



**Acquisition Directorate**

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NCIA/ACQ/2019/12519

4 July 2019

**Market Survey - Request for Additional Information**

**Project “Provide Multiband Man-pack and Fly-away Terminals”**

**Project Serial Number 2016/OCM03118**

**Capability Package (CP) 9A0130 “Provide Satellite Communications (SATCOM)  
Transmission Services”**

**NCI Agency Reference: MS-CO-15055-SATCOM**

NCI Agency is seeking information from Nations and their Industry regarding the availability of Commercial-Off-The-Shelf (COTS) and Government-Off-The-Shelf (GOTS) Man-pack and Fly-away Terminals capable of operating in X-band and Ka-band.

**NCI Agency Points of Contact**

**Principal Contracting Officer (PCO) Mrs. Tiziana Pezzi**

**Action Officer: Mr. Werner Goos**

E-mail: [werner.goos@ncia.nato.int](mailto:werner.goos@ncia.nato.int)

To: Distribution List (Annex A)

Subject: **NCI Agency Market Survey  
Request for Information MS-CO-15055-SATCOM**

1. NCI Agency requests the assistance of the Nations and their Industry to identify COTS/GOTS solutions available to provide multi-band (X/Ka) Man-pack and Fly-away Terminals that can meet or exceed NATO’s future requirements as identified under Capability Package CP 9A0130 project OCM03118 “Provide Multiband Man-pack and Fly-away Terminals”.



NATO Communications  
and Information Agency  
Agence OTAN d’information  
et de communication  
Avenue du Bourget 140  
1140 Brussels, Belgium  
[www.ncia.nato.int](http://www.ncia.nato.int)

2. NCI Agency requests the broadest possible dissemination by Nations of this Market Survey Request to their qualified and interested industrial base.
3. A summary of the requirements is set forth in the Annex B attached hereto. Respondents are requested to reply via the questionnaire at Annex C. Other supporting information and documentation (technical data sheets, marketing brochures, catalogue price lists, descriptions of existing installations, manuals, etc.) are also desired.
4. The NCI Agency reference for this Market Survey Request is **MS-CO-15055-SATCOM**, and all correspondence and submissions concerning this matter should reference this number.
5. Responses may be issued to the NCI Agency directly from Nations or from their Industry (to the Point of Contact indicated at Paragraph 9 of this Market Survey Request). Respondents are invited to carefully review the requirements in Annex B.
6. Responses shall in all cases include the name of the firm, telephone number, e-mail address, designated Point of Contact, and a NATO 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 the NCI Agency. Non-binding product pricing information is also requested as called out in Annex C.
7. Responses are due back to the NCI Agency no later than **17:00 Brussels time 22 July 2019.**
8. Please send all responses either via post or email to the following NCI Agency Action Officer:  
  
To Attention of: Mr Werner GOOS  
  
Postal address: NCI Agency  
Acquisition Directorate  
Boulevard Leopold III  
B-1110 Brussels  
Belgium  
  
E-mail: werner.goos@ncia.nato.int
9. Product demonstrations or face-to-face briefings/meetings with industry are not foreseen during this initial stage. 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 8.



10. 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 Market Survey. 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.

11. The NCI Agency is not liable for any expenses incurred by firms in conjunction with their responses to this Market Survey and this Survey shall not be regarded as a commitment of any kind concerning future procurement of the items described.

12. Your assistance in this Market Survey request is greatly appreciated.

FOR THE DIRECTOR ACQUISITION:



Tiziana Pezzi  
Principal Contracting Officer

Enclosures:

Annex A (Distribution List)

Annex B (Market Survey Request - Summary of Requirements)

Annex C (Market Survey Request - Questionnaire)



**ANNEX A**  
**Distribution List for Market Survey Request for Information**  
**MS-CO-15055-SATCOM**

Potential Industrial Suppliers (NCI Agency BOA Holders) 1

**NATO Delegations** (Attn: Investment Adviser):

Albania	1
Belgium	1
Bulgaria	1
Canada	1
Croatia	1
Czech Republic	1
Denmark	1
Estonia	1
France	1
Germany	1
Greece	1
Hungary	1
Iceland	1
Italy	1
Latvia	1
Lithuania	1
Luxembourg	1
Montenegro	1
Netherlands	1
Norway	1
Poland	1
Portugal	1
Romania	1
Slovakia	1
Slovenia	1
Spain	1
Turkey	1
The United Kingdom	1
The United States of America	1

