BERTEL PARTNER

WHITE PAPER · INDUSTRY IN FOCUS

DEFENCE & SECURITY

Quality, traceability and information security for security-critical supply chains

A guide from the auditor's perspective for suppliers entering or growing in the defence market

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01 EXECUTIVE SUMMARY
NEW DEMAND, NEW STANDARDS

Europe is rearming – faster and on a larger scale than in decades. For suppliers this opens a growth market. But anyone who wants to supply security-critical supply chains must prove more than good products.

The security situation has fundamentally changed procurement budgets and procedures. In 2025, NATO allies agreed on a spending target of 5% of GDP by 2035; Germany has largely exempted defence spending from its debt brake and significantly simplified procurement with the Act on Accelerated Planning and Procurement for the Bundeswehr (BwPBBG). Primes and system integrators are urgently looking for qualified suppliers – particularly from the automotive, machinery and electronics industries.

Access to this market rests on three pillars: **quality** in line with NATO's AQAP series or EN 9100, seamless **traceability** across life cycles that often span decades, and robust **information security** – from protecting classified information to NIS2 and CMMC for US programmes. Export control and industrial security come on top.

This white paper puts the requirements into context, shows the differences from the automotive world and outlines a pragmatic path for extending existing management systems in a targeted way – rather than building parallel structures.

5%

NATO spending target (GDP) by 2035

3

pillars: quality, traceability, information security

2035

BwPBBG in force until

10 Nov 26

start of CMMC Phase 2 for US programmes

OUR RECOMMENDATION IN ONE SENTENCE

Build on your existing ISO 9001, IATF 16949 or ISO/IEC 27001 system and extend it with the defence-specific requirements in a targeted way – before your first contract demands it.

02 BACKGROUND
A MARKET IN MOTION

Within just a few years, the political, financial and regulatory environment for the defence industry has changed fundamentally. The key milestones for suppliers:

2022	'Zeitenwende': special fund for the Bundeswehr and the first procurement acceleration act.
March 2025	German constitutional amendment: defence spending above 1% of GDP exempted from the debt brake.
May 2025	EU SAFE instrument with loans of up to EUR 150 billion for joint defence procurement.
June 2025	NATO summit in The Hague: target of 5% of GDP for defence and security by 2035.
10 Nov 2025	USA: CMMC programme takes effect (Phase 1, self-assessments).
6 Dec 2025	German NIS2 implementation act in force – around 29,500 companies affected.
14 Feb 2026	**BwPBBG in force** – simplified procurement for all Bundeswehr needs, until 2035.
16 Sep 2026	ISO 9001:2026 published – the basis for AQAP and EN 9100 requirements evolves.
10 Nov 2026	**CMMC Phase 2**: third-party Level 2 certification becomes the norm for US contracts with CUI.

WHAT THIS MEANS FOR SUPPLIERS

Faster procurement does not mean lower requirements. On the contrary: anyone expected to deliver at short notice must already have proven their qualification. Primes increasingly screen new suppliers for quality management, information security and export control before even requesting a quote.

03 OVERVIEW
THE REQUIREMENTS AT A GLANCE

Which requirements apply in each case is defined by the contract. The following frameworks are the ones we encounter most frequently in audits. Those marked in red are the most demanding for new entrants.

2110
AQAP

WHAT IT IS ABOUT

ISO 9001 plus NATO requirements: configuration management, risk management, dependability, access for government quality assurance (GQA under STANAG 4107)

TYPICAL ACTION REQUIRED

Gap analysis against existing QMS, set up configuration management, prepare an AQAP 2105 quality plan

Applies to: Design, development and production for NATO and national defence contracts

2310
AQAP

WHAT IT IS ABOUT

EN 9100 plus NATO-specific additions

TYPICAL ACTION REQUIRED

Establish EN 9100 as the basis, integrate NATO additions

Applies to: Highly complex aviation, space and defence projects

2210
AQAP

WHAT IT IS ABOUT

Software-specific supplement to AQAP 2110 or 2310

TYPICAL ACTION REQUIRED

Make the software life cycle, versioning and testing traceable

Applies to: Software in defence products

2105
AQAP

WHAT IT IS ABOUT

Deliverable quality management plan provided by the contractor; usually agreed separately in the contract

