NEW ENGLAND REGIONAL DEFENSE INDUSTRY COLLABORATION

THINK-TANK WORKSHOP REPORT

June 13, 2019





NEW ENGLAND REGIONAL DEFENSE INDUSTRY COLLABORATION

THINK-TANK WORKSHOP REPORT

This report summarizes the planning session held in Devens, Massachusetts on June 13, 2019. Approximately 25 New England Regional Defense Industry Collaboration members participated in the Think-Tank and developed the scenarios presented in this report. This report has been produced as part of the New England Regional Defense Industry Collaboration initiative which aims to coordinate the growth of defense-related businesses across the six-state New England region. The initiative will result in an action plan which will serve to develop 'once voice' for the regional Collaboration.

June 13, 2019

Report Prepared by:

future→iQ®

Create **Future Intelligence**®

Think-Tank Hosted by:

NEW ENGLAND REGIONAL DEFENSE INDUSTRY COLLABORATION

This report was prepared under contract with the State of Vermont, as fiscal agent for the New England Collaborative, with financial support from the Office of Economic Adjustment, Department of Defense. The content reflects the views of the New England Collaborative and does not necessarily reflect the views of the Office of Economic Adjustment, the U.S. Department of Defense, or the participating states.

TABLE OF CONTENTS

This report was prepared under contract with the State of Vermont, as fiscal agent for the New England Collaborative, with financial support from the Office of Economic Adjustment, Department of Defense. The content reflects the views of the New England Collaborative and does not necessarily reflect the views of the Office of Economic Adjustment, the U.S. Department of Defense, or the participating states.

1.0 INTRODUCTION

In 2018, the states of Vermont, Connecticut, Maine, Massachusetts, New Hampshire and Rhode Island were awarded a joint grant from the U.S. Department of Defense's Office of Economic Adjustment (OEA) to create The New England Regional Defense Industry Collaboration. The Collaboration will coordinate the growth of defense-related businesses across the six-state New England region. The primary goals are to aid small and midsize businesses in meeting new cybersecurity requirements for businesses participating in the defense industry supply chain, as well as to create a trusted supplier network that makes it easier for large defense contractors to locate smaller suppliers that are able to meet their production, certification and process requirements.

The New England Regional Defense Industry Collaboration Think-Tank workshop took a 'deep-dive' into emerging trends and explored scenarios for the future of the regional economy and new and existing defense clusters.

The six New England states' economic development leaders, as well as private and public leaders representing the New England region have formed a steering committee to manage the New England Regional Defense Industry Collaboration. Being organized as one voice, New England will be better positioned to:

1. Take advantage of the concentration of assets available throughout the 6 states such as a strong ecosystem of small businesses, highly educated workforce and universities that provide a steady supply of talent;
2. Improve the region's supply chain, as regional collaboration will provide access to a greater number of markets and access to services not available in their home state;
3. Engage in cross-border problem solving which can lead to significant efficiencies and the ability to pool resources to address opportunities that could otherwise be out-of-reach to an individual state.

The New England region contains an important concentration of defense industry suppliers. It contains the operations of a large number of Tier One suppliers as well as a wide range of Small and Medium Sized Enterprises (SMEs) that provide parts, assemblies and services to support the deliveries of the Tier One providers. The opportunity for the Department of Defense, the six states, and the regional supply network, lies in establishing a framework that creates and enhances the functioning of the network across the entire region.

This scenario-based Think-Tank report summarizes the New England Regional Defense Industry Collaboration Think-Tank workshop that took place on June 13, 2019. The Think-Tank used a scenario planning approach to assist stakeholders in their understanding of the potential implications of various collaborative options and to explore the synergies in adjacent sectors. The Think-Tank provided the opportunity for stakeholders to explore how different futures could impact different locations within the 6 states of the New England Regional Defense Industry Collaboration.

2.0 FORCES SHAPING THE FUTURE – MACRO TRENDS

The Think-Tank provided a forum for participants to explore four areas of emerging macro trends and forces of change shaping the future of the regional economy and defense clusters in the New England region. Perceptions around the nature of impact of these trends, both in terms of size and timing of impact, were explored to gauge how important participants consider the trends. Participants discussed the emerging trends on global, regional and local scales, and related them directly to the New England regional defense industry in terms of how well prepared they considered themselves.

Emerging global trends will have an outsized impact on regional areas in the United States. How the Collaboration retains its relevancy will depend on its agility, responsiveness, inclusiveness, and forward-looking perspective.

Specifically, the trend areas were:

- Demographics, population, mass urbanization and shifting power
- Technology, and the next industrial revolution

Of particular relevance to the discussion on trends is the speed and scale of change occurring. Newly developed innovations are being implemented globally and locally at all scales, thereby changing the face of industries and society in a rapid and profound way. Manufacturing is at the forefront of this transformation, but other industries are also quickly developing such as agriculture, health care, biomedical research, infrastructure, energy, transportation and mobility, shipping and logistics, food services, hospitality, financial services, and retail.

FutureInsight

FUTURE INSIGHTS:

- In the face of accelerating speed of change, the key to resiliency is the ability to anticipate change and remain agile.
- The emerging macro trends represent both 'headwinds' and 'tailwinds' for the future of the New England Regional Defense Industry Collaboration. Being able to leverage the opportunities offered by these trends will be critical.
- Rapid advancements in technology provide significant opportunities to transform the industry as it goes through the process of developing an integrated multi-disciplinary approach to industry technical solutions in the region.

Scenario planning provided a way to explore various plausible futures and consider the implications and consequences of different future pathways. This adds a richness and depth to the discussions about preferred future, and a consideration of the intended and unintended consequences.

