SUPPLIER QUALITY MANUAL TCV

Page	Details of modification
2	Foreword updated with zero defects and conformity of goods.
3	Table of Content updated with Abbreviations of PQA Milestones
5	Project - PQA Milestones updated and image replaced
7	Wood components for transportation of goods newly added in AQP.pp procedure
8	IATF 16949 requirements updated in Supplier pre-selection
10	Requirements of measurement protocol and RUCSL control criteria added in DESV milestone
15	CAMDS, MAQL requirements and addition of control of deviated characteristics requirements added in SISV
16	RUCSL starting point updated from start of production to before PROV milestone validation, Zero bad parts detected at the RUCSL station clarified in Exit Criteria
17	YIS submission requirements updated with the addition of submission of data / evidence used for capability calculation and tool / mould life status and process audit requirements clarified.
20	C1,C1WR, C2 and CA Incident definitions & treatments updated
22	Recurrent incident definition clarified, Incident processing - CCL assessment condition updated
23	Quality Indicators - Updated from Initial samples Right first time and on time (M) to UIS
27	Supplier follow-up section updated with risk levels and type of treatments
28	SD&P, RSQ Definitions updated
29	RSQe program added
30	Controlled Shipment Level 1 and 2: Periodical evidence submission frequency updated
31	Product & Process change management - mode of communication clarified
32	Requirements of auditor competencies added
35	List of Acronyms / Definitions updated: MAQL, RSQe, RUCSL and SVRF added
37	List of Appendixes updated
App. 7	Process Audit Questionnaire updated with agenda, raw material conformity verification, change over conditions added
App. 10	Updated with additional 2 options of cover sheet selection
App.15	Addition of Identification of Shipments

FOREWORD

Customer satisfaction is at the center of Valeo 5 AXES and the Supplier Integration and Total Quality AXES are the two pillars promoted by VALEO to ensure excellence in product development and operations

Supplier Quality continuous improvement towards excellence is mandatory to achieve our common objective of sustainable and profitable growth.

This Supplier Quality Manual sets out VALEO policy and procedures to support our supplier partners in their quest for EXCELLENCE and ZERO DEFECTS from the selection and nomination to the management of development and production of CONFORM GOODS.

Continuous deployment and strict enforcement of the policies and procedures included in this manual is a mandatory condition to the relationship between VALEO and its Suppliers partners.

Group Purchasing VP

Marc GUEDON

Group Supplier Quality Director

Didier DIMUR

AMENDMENT

With the acquisition of Spheros by VALEO in 2018 we continuously stop improving old standards but deploy Valeo standards. Due to gaps we have to adjust existing VALEO standards to be applicable for TCV.
With the new revision of the SQA Manual in 2020 we remove the old standard QC1 to be replaced by this document.

Product Group Quality Director
SQA Manager

i.V.
Harald GAUGUSCH

2020-08-12

CONTENTS

I -ADVANCED QUALITY PLANNING for Product & Process (AQP.pp)

Advanced Quality Planning for product and process is a structured method of defining and establishing the necessary steps, which supplements supplier quality policy and rules implemented to ensure that a component will comply with VALEO requirements.

The VALEO AQP.pp is attached in Appendix 1 (all mentioned appendix are part of the Supplier Quality Manual).

VALEO AQP.pp shall apply to all VALEO suppliers listed here below:

Category of supplier	Definition
Designer	Design components which will be fit for VALEO project specific purposes and will meet VALEO specifications. The supplier-designer is responsible for the definition and as the case may be responsible for the supply of the components.
Manufacturer	Produces or delivers a specific or standard a component designed or selected by VALEO

In a continuous improvement approach, Valeo reserves the right to adapt the AQPpp in function of the technologies.

