurora, CO	339,480	157,084	54%	33.4	3.1%	27.1%	\$179,300	\$52,275	3.43
Ellicott City, MD	68,507	41,060	40%	40.7	1.7%	65.3%	\$507,300	\$114,694	4.42

Demographics source: 2014 ACS 5-yr estimates, 2010 ACS

Strength, Weaknesses, Opportunities, Threats

The analyses presented here can also be categorized as strengths, weaknesses, opportunities, and threats (SWOT). Strengths and weaknesses are characteristics of the N² Corridor and Newton and Needham that either help or hinder their ability to achieve the vision for the N² Corridor. Opportunities and threats are environmental—they denote trends that are ongoing in the broader economy that can impact the vision. The SWOT analysis for the N² Corridor is summarized on the following page.



N² Corridor: Strengths, Weaknesses, Opportunities, & Threats

Strengths

- Highly educated population (50% with professional or graduate degrees).
- Very innovative (8.98 patents per 1000 residents).
- Eight institutions of higher education within 5 miles, several very entrepreneurial.
- Later stage innovative companies located in Corridor.
- Six percent job growth 2005-15 in educational services, real estate, information, professional, scientific and technical services; biotechnology and life sciences.
- Incomes very high.
- Culturally diverse (21% foreign born).
- 9.3% of local jobs are in STEM occupations. Strong concentrations of computer engineers, medical scientists. Higher than the nation (5.5%).
- Broadband availability high.
- Boston area has high concentration of venture capital and investment.
- Strong intellectual property protections and professional services.
- Workforce housing projects coming on line.
- Road improvements in progress and coming in 2017.
- Multiple shuttle bus options running.
- Boston Logan Airport easily accessible.
- Corridor is significantly built out, but redevelopment opportunities abound.
- Big price advantage over Boston/Cambridge for office space.
- Needham government perceived as quick, flexible, cordial.
- Political leadership in both towns very supportive.
- All priority industries are experiencing high growth.
- Adjacent to the Charles River, Cutler Lake, trails, and other natural amenities.

Opportunities

- Attract growing companies in priority industries (information technology; professional, scientific and technical services; biotechnology and life sciences).
- Provide a growth path for entrepreneurs, including keeping locals local.
- Attract/create research entity.
- Leverage local institutions of higher education.
- Broaden workforce in 25-40 demographic.
- Work collaboratively with local stakeholders, property owners for development and redevelopment.
- Leverage cultural diversity.
- Build, engage and energize community.
- Municpal partnership to leverage state/federal support.

Weaknesses

- No research institutions within Corridor or 2.5-mile radius.
- Early stage entrepreneurial companies started by local residents move to Boston/Cambridge.
- Entrepreneurial support system thin.
- Relatively flat population with bimodal age distribution few 25-40 year olds.
- Not racially diverse.
- Seventy-eight percent of workers commute in.
- Housing prices high.
- Traffic is heavy.
- · Direct rapid transit access limited.
- Few amenities in the office parks, especially restaurants/meeting spaces
- Small spaces for startups hard to find, and generally less desirable.
- Newton's current zoning process is long and unpredictable, but Charter Commission is underway and may help.
- Taxes equally high throughout Commonwealth.
- Natural resources often overlooked, e.g. Charles River difficult to access.

Threats

- National trend of urbanization, especially for 25-40 demographic. Due to housing costs, shorter commutes, amenities.
- Other Boston suburbs (e.g. Waltham, Burlington, other parts of Newton) and better known as locations for technology businesses.
- Strong research entities are usually anchors for innovation districts, as are entrepreneurs and support organizations.
- Funding for transportation infrastructure improvements, especially for rapid transit is extremely hard to come by; MBTA is highly strained, as is federal funding dependent upon gas tax.



Conclusions

In the last ten years, the economy has transformed rapidly. Digital technologies, talent-driven development, global markets/local and regional ecosystems, changing demographics (especially the impact of Millennials) and blending of industry sectors (IT and bio, manufacturing/bio/materials, etc.) have all impacted the elements of success that must be considered in developing an economic plan. A growing economy now demands talent, innovation, connections and networks, infrastructure and services, culture, governance, housing, development, and amenities that are different from what has been offered in the past.

In particular, the concept of an innovation district where talent, technology, and community converge to support a vibrant, entrepreneurial ecosystem, has emerged as a model for the integration of economic development, place-making, and social networks. The innovation district is in itself an indication of the changing preferences for urban areas over suburban regions, and for compact, transit-accessible, wired, and mixed-used communities among the emerging workforce. The challenge for Newton and Needham is to adapt this model for an area that has historically supported traditional suburban office parks.

The Greater Boston region has many assets to compete well in this transforming environment (talent, education, innovation, urban/suburban centers, diversity, infrastructure, leading companies and entrepreneurs, and venture capital) and is a known brand globally for the innovation economy. Kendall Square in Cambridge and the Boston Innovation District on the South Boston waterfront are examples of urban innovation districts. And, within the Greater Boston Region, there is a lot of competition among suburban regions, communities and districts for investment, with Waltham and Burlington taking the lead.

What does this mean for the N² Corridor?

While the N² Corridor has some ingredients of what it takes to compete and participate in the regional ecosystem (e.g., educated population, leading companies, proximity), more needs to be done. Transformative thinking, approaches, process, and actions are needed. Specifically:

- The Greater Boston area has experienced strong growth for several decades, and as a result, its economic development infrastructure is less mature than in regions that are struggling to compete. In addition, there is little coordination among the cities and towns and state government with regard to attracting and retaining companies, innovative or otherwise. Some basic building blocks for economic development attraction and retention need to be put into place.
- Since the Greater Boston area already has an innovation image, and other suburbs are better known as places for innovative companies to locate, a major challenge for the N² Corridor is to elevate its visibility as an innovation district—however, this must be authentic, not just an image. If N² wants to be an innovation district, rather than just a place where older technology companies move, then it needs to fill in the gaps with the elements commonly associated with such a district, namely innovators, entrepreneurs, and research entities. Fortunately, N² can borrow from and build upon existing assets nearby.
- A huge asset for the N² Corridor is the high educational attainment of the Newton-Needham population, the high proportion of foreign-born residents, and the high levels of innovation as evidenced by patents. Although this population is older, these residents currently work for many of the companies the N² Corridor would likely target to