**Belgian Ministry of Economic Affairs** 1

**Embassies in Brussels** (Attn: Commercial Attaché):

Albania	1
Belgium	1
Bulgaria	1
Canada	1
Croatia	1
Czech Republic	1
Denmark	1
Estonia	1
France	1
Germany	1
Greece	1
Hungary	1
Iceland	1
Italy	1
Latvia	1
Lithuania	1
Luxembourg	1
Montenegro	1
Netherlands	1
Norway	1
Poland	1
Portugal	1
Romania	1
Slovakia	1
Slovenia	1
Spain	1
Turkey	1
The United Kingdom	1
The United States of America	1

**ANNEX B**  
**Summary of Requirements**  
**Project ID 2016/0CM03118, CP9A0130**

Under CP9A0130 project 0CM03118, NATO is procuring new multi-band (X/Ka) Fly-away and Man-pack terminals. These new terminals will support deployable CIS requirements across different communities of interest and missions, at locations with less demanding operational and environmental conditions than the larger Deployable Satellite Ground Terminals (DSGTs) and Transportable Satellite Ground Terminals (TSGTs) of NATO’s current SATCOM ground segment.

The project will provide fly-away terminals for supporting the Disperse Units operating under the Joint Logistics Support Group HQ of the NATO Response Force (NRF) SJO2 and man-pack terminals for NRF Operational Liaison and Reconnaissance Teams (OLRTs) of the NRF SJO2.

Out of 10 terminals for each type, 2 of each terminal type will be used for support facilities.

The new SOTP terminals shall:

- Have modems that are integrated into the terminal or ruggedized and collocated with the terminal.
- Support modem technologies that employ Multiple Channels per Carrier (MCPC) (in terms of multi-stream) and/or Single Channel per Carrier (SCPC) modes of operation.
- Support multi-band operation of X and Ka bands with simple radio frequency (RF) Chain swap (simultaneous operation not needed).
- Allow for a configuration change between X- and Ka-band to occur within 10 minutes.
- Allow for a change between modems within 10 minutes.
- Support Ku band (in the future), via RF Chain swap.
- Employ fine-point tracking to track a geostationary satellite in both X- and Ka-bands, when equipped with auto-tracking capabilities.
- Have the following figure of merits and EIRP values:

<b>Terminal Type</b>	<b>G/T<sub>dB/K</sub></b>	<b>EIRP<sub>dBw</sub> (linear)</b>	<b>Antenna Aperture Size<sub>metres</sub></b>	<b>Frequency Band</b>
Fly-away	≥ 16	≥ 48	≤ 1.5	X-band
Fly-away	≥ 22	≥ 56	≤ 1.5	Ka-band

Man-pack	≥ 11	≥ 40	≤ 0.8	X-band
Man-pack	≥ 16	≥ 48	≤ 0.8	Ka-band

- Fulfil the interoperability and performance requirements in MIL-STD-188-164B relevant to X and Ka-bands.
- Be transportable in rugged transit cases to the area of operations via military or commercial air or land vehicles, and within the theater of operations by truck or helicopter.  
 N.B. The transit cases shall be provided by the contractor for primary transport and provide sufficient padding to protect the system while being transported and subjected to the MIL-STD-810G tests identified for transit configuration. Transit cases shall be lockable and have extendable handles for carrying.
- Be compliant with MIL-STD-810G.
- Be compliant with MIL-STD-461G.
- Operate with wind loads up to 20 m/s (gusting) and 12 m/s (steady) without performance degradation when anchored.
- Set-up and tear down times shall not exceed 15 minutes (for each) for a single operator.
- Set-up time shall begin with transit configuration in the transit cases, and shall be completed when the modem is locked. Tear down time shall be the reverse sequence.
- No tools shall be required for set-up or tear-down.
- Have an integrated user interface with indicators to support employment and alignment of the terminal.
- Be locally manageable over Hyper-Text Transfer Protocol (HTTP) / network interface.
- Support Management and Control (M&C) via SNMP (preferably SNMPv3) compatible, allowing for the use of any 3rd party software applications to remotely manage the terminal.

