

# Quality Assurance Directive (QAD)



**DIFA d.o.o., Tlačna livarna in obdelava ulitkov**

Kidričeva c. 91, SI – 4220 Škofja Loka, Slovenija

Tel: +386 4 502 01 00

E-mail: [difa@difa.si](mailto:difa@difa.si), spletna stran: <http://www.difa.si>

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## **1. General terms**

### **1.1. Purpose of this QAD**

DIFA, as a supplier to the automotive industry, produces high-quality products. The QAD should secure the procurement and production of high-value, high-quality products through suitable, technically recognized and economically justifiable measures.

The purpose of this Directive is to help minimize quality issues and to ensure smooth operations between DIFA and the SUPPLIER, as well as to minimize costs, by describing the SUPPLIER's quality management system minimum requirements.

The QAD describes the technical and organizational framework conditions and processes that are necessary to achieve the desired quality goal.

All processes must be focused on "continuous improvement" and the goal "zero defects".

The quality produced by the SUPPLIER has a significant influence on the internal processes of DIFA and thus on the quality of the end products. Strict compliance with this Directive is to be ensured by the SUPPLIER, including with regard to product liability and warranty obligations.

### **1.2. Validity of the Directive**

The present QAD applies to all contracts between DIFA and its SUPPLIERS.

Deviations from this Directive requested by the SUPPLIER must be agreed with DIFA and confirmed in writing by DIFA.

The present Directive does not replace the - if applicable - requirements according to DIN EN ISO 9001, DIN EN ISO 14001, VDA Volume 1, VDA Volume 2, VDA Volume 4, VDA Volume 6.1, VDA Volume 6.3 and IATF 16949 and customer standards/special requirements, but contains the minimum requirements of DIFA only.

### **1.3. Warranty**

Insofar as the contracting parties have concluded a separate warranty agreement, the provisions made in such a warranty agreement shall apply.

The SUPPLIER undertakes to grant rights under warranty to DIFA even if DIFA or anyone else down the supply chain discovers defects during or after processing despite a limited inspection of the goods in accordance with Chapter 4.1. hereof. After the discovery of defects, however, the SUPPLIER receives immediate information and is requested to limit the damage. The SUPPLIER is expressly requested that he is required to clarify the above arrangements with his liability insurer to ensure that he is nevertheless in a position to obtain the required product liability insurance, including the envisaged recall cost insurance.

### **1.4. Risk management / Contingency planning**

The SUPPLIER must ensure that all potential incidents that could adversely affect his ability to deliver within the supply and process chain are identified and evaluated on his own responsibility.

Possible events that can lead to an emergency, such as machine failure, staff failure, cyber / online attacks on IT systems, failure of the subcontractor or power failure, must be mapped in an emergency plan including emergency measures. The contingency plan must be reviewed min. annually for effectiveness and adjusted if necessary, and must be submitted to DIFA upon request.

### **1.5. Product liability**

The SUPPLIER shall be obliged to provide extended product liability coverage, including cover for warranty, connection, mixing and processing damage, other damage from further processing, removal and installation costs as well as inspection and sorting costs.

The requirements for insurance protection do not constitute a limitation of liability; their sole purpose is to mitigate the liability risk borne by our SUPPLIERS.

### **1.6. Quality capability**

The SUPPLIER is fully responsible for the products and services supplied by him. The SUPPLIER undertakes to introduce and maintain a quality management system. It is preferable to proceed according to DIN EN ISO 9001 and IATF 16949. The SUPPLIER must prove the effectiveness of his QM system by means of a certificate at least in accordance with DIN EN ISO 9001. The use of relevant quality management tools (Core Tools) from the IATF

16949 is required. The supplier's clear development goal is the IATF 16949. The SUPPLIER provides DIFA with the respective valid certificates without being asked and also informs him without being asked if a certificate has expired.

The SUPPLIER undertakes, after consultation, to approve system, product, process and information security audits by the PURCHASER - at the request of the PURCHASER and its customers. The commissioner of DIFA and his customers must be given access to the production facilities. The secrecy agreed under chapter 1.3 also applies in this case to DIFAs of DIFA.

The SUPPLIER obliges its sub-suppliers to comply with the obligations assumed by him under this Directive. Alternatively, the SUPPLIER must safeguard the quality of subcontracting through his own processes and procedures. DIFA may require the SUPPLIER to provide documented evidence that the SUPPLIER is convinced of the effectiveness of the quality management system at his subcontractors and / or has ensured the quality of his purchased parts or external service by other suitable measures.

