STANDARDS RELATED DOCUMENT

AQAP-2110-SRD.1

GUIDANCE ON THE USE OF AQAP-2110 EDITION D

Edition B Version 1

JANUARY 2020

NORTH ATLANTIC TREATY ORGANIZATION

Published by the
NATO STANDARDIZATION OFFICE (NSO)

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NORTH ATLANTIC TREATY ORGANIZATION (NATO)

NATO STANDARDIZATION OFFICE (NSO)

NATO LETTER OF PROMULGATION

24 January 2020

1. The enclosed Standards Related Document, AQAP-2110-SRD.1, Edition B, Version 1, GUIDANCE ON THE USE OF AQAP-2110 EDITION D, which has been approved in conjunction with AQAP-2110 by the nations in the Life Cycle Management Group, is promulgated herewith.

2. AQAP-2110-SRD.1, Edition B, Version 1, is effective upon receipt and supersedes AQAP-2110-SRD.1, Edition A, Version 1 which shall be destroyed in accordance with the local procedure for the destruction of documents.

3. This NATO standardization document is issued by NATO. In case of reproduction, NATO is to be acknowledged. NATO does not charge any fee for its standardization documents at any stage, which are not intended to be sold. They can be retrieved from the NATO Standardization Document Database (https://nso.nato.int/nso/) or through your national standardization authorities..

4. This publication shall be handled in accordance with C-M(2002)60.

Zoltán GULYAS
Brigadier General, HUNAF
Director, NATO Standardization Office

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Chapter 1 - INTRODUCTION

1. Background

1. AQAP-2110 Ed D complies with the NATO policy of recognising civil standards wherever possible by invoking the requirements of ISO 9001:2015 which are supplemented by a minimum level of NATO specific requirements.

2. ISO 9001:2015 sets out the requirements for a Quality Management System (QMS) which is a way of defining processes that enable an organization to meet the requirements of its customers and other stakeholders. This version of the standard remains customer focused but sees an increased focus on risk-based thinking and leadership engagement.

3. ISO 9001:2015 requires organizations to define their objectives relating to quality and meeting customer needs and then to continually improve their processes in order to reach them. This places increased importance on organizations understanding the context in which they operate and their customer's requirements.

4. AQAP-2110 contains contractual requirements for Suppliers involved in the Defence supply chain and details NATO's requirements for quality.

5. This version of AQAP-2110:

(1) maintains a focus on risk management and quality planning and extends these concepts to the supply chain. This is particularly relevant given the potential complexity of defence equipment and the integration of engineering / technical solutions from multiple design authorities/Intellectual Property Right (IPR) owners where there is a requirement to develop long term relationships to support the equipment in service.

(2) introduces an increased focus on requirements, identifying how they are to be achieved and what evidence will be presented to support release of product. There is also a requirement for the Supplier to identify what assurance activities are to be conducted in the supply chain. These requirements will inform the earlier discussion between the Supplier and Acquirer/GQAR.

(3) recognises the importance of root cause analysis and introduces a specific requirement for Suppliers to define their process.

(4) highlights the importance of counterfeit avoidance within the acquisition and support of defence products, particularly because of the challenges posed by obsolescence and the operational environment.

6. Figure 1 illustrates the NATO requirements in relation to ISO 9001:2015.

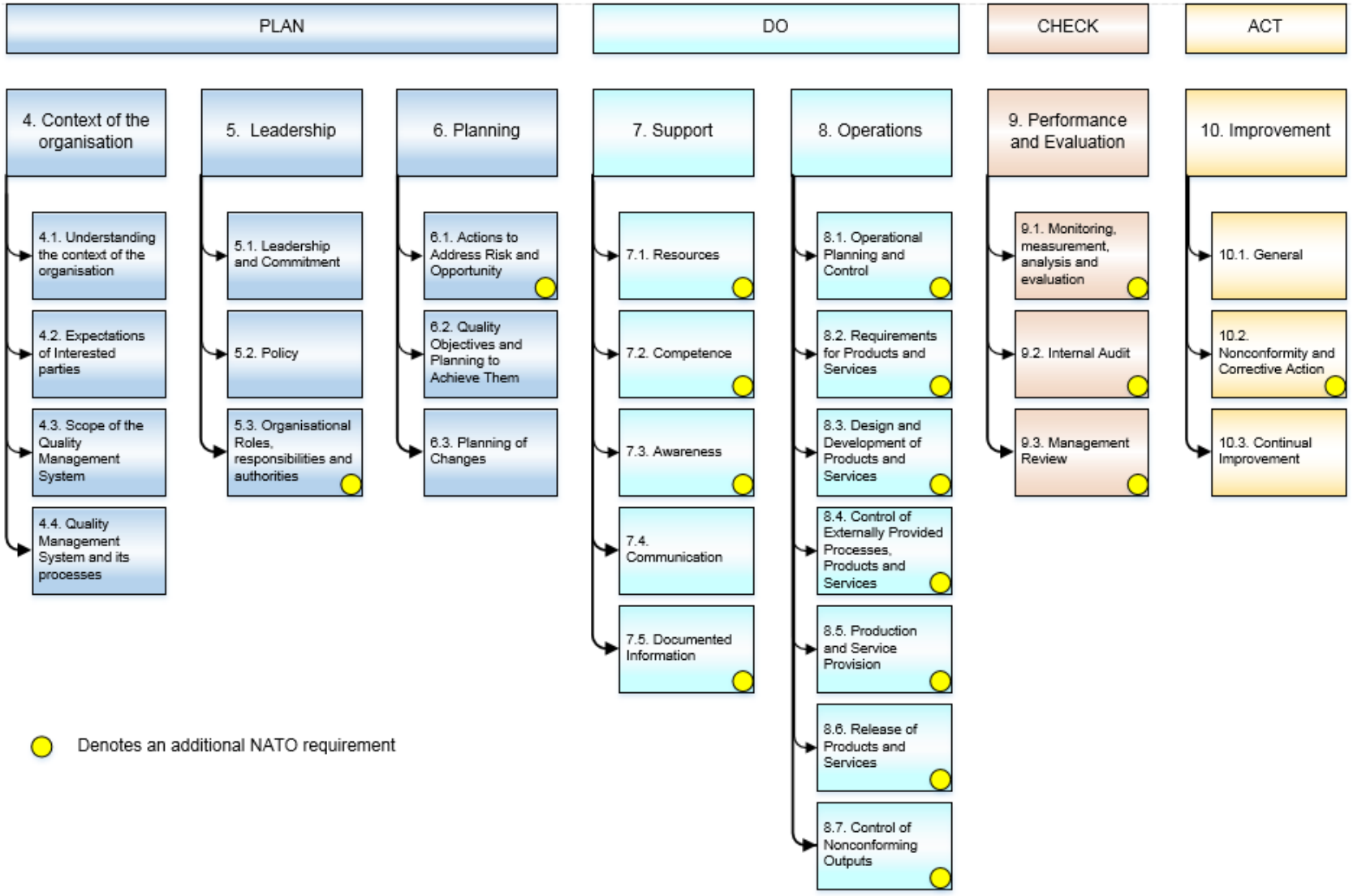

Figure 1: Illustration of the NATO requirements in relation to ISO 9001:2015.

2. Purpose

1. This guidance document has been published to promote a consistent interpretation of the AQAP-2110 requirements.

2. This guidance document is for all users of the NATO contractual AQAPs: Acquirers, Suppliers and Government Quality Assurance Representatives (GQAR).

3. It should be noted that acquiring nations may use supplementary contractual requirements and issue supplementary guidance that reflects their national practice. Readers are encouraged to contact their National Quality Assurance Authority if further clarification is required. Contact details for National Authorities are contained in AQAP- 4107-SRD.1.

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Chapter 2 – GUIDANCE FOR THE USE OF AQAP-2110 Ed D

1. Introduction

1. AQAP-2110 Ed D contains a number of modified requirements that were contained in previous versions and introduces new requirements. Some of these new requirements are in response to changes introduced by the 2015 version of ISO 9001; others are based on Acquirer and GQAR experience of contracting with the previous version of AQAP-2110.

2. Table 1 (below) provides guidance on the requirements within AQAP-2110 Edition D. This guidance is intended to promote a consistent interpretation and implementation of AQAP-2110 requirements.

3. In order to provide assistance to the Acquirer and/or GQAR, annexes A, B and C to this SRD have been published to provide a comparison of the requirements requesting documented information for AQAP-2110 and the alignment with requirements in ISO 9001, ISO 10012 and ACMP 2100/ISO 10007 respectively. These annexes are supported by a template for GQA arrangements at annex D which can be used for the Post contract award GQA meeting.