3.0 SCENARIO-BASED THINK-TANK

The New England Regional Defense Industry Collaboration Think-Tank was conducted on June 13, 2019, at the Vicksburg Conference Room in Devens, Massachusetts. The workshop explored how the New England regional defense industry could evolve by 2030 and consisted of:

- A review of macro trends and the impact of these trends on the New England regional defense industry
- Overview of scenario planning and the scenario matrix
- Formulation of the different plausible scenario 'spaces' and development of detailed narratives and descriptions of each scenario
- Examination of the impact and consequences of each scenario on various collaboration options
- Identification of the preferred future and critical action steps to achieve the preferred future
- Strategy update on trusted supplier and cyber-security projects

The Think-Tank began with an in-depth presentation on future trends and global conditions before moving on to conduct scenario planning for the New England regional defense industry. Future iQ's scenario planning process provides a methodology from which to explore plausible futures and takes into consideration the implications of various future scenarios. The process aimed to:

- Deepen the understanding and examination of how external events and local conditions could shape decision-making
- Identify and understand the key influences, trends, and dynamics that will shape the industry looking out to 2030
- Create and describe four plausible long-term scenarios for the New England defense industry
- Begin exploring alignment around a shared future vision

The scenarios developed during this Scenario Planning process and outlined in this report are important to provide a framework to discuss future possible outcomes and implications for the New England regional defense industry. Workshop deliberations can assist in identifying key actions for the Collaboration and how various groups might best contribute to future developments.

FUTURE-SPLITTING QUESTIONS

The Future iQ scenario-based planning methodology is based on two key 'Future Splitting Questions' represented by the axes in the scenario matrix. Each axis represents a continuum with different future directions at each end.

4.0 CREATING THE SCENARIO FRAMEWORK

Based on research and key input from members of the Collaboration, themes were identified to become the basis for the two axes of the scenario matrix. Think-Tank participants were presented with the scenario matrix, defined by the two key 'Future Splitting Questions', and illustrated by the continuum of each axis. The axes were defined as **'Collaboration Focus'** and **'Technical Approach'** (see diagram). Brief descriptions were also attached to the end points of each driver axis.

A B

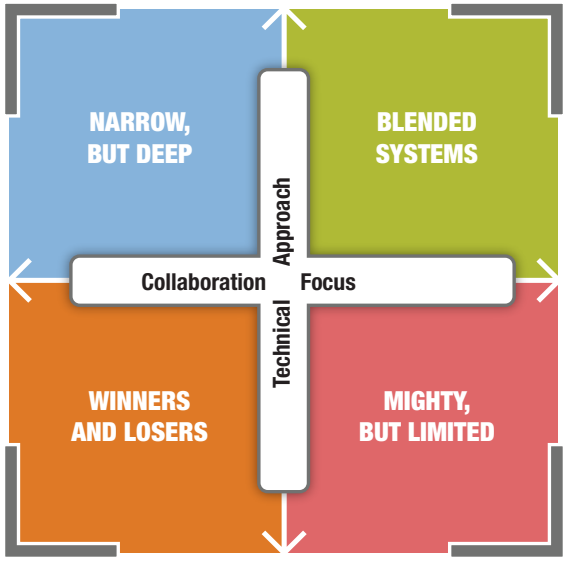
There is deliberate investment in developing an integrated multi-disciplinary approach to industry technical solutions. Resources are shared between technical clusters, and issues are explored in a systems-wide approach.

Multi-Disciplinary Approach

A

Some organizational collaboration occurs, but it is primarily focused within narrow geographic boundaries and sectors. Agencies only participate and collaborate within states, and industry remains in tightly configured clusters and sector focused supply chains.

Local Collaboration



Regional Collaboration

B

There is an intentional focus on region-wide collaborative efforts. Agencies reach across state boundaries seeking larger scale of collaboration. This encourages industry collaboration, both across sectors and within supply chains.

D

Single Discipline Approach

Key technical areas are dealt with separately, and within specific technical ecosystems. Deep investment is made in competency of each main area to develop excellence, but there is little significant overlap between disciplines.

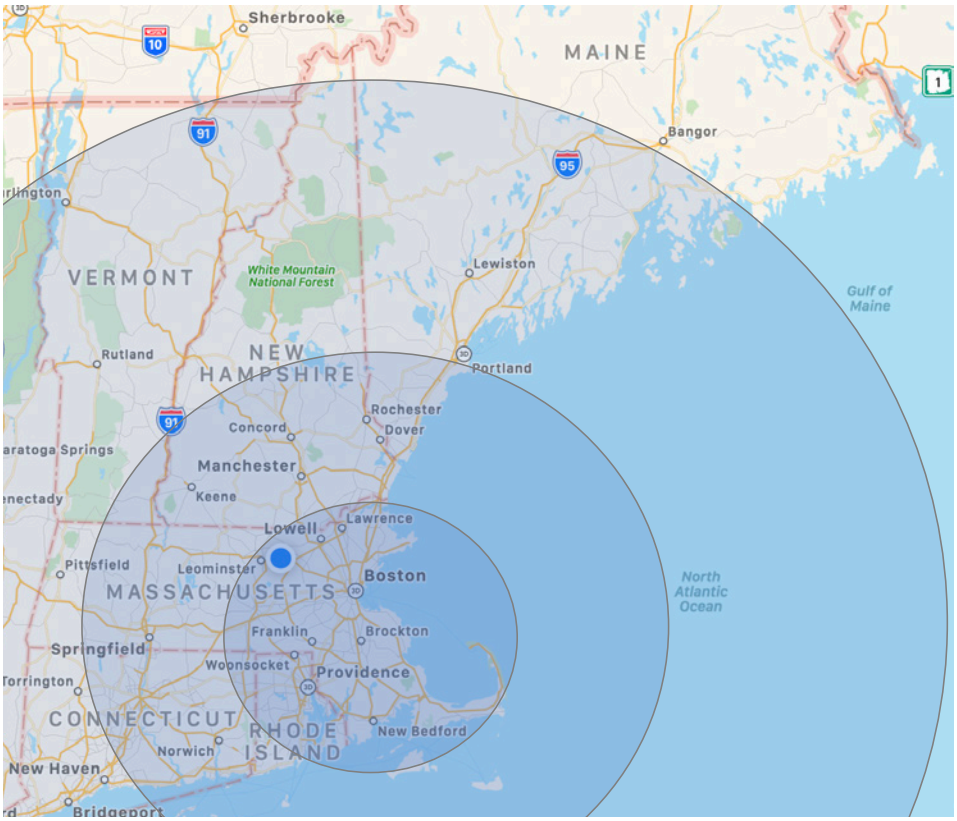
D C

C

The geographic location of each State in the New England Regional Defense Industry Collaboration has significant implications for access to resources, supply chains, workforce and industry reach.