Insofar as DIFA provides the SUPPLIER with production and test equipment, these must be included by the SUPPLIER in his quality management system as his own production and test equipment, unless otherwise agreed. All operating and measuring equipment required by the SUPPLIER for the provision of services and in his possession, but owned by DIFA, must be clearly and permanently marked as such. DIFA is responsible for the calibration of such operating and measuring equipment. Any other agreements must be concluded separately. The quality guidelines and standards agreed with DIFA are binding on the SUPPLIER.

### **1.7. Target directives**

The SUPPLIER is committed to the zero-defect target and must continuously optimize its services accordingly. This goal must be pursued with measures such as consistent quality planning and series monitoring, with a focus on error prevention. It may set annual ppm targets in a ppm agreement. The setting of such ppm targets is without prejudice to the SUPPLIER's obligation to supply only defect-free products and claims for defects by DIFA in the case of delivery of defective products.

## **2. Product and process development (Quality planning)**

### **2.1. Project management**

In order to include the SUPPLIER in the quality planning as early as possible, DIFA as part of the project management basically requires its SUPPLIERS to carry out systematic planning in accordance with VDA Volume 4 or AIAG APQP. This planning includes both the products delivered by the SUPPLIER and its purchased parts or outsourced processes.

### **2.2. Inquiry documents**

The SUPPLIER receives technical documents (e.g. 3D data, drawings, specifications, specification sheets, customer requirements and standards, test specifications) with the request of DIFA. The SUPPLIER must request in writing any documents that are missing for the preparation of an offer.

Through its change management process, the SUPPLIER ensures that all relevant departments are always provided with the latest documents submitted by DIFA. Invalid / outdated documents are to be marked as such and withdrawn from circulation.

At the request of the SUPPLIER, DIFA shall offer the SUPPLIER technical support from the relevant specialist departments. If the SUPPLIER recognizes that the design specified in the technical documentation or the prescribed test methods can be replaced by more suitable, economical and / or effective ones, DIFA expects appropriate suggestions.

### **2.3. Scope of the offer**

DIFA expects the SUPPLIER to clearly consider the respective request documents in his offer. Deviations from these request documents must be clearly marked by the SUPPLIER.

#### **2.3.1. Feasibility**

The manufacturing feasibility analysis is to be created with the submission of the offer and is a prerequisite for the award of the contract. The result of the manufacturability analysis must be documented.

The SUPPLIER checks the manufacturing feasibility of the product on the basis of the technical documents handed over to him. For this purpose, all features of a drawing or a specification must be individually assessed and confirmed. The analysis also includes the investigation of the economic and process manufacturability.

#### **2.3.2. Scheduling**

The SUPPLIER prepares a project-related schedule including resource planning, which also includes the scheduling of the subcontractors. This schedule is to be presented to DIFA with the final offer and includes the following criteria:

- Manufacturing feasibility
- Calculations (simulations and CBDs)
- Process flow chart
- Process-FMEA / eventually product (design) FMEA
- Production control plan (PLP) / Testing plan
- Resources for monitoring and measurement
- Tool schedule including regular updating
- Correction phase / optimization loops SUPPLIER
- Project relevant milestones including milestones of DIFA
  - Date of the first inspection
  - Licensing for workplace / internal process audit
  - Start of Production (SOP)
  - Logistic related topics
  - Sub-supplier related topics

Changes to the schedule may only be made in coordination with DIFA and must be reported with sufficient lead time.

### **2.4. Ordering**

With the order, the SUPPLIER receives the binding, approved technical documents (e.g. 3D data, drawings) from DIFA. The SUPPLIER must check the documents and he has an obligation to inform if changes have been detected compared to the request status.

### **2.5. Duty to inform**

If it becomes apparent that agreements made between the parties (e.g. regarding quality features, deadlines, delivery quantity) cannot be met, the SUPPLIER is obliged to inform DIFA without delay and initiate its internal escalation process. In the interests of finding a solution quickly, the SUPPLIER is obliged to disclose the data and facts.

### **2.6. Special features**

Special features require special consideration, as deviations in these characteristics may affect product safety, service life, assembly capability, function or quality of subsequent manufacturing steps, and regulatory compliance.

