HQ Supreme Allied Commander Transformation

RFIP-ACT-SACT-23-76

# Headquarters Supreme Allied Commander Transformation Norfolk Virginia



# REQUEST FOR INNOVATIVE PARTICIPATION (RFIP) RFIP-ACT-SACT-23-76

This document contains a Request for Innovative Participation (RFIP) Call for Industry and Academia collaboration regarding the Innovation Challenge 2023/Fall (IC-23/Fall) calling for solutions (applications, systems, tools, concepts etc.) that can support solution development for NATO. Industries and Academia wishing to respond to this RFIP should read this document carefully and follow the guidance for responding.

General Information	
Request For Information No.	RFIP-ACT-SACT 23-76
Project Title	Innovation Challenge 2023/Fall:
	Military Mobility within Trans-European Transport Network (TEN-T)
Deadline for submission	05 October 2023
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# **SECTION I - INTRODUCTION**

1.1 **Summary**. HQ SACT is issuing this Request for Innovative Participation (RFIP) announcement in order to facilitate collaboration between the NATO HQ SACT Innovation Hub and industry and/or academia regarding solutions<sup>1</sup>. 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 within **Annex I** to participate in the NATO Innovation Challenge 2023/Fall (IC-23/Fall). All submissions must conform to this RFIP.

A Selection Committee composed of representatives from NATO HQ SACT, advisors from the IC-23/Fall Partners<sup>2</sup> and other relevant experts invited by NATO HQ SACT will select up to <u>10 solutions</u> amongst the responses submitted by industry and/or academia. The selected solutions will participate in the IC-23/Fall *Pitch Day* projected to be November 14, 2023. Participation in the *Pitch Day* will be either on-site, in Ljubljana Slovenia, an/or online. An Advisory Panel composed of representatives from NATO HQ SACT, the IC-23/Fall partners and other relevant experts invited by NATO HQ SACT. The Advisory Panel will assess which solution(s) responds best to the scenario presented in **Annex I**. The final selection of the IC-23/Fall winners will be done by a board of representatives from HQ SACT, advisors out the IC-23/Fall Partners and other relevant experts.

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

- 1.2 **Dates.** The event and timelines of IC-23/Fall is described in Section III. It will take place between 15 June and 14 November 2023, with the IC-23/Fall *Pitch Day* taking place online and on-site on 14 November 2023. Details will be posted on the Innovation Challenge <u>webpage</u>.
- 1.3 **Disclaimer**. This is a Request for Innovative Participation (RFIP) <u>only</u>. In no way does the RFIP constitute a current Request for Proposal (RFP) or a commitment to issue a future RFP. HQ SACT has not committed nor intents to commit to procure any product(s)/solution(s) described herein, and the release of this RFIP shall not be construed as a commitment, nor an authorization to incur cost for which reimbursement will be required or sought after. Further, respondents are advised that HQ SACT will not pay for any information or administrative costs incurred in *responding* to this RFIP. HQ SACT will not pay any costs associated with participating in the IC-23/Fall. The costs for responding to this RFIP and participating in the IC-23/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 HQ SACT 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 HQ SACT capability development efforts through collaborative work. These collaborations enable HQ SACT, and NATO to benefit from industry/academia models, advice, capabilities and experience in the course of work. In addition to the benefits HQ SACT gains from such projects, the collaborative effort will provide industry/academia with an improved

<sup>&</sup>lt;sup>1</sup> In this RFIP, the term "solutions" refers to applications, tools, systems concepts or devices.

<sup>&</sup>lt;sup>2</sup> NCIA, Ministry of Defense of Slovenia, Old Dominion University (USA), JFC Brunssum.

understanding of developmental challenges to be addressed by HQ SACT, and NATO's capability requirements and the associated issues. 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 HQ SACT 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 website being developed to support FFCI projects at <u>Framework For Collaborative Interaction (FFCI) : NATO's ACT</u>.

