

**RFI0032**

**REQUEST FOR INFORMATION**

**NavyX Autonomy Systems**

**RFI Title:** NavyX Autonomy Systems

**Issue Date:** 09 February 2024

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**Version:** 1.0

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# Introduction

This RFI is not a bidding opportunity but a means by which industry and other organisations can provide information. Any resulting procurement activity will be conducted competitively.

**Please note:**

**This RFI is an information gathering exercise and is being conducted in conjunction with other industry engagement events. Any future procurement activity will be advertised in line with public procurement regulations on the Defence Sourcing Portal and Contracts Finder.**

Background

NavyX is the Royal Navy (RN) autonomy and lethality accelerator which rapidly develops, tests and trials new technology for maritime operations. Through platform ownership and operation NavyX provide the services to experiment with new technology in the maritime environment and are also driving development in technology, processes, and certification to deliver safe and effective Maritime Autonomous Systems (MAS).

NavyX has set a headmark intended to stimulate progress in the operational application of Naval Autonomous Systems. NavyX intend to deliver and trial Degree 4 Autonomy onto one or more naval service owned surface platform(s). NavyX use the four degrees of autonomy, as defined by the International Maritime Organisation (IMO) (Ref [[1]](#endnote-2)), to scope the autonomy requirement.

Critical to this work will be the ability to understand the availability, capability, and technical readiness levels of maritime autonomous control systems and automated decision support tools, which may ultimately be integrated into, or utilised in conjunction with a NavyX surface asset.

NavyX would seek to independently test and evaluate appropriate autonomous control systems and/or automated support tools both through simulation and real-life application to meet their headmark. Such test and evaluation will support the appropriate certification and accreditation to operate autonomous maritime systems within UK waters. As such any solutions proposed will need to apply appropriate open standards to enable integration into both the ship, and systems for test and evaluation.

Any future procurement of such systems will be subject to procurement regulations.

RFI intended outcomes.

This RFI aims to achieve the following outcomes:

1. To understand the nature, scope, technical readiness levels and availability of full or partial autonomous maritime control systems, and what the boundaries are of each product in contributing to autonomy.
2. To understand the nature, technical readiness and availability of automated decision support tools that may be used to support or augment manned or autonomous maritime operations.
3. To gauge the appetite for organisations to work in conjunction with the MOD (NavyX) to offer available systems/sub-systems for independent test and evaluation and possible integration into NavyX assets.
4. To understand, if appropriate, where mutually beneficial partnerships may be established between MOD (NavyX) and organisations to further the understanding and development of solutions relevant to the objectives.
5. To understand any potential proprietary issues which may influence the integration of any proposed system or sub system into NavyX vessel of choice or into an independent test and evaluation system, such as a simulation test rig.
6. Align the NavyX requirement with industry capability and processes for procurement of the required solution.
7. Where necessary develop a procurement strategy that will deliver best value for money for Defence.

RFI Procedure

Responses to this RFI will be reviewed by subject matter experts from different functional areas within Navy Command Headquarters.

If upon review of your submission any clarifications or additional information is required, you will be contacted using the details provided in your RFI response.

Any details provided in response to this RFI will be used for information purposes only and will not be used to determine the potential Suppliers who will be invited to bid, should the Authority proceed to tender.

The results and analysis of this RFI shall not constitute any form of pre-qualification exercise.

Any formal procurement process will be undertaken in accordance with the relevant Procurement Law.

Nothing in this RFI, or any other engagements with Industry prior to a formal procurement process, shall be construed as a representation as to the Authority’s ultimate decision in relation to the future requirement.

How to submit responses to this RFI

Respondents should provide responses in accordance with the format provided in **Annex A** quoting the RFI reference on all documentation and emails**.**

Organisations may submit multiple solutions, one solution per form.

Please do not submit additional documents such as company overviews, the purpose of the RFI is to collect information related to the technical solution, any additional documents will not be included in the review process.

