



NORTH ATLANTIC TREATY ORGANISATION
HEADQUARTERS SUPREME ALLIED COMMANDER TRANSFORMATION
7857 BLANDY ROAD, SUITE 100
NORFOLK, VIRGINIA, 23551-2490

Request for Proposal

RFP-ACT-SACT-23-31

Novel Materials and Manufacturing Study

on

Alternative Battery and Wearable Technologies

Amendment 1

Bidding Instructions

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BIDDING INSTRUCTIONS

1. General

This is a Firm Fixed Price deliverables contract in accordance with the HQ SACT General Terms and Conditions; **Contract Award is contingent upon funding availability; Partial bidding is not allowed.**

2. Classification

This Request for Proposal (RFP) is a NATO UNCLASSIFIED document.

3. Definitions

- (a) The "Prospective Bidder" shall refer to the entity that has indicated thereon its intention without commitment, to participate in this RFP.
- (b) The term "Bidder" shall refer to the bidding entity that has completed a bid in response to this RFP.
- (c) The term "Contractor" shall refer to the bidding entity to whom the contract is awarded.
- (d) The term "Contracting Officer" designates the official who executes this RFP on behalf of HQ SACT.
- (e) "Contracting Officer's Technical Representative" or "COTR" is the official who is appointed for the purpose of determining compliance of the successful bid, per the technical specifications.
- (f) The term "HQ SACT" shall refer to Headquarters Supreme Allied Commander Transformation.
- (g) The term "ACT" shall refer to Allied Command Transformation.
- (h) The term "NATO" shall refer to the North Atlantic Treaty Organisation.
- (i) The term "days" as used in this RFP shall, unless otherwise stated, be interpreted as meaning calendar days.

4. Eligibility

This RFP is open to governmental or commercial entities:

- (a) Established in a North Atlantic Treaty Organisation Alliance member nation.
- (b) Working in the required field of study and legally authorised to operate in the United States of America, at the time of bidding.
- (c) Has performed the desired past performance including size, cost and scope, as described in this RFP.
- (d) **All proposed key personnel on this requirement must be citizens of a NATO member nation.**

5. Duration of Contract

- (a) The contract awarded shall be effective upon date of award.
- (b) Period of Performance: on or about 20 April 2023 – 23 November 2023

6. Exemption of Taxes

- (a) In accordance with the agreements (Article VIII of the Paris Protocol dated, 28 August 1952) goods and services under this contract are exempt from taxes, duties and similar charges.

7. Amendment or Cancellation

- (a) HQ SACT reserves the right to amend or delete any one or more of the terms, conditions or provisions of the RFP prior to the date set for bid closing. A solicitation amendment or amendments shall announce such action.
- (b) HQ SACT reserves the right to cancel, at any time, this RFP either partially or in its entirety. No legal liability on the part of HQ SACT shall be considered for recovery of costs in connection to bid preparation. All efforts undertaken by any bidder shall be done considering and accepting, that no costs shall be recovered from HQ SACT. If this RFP is cancelled any/all received bids shall be returned unopened, per the bidder's request.

8. Bidder Clarifications

- (a) Prospective Bidders should seek clarification at their earliest convenience. Any explanation regarding the meaning or interpretation of this RFP, terms, clause, provision or specifications, shall be requested in writing, from the Contracting Officer. The Contracting Officer must receive such requests for clarification no later than 3 (three) calendar days prior to the bid closing date.
- (b) In lieu of a bidder's conference, HQ SACT invites bidders to s u b m i t initial technical and contractual questions not later than 05 April 2023.
- (c) Information in response to all inquiries / requests for clarification to a prospective bidder shall be furnished to all prospective bidders at the following link: <http://www.act.nato.int/contracting> as a Question and Answer addendum. All such addendums and any necessary solicitation amendments shall be incorporated into this RFP. Oral Interpretations shall not be binding.

9. Bid closing date

Bids shall be received at HQ SACT, Purchasing and Contracting Office, no later than **17 April 2023, 0900 hours, Eastern Standard Time, Norfolk, Virginia, USA**. No bids shall be accepted after this time and date. **No hard copy proposals will be accepted.**

10. Bid Validity

Bids shall remain valid for a period of one hundred and twenty days (120) from the applicable closing date set forth within this RFP. HQ SACT reserves the right to request an extension of validity. Bidder shall be entitled to either grant or deny this extension of validity. HQ SACT shall automatically consider a denial to extend the validity as a withdrawal of the bid.