TYPICAL ACTION REQUIRED

Prepare a quality plan template and consider it at the bidding stage

Applies to: Contract-specific quality management plan

2131
AQAP

WHAT IT IS ABOUT

Procedure for final inspections and tests

TYPICAL ACTION REQUIRED

Align inspection planning, equipment and records with acceptance

Applies to: Contracts where final inspection and test are sufficient

9100
EN

WHAT IT IS ABOUT
ISO 9001 plus product safety, first article inspection (EN 9102), counterfeit prevention, FOD, special processes

TYPICAL ACTION REQUIRED
Anchor first article inspection, counterfeit prevention and risk in planning

Applies to: Aviation, space and defence

27001
ISO/IEC

WHAT IT IS ABOUT
ISMS with risk treatment and controls from Annex A

TYPICAL ACTION REQUIRED
Define scope, perform risk assessment, implement controls and certify

Applies to: Information security across the organisation

VS-NfD
Classified info

WHAT IT IS ABOUT
German Industrial Security Manual and VS-NfD guidance; from CONFIDENTIAL upwards, security supervision by the Federal Ministry for Economic Affairs

TYPICAL ACTION REQUIRED
Separate, approved IT environment, security officers, personnel security clearances

Applies to: Handling classified information in public contracts

NIS2
BSIG

WHAT IT IS ABOUT
Risk management, reporting obligations, registration with BSI, management liability

TYPICAL ACTION REQUIRED
Check applicability, complete registration, implement measures under section 30 BSIG

Applies to: Important and essential entities, including manufacturing

CMMC
US DoD

WHAT IT IS ABOUT
110 requirements of NIST SP 800-171; third-party certification as a rule from 10 Nov 2026

TYPICAL ACTION REQUIRED
Check prime flow-down, set up a CUI enclave, plan lead time for assessors

Applies to: US defence programmes with controlled unclassified information (CUI)

AWG
Export control

WHAT IT IS ABOUT
German Foreign Trade Act and Ordinance, War Weapons Control Act, EU Dual-Use Regulation 2021/821, ITAR/EAR where applicable

TYPICAL ACTION REQUIRED
Classify goods, implement an Internal Compliance Programme, appoint an export control officer

Applies to: Military and dual-use items

This overview is not exhaustive and does not constitute legal advice. The requirements agreed in the contract and the applicable editions of the frameworks are authoritative.

04 IN DETAIL
THE THREE PILLARS FROM AN AUDITOR'S VIEW

AQAP AS A CONTRACT COMPONENT AT BAAINBW

The basis of quality management in Bundeswehr contracts are NATO's quality assurance requirements, the Allied Quality Assurance Publications (AQAP). The Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support (BAAINBw) agrees them as contract components.

Which AQAP is required depends on the identified quality risk and the complexity of the contract item. For suppliers this means: not every company needs full AQAP 2110 – but every company must know which requirements are in the specific contract.

- **AQAP 2110:** ISO 9001 plus NATO supplementary requirements – for design, development and production.
- **AQAP 2310:** EN 9100 plus NATO supplementary requirements – for particularly complex projects in the aviation, space and defence industry.
- **AQAP 2210:** software-specific supplement to AQAP 2110 and 2310.
- **AQAP 2105:** contract-specific, deliverable quality management plan, usually agreed separately.
- **AQAP 2131:** procedure for final inspections and tests – for contract items with lower risk.

PRACTICAL TIP

Check the valid AQAP editions in the NATO Standardization Document Database and extend your contract review (ISO 9001, clause 8.2) to cover AQAP clauses. This makes the effort clear at the bidding stage.