GEOGRAPHIC ZONES OF THE NEW ENGLAND REGIONAL DEFENSE INDUSTRY

To better understand the impacts of collaborative decision-making for New England Regional Defense Industry stakeholders, Think-Tank participants were asked to consider the characteristics of each scenario in terms of geographic location within the New England region. The map below illustrates the three areas of 'Inner, Middle, and Outer' zones that were explored in the creation of each scenario description. Narratives and descriptions of each scenario as developed by the workshop participants are included in the following sections.



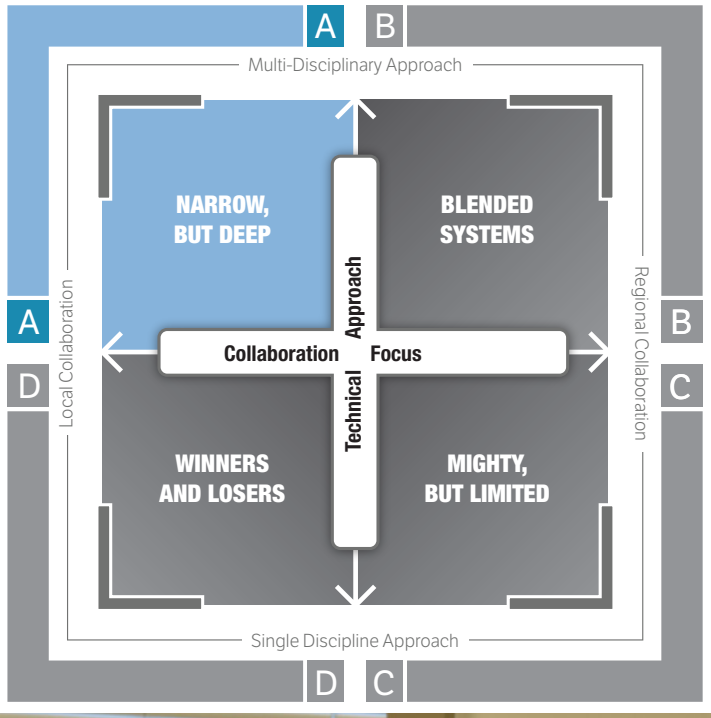
FutureInsight

FUTURE INSIGHTS:

- The New England defense industry is perfectly situated to take advantage of the massive arc of innovation around the Boston metropolis. This concept refers to the vitality and dynamic that occurs in the large multi-functional circles radiating out from large city centers.
- Combining the collective strength of each State in the New England defense industry will build local economies and add scale to the regional industry as a whole.

4.1 SCENARIO A: NARROW, BUT DEEP

This scenario forecasts a future where a multi-disciplinary approach is adopted to address New England defense industry technical solutions within each state in the Collaboration. Clusters deepen and systems broaden on a statewide basis. Inner region states have the advantage of already integrated systems and this creates disparities as outer regional businesses cannot easily access the intensified inner located shared resources. Collaboration between state agencies is limited to none making standardization difficult. States end up 'recreating the wheel' for local industry needs including skills training. State systems in the region become expensive, inefficient and duplicitous. Supply chains are fragmented and innovative small businesses without existing clusters chose to start up in states where collaboration is integrated across the industry and state lines.



The 'Narrow, but deep' scenario paints a future where industry clusters deepen and resources are shared within each state, but lack of collaboration with other states in the Collaboration prevents any mechanism for region-wide integration and standardization.

In the 'Narrow, but deep' scenario, the defense industry initially strengthens and deepens within each state as resources are shared and focused in tightly configured clusters. Eventually the lack of regional collaboration weakens the resiliency of the ecosystem.

SCENARIO A CHARACTERISTICS: Narrow, but deep – 2030

The characteristics of this scenario frame a future where defense industry clusters and sector-focused supply chains intensify within each state, but there is no regional connectivity. Resources are shared between technical clusters on a state-wide basis and this fosters growth in the short-term. Over time, lack of regional collaboration cuts off outer ring states and smaller businesses can't compete.

Industry Innovation and Collaboration Profile impacts

Implications by Geographic Zone

- **INNER:** More deep clusters with specific expertise form. Tight communication makes shared resources easy within sectors.
- **MIDDLE:** Resources are targeted and controlled. Innovation decreases as resources are lower and supply chains are limited.
- **OUTER:** No innovation is occurring as outside of the ecosystem. There is a parochial focus that limits collaboration opportunities.

Cybersecurity Systems Impacts

Implications by Geographic Zone

- **INNER:** Systems are more integrated within the geographic area. Inner core industries of the region are resource rich.
- **MIDDLE:** Compliance is spotty and some businesses chose to close. Standardization is not level and there is 're-creation of the wheel'.
- **OUTER:** The gap becomes wider as outer organizations cannot take advantage of shared resources. Training is tailored to local needs only.

Supply chain Configuration and Behavior Impacts

Implications by Geographic Zone

- **INNER:** More flexibility exists to share resources throughout the vertical supply chain.
- **MIDDLE:** Supply chain becomes more local as industry loses leverage. OEMs control supply chain.
- **OUTER:** Supply chain becomes more fragmented. Difficult to build new businesses and grow.

Workforce System and Profile Impacts

Implications by Geographic Zone

- **INNER:** Decreased skill growth occurs over time. Lack of qualified workers persists, and competition increases.
- **MIDDLE:** Workers are sought from the inner core of the region. Repeated skills training is expensive, inefficient, and duplicitous of effect.
- **OUTER:** Over time, the lack of skilled workers makes the industry unsustainable in the outer areas of the region.

