



Strategic Whitepaper for the Manufacturing Industry

PROCESS EXCELLENCE WITH VDA 6.3

AND HOW TO SUCCESSFULLY IMPLEMENT THE STANDARD

EXECUTIVE SUMMARY



VDA 6.3 is a robust process audit standard established by the German Association of the Automotive Industry (VDA). This standard provides a structured framework for assessing the process capabilities of an organization throughout the product lifecycle, from development to production and beyond. VDA 6.3 has been integral to the automotive industry for decades, ensuring that processes meet the stringent quality requirements expected in this sector.

This whitepaper gives an overview about the functionality of the VDA 6.3 audit. It presents some methods and tools recommended for use. Furthermore, it outlines the advantages and the added values for the companies, implementing VDA 6.3.

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1. INTRODUCTION

VDA 6.3 is a robust process audit standard established by the German Association of the Automotive Industry (VDA). This standard provides a structured framework for assessing the process capabilities of an organization throughout the product lifecycle, from development to production and beyond. VDA 6.3 has been integral to the automotive industry for decades, ensuring that processes meet the stringent quality requirements expected in this sector.

The latest revision of VDA 6.3, published in 2023, integrates new methodologies and updates to align with modern quality management systems and standards such as IATF 16949. This revision includes considerations for software-related aspects, harmonization with other VDA methods like Automotive SPICE and maturity level assurance for new parts (VDA MLA), and updated guidelines for conducting remote audits.



2. FUNCTIONALITY

VDA 6.3 functions as a comprehensive tool for conducting process audits, which can be applied internally within an organization or externally to suppliers. The audit evaluates various process elements, including project management, product and process development, supplier management, production process analysis, and customer satisfaction.



Figure 1 Process elements in an VDA 6.3. audit

The methodology involves a points-based evaluation system where specific questions, some marked with special significance (e.g., *-questions), are assessed to identify potential risks and non-conformities.

The audit results are classified into categories A, B, or C, providing a clear indication of process performance and areas needing improvement.



Figure 2 ABC Analysis



3. METHODS/TOOLS

The VDA 6.3 process audit utilizes several tools and methods to ensure a thorough and effective audit process. Key methods among these are:

1. **Questionnaires:** Detailed questionnaires are used to gather information on various process elements. These questionnaires are designed to capture critical data points and identify areas of risk.
2. **Evaluation and Downgrading Rules:** The points-based evaluation system is accompanied by clear downgrading rules that help auditors determine the severity of non-conformities and their impact on the overall process.
3. **Turtle Model:** This model is employed to visualize the relationship between process inputs, outputs, and the associated resources and controls, facilitating a holistic understanding of the process.
4. **Remote and Hybrid Audits:** The latest revision includes guidelines for conducting remote and hybrid audits, which have become increasingly relevant due to global disruptions and the need for flexible audit solutions.

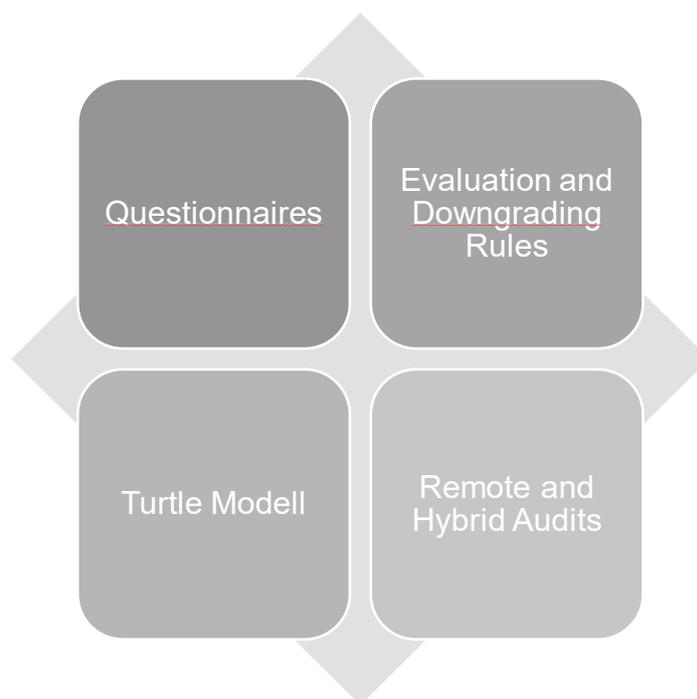


Figure 3 Data Collection VDA 6.3 process audit : Methods and Tools

4. ADDED VALUE FROM VDA 6.3

VDA 6.3 focuses on assessing and optimizing process quality within organizations. It's a tool widely used, particularly by companies engaged with the German automotive sector, aiming to ensure that their processes are as efficient and effective as possible. The main advantages of VDA 6.3 process standard audits are outlined below:



Improved process efficiency

By identifying and addressing weaknesses in the process, VDA 6.3 audits help organizations streamline their operations, leading to enhanced efficiency and productivity.

Enhanced product development



Ensuring that processes meet high standards translates to better product quality, which is crucial for maintaining competitiveness in the automotive industry.