11. Content of Proposal

A table of contents for the entire proposal

- (a) The bidder's full name, address, Point of Contacts, Telephone, Fax number; Internet site;
- (b) Compliance statement (See Enclosure#1);
- (c) Past performance (See Enclosure #2); references will be accepted in lieu of past performance
- (d) Provision of technical and price volumes;
- (e) Compliance matrix (See Annex B to Statement of Work).

12. Proposal Submission

- (a) Proposals shall be submitted electronically in a two separate PDF documents, one containing the **Technical Proposal** and one containing the **Price Proposal**, each e-mailed separately to:

- Technical proposal: techproposal@act.nato.int
- Price proposal: priceproposal@act.nato.int

E-mail subjects shall include the solicitation information along with company name (for example: RFP-ACT-SACT-23-31_Tech_ABC Inc. / RFP-ACT-SACT-23-31_Price_ABC Inc.). **Allow sufficient time in your submission should you encounter e-mail size challenges.** Price_ABC Inc

- (b) **Price proposals shall be in U.S. Dollar currency.** Contractor may request payment post award in alternate currency based on agreed conversion rate.
- (c) Prices shall be on a **Firm Fixed Price Basis** and include any relevant discount schedule.
- (d) No oral bids or oral modifications or telephonic bids shall be considered.
- (e) It is the ultimate responsibility of a prospective bidder prior to submission

that all proposal submissions are reviewed to ensure they meet the technical, contractual and administrative specifications and that offers meet the limitations and expressed conditions.

13. Late Proposals

- (a) It is solely the bidder's responsibility that every effort is made to ensure that the proposal reaches HQ SACT prior to the established closing date and time. All late bids shall be returned to the offering company unopened. Only if it can be unequivocally demonstrated that the late arrival of the bid package was the result of NATO staff negligence (mishandling) shall the bid be considered.
- (b) **A delay in an e-mail exchange due to server or size restrictions does not constitute a delay by NATO.**

14. Bid Withdrawal

A bidder may withdraw their bid up to the date and time specified for bid closing. Such a withdrawal must be completed in writing or facsimile, with attention to the HQ SACT Contracting Officer.

15. Bid Evaluation

- (a) The evaluation of bids and determination as to the responsiveness and technical adequacy or technical compliance, of the products or services requested, shall be the responsibility of HQ SACT. Such determinations shall be consistent with the evaluation criteria specified in the RFP. HQ SACT is not responsible for any content that is not clearly identified in any proposal package.
- (b) Proposals shall be evaluated and awarded to the company that represents the best value to NATO. Proposals will be evaluated with the following weight criteria: 70/30 Technical/Price. Technical clarification of essential competencies may be conducted.
- (c) Acceptance of HQ SACT General Terms and Conditions.

16. Proposal Clarifications

During the entire evaluation process HQ SACT reserves the right to discuss any bid with the order to clarify what is offered and interpretation of language within the bid, to resolve in potential areas of concern.

17. Award

HQ SACT intends to award a firm fixed price contract(s) to the Offeror(s) whose proposal(s) represents the best value offer to NATO. Partial awards are not authorized.

HQ SACT will collect information from references provided by the Offeror in regard to its past performance. Contractors must provide authorization to contact references. HQ SACT reserves the right to negotiate minor deviations to the listed General Terms and Conditions to this RFP.

18. Communications

All communication related to this RFP, between a prospective bidder and HQ SACT shall only be through the nominated HQ SACT Contracting Officer. Designated contracting staff shall assist the HQ SACT Contracting Officer in the administrative process. There shall be no contact with other HQ SACT personnel in regards to this RFP. Such adherence shall ensure Fair and Open Competition with equal consideration and competitive footing leverage to all interested parties.

19. Points of Contact:

Tonya Bonilla, ACT Contracting Officer,
757-747-3575, tonya.bonilla@act.nato.int

Catherine Giglio, ACT Contracting Officer,
757-747-3856, Catherine.giglio@act.nato.int

Magdalena Ornat, ACT Contracting Specialist,
757-747-3150, magdalena.ornat@act.nato.int

Enclosure 1

COMPLIANCE STATEMENT TO SEALED BID RFP-ACT-SACT-23-31

It is hereby stated that our company has read and understands all documentation issued as part of RFP-ACT-SACT-23-31. Our company proposal submitted in response to the referenced solicitation is fully compliant with the provisions of RFP-ACT-SACT-23-31 and the intended contract with the following exception(s); such exemptions are considered non substantial to the HQ SACT solicitation provisions issued.