2020 HEADLINE NEWS:

"Industry clusters deepen in New England region "

2025 HEADLINE NEWS:

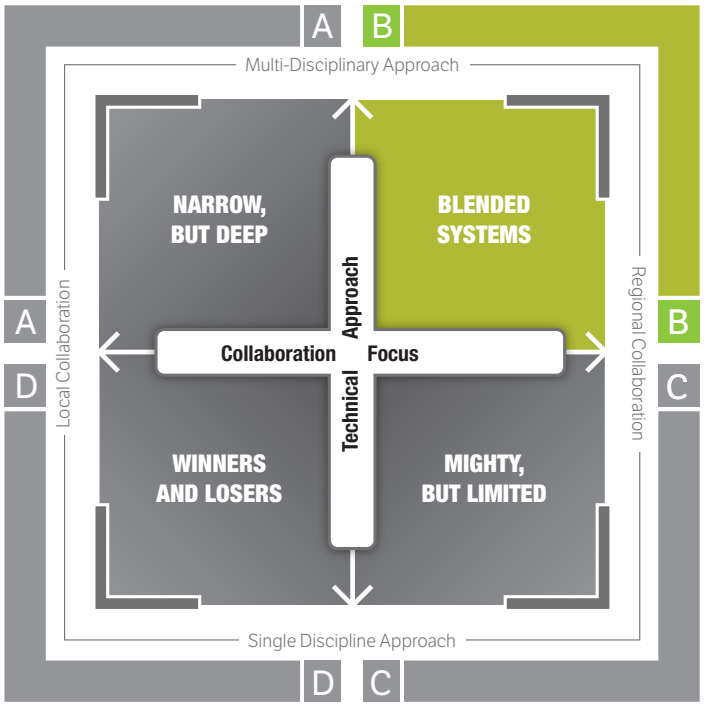
"Small businesses overwhelmed by cybersecurity regulations"

2030 HEADLINE NEWS:

"Fewer qualified people causes a workforce crisis in the industry"

4.2 SCENARIO B: BLENDED SYSTEMS

This scenario forecasts a future where the New England regional defense industry is highly collaborative, both across sectors and within supply chains, and there is an integrated multi-disciplinary approach to industry technical solutions. Systems across state lines are integrated and shared making standardization easy and affordable. Production booms and techniques using new technologies increase automation that serves to address workforce demands for skilled workers at all levels. Greater efficiencies provide valuable resources for accelerated innovation and business development. New channels for public-private partnerships open up as consolidation and expansion happens at the same time. Supply chains reach across the region allowing all states in the Collaboration to share in the success of combined efforts and this builds more resiliency into the regional defense industry.



The 'Blended systems' scenario paints a future where 'a rising tide lifts all boats'. Integration and sharing defense industry systems on a region-wide basis will build competitiveness and resiliency into the New England defense industry.

In the 'Blended systems' scenario, defense industry companies of all sizes are drawn into the success of systems-wide regional collaboration, and the New England defense industry achieves both national and international reach.

SCENARIO B CHARACTERISTICS: Blended Systems – 2030

The characteristics of this scenario illustrate the implications of taking a highly multi-disciplinary approach to industry technical solutions and combining it with a high level of regional collaboration throughout the defense industry in New England. The resulting consolidation caused by greater efficiencies and shared resources and automation creates room for tremendous innovation across the sector. Ultimately, the value of multi-disciplinary regional collaboration is that it will create shared solutions that attract additional resources including a much needed skilled workforce to the New England defense industry.

Industry Innovation and Collaboration Profile impacts

Implications by Geographic Zone

- **INNER:** Collaboration across state lines and within the industry is high. Knowledge and research are shared forcing accelerated innovation and business development growth.
- **MIDDLE:** New partnerships across state lines increase industry growth and production. Consolidation occurs as platforms expand and innovative systems are implemented.
- **OUTER:** Region-wide collaborative efforts increase production. There is a slight void in resources available for innovation farther away from the inner core.

Cybersecurity Systems Impacts

Implications by Geographic Zone

- **INNER:** Cybersecurity systems are deepened within the industry and costs are shared. Agencies seek to connect and standardize across the region.
- **MIDDLE:** Cybersecurity systems are integrated and shared allowing for expanded protection and industry growth.
- **OUTER:** Outer region businesses are included in regional efforts to standardize cybersecurity systems. Small businesses are less vulnerable.

Supply chain Configuration and Behavior Impacts

Implications by Geographic Zone

- **INNER:** A consolidated supply base focuses on new product and license application. New channels open for suppliers with a region-wide approach.
- **MIDDLE:** Supply chains expand to end-users with increased collaboration and regional integration. Industry sees significant growth. Suppliers market focus on legacy support.
- **OUTER:** Supply chain reaches edges of the region. Partnering for a specific purpose for short periods in other states in the region occurs.

Workforce System and Profile Impacts

Implications by Geographic Zone

- **INNER:** Demand is greater than workforce supply. Production techniques are developed to rely less on workforce and more on automation for greater efficiency.
- **MIDDLE:** Skills needed are both broader and higher level as industry consolidates. Automation dramatically increases production and focus is on coding and programming.
- **OUTER:** A multi-disciplinary approach creates greater efficiency across all states. Technical skills are highly valued and employment levels are at all time high.