Be delivered as Commercial or Government off-the-shelf (COTS/GOTS) to the maximum possible extent, i.e. be able to fulfil the high level specification above with minimal or no Non-Recurring Engineering (NRE) efforts required.

In operational terms and in support of the above listed functions, NATO will pursue:

- Simplicity of installation, configuration and operation;
- Small size, weight and power (SWaP);
- Low lifecycle support costs.

A quantity of 10 multi-band (X/Ka) Fly-away terminals and 10 multi-band (X/Ka) Man-pack terminals are currently foreseen to be procured under this project. Out of 10, 2 terminals will be used for support of training as well as reference configuration and testing activities.

The expected contract award for this project is October 2021.



**ANNEX C**  
**Questionnaire**

Organisation name:

Contact name & details within organisation:

**Notes**

- Please **DO NOT** alter the formatting. If you need additional space to complete your text then please use the 'Continuation Sheet' at the end of this Annex and reference the question to which the text relates to.
- Please feel free to make assumptions, *HOWEVER* you must list your assumptions in the spaces provided.
- Please **DO NOT** enter any company marketing or sales material as part of your answers within this market survey. But please submit such material as enclosures with the appropriate references within your replies. If you need additional space, please use the sheet at the end of this Annex.
- Please **DO** try and answer the relevant questions as comprehensively as possible.
- All questions within this document should be answered in conjunction with the summary of requirements in Annex B.
- All questions apply to Commercial or Government respondees as appropriate to their Commercial off the Shelf (COTS) or Government off the Shelf (GOTS) products.
- Cost details required in the questions refer to Rough Order of Magnitude (ROM) Procurement & Life Cycle cost, including all assumptions the estimate is based upon:
  - Advantages & disadvantages of your product/solution/organisation,
  - Any other supporting information you may deem necessary including any assumptions relied upon.

1. **Do you produce a product compliant with the specifications of Annex B? If so, please specify the name and type of the product. If not, please list any products that are deemed to be close to the specification and state the functional or performance deviations where relevant.**

2. **Provide the detailed functional and technical specifications of the product, including SWaP.**

3. Is your product part of one or more NATO nations' military inventories or is it currently under military or government contract with a NATO nation? If so, state the number of units in the inventory(ies) and describe the support framework and processes that are currently in place to support those units.

4. Has your product been fielded and operated in austere environments? If so, describe where and for how long. Are there any records of actual MTBF and MTTR figures for different operating conditions?

5. **Has your product been evaluated and certified against MIL-STD-188-164B? Provide a list of any relevant deviations from this standard.**

6. **Please list the modem(s) that are integrated into your terminal(s), and the included modem features (DVB-S2X, etc)?**

7. **Has your product received any NATO nation-specific certification for operating over X-band or Ka-band payloads? If so, state the applicable certifications.**

8. Based upon the quantities defined in Annex B, please state the Rough Order of Magnitude (ROM) costs for the in-plant tested SOTP terminals. Include all assumptions that the cost estimate is based upon as well as what is included and excluded from the cost estimate.

9. If the proposed solution is under development, when will it be available for testing and evaluation<sup>1</sup>?

10. Please describe the system engineering design approach – including which standards have been used to develop this – your product has been

