



**NORTH ATLANTIC TREATY ORGANISATION**

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

## **Request for Proposal**

**RFP-ACT-SACT-23-44**

**Political Military –  
Assisted Decision Making (PM-ADM) Proof of Concept/Demonstrator**

**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

- (a) This RFP is open to governmental or commercial entities.
- (b) Established in a North Atlantic Treaty Organisation Alliance member nation.
- (c) Working in the required field of study and legally authorised to operate in the country and countries in which this contract is to be performed, at the time at the time of bidding. Please refer to our terms and Conditions paragraph 23 "Authorization to Perform." 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:
  - Base Period: 5 July 2023 – 31 December 2023
  - Option Year 1: 1 January 2024 – 31 December 2024
  - Option Year 2: 1 January 2025 – 31 December 2025

## 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 three (3) calendar days prior to the bid closing date.
- (b) In lieu of a bidder's conference, HQ SACT invites bidders to submit initial technical and contractual questions not later than **09 June 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 ~~16 June 2023~~ **23 June 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) days** 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) A table of contents for the entire proposal;
- (b) The bidder's full name, address, Point of Contacts, Telephone, Fax number; Internet site;
- (c) Compliance statement (See Enclosure #1);
- (d) Past performance (See Enclosure #2); references will be accepted in lieu of past performance
- (e) Provision of technical and price volumes;
- (f) 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](mailto:techproposal@act.nato.int)
- Price proposal: [priceproposal@act.nato.int](mailto:priceproposal@act.nato.int)

E-mail subjects shall include the solicitation information along with company name (for example: RFP-ACT-SACT-23-44\_Tech\_ABC Inc. / RFP-ACT-SACT-23-44\_Price\_ABC Inc.). **Allow sufficient time in your submission should you encounter e-mail size challenges.**

- (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, 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 based on best value to NATO clarification of essential competencies may be conducted.
- (c) The following factors are considerations:
- Successful administrative submission of bid package and requested documents.
  - Compliance with mandatory criteria identified on Annex B (Compliant/non-Compliant).
  - Technical factors / pricing factors rated the following: Technical / Price = **70/30**.
  - 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, interpretation of language within the bid, and 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 overall value to NATO. **Partial awards are not authorized.**

HQ SACT will collect information from references provided by the Offeror in regards 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:

Magdalena Ornat, ACT Contracting Officer,  
757-747-3150, [magdalena.ornat@act.nato.int](mailto:magdalena.ornat@act.nato.int)

Catherine Giglio, ACT Contracting Officer,  
757-747-3856, [catherine.giglio@act.nato.int](mailto:catherine.giglio@act.nato.int)

Tonya Bonilla, ACT Contracting Officer,  
757-747-3575, [tonya.bonilla@act.nato.int](mailto:tonya.bonilla@act.nato.int)

**Enclosure 1 Compliance Statement**

**COMPLIANCE STATEMENT TO SEALED BID RFP-ACT-SACT-23-44**

It is hereby stated that our company has read and understands all documentation issued as part of RFP-ACT-SACT-23-44. Our company proposal submitted in response to the referenced solicitation is fully compliant with the provisions of RFP-ACT-SACT-23-44 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: \_\_\_\_\_

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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

### **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 Proposal Cover Pages

### SEALED BID PROPOSAL COVER PAGES

**COMPANY NAME:** ABC, Inc

Address: Street, building...

City, Post Code

### **SUBJECT: RFP-ACT-SACT-23- 44 PRICE PROPOSAL**

*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;  
<https://www.act.nato.int/images/stories/budfin/afm24.pdf>.*