DIFA specifies special features. If there are no specifications for special features, the SUPPLIER must independently select product and process features that make sense for product quality and process safety. These result from the risk analysis of the SUPPLIER, e.g. from the product (design) and / or process FMEA. Special characteristics specified by DIFA are to be evaluated in the FMEA with a meaning number  $B \geq 8$ .

Special features must be identified by the SUPPLIER and marked in all relevant product and process documents (e.g. drawing, FMEA, risk analysis, test and production control plans). Special features must be specially taken into account and monitored in all relevant planning steps. In order to prove special characteristics, the scope and the retention period of the necessary documents must be defined accordingly.

### **2.7. Process flow chart**

The SUPPLIER must draw up a process flow chart for the visual representation of the process chain. This process flow chart must be consistent with the product (design) and / or process FMEA and the production control plan. Outsourced processes must be listed as part of the process flow chart.

### **2.8. FMEA**

The FMEA is a method to detect potential errors in the development and production / assembly of a product or in new manufacturing processes and to assess the resulting risks and to avoid them by taking appropriate measures. It is carried out in a multidisciplinary team.

FMEA must be created or revised on the following occasions:

- Development / production of new parts
- Implementation of manufacturing processes

- Relocations
- Changes in drawings
- Changes in production processes
- to avoid errors.

When creating an FMEA, at least the following points must be considered:

- Special features
- Material changes and mixing of materials
- Variant management
- Separation of defective parts, rework parts, setting parts and sample parts
- Technical cleanliness
- Lessons learned from similar products and processes

The FMEA should be carried out according to the methodology described in the AIAG-VDA latest FMEA edition.

#### **2.8.1. Product (Design) FMEA**

A Product (Design) FMEA is to be performed for all items developed under the responsibility of the SUPPLIER.

#### **2.8.2. Process FMEA**

The SUPPLIER prepares a process FMEA for all process steps of an article. Particular attention must be paid to the special features and, if applicable, the results of the product (design) FMEA. Furthermore, the process FMEA must be updated in case of changes and complaints.

The FMEA must be presented for inspection at the request of DIFA. The proof of the creation of an FMEA must be proven at the latest with a corresponding cover sheet during the initial sampling. Minimum requirements are information on initial investment, change status, FMEA team as well as an overview of RPZ figures and the applied assessment key (preferably according to the AIAG standard or according to customer specifications).

### **2.9. Production control plan**

The production control plan is a document that describes the actions (measurements, inspections, quality checks or monitoring of process parameters) required at each phase of a process to assure the process outputs will conform to pre-determined requirements. It is implemented by a team through systematic analysis of production, assembly and test processes. The results of product and process FMEA's, experiences with similar processes and products, as well as the application for improvement methods shall be taken into consideration in the production control plans. The production control plan shall be prepared in accordance with (IATF 16949: section 8.5.1.1, Annex A1) for the prototype, pre-series and series production phases and shall include all data in accordance with (IATF 16949: section 8.5.1.1). If required, measurement and conformity data collected during execution of either the pre-series or series control plans shall be provided. Production control plans shall be reviewed and updated in accordance with (IATF 16949: section 8.5.1.1). The production control plans are established at a part number level, but in many cases, family production controls plans may cover a number of similar parts using a common process. The "Layout Inspection and Functional Testing/Annual Revalidation" shall be included in the production control plan.

#### **2.10. Test plan**

The production control plan forms the basis for the test plan. The test plan shows all the features to be tested with the associated test equipment and the test frequency for each work process.

For special features, machine and process capability investigations are to be scheduled. When planning, the determination of training for employees as well as the setting up of workplaces with regard to statistical process control (SPC, control chart technique) must also be taken into account.

#### **2.11. Resources for monitoring and measurement**

For all features to be tested resulting from the production control plan, the SUPPLIER must specify the test methodology with the appropriate test equipment. The procurement process must be planned in such a way that the necessary test equipment for the pre-production start is available and the test process suitability is proven.

The SUPPLIER must provide evidence in accordance with the requirements of VDA Volume 5 or AIAG MSA. The records for test equipment monitoring of all gauges, measuring and test equipment must be kept.

#### **2.12. Statistical process control**

The SUPPLIER undertakes to continually evaluate its processes and process flows by means of suitable software-based methods, to analyze errors and to carry out suitable corrective measures in order to maintain and improve

the process capability and to meet all requirements for zero-defect targets. Ongoing evidence must be provided through the use of a CAQ system or other appropriate methods.