- attract. And, the residents appear to be quite entrepreneurial, although they currently don't stay in the area when they gain scale in their companies. This is therefore an opportunity to **keep these entrepreneurial residents closer to home** rather than having them commute away every day.
- Talent is a prerequisite for attracting, retaining, and creating companies in the N² Corridor, but Newton and Needham's aging population means that companies need to be able to attract younger workers. However, high housing prices and lack of direct rapid transit service to N² Corridor means that companies that want to attract Millennial workers to the area are having difficulty. There is a definite trend for young, highly educated professionals to opt to live in more urban areas such as Cambridge and Somerville, not suburban areas like Newton and Needham. The trend towards urbanization is due to both the greater number of cultural and recreational amenities in cities, and tighter networks. So, to be competitive, the N² Corridor will need to develop its networks, and add to its amenities, in addition to tackling the housing and transportation challenges.
- These challenges are regional, not confined to a single city or town, partially because the N² Corridor straddles the border of Newton and Needham, and because it's a relatively small area. There is not currently an entity or organization whose charter is to promote and develop the N² Corridor. In order to make this plan work, all concerned need to come together to contribute to its success.

Principles

There are a number of key principles that should govern how Newton and Needham should react:

- Because economies are regional, success requires leveraging regional assets. Since the Greater Boston area has many assets and a good brand for success in the innovation economy, it's critical to work with, and not against the region. However, developing the N² Corridor 's competitive position within the regional economy as a local innovation ecosystem is required.
- Ecosystems are based on relationships and trust. Trust is the currency that builds success. Therefore, the ecosystem must foster relationships, networks, and trust through cultural and recreational amenities, infrastructure, programs, services, and operations.
- The organization(s) that manage this process and projects (Chamber, municipalities, institutions) must themselves be innovative to build trust and to design and implement transformative offerings for the market.
- This includes innovatively addressing issues that contain or support entrepreneurial/innovation ecosystems:
 - Quality, connected places transportation, infrastructure, housing, mixed-use development, cultural and recreational amenities, open spaces, pedestrian connections, interesting gathering places.
 - Governance processes land/use and permitting, working together seamlessly (municipalities, Chamber, institutions, stakeholders), thinking regionally.
 - Marketing and communications for an innovation identity.
 - Connecting and supporting entrepreneurs and businesses.



Recommendations

Vision

The Task Force adopted this vision statement for the N² Innovation Corridor:

The N^2 Innovation Corridor is home to an increasing number of innovative businesses—new and established, large and small. It features a mixed-use community with retail, office space and open space integrated with housing and nearby transit, providing an affordable and desirable place to create, prosper, and adapt to an evolving business climate. The N^2 Corridor will become increasingly recognized as a destination for investment by innovation-driven industries and will enhance the quality of life in the Newton-Needham region by providing nearby employment, tax revenues, and educational, entertainment, recreational, and cultural amenities.

Goals

The Task Force agreed that there needs to be an Initiative to achieve the vision, and its six goals should be:

 Attract and retain innovative and growing companies in priority industries.

An essential goal is to attract new innovative and growing companies to the office parks in the N² Corridor. It makes sense to target the priority industries that are already present in order to build up the networks and interconnections that come from denser clusters of businesses that share workforce, infrastructure, and other needs. However, this should not be done at the expense of

existing companies, so actions to retain the companies already here are also needed.

2. Encourage entrepreneurship within the N² Corridor.

Entrepreneurship is a key part of being an innovation district, so encouraging entrepreneurs to start their companies here, especially in the priority industries, will support the networks, increase the vibrancy of the area, and ultimately will grow companies that can fill the office parks. There is an opportunity to build upon the innovative workforce in Newton and Needham and also the local students who are interested in entrepreneurship.

3. Attract, create, or partner with nearby research entities to serve as an anchor for the N² Corridor.

To be a true innovation district requires an anchor to spur the development of new ideas, potentially support the acceleration of a priority industry, attract an educated workforce, and act as a focal point for innovation. That anchor could be a research institute associated with a Boston-based institution of higher education or teaching hospital, or related to an international university looking for a Boston base. It could also be an industry-based research entity, managed for a single company or for a consortium.



4. Create a mixed-use community with infrastructure and amenities that attract diverse groups of people.

Since the Newton-Needham area has small numbers of younger workers, and local priority industry companies report difficulties recruiting these workers to the N² Corridor, it is essential to create a community that responds to the emerging desires to live, work and play in the same place.

5. Forge an innovation identity.

The N² Corridor needs to create its own identity as an innovation district within an innovative region, and rise above the noise created by the Greater Boston area in general and other suburbs in particular. The district is not isolated from the communities that encompass it—it is an innovation corridor within an innovative community.

6. Build capacity to accomplish the vision and goals.

In order to accomplish these goals, the capacity to act must be developed, with the people, funding and determination to make the vision happen.

Mission

This following is a mission statement for an N^2 Initiative to accomplish the above goals:

The mission of the N² Innovation Corridor Initiative is to promote targeted, sustainable, and well-planned development within the Corridor for the benefit of the Needham-Newton region and its residents, businesses, educational institutions, and community organizations.

Action Plan Matrix

The Action Plan Matrix on the following pages lays out the detailed strategies and actions needed to accomplish each of the six goals for the N² Corridor. For each action, the key partners are listed, along with the priority level, timeframe, associated costs, and metrics for measuring the desired outcome. The matrix is organized by goal.