<b>Base Period Deliverables</b>	<b>Performance Period</b>	<b>Cost</b>
1. Proof of Concept/ Demonstrator Version 0 IAW SOW para 4.	05 Jul – 31 Dec, 2023	\$
a. Conceptual Model IAW SOW para 4.a.	15 September 2023	\$
b. System Architecture design SOW IAW para 4.b.	30 August 2023	\$
c. List of open data sources to be used IAW SOW para 4.c	30 August 2023	\$
d. Data schema instantiates the Conceptual Model in a functional data store IAW SOW para 4.d.	30 October 2023	\$
e. Data ingestion module IAW SOW para 4.e.	30 October 2023	\$
f. Data analyses module IAW SOW para 4.f.	15 November 2023	\$
g. Visualization module IAW SOW para 4.g.	15 November 2023	\$
h. Support execution of the use case IAW SOW para 4.h.	30 November 2023	\$
i. User training materials IAW SOW para 4.h.	15 December 2023	\$
j. Proof of Concept/Demonstrator ready for user training activities	31 December 2023	\$
	<b>Base Period Total</b>	<b>\$</b>
<b>Option Period 1 Deliverables</b>	<b>Performance Period</b>	<b>Cost</b>
2. Collection of POC/Demonstrator strengths and weaknesses from developers plus initial feedback from beta test users and development of Base Version 0	01 Jan – 31 Dec, 2024	\$
a. Written report of the above with recommended improvements requested by users and developers for Version 1	31 March 2024	\$
b. Identify most promising improvements within scope and funding and develop plan to develop Version 1.	30 April 2024	\$
c. Complete planned Version1 improvements	30 August 2024	\$
d. Collection of Version 1 strengths and weaknesses from developers plus feedback	30 November 2024	\$

from test users in a written report		
e. Selection, prioritization, and plan for improvements for Version 2	31 December 2024	\$
	<b>Option Year 1 Total</b>	<b>\$</b>
<b>Option Period 2 Deliverables</b>	<b>Performance Period</b>	<b>Cost</b>
3. Development, deployment and use of Version 2	01 Jan – 31 Dec, 2025	\$
a. Identification and collection of additional feedback from users and developers on Version 2 into a written report.	15 November 2025	\$
	<b>Option Year 2 Total</b>	<b>\$</b>
	<b>GRAND TOTAL</b>	<b>\$</b>

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

Authorizing Company Official:

Printed Name: \_\_\_\_\_

Position: \_\_\_\_\_ Title: \_\_\_\_\_

Authorizing Company (Signature): \_\_\_\_\_, Date: \_\_\_\_\_

**Company name Witness Official:**

Printed Name: \_\_\_\_\_

Position: \_\_\_\_\_ Title: \_\_\_\_\_

Witness Signature: \_\_\_\_\_, Date: \_\_\_\_\_

## **Annex A: Statement of Work (SOW)**

### **Political Military – Assisted Decision Making (PM—ADM) Proof of concept/demonstrator**

#### **1. Introduction**

Following the 2019 Crisis Management Exercise (CMX) and the North Atlantic Council's (NAC) 2019 Away Day event, Political Guidance was issued that the Alliance can benefit from leveraging emerging technologies to assist decision making, acknowledging the complex relationships between the Political, Military, Economic, Social, Information and Infrastructure (PMESII) instruments of power. Responding to this challenge, the Supreme Allied Commander Transformation (SACT), after consulting with the Secretary General, took on the task to explore the viability of a capability to assist decision making at the strategic political-military level for the NAC to reach consensus in less time than seen in the CMX 2019. Today, enhancing NATO's capacity for Political and Military Assisted Decision Making (PM-ADM) embodies the SACT's purpose to continue to improve the Alliance's ability to better understand the strategic situation, recognize developing risks sooner, and decide faster than adversaries in mitigating the situation prior to conflict. There is no link between this effort and the Request for Proposal (RFP) for Open Source Intelligence (OSINT) Alerting Platform as a Software-as-a-Service (SaaS).

#### **2. Background and Scope of Work**

##### **a. Background.**

PM-ADM seeks to support the NAC in reaching data-driven decisions on crises faster than currently possible. To that end, PM-ADM deconstructed the decision process to three distinct phases of "Situation Sensing", "Situational Understanding" and "Cognitive Advantage + "Predictive Trends".

The PM-ADM capability development project has identified a need for a proof of concept/demonstrator which performs the dual functions of technical risk reduction and demonstration of capabilities. Technical risk reduction is achieved by developing and/or integrating components that have risk associated with them. Operational demonstrations show the promise of PM-ADM to future users by supporting a basic strategic level situation assessment use case, described below.

##### **b. Scope of work.**

The proof of concept/demonstrator is expected to:

- (1) Gather data pertinent to NATO's interests from a variety of data/information sources;
- (2) Analyse collected data to discern risk levels to NATO interest(s) as they increase and decrease, and to alert the user if a threshold value for an interest is exceeded or projected to exceed the threshold;

- (3) Determine what NATO protected assets are at risk from the developing situation, and the effects of their potential compromise;
- (4) Determine proposed courses of action to mitigate the risk, including the intended and non-intended effects execution;
- (5) The proof of concept/demonstrator shall follow the same type of process as the projected solution, but over a smaller set of data sources with abbreviated steps and a limited set of three defined NATO interests, specifically:
  - (a) Territorial Integrity (All NATO member borders secure);
  - (b) NATO's ability to operate freely within member nations' territories, territorial waters, and air space;
  - (c) NATO members' ability to obtain sufficient energy resources.