Table 1: Guidance to AQAP-2110 Requirements

Requirements	Guidance
1.1 General This publication contains the NATO requirements for Quality. A QMS shall be established, documented, applied, maintained, assessed and improved, and evaluated, in accordance with requirements contained in this publication.	This paragraph is considered self-explanatory.
1.2 Purpose This publication contains requirements, which, if applied appropriately, provide confidence in the Supplier's capability to deliver products that conform to Acquirer contract requirements.	This paragraph is considered self-explanatory.
1.3 Applicability 1. This publication is primarily intended for use in a contract between two or more parties. 2. When referenced in a contract, this publication shall apply to all of the processes necessary for the Supplier to fulfil the contractual requirements. 3. This publication may also be used internally by a Supplier or a potential Supplier to cover the Quality aspects of the Management System (MS). 4. Where identified by the Acquirer other appropriate standards can be used in conjunction with this publication to identify MS process requirements. 5. If inconsistencies exist between the contract requirements and this publication, the contract requirements shall prevail.	This paragraph is considered self-explanatory.
2.1 Compliance Compliance with this publication is defined as the fulfilment of the requirements in chapters 3, 4 and 5. All requirements are applicable unless agreement otherwise is documented as part of the contract with the Acquirer.	Confirmation of compliance with the AQAP requirements should be documented as part of Quality Planning.
2.2 Notes and Guidance In this publication 'Notes' are not contractual requirements; they are for guidance or clarifying the associated requirement.	This paragraph is considered self-explanatory.
3.1 Composition 1. A requirement in this publication is composed as follows: a. Chapter 4, General QMS Requirements, establishes the applicability of the requirements of ISO 9001:2015. b. Chapter 5, NATO Specific QMS Requirements, establishes additional NATO specific requirements for the Supplier.	This paragraph is considered self-explanatory.
2. Whenever the ISO 9001 requirement refers to "this international standard" it shall be read as "this publication".	This paragraph is considered self-explanatory.
3.2 References **3.2.1 Normative References** 1. ISO 9001:2015 Quality Management Systems – Requirements 2. ISO 9000:2015 Quality Management Systems – Fundamentals and Vocabulary	It is noted that ISO 10012 and 31000 have been updated.

Requirements	Guidance
3. ACMP 2100 Configuration Management Contractual Requirements 4. ISO 10012:2003 Measurement Management Systems – requirements for measurement processes and measuring equipment 5. ISO 31000:2009 Risk Management – Principles and Guidelines	
3.2.2 Informative References 1. AQAP 2000 NATO Policy on an Integrated Systems Approach to Quality Through the Life Cycle 2. AQAP 2009 NATO Guidance on the use of the AQAP 2000 series 3. AQAP 2105 NATO Requirements for Deliverable Quality Plans 4. AQAP 2070 NATO Mutual Government Quality Assurance (GQA) Process 5. ISO 10007:2003 Quality Management Systems – Guidelines for Configuration Management 6. ADMP Allied Dependability Management Publications	It is noted that AQAP 2009 NATO Guidance on the use of the AQAP 2000 series has been withdrawn and ISO 10007 has been updated.
3.3 Definitions Unless stated otherwise, ISO 9000:2015 definitions shall apply.	Definitions given in AQAP-2110 apply.
4.1 Applicability of ISO 9001:2015 REQUIREMENTS The Supplier shall establish, document, implement, assess and improve an effective and economical Quality Management System in accordance with this publication which includes the requirements of ISO 9001:2015 as necessary to satisfy the contract requirements.	This establishes the applicability of ISO9001, however, it does not require Suppliers to have a certified QMS to ISO 9001. The key element of this paragraph is the final phrase 'as necessary to satisfy contractual requirements' which establishes the context of the QMS in relation to AQAP requirements and the contract. This reinforces the importance of having an effective and efficient QMS that supports the achievement of contractual requirements to minimise cost. The AQAP require that the QMS shall be established, documented, assessed and improved. . The QMS then should collectively enable the following: To "establish" means to set up on a permanent basis for the duration of the Contract; To "document" means to describe the elements of the QMS in writing in sufficient detail that it is comprehensible to the personnel controlling and operating it. The document may be in hard copy or stored electronically; To "assess" means that the System, necessary to satisfy the contract requirements, is audited on a regular basis, in a controlled way; To "improve" means those experiences gained are reflected in updates of the System; An "effective" System provides confidence in the Supplier's capability that only an acceptable product is delivered to the Acquirer in a timely manner. It includes the planning, establishment and implementation of the activities and controls required to achieve this end at all stages of the work from preliminary design through manufacture and acceptance to the provision of any required after-delivery services; The AQAP also recognises that most functions of management affect quality in some manner and to some degree, each function is analysed to identify the factors that affect quality and to ensure that these factors are controlled. An appreciation of the effectiveness of the implementation of the System can be obtained in many ways, such as: • Demonstration of top management commitment;

Requirements	Guidance
	• Self-assessment of the effectiveness to deliver the product and contractual requirements; • Continual improvement; • User/Acquirer feedback customer complaints; • Evaluation of the severity of non-conformities detected at the Supplier's facility; • Trend analysis. An "economical" System has as its goal, not only the effective use of resources but also, the minimising of repair, rework, scrap and failure costs. To achieve this, a prime objective of the System is the prevention of non-conformities, especially during the design and development stages. The cost of preventing non-conformities is normally much less than the cost of failures, rework and corrective action. Excessive amounts of non-conforming products are symptomatic of an out of control situation. Non-conforming products may also be a hidden factor in the cost of the product to the Acquirer. AQAPs stipulate, in objective terms, the requirements a Supplier shall meet to control quality. They do not stipulate the exact procedures or methods to be used by the Supplier for this purpose. The procedures employed, however, are subject to evaluation by the GQAR and/or Acquirer.
4.2 Quality Management System and its Processes The Acquirer and/or Government Quality Assurance Representative (GQAR) reserve the right to reject the Supplier's Quality Management System as it applies to the contract. The Supplier's documented Scope of their System, records from internal audit, self-assessments and other objective evidence that this system is compliant with this Publication and is effective, shall be readily available to the GQAR and/or Acquirer. In instances where the Acquirer and/or GQAR rejects the Quality Management System, the Supplier shall make proposals for corrective actions and revisions within an agreed timescale and contractual penalties will be applied as defined in the contract	The GQAR and/or Acquirer should check that the Scope of the supplier's QMS is relevant to the contract. The Scope of the Supplier's QMS must be held as documented information and be made available. Acquirers and/or GQAR must pay attention to the scope as this will record any ISO 9001:2015 clauses that are not addressed by the supplier's QMS. Where a Supplier offers 3rd party certification of their QMS to ISO 9001:2015 as evidence of compliance it should be noted that this will not necessarily demonstrate compliance with AQAP-2110 Chapter. The scope recorded on the certificate should be checked to ensure it reflects the Supplier's QMS which is being applied to the contract. It should be noted that the QMS may be tailored to reflect the processes in place within the Supplier's management system. The scope should identify any exclusions to ISO 9001 requirements.

Requirements	Guidance
	The rejection of the QMS, as it applies to the contract, should only be considered by the Acquirer and/or GQAR where there is evidence of systematic failures and/or significant issues that clearly impact the Supplier's ability to meet the contractual requirement. The AQAP requires that the QMS shall be established, documented, assessed and improved as detailed in the guidance in 4.1 and therefore this is the most likely area of rejection. However, the effectiveness of the QMS should also be considered as related to elements such as a number of Major corrective action requests coming from second/third party audits, Customer satisfaction improvement, evidence of non-conformances product escaping through the Supplier's final inspection, Quality Objectives being met, etc. It should be defined as a breach of contract. Acquiring nations would have to determine their own contractual penalties. For mutual GQA tasks, GQAR would have to articulate their concerns to the delegator. This rejection is in relation to contract execution.
4.3 Access to Supplier and External Providers and Support For GQA Activities The Supplier and/or External Providers shall provide the GQAR and/or Acquirer: 1. The right of access to facilities where the contracted activities are being performed. 2. Information pertaining to the fulfilment of requirements in the contract. 3. Unrestricted opportunity to evaluate Supplier compliance with this Publication. 4. Unrestricted opportunity to evaluate External Providers compliance with this Publication. The Supplier will be informed before the evaluation takes place. 5. Unrestricted opportunity to conduct verification of product conformity with the contract requirements. 6. Required assistance for evaluation, verification, validation, testing, inspection or release of the product for the accomplishment of GQA to contract requirements. 7. Accommodation and facilities for performing GQA. 8. The necessary equipment available for reasonable use for performing GQA. 9. Supplier and/or External Providers personnel for operation of such equipment as required. 10. Access to information and communication facilities. 11. The necessary Supplier documentation to confirm product conformance to specification. 12. Copies of necessary documents, including those on electronic media.	This requirement is intended to focus Supplier QA resource on risk areas through the supply chain and to ensure the availability of appropriate information for the GQAR and/or Acquirer so they can consider performing GQA at External Providers". Also consider adding the ability to redact commercially sensitive information. The requirements emphasise the Supplier's responsibility to provide unrestricted access and assistance for the GQAR where part of the contracted work is being performed. The Supplier is solely responsible for the conformance to requirements, of products provided to the Acquirer. The Supplier should ensure that the GQAR and/or Acquirer is provided with suitable office space for administrative purposes and with adequate workspace, with availability of inspection and test resources, when required for verification purposes. Facilities and assistance include, but are not limited to: - Access by the GQAR and/or Acquirer to those areas where, and at the time when, the contract work is in progress; - Assistance in the documentation, audit and release of materiel and services where appropriate; - Information necessary for the proper conduct of Government Quality Assurance. It is expected that necessary documents are submitted in accordance with agreements around restricted documents and national practices.
5.1 Leadership **5.1.1 Organizational roles, responsibilities and authorities [5.3]** 1. Top management shall appoint a management representative for GQA issues from the organization's management who, irrespective of other responsibilities shall have the necessary organisational authority and freedom to resolve matters pertaining to quality. The management representative shall report directly to top management.	The GQAR/Acquirer will have a single point of contact for GQA in the context of the contract.