I.1 AQP.pp Procedure

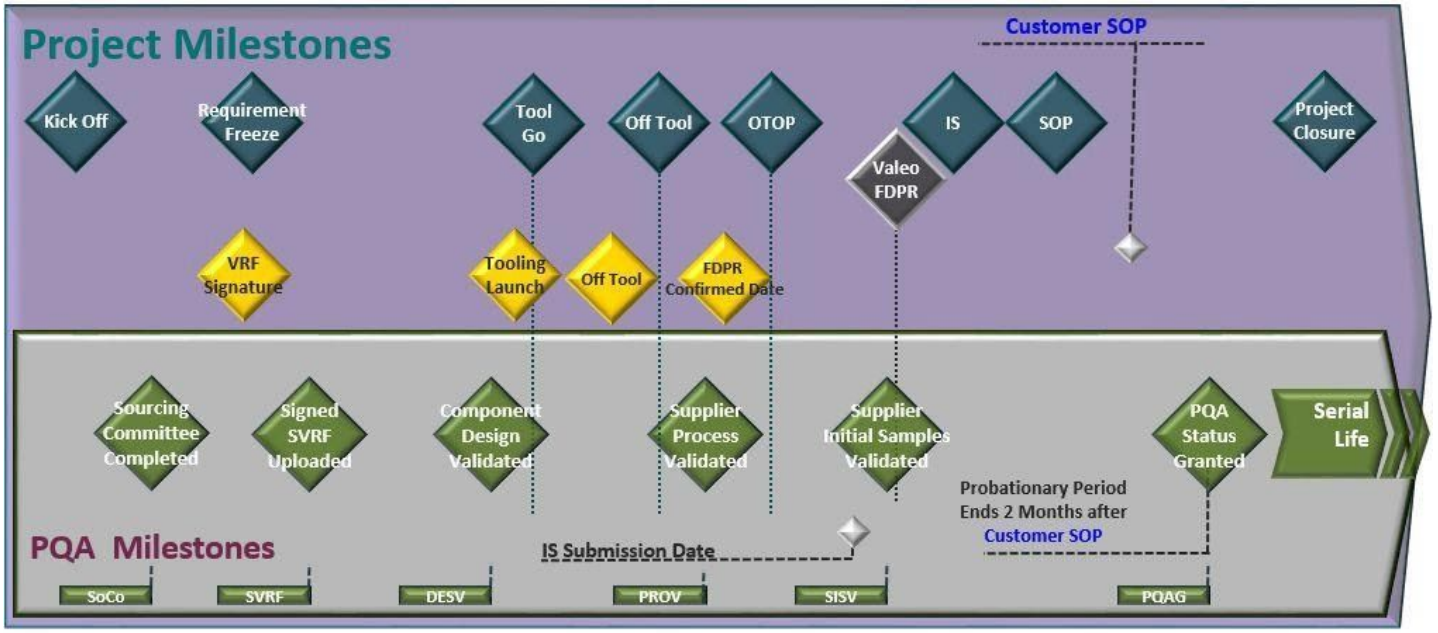
The Advance Quality Planning procedure is a process which supplements supplier quality policy and rules and aims at conducting a thorough validation of the design – product and process, in order to ensure that the supplier will be in a position to deliver, as of the Start Of Production, the expected level of quality in line with VALEO requirements.

The Advance Quality Planning procedure includes the supplier pre-selection and 6 development milestones.
This procedure applies to all new customer application projects and to components already used in production (product process changes).

The development process is followed-up in the Supplier Relationship Management (SRM) Portal (https://suppliers.valeo.com/suppliers/) in the section called PQA module within scenarios adapted to each case.

The Valeo buyer will select the supplier representative to take in charge of the PQA Process initiated in the Portal. From this moment the supplier is required to fulfil the corresponding actions on the deliverables to reach the milestones within the deadlines agreed.

TCV will select key components within the scope of new projects (typically P2) to be covered within SRM PQA.
The IAM scenario is the minimum requirement for those components (only 1 mandatory per phase).



Currently the TCV PM is under revision to be comparable with RAISE. Especially milestones do not comply with TCV PM phases.

The AQP.pp is adapted to 2 components categories:

- First category - VALEO Non-Specific Component : dedicated to validation of standard components and catalogue components – as defined in the matrix below [(1)]:

Type of component	Situation
Raw materials	Raw (steel, additives, plastic granulates, etc.) and standards
Electronic components (excluding critical components)	Components not considered critical
Other components	Catalogue sold by a supplier site
	Catalogue sold by a distributor (retailer)
Packaging	Safeguard product integrity (impacts, scratches, bad weather, etc.)