QUALITY: FROM SERIES PRODUCTION TO OPERATIONAL READINESS

AQAP 2110 contains the requirements of ISO 9001 in full and supplements them with defence-specific elements. The key differences from civil industry lie less in methodology than in the environment: small batch sizes with high variety, life cycles of 30 years or more, and the presence of government quality assurance, which may inspect processes and products on site on behalf of the customer.

Configuration management is particularly demanding. Every change to a drawing, material, software or process must be identified, evaluated, approved and documented – and the configuration status of every delivered product must be demonstrable at all times.

- Is the configuration status of each product uniquely identifiable?
- Are obsolescence risks for components and materials monitored systematically?
- Is cooperation with government quality assurance organisationally prepared?
- Is there a contract-specific quality plan for each programme?

PRACTICAL TIP

Automotive suppliers bring strong tools with APQP, FMEA, SPC and supplier development. Transfer them deliberately – but adapt them to small quantities, long life cycles and stricter change approvals.

TRACEABILITY: COMPLETE AND ACROSS DECADES

In security-critical supply chains, every part must be traceable back to the raw material – through serial and batch numbers, EN 10204 material certificates, inspection records and configuration status. Retention periods go far beyond what is customary in the automotive industry.

A second core topic is protection against counterfeit and non-conforming parts. NATO has published its own guidance in AQAP 2021, and EN 9100 requires corresponding processes. This mainly concerns electronic components from unauthorised sources.

- Source electronic components only from authorised channels or with documented testing.
- Consistent identification from goods receipt through production to shipping.
- Clarify retention periods contractually and ensure them technically – including during system changes.

INFORMATION SECURITY: PROTECTING KNOW-HOW AND CLASSIFIED INFORMATION

Suppliers receive drawings, specifications and programme information that are of great interest to adversaries. Requirements are correspondingly high. Classified information is subject to government industrial security: even at the RESTRICTED level (VS-NfD), rules on storage, IT use and disclosure apply; from CONFIDENTIAL upwards, the company must be admitted to security supervision by the Federal Ministry for Economic Affairs.

In addition, the German NIS2 implementation act applies to many manufacturers and – for US programmes – CMMC. A certified ISMS to ISO/IEC 27001 provides a solid foundation for all of these requirements.

- Clear separation of classified information, customer data and general corporate IT.
- Need-to-know access rights, multi-factor authentication, logging.
- Flow requirements down to sub-suppliers in a binding way and verify them.

PRACTICAL TIP

Plan lead times realistically: personnel security clearances, approvals for classified environments and CMMC assessments often take many months.

EXPORT CONTROL AND COMPLIANCE

Military and dual-use items are subject to strict licensing requirements. Responsibility lies with top management, which must appoint an export control officer. An Internal Compliance Programme (ICP) with goods classification, sanctions screening and training is now a standard expectation of primes and authorities – even for suppliers who do not export themselves but pass on technology or technical data.

SUPPLY CHAIN RESILIENCE

Ramp-ups, scarce raw materials and geopolitical risks turn delivery capability itself into a quality attribute. With separate consideration of risks and opportunities and the planning of changes, the new ISO 9001:2026 strengthens exactly the tools needed for capacity ramp-ups, second sources and relocations.

05

CHANGING SECTORS

FROM AUTOMOTIVE TO DEFENCE SUPPLIER

Many companies from the automotive industry are currently considering entering the defence market. The foundations are in place – the differences lie in the details.

Volumes	High-volume series with stable processes → small batches, high variety, one-off and small-series production.
Approval	PPAP and customer approval → first article inspection to EN 9102, quality plan and acceptance by government quality assurance.
Changes	Change management with customer approval → formal configuration management across the entire life cycle.
Life cycle	Typically 7–15 years → often 30 years or more, with obsolescence management and spare parts supply.
Information protection	TISAX for prototypes and customer data → industrial security, classified information, ISO/IEC 27001, CMMC where applicable.
Export	Mostly licence-free → licensing under German foreign trade law, war weapons control and US law where applicable.

RECOMMENDATION FOR SECTOR CHANGERS

Start with a clearly bounded pilot programme and a clearly defined scope. This lets you build configuration management, a classified IT environment and export control without burdening your existing automotive organisation.