Requirements	Guidance
2. The management representative shall have responsibility and authority that includes ensuring that processes needed for the quality management system are established, implemented and maintained and shall include liaison with the GQAR and/or Acquirer on matters related to quality.	The Supplier should have defined the actions and decisions for which the management representative is to be responsible, define the competency needed, identify a person with the necessary abilities and ensure the management representative has the necessary authority.
3. The management representative shall have the appropriate competence related to Quality Management.	It is reasonable to confirm that the management representative is suitably qualified and experienced regarding Quality Management. The currency of the management representative's Quality Management knowledge should be maintained through training and professional development.
5.2 Planning	
5.2.1 Risk management [6.1] **Risk management plan** 1. The Supplier and External Provider shall provide objective evidence that risks, including External Provider risks, are considered during planning; including but not limited to Risk Identification, Risk Analysis, Risk Control and Risk Mitigation. The planning shall start with risk identification during contract review and be updated thereafter in a timely manner.	A structured approach to risk management ensures that risk based thinking is applied throughout the duration of the contract and encourages all parties to have a common understanding of risk. The inclusion of an External Provider's risk encourages organisations to recognise that they have to be aware of external influences and engage with their supply chain. The risk information/plan can be included in another document but the risks must be relevant to the contract and there should be evidence that they are being actively reviewed and, where appropriate, mitigation actions are being pursued and are effective. There should be evidence that senior managers use risk information as part of their decision making process and during their QMS review. There should also be evidence that the Supplier and Acquirer are sharing risk information. AQAP-2110 aligns this requirement with ISO 9001 para 6.1 which requires organisations to consider risk and opportunity when planning for the QMS. AQAP-2110 para 4.1 requires the QMS which includes risk and opportunity to be considered in the context of the contract. Therefore, system level risk and technical / contract specific risk should be considered during planning.
2. Unless otherwise stated in the contract, the Risk Management applied shall meet the principles and guidelines of ISO 31000:2009. The Risk Management Plan shall be made available to the GQAR and/or Acquirer.	This paragraph is considered self-explanatory.
3. The Acquirer and/or GQAR reserve the right to reject Risk Plans and their revisions.	This paragraph is considered self-explanatory.
5.3 Support	

Requirements	Guidance
5.3.1 Infrastructure [7.1.3] **Segregation – infrastructure** The infrastructure shall include traceability] (see paragraph 5.4.12 of this publication).	Wherever possible there should be an area set aside for nonconforming parts and the level of control/access for this area should be appropriate for the type of product. This will help prevent the unintentional use of nonconforming product. There will be situations where nonconforming parts cannot be segregated or where it would not be cost effective to do so (e.g. major assemblies or temporary work locations). In these situations, positive materiel control and identification should be confirmed both in stock management systems and through physical identification or 'locking'.
5.3.2 Monitoring and measuring resources [7.1.5] 1. The measurement and calibration system applied to the contract shall meet the requirement of ISO 10012:2003.	ISO 10012 provides the requirements for the monitoring, measurement system and acknowledges the ISO/IEC 17025:2017, General requirements for the competence of testing and calibration laboratories. Through a Measurement Management System, the Supplier is expected to establish: 1. Identification within the QMS all documented information regarding the Measurement Management System, and how the management system ensures that Metrological Requirements are met? 2. That all documented information regarding the Metrological Function (function with administrative and technical responsibility) including who performs this management has been maintained? 3. Measurement Processes that are defined, performed, maintained and managed. The resulting documentation shall ensure that information related to the previously identified Measurement Processes is addressed – including samples of Documented Information of Measurement Processes and information regarding where and how this data is retained? 4. A description of the Metrological Confirmation Process – including examples of Documented Information of the Metrological Confirmation process, including where and how this data is maintained? 5. How quantities are influenced in the measuring design how the measurement process has been identified? 6. How Measurement Process uncertainty is estimated? 7. By describing in the procedure for the determination, and redetermination, of the suitable intervals for Metrological Confirmation (calibration periodicity). 8. How to ensure that the product can be measured including the uncertainty of measurement calculations, the environment in which the measurement takes place, the measuring device used and the reliability of measurement impacted by the environment and the operator? 9. The Documented Information records kept and the traceability to the national standard. The guidance in ISO 10012 enables the Supplier to understand the Measurement Management System that needs to be in place to ensure the product or service meets the design requirements. The Supplier when re-evaluating the contract outputs will have to take into account the environment, the uncertainty of measurement, the degree of measurement (tolerance) and the level of training or automation required to measure the dimension.

Requirements	Guidance
2. When an item of measuring equipment fails calibration the Supplier shall advise the GQAR and/or Acquirer of the impact of the failure on previous measuring results where this affects delivered products or verification, validation and acceptance results. The GQAR and/or Acquirer may request that measurements taken shall be repeated with calibrated equipment.	The Supplier is expected to be able to demonstrate traceability in the event of failure of calibration. For additional information consult ISO 10012 - 8.3 Control of nonconformities.
5.3.3 Competence [7.2] The Supplier shall establish and maintain a process for identifying training needs and achieving competence of all personnel performing activities affecting product quality.	This paragraph is considered self-explanatory.
5.3.4 Awareness [7.3] Persons involved with the contract, including External Providers, shall be aware of the specific arrangements contained in the quality plan that are applicable to their activities / area of responsibility**.**	This requirement includes people doing work that are not under the control of the organisation i.e. sub-contractors. All persons doing work under the Supplier's control should be aware of the arrangements for quality. Examples include an awareness of the quality policy, relevant quality objectives, their contribution to the effectiveness of the QMS, the benefits of improvement in performance and the implications of not conforming with the QMS requirements. This is not restricted to the Supplier alone but importantly extends to the External Provider.
5.3.5 Documented information [7.5] The Supplier shall provide the GQAR and/or the Acquirer with the necessary access to the documented information pertinent to the contract, in a format agreed with the GQAR and/or Acquirer.	The Supplier is unilaterally responsible for ensuring that all requirements, including requirements and expectations relating to quality are met. The Supplier is expected to identify those requirements and prepare information on how they will be confirmed. If product characteristics cannot be confirmed at final inspection, inspection and test activities should be performed during the product realisation. It is also necessary to consider inspection and testing carried out by External Providers. The compliance of the product with the requirements of the contract is to be documented by the Supplier. Such documentation could be based on their own controls or by supervising the inspections and tests carried out by External Providers. All documented information is expected to be retained and available to the GQAR and/or Acquirer. Requirements relating to quality: The Acquirer expects the Supplier to be able to perform sufficient quality controls necessary to produce readily available documentation that shows conformance of each and every item to be delivered. This expectation is often not expressed directly or in writing but is expected and is required nonetheless.
5.4 Operation	
5.4.1 Operational planning and control [8.1] 1. The Supplier shall identify the documented information, including acceptance criteria and configuration information that will be used as objective evidence of product conformance with requirements. This information shall be acceptable to the Acquirer and/or GQAR and made available prior to acceptance of the product.	The Supplier should establish product goals and the ability to reach these goals. The Supplier should be able to provide evidence to the Acquirer and/or GQAR how the Supplier will ensure that the deliverables meet the contractual requirements. This will include how the Supplier has planned, implemented and controlled the processes needed to meet the requirements for the provision of the product. The Supplier should also identify the criteria for processes and product acceptance.

Requirements	Guidance
2. The supplier shall maintain and retain documented information for product approval and production process approval. These approvals shall also be applied to External Providers.	The Supplier will also be able to demonstrate how reliability, configuration management as well as control and assurance activities will be addressed. Some of the evidence provided by the Supplier could be sourced from External Providers, i.e. specialist processes or software.
5.4.1.1 Quality Plan 1. The Supplier shall submit an acceptable Quality Plan (QP) which addresses the contractual requirements to the GQAR and/or the Acquirer in a mutually agreed timescale but prior to the start of work which can be defined as a project or contract initiation meeting or as otherwise stated in the contract or purchase order. The QP shall be a clearly identified discrete document or part of another document that is prepared under the contract.	The Quality Plan should be developed in conjunction with other project-related planning, e.g. as a sub-set of the Project Management Plan. Where functions and processes are clearly defined in the Supplier's QMS, a cross-reference is recommended.
2. The QP shall: a. Describe and document the quality management system requirements "contract-specific" necessary to satisfy the contract requirements (making reference, where applicable, to the "company-wide" quality management system); b. Describe and document the planning of the product realisation in terms of quality requirements for the product, needed resources, required control activities (verification, validation, monitoring, inspection, testing), and acceptance criteria. This shall include specific arrangements and communication requirements where work is to be conducted at locations external to the Suppliers premises. c. Document, and maintain traceability of requirements from the planning process by including a requirement and solution compliance matrix, justifying fulfilment of all contractual requirements (making reference where applicable).	AQAP-2110 (para 4.1) establishes the applicability of ISO 9001 requirements: The key element of this paragraph is the final phrase 'as necessary to satisfy contractual requirements.' This establishes the context of the QMS in relation to AQAP requirements. ISO 9001: 2015 imposes a requirement to implement and maintain a QMS (4.4.1) and then to 'the extent necessary' maintain documented information (4.4.2). ISO 9001:2015 imposes a requirement at 5.1.2 for customer requirements to be considered. This establishes that the Supplier is required to maintain and implement a QMS that is related to the contract and reflects customer requirements. It is up to the supplier to determine how this is done – if the majority of their work is defence related then it could well be that their entire QMS is geared up for AQAP-2110 in which case their quality planning would need to only address the contract specific aspects. If however, their QMS is not geared up for defence work then their quality planning would have to reflect the customer's requirements which include AQAP-2110. As ISO 9001:2015 imposes requirements for a QMS that reflects customer requirements. It is appropriate for the acquirer to be told how this is to be achieved without charge. Although the format of this 'quality plan' is not defined, its acceptability is subject to acquirer/GQAR agreement. If the acquirer requires specific assurance regarding quality planning, then they should consider invoking AQAP-2105. The Supplier should consider: - An analysis of the requirements for products and services; - Identification of risks including Supplier's management risks; - Functional analysis of needs, classification, weighting; - Restrictions in use, ergonomics, maintenance, interoperability, and training; - Research of needs (customer expectations, perceived customer needs and expressed customer needs; - Detecting unnecessary and expensive constraints; - Detecting pitfalls, process and technological dead-ends; - Allocation of resources; - Minimise any harmful and detrimental effect on the environment. Any special or unusual requirements should be identified. When such requirements are found, there is a need for study, planning and scheduling to provide appropriate operations, processes and techniques and the means for testing and proving conformance with the requirement.