### 3. **Type of Contract and Period of Performance**

- a. **Type of Contract.** Firm Fixed Priced
- b. **Period of Performance.**

Base Period: 5 July 2023 – 31 December 2023  
Option Period 1: 1 January 2024 – 31 December 2024  
Option Period 2: 1 January 2025 – 31 December 2025

### 4. **Tasking and Deliverables**

- a. Conceptual Model.

The contractor shall develop a Conceptual Model (CM) proof of concept/demonstrator. The CM is the construct of the NATO relevant aspects of the world, focusing on NATO's interests, as seen by the data fed into PM-ADM. While knowledge graphs are discussed here, the vendor is free to use other approaches as long as they offer similar functionality.

- (1) The construct performs two functions. It forms the filter by which data is examined to determine if it is relevant to NATO strategic interests and therefore worthy of ingestion into PM-ADM. Once populated with data, the construct also forms the model by which to assess if any specific NATO interest(s) is at risk.
- (2) The construct provides the framework by which to designate and link instances derived from the data as not only an entity, but also as an instance of a node object where appropriate, so interdependencies from/to other nodes may be modelled accurately. Nodes are also recursive in that a power plant node may contain a building node which

contains a steam turbine node and so on. A node receives required information or services updates from its upstream node connections, then calculates its state change and sends the new state downstream to its dependents. Thus, the change propagates through the nodal network and may even branch out to other networks. Some of these nodes state changes will impact instances of NATO interests. Each interest has a threshold value assigned by the contractor, over which, the system will provide an alert to the user. The changes to interests and trends over time reflect the current condition of NATO interests and suggest their future conditions, which support development of mitigating actions.

An example could be the degradation of NATO's ability to operate aircraft in member airspace due to GPS jamming.

- (3) These nodes' instances are to be fed event data 24/7 which spans the range of Diplomatic, Informational, Military, Economic, Financial, Intelligence, and Law Enforcement (DIMEFIL) actions. Thus, the state of any node's interdependencies are constantly changing. This, in turn, affects the processes these nodes support, which could be in any or all of the Political, Military, Economic, Societal, Information, or Infrastructure domains.
- (4) This series of interconnected nodal networks represent the functions of the entities' processes and thus the functional world from NATO's perspective.

b. Architecture.

- (1) The proof of concept/demonstrator shall comply with guidance in the current NATO Architecture Framework (NAF) directive as feasible. NATO does not have an actual Enterprise Architecture in place but the proof of concept/demonstrator should align with the NAF as much as practical.
- (2) The proof of concept/demonstrator shall be available in a Software-as-a-Service (SaaS) paradigm, running at the contractor's facility and accessible to NATO personnel via the unclassified internet on web browsers on their desktop or laptop NATO issued computers.

c. Data Sources. The contractor shall arrange access for the proof of concept/demonstrator to ingest structured and unstructured data to include a minimum of:

- (1) At least two social media feeds such as Twitter™, Instagram™,

- TikTok™, Telegraph™ or similar;
- (2) At least two global news websites such as CNN™, BBC, or similar;
  - (3) Reference databases;
    - (a) Geospatial; Earth, Moon and Cislunar space, man-made features
    - (b) Geographic features, continents, terrain, ocean floor, bodies of water, etc.
    - (c) Political boundaries; Countries, state/provinces/oblasts, cities, towns, villages
    - (d) Ethnic and language locations
    - (e) Encyclopaedic; Janes, etc.
    - (f) Weather feed.
    - (g) Health status data from Centre for Disease Control (CDC) or others
    - (h) Text documents from file repositories

d. Data Aspects. The proof of concept/demonstrator shall:

- (1) Support the loading of entities as instances of a class, in accordance with the conceptual model;
- (2) Support the designation of selected entities as nodes, which may be of any type, to describe the strategic environment;
- (3) Support links between nodes that may be characterized by type and quantified as appropriate;
- (4) Support queries against the data, returning correct elements;
- (5) Link node(s) and/or network(s) of nodes to NATO interest(s);
- (6) Annotate events as DIMEFIL actions as appropriate;
- (7) Assign correct types of effects to DIMEFIL actions;
- (8) Identify nodes affected by effects by type;
- (9) Reflect status of node state change after impact by an effect;
- (10) Propagate the state change to the appropriate linked node(s) affected;
- (11) Reflect state change of the affected nodal network(s) and which NATO interest(s) are impacted.

e. Data Ingestion. The proof of concept/demonstrator shall:

- (1) Scan its data feeds and load only data relevant to NATO Strategic Interests into the data store;
- (2) Link relevant data to instance(s) already in the data store and/or create new instance(s);
- (3) Link to existing node(s) and/or create new node(s) as required.

- f. Data Analyses. The proof of concept/demonstrator shall:
- (1) Analyse the impact(s) of new data on the nodal networks and effects on NATO interest(s);
  - (2) Ascertain if the effect(s) pose a risk to any of the NATO Interests(s);
  - (3) When a risk is detected, the proof of concept/demonstrator shall alert the user to the new threat;
  - (4) Send NATO Interest(s) risk state changes to visualization.
- g. Visualization. The proof of concept/demonstrator user interface shall display:
- (1) A dashboard with limited user customization to display status of types of data;
  - (2) A query frame in it that allows a user to build and execute queries;
  - (3) Query frame also allows selection of the form the returned data is desired in: tabular, graphic, etc.;
  - (4) Return query results in specified format(s);
  - (5) Display trend(s) over time for selected NATO interest(s), node(s), network(s) of nodes, or entity (ies).
- h. Use Case. The proof of concept/demonstrator shall support the user story depicted and explained below and will be supported by user training materials:
- (1) The first step is to identify data sources, arrange access, and load data from database(s) and establish live feeds. Once in place, these feeds will be drawn into the scanning server, which will look for data relevant to defined NATO interest(s). Scanning may leverage techniques such as machine learning, neural networks or other approaches to filter out non-relevant data. Retained data, with its associated metadata (e.g. Date/Time, source, veracity [if known], format, language, etc.) will be forwarded for ingestion into the data store.



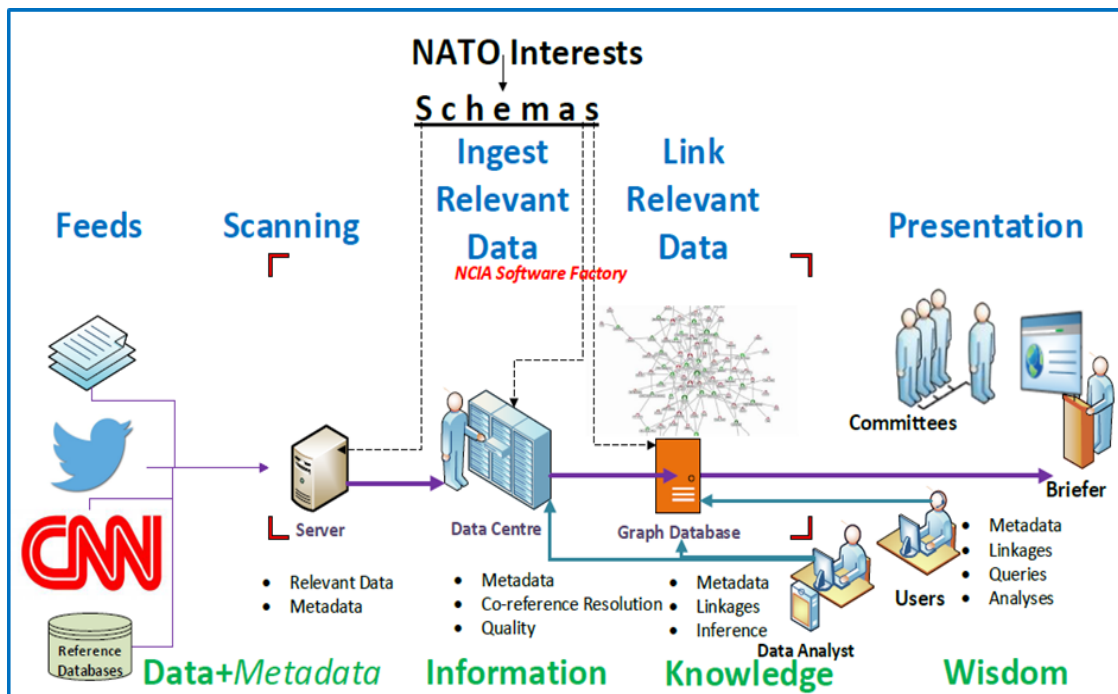


Figure 1: PM-ADM Proof of concept/demonstrator User Story (Hardware depiction is not prescriptive)