Process capability studies serve as a benchmark for the quality capability of the processes. For all special features and, if applicable, further agreed inspection characteristics, the SUPPLIER must introduce suitable safeguards and make these available to DIFA on request.

If the customer of DIFA has no further, higher-value requirements, the following limits apply to the proof of process capability:

- Machine capability:  $C_{mk} \geq 1,67$
- Short-term process capability:  $P_{pk} \geq 1,67$
- Long-term process capability:  $C_{pk} \geq 1,33$  with continuous improvement.

Machine capability and Short-term process capability must be performed during the sampling. The Long-term process capability will be documented by the SUPPLIER in the current series and made available to DIFA upon request.

The determination of the capabilities is based on VDA Volume 4 or AIAG Manual SPC. Deviating demands for process capability or process capability index are agreed separately.

If the process capability cannot be met, the SUPPLIER is obliged to inform DIFA and to carry out 100% checks immediately in order to prevent the delivery of defective parts.

The SUPPLIER is obliged, at DIFA's request, to design and implement a safe lunch control plan to reduce the risk of producing bad pieces during the rump-up phase of the project at no additional cost.

### **2.13. Requirements for materials and substances**

All purchased parts, substances and materials used for the contractual item in the SUPPLIER's production, as well as the processes required to manufacture the products, must comply with the applicable legal and regulatory requirements, e.g. as regards environmental protection and safety, which apply in the manufacturing, distribution and destination countries. Otherwise, the regulations in Chapter 10 apply.

With each delivery, the SUPPLIER sends the current safety data sheet unsolicited to DIFA. In the case of interim changes, DIFA will receive the updated version without separate warning. If an acceptance test certificate 3.1 according to DIN EN 10204 is required according to the order documents, this must be prepared by the SUPPLIER and, if requested, transmitted within one day.

The SUPPLIER undertakes to incorporate all substances, substance groups and material data into the International Material Data System (IMDS) of the automotive industry at [www.mdssystem.com](http://www.mdssystem.com).

## **3. Result of product and process development**

### **3.1. Sampling of prototype and pre-series parts**

Prototype and pre-series parts are products that are not fully manufactured under mass production conditions. The SUPPLIER must sample such prototype and pre-series parts according to VDA Volume 2 or AIAG PPAP or according to customer agreements.

### **3.2. Initial sampling**

The SUPPLIER shall sample samples of new products for Europe in accordance with VDA Volume 2 (Production Process and Product Release) and for NAFTA countries according to AIAG PPAP, unless otherwise specified by DIFA.

The initial sampling includes the use of the series, tool, the series machines, systems and devices including compliance with the serial parameters and serial cycle time, at the production site, series packaging and logistics. Furthermore, personnel perform the initial sampling, which is also used for further series production and is trained according to the work and testing instructions. In addition, the products and processes of the production materials are released separately. The process parameters set during initial sampling must be recorded and archived by the SUPPLIER and added to the internal sampling documents and must respect recording period as described in section 5.2.

For all special features and, if applicable, for further agreed inspection characteristics, the SUPPLIER must carry out and document detailed analysis of the suitability of the production equipment and test equipment used as well as process capability tests. To determine the machine capability of the machine capability, all parts used must have the same requirements and be manufactured consecutively. For normal distributions, a sample of at least 50 pieces should be chosen. The evaluation of the preliminary process capability is to be presented for the

first time if there are at least 25 random samples with five measured values each. The information given in Chapter 2.12 applies to the required limit values.

For goods that are relevant for product safety, the requirements of IATF 16949 (Chapter 4.4.1.2) must be observed and taken into account in the supply chain.

Serial delivery may only be made after the initial sample has been approved. The submission level for the sampling in accordance with VDA or PPAP is specified by DIFA when placing the order. The exact requirements can be found in the order documents (drawings, technical specifications, standards, etc.).

When using external laboratories, they must be accredited to ISO / IEC 17025 (or nationally comparable).

The sampling documents must be sent in electronic form to DIFA, latest with sampled parts arrival. For longer lasting tests (e.g. salt spray test) we ask for the note "result TEST will be submitted later".

### **3.3. Reserve samples**

Reserve samples - at least three and undamaged - are kept safe by the SUPPLIER and protected against environmental influences. If the color, appearance or surface are relevant to DIFA's processes, the reserve samples shall apply as reference (e.g. laser welding: laser light transmittance).