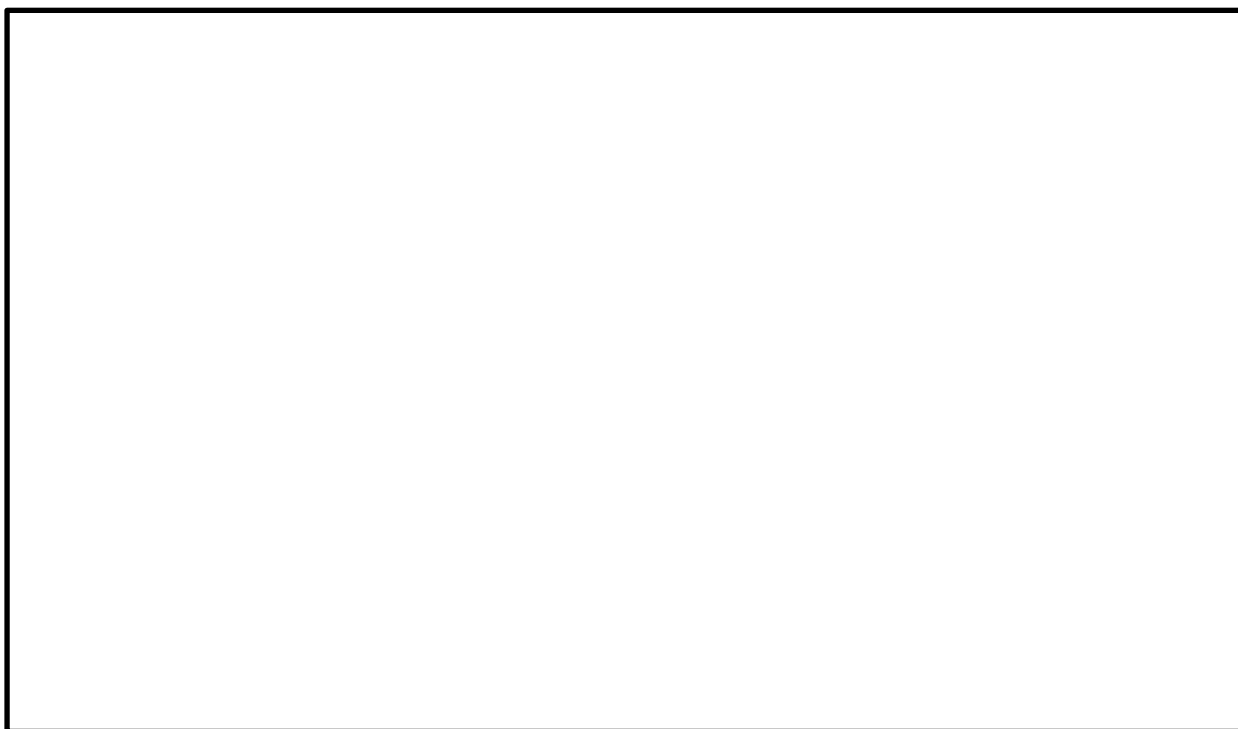
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<sup>1</sup> NATO cannot accept an extended timeline for the purpose of evaluation and acceptance testing. The acceptance timeline will be specified and delivered as part of the Invitation For Bid (IFB).

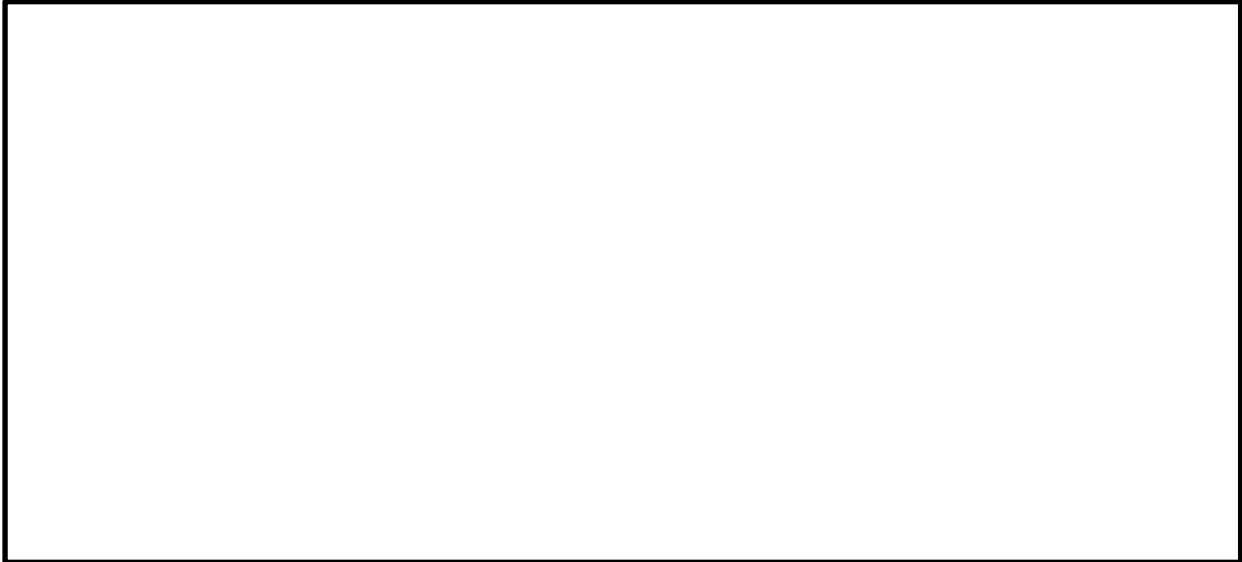
**exposed to in order to consider the effect of failure modes, in terms of testability, fault detection and isolation.**



