



NCIA/ACQ/2024/07388
07 November 2024

Market Survey

PROJECT “Advanced Analytics for the Alliance Persistent Surveillance from Space (APSS) Programme”

NCI Agency Reference: MS-CO-42337-APSS

NCI Agency is seeking information from Nations and their Industry regarding the availability of solutions among all NATO Nations.

NCI Agency Point of Contact

Principal Contracting Assistant: Emira Kapetanovic

E-mail: Emira.Kapetanovic@ncia.nato.int

To : Distribution List (Annex A)
Subject : **NCI Agency Market Survey**
MS-CO-42337-APSS

1. NCI Agency requests the assistance of the Nations and their Industry already listed within the (BOA) to identify a Service that can meet or exceed one or more requirements under the scope of this project.
2. A summary of the requirements is set forth in the Annex B attached hereto. Respondents are requested to reply via the questionnaire at Annex B. Other supporting information and documentation (technical data sheets, descriptions of existing installations, etc.) are also desired.
3. The NCI Agency reference for this Request for Information is MS-CO-42337-APSS, and all correspondence and submissions concerning this matter should reference this number.
4. Responses may be issued to NCI Agency directly from Nations or from their Industry (to the staff indicated at Paragraph 7 of this Request for Information). Respondents are invited to carefully review the requirements in Annex B.

NATO Communications and Information Agency
Boulevard Leopold III
1110 Brussels
Belgium
www.ncia.nato.int



5. Responses shall in all cases include the name of the firm, telephone number, e-mail address, designated Point of Contact, and an UNCLASSIFIED description of the capability available and its functionalities. This shall include any restrictions (e.g. export controls) for direct procurement of the various capabilities by NCI Agency. Non-binding pricing information is also requested as stated in Annex B.
6. Responses are due back to NCI Agency no later than 17:00 Brussels time on 07 December 2024.
7. Please send all responses via email to the following NCI Agency Point of Contact:

To Attention of: Emira Kapetanovic
E-mail: Emira.Kapetanovic@ncia.nato.int
8. Service demonstrations are not foreseen during this initial stage. At this stage, clarification requests or any further questions are not accepted in return. NCI Agency reserves the right to invite respondents to explain their proposed tools. Respondents are requested to await further instructions after their submissions and are requested not to contact directly any NCI Agency staff other than the POC identified above in Paragraph 7.
9. Any response to this request shall be provided on a voluntary basis. Negative responses shall not prejudice or cause the exclusion of companies from any future procurement that may arise from this Request for Information. Responses to this request, and any information provided within the context of this survey, including but not limited to pricing, quantities, capabilities, functionalities and requirements will be considered as information only and will not be construed as binding on NATO for any future acquisition.
10. The NCI Agency is not liable for any expenses incurred by firms in conjunction with their responses to this Request for Information and this shall not be regarded as a commitment of any kind concerning future procurement of the items described.
11. Your assistance in this Market Survey request is greatly appreciated.

For the Chief of Acquisition:

Emira Kapetanovic
Principal Contracting Assistant

Enclosures:

Annex A (Distribution List)

Annex B (Summary of Requirements & Questionnaire)

Annex C (NATO Principles of Responsible Use of Artificial Intelligence in Defence)

ANNEX A

Distribution List for Market Survey
MS-CO-42337-APSS

All NATO Delegations (Attn: Investment Adviser)
 NATO Members Embassies in Brussels (Attn: Commercial Attaché)
 Potential Industrial Suppliers (NCI Agency BOA Holders)
 NCI Agency – All NATEXs
 NCI Agency – (reserved)

Potential Industrial Suppliers (NCI Agency BOA Holders)