Go	al 1: Attract and	retai	in innovative and growing companie	s in priority	industr	ies.		
	Strategy		Action	Key Partner(s)	Priority Level	Timeframe	Costs	Outcome Metric(s)
	Design and implement a business attraction program targeting companies and entrepreneurs	1.1.1	 Develop an economic development–focused website that is separate from but linked to the Chamber, the City of Newton, and the Town of Needham. Populate and keep the website up to date with focused information on events, opportunities, assets, and successes in the N² Corridor and within the two communities. Provide information and data relevant to companies, entrepreneurs, developers, and the real estate community to consider investment in the N² Corridor including demographic, socioeconomic, and workforce data; infrastructure and utilities; taxes and incentives; zoning, land use regulation, and permitting policies and practices; local and regional innovation, quality of place assets; and available sites and buildings. See Goal 5. 	N ² Initiative	High	3-12 months	\$20-35K for initial development; plus operational \$ for ongoing updating and maintenance	Website created
1.1	that are gaining capital and looking to grow, and fit with the targeted industry profile of N ² and the Greater Boston Region	1.1.2	 Develop an online database and integrate with website to highlight sites and buildings with the N² Corridor that are available for lease or sale. Develop pilot database that highlights available sites and buildings within the corridor populated with a sampling of sites and buildings provided by willing real-estate partners. Start small in terms of information provided an include at a minimum: description, address/location, photos, for rent/lease or for sale, contact and web address for further information. Partner with property owners and commercial brokers to populate and keep database up to date as well as for marketing sites. Form working group among partners to assess and maintain and expand as appropriate. Market available sites and buildings highlighted on the website through newsletters and social media. 	N ² Initiative, real estate partners (brokers and owners)	Medium	6-18 months	\$10K for initial development and integration with website	Online database created and integrated with website, maintenance protocol and procedures in place among partners

		1.1.3	Utilize digital tools to support marketing for business attraction including social media and digital newsletters.	N ² Initiative	Medium	Ongoing	4-6 hours per week of staff time	Social media posts; newsletters sent
		1.1.4	Produce marketing cut sheets promoting assets and opportunities that make the case for investment in the N ² Corridor. Cut sheets will reside on the web but can also be printed and bundled within custom attraction packets.	N ² Initiative	Medium	3-6 months then going update and maintenance	\$10K for initial development	Cut sheets produced within common design portfolio
		1.2.1	Secure a lead generation/attraction/site location firm to develop qualified business leads (companies and developers interested in expansion or relocation to Great Boston) and engagement strategy. Follow up on leads with a business attraction team N ² staff.	N ² Initiative	Medium	1 year	\$30-50K for initial effort	Leads generated and followed up
1.2	Market to national and international site selectors, developers, and companies to increase their awareness of opportunities in the N ² Corridor	1.2.2	Network and build relationships with Greater Boston companies, entrepreneurs, and stakeholders that complement existing companies and assets within the N² Corridor (i.e. fit with priority industries and an innovation/entrepreneur focus). • Implement an outreach strategy that includes public relations, social media, etc. within the Boston region to inform about vision, assets, opportunities, happenings and success stories in the N² Corridor. • Become actively involved in Greater Boston economic development related networks. Attend and host events to develop and strengthen relationships and increase awareness of the N² Corridor's opportunities and strengths.	N ² Initiative	Medium	Ongoing	Professional operating costs	
		1.2.3	Work with state and regional business attraction partners to target national companies in priority industries and fit with innovation/entrepreneur focus seeking to locate in Boston/U.S. Start by informing partners of the N ² Initiative and work plan and development of protocol for business attraction process.	N ² Initiative	Medium	Ongoing	Professional operating costs to work with and follow up on site location/lead generation plus funding for trade missions	Leads generated and followed up

		1.2.4	Work with state and regional business attraction partners, e.g. trade missions, to target international companies in priority industries and fit with the innovation/entrepreneur focus who are seeking to locate in Boston/U.S. Continue to leverage and strengthen Israeli connections and use as a model for engaging other global regions.	N ² Initiative; Jewish Community Center	Medium	Ongoing	Professional operating costs to work with and follow up on site location/lead generation plus funding for trade missions	Leads generated and followed up
		1.2.5	Track connections, leads, and contacts developed and maintain a database for use in marketing, promotion, and follow-up, as well as evaluation of efforts.	N ² Initiative	High	Ongoing	\$5K for database development in year 1, professional operating costs to work with and follow up on site/lead generation	Database developed
1.3	Support the growth and retention of existing companies in the N ² Corridor Note: These strategies can be supported by the website and digital tools/methods outlined above.	1.3.1	Lead the development, coordination, and support of a formal business visitation program for the ongoing identification of existing business and property owner needs and concerns. This should be a formalized business visitation process/program that focuses on obtaining strategic information, utilizing that information for business assistance and support services, tracking results, and improving the planning and delivery of economic development including revising the economic plan as needed. Since a formal program currently does not exist, the first year should focus on developing a framework and testing the implementation for full implementation.	N ² Initiative, City of Newton, Town of Needham	High	1-year pilot, then ongoing	\$5-10K for initial framework process and database development; professional operating costs to work with and follow up	Visits conducted, results tracked, and follow-up results
		1.3.2	Celebrate existing businesses, entrepreneurs, and stakeholders within the N ² Corridor. Report through communications, marketing and promotion efforts on what businesses are doing. Results will shape further actions.	N ² Initiative, Chamber	Medium	Ongoing	Professional operating costs	Number of businesses showcased

	1.3.3	Continue to improve the business climate with regard to interactions with businesses, property owners, and developers by working with municipalities to collectively understand and ensure that zoning, permitting, and approvals processes are streamlined and predictable. Utilize business visitations and ongoing communications with business and property owners to identify needs and concerns and actions for ongoing improvement.	N ² Initiative, City of Newton, Town of Needham, Chamber	High	Ongoing	Professional operating costs and process costs;	
	1.3.4	Communicate regularly with targeted messages to businesses within the N ² Corridor regarding improvements, plans, events, and opportunities.	N ² Initiative, Chamber	High	Ongoing	Professional operating costs	