Requirements	Guidance
	If an activity is being undertaken outside the scope of the Supplier's QMS or the usual location, then the QP should detail how activity is to be controlled. The plan should also consider how the Supplier will interface with other organisations. An example of this would be where a Supplier is performing work at another Supplier's location or on a military site and does not have access to their normal infrastructure for tool control, storage of consumables, etc.
3. The Acquirer and/or GQAR reserve the right to reject QPs and their revisions. NOTE: Contractual requirement for the content of the Quality Plan is established in AQAP 2105 "NATO requirements for Deliverable Quality Plans."	This paragraph is considered self-explanatory.
Requirement and solution compliance matrix can be a part of Quality Plan or a separate document as an annex to it. This matrix can be prepared and annexed to the Quality Plan after the initial issue, within a timescale mutually agreed with GQAR and/or Acquirer by taking into account the content of the Contract or Purchase Order.	The traceability of requirements throughout the contract life will provide confidence that requirements have been identified, incorporated into design solutions and subsequently verified and validated. The traceability of requirements can be included in another document or for complex products the Supplier can refer to a requirements management software tool.
5.4.1.2.1 Configuration Management (CM) requirements The Supplier shall manage configuration through the implementation of Configuration Management (CM) Planning, Configuration Identification, Change Control, Configuration Status Accounting and Configuration Audit in accordance with the requirements of ACMP 2100 and any additional CM clauses in the contract or a Nationally recognised equivalent.	The Supplier's CM approach should be appropriate for the complexity and life cycle stage of the product. Ideally the CMP should address the 5 CM principles: Configuration Identification; Configuration Management and Planning; Configuration Change Management (Control); Configuration Status Accounting (which contain CM records); Configuration Audit – Functional and Physical. The linkage between configuration audits (functional and physical) and product acceptance should be encouraged to minimise duplication of assurance activities. The requirement for CM is similar to 2110:2009 version. CM remains an essential engineering discipline which underpins the safety and supportability of the product in service. The AQAP requirement recognises that Suppliers may have developed their own configuration management systems and does not seek to impose a particular approach although by referencing ACMP2000 and ACMP 2009, recognises the good practice that is captured in ISO 10007 or other nationally recognised equivalent standards.
5.4.1.2.2 Configuration Management (CM) other standard	This paragraph is considered self-explanatory.

Requirements	Guidance
The Supplier shall prepare a Configuration Management Plan (CMP) which describes the application of CM to the contract in accordance with ACMP 2100 and any additional CM clauses in the contract or Nationally recognised equivalent. The CMP may form part of another plan if appropriate. NOTE: Further information on NATO Configuration Management Policy and Requirements are contained within Allied Configuration Management Publications (ACMP) ACMP-2000 and ACMP-2009.	
5.4.2 Customer communications 1. If requested by the Acquirer and/or GQAR, the Supplier and/or External Providers shall attend a Post Award GQA meeting focused on the contract arrangements for Quality Assurance of the product and/or GQA practicalities. 2. The Supplier shall ensure that lines of communication are established with the GQAR and/or Acquirer. The designated management representative shall ensure that the adequate level of information is supplied to satisfy the GQAR and/or Acquirer.	The Post Award GQA meeting provides an opportunity for the Supplier (and/or External Providers) and Acquirer and/or GQAR to establish lines of communication, how the GQAR will interface with the Supplier during the contract including sharing and transmission of information and what QA activities are planned for the product and the supply chain. Appointing the points of contact for GQA; Agreeing of the composition of evidence and elements of evidence; Planning the provision of evidence and elements of evidence; Defining conditions for the Acquirer and/or GQAR to get visibility over processes. Note: “Evidence” is the documented information required by the Acquirer and referred to in the terms and conditions of the contract. The “Element” of the Evidence is the documented information drawn up to support the Evidence release. To prepare for the Post Award GQA meeting, the Acquirer and/or GQAR can produce a proforma table for distribution prior to the meeting, (see Annex D). This may include (but not be limited to): Description of the GQA Action; Title and/or reference of contractual requirement; Ref. and description of the evidence; Ref. and description of the element of evidence; Supplier interlocutor; Type of support (Paper, file, CD Rom (if needed mention the types and versions of files); Nature of the disposal (consultation or diffusion); Date of disposal for GQAR (Schedule and/or regarding the contractual timetable). The parties would agree and complete the table during the Post Award GQA meeting. Level of information should be determined between GQAR and/or Acquirer and Supplier. As AQAPs give the framework for contractual quality assurance requirements, it is essential that the GQAR and/or Acquirer and the Supplier establish a relationship, based on the contract and the Supplier’s normal “way of doing business”, in order to ensure that the necessary information is received by the GQAR and/or Acquirer in a timely manner.
3. The Supplier shall notify the GQAR and/or Acquirer of changes to its organisation that affect product quality or he Quality Management System.	This paragraph is considered self-explanatory.
5.4.3 Determining the requirements related to products [8.2.2]	The Supplier should have an understanding of how the product relates to the critical characteristics. This understanding will ensure that resources are used appropriately and that decisions affecting product conformity are made by the right people in the organisation. An

Requirements	Guidance
The Supplier shall identify product requirements and functions that relate to critical characteristics such as health, safety, performance, and dependability.	example would be that a repair scheme or concession for the acceptance of a piece of aircraft structure that affects the airworthiness of an aircraft is signed off by qualified engineers. The clear benefit of requirements definition will ensure both Acquirer and Supplier have the same understanding of critical characteristics of the product or service.
5.4.4 Design and development controls [8.3.4] Unless otherwise stated in the contract, the Supplier shall determine the verification and validation methods required and demonstrate conformity with the corresponding requirements at appropriate stages up to and including the final product.	This paragraph is considered self-explanatory.
5.4.5 Dependability If stated in the contract, the Supplier shall ensure that Dependability issues and related documents, including those from associated External Providers, are controlled. NOTE: Further information on NATO Dependability Management is contained within Allied Dependability Management Publications (ADMP).	This paragraph is considered self-explanatory.
5.4.6 Control of externally provided processes, products and services [8.4] The Supplier shall retain documented information of verification and/or validation of purchased products. The documented information shall be made available to the GQAR and/or Acquirer.	The Supplier should be able to demonstrate to the GQAR and/or Acquirer that the resulting products and services meet the requirements for the specified application or intended use. This includes evidence of traceability and corrective action e.g. inspection and test records and results of the activities.
5.4.6.1 General **Supply chain information** 1. Where the Supplier has decided to externally source a critical item, significant work content, design, immature technical solutions or a configuration item then the Supplier shall establish and maintain knowledge of the supply chain and External Provider quality assurance activities.	The Supplier should focus quality assurance resource and base their Supplier controls on the level of risk as it applies to the contract. Traditionally External Providers controls are influenced by historical performance information. This requirement seeks to extend these controls to reflect the criticality of the Supplier in relation to the product/contract and deliberately focuses on areas of potential risk such as design, etc. The criteria in this requirement informs the Supplier's risk-based thinking. The acquisition and support of defence capability may depend on an extended supply chain. All external sourcing activity involves risk and this requirement identifies specific risk areas where the Suppler is to understand their supply chain. The Supplier will be able to use this knowledge to manage supply chain risk and establish a view of quality assurance activities in the supply chain which can prevent duplication of assurance effort.
2. The Supplier shall flow down the applicable contractual requirements to External Providers by referencing the stated contractual requirement, including relevant AQAP(s). The Supplier shall insert the following in all purchasing documents: "All requirements of this contract may be subject to GQA. You will be notified of any GQA activity to be performed."	The Supplier is expected to flow down applicable contractual requirements, inclusive of those within this AQAP, which are relevant for the work activities conducted and appropriate to the scope of the contract and risk assessment. For significant work content, design and other purchase orders constituting risk it could be appropriate to cascade the entire AQAP requirements, providing clarification that the term 'acquirer' also refers to the Supplier issuing