<u>Clause</u>	<u>Description of Minor Deviation.</u>
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(If applicable, add another page)

Company: _____

Signature: _____

Name & Title: _____

Date: _____

Company Bid Reference: _____

Bidder's proposal must be based on full compliance with the terms, conditions and requirements of the RFP and all future clarifications and/or amendments. The bidder may offer variations in specific implementation and operational details provided that the functional and performance requirements are fully satisfied. In case of conflict between the compliance statement and the detailed evidence or explanation furnished, the detailed evidence/comments shall take precedence/priority for the actual determination of compliance. Minor or non-substantial deviations may be accepted. Substantial changes shall be considered non responsive.

Enclosure 2

PAST PERFORMANCE INFORMATION FORM (References may be submitted in lieu of past performance)

- (a) Contracting Entity:
- (b) Contract No:
- (c) Type of Contract (Firm Fixed Price, IDIQ, Requirements):
- (d) Title of Contract:
- (e) Description of Work Performance and Relevance to Current Acquisition (Type of facility, capacity, estimated patronage, summary of staff used):
- (f) Contract Dollar Amount:
- (g) Period of Performance:
- (h) Name, Address, Fax and Telephone No. of Reference:
- (i) Indicate Whether Reference Acted as Prime or Sub-contractor:
- (j) Comments regarding compliance with contract terms and conditions:
- (k) Complete Contact Information for client:
- (l) Permission to contact client for reference: Yes/ No Name/Signature of Authorized Company

Official

This Enclosure is designed to assist the respective company provide HQ SACT with all necessary documents/information required. For clarification, please refer to Bidding instructions in part 1 of subject solicitation.

Enclosure 3

Proposed rates must be fully “loaded” [G&A, O/H etc.], however they must not include per diem (meals & lodging) and travel. Travel (and related expenses) will not be covered under this contract, but handled separately in accordance with the ACT Financial Manual if required.

The cost schedule below has been established to allow for milestone payments against deliverables produced – however due to the nature of this study, the final deliverable must represent 50% or more of the total contract value.

Please find on behalf of **Insert: Company Name** to provide HQ SACT with services (collectively referred as “ITEMS”), subject to the provisions, terms and conditions stated in RFP ACT-SACT-23-31 and the “**Insert : Company Name** Technical proposal”, submitted in accordance with solicitation provisions.

Deliverables	COST
1. Discovery	\$
2. Opportunities and Risk	\$
3. Draft Report	\$
4. Final Report	\$

Please verify and acknowledge propriety of above, by duly completing signatures below.

Authorizing Company Official:

Printed _____ Name: _____ Title: _____
 Position: _____

Authorizing Company (Signature): _____, Date: _____.

Company name Witness Official:

Printed _____ Name: _____ Title: _____
 Position: _____

Witness Signature: _____, Date ---

-Statement of Work-

Novel Materials and Manufacturing Study on Alternative Battery and Wearable Technologies

1. Introduction

The topic of Novel Materials and Manufacturing (NMM) is currently subject to a dynamic process of changes and is recognized by NATO as Emerging and Disruptive Technologies.

Novel Materials and Manufacturing combined with Biotechnology progress have changed the nature, availability and costs of new products use and have an immediate impact on the development of military capabilities within these areas. The recent technology advances in NMM and bring new opportunities, but also pose risks to the defence world. This challenge requires a focus on leveraging new technologies to maintain a strong ability to improve and maintain Operational Readiness by ensuring reliable support with Novel Materials and Manufacturing.

Therefore, a fundamental understanding of the risks and opportunities associated with advances within Novel Materials and Manufacturing technologies is essential for the success of current and future NATO operations conducted by multinational forces.

2. Background and Scope of Work

Based on a Study by NIAG on NMM (NIAG SG 284) there are two main areas, which require further investigation. Based on the identified advances of NMM in graphene, laboratory on a chip, sensors, wearable technology, nanotechnology, Internet of Things (IoT), and Internet of Bodies (IoB) there are new options to distribute data to the decision-making systems, save energy, reduce cost, and increase the digitalization of the multi-domain operational environment. The areas, namely “**Alternative Battery Technology**” and “**Wearable Technology**” are of great interest in the military sector for further applications. Therefore, the Alliance needs to exploit the opportunities offered by NMM to their fullest, but also address interoperability and compatibility issues, resilience and redundancy. This NMM Technologies study is part of an overall effort to improve the Alliance’s ability to shape the multi domain operations environment to our advantage and to support the digital transformation process.

The requested study should provide use cases for future military applications within this area and identify associated risks and opportunities for warfare and warfare development.