2.1.2 Since 2017 HQ SACT has conducted Innovation Challenges; these are informative and exploratory events focused mainly at the application of new technologies. The collaborative interaction sought for the IC-23/Fall is focused on industry/academia's RIFP responses and willingness to share knowledge, expertise, and products/solutions with NATO and national representatives participating (see scenarios at Annex I).

### SECTION III - DESCRIPTION OF THE IC-23/Fall

#### 3.1 Background.

The HQ SACT Innovation Hub is the main organizer of the IC-23/Fall. The HQ SACT Innovation Hub also coordinates the NATO Innovation Network, federating national entities in order to leverage open innovation. Please click <u>here</u> for more information about the HQ SACT Innovation Hub.

- 3.2 **Planned activities**. The IC-23/Fall will consist of:
  - a. <u>Initial Selection Phase</u>: The selection will be announced 21 days prior to the *Pitch Day*. Finalists will be contacted directly via email by the Innovation Hub Team, and the announcement will be made on the IC-23/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. <u>Final selection phase</u>: On the *Pitch Day*, the winners of the IC-23/Fall will be selected by a Board of HQ SACT representatives and other relevant experts invited by NATO HQ SACT 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) will be releasable to the public. Only abstract submissions selected for presentation at IC-23/Fall *Pitch Day* will it be showcased in the public domain.

- 3.3 **Expected input from industry/academia.** See below in Section IV.
- 3.4 **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 partner 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.

#### 3.5 Monetary Awards

3.6.1 HQ SACT presents three levels of monetary awards for the top three winners of the IC-23/Fall:

a. 1st place: \$5,000 USD;

- b. 2nd place: \$2,500 USD;
- c. 3rd place: \$1,000 USD.
- 3.5.2 The monetary award is presented in the form of 1st/2nd/3rd place recipients of the HQ SACT Innovation Challenge 2023/Fall. The presentation of the award does not alter the relationship between HQ SACT. 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.
- 3.5.3 Monetary awards will be paid to the recipient in the form of 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 the 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 on commercial off-the-shelf. Solutions may address some of the challenges described in the scenario presented in Annex I, associated to one or more of the following **areas of interest**:
  - Real time monitoring of traffic congestion and movement across roads, tunnels, border, seas, and other critical areas of movement.
  - Real time monitoring of military movement and transport within European Transport Network (TEN-T).
  - •
  - Interoperability with other military operational tools (e.g. Logistics Functional Area Services also known as LOGFAS) as well as civilian tools and systems.
  - Data filtering Cyber and Hybrid threat resilience.

The inherent discovery nature of the IC-23/Fall allows for novel approaches to these challenges.

#### 4.2 **Responses to the RFIP**.

In response to the RFIP, please submit an abstract (4500 characters maximum, space not included) describing the solution idea and answering the criteria. Based on this submission, an IC-23/Fall Selection Committee will select up to 10 abstracts to be presented at the Innovation Challenge *Pitch Day*. The response to this RFIP should be submitted through the <u>webform</u> with the following information:

- 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:

- limited to 4500 characters max text document, space not included.
- max 5 graphics, pictures or slides.

**NOTE**: 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-23/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:

- • **Relevance**: Does the solution addresses all aspects of the challenge in both military and civilian / commercial settings.
- • Innovativeness: Is the Solution new and does not operationally exist.
- • **Value**: If the solution is a game changer for both military and civilian / commercial domains
- Investment viability: If the solution requires limited resources and is it of high value
- 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-23/Fall.