(1) Suppliers for this Category of Components having only an ISO 9000 certification have to have a plan to certify the quality system according to IATF 16949

- Second category - VALEO Specific Component : dedicated to validation of components that are specifically developed to satisfy VALEO needs – as defined in the matrix below:

Type of component	Situation
Raw materials	Raw (steel, additives, plastic granulates, etc.) / VALEO Specifications
	Processed (semi-machined: cast components, tubes, etc)
Safety / regulatory components	Non catalogue Electronic or Non Electronic sold by a supplier site
Specific components	Non catalogue Electronic or Non Electronic sold by a sub supplier of the supplier site
Critical* standard components	Catalogue Electronic or Non Electronic sold by a supplier site
* Critical component = component with at least one safety or regulatory characteristic	Non catalogue sold by a supplier site
Other components	Following VALEO specifications and delivered to the customer
Packaging	

- Specific Case - Component belonging to a Technology Family

A Technology Family is a set of components manufactured for VALEO by the same supplier site achieving the same technical function, and which rigorously follow the same flow using same specific tooling. The list of components belonging to a Technology Family shall be provided by supplier to VALEO for validation.

- Specific Case – Any component delivered as Pass-thru

Any component delivered as Pass-thru will be managed as a VALEO specific component and therefore shall follow the VALEO Specific Component AQP.pp category.

- Specific Case - Safety / regulatory components

For all Safety / Regulatory components, purchasing from distributors is prohibited.

- Specific Case - Other components

For components manufactured by a sub supplier of the Valeo supplier, the AQP.pp approach has to be deployed by the Valeo supplier, unless otherwise specified.

- Specific Case – Standard components requiring a specific validation

These components will follow the VALEO Specific Component AQP.pp category.

- Specific case - Wood components for transportation of goods (e.g.: Pallets / cardboard pallets / pallet collars...) or used to wedge storing devices during transportation.

These components will not follow the AQP.pp procedure.
No EVAL and no ISO 9000 / IATF 16949 requested for suppliers delivering such components.
The validation will be done based on following documents / audits:
- Valid ISPM15 certificate
- IPPC number
- Wood CCL for assembly and/or Heat treatment validated

The following pages are describing the content and the specificity of each PQA Approach.
The list of deliverables of AQP.pp is detailed in Appendix 1.

I.2 Supplier pre selection

The purpose of this process is to validate that the performance of a potential supplier complies with VALEO expectations.

Supplier must:
- guarantee the reliability of processes and keep records
- have a process of continuous improvement
- have a process to continuously capture what has been learned

It is based on:
- a clearly defined quality policy
- an organization capable of assuring quality at all stages of the component life, in line with VALEO project development phases
  - the willingness to work with VALEO in a spirit of partnership and continuous improvement and problem solving attitude.

‣ Assessment of potential suppliers

A Supplier intending to be part of VALEO panel has to meet the following conditions (applicable for each and every new supplier, for any new production site of a supplier already belonging to VALEO panel)

- **Quality Management System** answering to **IATF 16949 - 8.4.2.3,** with a minimum certification according to ISO 9001 standard, unless otherwise authorized by the customer, and with the ultimate objective of becoming certified to IATF 16949.

NB: Suppliers eligible for certification to IATF 16949 according to "Area of impact for client consideration taken from the Rules for achieving and maintaining IATF recognition - Fifth edition for IATF 16949"

- **EVAL assessment** conducted by VALEO according to the EVAL procedure with a score of at least 80%, and with each of the mandatory questions qualified.

  The purpose of the EVAL is to identify all process management related risks at the potential supplier, along a supplier shop floor evaluation (of its current processes) – this assessment will be conducted by Group Purchasing and Group SQA Commodity representatives.

  EVAL is dedicated to assess new suppliers. EVAL assessment is not scheduled periodically with all VALEO panel suppliers. There are other programs (RSQ, SD&P, YIS) assessing current suppliers.

- Commodity Check List assessment conducted by Group SQA Commodity – performed for each and every new supplier as well as current suppliers intended to deliver components for segment not previously assessed – with a minimum score of 80% and all Critical Questions conform (CQ) . Any supplier rated below will be requested to submit an action plan (with responsible & due date) to achieve full compliance with the requirements checklist.

