

HQ Supreme Allied Commander Transformation

RFIP-ACT-SACT-21-109

Headquarters Supreme Allied Commander Transformation Norfolk Virginia



REQUEST FOR INNOVATIVE PARTICIPATION (RFIP)

RFIP-ACT-SACT-21-109 Amendment 1 (All
changes are in red)

This document contains a Request for Innovative Participation (RFIP) Call for Industry and Academia collaboration regarding the 2021/Fall (IC-21/Fall) Innovation Challenge. The 2021/Fall (IC-21/Fall) Innovation Challenge is calling for solutions (applications, systems, tools, concepts etc.) that can support resolution development for NATO. Industry and Academia wishing to respond to this RFIP should read this document carefully and follow its guidance.

General Information	
Request For Information No.	RFIP-ACT-SACT-21-109
Project Title	2021/Fall Innovation Challenge: Countering Cognitive warfare
Due date for submission of requested information	04 November 2021
Contracting Office Address	NATO, HQ Supreme Allied Commander Transformation (HQ SACT) Purchasing & Contracting Suite 100 7857 Blandy Rd, Norfolk, VA, 23511-2490
Contracting Points of Contact	1. Mrs. Tonya Bonilla e-mail : tonya.bonilla@act.nato.int Tel : +1 (757) 747-3575 2. Mrs. Catherine Giglio e-mail : catherine.giglio@act.nato.int Tel : +1 (757) 747-3856
Technical Points of Contact	1. LT Melodie Gallant e-mail: melodie.gallant@act.nato.int Tel: +1 (757) 747-3659 2. Mr. Serge Da Deppo e-mail: serge.dadeppo@act.nato.int Tel: +1 (757) 747-3747 3. Mr. Francois-Pierre Du Cluzel de Remaurin e-mail: francois-pierre.ducluzelderemaurin@act.nato.int Tel: +1 (757) 747-4198

SECTION I - INTRODUCTION

1.1 **Summary.** HQ SACT is issuing a Request for Innovative Participation (RFIP) announcement in order to facilitate collaborative solutions between NATO HQ SACT Innovation Hub, industry, and academia¹. The purpose of this RFIP is to request representatives, from industry and academia, to submit solutions (either existing and/or under development) to the scenario presented at Annex I, to participate in the NATO 2021/Fall Innovation Challenge. Submissions shall conform to this RFIP.

A Selection Committee composed of representatives from NATO HQ SACT, advisors from the IC-21/Fall Partners² and other relevant experts invited by NATO HQ SACT will select up to 10 solutions amongst the responses submitted by industry, academia, or by individuals (participating under separate Terms of Participation). The selected solutions will be invited to participate in the IC-21/Fall *Pitch Day* on November 30, 2021. Participation in the *Pitch Day* is exclusively online. An Advisory Panel will be composed of representatives from NATO HQ SACT, the IC-21/Fall Partners and other relevant experts invited by NATO HQ SACT. The Advisory Panel will assist in assessing which solution(s) respond best to the scenario. The final selection of the IC-21/Fall winners will be performed by a Board, composed entirely by representatives of HQ SACT.

The nature of this event will be *discovery* only and will not be intended to solicit contracts. However, relevant solutions could potentially support development of future concepts, doctrine, STANAGs, user requirements, capability development, etc.

1.2 **Dates.** The events and timelines of IC-21/Fall is described in Section III. It will take place between September and 30 November 2021, with the IC-21/Fall *Pitch Day* taking place online on 30 November 2021. Details will be posted on the Innovation Challenge webpage.

1.3 **Disclaimer.** This is a Request for Innovative Participation (RFIP) only, and in no way constitutes a current Request for Proposal (RFP) or a commitment to issue a future RFP.

HQ SACT has not made a commitment to procure any of the products/solutions described herein, and release of this RFIP shall not be construed as such a commitment, nor as authorization to incur cost for which reimbursement will be

¹ In this RFIP, the term “solutions” refers to applications, tools, systems concepts or devices.

² Old Dominion University (USA), Department of National Defense (Canada).

required or sought. Further, respondents are advised that HQ SACT will not pay for any information or administrative costs incurred in *responding* to this RFIP, nor will HQ SACT pay costs associated with participating in the IC-21/Fall. The costs for responding to this RFIP and participating in the IC-21/Fall shall be borne solely by the responding party. Not responding to this RFIP 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 HQ SACT 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.