GC	ar 2: Encourage	entre	epreneurship within the N ² Corridor.		Duicuit			Outcome
	Strategy		Action	Key Partner(s)	Priority Level	Timeframe	Costs	Outcome Metric(s)
		2.1.1	Host speaker series, lunch-and-learns, etc. in the N ² Corridor focused on entrepreneurship through partnership with Olin, Babson, Mount Ida, Cambridge Innovation Center, MassChallenge, etc.	N ² Initiative or partnership with entrepreneurial organization or local universities	Medium	Ongoing	Minimal	Number of attendees Number of joint events
		2.1.2	Hold startup weekends, hackathons, business plan competitions, pitch contests, meetups, etc. in the N ² Corridor.	N ² Initiative or partnership with entrepreneurial organization or local universities	Medium	Ongoing	Minimal	Number of attendees Number of joint events
	Engage Newton and	2.1.3	Celebrate entrepreneurial success by giving awards and recognition to fast-growing companies in the N ² Corridor. Market these achievements.	N ² Initiative	Medium -High	Annual event	\$15,000	Number of attendees Number of nominations for awards
2.1	Needham entrepreneurs	2.1.4	Organize an N ² Angel group or attract an existing group to the N ² Corridor to make investments, leveraging high net worth in Newton and Needham.	N ² Initiative	High	Ongoing	Minimal, space to meet	Investments made in Newton and Needham startups, both number and dollar value, by sector
		2.1.5	Hold weekly programming focused on educating, engaging, and connecting entrepreneurs in the N ² Corridor, e.g. One Million Cups (visit www.1millioncups.com).	N ² Initiative or partnership with entrepreneurial organization	Low	Ongoing	Minimal, space to meet	Number of attendees Number of joint events
		2.1.6	Build a mentor network in the N ² Corridor to mentor local entrepreneurs, including student entrepreneurs.	N ² Initiative or partnership with entrepreneurial organization N ² Initiative	Medium	Ongoing	\$0-\$50,000 for staff to manage; could be lower if partnership	Number of mentors Number of companies with mentor relationships

		2.1.7	Engage the Israeli entrepreneur community to market to local entrepreneurs as well as entrepreneurs thinking about relocating to Greater Boston. Work with this population to help them tell their own stories better and reach broader audiences.	N ² Initiative; Jewish Community Center	High	First six months	\$0-\$50,000 for staff to manage	Number of Israeli entrepreneurs attracted to the N ² Corridor
		2.1.8	Engage existing large tech companies in the N ² Corridor to partner with local entrepreneurs and students.	N ² Initiative	Low	Ongoing	Staff time	Number of new partnerships
		2.2.1	Host a student business plan competition in the N ² Corridor.	N ² Initiative	Medium	Annual	\$0-\$50,000 for staff to manage, \$10,000 for cash prize	Number of student teams
2.2	Leverage relationships with Olin, Babson, and Mount Ida	2.2.2	Develop an internship programs that connects students with local entrepreneurial companies.	N ² Initiative	Medium	Annual	\$0-\$50,000 for staff to manage	Number of interns Number of companies participating Number of permanent jobs found afterwards
		2.2.3	Engage with the Babson College Entrepreneurial Ecosystem Project (BEEP).	N ² Initiative	Low	Ongoing	Minimal	Advice given
2.3	Create a coworking or community space in the N ² Corridor	2.3.1	Work with developers to open a coworking space and/or community space. In the short term, lease currently vacant space and/or recruit an existing coworking company to open a facility in the N ² Corridor.	N ² Initiative	High	ASAP – this would be the location for all the events, meetings suggested in 2.1 and 2.2	Staff cost to get this going; should pay for itself	Square footage of space available for coworking Number of coworkers Number of events held in space

Goal 3: Attract, create, or partner with nearby research entities to serve as an anchor for the N² Corridor.

	Strategy		Action	Key Partner(s)	Priority Level	Timeframe	Costs	Outcome Metric(s)
3.1	Run a competition for the universities to bid on with a developer	3.1.1	Assemble a task force to accomplish this goal, as detailed in Action 6.2.2.	N ² Initiative	High	First six months	Staff time	Task force created
		3.1.2	Open discussions with Harvard, MIT, Boston College, Olin, and other higher educational institutions in the region regarding research institutes that may be in planning stages and could be located off-campus.	N ² Initiative	High	First year	Staff time	R&D in the N ² Corridor Patents awarded
		3.1.3	Open discussions with teaching hospitals, e.g. Longwood.	N ² Initiative	High	First year	Staff time	Publications in peer-reviewed journals Number of
		3.1.4	Consider inviting an Israeli university that might be interested in a satellite campus.	N ² Initiative	High	First year	Staff time	spin-off companies Number of employees
		3.1.5	Initiate a marketing campaign promoting the importance of this goal.	N ² Initiative	High	First year	Staff time, modest investment for paid ads	Earned and paid media, website hits, social media metrics

Goal 4: Create a mixed use community with infrastructure and amenities that attract diverse groups of people.

	Strategy		Action	Key Partner(s)	Priority Level	Timeframe	Costs	Outcome Metric(s)
4.1	Create a physical "hub" for the Corridor	4.1.1	Work with developers, municipal departments, etc. to develop a physical hub for the N ² Corridor that incorporates open spaces, a transportation plaza, coworking/community meeting space, restaurants, outdoor gathering places, and connections to the Charles River.	City of Newton, Town of Needham, development community	Medium	2-3 years	Staff time	Hub created
4.2	Improve availability of affordable housing options	4.2.1	Pursue affordable housing options in the N ² Corridor that align with municipal plans.	City of Newton, Town of Needham	Medium	Ongoing	Staff time	Number of affordable units located in the Corridor
		4.2.2	Ensure land use regulatory environment accommodates and fosters innovative approaches to design of mixed-use spaces, (e.g. allow for development of "micro units," charge permit fees and other fees by size of units rather than number of units, allow for high design quality infill).	City of Newton, Town of Needham	Medium	Ongoing	Staff time	Number of total and affordable housing units
		4.2.3	Draw attention to housing projects through marketing and promotion of the N ² Corridor and communities. Market that there is capacity for housing along the Needham Street corridor.	N ² Initiative	Medium	Ongoing	Staff time	Number of residents living within the Corridor
		4.2.4	Support transit-oriented development (TOD) aligning commercial and residential projects with improved transportation options.	City of Newton, Town of Needham, development community	Medium	Ongoing	Staff time	Number of residents living within the Corridor