2020 HEADLINE NEWS:

"Industry is blending to force and accelerate innovation"

2025 HEADLINE NEWS:

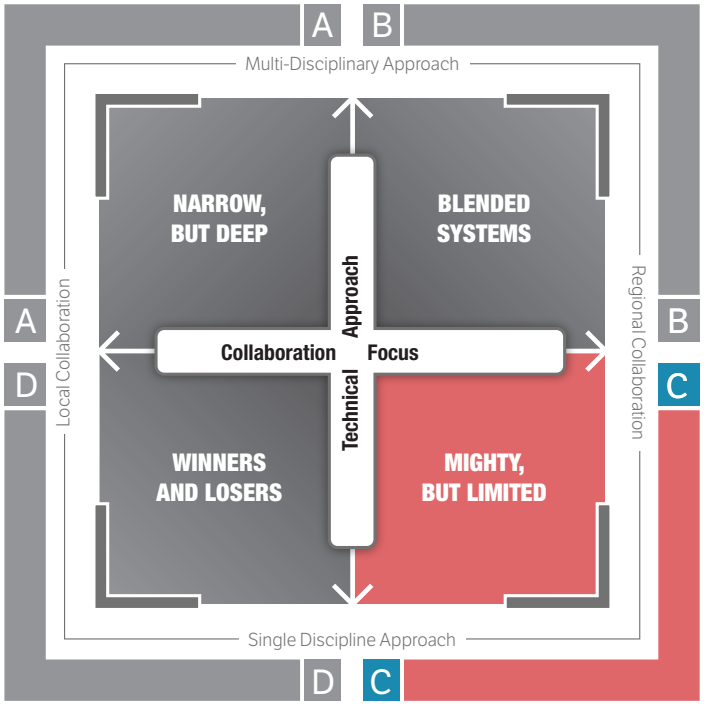
"Regional collaboratives established to broker partnerships"

2030 HEADLINE NEWS:

"What is 'cybersecurity? "

4.3 SCENARIO C: MIGHTY, BUT LIMITED

This scenario forecasts a future where a region-wide focus on collaborative efforts significantly deepens specific technical ecosystems within the New England defense industry. A single discipline approach to developing excellence in main technical areas sharpens competency and attracts specific workforce skillsets. Initially, the New England defense industry flourishes with the most qualified workforce in the world delivering top technology and maximizing economies of scale. Learning is shared and highly technical but over time, the lack of diversity prevents integration and coordination across disciplines and this creates gaps in the supply chain. The New England supply chain becomes less competitive than other regions and some companies move to have access to those systems. Eventually, the single-discipline approach limits growth and innovation opportunities within the industry, and new companies look elsewhere to have access to more complete systems.



The 'Mighty, but limited' scenario paints a future where a single-discipline approach to technical solutions severely limits the capacity of the New England defense industry to be agile and responsive to new trends and changes in the industry.

In the 'Mighty, but limited' scenario, gaps eventually appear in a supply chain that lacks flexibility and the ability to incorporate innovation and change across the industry.

SCENARIO C CHARACTERISTICS: Mighty, but limited – 2030

The characteristics of this scenario create the conditions of a defense industry that initially thrives with its deep single-discipline technical expertise and regional collaboration. However the narrow orientation of investment within disciplines eventually limits innovation and skills-transfer across disciplines and this hinders the industry's ability to respond to and incorporate new technologies and opportunities.

Industry Innovation and Collaboration Profile impacts

Implications by Geographic Zone

- **INNER:** Technical skills within each discipline are high. Less innovation and skills-transfer occur without collaboration across disciplines.
- **MIDDLE:** Strong incentives exist for collaboration, but a single discipline approach limits flexibility and creates silos. High intra-functions but not inter-functions.
- **OUTER:** Access to highly skilled, highly technical resources exist. A narrow-minded outlook limits growth and innovation opportunities.

Cybersecurity Systems Impacts

Implications by Geographic Zone

- **INNER:** Single discipline focus expands ability to deliver top technology and maximizes economies of scale.
- **MIDDLE:** The narrow focus of cybersecurity systems within disciplines provides the ability to leverage efficiencies.
- **OUTER:** Learning is shared but the region is found to suffer in the outlying areas.

Supply chain Configuration and Behavior Impacts

Implications by Geographic Zone

- **INNER:** Supply chain is less competitive as specialized players limit system delivery and diversity and restricts flexibility.
- **MIDDLE:** Supply chains are more competitive outside of the region. Cost savings are leveraged within specific technical ecosystems.
- **OUTER:** Better technical skills exist within supply chains, but there is less integration and coordination. Gaps appear in supply chain.

Workforce System and Profile Impacts

Implications by Geographic Zone

- **INNER:** Highly specialized workforce concentrated in the inner regional area. The region attracts highly qualified workers.
- **MIDDLE:** Region-wide collaborative efforts provide the space for greater mobility of a specialized workforce.
- **OUTER:** Specialized disciplines limit strategic focus. Workforce lacks diversity and holistic approach to innovation.

2020 HEADLINE NEWS:

"New England is the powerhouse on delivery"

2025 HEADLINE NEWS:

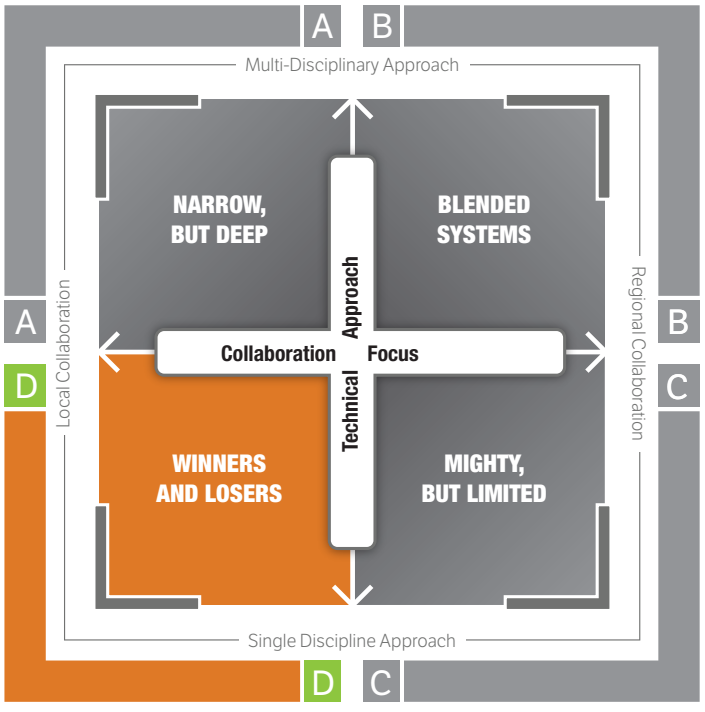
"Gaps appear in supply chain"

2030 HEADLINE NEWS:

"Companies move, unable to provide complete systems"

4.4 SCENARIO D: WINNERS AND LOSERS

This scenario forecasts a future where a single discipline approach to technical areas in the New England defense industry is applied on a State-by-State basis. Cybersecurity systems are in reactive mode and many businesses are left behind or drop out of the system unable to keep up with cyber compliance. Local collaboration is narrowly focused within specific State ecosystems and industry remains in tightly configured clusters and sector-focused supply chains. Regional collaboration is limited and resources are not shared between technical clusters. Intense specialization takes place within each State and there are definite winners and losers. Severe competition occurs for a narrowly skilled workforce and employees have their pick of employment options. Area industries struggle to find workers. The New England defense industry as a region or collaborative struggles to compete with other more holistic and connected regional systems.