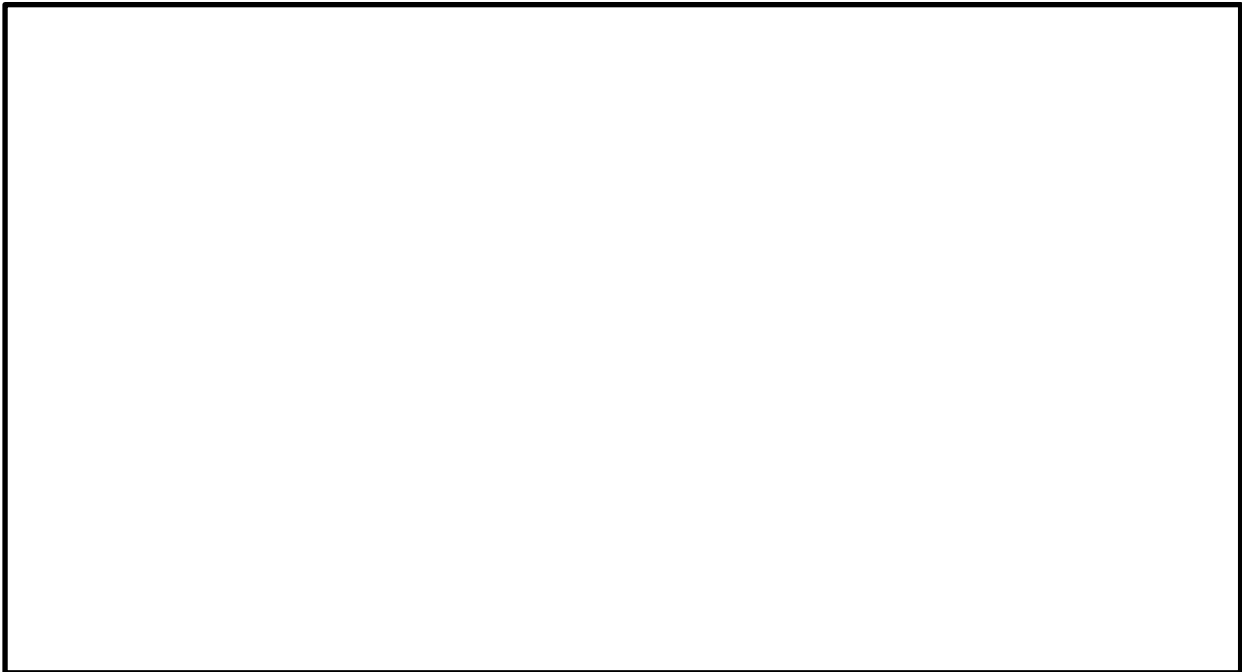
- 11. Does your product have a Logistic Support Database, an Interactive Electronic Technical Publication/Manual and SCORM based Training? If so, please describe according to which standards these have been developed or, if the proposed solution is under development, shall be developed.**