		4.3.1	Merge shuttle services into a single natural gas- or electric-powered "circulator bus" that runs frequently and serves all office parks and retail centers. Consider subsidy so these are free to riders.	N ² Corridor businesses, 128 Business Council, City of Newton, Town of Needham	High	First year	Cost of operations	Number of riders
		4.3.2	Create second entry into Wells Avenue Business Park to ease congestion.	City of Newton	Medium	1-2 years	Significant investment	Entrance completed
4.3	Improve transportation options	4.3.3	Support walkability and bikeability through improved pedestrian and cycling connections with Eliot and Newton Highlands T stations, Needham Heights commuter rail station, and within the N ² Corridor itself. Leverage the Upper Falls Greenway for use as a multimodal right-of-way.	City of Newton, Town of Needham	Medium	Ongoing	Cost of infrastructure	Number of workers commuting on foot and by bicycle
		4.3.4	Create a unique solution for which the N ² Corridor is a testbed. Reach out to Google, Uber, TransitX, the 128 Business Council, and others that are working on innovative transportation solutions to develop a new transit option. Work towards implementing the concept plan for Massachusetts Rapid Bus.	N ² Initiative	Low	1-2 years	Staff time	Solution implemented
11	Expand dining/entertainment	4.4.1	Expand dining options within Needham Crossing and Wells Avenue Office Park. Encourage food truck vending, especially during lunch hours.	City of Newton, Town of Needham, business community	Medium	Ongoing	Cost of attracting restaurants	Number of restaurants
7.7	dining/entertainment offerings and other amenities.	4.4.2	Create spaces and amenities throughout the N ² Corridor where workers can gather and socialize outside of work, such as entertainment venues, pubs, etc.	City of Newton, Town of Needham, business community	Medium	1-2 years	Cost of attracting businesses	Number of amenity businesses
4.5	Leverage the natural features of the N ² Corridor as a competitive	4.5.1	Develop trail connections along the Charles River, Nahanton Park, and Cutler Park to create a "river walk." Repurpose the unused rail bridge across the river between Christina Street and the river walk for pedestrian access.	City of Newton, Town of Needham	Medium	3-5 years	Significant investment	River walk created
	competitive advantage over urban locations.	4.5.2	Expand infrastructure for canoeing and kayaking in the Charles River, such as additional boat launches. Market these recreational opportunities to N ² Corridor employees and residents.	City of Newton, Town of Needham	Low	3-5 years	Significant investment	Infrastructure expanded

		4.6.1	Undertake streetscape improvements, including traffic calming measures, branded banners, consistent wayfinding signage, etc.	City of Newton, Town of Needham	High	First year	Significant investment	Streetscape improvements completed
4	Create a visible br and identity for th 6 N ² Corridor through	e 4.6.2	Draw attention to existing historic buildings and attractive streetscapes through urban design initiatives and interpretative signage.	City of Newton, Town of Needham	Low	Ongoing	Significant investment	
	urban design improvements	4.6.3	Consider "out-of-the-box" ideas to give the N ² Corridor an identity and further its culture of innovation, e.g. digital kiosks at transportation hubs and public spaces displaying local community art.	N ² Initiative	Medium	Ongoing	Cost of installations (digital kiosks cost about \$5K each)	

Go	al 5: Forge an ir	nova	ntion identity.					
	Strategy		Action	Key Partner(s)	Priority Level	Timeframe	Costs	Outcome Metric(s)
5.1 ch		5.1.1	Form a tech team to support efficient collaboration for digital marketing of the corridor. The team's goal should be to identify opportunities for automation and linking between websites and other digital marketing. Start with an IT asset mapping exercise and develop a strategy for collaboration.	IT and marketing leaders from Chamber, Newton, Needham	High	Immediate	Staff time	Team created and agreement on how to coordinate and meet moving forward
	Build social	5.1.2	Revamp the N ² website into the go-to digital platform for innovation news and community engagement in order to create and curate ongoing buzz about innovation in the N ² Corridor and its location within the Newton/Needham communities with all the amenities they offer. Website features may include available sites/properties, events calendar, transit locator, social media stream, blog, links to innovation resources, job opportunities, district map, etc.	N ² Initiative	High	3-12 months	\$20-35K for initial development; Staff time for ongoing management	Website created. Number of events listed in calendar, number of visitors to site, bounce rate
	infrastructure and channels for communication and engagement	5.1.3	Create innovation-specific email lists and develop newsletter-style templates for each email list with similar branding. Design the templates to provide short blurbs or brief high-level information with click-through to the website for more information and/or articles.	N ² Initiative	High	First year, ongoing	Staff time	Templates created. Subscribers, open rate, click rate
		5.1.4	Create social media accounts dedicated to promoting, engaging, and learning about innovation in the N ² Corridor and its location within the Newton/Needham communities with all of the amenities they offer.	N ² Initiative	Medium	First year, ongoing	Staff time	Followers, engagement with posts
		5.1.5	Develop a news strategy. Strengthen relationships with conventional media to encourage coverage of the N ² Corridor and its companies. Use Twitter to engage directly with local and regional traditional media outlets. Identify individual reporters who cover business / entrepreneurship / innovation and regularly engage with them online and in person.	N ² Initiative	High	Ongoing	Staff time	Number of earned media articles

5.2	Clarify and confirm the identity and brand for the N ²	5.2.1	Reach consensus on retaining N ² as the brand for the innovation district, fitting with the message of an "innovation district within the Greater Boston innovation ecosystem." Consider the development of an iconic visual image.	Chamber, Town of Newton, City of Needham	High	3 months	Minimal cost for consensus process;	Consensus on the elements of the brand and strategy for implementing	
3.2	Corridor as a place		5.2.2	Once consensus on the N ² brand is achieved, promote the communities as a whole as an innovation ecosystem within the Greater Boston ecosystem. Market the N ² Corridor as the innovation hub within the fluid local and regional innovative environment.	Chamber, City of Newton, Town of Needham	High	1-2 years	\$10-15K for design & marketing support	
	Be innovative as an organization and foster an innovation culture	5.3.1	Physically embody innovation within the N ² Corridor (e.g. use Big Belly solar products, Soofa benches).	City of Newton, Town of Needham	Medium	1-2 years	Cost of products or installations	Number of partnerships with innovative businesses	
5.3		5.3.2	Encourage all businesses and organizations to interact in innovative ways. Encourage creativity and challenge businesses to innovate. (e.g. host a competition that challenges real estate developers to submit out-of-the-box site plans for new development.)	N ² Initiative	Medium	Ongoing	Staff time		
		5.3.3	Tell the innovation stories; become the spokesperson for innovation, not just business.	N ² Initiative	Medium	Ongoing	Staff time	Stories told	

