Rhode Island Commerce Corporation
Request for Proposals
For
Defense Industry Economic Diversification
Request for Proposals

Title: Professional services in support of the RI Defense Industry Economic Diversification project
Submission Deadline: November 5, 2014 @ 2:00 PM (Eastern Time)

Section 1: Introduction

Rhode Island Commerce Corporation (Commerce RI) is soliciting proposals for professional services to assist in the DoD Office of Economic Adjustment (OEA) - funded STEAMengine Defense Industry Economic Diversification initiative. This is a Request for Proposals. Responses will be evaluated on the basis of relative merits of the proposals.

Section 2: Background

Commerce RI is looking to leverage the presence of the Naval Underwater Warfare Center (NUWC) and defense manufacturers in the state to plan and embark on a new model of supporting economic diversification. Specifically we are seeking to further plan and implement an effort that we call STEAMengine with a deep focus on the defense manufacturing sector. Overall STEAMengine is being designed to support manufacturers throughout the state in the pursuit of new approaches to manufacturing research, design, development, and market introduction. As we have been working to finalize the general business plan we recognized some of the unique circumstances and needs associated with our defense manufacturers and are therefore looking to support further exploration of those needs to allow STEAMengine to best serve the defense manufacturer market.

These actions come at a time when there are continued efforts to reshape our military and cut costs. Since fiscal year 2010, budgeting for defense procurement accounts has left much ambiguity as to the future of multiple weapons system programs. In this time, total budget authority for DoD procurement has declined by $68.7 billion or 29 percent. Further complicating an already uncertain picture is the fact that the current DoD FY 2016 - 19 budget plan calls for a total of $115 billion more than budget caps under the Budget Control Act (BCA). This difference between DoD's stated requirements and the underlying budget has created uncertainty in the defense supply chain not only in New England, but nationally. Given this situation, the State of Rhode Island wishes to continue its work to position itself to respond to actual and projected job loss and the economic impacts associated with budget reductions under the BCA as well as the Ryan-Murray budget agreement.

In order to prepare for these reductions Commerce RI intends to work with its defense manufacturing companies and neighboring states, Massachusetts and Connecticut, to develop a strategy that plans for the resulting community adjustments and creates an economic diversification strategy that lessens the state's and region's economic exposure to shifts in defense procurement. Commerce RI has already

been in discussions with Connecticut's OEA grantee, the Department of Community and Economic Development (DCED) and its project operator, the Connecticut Center for Advanced Technology (CCAT) about opportunities for ongoing collaboration in their Regional Aerospace and Defense Exchange (RADE) initiative. Commerce RI has also begun conversations with the Massachusetts Development (MassDev) agency about the work they are doing and opportunities for collaboration, and will be part of their stakeholders group.

Section 3: Scope of Work

Task 1: Data and Analysis

The Consultant will work with partners within Rhode Island and in Connecticut and Massachusetts to collect data and information that will inform the further development of the effort. The information will include:

- Analysis of where DOD spending reductions will have the greatest impact on the state's defense manufacturing companies;
- Creation of a Rhode Island defense industry supply chain map to determine upstream and downstream risks due to budget cuts and other issues;
- Review and identification of defense companies that are solely reliant on defense spending and categorization by degree of reliance of other defense companies; and
- Coordination and development of an ongoing data and analysis system to serve as an early warning system of future issues, in collaboration with CCAT and the *RADE* initiative.

This data and analysis work will be performed with oversight from Commerce RI and guidance provided by the Advisory Board comprised of partners and industry representatives.

Task 1 Deliverable: A database and reports that illustrate weaknesses within the defense company ecosystem and make recommendations on how to focus the efforts described in the other tasks. All partners will be provided access to this information via a password protected web portal.