- The signature of the **VALEO Generic Requirements File** (Appendix 2.1)

‣‣ For each project and each component to be purchased, VALEO Purchasing will define the list of approved suppliers which will receive the RFQ for such business.

I.3 PQA Activities to be completed before "Sourcing Committee (SoCo) Completed" milestone

The purpose of this milestone is to select the best supplier in accordance with Segment strategy.

- Definition of VALEO requirements

Valeo requirements and specifications specific to the parts, components, systems or material purchased are detailed in the Specific Valeo Requirement File (S-VRF) and includes:

- the product specifications: set of functional, technical and general released specifications and drawings including the SPPC (SPECIAL PRODUCT and PROCESS CHARACTERISTICS) and Customer Specific requirements
- the applicable Commodity Checklist (CCL)
- the quality and logistics requirements
- Standard Control Plan when applicable

Supplier Design review is organized by Valeo Buyer and chaired by Valeo R&D to clarify technical requirements or take into account possible Supplier improvement suggestions.

Following the above Supplier Design Review, S-VRF shall be updated and released to each Supplier participating to the RFQ.

Valeo Sourcing Committee will then:

- compare pre-selected supplier's performance and answers vs. the latest released version of S-VRF, including CCL and preliminary design review
- review quality of the answers, dates and robustness of the quotation received
- analyze strengths and weaknesses of the suppliers
- select the supplier representing the best choice

Based on the Specific Valeo Requirements File released, requests for quotations are sent out and retrieved by Suppliers from Valeo Purchasing Management tool (PuMa).

Both Quotations (including Cost Breakdown) and S-VRF are to be signed by the Supplier and uploaded on Valeo Purchasing Management Portal (PuMa).

MILESTONE	***SoCo Completed (SoCo)***

Valeo can possibly use auction process to make final Supplier Selection.

I.4 - PQA Activities to be completed before "Signed SVRF Uploaded" milestone

The purpose of this milestone is to put available the Specific VALEO Requirement File (Appendix 2.2) signed by the Supplier for the development of the component.

As soon as supplier selection is decided by VALEO, then and only then the Nomination Letter can be sent to the selected supplier with reference to S-VRF signed by both parties.

MILESTONE	***Signed Specific VALEO Requirement Uploaded (SVRF)***

I.5 - PQA Activities to be completed before "Component Design Validated" milestone

The purpose of the milestone Component Design Validated is to ensure that product and process quality requirements are met (Quality Assurance File validated) before launching the tool.

Design Validation Review:
Suppliers are responsible to conduct the Design Review with VALEO following the VALEO standards (Design Review Checklist -Supplier, attached in Appendix 13) to ensure the robustness of the Design with regards to the Supplier manufacturing constraints, the VALEO & Customer interfaces, Customer specifications and SPPC requirements.

▸ FMEA study – Special Product Process Characteristic (SPPC) management
Supplier will have to follow the SPPC rules for FMEA (design and process) according to Appendix 3.

For each Special Product Process Characteristic (SPPC) identified after FMEA review, the supplier will have to implement the relevant control according to the above referenced rule.
The supplier will have to list both:

- Customer SPPC characteristics: either customer interfaces or characteristics impacting VALEO or / and OEM assembly – visual aspect – product performance and / or reliability (the aim is to ensure common understanding between Supplier and VALEO)

- Internal SPPC characteristics: fundamental supplier product characteristics that could impact supplier manufacturing process and / or non respect of supplier internal standards

▸▸ This list will be approved and signed by VALEO

▸ Supplier has to prepare and submit the Measurement Protocol and RUCSL Control Criteria for Valeo validation before Design Review

▸ Design validation results:
The supplier will conduct the design validation on prototypes (if applicable).

The validation results compliant with the approved plan will be reviewed and signed at least by the:

- quality representative of the supplier
- engineering representative of the supplier
- project coordinator of the supplier
- VALEO R&D

▸ Validation plan:

The validation plan template to be used by the supplier is attached in Appendix 4. The validation plan is completed with the supplier on the basis of:

- the VRF requirement
- the DFMEA analysis (in case of Designer Supplier)
- the lessons learned.