Risk Mitigation

The audit helps in identifying potential risks early, allowing companies to take proactive measures to mitigate them, thus reducing the likelihood of costly recalls or product failures.

Compliance



VDA 6.3 audits assist companies in meeting regulatory and customer-specific requirements, which is essential for maintaining certifications and business relationships.

Figure 4 Advantages of VDA 6.3

5. BOTTLENECKS IN IMPLEMENTING VDA 6.3

Conducting audits can be time-consuming and require significant resources, including certified and trained auditors and access to detailed process information.



Intensive Resources

Integrating the audit findings into existing processes may be challenging, especially for organizations with less mature quality management systems.



The cost associated with training auditors, conducting audits, and implementing necessary improvements can be substantial, particularly for smaller organizations.

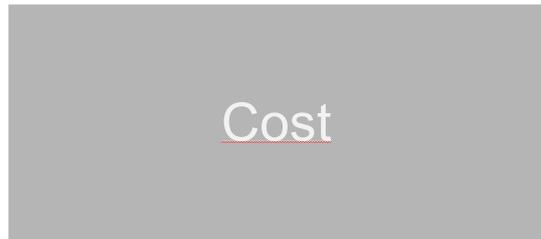


Figure 5 Disadvantages of VDA 6.3 audits



6. BEST PRACTISES

1. **Continuous Training:** Regular training for auditors and staff involved in the audit process ensures that everyone is up to date with the latest standards and methodologies.
2. **Integrated Audits:** Combining VDA 6.3 audits with other quality audits (e.g., ISO 9001, IATF 16949) can provide a more comprehensive view of the organization's quality management system.
3. **Stakeholder Involvement:** Engaging all relevant stakeholders, including top management, ensures that the audit findings are taken seriously, and necessary resources are allocated for improvements.
4. **Use of Technology:** Leveraging advanced technologies such as digital audit tools and remote auditing capabilities can enhance the efficiency and effectiveness of the audit process.
5. **Regular Follow-Ups:** Conducting regular follow-up audits helps to monitor the implementation of corrective actions and ensures that improvements are sustained over time.



Figure 6 Best practises VDA 6.3

7. WHY QMATRIX - THE QMATRIX DIFFERENCE



OBJECTIVITY

QMatrix focusses on goals rather than conflicts of interest. Our experts focus solely on the problem; internal conflicts of interest do not influence project success.

PERSPECTIVES

We provide a knowledge advantage through our experienced interim managers who continuously enhance their skills. We bring this knowledge closer to every client.

EFFECTIVENESS

We bring specific expertise tailored to the task, enabling an efficient solution approach as we have already solved many of the problems you are facing for the first time. As doers, we get involved!

EFFICIENCY

Quick availability and responsiveness. We can quickly support you with our pool of experts. This allows our clients to respond to unforeseen challenges or opportunities without entering into long-term commitments.

8. OUR AUDIT SERVICES

An audit is a snapshot for the assessment of the current ACTUAL situation of a company's processes. Depending on this ACTUAL situation, there are different audit variants.



- ✗ **Potential Analysis**
- ✗ **VDA 6.3**
- ✗ **IATF16949**
- ✗ **AS9001**
- ✗ **Technical Audit of the Suppliers**

Figure 7 QMatrix Services regarding Audits

Potential Analysis

Potential analysis refers to the structured examination of certain features among suppliers. It provides differentiated information concerning issues related to the ability of employees to be able to assess events, resources and organisations for potential supply risks. This is of great importance during the selection of possible new suppliers as well as new production locations or new product concepts of the current suppliers.

Utilise our many years of experience from OEM and a 1st-tier perspective for an independent evaluation of the supplier for your decision-making Basis.

GERMAN AUTOMOTIVE INDUSTRY ASSOCIATION STANDARD VDA 6.3

The increasing requirements in the customer and supplier processes make the quality management tasks more and more complex. The high standard for the products demands fixed processes and continuous quality assurance across the entire process and logistics chain. A process audit in accordance with German Automotive Industry Association Standard VDA 6.3 helps to comprehensively monitor and improve the process and logistics chain as well as safeguard its reliability.

With audits in accordance with IATF 16949 or German Automotive Industry Association Standard 6.3, we will examine the quality of your company and your suppliers.

TECHNICAL AUDIT OF THE SUPPLIERS

A technical audit of the supplier (TAS) is a special audit.

The criteria for a TAS are:

- Results-oriented, e.g. complaints and non-fulfilment of customer requirements
- Restricted to certain components/assembly units
- Audit announced on short notice
- Specific checklist with a YES/NO Response
- Final report on-site; as required, with the definition of additional measures and escalation

The goal is a valid assessment of the sustainability of the suppliers' optimised processes and controls. Our extensive experience in the assessment of optimised processes will give you security for the future.



9. REFERENCES

1. Verband der Automobilindustrie e.V. (VDA). (2023). VDA 6.3 Process Audit: Potential Analysis, Product and Production Process Development, Product and Production Process Implementation, Series Production (4th revised edition). Berlin: Qualitäts Management Center (QMC).
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