More detailed 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 HQ SACT has since 2017 conducted Innovation Challenges; these are informative and exploratory events focused mainly at the application of new technologies. The collaborative interaction sought for the IC-21/Fall is focused on presenting and demonstrating solutions to identify, assess and protect against attacks on the cognitive domain of NATO forces and their Allies (see scenarios at Annex I). RFIP respondents should be willing to share their knowledge, expertise, and products/solutions with NATO and national representatives participating in the IC-21/Fall.

2.1.5 IC-21/Fall winners for HQ SACT will be selected by a Board of HQ SACT representatives and announced as part of the *Pitch Day* program.

All information provided in response (abstracts, supporting materials, and, if selected for *Pitch Day*, in the presentations) must be releasable to the public. While the abstracts only will be provided in the public domain if selected for presentation at IC-21/Fall *Pitch Day*, both the Selection Committee and the Advisory Panel will be comprised of representatives from NATO HQ SACT and other relevant experts invited by NATO HQ SACT.

SECTION III - DESCRIPTION OF THE IC-21/Fall

3.1 Background.

The HQ SACT Innovation Hub is the main organizer of the IC-21/Fall. The HQ SACT Innovation Hub also coordinates the NATO Innovation Network, federating national entities in order to leverage open innovation. For more information on the HQ SACT Innovation Hub, please visit <https://innovationhub-act.org/>.

3.2 Objectives.

The objectives of this RFIP is to invite eligible industry and academia to participate in IC-21/Fall through submission of abstracts in response to the scenario at Annex I, identifying and exploring existing and emerging technologies that could address current and foreseeable challenges to an effective and efficient approach.

3.3 Planned activities. The IC-21/Fall will consist of:

- a. Initial Selection Phase: The selection will be announced 25 days prior to the *Pitch Day*, allowing further development of the presentation. Finalists will be contacted directly by email by the Innovation Hub team and the announcement will be made on the IC-21/Fall webpage. The selected submissions will be invited to be presented live online on the *Pitch Day*. Any cost associated with presenting online remains the sole responsibility of the industry/academia providing the submission.
- b. Final selection phase: On the *Pitch Day*, the winners of the IC-21/Fall will be selected by a Board of HQ SACT representatives and announced as part of the *Pitch Day* program.

3.4 Expected input from industry/academia. See below in Section IV.

3.5 Expected benefits to industry. Through this collaboration, HQ SACT offers industry / academia an opportunity to gain awareness about the particularities of the innovation challenges in NATO and Nations. It will be an opportunity to engage with HQ SACT Innovation Hub and other participants within a framework of a community of interest

focused on the development of innovative solutions based on new technologies in support of the NATO Innovation Process.

3.6 Monetary Awards

3.6.1 HQ SACT presents three levels of monetary awards for the top three winners of the IC-21/Fall: a. first place: \$5,000 USD, b. second place: \$2,500 USD, c. third place: \$1,000 USD.

3.6.2 The monetary award is presented to the (1st/2nd/3rd) place recipients in the HQ SACT Innovation Challenge 2021/Fall. The presentation of the award does not alter the relationship between HQ SACT and the recipient and is only presented to eligible industry or academia entries, who have complied with the terms and conditions defined for the Challenge. The recipient is responsible for the proper recording and reporting of the monetary award to the appropriate tax authorities and the payment of any associated taxes.

3.6.3 Monetary awards will be paid to the recipient with an Electronic Funds Transfer.

SECTION IV - REQUESTED INFORMATION

4.1 **Intent.** The intent of this RFIP is to call for formal collaboration with industry and academia in order to present solutions based on new technologies that can support the improvement of NATO Innovation process. These solutions should be applicable in a federated information environment and should be interoperable by design. Additionally, they should be intuitive, requiring none or very limited training at the end-user level. Solutions are sought at different levels of development, from the “advanced concept development stage” through “customizable applications” available “commercial off-the-shelf”. Solutions may address some of the challenges described in the scenario presented in Annex 1, associated to one or more of the following **areas of interest**:

- Identification of when NATO forces and/or their Allies are under a cognitive attack;
- Verification of the scale and nature of the attack;
- Quantification and/or level of the success of the attack;
- Mitigation techniques, tools and measures to counter a cognitive attack; and
- Support for decision-makers.

The inherent discovery nature of the IC-21/Fall allows also for novel approaches to these challenges.

4.2 Responses to the RFIP.

In response to the RFIP, please submit an abstract (4500 characters maximum) describing the solution idea. Based on this submission, an IC-21/Fall Selection Committee will select and invite up to 10 abstracts to be presented at the Innovation Challenge *Pitch Day*.