Task 2: Network Development

Commerce RI will engage with partners in the creation of a diverse network of defense manufacturers, service providers and other stakeholders. This network will be designed based on direct identification of the needs and challenges that an organized network can tackle. In the planning conversations held around the general industrial design and manufacturing center concept, some of the challenges identified have included:

- A need to transition existing products to new markets through a design change,
- Identification of cost reduction opportunities through better-designed products and sourcing of new materials, and
- Development of capacity to perform rapid prototyping of new product lines through use of advanced equipment (e.g. 3D printers).

Network participants will include individuals and organizations working in fields that can serve the needs described above and those defined in Task 1. At first, participants will be recruited through networking events that will include presentations on the role and benefits of STEAMengine participation. Interaction between defense manufacturers and service providers will be fostered through utilization of an innovative matchmaking technique that directs meeting participants to individuals with shared interests/ opportunities. As part of the matchmaking, Commerce RI will populate the contact and profile

information of participants on a web-based system (Commerce RI will work with CCAT and MassDev to avoid any redundancy in database construction). Currently two efforts are underway in RI to develop seamless connectivity between directories to allow defense manufactures and others to readily connect with needed resources.

As the network becomes solidified, Commerce RI will explore the creation of a fee for service network to allow for the creation a long-term sustainability plan that will support activities after the Department of Defense funding is utilized. This will create sustainability in the program long after the OEA grant has expired.

Task 2 Deliverable: Creation of a plan and early formation of a defense contractor and stakeholder network consisting of a "Constant Contact" list for easy dissemination of information sharing.

Task 3: Model and Pilot of Design Readiness Assessments for Defense-related Manufacturing Industry

Commerce RI's initiative, STEAMengine, will deliver a Design Readiness Level (DRL) Assessment service package that allows defense manufacturers to identify transition opportunities through the use of a design thinking approach to their operations. This service package will allow the STEAMengine team to assign a DRL – similar to the commonly used Technology Readiness Level (TRL) definitions. The assessment will aid defense manufacturers in understanding the scope and applicability of design and related innovation in the manufacturing process both existing and future.

The Consultant will work with small and medium manufacturers, and a regional university (to be identified) that is focused on design to assist in the development and validation of a Design Readiness Level Assessment process. This process is envisioned to allow defense related manufacturers the opportunity to engage with a team that will review and develop a set of recommendations utilizing a design-thinking approach that may include:

- How to reduce costs through materials use, system efficiencies and enhanced sourcing;
- Opportunities to utilize existing capacity and equipment to manufacture and offer products and services to non-defense related market sectors; and
- Approaches to develop new product lines that expand and/or extend the companies offerings.
- Every effort will be made to provide assistance to those firms most significantly impacted by reduced Department of Defense procurement. These efforts will employ selection criteria (e.g., reinvestment potential) as well as the best available information regarding firms that are impacted and prioritize impacts over all other subjective criteria.

Ultimately the assessment will seek to create a plan for transformation and corporate resiliency for each defense contractor engaged. This concept has been discussed at a high level with regional defense-related manufacturers who have expressed interest, but additional design and program development are required.

The following tasks will be accomplished to develop the Design Readiness Assessment.

Task 3.1 Develop the Model

Develop the model for conducting the Design Readiness Level assessment through discussions with individuals representing defense manufacturing companies, academia, industrial design community, NUWC, manufacturing services providers and other regional stakeholders. These discussions will allow the Consultant to develop the model through identification of required skill sets that will need to be deployed to conduct the assessment.

Task 3.2 Conduct a Pilot

The next step in the development process will be to conduct up to 10 Design Readiness Assessments to validate the approach and results. Through the Network Development activities described in Task 2 we will be able to readily recruit defense related manufacturers that will participate in the pilot. The companies selected will agree to provide open feedback both during and after the assessment to help inform and suggest revisions to the program of work. Each company will receive a report and recommendations that result from the engagement.

- For purposes of this proposal, a qualified defense impacted firm is defined as a business who is deriving a minimum of 10% business revenue from DoD contracts or as subcontracts. The businesses must be prime defense contractors or subcontractors to a prime contractor affected by defense budget reductions or impending budget reductions. The business must experience a loss of or demonstrate an imminent threat of a loss of at least 5% of sales and/or production due to reduced DoD expenditures. Data on sales, production and employment must be current as of the immediate past 24-month period for losses and in the case of imminent threat, a projection for the immediate future 12-month period must be provided.