3. Acceptance Criteria

Acceptance Criteria for all the tasks include, but are not limited to the following criteria:

a. Content

1. The report will address the impact of NMM from a joint functions perspective. The joint functions are Multi domain operations (land, air, sea, space, cyber) and civilian-military areas
2. Follow-on experimentation. The report will provide advice on how to assess new technologies in experimentation and/or training activities (e.g., exercises) to help NATO develop future Tactics, Techniques and Procedures.

b. Presentation

4. Structure. The written deliverables shall be well structured, with good use made of headings and signposting methods to highlight key points or ideas.
5. Citations. The various perspectives or opinions cited are sourced from readily accessible and credible source material, made available using hyperlinks (where possible), footnotes (when needed) and a reference list. Authors must avoid plagiarism and should cite (hyperlink or footnotes) whenever using text or ideas that belong to another source.
6. Credible. The references used in shaping the written deliverables are drawn from an array of credible sources, from government and non-government arenas, from geographically dispersed and culturally diverse locations.
7. Visualisation. Graphics are not essential; however, the Author has approval to make use of graphics and pictures where necessary to communicate, sign post key points and enhance the reading experience. For any graphic, photograph, image, or similar item used, Author must annotate the report, providing documentation upon obtaining written permission from the creator or content owner of such image(s) so as to not infringe upon intellectual property rights, including copyrights and trademarks, related to use of graphic, images, and the like. Author is encouraged to create callout boxes of important quotes or pertinent information throughout the product.
8. Open. The written deliverables need to be in an industry standard, open (editable) format and not locked.
9. Intellectual property: All Intellectual Property rights developed as a result of both studies are transferred to, and become the sole property of, ACT, which may use or transfer them at its sole discretion.

The study will have a one-day mid-year (August) review workshop (virtual) to review the main findings progress with the Science and Technology POCs and the Logistics Section POCs.

4. Place of Performance

The contractor will work remotely or at the contractor's facility. Travel is not required for this Statement of Work.

5. Contractor Performance Requirements and Reporting

Contracting Officer's Technical Representative (COTR). The Contracting Officer shall assign a COTR. The COTR shall provide direction, guidance, and support information, as needed, for all technical and content areas of the SOW. The COTR shall resolve outstanding disputes, problems, deficiencies, and/or questions on the technical aspects of the SOW; review and approve all contractor duties for completeness and accuracy; and review the contractor's work. The COTR's written approval of work performed is mandatory for contractor invoices to be successfully processed. The COTR shall receive a letter of appointment from the Contracting Officer that describes in detail his/her roles and responsibilities to which he/she shall sign formal acceptance. The COTR for this contract as identified is LtCdr Christian Luebben, Innovation Branch, S&T Section.

6. Security

- All work is unclassified and contractors do not require security clearances.
- Security Considerations for the deliverables: None. Deliverables will not be classified and, therefore, will not bear any classification markings.

7. Task and deliverables

NATO's dependence on reliable and sustainable capabilities concerning NMM remains at a high level, reflecting a continuing need for cooperation and interoperability. It is challenging to identify and understand the fast developments of complex technologies and their trends but this is required to meet the ambition of the Warfare Development Agenda. Particularly, it is essential to evaluate the relevance of NMM to military multi domain operations and digital transformation (risks & opportunities).

Key aspects that the study should consider:

- Identification of NMM, which could be used in NATO operational activities and how they may be integrated. This includes, but is not limited to:
 - Alternative Battery Technology
 - General and short overview about currently used batteries used within the military environment
 - Provision of new graphene based products and services
 - Wearable Technology
 - General and short overview about currently used wearables within the military environment
 - Provision of possible implementation of graphene, laboratory on a chip, sensors, nanotechnology, Internet of Things, and Internet of Bodies based products
- Identify operational use cases for NATO from a multi-domain operations and digital transformation perspective including:
 - Necessary capabilities and precondition
 - Impacts on Tactics, Techniques and Procedures in military operations

- Benefits and opportunities, risks and challenges
- Recommendations for the Alliance
- Recommendations for developing potential Minimum Viable Products (MVPs)
- Use case diagrams illustrating the use case system, if applicable.

Deliverable

The work required is planned to be conducted in four Stages. It is planned for the delivery that reflects the nature of the tasking outlined. The final report has to be in a format and be sufficiently academically rigorous that it could be published.