This validation plan will list all the testing required:

- to validate the component along the development and ensure the validation of the design.
- on the initial samples collected during the Full Day Production Run *OR during the Process audit at the supplier* and approved by VALEO, in order to validate the process impacts on the product.

This validation plan will be reviewed and signed at least by the:

- quality representative of the supplier
- engineering representative of the supplier
- project coordinator of the supplier
- VALEO R&D

Once these documents have been examined and approved by VALEO, the supplier undertakes to comply with them. Any proposal for modifying or improving the product or process, including proposal related to transfer of production or move or relocation of the production equipment, must be approved by VALEO on the basis of the documents modified by the Supplier respecting the Product and Process modification section of the present manual.

▸ Control plan:

The Supplier has to develop a control plan in line with IATF 16949 requirements and covering the phases of Prototypes (if applicable), Pre-launch and Production showing the link, and incorporating information from the design risk analysis (DFMEA, including input provided by the customer), process flow diagram, and manufacturing process risk analysis outputs (PFMEA).

MILESTONE	***Component Design Validated (DESV)***

Upon validation of the Quality Assurance File by supplier and VALEO, the supplier shall be authorized to kick-off tooling.

I.6 - PQA Activities to be completed before "Supplier Process Validated" milestone

The purpose of the milestone Supplier Process Validated is to ensure that the process developed by supplier is capable to produce the defined components in compliance with VALEO requirements and consequently to demonstrate the following:

- run at rate : proving that all committed volumes for VALEO and other customers can be met on shared equipments at all operations of the process
- capability of the process
- validation of the product / processes of sub-suppliers (Appendix 14 – SQA Tier N management fulfilled)
- build correct product in accordance with approved work instructions and control plan in line with IATF 16949 and VALEO requirements.

▸ Off tool: the component produced out of the off tool has to be evaluated and approved by VALEO in terms of dimensional and assembling. If the component is approved at this stage of the project phase, it is not a final approval of the component: the final approval will be given after Initial Samples submission (to satisfy the milestone *Supplier Initial Samples validated*), out of the Full Day Production Run in serial conditions.

▸ Preparation of VALEO FDPR at supplier plant:
The supplier is required to perform a preliminary Full Day Production Run (Appendix 5)

The FDPR readiness matrix (Appendix 6) shall be used and the supplier will need to fully comply with the requirements in order to schedule the Full Day Production Run performed by VALEO Team.

▸ Preparation of VALEO process audit at supplier plant:
The supplier is required to perform a self process audit evaluation based on the VALEO standard (Valeo procedure - SQ 2102 and Appendix 7 of this manual) and CCLs self-audit prior to VALEO official audit.

The self process audit should be achieved with a score of 80% without any critical CAR (Corrective Action Request) and CCL approved prior requesting VALEO SQA Engineer to attend the Process Audit.

▸ VALEO FDPR & process audit at supplier plant:
The audit is valid only if the process audited is the one that will be used in mass production (equipment and conditions):

- the duration must be sufficient to assess the stability of the process (minimum 3 hours of production) – However, depending on the nature of the component VALEO reserves the right to require the supplier to run longer and more components than referred here.

Following the full day production run, the following report must be issued:

- process audit report (Valeo procedure - SQ 2102 and Appendix 7 of this manual) including capabilities for each SPPC (Cpk $\geq$ 1.67 / Ppk $\geq$ 2 / Cmk $\geq$ 2) and for others characteristics (if requested: Cpk $\geq$ 1.33 / Ppk $\geq$ 1.67 / Cmk $\geq$ 1.67).

▸▸ Each SPPC will require a capability study performed according to Appendix 9.

The results will lead to:

- Confirmation of a statistically Normal distribution of the product / process parameters and Ppk results above 2 (Ppk: preliminary capability study calculated on components from the FDPR) or Cpk results above 1.67 (Cpk: capability study calculated on components when in serial production). Then the process must be monitored through SPC when in production.

- In case capability is not demonstrated, supplier must implement a Poka Yoke, 100% automatic control… in order to put characteristics under control to meet specification.

- VALEO SQA Engineer will check on supplier site that the control plan:
  - integrates the countermeasures listed in the PFMEA
  - is respected on the shop floor, including the Reinforced Control Plan.