Revisions to the Design Readiness Assessment approach and team expectations will made upon conclusion of the pilot.

Task 3.3 Document and Disseminate

During the development process, the Consultant will document all findings with the end goal of creating a robust model of components that can be adopted / deployed in other communities. It is expected that some of the capacity developed will permanently reside in the New England region. However, the opportunity exists to assist defense manufacturing companies throughout the country.

As the DRL assessment approach is demonstrated as effective, STEAMengine will partner with other MEP centers to offer the service model to small and medium defense related manufacturers throughout the country. We will model this approach on other MEP center efforts that have been introduced to other centers such as the ISO 1400 training innovation services. STEAMengine will provide training to these centers through a series of workshops and publications. These efforts will be supported by funds other than the OEA funding. To further validate the design and output expectations of this effort we will pilot an additional 10 assessments with companies outside of Rhode Island with options including partnering with the Connecticut Center for Advanced Manufacturing (CCAT) and Massachusetts Development (MASS Development).

Task 3.4 Defense Company Materials

Each defense supplier, estimated at 20 for the pilot phase, will be provided a list of transition and growth opportunities based on the Design Readiness Assessment (DRA). Each of these opportunities will outline an action plan with the available STEAMengine resources to implement the growth opportunity. Depending on the company's selection of the growth opportunity, STEAMengine will then assist the company in meeting its goals through a fee for service model.

Task 3.5 Modeling the Ongoing Cost Structure

The fees associated with the services are based on the premise that if a company is willing to invest in itself, the STEAMengine will match that investment through a commitment of funding and resources. This partnership with the company will also introduce them to the full network of the STEAMengine. A tiered cost structure could potentially be developed to address issues of affordability related to smaller defense manufacturers.

Task 3 Deliverable: Creation of a fully operational DRA program and model for ongoing sustainability of services.

Task 4: Develop a Defense Technology Innovation Strategy

Development of a program to identify technology transfer and commercialization opportunities from NUWC and Rhode Island based defense manufacturers. The program will include the following activities:

Task 4.1 Conduct a Technology Transfer and Commercialization Assessment

Conduct an overall technology transfer and commercialization assessment, which identifies previous success and barriers related to the process of introducing new defense technology to the marketplace. This assessment will contemplate Rhode Island's defense and innovation focused ecosystem and make appropriate recommendations to enhance the outcomes of the transfer and commercialization process.

Task 4.1 Deliverable: a report of the findings will be provided.

Task 4.2 Identify Specific Technology Transfer and Commercialization Opportunities from Defense Research and Development Facilities and Manufacturers in Rhode Island

Qualified "case managers" will be identified utilizing a network of partners that have successfully commercialized intellectual property. Case managers will perform an assessment on the existing intellectual property portfolio at NUWC and up to 30 private sector manufacturers that volunteer to participate in the program. The assessment will also be informed by (i) "virtual" feedback from leading innovation portals, such as the iBridge Network (home to the IP from over 170 universities) and (ii) by the case manager's interaction with staff at NUWC responsible for a given piece of IP (or IP portfolio), if applicable.

The result of the assessment would generate a technology transfer and commercialization "game plan" for each piece of IP (or IP portfolio), which outlines concrete action items. These next steps would

include connecting to the network players mentioned above (SMEs, tech scouts, investors, etc.) but also shepherding those connections into business transactions ("hands on" technology transfer and commercialization support). It could also include incubation activity, such as building management teams around a piece of IP (or IP portfolio) and soliciting Federal SBIR/STTR grants or private sector funding to effect technology transfer and commercialization of piece of portfolio of IP.