Del.	Stage	Description	Due Date
1.	I	Discovery (what is available?) with delivery of a discovery report	31 May 2023
2.	II	Opportunities and Risks (red and blue use cases) with delivery of the main findings	30 September 2023
3.	III	Deliver Draft Report	27 October 2023
4.	IV	Deliver Final Report	23 November 2023

Status reports (max 2 pages) shall be provided at the **end of every month** containing progress, main findings and way ahead, which has to be discussed with the COTR. Any risks to the scheduled delivery of the final report on 23 Nov 23 shall be brought to the **immediate attention** of the COTR and shall be captured in the monthly status report.

Annex B

Compliance Matrix

Contractor’s technical proposals will be assessed on the qualifications of the both the company and individuals proposed to perform the work. Individuals’ résumés will be measured against each of the criteria specified below in order to ascertain whether the individuals have adequately qualifications to be considered compliant. (HQ SACT reserves the right to conduct technical discussions of nominated candidates). **Examples of how detailed knowledge levels were attained are expected. Ultimately Contractor companies shall clearly demonstrate by providing unequivocal reference to where company/key personnel meet the criteria set forth in this solicitation (please include page number, reference to CV or links as applicable).**

Bidder Name

Mandatory Criteria	Compliant (C)	Non-compliant (NC)
Demonstrated proficiency in English as defined in STANAG 6001 (Standardized Linguistic Profile (SLP) (Written and Oral). NATO: 3333.		
Minimum of 2 past performance citations to show that it has successfully completed work that is similar to or directly traceable to the requirements outlined in this SOW		
	Scored Criteria	
Proof of work in technology analysis and foresight in security research or defence research (Max 25 pts)	<ul style="list-style-type: none"> • Wide experience in technical research to support defence & government decision-making, specific broad experience in analysis and foresight methods, risk identification, strong recent experience is consistent across the majority of named experts. (18-25 pts) • Evidence of using technical research to support decision-making, specific broad experience in analysis and foresight methods, risk identification strong recent experience is clustered in small number of named experts. (12- 17 pts) • Evidence of using technical research and analysis to support decision-making; named experts have some recent expertise. (6-11 pts) • Technical research experience is insufficient. (1-5 pts) 	
Data sourcing & gathering (Max. 25 pts)	<ul style="list-style-type: none"> • Have access to data sources for cross-domain military capabilities and technologies, and clear expertise in using these sources given high-level customer requirements; expertise in sourcing and applying project and programme generic risk lists; strong recent experience is consistent across the majority of named experts. (18-25 pts) • Have access to data sources of technologies and facilities, and 	

	<p>clear expertise in using these sources given high-level customer requirements; strong recent experience is clustered in small number of named experts. (12- 17 pts)</p> <ul style="list-style-type: none"> • Have access to data sources for relevant information but typically require substantial customer input; some recent data gathering experience in named experts. (6-11 pts). • Data gathering experience is insufficient. (1-5 pts)
<p>Facilitation and consultancy (Max. 25pts)</p>	<ul style="list-style-type: none"> • Wide experience in designing and delivering studies, analyses, and technical researches of varying complexity, in-person and remotely, to successfully elicit structured and unstructured information from technical, military, and business people; strong recent experience is consistent across the majority of named experts. (18-25 pts) • Experience in designing and delivering delivering studies, analyses, and technical researches to successfully elicit structured and unstructured information from technical and business people; strong recent experience is clustered in a small number of named experts. (12- 17 pts) • Experience in eliciting information from technical experts; some recent facilitation experience in named experts. (6-11 pts) • Facilitation and consultancy experience is insufficient. (1-5 pts)
<p>Project and program management analysis (Max. 25 pts)</p>	<ul style="list-style-type: none"> • Wide experience leading and / or supporting project and programme definition for complex public or private sector initiatives; project definition, project delivery, and project controls expertise, including setting and tailoring standards and mentoring project teams; strong recent experience is consistent across the majority of named experts. (18-25 pts pts) • Experience in leading and / or supporting project and programme definition for large public or private sector initiatives; experience in delivering project definition and project controls products in line with recognized standards; strong recent experience is clustered in a small number of named experts. (12- 17) • Experience in project and / or programme delivery in line with recognised standards. (6-11 pts) • Experience in successfully managing consulting projects to deliver to time, cost, and quality. (1-5 pts)

HQ SACT GENERAL TERMS AND CONDITIONS DATED 01/26/2022 ARE APPLICABLE TO THIS PROCUREMENT AND CAN BE LOCATED ON THE ACT WEBSITE AT WWW.ACT.NATO.INT/CONTRACTING UNDER **CONTRACTOR INFORMATION**.