G	oal 6: Build capa	city t	o achieve the vision and goals.					
	Strategy		Action	Key Partner(s)	Priority Level	Timeframe	Costs	Outcome Metric(s)
6.1	Develop a collaborative partnership with the stakeholders for the N ² Initiative to	6.1.1	Finalize a stakeholder asset map that identifies each stakeholder, their interest in/relationship to the N ² Corridor, and their key contact information. Maintain and update regularly for new/updated contacts.	Chamber, Needham, Newton	High	Immediate	Minimal	Stakeholder asset map created; contacts list kept and maintained
	oversee and help implement the N ² Corridor Vision	6.1.2	Communicate results of the N ² Corridor Plan and invite each stakeholder to continue involvement in the implementation of the plan and commit to keeping them informed on opportunities for engagement and progress.	Chamber, Needham, Newton	High	Immediate	Minimal	
6.2	Develop and maintain organizational/service delivery structure and capacity for the implementation and ongoing operation of the N ² Initiative according to the vision and mission developed in this plan	6.2.1	Create a leadership team among the three founding entities (Chamber, City of Newton, Town of Needham) to lead the initial implementation of the organizational/service delivery structure and capacity. This team will work with advice from the N ² Corridor Plan Committee to finalize the organizational framework and structure, initial operational work plan, and budget/funding model.	Chamber, Needham, Newton	High	3 months	Time for meetings and deliberations plus professional advisory services (e.g. legal, financial) as warranted	

		6.2.2	 Define, clarify, and solidify core organizational component roles: Leadership Team – Continuation of initial leadership team representatives (Chamber, Town of Needham, City of Newton) plus representative from any investing partner organization(s) and businesses. Advisory Team – A balanced board of advisors representative of the major partners and stakeholders including businesses and property owners within the N² Corridor; entrepreneurs; the real estate and development community; service providers for entrepreneurship, innovation, and economic development; and residents within the N² Corridor. Working Groups/Task Forces – Created as needed to advise on specific defined task areas/issues and can be drawn from advisory and leadership teams and supplemented with additional persons. This might include task areas such as marketing and communications, resource development, innovation/entrepreneurial support and development, business/investment attraction, and business visitation. 	N ² Initiative Leadership Team	High	3-6 months	Time for meetings and deliberations	
		6.2.3	Make an initial hire to lead the N ² effort. Hire additional staff as warranted and funding becomes available.	N ² Initiative Leadership Team	Medium	First year	Staff salaries and related costs	
	Secure and maintain sufficient funding for	6.3.1	Obtain initial investment from founding partners and stakeholders (Needham, Newton, Chamber, businesses within corridor, and willing stakeholders) to support start-up and capacity building for plan implementation and initial operations. Ideally funding should be secured for the first three months of start-up and operations.	N ² Initiative Leadership Team	High	1-3 months	Time for deliberations	
6.3	initial start-up capacity building and for ongoing operations	6.3.2	Assess and secure as possible funding for ongoing operations of the district to carry out the work plan seeking a sustainable mix among partner appropriations and businesses and property owners in the Corridor. Examine among options within the mix: appropriations from Needham and Newton, Business Improvement District (BID) assessments on businesses and property owners, fees for services/events, fundraising campaigns to support long-term plan implementation.	N ² Initiative Leadership Team	High	First year though second year	Time for research and deliberations, plus professional time for outreach and fund raising	

Implementation Timeline

The following Gantt chart shows a quarterly schedule for implementing the actions presented in the Action Plan Matrix. Whereas the Action Plan Matrix organizes actions by goal area, this Gantt chart orders actions in terms of urgency and priority, with the most urgent, highest priority tasks presented first. Action numbers can be cross-referenced against the Action Plan Matrix for additional detail. The color of the boxes in the chart represents the priority level of the action, with darker shades indicating higher priority levels.

	Implementation Timeline								
Action Number (see Action Plan				(Qua	rte	r		
Matrix)	Matrix)				4	5	6	7	8
6.1.1	Finalize stakeholder asset map								
6.1.2	Communicate results of the N ² Corridor Plan								
6.2.1	Create leadership team								
6.2.2	Define, clarify, and solidify organizational roles								
6.3.1	Obtain initial investment from founding partners and stakeholders								
3.1.1	Assemble a task force to attract a research entity								
5.1.1	Form tech team to support digital marketing								
5.2.1	Reach consensus around the N ² brand								
6.2.3	Make an initial hire to lead the effort								
6.3.2	Assess and secure possible funding for ongoing operations								
1.1.1	Develop economic development-focused website								
1.2.5	Track leads in a database								
1.3.3	Work with municipalities to continously improve business climate								
1.3.4	Communicate regularly with targeted messages to businesses								
5.1.2	Revamp website as the go-to digital platform								
5.1.3	Create email lists and newsletter templates								
5.1.5	Develop a news strategy								
5.2.2	Promote the Corridor as an innovation hub								
1.3.2	Celebrate existing businesses through promotion efforts								
1.1.3	Utilize digital tools to support marketing for business attraction								
1.1.4	Produce marketing cutsheets								
4.2.4	Support transit-oriented development								
4.4.1	Expand dining options, attract food trucks								
5.1.4	Create social media accounts								
5.3.3	Tell innovation stories								

Action Number	Action Description			(Qua	rte	r		
(see Action Plan Matrix)	Action Description	1	2	3	4	5	6	7	8
1.3.1	Develop and implement a business visitation program								
2.1.4	Organize an angel investor group								
2.1.7	Engage Israeli entrepreneur community								
3.1.2	Open discussions with higher educational institutions								
3.1.3	Open discussions with teaching hospitals								
3.1.4	Consider inviting an Israeli university								
3.1.5	Initiate a marketing campaign promoting research entity attraction								
4.6.1	Undertake streetscape improvements, including signage								
2.1.1	Host speaker series, lunch-and-learns, etc.								
2.1.2	Hold startup weekends, hackathons, meetups, etc.								
1.1.2	Develop online site selection database								Г
4.3.1	Merge shuttle services								
5.3.2	Encourage creativity and challenge businesses to innovate								
1.2.1	Select a firm to develop qualified business leads								Г
1.2.2	Network with Greater Boston companies								
2.1.3	Hold annual awards event for entrepreneurs								
2.1.6	Build a mentor network serving local entrepreneurs								
2.2.2	Develop internship programs								Г
4.2.2	Ensure land use regulations foster innovative design								
4.6.3	Install unique features, e.g. digital kiosks, public art, etc.								
2.3.1	Open a coworking space								Г
1.2.3	Work with partners to target/attract national companies								
4.2.1	Pursue affordable housing options								
2.2.1	Host a student business plan competition								Γ
4.3.2	Create second entry into Wells Avenue Business Park								
4.4.2	Create spaces and amenities for gathering and socializing								
5.3.1	Physically embody innovation within the Corridor								
2.1.5	Hold weekly programming focused on entrepreneurs								Г
2.1.8	Engage existing large tech companies to partner with entrepreneurs								
2.2.3	Engage with Babson College Entrepreneurial Ecosystem Project (BEEP)								
1.2.4	Work with partners to target/attract international companies								
4.2.3	Market residential projects								
4.5.1	Develop trail connections, including a "river walk"								
4.1.1	Create a physical hub for the Corridor								
4.3.3	Improve pedestrian and bicycle connections								
4.3.4	Use the Corridor to test a unique transportation solution								
4.5.2	Expand infrastructure for canoeing and kayaking								
4.6.2	Draw attention to existing historic buildings and streetscapes								