#	Country	Supplier Name
1	Belgium	Accenture NV/SA
2	Belgium	AEROSPACE LAB SA
3	Belgium	FUNKY DUCK BV
4	Bulgaria	Lirex BG Ltd.
5	Canada	COMPUSULT LIMITED
6	Canada	GlobVision Inc.
7	Canada	MDA Geospatial Services Inc.
8	Canada	Wyvern Incorporated
9	Czechia	SpaceKnow Inc., odstepny zavod
10	Finland	ICEYE Oy
11	Finland	Kuva Space Oy
12	France	THALES SIX GTS FRANCE SAS
13	France	PRELIGENS
14	France	AIRBUS DEFENCE AND SPACE SAS
15	France	Telespazio France
16	Germany	EUROPEAN SPACE IMAGING GMBH
17	Germany	GAF AG
18	Germany	NV5 Geospatial Solutions GmbH
19	Netherlands	Science and Technology BV
20	Netherlands	Solitee B.V.
21	Slovakia	Aliter Technologies a.s
22	Spain	GMV AEROSPACE AND DEFENCE S.A.U.
23	Türkiye	CTech Information Technologies Ltd
24	Türkiye	OBSS Teknoloji A.S.
25	United Kingdom	Datasumi Ltd
26	United Kingdom	Global Satellite VU Ltd.

27	United Kingdom	Skytek Technology Ltd
28	United Kingdom	HEO Robotics UK Ltd.
29	United Kingdom	BAE Systems (Operations) Limited
30	United States	BlackSky Global LLC.
31	United States	Cubic Digital Intelligence, Inc.
32	United States	Capella Space Corp
33	United States	Maxar Intelligence Inc.
34	United States	BlueWater Federal Solutions, Inc.
35	United States	Inonde LLC
36	United States	AIREON LLC
37	United States	Planet Labs PBC
38	United States	UltiSat, Inc.
39	United States	GLOBECOMM SYSTEMS INC.
40	United States	Umbra Lab, Inc.

ANNEX BRequirements & Questionnaire
Market Survey
MS-CO-42337-APSS**REQUIREMENTS****Project Scope**

1. The mission of NATO's Alliance Persistent Surveillance from Space (APSS) Programme is to enhance Alliance situational awareness and decision making through the establishment of a virtual constellation and the integration of timely, persistent and relevant data and services from Space. With the introduction of tasked electro-optical (EO) commercial imagery into the Alliance, there will be a significant increase in imagery data, with no corresponding increase in imagery analysis resources.
2. This project seeks to deliver a feasibility assessment on technical exploitation of advanced analytics required by the NATO Command structure and to use technology to provide imagery analysts with tool(s) to assist them in their tasks. The NCIA is exploring the potential for industry to provide advanced analytics on, primarily, electro-optical (EO) commercial satellite imagery to fulfil 6 identified requirements. This market survey will form the basis to further tailor these requirements into a statement of work, which will allow NCIA to identify, select, procure and test technologies alongside NATO imagery analysts to understand which of the selected technologies best supports the analysts in the processing of the vast number of images that will be available for exploitation.
3. The 6 requirements identified by NATO users are as follows:

As an imagery analyst I want a tool which:

- I. automatically indicates whether the defined target area¹ requested for exploitation is of suitable quality/resolution within an image, so that I can only spend time retrieving relevant and exploitable imagery.
- II. automatically indicates to what extent the defined target area requested for exploitation is cloud covered within an image, so that I can only spend time retrieving relevant and exploitable imagery.
- III. automatically indicates whether the entire defined target area¹ requested for exploitation is contained within an image, so that I can only spend time retrieving imagery relevant to my task.

¹ A defined target area should be defined by the requester in the form of a centre point with a radius or an outline defined as a polygon.

- IV. automatically quantifies approximate numbers of aircraft, vessels, vehicles or other manmade objects within an image or defined target area so that I can automatically be alerted to areas of interest for exploitation.
- V. conducts automated object classification to automatically classify aircraft, vessels, vehicles or other manmade objects within an image or defined target area so that I can automatically be alerted to areas of interest for exploitation.
- VI. automatically monitors overall disposition of assets at targets of interest, such as airfields, barracks, ports etc. and automatically highlight significant quantitative changes in standard dispositions so that I can understand how the disposition of assets at a given location has changed over time and be alerted to areas of interest for exploitation.