06 ROADMAP
FIVE STEPS INTO THE DEFENCE MARKET

The following roadmap has proven itself in our practice. Time frames are guide values and depend strongly on your starting point, target customers and the classification of contracts.

01
MONTH 1

Determine your position

- Define target markets, customers and relevant programmes
- Evaluate the primes' purchasing and quality terms
- Classify your own products under export control law

02
MONTHS 1–2

Gap analysis

- Determine the required AQAP per contract (2110, 2310, 2210, 2105 or 2131)
- Compare the QMS with AQAP 2110 or EN 9100
- Assess information security against ISO/IEC 27001, NIS2, classified-information rules and CMMC where applicable

03
MONTHS 3–9

Build

- Establish configuration management, traceability and counterfeit prevention
- Implement an IT environment suitable for classified information and access concepts
- Introduce an Internal Compliance Programme for export control

04
IN PARALLEL

Enable

- Training in quality, information security and export control
- Appoint security officers, initiate personnel security clearances

05
MONTHS 9–12

Demonstrate

- Internal audits and management review for the extended scope
- Certification, e.g. to AQAP 2110, EN 9100 or ISO/IEC 27001, and supplier audits by primes

07 FROM AUDIT PRACTICE
COMMON PITFALLS - AND HOW TO AVOID THEM

From audits in automotive, rail, aerospace, chemical and defence supply chains, we know the patterns that most often cause market entry to fail or stall.

✕ PITFALL	✓ BETTER APPROACH
Copying automotive logic 1:1	Use proven methods, but adapt them to small batches, long life cycles and formal configuration management.
Traceability stops at goods receipt	Think end-to-end down to the raw material and sub-supplier – including material certificates and inspection data.
Classified info on standard IT	Process classified information in a separate, suitable environment with clear access rights.
Export control as a sales topic	Anchor responsibility in top management and introduce an Internal Compliance Programme with clear processes.
Quality plan only after award	Keep an AQAP 2105 quality management plan template ready and plan for it in the bid.
Certificate before process	Primes and government quality assurance look at real effectiveness. Establish processes first, then certify.
Underestimated lead times	Plan security clearances, assessor capacity and certification dates early.

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In the defence market, quality is not a metric but a prerequisite for operational readiness – and trust is the most important deliverable.

Your BERTELPARTNER Team

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YOUR PARTNER

HOW BERTELPARTNER SUPPORTS YOU

BERTELPARTNER combines many years of experience as lead auditor for internationally recognised certification bodies – including EN 9100, IATF 16949, ISO 22163 and ISO/IEC 27001 – with leadership experience in information and IT security at an international industrial group. We speak the language of quality and security alike.

01 Defence gap analysis

Comparison of your QMS and ISMS with AQAP 2110, EN 9100, ISO/IEC 27001, NIS2 and customer requirements – with a prioritised action plan.

02 Workshop: from automotive to defence

Compact workshop for management and quality: requirements, differences and the first steps into the market.

03 Configuration and traceability concept

Practical processes for configuration management, identification and counterfeit prevention.

04 Integrated management system

Quality and information security in one system – lean, audit-proof and ready for certification.

05 Internal and supplier audits

Independent internal audits, pre-assessments and supplier audits across your supply chain.

IMPARTIALITY

We strictly separate consulting and certification. We do not audit organisations we advise on behalf of a certification body – in line with the requirements of ISO/IEC 17021-1.

BERTEL PARTNER

LET'S TALK ABOUT YOUR SUPPLY CHAIN.

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Sources (selection): German Federal Government/BMVg on the BwPBBG (02/2026); BAAINBw/Bundeswehr, AQAP – NATO Quality Assurance Requirements (01/2025); NATO, The Hague Summit Declaration (06/2025); BSI and BSIG as amended by the NIS2 implementation act (12/2025); US DoD, 32 CFR Part 170 (CMMC); EU Regulation 2021/821.

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