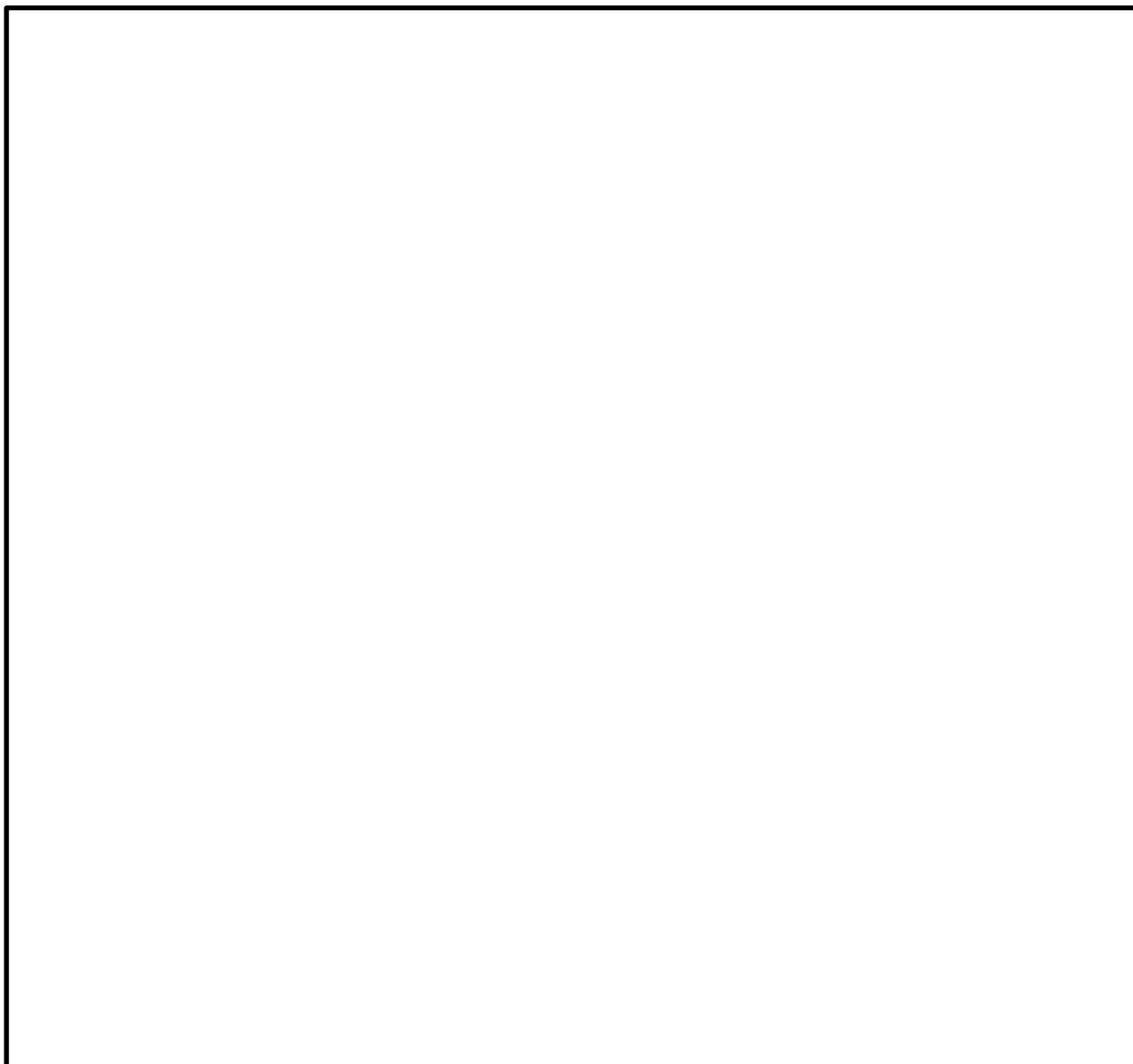
**12. Does your solution have a resilient design approach for obsolescence management and resolution? If so, please describe the process in place to minimize the impact on Life-cycle costs.**



**13. Please describe the Engineering Support, Material Management and Field Engineering approach foreseen during the In-Service Support Phase of the capability.**



- 14. Please state the annual ROM cost in terms of fixed costs and variable costs for the Supplier's support services to the SOTP terminals, describing the different support options on offer. Include the primary assumptions in these values and the applicable costs that are included or excluded. Also include how many years are foreseen for support to the product.**





<p><b>Continuation Sheet</b></p> <p>Please feel free to add any information you may think that may be of value to NCI Agency in the space provided below. Should you need additional space, please copy this page and continue with the appropriate page numbers.</p>	<p>Page</p> <p>— Of</p> <p>—</p>