▸▸ Attitude to be observed along the FDPR:
Supplier is expected to have a method to track issues encountered along the FDPR and a method to react to problems – Quick Response Quality Control.
This method will be challenged by VALEO SQA Engineer for any issues encountered.

It is expected that this method of tracking and reacting to issues will also be applied while in serial production.

▸▸ The process is qualified by VALEO if the FDPR is accepted, and audit results are satisfactory (“Process Audit” procedure ref. 2102). Otherwise, the supplier must draw-up an action plan and a follow-up audit will be performed by VALEO.

▸▸ Case of rejection of a FDPR by VALEO:
An action plan will be submitted by the supplier on each opened CAR (Corrective Action Request).VALEO SQA Engineer will conduct a new FDPR after release of each supplier CAR.

Action plan must be implemented within 10 days and must be sponsored by the Top Management of the supplier.

▸▸ Traceability:
Suppliers must have a traceability system to trace back any component to the original batch of material (raw material / primary components) used.
Along the process audit, VALEO SQA Engineer will verify the supplier system to control traceability and the respect of the product coding.

▸▸ Production Capacity:
Suppliers must have a standard to manage on a weekly basis production and capacity planning, giving visibility on 6 months production.
The standard has to:
  - integrate all customer forecasts for all Valeo lines in order to ensure no capacity issues
  - Alert customers when capacity issue is detected

▸▸ Contingency Plan:
Suppliers shall develop a contingency plan (IATF 16949 – 6.1.2.3) for potential catastrophes disrupting product flow to Valeo, and advise Valeo at the earliest in the event of an actual disaster.

In an actual catastrophe, suppliers shall provide Valeo access to Valeo’s tools and/or their replacements,
Contingency Plan shall contain as a minimum the following items:

- Information system; breakdown problems, partial or total destruction, natural damage, central data

system, CAO, production system, etc.

- Supplying system: supplier delivery orders management, raw material stock management, supplier delivery failure (strike, disaster…), external supply quality failure, transport failure (strike, accident, ….)

▸ Initial samples and VALEO FDPR

Initial samples must be taken during the validated full day production run and delivered in serial production packaging together with full documentation as specified in the Specific VALEO Requirement File.

At least 5 initial samples must be kept at the supplier for the entire life of the component plus 10 years, and must be accessible by the supplier and VALEO at any time (as written in GVRF).

In the case of several processes at the supplier (e.g.: several cavities inside a plastic injection tool) – the supplier is requested to keep 5 initial samples per process and have them properly saved and identified.

▸ VALEO validation on Initial Samples:

VALEO will perform a production trial along with the VALEO FDPR approved initial samples in order to measure the conformance of the supplier components in the VALEO manufacturing process.

The validation results, in compliance with the approved validation plan defined to satisfy the milestone *Component Design Validated*, will be reviewed and signed at least by the:

- quality representative of the supplier
- engineering representative of the supplier
- project coordinator of the supplier
- VALEO Quality PTM
- VALEO R&D PTM
- VALEO SQA Engineer

▸▸ The supplier validation plan is considered completely executed when VALEO have completed their share of the validation respectively of the VALEO product and of the vehicle utilizing a component supplied by VALEO supplier.

▸▸ Therefore the supplier validation is deemed to be successful when VALEO and VALEO customer have passed their share of the validation respectively of the VALEO product.

▸ Process audit frequency

While in production, periodic audits of the process must be performed by the supplier at the intervals defined in the Control Plan.

Audit reports and corrective action plans are requested to be submitted to Valeo at least once per year in the scope of the Yearly Initial Samples approach (see Chapter I.9 – Serial Life)

To ensure continuous validity of the process audit, VALEO reserves the right to perform process audits every 2 years and to carry out new audits whenever VALEO considers the need.

MILESTONE	***Supplier Process Validated (PROV)***

I.7 - PQA Activities to be completed before "Supplier Initial Samples Validated" milestone

The purpose of the milestone Supplier Initial Samples (IS) validated is (i) to check that the component (performance, characteristics, reliability, capability, etc) comply with VALEO requirements and (ii) that the process developed by supplier is capable to produce the defined components in compliance with VALEO requirements.