Task 4.2 Deliverable: a technology transfer and commercialization plan will be developed and provided to Commerce RI for each appropriate technology. Any confidential information will be redacted to protect that technology asset until it can become viable.

Task 4.3 Develop Linkages for Industry to Research and Development at Defense Facilities and Universities

The proposed implementation of linkages for industry to R&D at defense facilities and universities would have a virtual and non-virtual component. The virtual component requires a partnership with the industry leading intellectual property portals (including the iBridge Network). This partnership would afford defense facility and university IP visibility at a website that has already aggregated industry demand for IP (and is incorporated in the workflow of industry technology scouts). This should be coupled with a "white labeled", defense facility-only IP website that could be promoted through digital marketing on a web based portal, such as the CT RADE Portal.

The non-virtual linkages for industry R&D and defense facilities and universities would be implemented through workshops – ideally with industry associations such as the Industrial Research Institute (IRI) or the National Network of Business and Industry Associations. The effectiveness of these workshops would be tracked through the proposed defense-only portal, which would be used to send and track correspondences with workshop participants both before and after a workshop.

Task 4.3 Deliverable: an ecosystem map and protocols document will be developed for ongoing use.

Task 4.4 Promote Entrepreneurial Activity through Incubation and Startup Assistance

The proposed plan development to promote entrepreneurial activity through incubation and startup assistance includes the following elements:

- A case manager determination that a piece of IP or portfolio of IP could support a stand-alone start up;
- Tapping into a network of entrepreneurs, startups, and technology licensing officers from universities (and secondary corporations) to source startups and/or entrepreneurs that can be the commercialization vehicle for a piece or portfolio of IP;
- Tapping into a network of angels, venture capitalists, and economic development organizations that could be funding sources for a startup; and
- Expertise from private companies and public organizations in soliciting government grant monies, notably SBIR/STTRs, to fund a startup (or technology transfer effort), e.g. Slater Tech Fund, VCs, and community lending programs.

This plan should be implemented by an organization with a track record of incubation that includes experience specifically in incubating startups with defense related or sourced IP and innovation.

Task 4.4 Deliverable: this activity will inform the development of the overall Defense Technology Innovation Strategy.

Task 4.5 Identify resources for capital

The proposed plan to identify resources of capital includes the following elements:

- Tapping into a network of capital resources with a track record of investing in the technology areas and types typical of NUWC (SBIR/STTR is perhaps the leading source of "seed" capital of this variety globally);
- Offering SBIR/STTR grant writing guidance to startups; and
- A database of actual transactions in the technology transfer and commercialization space to be able to identify "industry standard" deals; this is notably elusive because there is no central database for such transactions, because they are generally with private organizations. This strategy would have to be implemented with a partner with a critical mass of knowledge about actual deal terms of non-public transactions in technology transfer and commercialization.

Task 4.5 Deliverable: a report of the findings will be provided.

Task 4.6 Develop strategy to accelerate technology transfer and commercialization of research results

Based on the tasks accomplished in this section and information from other tasks the Consultant will lead the development of an overall report that details the plan to develop enhanced technology transfer and commercialization activities in the state and region. Additionally, Commerce RI will share the technology transfer approach by placing on the CCAT – RADE web portal.

Task 4.6 Deliverable: a report of the findings will be provided.

Task 4 Deliverable: Each of the deliverables associated with the discreet tasks above will be assembled into an overall Innovation Strategy. This strategy will guide future actions and investments related to defense technology innovation. The strategy will be summarized in the form of a PowerPoint presentation and a more detailed report will be developed and submitted as a companion piece.

Task 5: Curriculum Development

The development of a curriculum to allow defense manufacturers and their staff at all levels to better understand and utilize industrial design thinking, which will be critical to ongoing economic diversification success.

