

Headquarters Supreme Allied Commander Transformation Norfolk Virginia



REQUEST FOR INFORMATION RFI-ACT-SACT-18-64

This document contains a Request for Information (RFI) Call for Industry and Academia collaboration regarding the development of a model/methodology in support of the Collaborative Resilience (CoRe) capability. Suppliers wishing to respond to this RFI should read this document carefully and follow the guidance for responding.

HQ Supreme Allied Commander Transformation
RFI 18-64

General Information	
Request For Information No.	18-64
Project Title	Collaborative Resilience
Due date for submission of requested information	August 31, 2018
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SECTION I – INTRODUCTION

1.1 Summary

Resilience (def): the ability to resist and recover easily and quickly from shocks and stresses, combining civilian, economic, commercial and military factors. Resilience is achieved by enhancing preparedness within the public and private sectors, supported and amplified by military capability and capacity. The Resilience Cycle is considered to have four phases: Prepare, Absorb, Recover, Adapt.

1.1.1. HQ Supreme Allied Commander Transformation (HQ SACT) is developing a Collaborative Resilience (CoRe) capability with the aim to improve the Alliance ability to “sustain successful operations by preparing, absorbing, recovering and adapting to surprise or strategic shock, through harmonized and resilient structures, systems and processes enabled by a persistent collaboration across civil, military and private stakeholders”.¹ This Request for Information (RFI) announcement is placed in order to facilitate collaboration between Command and Control, Deployability & Sustainability (C2DS) Division at HQ SACT and industry and academia regarding the development of a comprehensive model and analysis methodology in support of CoRe capability development. This RFI is intended to help identify potential models and analysis methodologies that could be tailored to NATO’s needs in order to deliver a CoRe capability, which can identify critical shortfalls and potential mitigation solutions for enhancing NATO Resilience.

1.2 Disclaimer

1.2.1. This is a Request for Information (RFI) only, and in no way constitutes a current Request for Proposal (RFP) or a commitment to issue a future RFP. The purpose of this RFI is to determine to what extent industry/academia, through collaboration, could contribute towards the delivery of a model/methodology capable of modelling and assessing critical civil and commercial enabling capabilities, assets, infrastructure and their interdependencies in support of military operations.

¹ Collaborative Resilience (CoRe) Concept Proposal, March 2018.

1.2.2. HQ SACT has not made a commitment to procure any of the items described herein, and release of this RFI shall not be construed as such a commitment, nor as authorization to incur cost for which reimbursement will be required or sought. Further, respondents are advised that HQ SACT will not pay for any information or administrative costs incurred in *responding* to this RFI, nor will HQ SACT pay costs associated with participation in upcoming CoRe events. The costs for responding to this RFI and participating in CoRe events at this stage shall be borne solely by the responding party. Not responding to this RFI does not preclude participation in any subsequent RFP if issued in the future.

SECTION II – BACKGROUND

2.1 ACT Framework For Collaborative Interaction (FFCI)

2.1.1. ACT has implemented a Framework For Collaborative Interaction (FFCI) to increase opportunities for industry and academia to contribute to ACT capability development efforts through collaborative work. Such collaboration enables HQ SACT, and NATO as a whole, to benefit from industry/academia models, advice, capabilities and experience in the course of this work. In addition to the benefits ACT gains from such projects, this collaborative effort will provide industry/academia with an improved understanding of NATO's capability requirements and associated issues and development challenges to be addressed by ACT. Potential collaborative projects are on specific topics that are of mutual interest to both parties but shall be restricted to collaborations in non-procurement areas. Several mechanisms have been already developed to support the initiation of collaborative projects between industry/academia and ACT ranging from informal information exchanges, workshops and studies, to more extensive collaboration on research and experimentation.

2.1.2. Depending on the level and type of interaction needed for a collaborative project, a specific agreement may be needed between parties. The FFCI agreement for any specific project, if required by either party for the project to proceed, will range from "Non-disclosure Agreements" (NDAs) for projects involving exchange of specific information to more extensive "Declaration of Mutual Collaboration" (DOMC) to address intellectual property and other

issues. For the topics listed below, it is not envisaged that the level of contribution will be such that RFI respondents will wish to sign a NDA before entering into any significant collaborative work through this issue can be addressed on a case-by-case basis.