The response to this RFIP should be submitted through the webform at <https://www.innovationhub-act.org/innovation-challenge-abstract-form-20202>. It must contain:

- 1) The name of the participant (Industry/academia)
- 2) The name of the proposed solution and which area(s) of interest it addresses;
- 3) Name(s) of participant's representative(s) (new representatives cannot be appointed after pre-selection)

The abstract can include:

- up to 4500 characters max text document
- max 5 graphics, pictures or slides
- max 4 min video/audio file

Note that all information provided in response to this RFIP has to be releasable to the public.

4.3 Evaluation of Solutions and Selection Process. A Selection Committee will be convened to analyze and evaluate the responses to the RFIP and select which submissions will be presented/demonstrated at IC-21/Fall. The Selection Committee will assess each response according to the following criteria:

4.3.1 Eligibility: The response to this RFIP should reflect a solution that addresses at least one of the areas of interest presented at paragraph 4.1.

Submissions will specifically be scored against:

- **Usefulness:** Understood as the potential impact of proposed solution on challenge topic.
- **Innovativeness:** Understood as if it is a genuinely new idea or an already existing solution adapted for this Challenge.
- **Feasibility:** Understood as if the solution is cost-effective and easy to develop

and implement.

4.3.2 *Priority*: the Selection Committee retains the right to prioritize the answers to RFIP based on the relevance and diversity of the solutions, on the proposed *demonstration* method, and the complexity of the challenges addressed. Additionally, ensuring a balanced representation of both industry and academia will be part of the prioritization process.

4.3.3 Status: Only submissions by industry and academia headquartered or located in NATO member countries will be considered for IC-21/Fall.

4.4 Terms applicable to this RFIP: The participating industry and academia agree that the IC-21/Fall, without any limitation or further compensation, may use the participant's name as well as voice and/or likeness of its representative(s) in any and all media for the purpose of advertising and promoting the IC-21/Fall, HQ SACT, and any associated programs. Further, the participant grants HQ SACT and the IC-21/Fall the right to take photographs and videos of the submission in connection with the challenge and grant the right to the IC-21/Fall to use, and to publish the photographs and videos with or without the participant's name and for any lawful purpose, including but not limited to, publicity, illustration, advertising, and internet and social media content. Additionally, the participants agree that the IC-21/Fall and thus HQ SACT may demonstrate the operation and functionality of the submission (but may not modify or publicize the source code) in connection with advertising and promoting the IC-21/Fall and subsequent events organized by HQ SACT.

a. The participating industry and academia represent and warrant that there are no contractual or other obligations that would:

- (i) prevent the participant from granting the right of use provided here and/or
- (ii) prevent the participant from claiming Intellectual Property ownership rights in materials or inventions created by the participant and incorporated into the submission.

b. Representation and Warranties: The participating industry and academia represent and warrant that:

- (i) the participant is the original author of the contributions to the submission;
- (ii) to the participant's knowledge, the submission will not infringe on any third party's copyright, patent, trademark, trade secret, right of publicity or property or any other right;

- (iii) the submission is not the subject of any actual or threatened litigation or claim;
 - (iv) the submission will not be obscene, offensive, libelous, pornographic, threatening, abusive, or otherwise objectionable; and
 - (v) the submission will not contain any content that is illegal, would constitute or encourage a criminal offense, or would otherwise give rise to liability or violate any law.
- c. The participating industry and academia agrees to grant to the IC-21/Fall (and thus HQ SACT), a non-exclusive, use of the submission as necessary to conduct the IC-21/Fall and for internal evaluation purposes by HQ SACT:
 - (i) in any Intellectual Property incorporated into the submission;
 - (ii) in Intellectual Property that is needed to operate or use the submission;
 - (iii) in Intellectual Property covering other materials or inventions that are incorporated into the submission, and/or
 - (iv) in Intellectual Property that is needed to operate or use the submission.
- d. Further, participants acknowledge and agree that the submission is submitted on a non-confidential basis, and that the IC-21/Fall (and thus HQ SACT) shall have no obligation to prevent the disclosure or otherwise treat as confidential such submission. Also, to the extent that the submission includes publication of information or content on innovationhub-act.org, participating industry and academia consent to terms governing utilization of any information or content published on innovationhub-act.org.
- e. By responding to this RFIP and participating in the IC-21/Fall the participating industry and academia acknowledge and agree that the IC-21/Fall may receive many entries and submissions in connection with this and/or other participants, and that such entries and submissions may be similar or identical in theme, idea, format, or other respects to the submission. By responding to this RFIP the participating industry and academia waive any and all past, present or future claims against HQ SACT and the IC-21/Fall relating to such similarities, or asserting that any compensation is due in connection with the submission.
- f. Limitation of Liability: In no event shall the HQ SACT or the IC-21/Fall be liable for incidental, exemplary or punitive damages arising out of or in connection with the

IC-21/Fall, industry and academia participation, or the submission. If a participant has a dispute with any participant in the IC-21/Fall or any other third party, the participating industry and academia release HQ SACT and the IC-21/Fall from any and all claims, demands and damages, (actual and consequential) of every kind and nature arising out of or in any way connected with such disputes.