- (2) The instance of PM-ADM proof of concept/demonstrator software running on the vendor's server(s) receives the data. Once there, automated processes will be checked to examine the data and oversee such functions as co-reference resolution (identifying if multiple instances of the same item are in the data, so they all link correctly to the same item). Also, the metadata is checked for completeness and accuracy. Data will be linked as appropriate in accordance with the conceptual model (e.g. events to location, time, participants, cause, predecessor/successor events, etc.) to allow the richest possible representation of the data with its relationships. At this point the data is uploaded into the graph database to populate the graph.
- (3) New data in the graph may be improved by the graph inferencing over the data. That is, the graph makes logical connections between data aspects to actually increase the amount and quality of the data in the graph. This process may be enhanced by **human intervention if necessary**. At this point the system scans NATO interests to determine if the threat measures of merit are approaching or exceeding the maximum allowable values. If so, this triggers an alert to users that an interest is at risk, which triggers the assessment activity to ascertain the danger to NATO. The users analyse the data to confirm the risk, its cause and likely outcome. Then the users assess the vulnerabilities to find the optimal mitigation courses of action. These are distilled to a presentation for the North Atlantic Council (NAC), after which a

decision is reached with consensus.

## 5. **Acceptance Criteria**

The proof of concept/demonstrator/demonstrator must demonstrate they can deliver the below capabilities:

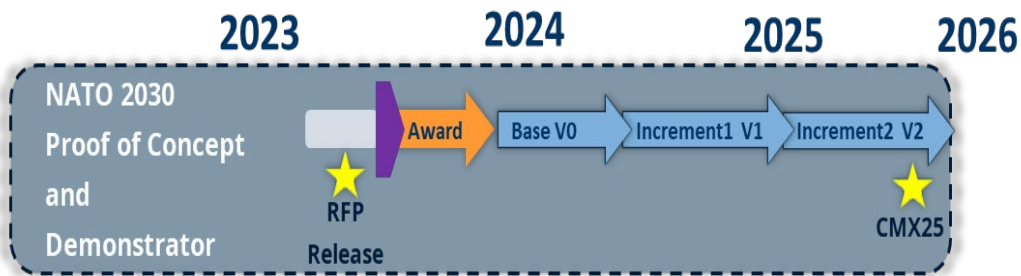
- a. Once loaded with appropriate reference data, the proof of concept/demonstrator shall collect, analyse and ingest data relevant to NATO interests with no more than a 15% error rate for the new data entered. “Relevant” is defined as data accepted for ingestion has no more than six links before it links to a NATO interest. Collection is a mix of constantly monitoring feeds and sampling from other data sources at regular intervals or when new data is received.
- b. The proof of concept/demonstrator shall collect metadata on each assertion with: source, date, and author.
- c. The proof of concept/demonstrator shall be able to form queries to examine links between nodes, execute them and retrieve appropriate data from the database for visualization of the network(s) formed by the collection of linked nodes.

The proof of concept/demonstrator shall support creation, editing, and deletion of links in the graph data human intervention if necessary. At this point the system scans NATO interests to determine if the threat measures of merit are approaching or exceeding the maximum allowable values. If so, this triggers an alert to users that an interest is at risk, which triggers the assessment activity to ascertain the danger to NATO. The users analyse the data to confirm the risk, its cause and likely outcome. Then the users assess the vulnerabilities to find the optimal mitigation courses of action. These are distilled to a presentation for the North Atlantic Council (NAC), after which a decision is reached with consensus.