2.1.3. More extensive information on the ACT FFCI initiative can be found on the ACT web site being developed to support FFCI projects at <http://www.act.nato.int/ffci>.

2.1.4. The collaborative interaction sought is focused on informal information exchange directly with the project team between July 2018 and August 2018. RFI respondents would be willing to share their technical knowledge, expertise, and observations with HQ SACT CoRe Team by email.

SECTION III – DESCRIPTION OF COLLABORATIVE RESILIENCE REQUIREMENT

3.1 Background

3.1.1. There is a lack of awareness and understanding of the additional demands that major scale NATO operations will place on Nations' critical infrastructure and services in times of crisis or conflict, particularly during a Collective Defence scenario. Although forces should possess the capabilities to sustain themselves, coordination is required to avoid civilian system failures having cascading effects on military ability to conduct operations. Therefore this also recognizes that:

- in the deployment of an operation NATO forces will rely on Allied nations' civil and commercial capabilities, assets and infrastructure.
- a large military force presence may disrupt local resources and therefore impact the resilience of populated areas.

3.1.2. The CoRe capability vision is *“An Alliance able to sustain successful operations by preparing for, absorbing, recovering and adapting to surprise or strategic shock, through*

harmonized and resilient² structures, systems and processes, enabled by a persistent collaboration across civil, military and private stakeholders". This vision will be met by developing a CoRe capability (from across the DOTMLPFI³ spectrum), which is expected to include a comprehensive modelling and analysis methodology that can:

- represent the interdependencies between NATO military forces and National Civilian Critical Infrastructure/Services and model their effects on resilience.
- identify risks or capability shortfalls within NATO military operations
- explore the feasibility of potential solutions to enhance NATO resilience.

3.1.3. It is envisioned that the final CoRe capability will be used in support of NATO operational planning, as well as to set future resilience requirements and prioritize defence investment by NATO nations across the whole Resilience Cycle. The scope of this work is designed to reflect varying scale crisis scenarios in different geographical regions and is bounded by NATO's 7 baseline requirements (7BLRs) for resilience:

- 1) assured continuity of government and critical government services;
- 2) resilient energy supplies;
- 3) ability to deal effectively with the uncontrolled movement of people;
- 4) resilient food and water resources;
- 5) ability to deal with mass casualties;
- 6) resilient communications systems;
- 7) resilient transportation systems.

3.2 Objectives

3.2.1. NATO recognises that private and public sectors face similar challenges when ensuring resilience of their own infrastructure and services. There exists extensive research and subject matter expertise within government, industry and academia on resilience that could be exploited by NATO. This includes existing resilience models or analysis methodologies. The objective of this RFI is to identify existing analysis methodologies or models and subject matter experts (SMEs) to support the development of the CoRe capability.

² A system is resilient when it can adapt to internal and external challenges by changing its method of operations while continuing to function. While elements of the original system could still be present, there is a fundamental shift in core activities that reflects adapting to the new environment.

³ Doctrine, Organisation, Training, Material, Leadership, Personnel, Facilities, Interoperability

3.3 Planned activities

3.3.1. It is anticipated that a CoRe analysis methodology or model will be developed in two phases:

1. Development of a proof-of-principle CoRe analysis methodology or model – **by end of 2018:**
2. Development of a full CoRe analysis methodology or model – **by end of 2019:**

3.3.2. The initial proof-of-principle analysis methodology or model may not necessarily be a software or an IT product but rather a limited scope demonstration to be delivered by the end of 2018. This is likely to be limited in terms of geographic coverage and number of Baseline Requirement interdependencies covered. The full CoRe analysis methodology or model is expected to be full scope and at regional scale and will be developed by the end of 2019 as part of the full CoRe capability. It will undergo testing and validation using a representative scenarios and feedback from exercises.