The 'Winners and losers' scenario paints a future where the New England Regional defense industry pursues the status quo. Industry interests and initiatives remain locally focused and the region forfeits the advantages of collaboration.

In the 'Winners and Losers' scenario, eventually the entire New England regional defense industry ages out and becomes uncompetitive. Short-term gains for the few create an overarching spiral for the industry as it loses its competitive edge and ability to cope with the accelerations of change in the industry.

SCENARIO D CHARACTERISTICS: Winners and Losers – 2030

The characteristics of this scenario portray the New England defense industry as one where resources are shared locally and intense specialization occurs. Certain sectors become prominent and renowned for their specialization but the overall industry suffers, especially supply chains in the outer regional States. Many businesses are forced to move or close without a regional pipeline of workers, resources and supplies.

Industry Innovation and Collaboration Profile impacts

Implications by Geographic Zone

- **INNER:** Resources are localized and intense specialization occurs. Opportunities for collaboration within disciplines increase.
- **MIDDLE:** Innovation in regional specialty sub-sectors emerge. DOD changes policies on set asides.
- **OUTER:** Status quo operations discourage innovation and collaboration remains localized.

Cybersecurity Systems Impacts

Implications by Geographic Zone

- **INNER:** The system is in reactive mode. There are definite winners and losers in the search for resources. Industry maintains a consistent need for cybersecurity funding and training.
- **MIDDLE:** The system is in reactive mode, and small businesses begin to exit due to lack of ability to keep up with cyber compliance.
- **OUTER:** The system is in reactive mode and industry struggles with lack of resources. Many small businesses are left behind and drop out of the system.

Supply chain Configuration and Behavior Impacts

Implications by Geographic Zone

- **INNER:** Industry in the inner region pulls supply chain from the outer to inner ring.
- **MIDDLE:** Industry in the middle region pulls supply chain from outer to middle ring.
- **OUTER:** Outer ring needs better identification of the supply chain. Resources move towards highly clustered industry.

Workforce System and Profile Impacts

Implications by Geographic Zone

- **INNER:** Intense competition occurs for a narrowly skilled workforce. Employees jump from company to company.
- **MIDDLE:** In the short-term, workforce is shared at the local level but the existing workforce ages. Area industries struggle to find workers.
- **OUTER:** Outer region struggles and needs more recruiting efforts. Inward looking state orientation limits opportunities.

2020 HEADLINE NEWS:

"Train, recruit, train again"

2025 HEADLINE NEWS:

"Continued small business loses due to lack of cyber compliance"

2030 HEADLINE NEWS:

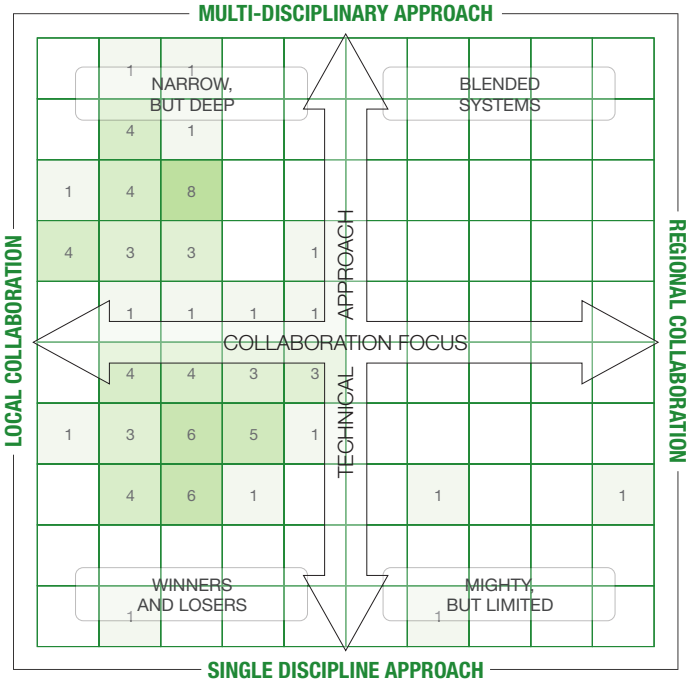
"Primes announce own supply chain initiative"

Combining the collective intelligence of the Collaboration and a future thinking perspective will energize the initiative to pivot to a collaborative multi-disciplinary approach to technical solutions in the New England defense industry.

5.0 EXPECTED AND PREFERRED FUTURES

5.1 EXPECTED FUTURE – SCENARIOS A AND D

The expected future is one deemed most likely to happen if there is no change in the current trajectory of the New England defense industry. Workshop participants generally indicated that Scenarios A and D, "Narrow, but Deep" and "Winners and Losers", were the scenarios they believed most represented the expected future for the New England regional defense industry. Participants discussed the challenges in the defense industry and how those figured into the tendency to remain stuck in the 'status quo'. The attendant issues of mass urbanization such as competition for a skilled workforce across all states and the human element of resistance to change are examples of significant barriers to overcome to be able to pivot from the expected to the preferred future.