Requirements	Guidance
	the order. It would also be acceptable to exclude specific AQAP requirements that are not relevant to the contract to reflect the complexity and risk of the purchase but noting that acquirer/GQAR right of access is mandatory as established by clause 4.3 of AQAP-2110. Where Suppliers are contracting with organisations that do not have an established QMS, such as small to medium enterprises then they should identify how they will establish confidence in the Supplier and monitor performance. The flow down of requirements within the supply chain should extend to all tiers/levels to the extent necessary to provide the necessary assurance.
3. Suppliers shall conduct a formal review of purchasing documents to verify that the correct contractual requirements have been flowed down. The supplier shall retain documented information of this review.	To facilitate the formal review process, it is important that the Supplier clearly identifies the process and criteria to be applied to assess whether contractual conditions are 'flowed down' to the supply chain and whether the purchasing documentation fully identifies the product and applicable contractual conditions. The process must offer assurance that a consistent rationale is applied and any associated supply chain risks are documented and addressed. For example, if during initial contact or tender an External Provider declared it was unable to fulfil a contracted requirement, then this shortfall should be documented, and the mitigating action implemented by the Supplier. The introduction of a formal review of purchasing documents, against defined criteria, prior to issue will benefit through: a. Assuring all customer requirements are suitably assessed for flow-down to the sub-supply chain; b. Identifying and Documenting instances where full flow down of contractual requirements is not appropriate, offer the rationale for this, and as a result define actions or controls to be applied internally by the Supplier; c. Aiding identification and capture of supply chain related risks. The introduction of the requirement to retain documented information to support the completion of the review will improve traceability of the rationale applied; for decisions made and it provides objective evidence for both internal and external Audit purposes.
4. The Supplier shall document their arrangements for these requirements at the planning stage (see paragraph 5.4.1. of this publication) and identify their proposed quality assurance activities for specific sub-contracts or orders that meet the above criteria.	At the Quality Planning stage, Suppliers should understand the supply chain and including what QA activities they are performing. This helps Acquirers and GQAR(s) identify where RGQA(s) (as defined in AQAP 2070) across the supply chain is required. See 5.4.1 Operational planning and control.
5.4.6.2 Type and extent of control [8.4.2] 1. It is the Supplier's responsibility to ensure that the procedures and processes required to fulfil contract requirements are fully implemented at the External Provider's facilities.	Suppliers can monitor process at External Providers and use external/supplier audits as a comprehensive way to control External Providers. An annual audit programme could be established, based on the output from risk assessments.
2. The Supplier shall establish and implement a process for the avoidance, detection, mitigation, and disposition of Counterfeit Materiel.	See Annex E, counterfeit risk identification table.

Requirements	Guidance
3. Only the Supplier placing the purchasing documents with an External Provider will issue contractual instructions to that External Provider.	It is the role of the Supplier to establish contractual arrangements with their supply chain. The establishment of commercial arrangements and purchasing documents is essential to describe or determine elements of the procurement or the procedure, including the conditions of contract and specific contractual instructions and in ensuring that these instructions are understood by the External Provider. Productive relationships must be upheld at all levels of the supply chain.
4. GQA activities at External Provider's facilities do not relieve the Supplier from any contractual quality responsibilities. Note - Conduct of GQA and associated GQAR and/or Acquirer access rights, at External Provider's facilities can only be requested by the GQAR and/or Acquirer.	This paragraph is considered self-explanatory.
5.4.6.3 Communication 1. The Supplier shall on request provide the GQAR and/or Acquirer with a copy of any subcontracts, orders, related contractual documents and their modifications, for products related to the contract.	This requirement makes it clear when the Supplier has to notify the GQAR and/or Acquirer of subcontracts. This will identify at an early stage where there is potential risk within the supply chain and will inform discussions between the Supplier and Acquirer/GQAR regarding assurance activities within the supply chain.
2. The Supplier shall notify the GQAR and/or Acquirer if a subcontract or order has been identified involving a critical item, significant work content, design, immature technical solutions or where External Provider performance is unknown or causes concern.	This requirement focuses attention on specific characteristics/risk areas that the Supplier has decided to subcontract which will enable the GQAR and/or Acquirer to determine appropriate levels of GQA activity. The Supplier should determine and implement effective arrangements for communicating with the GQAR and/or Acquirer around aspects such as product technical and Supplier process risk, noting that part of the defence supply chain and may be relevant to other contracts.
3. The Supplier shall notify the GQAR and/or Acquirer if an externally provided product is rejected, reworked, or repaired which has been identified as involving risk or supplied by an External Provider whose selection or subsequent performance has been identified as involving risk.	This paragraph is considered self-explanatory.
5.4.7 Control of Production and Service Provision [8.5.1] 1. The Supplier shall develop and maintain instructions for the conduct of activities related to the control of production of material, part, component, subsystem and system level for the product supplied to ensure that the specified requirements are met.	The GQAR and the Acquirer should be aware of what processes the Supplier might outsource and how such outsourcing is managed. Outsourcing agreements may not always be contract specific and might be used at short notice by the Supplier. When the Supplier determines that work has to be sub-contracted to an External Provider, the Supplier should make such information available to the GQAR and/or Acquirer as early as possible. This enables the GQAR and Acquirer to consider the need for GQA at the External Provider's facility at an early stage.
2. The Supplier shall establish and maintain criteria for workmanship in the clearest practical manner (e.g. written standards, representative samples or illustrations).	

Requirements	Guidance
5.4.8 Identification and traceability [8.5.2] Where the failure of an item or component could lead to the loss of equipment, performance or life then it is mandatory to maintain traceability.	Requirements for traceability placed on the Supplier may help to minimize the impact of non-conforming material on product in production, at inspection or already delivered. This requires Suppliers to maintain build records during manufacture where components and materials have been used. Examples of this could include O seals, welding consumables and other material that are batch controlled. Such records should be able to support product recall in the event that material is subsequently found to be suspect or nonconforming. Benefits of managing traceability are realised through reduced recall size for delivered units shown to contain errors. It improves traceability back to origin, which will reduce the likelihood of counterfeit material entering the supply chain. Successful process and product improvements, through better management of the process, enables applied traceability to inform users when making decisions on the risk of continued use of non-conforming products in defence operations. The Supplier should identify outputs to ensure traceability through the supply chain, including the status of outputs in relation to monitoring and measurement requirements throughout production and service provision. This is linked to critical characteristics and should be relatively straightforward for Design Authorities/Organisations. GQARs should pay particular attention to ensure this clause is satisfied especially in manufacturing organisations.
5.4.9 Property belonging to customers or External Providers [8.5.3] 1. If products provided by the Acquirer are lost, damaged or otherwise found to be unsuitable for their intended use in accordance with the contract, the Supplier shall immediately inform the Acquirer and GQAR and retain documented information.	This paragraph is considered self-explanatory.
2. When the Supplier establishes that an acquirer supplied product is unsuitable for its intended use, they shall immediately report to and coordinate with the Acquirer the remedial actions to be taken. The Supplier shall also inform the GQAR.	
5.4.10 Preservation [8.5.4] 1. Products with limited shelf life shall be subject to control of their expiry dates.	The Supplier should preserve their products, including sub-assemblies and components, during production and service provision. Product must be preserved to the extent necessary to ensure conformity to requirements. The controls applied should be relevant to the application and longevity of the product. Preservation of product extends from manufacturing processes, through to installation, in service and storage of the product, including identification, handling, contamination control, packaging, transportation and protection.
2. If applicable, the control of expiry date/shelf life shall be applied during maintenance, servicing, storage or when fitted.	
3. Remaining shelf-life shall be identified and communicated to the GQAR and/or Acquirer prior to delivery.	This paragraph is considered self-explanatory.

Requirements	Guidance
5.4.11 Release of products [8.6] 1. The Supplier shall ensure that only acceptable products, intended for delivery, are released. The GQAR and/or Acquirer reserve the right to reject nonconforming products.	The Supplier is to ensure that only acceptable products are delivered to the Acquirer. The Supplier is to ensure they have the appropriate processes in place to verify the conformance to contractual requirements, including the identification and resolution of nonconforming products, prior to release/delivery to the acquirer. The Acquirer is to ensure the appropriate acceptance criteria is defined and communicated to the Supplier to ensure requirements are fully understood.
2. The Supplier shall provide a Certificate of Conformity at release of product to the GQAR and/or Acquirer unless otherwise instructed.	The Certificate of Conformity (CoC) is a document, signed by the Supplier, which states that, the product conforms to the contractual requirements. The recommended minimum information required for a CoC is detailed at Annex F. The Supplier is asked to note that the contract may identify a specific CoC form and/or define contract specific information that should be included in the CoC. If the contract requires the GQAR to provide a statement of GQA then a signature block may be added to the CoC. Further information is provided at Annex F.
3. The Supplier is solely responsible for the conformance to requirements, of products provided to the Acquirer.	This paragraph is considered self-explanatory.
4. Where the GQAR/and or Acquirer is required to perform any final inspection or formal acceptance activities, the Supplier shall provide the GQAR/and or Acquirer with a minimum of 10 working days notification of the event unless otherwise stated in the contract.	Suitable notification of the requirements to conduct any GQAR / Acquirer activities should be considered, scheduled and agreed.
5.4.12 Control of nonconforming products [8.7] 1. The Supplier shall issue and implement documented procedures which identify, control and segregate all nonconforming products. Product with unidentified or unknown status shall be classified as nonconforming product.	Acquirers will need to have their own internal processes for the control of non-conforming product and also concession against contract requirement. These processes should identify how the organization reacts to nonconformity, take action to control and correct it and deal with its consequences, evaluating and addressing the root cause. For the Supplier to meet this requirement in a consistent and controlled manner it is reasonable to expect there to be established processes in place to ensure segregation, containment and identification of nonconforming product(s). Appropriate actions should be in place to determine and communicate its status to prevent nonconforming product entering the supply chain.
2. Documented procedures for the identification, control, and segregation of nonconforming product are subject to disapproval by the GQAR and/or Acquirer when it can be shown that they do not provide the necessary controls.	The GQAR and/or Acquirer may reject the Supplier's documented procedure for the control of product if it considers it not suitably robust enough to give the GQAR and/or Acquirer confidence in the necessary controls.