Additional Guidance

Starting a Business Visitation Program

Development of a business visitation program is listed in the Action Matrix as Action 1.3.1.

A business visitation program is about making connections with businesses within the community to understand their needs and further engage them in the economic development effort for business retention and expansion (BR&E) as well as networking and promotion. Through discussions with business leaders, this program should seek to understand constraints and opportunities of existing businesses, their plans for growth, and constraints on that growth. In particular, it should consider workforce needs, buildings and space, innovation goals and challenges, infrastructure needs (i.e. water, sewer, and power), regulations, taxes, and incentives. The program should seek to understand their supply chains and critical networks and ask what specific companies or types of businesses they would like to see have a local presence. Findings from the business visitation program can also be used as topics for future economic development newsletters and in social media posts.

Actions

- 1. Develop a business visitation team from within the economic development community to assist with getting this program started (team of about 6 to begin). This can be built upon as the program is tweaked and proving successful, but it is important to start small.
- 2. Identify businesses to visit. Resources will not be available to visit all businesses each year so an annual target list should be developed that represents a variety of types and sizes of businesses which can reasonably be visited given staff resources. This can then be supplemented by larger group

- meetings open to all businesses. Focus first on targeted industry sectors.
- 3. Develop visitation questions. Keep the questions simple and short, and focus on information that will be used. This can be provided electronically to the business prior to the visit,
- 4. Conduct business visits. Review questions, document answers, get to know the business and business owners.
- 5. Tabulate and analyze the results.
- 6. Act upon anything that can easily be addressed to meet businesses' needs.
- 7. Share results with stakeholders. Develop or adjust strategies to address issues or concerns and then implement new strategies.
- 8. Utilize as topics for future economic development newsletters and in social media posts.
- 9. Revise the program as warranted and repeat.

Suggestions

There is no one best method for conducting a business visitation program. Some common "best practice" themes include:

- Running the program through partnerships with multiple economic development-related entities to share the work, cost, and information, and avoid overlap.
- Using surveys that capture key information but are not overly burdensome to business.
- Conducting immediate follow-up to resolve any issues identified by the businesses.



- Integrating findings into ongoing strategic economic development planning and evaluation.
- Utilizing software to make the process more efficient and operationalize results.
- Training volunteers that become involved in the program.

Inspiration

- Stafford Virginia Makes information available about the program and its purpose on the website, includes partners in visits, and has a pre-meeting questionnaire that is also available on the website.
 - http://www.gostaffordva.com/existing-businesssupport/business-retention-expansion-bre/businessvisitation-program/
- Oak Forest, IL Lays out the case for the purpose of the program on website, using data to support businesses but also as part of economic development planning. http://www.oak-forest.org/201/Retention-Expansion
- Colorado Springs Utilizes Synchronist software to support the effort.
 - http://www.coloradospringsbusinessalliance.com/library/Economy Weekly/Report Copies/10-9-13 Issue3.pdf

Building Organizational Capacity to Achieve the Vision and Goals

The following strategies related to building organizational capacity appear in the Action Plan Matrix:

- 6.1 Develop a collaborative partnership with the stakeholders for the N^2 Initiative to oversee and help implement the N^2 Corridor Vision
- 6.2 Develop and maintain organizational/service delivery structure and capacity for the implementation and ongoing operation of the N^2 Initiative according to the vision and mission developed in this plan
- 6.3 Secure and maintain sufficient funding for initial startup capacity building and for ongoing operations

Organization of the Collaborative Partnership

The N² Initiative should be a collaborative partnership among the City of Newton, the Town of Needham, and the Chamber to promote, build, and support the N² Corridor as an innovation district and ecosystem within the Greater Boston Region, according to the vision and mission established in the plan.

The N² Initiative will be a unique organization that blends a place-based focus (a distinct area with design features, amenities, connections) with economic development (real estate, business, workforce development) to support entrepreneurs within an innovation ecosystem that it is, uniquely, adjacent to but not within the boundaries of an urban core.

Each partner would continue its own initiatives that support their core purposes such as community development (municipalities), overall business development and B2B (Chamber), etc.; but, the three partners should come together through a collaborative partnership for the propose of developing, supporting, and promoting the innovation district.

Achieving the Vision of an Innovative Place



The effort should have its own leadership team, advisory team, and also utilize working groups or task forces.

- Leadership Team Continuation of initial leadership team representatives (Chamber, Town of Needham, City of Newton) plus representatives from any investing partner organization(s) and businesses
- Advisory Team A balanced board of advisors representative of the major partners and stakeholders including businesses and property owners within the N² Corridor; entrepreneurs; the real estate and development community; service providers for entrepreneurship, innovation, and economic development; and residents within the N² Corridor
- Working Groups/Task Forces Created as needed to advise on specific defined task areas/issues and can be



drawn from advisory and leadership teams and supplemented with additional persons. This might include task areas such as marketing and communications, resource development, innovation/entrepreneurial support and development, business/investment attraction, and business visitation

Each partner would have a role in funding and governance; but, would maintain a focus distinct from its regular operations so as not to get subsumed in its own day-to-day operations. The partners' collaborative efforts would be driven by the vision, goals, and strategies developed in the plan for the N² Corridor. This should incorporate support from stakeholders through open engagement and communications including:

- Businesses within the N² Corridor including lead anchor companies, as they benefit from a place-based innovation ecosystem through talent attraction and retention
- Property owners
- Entrepreneurs, innovators, and investors
- Real estate community including realtors and developers
- Innovation/tech support assets, e.g. MassChallenge
- Residents within N² Corridor

The Chamber can be the administration and management agent of the N^2 Initiative under contract subject to agreement/consensus from the partners; but, the functions and decision-making should be distinct from regular Chamber functions.