FutureInsight

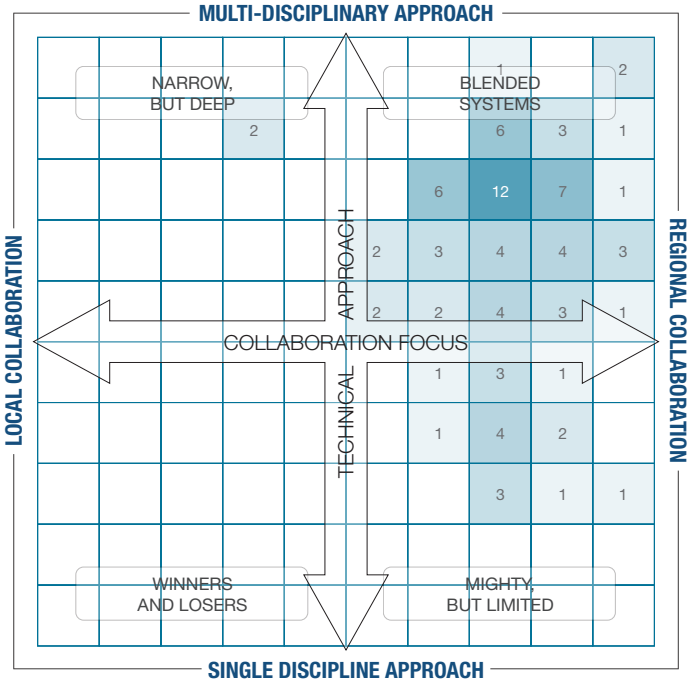
FUTURE INSIGHTS:

- In the face of accelerating speed of change, the key to resiliency is the ability to anticipate change and remain agile.
- Rapid advancements in technology provide significant opportunities to transform the industry as it goes through the process of developing an integrated multi-disciplinary approach to industry technical solutions in the region.

Given the speed of change occurring across industries, Scenario B, 'Blended Systems', was seen as the necessary vision for the region if it is to succeed and compete on national and international levels.

5.2 PREFERRED FUTURE – SCENARIO B – BLENDED SYSTEMS

While each of the scenarios were viewed as plausible, Think-Tank participants expressed a clear preference for one of the presented outcomes, Scenario B, "Blended Systems". Think-Tank participants discussed the consequences of inaction, and the need to move beyond individual State self-interested 'turf' perspectives to a more collective regional 'strength in numbers' perspective. Transparency, personal relationships with suppliers, and trust were considered essential to any plan for regional integration and consolidation. Participants also discussed the need for regional policy alignment, as current separate State regulations have the potential to limit forward action, especially between industry and agency.



FutureInsight

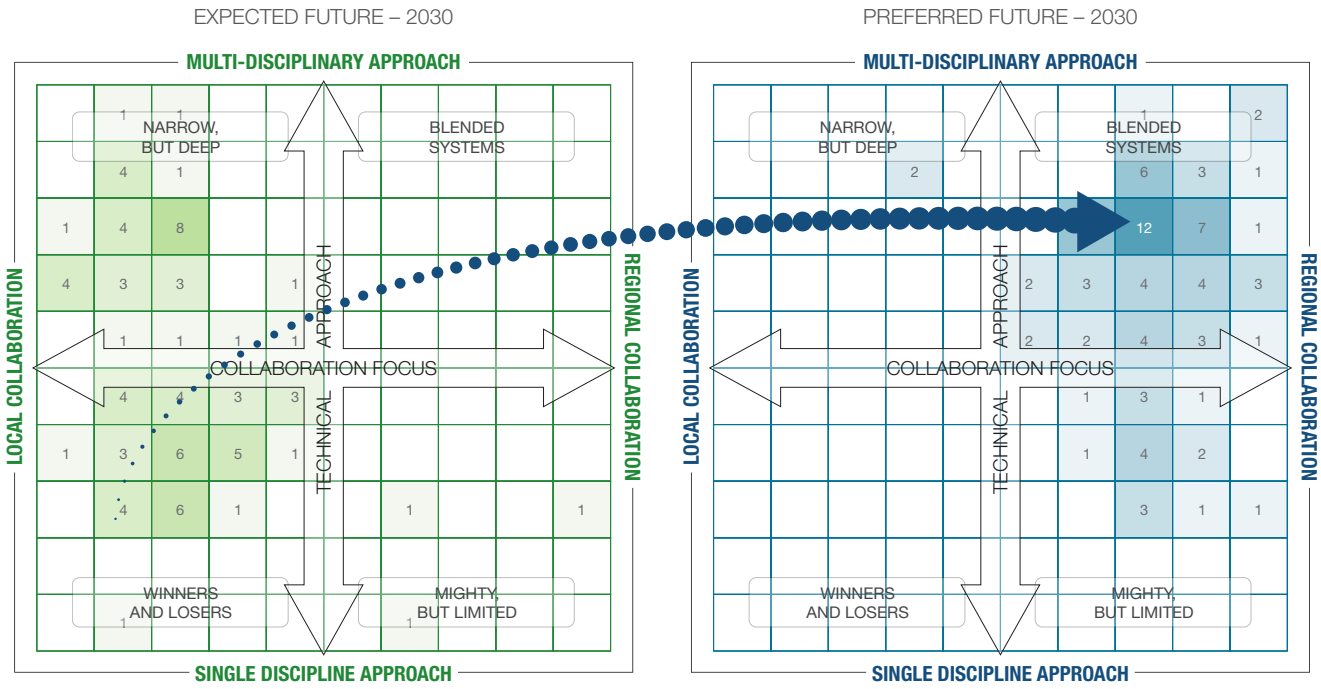
FUTURE INSIGHTS:

- The tight concentration of color in Scenario B, 'Blended Systems' indicates a close alignment of thinking among industry stakeholders.
- Given the definite preference for Scenario B, the New England Regional Defense Collaboration has been given a mandate to pursue collective action in that direction.

The scenario planning Think-Tank workshop represents the first step in building a collective vision and sustainable action plan for the New England Regional Defense Collaboration.