Requirements	Guidance
3. The Supplier shall notify the GQAR and/or Acquirer of non-conformities and corrective actions required, unless otherwise agreed with the GQAR and/or Acquirer. The GQAR and/or Acquirer reserves the right to reject all rework, repair and use as is dispositions.	Consider adding the following AQAP 2131 para 2.6: This requirement establishes the right of the Acquirer/GQAR to reject the Supplier's dispositions of nonconforming product. This is required for proposals that will have a detrimental effect on the product or higher assemblies. Inclusive of through life usage (e.g. a repair during manufacture may eliminate the possibility of future repairs during service life). Nonconformities and their associated corrective actions are to be communicated to the GQAR and/or Acquirer who will make an assessment on the rework and it acceptability. The retained information is required to be made available to the GQAR and/or Acquirer to enable a considered evaluation of any potential impact on related products or systems; it is possible that the Supplier may not be aware of these. For example, "use as is" dispositions, which effectively mean the Acquirer is taking receipt of nonconforming material, there is a possibility that this may have a negative impact on related systems.
4. Where the Supplier proposes to raise a concession for the use, release or acceptance of a nonconforming product then appropriate authorisations shall be obtained from the GQAR and/or Acquirer unless otherwise agreed.	The Supplier should be able to demonstrate control over concessions, including authorization of life-limited concessions. It must be noted that the cumulative effect of concessions has to be considered at system level. The retained information is required to be made available to the GQAR and/or Acquirer to enable a considered evaluation of any potential impact on related products or systems; it is possible that the Supplier may not be aware of these. Acquirers must ensure that the contractual requirements for dealing with concessions are clearly stated in the contract. Acquirers should be aware that national practice of the country placing the contract and the nation where the contract will be performed may be different with respect to handling concessions and should therefore clearly set out the required actions.
5. The Acquirer requirements for concessions apply equally to outsourced processes or purchased products. The Supplier shall review any request from External Providers before submission to the GQAR and/or Acquirer.	Control over outsourced and purchased products is necessary to give confidence that non-conforming product is managed throughout the supply chain. This includes the communication of instances of non-conforming product prior to submission.
6. The Supplier shall retain documented information of quantity authorized and/or expiration date for concessions or deviation permits. The Supplier shall ensure compliance with the contract requirements when the authorization expires.	The Supplier should be able to demonstrate control over concessions, including authorization of life-limited concessions.

Requirements	Guidance
7. The Supplier shall notify the GQAR and/or the Acquirer of nonconforming product received from an External Provider that has been subject to Government Quality Assurance.	This requirement establishes the right of the Acquirer/GQAR to reject the Supplier's dispositions. This is to be exercised for such proposals where it will have a detrimental effect on the product and its through life usage (e.g. a repair during manufacture may eliminate the possibility of future repairs during service life). Also for "use as is" dispositions, which effectively mean the Acquirer is taking receipt of nonconforming material, there is a possibility that this will have a negative impact on related systems (e.g. reduced flow rate of a pump preventing the correct level of cooling or lubrication). The cumulative effect of concessions has to be considered at system level.
5.5 Performance Evaluation	
5.5.1 Customer satisfaction [9.1.2] 1. Any complaints or deficiencies relevant to the contract, reported by the GQAR and/or Acquirer, shall be recorded as customer complaints.	GQARs / Acquirers must highlight that they are submitting a customer complaint (Customer complaints is as defined in ISO 9000). A complaint is an expression of dissatisfaction made to the Supplier related to its product or service, where a response is explicitly or implicitly expected.
2. The Supplier shall provide a response to the originator of the complaint or deficiency that shall include information on root cause analysis and corrective action. Note: Customer complaints could be in the form of quality non-conformance, deficiency or occurrence reports or another format but regardless will be identified by the GQAR and/or Acquirer as 'customer complaints'.	Supplier responses to complaints should be available to demonstrate how the Supplier has reacted to take control of the cause of the complaint and how it has dealt with the following: determining the cause of the complaint, implementation of the correction and corrective action, review of the effectiveness of the corrective action taken and any resultant changes to the QMS and overall improvements. There is an expectation that customer complaints will be visible to 3rd Party certification bodies.
5.5.2 internal audit [9.2] 1. During the planning of internal audits the Supplier shall ensure that their audit programme covers all contract related critical processes and activities on an annual basis and includes contractual requirements and NATO supplements. The Supplier shall also consider the output from the actions to address risk and opportunities assessment.	The Supplier should also conduct internal audits that provide contract specific assurance against contract and NATO requirements. The audit programme should be centred around critical processes, changes affecting the organization and the results of previous audits.
2. Unless otherwise agreed, the Supplier shall inform the GQAR and/or Acquirer of deficiencies or findings identified during internal audit.	Audit findings, including deficiencies should be made available to the GQAR and/or Acquirer.
3. The Supplier shall retain documented information that demonstrates auditor training and experience.	The Supplier should be able to demonstrate auditor training and experience. This may be in the form of training records and auditor logs.
5.5.3.1 Management Review Input [9.3.2] Documented information of review input, related to the contract, shall be available to the GQAR and/or Acquirer.	The Supplier is to review the organization's QMS, at planned intervals, to ensure its continuing suitability, adequacy, effectiveness and alignment with the strategic direction of the organization. Examples of documented information that should be available to the GQAR and/or Acquirer could include: Changes to the Supplier's QMS that may impact the contract; Information on the Supplier's QMS performance in relation to the contract; Effectiveness of actions to address contract risk and / or opportunities; Opportunities for improvement.

Requirements	Guidance
5.5.3.2 Management Review Output [9.3.3] 1. Documented information of the review output, related to the contract, shall be available to the GQAR and/or Acquirer.	This paragraph is considered self-explanatory.
2. The Supplier shall notify the GQAR and/or Acquirer of proposed action, resulting from Review Output that will affect compliance with contractual requirements. Review output shall, where action item(s) are identified, specify the responsible person/function and due date of the action item(s).	The outcomes of the management review should cause beneficial change in performance. Outputs from the Management review should focus on improvements to products, processes and the performance in relation to the contract. Outputs could be demonstrated as product improvement actions. Actions may focus on the quality of the design, improvements to conformity of product, the quality of use leading to improved reliability, maintainability, durability and performance.
5.6 Improvement	
5.6.1 Nonconformity and Corrective Action The Supplier shall define their process, including tools and techniques, used to support root cause analysis for nonconformities.	Root cause analysis is a critical activity for the prevention of nonconformities and as such should be controlled as a process. Root Cause analysis will facilitate: Improved identification of symptoms and causes of nonconformities; Improved ability to define and implement corrective actions; Reduced recurrence of nonconformities; Availability of information to provide the customer and other interested parties with increased assurance that corrective actions proposed will prevent future nonconformities. 1. Suppliers will adopt tools and techniques that are appropriate for the nature and complexity of their business and be able to manage root cause analysis as a business process. 2. The root cause analysis process, tools and techniques applied to the contract shall be included in, or referred to, the contract quality plan and be made available to the GQAR and/or Acquirer. 3. There are many recognised root cause analysis methodologies, tools and techniques. Examples of common root cause analysis methodologies and techniques are: Failure Modes (or cause) Effect And Criticality Analysis (FMEACA) Ishikawa diagrams (Herring bone diagram) Why-Why analysis. 4. It would be reasonable to expect the Supplier to have competent personnel (resource) to support the techniques identified in their process.

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ANNEX A
List of documented information requested by AQAP-2110 Edition D, Version 1 and ISO 9001:2015

The below list identifies documented information requested by the AQAP-2110 Edition D, Version 1 and ISO 9001:2015.

When those standards are contractual and/or the Supplier is certified according to those standards, the Supplier shall release that documented information in order to provide confidence that contractual requirements are fulfilled and/or the Quality Management System is correctly implemented.

This list can help the GQAR and the Supplier to:
- prepare the Post Award GQA meeting focused on the contract arrangements for Quality Assurance of the product and/or GQA practicalities (see para. 5.4.2)
- complete the template for GQA Arrangements (see annex D).

The meaning of icons used concerning the type of documented information in the list below is:

 Maintain documented information (See ISO 9001:2015 Annex A, Paragraph A.6 for detail)

 Retain documented information (See ISO 9001:2015 Annex A, Paragraph A.6 for detail)

 The Supplier may maintain or retain contract related documented Information against these requirements

§ AQAP 2110	§ ISO 9001:2015			**Description of Documented information requested**
4.1		x	x	Quality Management System in accordance with AQAP-2110 which includes the requirements of ISO 9001:2015 as necessary to satisfy the contract requirements.
	4.3	x		Scope of the organization's quality management system.
4.1	4.4.2 a)	x		To support the operation of its processes.
4.1	4.4.2 b)		x	To support the operation of its processes.
	5.2.2	x		Quality policy.