## **4. Ensuring product and process quality in the series**

The responsibility for using effective systems to monitor and continuously improve process and product quality lies with the SUPPLIER.

As technical possibilities permit, monitoring methods are to be used, which inevitably prevent the delivery of faulty products.

### **4.1. Easing of burdens - Checks by DIFA**

The SUPPLIER is responsible for the initial inspection and thus for the faultless delivery.

DIFA limits the incoming goods inspection for SUPPLIER deliveries to the detection of deviations in compliance with the quantity and identity of the ordered contractual products as well as transport and packaging damage. Deviations and damages ascertained are reported immediately.

In addition, DIFA shall inspect the delivered goods in accordance with the conditions of a proper business process during the production process and shall notify the SUPPLIER of any defects immediately after they have been ascertained. The SUPPLIER waives the objection of the delayed notice of defect in this respect.

In that regard, DIFA shall be exempted from the obligation to inspect and to give notice (in accordance with § 754 Slovenian Obligations Code - Obligacijski zakonik OZ-NPB3).

The SUPPLIER is advised that it is in his interest to coordinate the above provisions with his liability insurer.

### **4.2. Treatment of faulty or suspect parts**

If DIFA or a customer of DIFA discovers a defect, an indication of the defect (complaint) will be provided by a test report and / or written notice. Failure patterns will be sent to the SUPPLIER - as far as the CONTRACTOR can reasonably be expected - or made available to DIFA for viewing.

The SUPPLIER receives the information as to whether the defective goods can be installed or sorted out with reservations by DIFA. Reworking is generally not permitted and always requires prior coordination with DIFA. Within the scope of an approved rework, the SUPPLIER continues to be responsible for the conformity of the goods in accordance with the drawing requirements. The SUPPLIER is obliged to sort out and exchange faulty deliveries at his own expense so that no damage occurs to DIFA. DIFA will set the timeframe for any actions. The SUPPLIER must clarify whether further faulty goods are located at DIFA or on the transport and inform DIFA.

The SUPPLIER must examine his own stocks for errors and, if necessary, sort or scrape them. It must be ensured that no further faulty products are delivered to DIFA. The SUPPLIER must ensure that products to be scrapped are rendered unusable before they are disposed of. DIFA may carry out a scrapping of faulty delivered products directly on site in coordination with the SUPPLIER. If requested by the SUPPLIER, it will take place under the supervision of a representative of the SUPPLIER. The costs of scrapping are borne by the SUPPLIER.

If the SUPPLIER identifies errors in his house from which goods already delivered may be affected, DIFA shall be informed immediately. Immediate emergency measures must be implemented and announced immediately.

Upon receipt of a test report, the SUPPLIER shall transmit all measures (e.g. immediate measures, medium- and long-term corrective measures) to DIFA in the form of an 8D report.

- Within 24 hours: Written communication to DIFA with the immediate measures (Step D1 and Step D2, as far as possible, must be completed)



- Within 48 hours: Written communication to DIFA of the containment actions (Steps D1, D2 and D3 must be completed)
- Within 14 days: 8D report submitted to DIFA with the root cause, analysis (Steps D4 and D5 must be completed and actions for steps D6 and D7 must be defined); If due to logistic time periods, communicating the root cause to DIFA is not possible, an intermediate report must be sent
- Within 60 days: The entire 8D report must be completed and shared with DIFA

In the root cause analysis, the SUPPLIER uses appropriate methods (e.g. Ishikawa Cause and Effect Diagram, 5-Why).

The SUPPLIER is responsible for monitoring the effectiveness of medium and long-term measures. DIFA reserves the right to verify the effectiveness.

If claims or complaints of defects or test reports are not answered correctly, quality discussions with the SUPPLIER are made. Possibly, appropriate audits are carried out at the SUPPLIER. DIFA reserves the right to charge the SUPPLIER for the additional expenses resulting therefrom. Claims for damages resulting from complaints and costs for complaining the claim are also invoiced to the SUPPLIER.

### **4.3. Partly Defective Analysis on Field / No Trouble Found Process (NTF)**

In the case of field complaints, in addition to the 8D report, a method for damaged part analysis is to be used, including a No Trouble Found process and a report of parts returned from the markets. To avoid a recurrence of the problem, problem-solving approaches and corrective measures must be initiated or implemented. The SUPPLIER must communicate the results of these analyzes, findings and measures both internally and to DIFA.