Any responses received after the deadline will be passed to the subject matter experts for information, however they may not be included in the RFI review meetings which are to be held immediately following the deadline.

Once completed, please return electronically to the e-mail address(es) shown below in **section 9,** no later than **12:00, 11 March 2024**.

Responses will be acknowledged electronically by return e-mail.

Confidentiality & Proprietary Information

No information included in your response, or in discussions connected to it, will be disclosed to any other third party.

Proprietary information, where included, should be kept to minimum and must be clearly marked.

**For the purposes of this RFI, any documentation submitted should be classification OFFICIAL**.

Costs of preparing your RFI response

Any costs relating to the preparation and submission of a response to this RFI are the sole responsibility of the respondent.

## Insurance

Not used

## Contact

Quoting the RFI reference, please submit

1. any requests for clarification
2. all responses to this RFI and
3. any questions regarding Classification of document(s) intended for submission, to:

[NAVYCOMRCL-RFI@mod.gov.uk](mailto:NAVYCOMRCL-RFI@mod.gov.uk)

Annex A

**RFI0032 NavyX Autonomy Systems**

|  |  |
| --- | --- |
| **Question** | **Answer** |
| Company/Organisation Name |  |
| Company/Organisation Address |  |
| If the respondent is not a company, please specify the nature of the organisation (i.e. Academic institution, enterprise group, research group etc.) |  |
| Is the company a Small - Medium Enterprise (less than 250 employees)? |  |
|  | |
| Name of Company/Organisation representative completing the RFI |  |
| Contact details (e-mail and telephone number) |  |
| Company/Organisation web site address |  |
|  | |
| **Maritime Autonomous Control Systems**  As detailed in the intended outcomes (1) listed above, please provide a description of the key functions of any available autonomous maritime control system/partial system offering where appropriate links to relevant technical/sales or other publicly available information (please do not attach any documentation to your response) | NMT 500 words |
| **Maritime Automated Decision Support Tools**  As detailed in the intended outcomes (2) listed above, please provide a description of the key functions any available automated decision support system/tool, offering where appropriate links to relevant technical/sales or other publicly available information (please do not attach any documentation to your response) | NMT 500 Words |
| As detailed in the intended outcomes (1,2) above, please indicate the technical readiness level of any proposed solution, indicating where, if appropriate this may be influenced by work in conjunction with the MOD. | NMT 500 Words – Include TRL of proposed solution |
| As detailed in the intended outcomes listed above (4) In offering a potential solution would you be proposing a solution that through partnering with MOD would enable further development? Please provide as much detail as possible. | NMT 500 Words – Include TRL of proposed solution |
| As detailed in the intended outcomes listed above (5) Please indicate any proprietary issues you may foresee in offering a solution for integration into a NavyX owned vessel or for independent test and evaluation. | NMT 500 Words |
| To understand ROM Costs please specify within which cost bracket any proposed solution may fall including any ongoing support and training that may be provided. | <£100K  £100K-500K  £500K-£1M  £1M-£5M  >£5M |
| **Innovative solutions are most welcome, even if they do not meet all the requirements above, we would welcome the opportunity to consider the positives and negatives.** | |

1. IMO MSC.1/Circ.1638, 3 June 2021; [MSC.1-Circ.1638 - Outcome Of The Regulatory Scoping ExerciseFor The Use Of Maritime Autonomous Surface Ships... (Secretariat).pdf (imo.org)](https://wwwcdn.imo.org/localresources/en/MediaCentre/HotTopics/PublishingImages/Pages/Autonomous-shipping/MSC.1-Circ.1638%20-%20Outcome%20Of%20The%20Regulatory%20Scoping%20ExerciseFor%20The%20Use%20Of%20Maritime%20Autonomous%20Surface%20Ships...%20(Secretariat).pdf); URL accessed Nov 2023; [↑](#endnote-ref-2)