§ AQAP 2110	§ ISO 9001:2015				Description of Documented information requested
5.2.1		x			Risk plan.
	6.2.1	x			Quality objectives.
	7.1.5.1		x		As evidence of fitness for purpose of the monitoring and measurement resources.
	7.1.5.2		x	x	The basis used for calibration or verification (⚠ when no international or national measurement standards exist).
	7.2		x		Evidence of competence.
5.3.3		x			A process for identifying training needs and achieving competence of all personnel performing activities affecting product quality.
	7.5.1 b)	x	x		Documented information determined by the organization as being necessary for the effectiveness of QMS.
	8.1 e)	x	x	x	Documented information on operational planning and control *(* ⚠ *determined by the organization to be necessary).*
5.4.1 (1)			x		Identify documented information including acceptance criteria and configuration information that will be used as objective evidence of product conformance with requirements.
5.4.1 (2)		x	x		For product approval and production process approval. These approvals shall also be applied to External Providers.
5.4.1.1		x			Quality plan.
5.4.1.1		x			Requirement and solution compliance matrix can be a part of Quality Plan or a separate document as an annex to it.
5.4.1.2.2		x			Configuration Management Plan.
	8.2.3.1		x	x	Customer's requirements shall be confirmed by the organization before acceptance *(* ⚠ *when the customer does not provide a documented statement of their requirements).*
	8.2.3.2		x	x	Results of the review of the requirements for products and services; *(* ⚠ *as applicable*) on any new requirements for the products and services.
	8.3.2		x		Needed to demonstrate that design and development requirements have been met *(note: regarding design and development planning).*

§ AQAP 2110	§ ISO 9001:2015				Description of Documented information requested
	8.3.3		x		Design and development inputs.
	8.3.4		x		Design and development controls (results to be achieved ; reviews ; verification activities ; validation activities ; any necessary actions are taken on problems during those activities).
	8.3.5		x		Design and development outputs.
	8.3.6		x		Design and development changes and the results of reviews *(note: regarding Design and development changes).*
	8.4.1		x		Evaluation, selection, monitoring of performance, and re-evaluation of external providers, and any necessary actions arising from the evaluations.
5.4.6			x		Verification and/or validation of purchased products.
5.4.6.1			x		Review of purchasing documents to verify that the correct contractual requirements have been flowed down.
5.4.6.2 (2)		x			A process for the avoidance, detection, mitigation, and disposition of Counterfeit Materiel.
5.4.7 (1)		x			The instructions for the control of production activities to ensure that requirements are met.
5.4.7 (2)		x			Criteria for workmanship in the clearest practical manner (e.g. written standards, representative samples or illustrations).
5.4.8	8.5.2		x	x	Unique identification of the outputs *(⚠ ISO when traceability is a requirement* *⚠ AQAP when failure of an item or component could lead to loss of equipment, performance or life).*
5.4.9	8.5.3		x	x	Report on property of a customer or External Provider *(⚠ When the property of a customer or External Provider is lost, damaged or otherwise found to be unsuitable for use).*
	8.5.6		x		Results of the review of changes, the person(s) authorizing the change, and any necessary actions arising from the review (*note: regarding production and service provision).*
	8.6		x		Release of products and services including evidence of conformity with the acceptance criteria; traceability to the person(s) authorizing the release.

§ AQAP 2110	§ ISO 9001:2015				Description of Documented information requested
5.4.11 (2)			x	x	Certificate of Conformity at release of product ⚠ unless otherwise instructed.
5.4.11 (4)			x	x	Provide minimum of 10 working days notification of the event unless otherwise stated in the contract *(⚠ Where the GQAR/and or Acquirer is required to perform any final inspection or formal acceptance activities).*
	8.7.2		x		Description of the nonconformity; the actions taken; any concessions obtained; identifies the authority deciding the action in respect of the nonconformity.
5.4.12 (1)		x			To identify, control and segregate all nonconforming products.
5.4.12 (6)			x		Of quantity authorized and/or expiration date for concessions or deviation permits.
	9.1.1		x		Results of the evaluation of the performance and the effectiveness of the quality management system.
5.5.1			x		Any complaints or deficiencies reported by the GQAR and/or Acquirer shall be recorded as customer complaints.
	9.2.2		x		Results of the implementation of the audit program and the audit results.
5.5.2			x		Auditor training and experience.
5.5.3.1			x		Review input related to the contract.
5.5.3.2	9.3.3		x		Results of management reviews (related to the contract for AQAP).
	10.2.2		x		Nature of the nonconformities and any subsequent actions taken; the results of any corrective action.

ANNEX B
List of documented information requested by AQAP-2110 Edition D, Version 1 and ISO 10012.

The below list identifies documented information requested by the AQAP-2110 Edition D, Version 1 and ISO 10012.

When those standards are contractual and/or the Supplier is certified according to those standards, the Supplier shall release that documented information in order to provide confidence that contractual requirements are fulfilled and/or the Quality Management System is correctly implemented.

This list can help the GQAR and the Supplier to:
- prepare the Post Award GQA meeting focused on the contract arrangements for Quality Assurance of the product and/or GQA practicalities (see para. 5.4.2)
- complete the template for GQA Arrangements (see annex D).

The meaning of icons used concerning the type of documented information in the list below is:

Maintain documented information.

Retain documented information.

§ AQAP 2110	§ ISO 10012			Description of Documented information requested
	5.1	x		Measurement management system.
	6.1.1	x		Responsibilities of all personnel assigned to the measurement management system.
	6.1.2		x	Training activities and effectiveness of the training
	6.2.3		x	Containing information required for the operation of the measurement management system.
	6.2.3	x		To ensure the identification, storage, protection, retrieval, retention time and disposition of records.
	6.3.1	x		Documented procedures for receiving, handling, transporting, storing and dispatching measuring equipment
	6.4		x	Criteria for selection, monitoring and evaluation of *External Providers*[1]. Of the products or services provided by *External Providers*.
	7.1.2	x		The methods used to determine or change the intervals between metrological confirmation.

[1] Outside suppliers used in ISO 10012 have been replaced by External Providers used in ISO 9001:2015

§ AQAP 2110	§ ISO 10012			Description of Documented information requested
	7.1.4		x	Metrological confirmation process.
	7.2.1	x		Measurement processes.
	7.2.2	x		The measurement processes designed to meet these specified requirements.
	7.2.4		x	To demonstrate compliance with the requirements of the measurement process.
	7.3.1	x		All known sources of measurement variability.
	7.3.2		x	Records of traceability of measurement results shall be maintained for as long as required by the measurement management system, the customer, or by statutory and regulatory requirements.
	8.2.4	x		To monitoring measurement management system and at established intervals
	8.2.4		x	Results of monitoring of the measurement and confirmation processes and any resulting corrective actions.
	8.4.2		x	The criteria for taking corrective action shall be documented.
	8.4.3	x		For preventive actions to define requirements

ANNEX C
List of documented information requested by AQAP-2110 Edition D Version 1, ACMP 2100 Edition A Version 2 and ISO 10007.

The below list identifies documented information requested by the AQAP-2110 Edition D, Version 1 and ISO 10007.

When those standards are contractual and/or the Supplier is certified according to those standards, the Supplier shall release that documented information in order to provide confidence that contractual requirements are fulfilled and/or the Quality Management System is correctly implemented.
This list can help the GQAR and the Supplier to:

- prepare the Post Award GQA meeting focused on the contract arrangements for Quality Assurance of the product and/or GQA practicalities (see para. 5.4.2)
- complete the template for GQA Arrangements (see annex D).

The meaning of icons used concerning the type of documented information in the list below is:

Maintain documented information.

Retain documented information.

§ AQAP-2110 § ACMP 2100	**§ ISO 10007**			**Description of Documented information requested**
ACMP 2100 § 1 & 4		x		Configuration Management system
	4.2		x	Documentation of the change.
AQAP-2110 § 5.4.1.2.2	5.2	x		Configuration management plan.
ACMP 2100 § 3	5.3.2	x		Product configuration information.
	5.4.1		x	To control the change.
	5.4.2		x	All change proposals.
	5.4.4		x	Disposition of the change.
	5.4.5		x	Verification of the change.

§ AQAP-2110 § ACMP 2100	§ ISO 10007			**Description of Documented information requested**
	5.5.1		x	Configuration status accounting activity results.
	5.5.2.1		x	Configuration identification and change control activities, configuration status accounting.
	5.5.2.2		x	Evolving product configuration information.
	5.4.3.1		x	Evaluations concerning the proposed change.
	5.6	x		Configuration audits.

ANNEX D
Template for GQA Arrangements per AQAP-2110 paragraph 5.4.2

GQA Action (risk based)	Title and/or reference of contractual requirement	Ref. and description of the evidence	Ref. and description of the element of evidence	Supplier Representative	Type of support	Access to Information	Date of disposal for GQAR	Comments / Observations
				People, department who provides the evidence or the element of evidence	***Paper, file, CD Rom (if needed mention the types and versions of files)***	***consultation or diffusion*** ***restricted distribution***	***Schedule and/or regarding the contractual timetable***	
Perform the Final Inspection of the Electric Primary Pump (EPP)	*AQAP-2110 § 5.4.11 Release of products and Technical Specification 51252 § 12.4*	*CoC of the EPP, FAT procedure accepted by the Acquirer, FAT report and DTR quality file for the EPP*	*DTR quality file of Electric Motor.*	*Quality engineer (Name of person)*	*Paper, file, CD Rom (if needed mention the types and versions of files)*	*consultation or diffusion; restricted distribution.*	*minimum of 10 working days notification. 15 April 2019*	*Final Inspection will be performed in the NG production plant.*

In preparation for the Post Award GQA meeting, ensuring focus on the contract arrangements for Quality Assurance of the product and/or GQA practicalities (see para. 5.4.2), the GQAR and/or the Acquirer should complete this table for the Supplier by completing all the headings except “Supplier Representative”.

Prior to the Post Award GQA meeting (allowing suitable time for the Supplier to complete the template but recommended to be not less than 10 days), the completed template should be sent to the Supplier with the content for the “Ref. and description of the element of evidence” column omitted.

Note: Omitting the content of the “Ref. and description of the element of evidence” column enables the GQAR and/or Acquirer to negotiate some elements of evidence which may not have been previously considered.

The Supplier should prepare for the meeting by reviewing this template and completing the blank columns; “Ref. and description of the element of evidence” and “Supplier Representative”.