### **4.4. Escalation**

If a SUPPLIER repeatedly causes quality problems with DIFA and / or a risk to the customer is to be expected, DIFA proceeds according to a defined escalation model which is defined in this document (Chapter 8.2 Supplier development). DIFA reserves the right to charge the SUPPLIER for the costs of the additional costs incurred as a result of extraordinary supplier development (e.g. event-oriented supplier audit). When the SUPPLIER is unable to fulfill the requirements or does not participate in the fulfillment of these requirements, DIFA shall have the right to change the SUPPLIER without any liability with the day of termination of the cooperation. In case of customer pre-selected suppliers, change of the supplier is made in cooperation with the customer.

## **5. Traceability and documentation**

### **5.1. Traceability**

The SUPPLIER ensures the traceability and the complete proof of quality of all materials, manufacturing processes and products by suitable measures of the production marking. This includes compliance with the FIFO principle throughout the supply chain.

The traceability must be designed in such a way that, in the case of an error, it is possible to limit the defective products to at least the corresponding load carrier. The SUPPLIER must draw up and consider a traceability plan. Both the delivery note and the acceptance test certificate must indicate each package number of a shipping unit (e.g. individual boxes on a pallet). The delivery note number ensures traceability throughout the entire process chain.

### **5.2. Recording periods**

The documentation is incumbent upon the SUPPLIER and must be carried out in a suitable form (fire and loss-proof), if necessary with proven practicability (proof of discharge).

For documents, records and reference samples, the legal minimum retention periods must be observed. In addition, the recording period for all special features and, if applicable, for further agreed inspection characteristics is 15 years after the series has expired (see VDA Volume 1). Longer storage periods (up to 30 years) are recommended against the background of the statute of limitations of product liability claims. The retention period for all other quality-related data is three years, beginning at the end of the year in which the data was created. The corresponding quality records must be submitted to DIFA on request without delay.

## **6. Requalification examination**

DIFA requests an annual requalification examination. The requalification must be carried out to the full extent of the initial sampling. The SUPPLIER carries out the requalification examination without request and makes the documents or extracts available to DIFA upon request. The first requalification must be done one year after the series release and thereafter at an annual rate.

## **7. Change management**

From the time of submission of the offer, the SUPPLIER must take into account that the machines and systems used correspond to the product life cycle of the goods and must be state-of-the-art.

In order to properly perform the test scopes necessary for series production, the SUPPLIER must indicate changes in the production process, in particular changes in production and manufacturing processes, the relocation of production facilities and the change of a subcontractor, in due time before the planned conversion date with DIFA. Changes to subcontractors must also be taken into account. The SUPPLIER may only implement the change after the approval of a change request in connection with a first sample release. The change release by DIFA must be attached to the relevant sampling documents.

### **7.1. Reason for renewed product and process approvals**

Re-sampling is always required on the following occasions:

- Product changes
- Tool changes
- Installation of a new tool
- Installation of new or additional machines
- Process changes
- Material changes
- Changes in drawings
- Relocation of production (relocation of manufacturing sites and/or machines)
- Change of a sub-contractor of the SUPPLIER
- After removal of a supply ban
- Manufacturing outage by > 1 year
- Suspension of delivery by > 1 year

Exceptions in procedure and scope are only permitted in consultation with DIFA.

### **7.2. Product history**

At the request of DIFA, the SUPPLIER shall provide a product history. All changes to the product and changes in the process chain must be documented in a product history in accordance with VDA volume 2.

## **8. Supplier management of DIFA**

### **8.1. Supplier monitoring and evaluation**

DIFA carries out a supplier evaluation at least once a year for the SUPPLIERS of production material, raw materials and third-party services as well. The SUPPLIER will be informed in writing about the result. The stated goal is priority cooperation with A-Suppliers. If no evaluation has been achieved as an A-Supplier, measures must be taken (e.g. preparation and execution of an action plan) in order to provide the A delivery service requested by DIFA.

### **8.2. Supplier development**

The objective of the SUPPLIER's supplier development is a systematic improvement of the delivery performance based on a regular analysis over a longer period of time.

A starting point for supplier development is the initial commissioning of new SUPPLIERS. New SUPPLIERS / Applicants may be evaluated and developed by means of a potential analysis according to VDA 6.3.