3.3.3. Several workshops and possible analysis methodology or model demonstrations will be organized from September 2018 to December 2019 to allow the effective development of the CoRe capability. At present, is envisioned that there may be two to four NATO events during this period at which external engagement will occur. This will include a requirements review workshop at which it is envisioned that potential analysis methodologies or methods could be presented. As the CoRe program of work is developed and refined, based on the response to this RFI, opportunities for engagement with Industry and Academia will be reviewed and promoted.

3.4 Expected input from industry / academia

3.4.1. Industry and academia are expected to provide guidance on potential models and analysis methodologies that could be used as the basis for the NATO CoRe capability. Participants will share knowledge and experiences of existing models or analysis methodologies, including lessons learned, to inform the future development of the CoRe capability.

3.4.2. The format expected for responses is a summary document (not more than 5 pages in pdf. format) covering the following information:

- Scope of analysis methodology or model
- Description of analysis methodology or model design i.e. approach used, inputs, outputs,
- Data requirements of analysis methodology or model
- Description of analysis methodology or model maturity and examples of application
- Resources required to implement or run analysis methodology or model
- Flexibility to expand analysis methodology or model to reflect additional needs
- Ability to interact with other models
- Proprietary / usage rights e.g. open-source/license, commercial IPR
- Further information as deemed relevant by the provider.
- Supporting diagrams or images (not included within 5 pages)

3.5 Expected benefits to industry / academia

3.5.1. Through this collaboration, ACT, as the driving agent of transformation for NATO, expects that industry and academia will gain insights into the interaction and mutual interdependencies between military, civilian and private sector capabilities. This will help to inform how private and public sector infrastructure and services can be made more resilient to military operations.

SECTION IV - REQUESTED INFORMATION

4.1 Intent

4.1.1 The objective of this RFI is to identify existing analysis methodologies or models and subject matter experts (SMEs) to develop a methodology in support of CoRe capability.

4.2 Evaluation

4.2.1 An evaluation team will be organized in ACT HQ to review responses of potential interest for further engagement by NATO HQ SACT. The evaluation team will be led by ACT

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C2DS/LDS and Medical branch with the collaboration of personnel from Operational Analysis Branch, Modelling & Simulation Section, Legal Advisor Office and Budget and Finance Office. The evaluation procedure will be based on the review of information provided in the documentation as described in para 3.4.2.

4.3 Answers to the RFI

4.3.1 The answers to this RFI should be submitted by email (attachment in pdf. format as described in para 3.4.2) to the provided Contracting and Technical points of contacts.

4.3.2 Additional information (e.g. technical documents, presentations, videos), not directly related to the described criteria, but considered of relevance could be included to provide further context and support the evaluation process.

4.4 Follow-on

4.4.1 Post-submission, selected RFI respondents may be contacted to provide further information on attending CoRe workshops and events, including an initial requirements workshop in September 2018.

4.5 Handling of Proprietary Information

4.5.1 Proprietary information, if any, should be minimized and clearly marked as such. Please be advised that all submissions become HQ SACT property and will not be returned. They will be treated as proprietary information with the same due care HQ SACT treats its own proprietary information, including the exercise of due care to prevent unauthorized disclosure.

4.6 Questions

4.6.1. Questions of a technical nature about this RFI announcement shall be submitted by e-mail solely to the above-mentioned POCs. Accordingly, questions in an email shall not contain proprietary and/or classified information. HQ SACT does not guarantee that questions received after 17 August, 2018 will be answered. Answers will be posted on the HQ SACT P&C website at: <http://www.act.nato.int/contracting>.

4.7 Response Date August 31, 2018

4.8. Summary

4.8.1. This is an RFI only. The purpose of this RFI is to engage industry/academia through collaboration, in the identification of potential analysis methodologies and models that could support the development of the CoRe capability. HQ SACT has not made a commitment to procure any of the items described herein, and release of this RFI shall not be construed as such a commitment, nor as authorization to incur cost for which reimbursement will be required or sought. It is again, reemphasised that this is a RFI, and not a RFP of any kind.

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