## 6. **Schedule of Delivery**

- a. Base year period: 05 Jul – 31 Dec, 2023 Proof of Concept/ Demonstrator Version 0 IAW SOW para 4.
  - (1) 30 August 2023: System Architecture design SOW IAW para 4.b
  - (2) 15 September 2023: Conceptual Model IAW SOW para 4.a
  - (3) 30 August 2023: List of open data sources to be used IAW SOW para 4.c
  - (4) 30 October 2023: Data schema instantiates the Conceptual Model in a functional data store IAW SOW para 4.d

- (5) 30 October 2023: Data ingestion module IAW SOW para 4.e
  - (6) 15 November 2023: Data analyses module IAW SOW para 4.f
  - (7) 15 November 2023: Visualization module IAW SOW para 4.g
  - (8) 30 November 2023: Support execution of the use case IAW SOW para 4.h
  - (9) 15 December 2023: User training materials IAW SOW para 4.h
  - (10) 31 December 2023: Proof of Concept/Demonstrator ready for user training activities
- b. Option Year 1: 01 Jan – 31 Dec, 2024 Collection of POC/Demonstrator strengths and weaknesses from developers plus initial feedback from beta test users and development of Version 0.
- (1) 31 March 2024: Written report of the above with recommended improvements requested by users and developers for Version 1
  - (2) 30 April 2024: Identify most promising improvements within scope and funding and develop plan to develop Version 1
  - (3) 30 August 2024: Complete planned Version1 improvements
  - (4) 30 November 2024: Collection of Version 1 strengths and weaknesses from developers plus feedback from test users in a written report
  - (5) 31 December 2024: Selection, prioritization, and plan for improvements for Version 2
- c. Option Year 2: 01 Jan – 31 Dec, 2025 Development, deployment and use of Version 2.
- (1) 15 November 2025: Identification and collection of additional feedback from users and developers on Version 2 into a written report



**7. Contractor Performance Requirements and Reporting**

**Contracting Officer’s Technical Representative (COTR).** The COTR shall provide direction, guidance, and support information, as needed, for all technical areas of the SOW. Content areas of the SOW will be provided by COTR. 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 invoices to be successfully processed.

**Contractor Reporting.** The contractor shall engage with the COTR as needed and provide a progress report on SOW deliverables. The COTR will acknowledge each email with a reply receipt. The COTR reserves the right to amend the reporting requirements; receive alternate/ additional data and information on a more frequent basis; and request detail designated aspects of the work or methods to remedy problems and deficiencies.

8. **Personnel Required for Statement of Work**

The personnel assigned to the project shall have (as a combined team) the minimum qualifications contained in **Annex B**.

9. **Place of Performance**

Development work shall be performed at the contractor's facility. The contractor shall provide briefings and training either virtually or in person as necessary.

10. **Required Travel for Personnel Services Contracts**

It is anticipated that the contractor may travel in support of this contract for trainings and briefings (approximately 4 trips). NATO travel regulations and reimbursements are covered in Chapter 10 of the approved version of the Allied Command Transformation (ACT) Financial Manual, and are available at: <http://www.act.nato.int/forms-contractor-travel>. The COTR and Contracting Officer must approve trips and per diem in advance of all travel

11. **Physical Security:** Briefing at NATO requires Secret Clearances

12. **Security Considerations for the Deliverables:** Unclassified

**HQ SACT GENERAL TERMS AND CONDITIONS DATED 01/26/2022 ARE APPLICABLE TO THIS PROCUREMENT AND CAN BE LOCATED ON THE ACT WEBSITE AT <https://act.nato.int/contracting>**

## Annex B: Requirements 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).**

Bidders shall include reference to page number from within their technical proposal that proves requirement is met.

Bidder Name .....

Mandatory Criteria	Compliant (C)	Non-compliant (NC)
1. Valid NATO SECRET-level security clearance is required for key personnel attending/providing briefings at SACT HQ.		
2. Minimum of 2 past performance citations within the last seven years to show that it has successfully completed work that is similar to or directly traceable to the requirements outlined in this SOW.		

Scored Criteria		
1.	Proof of designing conceptual models as described in the SOW. <b>(Max 20 pts)</b>	<ul style="list-style-type: none"> <li>• Five (5) to seven (7) years’ experience in designing conceptual decision-making models, specific broad experience in analysis and foresight methods, risk identification, strong recent experience is consistent across the majority of named experts. (14 - 20 pts)</li> <li>• Three (3) to four (4) years’ experience in designing conceptual decision-making models, specific broad experience in analysis and foresight methods, risk</li> </ul>