During the Post Award GQA meeting, the completed template should be reviewed and agreed by both the Supplier and the GQAR and/or Acquirer.

The release of the approved table, attached to the meeting minutes, forms a commitment between the Supplier and the GQAR and/or Acquirer.

Further follow-up meetings may be required to:

- specify the GQAR engagement at the Supplier's premises, involved in the contract execution, and/or External Providers;
- specify or adjust the dates of availability of the agreed evidence according to the contract milestones or the complexity of industrial supplies.

ANNEX E
Counterfeit Avoidance Guidance for AQAP-2110

AQAP-2110 Ed.D Requirement

1. The AQAP-2110 requirement for the avoidance of counterfeit materiel can be found in section 5.4.6.2 'Type and extent of control' sub-section 2:

> The Supplier shall establish and implement a process for the avoidance, detection, mitigation, and disposition of counterfeit materiel.

Guidance

2. Counterfeit materiel is by its nature nonconforming (i.e. there is a characteristic that does not fully comply with the specification or history of the materiel). This could include but not limited to raw material, manufacturing methods, lifetime of parts or false certification. What makes the nonconforming materiel counterfeit is the act of false misrepresentation.

3. Counterfeit materiel is undesirable in defence equipment as it may have unpredictable performance and failure modes which could compromise capability and equipment safety. Below in Fig 2 is a diagram showing the most common counterfeiting modes and their representation

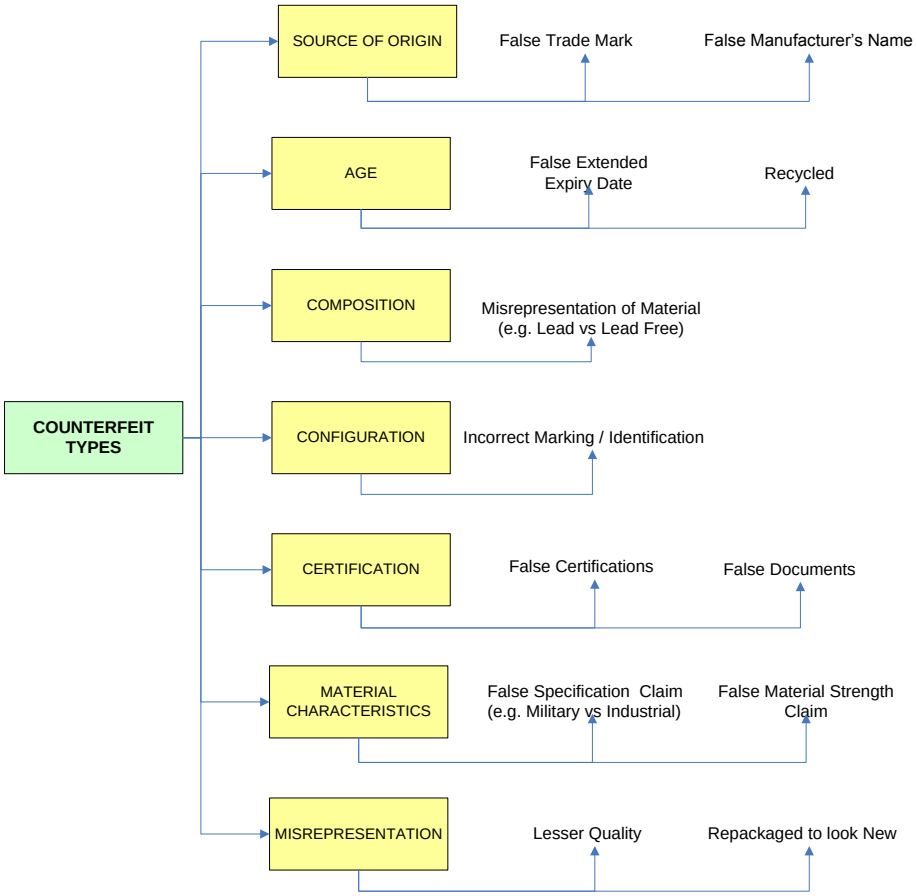

Figure 2: Diagram showing the counterfeiting modes

4. There is an increased probability of counterfeit materiel where:

a. the components or raw materials are of a type that are known to be vulnerable to counterfeiting,

b. the design requires the sourcing of parts that are obsolescent, or are foreseen to become obsolescent during the lifecycle of the equipment,

c. there are likely to be multiple tiers in the supply chain,

d. traceability of the materiel is not otherwise mandated,

e. the design includes Electrical, Electronic and Electro-mechanical (EEE) parts.

f. where counterfeiting of test results enables the product to be accepted by an organisation.

g. Where counterfeiting of certificates enables an organisation to benefit from that certification without achieving the required standard or output.

5. There are recognised national standards already in existence, some specific to certain product domains, for example electronics is covered by AS5553.

6. Other guidance may be identified in:

- STANREC 4791
- BSI PD IEC/TS 62668-1 Process management for avionics - Counterfeit prevention. Part 1: Avoiding the use of counterfeit, fraudulent and recycled electronic components;
- SAE AS6174 Counterfeit Materiel; Assuring Acquisition of Authentic and Conforming Materiel.

7. The Supplier’s process should reflect the counterfeit types and the level of risk. The diagram at Fig 3 reflects the risks described in the text in relation to counterfeit materiel in the supply chain and risk in final products.

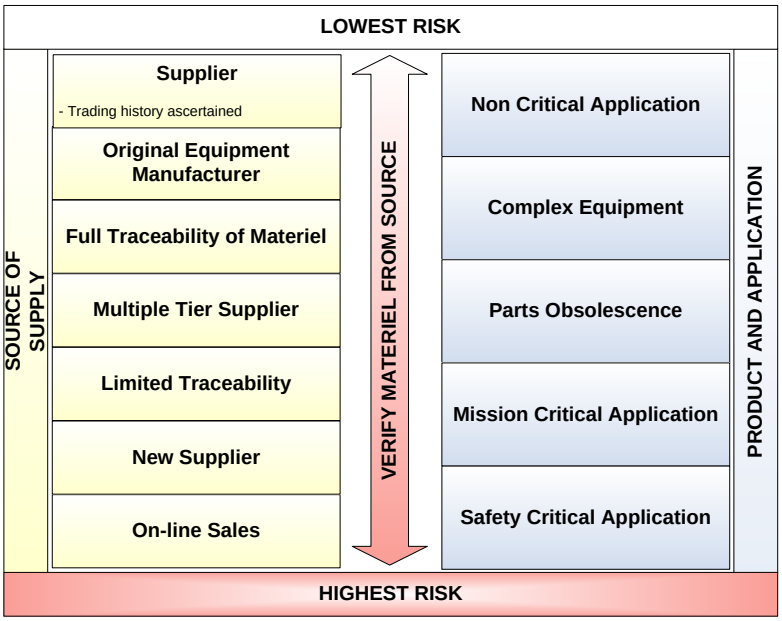

Figure 3: Counterfeit risk assessment diagram

Counterfeit Avoidance Strategy and Policy Statement

8. A Supplier who holds a counterfeit avoidance policy indicates a level of maturity in its approach to counterfeit avoidance. The benefits of having a counterfeit Avoidance strategy and the implementation of the strategy through a policy statement, this will enable the organisation;

a. To Understand what potential risks of counterfeit material are in the supply chain

b. By the organisation using the counterfeit avoidance policy as the first steps in developing the controls, awareness, the resource requirements and identifying the organisations intent to address the issue.

Impact of Counterfeit Material

9. Counterfeit materiel is undesirable in defence equipment as it may have unpredictable performance and failure modes which could compromise capability and equipment safety.

10. To manage the supply chain, understand the risks of supply and assure the providence of critical items will enable the Acquirer and Supplier to reduce the risk of:

a. Premature failure and expensive repairs and investigation;

b. Loss of confidence in the system or product;

c. Rework and loss of capability;

d. Legal action and loss of reputation.

11. By the Supplier actively planning and managing the risk of counterfeit materiel in their supply chain and formalising their process for identification and control of counterfeit parts, the supplier offers:

a. Improved awareness and controls of their supply chain;

b. Assurance to the customer that the provenance and quality aspects of both the product and any sub-components are known;

c. Assurance that a system is in place to assure early detection of counterfeit parts within the supply chain;

d. Processes are in place and to be adhered to if counterfeit parts are detected; and

e. The correct remedial action is taken which includes containment, investigation and action.

ANNEX F
Minimum Certificate of Conformity (CoC) Content

A CoC should contain the following information as a minimum

1) Supplier name and address;

2) Product;

a. Name,

b. Type number or model name/number,

c. Serial number/batch number,

d. Other data which specific for product to allow identification (i.e. batch quantity),

e. Any concessions;

3) A Supplier's statement; that the product conforms to all requirements of the technical specification/Contract;

4) Document contained technical specification (contract) and its identification;

5) Date and place of issuing CoC;

6) Name, signature and position in the company of the authorized person issuing the CoC.

Notes:

1. Additions could be added to the minimum requirements for the CoC in line with the contract requirement.

2. If the supplier is not the Original Equipment Manufacturer (OEM) then the CoC must contain OEM certification details. This enables future traceability and logistic support.

3. If the contract requires the GQAR to provide a statement of GQA then a signature block may be added to the CoC. This should include the statement:

> "Government Quality Assurance Representative Statement of GQA:
> With reference to this CoC, this is to attest that within the provisions of STANAG 4107, AQAP 2070 and the RGQA, the planned Government Quality Assurance has been performed".

AQAP-2110-SRD.1(B)(1)