- g. **Release and Indemnification:** By responding to this RFIP and participating in the IC-21/Fall, industry and academia agree, on behalf of that participant and the heirs, executors and administrators, to release and hold harmless the IC-21/Fall (and thus HQ SACT) from any claim, liability, damage, litigation, illness, injury or death that may occur, directly or indirectly, whether caused by negligence or not, from participating in the IC-21/Fall. This includes any entry (submission) submitted by the participating industry and academia.

4.5 Communication and Follow-on. The answers to RFIP should be submitted through the Innovation Hub webform at <https://www.innovationhub-act.org/innovation-challenge-abstract-form-20202>. Post-submission, RFIP respondents may be contacted to provide additional information on their proposals/response. The results of the selection process will be posted on the Innovation Hub webpage: <https://innovationhub-act.org/challenge-intro>

4.6 Questions. Questions of a technical nature about this RFIP announcement shall be submitted solely to the Innovation Challenge Forum:

<https://www.innovationhub-act.org/forums/innovation-challenge>

Accordingly, questions shall not contain proprietary and/or classified information

4.7 Deadline for responding to this RFIP. 4 November 2021

4.9 Summary. This is an RFIP only. The purpose of this RFIP is to request both industry and academia to present and demonstrate solutions (either existing and/or under development) based on new technologies that may support the improvement of NATO Innovation Process. HQ SACT has not made a commitment to procure any of the products/solutions described herein, and release of this RFIP 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 reemphasized that this document is a RFIP, and not a RFP of any kind.

For more information on the Innovation Challenge IC-21/Fall, please visit <https://innovationhub-act.org/nato-innovation-challenge>

ANNEX I – SCENARIO AND QUESTIONS

Background

Cognitive warfare refers to the weaponization of personal opinion by an adversary. It goes beyond controlling and altering the flow of information to purposefully shape how people respond to that information. Cognitive warfare is/will be used by adversaries to undermine trust, and to weaken, interfere with, and destabilize a target population, institutions, and States in order to influence their choices. The goal of cognitive warfare is for an adversary to destroy their target from within, rendering them unable to resist, deter, or deflect – thereby allowing the perpetrator to follow through with their own agenda. Trust is the target. Tactics that serve to destabilize public institutions and influence public or government policy allow discontent to manifest and spread within a society, fostering specific ideologies and behaviours. Cognitive-warfare strategies are ever more prevalent and far-reaching in the 21st century due to use of the internet, social networking, Big Data, social media, and recent advancements in artificial intelligence and machine learning.

Scenario

In this fictitious scenario, NATO forces are deployed to provide assistance and support to an Ally experiencing destabilization resulting from severe racial tensions. Prior to their arrival, several videos were circulated across social media of that nation's leader denouncing particular racial groups. News outlets also began circulating these videos, calling upon the leader and other political representatives to discuss the veracity of the videos. The politicians vehemently deny their validity. Meanwhile, leaders of certain religious groups have turned to social media to encourage their followers to protest against the videos that they believe are true. Tweets are re-shared several hundreds of times along with specific locations for people to join riots against the video messages. Other social-media users post TikTok videos to demonstrate that they have joined the protests and are destroying public property. Citizens fear leaving their homes in case they are attacked.

Challenge

Given social media's ability to broadcast information across the nation, NATO's deployed forces face the challenge of identifying who in the population are most susceptible to the posted material and who are more likely to spread it. Another challenge they face is determining what represents disinformation versus misinformation. This is largely due to the quantity of inaccurate information created and the ease by which it can be disseminated, as well as capabilities to alter audio and video.

Challenge theme: Understanding and Protecting the Cognitive Domain

Challenge statement: NATO is looking for tools and measures to identify, assess and protect against attacks on the cognitive domain of NATO forces and their Allies.

This could include but is not limited to:

- A cognitive warfare monitoring and alert system,
- Tools and techniques that leverage immersive technologies,
- Command and Control Infrastructure (C2) technologies,
- Real-time data-sharing with NATO forces that enable cognitive maneuvering.

Areas of focus include:

- Identification of when NATO forces and/or their Allies are under a cognitive attack;
- Verification of the scale and nature of the attack;
- Quantification and/or level of the success of the attack;
- Mitigation techniques, tools and measures to counter a cognitive attack;
- And support for decision-makers.