QUESTIONNAIRE

4. This is an opportunity for NCIA to better understand the market and current industry capabilities for any of these 6 requirements. The answers to the following questions will be treated in confidence and kept internally for NATO use only. In this context, negative answers to these questions are as important as positive ones. It is not the Agency's objective to force service providers into last-minute additions to their service baseline, nor automatically disqualify them based on services they simply do not consider core to their business strategy. **Note:** Any tool capable of satisfying any of the above requirements should be able to operate on EO commercial satellite imagery on an unclassified system (i.e. the NATO cloud environment). If selected for demonstration, any tool should also be ready to use now on a given data set and not be a capability under development.
5. Please answer the following set of questions for each requirement, as we are interested in gathering information for each requirement separately. Also indicate if a tool covers multiple requirements (you can cross-reference between answers from different requirements) or even just a subset of one requirement. Please submit your answers in either Word or PDF format, along with a brief company overview with a link to your company website.

Requirement x [please state to which requirement (I to VI) your answer is responding]:	
a)	Do you offer a tool that satisfies this requirement?
b)	How does your tool work to fulfil this requirement? Which technologies does your tool depend on? Can you provide some examples?
c)	What level of performance can we expect from your tool's analysis? Are there cases or scenarios when it will fail? Preferred performance metrics are accuracy, recall, precision, and F1 score, but other metrics relevant to the specific requirement might also be reported on.
d)	Can your tool provide a detailed report or summary of its analysis?
e)	Does your tool integrate with other systems and tools commonly used by imagery analysts and if so, how?

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| f) | What computing requirements are needed to run this tool; are there any additional requirements we need to take into account? |
| g) | (Optional in case you do not offer an operational ready tool to fill in the specified requirement.) Do you see alternative ways to fulfil this requirement? |

6. In addition to the questions related to each requirements, we also have two general questions:

<u>Cost/licensing:</u>

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| a) What is the rough order of magnitude (ROM) cost or licensing approach for the tool or tools you offer for feasibility/budget purpose? |
| b) Do you have a trial license period we could exercise? What would be the conditions/limitation and ROM cost. |

<u>NATO Principles of Responsible Use of Artificial Intelligence in Defence</u>
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| a) Can you provide information on your company's approach to responsible AI development and use, including any ethical considerations and safeguards that are in place (see Annex C)? |
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ANNEX C
NATO Principles of Responsible Use of Artificial Intelligence in Defence
Market Survey
MS-CO-42337-APSS

Allies and NATO commit to ensuring that the AI applications they develop and consider for deployment will be – at the various stages of their lifecycles – in accordance with the following six principles:

1. **Lawfulness:** AI applications will be developed and used in accordance with national and international law, including international humanitarian law and human rights law, as applicable.
2. **Responsibility and Accountability:** AI applications will be developed and used with appropriate levels of judgment and care; clear human responsibility shall apply in order to ensure accountability.
3. **Explainability and Traceability:** AI applications will be appropriately understandable and transparent, including through the use of review methodologies, sources, and procedures. This includes verification, assessment and validation mechanisms at either a NATO and/or national level.
4. **Reliability:** AI applications will have explicit, well-defined use cases. The safety, security, and robustness of such capabilities will be subject to testing and assurance within those use cases across their entire life cycle, including through established NATO and/or national certification procedures.
5. **Governability:** AI applications will be developed and used according to their intended functions and will allow for: appropriate human-machine interaction; the ability to detect and avoid unintended consequences; and the ability to take steps, such as disengagement or deactivation of systems, when such systems demonstrate unintended behaviour.
6. **Bias Mitigation:** Proactive steps will be taken to minimise any unintended bias in the development and use of AI applications and in data sets.