Over time and based on the success of the collaborative effort, the partners should consider extending the partnership to serve as the regional economic development initiative delivering economic development services that covers the Needham and Newton geographies and any others that become part of the Chamber service area.



Funding Mechanisms

Pursuing sustainable funding is listed in the Action Matrix as Strategy 6.3.

There are several funding programs and incentive mechanisms available that should be considered for funding the various initiatives laid out in this plan.

Business Improvement Districts

A Business Improvement District (BID) is a special assessment district in which property owners vote to initiate, manage, and finance supplemental services or enhancements above and beyond the baseline of services already provided by their local city or town governments. A special assessment, or common area fee, is levied only on property within the district. The assessments are collected and expended within the district for a range of services and/or programs, including marketing and public relations, improving the downtown marketplace or city/town center, capital improvements, public safety enhancements, and special events. A BID creates a stable local management structure that provides a sustainable funding source for the revitalization and long-term maintenance of downtowns and city/town centers. The goal of a BID is to improve a specific commercial area by attracting customers, clients, shoppers and other businesses.

Establishing A BID

Communities are authorized to establish BIDs under M.G.L. Chapter 40O. A BID must be a contiguous geographic area in which at least 75% of the land is zoned or used for commercial, retail, industrial or mixed uses. A BID is established through a local petition and public hearing process. The petition must be signed by the owners of at least 60% of the real property and at least 51% of the assessed valuation of the real property within the proposed BID. The petition

must also include delineation of the BID boundaries, a proposed improvement plan, budget, and assessment/fee structure.

Eligible Activities

A BID is authorized to perform a wide variety of management, administrative, marketing and economic development activities, including:

- **District Management** management entity with staff
- Maintenance street cleaning, snow removal, litter & graffiti removal, washing sidewalks, tourist guides
- Promotion and Marketing identification of market niche, special events, brochures, advertising, newsletters
- Business Services business recruitment and retention, sign
 & façade programs
- Capital/Physical Improvements streetscape improvements, management of parking garage, maintaining parking shelters, historic preservation

For more information on BIDs, consult http://www.mass.gov/envir/smart growth toolkit/pages/modbid.html.

District Increment Financing

The Commonwealth of Massachusetts offers the District Increment Financing Program (DIF), a public financing alternative available to all cities and towns in Massachusetts. DIF enables municipalities to fund infrastructure and development projects by allocating future, incremental property tax revenues collected from a predefined geographic area (DIF district) to pay project costs. Each district must have a unique development program,

A DIF district is established by a municipality through a public meeting process. The municipality funds the development program,



either by using taxes as collected or by borrowing against incremental property taxes. No new taxes are levied because of the District, and DIF does not reduce or redirect baseline property revenues. In other words, the increase in property taxes paid (the increment) as a result of the infrastructure improvements being made, is used to fund the improvements, while the baseline property taxes (tax revenue before the DIF was implemented) continue to be used by the municipality for general purposes.

DIF could be a useful mechanism to fund a broad array of projects within the N^2 Corridor, including infrastructure improvements, land assembly, amenities, market-rate and affordable housing, and workforce training. Newton and Needham would each need to enact separate DIF districts.

Tax Increment Financing

Under Tax Increment Financing Program (TIF), landowners within a designated TIF Zone may be granted property tax exemptions of up to 100% of the tax increment. It provides a direct upfront benefit to a property developer in the form of tax relief, thereby defraying part of a project's construction costs. Depending on the size and location of a project, developers utilizing TIF benefits can also access other state financial incentives such as Investment Tax Credits, Abandoned Building Tax Deductions, and Research and Development Tax Credits.

There is an existing TIF agreement between the Town of Needham and Normandy for the Center 128 development (former General Dynamics site) within Needham Crossing. The agreement offers the developer a property tax exemption on a portion of the increment in exchange for the creation and retention of an agreed upon number of jobs as well as project investment amounts. This agreement could be used as a model for other redevelopment sites within the N² Corridor.

For more information on DIF and TIF, please consult the following resources:

- http://www.mass.gov/envir/smart growth toolkit/pages/mod
 -diftif.html
- http://www.massdevelopment.com/assets/pdfs/districtimprovementfinancing brochure.pdf

Community Preservation Act

The Community Preservation Act (CPA) enables municipalities that have adopted it to generate funds for open space, historic preservation, and affordable housing. Both Newton and Needham have adopted the CPA. It imposes a surcharge of not more than 3% of the tax levy against real property. The revenues are held in a local Community Preservation Fund, which can be used for various projects. The CPA could be a potential source of revenue for various N² project initiatives. These funds are typically used for capital projects, rather than operations.



Factors for Economic Development Implementation Success

- Trust internally and externally amongst the economic development partners
- Process and procedures to help build trust
- Leadership qualities within the organization including among the board and stakeholders. These include: adaptability and strong leadership in periods of chaos or uncertainty
- Engagement among the board, committees, and among the many stakeholders and networks; Building capacity for functioning within a system composed of many networks and building leadership capacity for economic and community development among multiple organizations and networks through partnerships, alliances, and initiatives
- Open and active communications among the partners
- Ability to respond and adapt to changes in the external environment
- Building capacity and resources for business intelligence, working smarter – data, research, digital technologies, and information resources
- Incorporating new funding models and reducing reliance on government entities
- On-going assessment and evaluation for continual improvement and effective/efficient use of funding

Appendices

Under separate cover are seven appendices containing the supporting research conducted to develop this Economic Development and Marketing Strategy.

- Appendix A: Situation Assessment
- Appendix B: Innovation Assessment
- Appendix C: Economic Base Analysis
- Appendix D: Priority Industry Analysis
- Appendix E: Real Estate and Land Use Analysis
- Appendix F: Peer Set Analysis
- Appendix G: Strategic Plan Survey Results

Leading action to grow your economy

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