5.3 NEXT STEPS – GETTING TO THE PREFERRED FUTURE

Think-Tank participants discussed the ramifications and implications of failing to achieve the preferred future. While there was strong alignment among participants that Scenario B, "Blended Systems" represented the preferred scenario for the New England regional defense industry, it was also recognized that it will be necessary to leverage trends and opportunities that present themselves over time. It was noted that the transitional part of getting to the preferred future would be the most difficult aspect of the shift. Because of the long-term nature of the Scenario Planning methodology, stakeholders often see the 'distant future vision (2030)' as unattainable and unrealistic. However, this underestimates the progress that can be made during the intervening years, and the cumulative positive impacts of change.



FutureInsight

FUTURE INSIGHTS:

- In order for the states of the New England region to achieve their mutual goals in supporting their defense industries, critical resources and services must be made available on a regional basis.
- Clear communication and thought leadership will be required to show that regional collaboration with a multi-disciplinary approach will mean greater flexibility, resiliency, and ability to adapt to change across the New England defense industry and that this will bring greater power to the region.

The success of the New England Regional Defense Industry Collaboration will propel New England defense industry stakeholders into the forefront of U.S. defense industry leadership.

6.0 IMPLICATIONS FOR THE NEW ENGLAND REGIONAL DEFENSE INDUSTRY COLLABORATION

The results of the Think-Tank deliberations have significant implications for the New England Regional Defense Industry Collaboration. The challenge for the Collaborative will be to successfully transition the gap between the expected and preferred futures. The next six to twelve months will be critical to maintaining momentum and enthusiasm. The Collaboration will continue to meet on a monthly basis to accomplish the project's goals. Next steps include:

- Convene stakeholders to develop short and long-term plans
- Identify and build linkages and partnerships with defense clusters
- Network mapping
- Develop training and best practices information
- Sustainability planning

Integrated Facilitation/Project Design

"Leadership in the Knowledge Economy means keeping abreast of rapid change and charting a course for the future that ensures and retains economic viability and growth for communities and regions."

-Daniel Johnson, Leading Economic Development: A Toolkit for Public Officials and Civic Leaders, 2015.

FutureInsight

FUTURE INSIGHTS:

- Key to the success of the New England Regional Defense Industry Collaboration will be the continued engagement by all regional stakeholders. Consistent and effective communication, transparency and collaboration will encourage participation and a sense of ownership for all stakeholders.
- Although unforeseen events and opportunities may present themselves and cause readjustments along the way, a successful plan for the Collaboration must be sustainable for all stakeholders in the New England regional defense industry.

7.0 ACKNOWLEDGEMENTS

Future iQ would like to acknowledge the commitment and energy of the following members of the New England Regional Defense Industry Collaboration who attended the Think-Tank workshop.

Think-Tank Participants

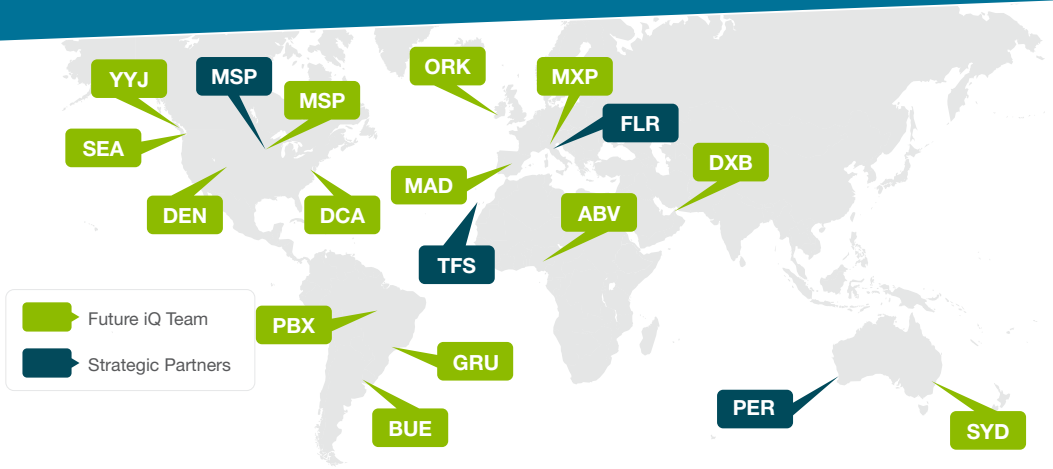
- Shawn Arbour — Kennebec Technologies
- Tom Conley — Maine International Trade Center
- Barbara Fernandez — State of CT, Dept. of Econ. & Community Development (DECD)
- Torrey Grey — Maine Department of Economic & Community Development
- Beatriz Gutierrez — State of CT, Dept. of Econ. & Community Development (DECD)
- Tina Kasim — NH Division of Economic Development
- Cynthia Lobikis — General Dynamics @ Bath Iron Works
- Brett Long — VT Department of Economic Development
- Brad Mingels — UMass/Lowell
- Carmen Molina-Rios — State of CT, Dept. of Econ. & Community Development (DECD)
- Brian Montanari — HABCO
- Margit Myers — Office of Economic Adjustment
- Nathanial Nelson — NH Division of Economic Development
- Anne Pierce — MassDevelopment
- John Riendeau — Rhode Island Commerce Corporation
- Brian Ward — Jewell Industries
- Paul Williams — VT Department of Economic Development

8.0 CONTACT DETAILS

For more information on the New England Regional Defense Industry Collaboration and the Think-Tank workshop, please contact:

David Beurle, CEO
Future iQ
Tel: 612.757.9190
david@future-iq.com

New England Regional Defense Industry Collaborative portal:
https://lab.future-iq.com/new-england-regional-defense-industry-collaboration/



9.0 ABOUT FUTURE IQ

Future iQ specializes in applying innovative tools and approaches to assist municipalities, organizations, regions and industries shape their economic and community futures. With nearly two decades of experience, the company has a global clientele spanning three continents. To learn more about Future iQ, and our recent projects **visit www.future-iq.com** or by email at **info@future-iq.com**

WORKSHOP AND REPORT PREPARED BY:

David Beurle

CEO, Future iQ

Heather Branigin

VP Foresight Research

Celine Beurle

Chief Operating Officer

Marc Rassel

Creative Director

future→iQ®

Create **Future Intelligence**®