Mass production components must be in compliance with Initial Samples approved by VALEO: no change on product, process or packaging.

Master samples and initial samples file will be archived at the supplier plant during 10 years after the end of lifetime of the manufactured product.
They will be used as a reference for comparison on the YIS report

- Condition of initial sample acceptance

Initial sample report is validated by VALEO team (SQA – R&D – Project Quality) if at least the items listed below are approved:

- Process audit (including Reinforced Control Plan) and CCL, – validated by VALEO
- Dimensional report
- SPPC Characteristics capability
- Raw material Conformity
- Test on VALEO production Line to confirm no assembly issue on VALEO line
- Functional tests
- Packaging validation
- Report on subjective requirements (appearance – aspect – Buzz Squeak and Rattle noise) if applicable
- IMDS Database data entry completed (or local equivalent i.e. CAMDS)

If all the initial sample deliverables have been qualified, VALEO SQA will release the ISR signed (Appendix 10 Initial Sample Report – ISR).
The initial sample approval decision will be communicated to the supplier by sending the VALEO approved ISR.

MILESTONE	***Supplier Initial Samples Validated (SISV)***

In the case of IS not validated a MAQL / Deviation is required to deliver components. The supplier remains responsible for the quality of the components delivered, and in case of

- MAQL - Valeo Buyer
- Deviation - Supplier / Valeo Buyer

will submit the request through the Deviation module in SRM. [MAQL - Minimum Acceptable Quality Level]

In the case that Supplier is requested to deliver components under deviation due to SISV Milestone not validated, the list of deviated characteristics have to be included in the list of existing RUCSL control criteria and to be followed until the specific deviation closure or until the exit of RUCSL activity.

I.8 - PQA Activities to be completed before "PQA Status granted" milestone

As soon as the Initial Samples have been accepted by VALEO, the supplier is allowed to deliver components to VALEO according to the needs and to the logistic protocol as well as to the requirements of this chapter. This is the serial production phase.

The supplier is fully responsible to deliver according to the specifications and in line with the accepted ISR.

▸ Probationary period

In order to validate the effectiveness of control plan, VALEO requires the implementation of a Ramp Up Control Shipment Level (RUCSL). This additional control has to be done according to the following conditions:

- Control of the characteristics of Control Plan (which must include SPPC):

- The controls have to be done with equivalent means used on the line and a Sample Size agreed with Valeo
  - 100% control of SPPC which are not in Green Status (this means that the Control Plan has to include a specific method with a frequency of 100% for the SPPCs which don't have an automatic 100% control, Poka Yoke or SPC with Cpk <1.67)
- Audit of characteristics where the 100 % control is integrated in the line and do not need to be duplicated

- Implemented Off Line, after final control and conditioning and before packaging

  The zone has to be close to the line and must be designed to avoid creation of defects due to identification, handling and transport and must include QRAP Board for immediate reaction.
- Done by a certified operator

  Certified = training validated for application of Operation (start of RUCSL, knowledge of workflow and control Instruction, handling, packaging, labelling,.…) and Quality Basics (Identification of parts, Records, Isolation, Problem Solving, …)
  - Starting before PROV Milestone Validation until two months after Valeo Customer SOP and after validating the effectiveness of Process Control Plan which is confirmed by meeting the exit criteria

The exit criteria to finalize the Probationary period are:

- Zero bad parts detected at the RUCSL station during a minimum of two consecutive months within the Ramp Up CSL period,
  - All corrective actions resulting from bad parts detected during Ramp Up CSL were implemented and validated by Valeo SQA,
- No quality incident
- All SPPCs in Green status
- TLR (Total Line Rejects) performance decreasing during the last 3 months
- Implementation of the corrective actions for non critical CARs of Valeo Process Audit, showing Process Audit at 100%

▸▸ If the exit criteria are not achieved after Valeo Customer SOP + 2 months, the Ramp Up CSL is extended for one month.

▸▸ If the exit criteria are not achieved within Valeo Customer SOP + 3 months, a Control Shipment Level 2 (CSL2) activity must be implemented without a time limit.

This activity will be handled by a sorting company contracted by the supplier and approved by Valeo.