Another starting point for supplier development is the supplier evaluation as well as the number and severity of the complaints / claims. If a SUPPLIER is noticeable in any of these criteria within the past period of observation, a detailed situation analysis will be made on the basis of the available data, for example through supplier discussions, site visits, targeted inspection or request of documents, and the SUPPLIER's classification into an escalation level in accordance with the subsequent matrix.

## Quality Assurance Directive (QAD)

Development stage	Criteria	Solution
E0 (Observation)	The SUPPLIER is inconspicuous in the supplier evaluation.	Continuous monitoring based on routine supplier evaluation
E1 (extraordinary supplier development)	The SUPPLIER is conspicuous due to late and / or defective delivery (deliveries) or a major damage to DIFA with a potential risk to the customer.	Action plan including evidence of effectiveness (event-oriented) <b>Customer pre-selected suppliers:</b> Customer informed about the escalation Optional: Suppliers visits / Supplier self-assessment (according to VDA 6.3)
E2 (supplier development)	The SUPPLIER is noticeable in the supplier evaluation and / or due to late and / or defective delivery (deliveries). 8D problem solving method not sufficiently used (time frames according to 4.2 point QAD not respected).	Supplier visit / Supplier self-assessment (according to VDA 6.3) Action plan including evidence of effectiveness (event & system oriented) <b>Control shipment level 1:</b> 100% inspection at suppliers cost organized by supplier. Exit criteria: Proof of measures effectiveness based on records on 100% inspection stations (3 shipments without a defect). <b>Difa suppliers:</b> Customer informed about the escalation
E3 (threat)	The SUPPLIER is noticeable in the supplier evaluation and / or there are repeated late and / or defective deliveries.	Supplier audit (according to VDA 6.3) <b>Control shipment level 2:</b> Additional to CSL1: 100% inspection at Difa location (3rd party engaged) organized at supplier's cost. Exit criteria: Proof of measures effectiveness based on records on 100% inspection stations (3 months without a defect with 100% on time deliveries). <b>Customer pre-selected suppliers:</b> Customer involvement in the escalation Daily tracking on implemented corrective measures to assure on time quality deliveries. Difa management team 100% involved in the situation.
E4 (New Business on Hold)	After classification of the SUPPLIER in E3, the measures taken show no lasting improvement. The SUPPLIER is considered critical.	Supplier audit (according to VDA 6.3) <b>Difa suppliers:</b> The SUPPLIER is temporary locked for new projects. / Supplier replacement <b>Customer pre-selected suppliers:</b> Customer decision if a supplier replacement of pre-selected supplier is needed. / Supplier replacement

The problem-solving methods defined in the above table in the problem-solving column can also be applied to existing SUPPLIERS in the case of new projects, new processes, new materials, new product groups and changed customer requirements. This can also be done as part of a potential analysis.

The aim is to achieve a systematic and long-term improvement in delivery performance through effective measures, in particular

- to improve the QM system of the SUPPLIER,
- to improve product quality,
- to reduce costs and
- to improve supply reliability, sustainability and logistical processes.

### **8.3. Supplier audits (Second Party Audits)**

In addition to the triggers described in the matrix in Chapter 8.2, supplier audits can also be used for the following purposes:

- Supplier risk assessment
- Development of the QM system of the SUPPLIER
- Product and process audits

The determination of the need, type / variant, frequency and scope of supplier audits is based on the following criteria:

- Risk analyzes
- Certification level of the QM system
- (official) requirements for product safety

## **9. Subcontractor management**

Subcontractors have a significant influence on the quality of the final product. The SUPPLIER must maintain a documented supplier management system. The SUPPLIER is responsible for the development of its subcontractors. The SUPPLIER should have the necessary skills and capacity to manage its subcontractors and monitor their performance. Incidentally, the regulations on subcontractors in Chapter 1.7 apply.

## **10. Legal and official regulations**

The SUPPLIER shall ensure that all applicable legal and regulatory requirements of the exporting country, the importing country and the country of destination specified by the customer are met. If the countries in question are not known to the SUPPLIER, he must request them from DIFA.

DIFA points out that all references to legal and official requirements listed in this QAD refer to the current status.

## **11. Product safety**

The SUPPLIER appoints a responsible person (e.g. product safety officer) and ensures its qualification through appropriate training. Should the responsibility change, the SUPPLIER is obliged to inform DIFA and to communicate who the new responsible person is. The requirements for product safety must also be guaranteed by the SUPPLIER at his subcontractors.