		<p>identification strong recent experience is clustered in small number of named experts. (6 - 13 pts)</p> <ul style="list-style-type: none"> <li>• One (1) to two (2) years' experience of using designing conceptual decision-making models; named experts have some recent expertise. (1 - 5 pts)</li> <li>• No experience in designing conceptual decision-making models. (0 pts) 0 points is evaluated as non-compliant.</li> </ul>
2.	<p>Proof of ability to design the data model capability described in the SOW for use in a data store. <b>(Max 20 pts)</b></p>	<ul style="list-style-type: none"> <li>• Five (5) to seven (7) years' experience in designing data model capability using 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. (14 - 20 pts)</li> <li>• Three (3) to four (4) years' experience in using designing data model capability using data sources for cross-domain military capabilities and technologies using these sources given high-level customer requirements; recent experience is clustered in small number of named experts. (6 - 13 pts)</li> <li>• One (1) to two (2) years' experience designing data model capability using data sources for cross-domain military capabilities and technologies. Have access to data sources for relevant information but typically require substantial customer input; some recent data gathering experience in named experts. (1 - 5 pts)</li> <li>• No experience in designing data model capability using data sources for cross-domain military capabilities and technologies. (0 pts) 0 points is evaluated as non-compliant.</li> </ul>
3.	<p>Proof of ability to design a data scanning capability focused on data relevant to NATO interests from the data sources described in the SOW. <b>(Max 20 pts)</b></p>	<ul style="list-style-type: none"> <li>• Five (5) to seven (7) years' experience in designing data scanning capabilities using cross-domain military and non-military data sources. Experience is consistent across the majority of named experts. (14 - 20 pts)</li> <li>• Three (3) to four (4) years' experience in designing data scanning capabilities using cross-domain military and non-military data sources. Strong recent experience in a small number of named experts. (6 - 13 pts)</li> <li>• One (1) to two (2) years' experience in designing data scanning capabilities using cross-domain military and non-military data sources. Some recent experience in named experts. (1 - 5 pts)</li> </ul>

		<ul style="list-style-type: none"> <li>• No experience in designing data scanning capabilities using cross-domain military and non-military data sources. (0 pts) 0 points is evaluated as non-compliant.</li> </ul>
4.	<p>Proof of ability to design loading selected data and link instances with defined relationships to improve the value of the data. <b>(Max 20 pts)</b></p>	<ul style="list-style-type: none"> <li>• Five (5) to seven (7) years' experience in designing loading selected data and link instances within defined relationships improving data value. Experience is consistent across the majority of named experts. (14 - 20 pts)</li> <li>• Three (3) to four (4) years' experience in designing loading selected data and link instances within defined relationships improving data value. Strong recent experience in a small number of named experts. (6 - 13 pts)</li> <li>• One (1) to two (2) years' experience in designing loading selected data and link instances within defined relationships improving data value in line with recognised standards. (1 - 5 pts)</li> <li>• No experience in designing loading selected data and link instances within defined relationships improving data value. (0 pts) 0 points is evaluated as non-compliant.</li> </ul>
5.	<p>Proof of ability to design a query capability to leverage the data store contents into relevant, actionable information. <b>(Max 10 pts)</b></p>	<ul style="list-style-type: none"> <li>• Five (5) to seven (7) years' experience in designing query capabilities to leverage data store contents into relevant, actionable information. Experience is consistent across the majority of named experts. (7 - 10 pts)</li> <li>• Three (3) to four (4) years' experience in designing query capabilities to leverage data store contents into relevant, actionable information. Strong recent experience in a small number of named experts. (4 - 6 pts)</li> <li>• One (1) to two (2) years' experience in designing query capabilities to leverage data store contents into relevant, actionable information improving data value in line with recognised standards. (1 - 3 pts)</li> <li>• No experience in designing query capabilities to leverage data store contents into relevant, actionable information. (0 pts) 0 points is evaluated as non-compliant.</li> </ul>

6.	<p>Ability to design sending query results to selected visualization tools for display of data in context. <b>(Max 10 pts)</b></p>	<ul style="list-style-type: none"> <li>• Five (5) to seven (7) years' experience in designing sending query results to selected visualization tools for displaying data in context. Experience is consistent across the majority of named experts. (7 - 10 pts)</li> <li>• Three (3) to four (4) years' experience in designing sending query results to selected visualization tools for displaying data in context. Strong recent experience in a small number of named experts. (4 - 6 pts)</li> <li>• One (1) to two (2) years' experience in designing sending query results to selected visualization tools for displaying data in context in line with recognised standards. (1 - 3 pts)</li> <li>• No experience in designing sending query results to selected visualization tools for displaying data in context. (0 pts) 0 points is evaluated as non-compliant.</li> </ul>