The consultant will work with Commerce RI and its partners in the state and region to develop a series of courses that can be used to train staff at all levels. From executive management training to assembly line courses we will work with the network developed in Task 1 to identify the best training approaches to develop. The consultant will identify groups that can effectively develop:

- 100 Series courses that provide an introduction to design thinking, possible use and outcomes;

- 200 Series courses that will teach participants on how to develop and implement a design approach in their product development and review;
- 300 Series courses for more in depth education of tools and resources that can be utilized in exploring product development through rapid design and prototyping (this level will include access to STEAMengine and shared facilities that have equipment such as 3D printers, CNC, Laser Cutting, Injection molding and other modern manufacturing gear); and
- Additional courses that will be contemplated in consultation with the network.

During the curriculum development process, appropriate accreditation will be sought to allow for dissemination upon its completion. It is expected that Rhode Island training providers will be able to offer training for both regional and national defense manufacturers. Our research to date has identified a gap in the availability of industrial design training for existing defense manufacturers and manufacturers in general. Some higher education institutions offer longer-term options in the form of 'studios'. The limits of these efforts in terms of number of participants that can be involved impede the ability of defense manufacturers to take advantage of the design process and therefore STEAMengine will provide a complimentary approach.

Task 5 Deliverable: A set of curriculum for use by Rhode Island and regional stakeholders that can be made available to defense manufacturers throughout the country.

Task 6: Development of Shared Use Space

STEAMengine will develop a plan for the use of shared space which will support collaboration and use of shared equipment via existing labs such as found at AS220, colleges and universities, and NUWC. This plan will create an inventory and detailed catalog of the equipment that can be utilized by defense manufacturers in the development of new products. The information that will be made available through this catalog will include:

- Type and description of equipment and characteristics (e.g. capabilities, model information, reliability score, etc.)
- Location and access descriptions
- Availability information e.g. hours of operation, reservation information etc.
- Fees and any other requirements associated with the equipment

This catalog and information received from vendors and partners on equipment needs' will allow Commerce RI to develop a plan for what additional equipment may be needed to fully support defense manufacturers' efforts.

In addition to the plan for equipment, preliminary discussions have focused on the creation of a mix of shared meeting/ office space and a 'workshop' area that can include modern manufacturing equipment. As part of the plan, Commerce RI is providing this space. This space will be in proximity to key partners including Polaris-MEP and the Small Business Development Center (SBDC).

If it is determined that additional equipment is needed, a workshop space may be planned at a nearby facility. Such a workshop will allow Commerce RI to recruit partnerships with large equipment

manufacturers who may be interested in donating or offering reduced rates for acquisition of manufacturing equipment. This equipment is often cost prohibitive for individual defense manufacturing companies to acquire prior to understanding the economic diversification opportunities. By utilizing a shared workshop model we will support companies looking to explore the use of additive manufacturing, 3D printing, laser cutting and other tools.

Task 6 Deliverable: Development and publication (via web) of a directory of all equipment that is available for use by defense contractors; and the Development of a short and long-range space usage plan.

Task 7: Strategic Communications and Information Sharing

As STEAMengine focuses on the defense manufacturing sector it will be critical to develop clear and consistent communication tools that will allow regional and national manufacturers to effectively understand what is being developed, offered and how to take advantage of the services. In addition, relevant information on the progress of our activities will be important to continually update partners. It is expected that as part of this activity a website, newsletter and supporting collateral will be developed. Rhode Island will coordinate dissemination of any information to neighboring states for use on websites and other platforms.

Task 7 Deliverable: Provide ongoing strategic communications and information sharing to include a website, newsletter and supporting collateral.

Timeline

Respondents shall provide a schedule which matches the effort proposed and meets the end date of August 31, 2015

Section 4: NOTIFICATIONS

1. Equal Employment Opportunity (RIGL 28-5.1) – 28-5.1-1 Declaration of policy – (a)Equal opportunity and affirmative action toward its achievement is the policy of all units of Rhode Island state government, including all public and quasi-public agencies, commissions, boards and authorities, and in the classified, unclassified, and non-classified services of state employment. This policy applies to all areas where the State dollar is spent, in employment, public services, grants and financial assistance, and in state licensing and regulation. For further information, contact the Rhode Island Equal Opportunity Office at (401) 222-3090.
2. In accordance with Title 7, Chapter 1.1 of the General Laws of Rhode Island, no foreign corporation, a corporation without a Rhode Island business address, shall have the right to transact business in the State until it shall have procured a Certificate of Authority to do so from the Rhode Island Secretary of State (401-222-3040). This is a requirement only of the successful contractor.
3. The Commerce Corp RI reserves the right to negotiate with the lowest qualified Bidder.