- 4.4 Terms applicable to this RFIP: The participating industry and academia agree IC-23/Fall may without any limitation or further compensation 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 HQ SACT Innovation Challenge, and any associated programs. Furthermore, the participant(s) grants HQ SACT and the IC-23/Fall the right to take photographs and videos of the submission in connection with the challenge and grants the right to HQ SACT Innovation Challenge to use and publish the photographs and videos with or without the participant's name for any lawful purpose including but not limited to publicity, illustration, advertising, and internet/social media content. Additionally, the participant(s) agree that the IC-23/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-23/Fall and subsequent events organized by HQ SACT.
  - a. The participating industry and academia represents and warrants 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 represents and warrants that:
    - (i) the participant(s) is the original author of the submitted contributions;
    - (ii) the participant(s) acknowledges, 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 agree to grant IC-23/Fall (and thus HQ SACT), a non-exclusive, use of the submission as necessary to conduct the IC-23/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. Furthermore, participants acknowledge and agree that the submission is submitted in a non-confidential basis. The IC-23 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 <u>here</u>. Participating industry and academia consent to terms governing utilization of any information or content published <u>here</u>
- e. By responding to this RFIP and participating in the IC-23/Fall it is constituted industry and academia acknowledge and agree that the IC-23/Fall will receive many entries and submissions in connection with this RFIP. As such other participants' 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-23/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-23/Fall be liable for incidental, exemplary or punitive damages arising out of or in connection with the IC-23/Fall, industry and academia participation, or the submission. If a participant has a dispute with any participant in the IC-23/Fall or any other third party, the participating industry and academia release HQ SACT and the IC-23/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-23/Fall, industry and academia agree, on behalf of that participant and the heirs, executors and administrators, to release and hold harmless the IC-23/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-23/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 event webform <u>IC/FALL23 WEBPAGE</u>. 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 event <u>WEBPAGE</u>.

- 4.6 **Questions**. Questions of a technical nature about this RFIP announcement shall be submitted solely to the <u>Innovation Challenge Forum</u> and on the CVENT contact page. Accordingly, questions shall not contain proprietary and/or classified information
- 4.7 Deadline for responding to this RFIP. 05 October 2023 12:00 AM EST
- 4.8 **Summary**. This is a 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 re-emphasized that this document is a RFIP, and not a RFP of any kind. Click here for more information about the Innovation Challenge IC-23/Fall.

## ANNEX I – SCENARIO AND QUESTIONS NATO Innovation Challenge 2023

# Planning, preparation and real-time monitoring of military movements and transport within Trans-European Transport Network

**Background.** "Military Mobility" aims at ensuring rapid movement of military personnel, materiel and assets across and beyond Europe. A common goal is to maintain deterrence, preparedness and preserve collective security. It enables NATO to react faster and more effectively, to facilitate the deployment of military forces, to help find solutions to remove the delays, administrative burden or traffic disruptions in military movements and to increase military and civilian synergies.

Enhancing military mobility will not only increase the rapid deployment of forces and timely reinforcement of allies, it will also give NATO the ability to sustain forces in operations, trainings and exercises. Hence, NATO needs to continue to pursue coherent approaches and synergies. Ultimately, improving the use of infrastructures, reducing environmental impact on transports, enhancing energy efficiency and increasing

**Challenge.** Currently, rail tracks, roads and bridges are not necessarily suitable for military transports across Europe. In addition, complex regulations, differing from one member state to another, cause delays. Therefore, this Innovation Challenge is seeking for innovative digital solutions that will enable common, coordinated and efficient military movement planning and execution with possible interoperability with civilian systems.

The proposed solution should include and not limited to the following -

- road and rail infrastructure data digitalization dual use (road width, tunnel width/height, bridge capacity, refueling stations/hubs, logistic hubs, critical areas etc.);
- weather conditions;
- data filtering;
- calculation of the most appropriate route within a given input parameters common strategic requirements;
- real-time monitoring of traffic congestion;
- real-time movement monitoring;
- calculation of the carbon footprint of movements;
- border crossing points;
- digitalization of administrative requirements for border crossing;
- cyber and hybrid threat resilience;
- interoperability with other military operational tools (e.g. LOGFAS) as well civilian;
- secure exchanges between military stakeholders;
- secure and 'tailored' information sharing with civilian stakeholders.

All other ideas and digital solutions are welcome.