Questions:

Questions in regards to this RFP must be emailed to John Riendeau at jriendeau@commerceri.com and Michael Walker at mwalker@commerceri.com by noon on October 21, 2014. The questions and answers will be posted on the Commerce RI website www.commerceri.com and the State of RI Division of Purchasing website www.purchasing.ri.gov by 4:00 p.m. October 24, 2014.

Section 5: Response Specifics

Potential bidders shall prepare their response in the format specified in this section, and shall include the following requested documents in their response:

1. Provide the name of your company and the name, address and telephone number and email address of a person with whom our office can communicate regarding this RFP.
2. Describe your company's years of experience and other relevant information to help Commerce RI understand your company's size, resources and the nature of your business.
3. Description of the consultant's understanding of the requirements, including the result(s) intended and desired. The approach and/or methodology to be employed for each proposed task, and a work plan for accomplishing the results proposed. For each proposed task, identify the project manager, and all other members of the project team and an estimate of time allocations.
4. A discussion and justification of the methods proposed and the technical issues that will or may be confronted at each stage of the project.
5. The work plan description shall include a list of project deliverables and a detailed monthly proposed project schedule with milestones that will be employed to administer the project and the task assignments of staff members and level of effort for each linked to the cost proposal and project deliverables.
6. Staff Qualifications/Experience of the respondent and project principals - Describe the respondent's general experience as well as its experience and qualifications with projects of a similar size, scope and use specific to the proposed tasks. Identify the overall project manager, project managers for each proposed tasks, other consultants, as well as other members of the project team and the percentage of their time to be spent on any task.
7. References including client name, address, contact person, telephone number, email, project start and end date, as well as a project description. References should be for similar or related projects that proposed key staff members for this project have worked.
8. Copies of all documentation which demonstrate the firm(s) has the legal ability to perform the services in the State of Rhode Island, described generally heretofore.
9. Certification that a Certificate of Good Standing from the Rhode Island Division of Taxation will be delivered to the Corporation upon award
10. A listing of all current and ongoing contracts between any/all firms proposing and the Corporation or the State of Rhode land.
11. A disclosure of all outstanding financial obligations with the State of Rhode Island for any of the firms included in the proposal.

12. Please provide a cost proposal as follows:
    - A total, maximum price to accomplish all of the work described in Section 3.
    - A budget for each task/subtask which provides:
        - Labor estimate that correlates to the information provided in Section 5.3 above
        - Non-labor expenses
        - Items not included in the price

Section 6: Evaluation and rating of RFP's

The submitted RFP's will be reviewed and rated by a team of 3-5 raters based on the following criteria

1. Company's experience with engagements similar in size and scope (20pts.)
2. The proposed team's professional resumes and applicable experience (20 pts.)
3. The Respondents approach to accomplish the work described in Section 3 (25 pts.)
4. Review of references (10 pts.)
5. Total cost (25 pts.)

Response Date

Responses to this RFP are due by November 5, 2014 by 2:00pm. Include one (1) electronic (PDF) version and five (5) printed copies of the complete proposal and must be mailed or hand-delivered in a sealed envelope marked:

Rhode Island Commerce Corporation
ATTN: RFP Defense Industry Economic Diversification
315 Iron Horse Way
Suite 101
Providence, RI 02908

The Corporation reserves the right to terminate the Project prior to entering into any negotiated contract with any qualified firm or firms pursuant to this Request for Proposals, and by responding hereto, no firm or firms are vested with any rights in any way whatsoever.