MILESTONE	***PQA Status granted (PQAG)***

I.9 PQA Approach – Serial Life

When a component is granted the Product Quality Assurance (PQA) status, the component is no longer subjected to a probationary control period and reinforced control plan has to be stopped.

PQA Management Flow purpose is to ensure that suppliers fulfil VALEO requirements and supplies quality-secured purchased components along all the production period.

During serial life, the Supplier has to submit under Valeo request the update of documents submitted for validation of IS to demonstrate that the PQA status is maintained.

Any delivery of parts without respecting the requirements agreed must be formalized by requesting a deviation. The supplier will remain responsible for the quality of the components delivered and will submit the request to VALEO through the Deviation module in SRM.

Initial Samples are re-validated on a yearly basis and shall be presented by the supplier to the VALEO Site at least 1 month prior to the anniversary date of Initial Samples approval (the year before).
The deliverables requested by VALEO for the Yearly re-qualification of the initial samples are outlined below and can be found also in the AQP.pp matrix attached in the Appendix 1 of this manual.

VALEO will request the submission of a report with existing data of current production, including:

- all characteristics of the control plan
- capability of each SPPC (in accordance with the control plan) (number of components measured – frequency) along with all the data / evidence used for capability calculation
- raw material report
- Subjective requirements, Tool / mould life status
    - Process Audit done by a certified auditor according to Customer Specific requirements and / or applicable other requirements (IATF, VDA…..)

Supplier representative will take a particular care that:

- All materials used to produce this part respect the BRDS requirements of Valeo
    - The part has not undergone any product or process changes since the last Initial Sample Submission without the written approval of Valeo
    - The Sub Suppliers - manufacturing constituents of this part - have not performed any product or process changes without Supplier's validation and Valeo written approval

In case of a non conformity situation of the items mentioned above, the supplier will request a deviation to VALEO and must develop an action plan to come back to conformity.

Upon request, the supplier must provide VALEO with the results of inspections carried out for each batch delivered in line with the requirements of the AQP.pp (Appendix 11 PQA Management Flow).

VALEO has defined 2 different Product Quality Assurance Management flows:

- VALEO non specific component workflow: for components such as raw materials / catalogue components / standard electronic components / non specific packaging as defined in the AQP.pp definition section of the present manual.
- VALEO Specific component workflow: for components falling in the definition of the AQP.pp definition section of the present manual.

In addition, for Pass-Thru logistic flow (components delivered directly to Valeo Customer), specific actions have to be implemented as per Valeo request.

All PQA component deliveries must be identified with a PQA label on each container box.
Upon request, the supplier shall inform VALEO of the results of the inspections carried out for each batch delivered in line with the requirements of the PQA management flow.

▸▸ Case of PQA status suspension

Supplier PQA status follows the rules defined in the Product Quality Assurance Management Flow (Appendix 11).
After analysis of the causes, loss of PQA is confirmed for the component involved if a specific process and/or design is found to be at fault.

In all cases, VALEO will give the supplier written notification of the date for resumption of PQA status after the problem has been solved.

When PQA status is lost – the supplier must take off PQA identification and when applicable identify with a label on each box and container, the level of control shipment (1 or 2) requested (Appendix 11 PQA Management Flow).

If the conditions agreed to remove the PQA suspension are achieved, the PQA status is recovered. Valeo SQA authorize the Supplier to re identify boxes with the PQA label

▸▸ Case of a product or process modification or transfer of a supplier production line (see Chapter II.5) – the PQA status is therefore lost and the PQA status will need to be re-granted going through a complete PQA approach.

II -CONTINUOUS QUALITY IMPROVEMENT

This chapter will focus on:

- the incident processing
- the quality performance indicators
- the supplier Quality Improvement Plan
- the supplier development and follow up
- the product and process change management rules to be respected by the supplier
- the audits and audit schedule.

II.1 Incident processing

Supplier undertakes to use for incident treatment exclusively the PDCA / FTA methodology and answer through the IMS (Incident Management System) Module of SRM Portal (https://suppliers.VALEO.com/suppliers) or via existing communication channels. This may include use of E-Mail.

- Definition of Quality incidents

Category	Definition	Example
CP1	Any line, end of line reject at the customer or any reject occurring "in the field" that is caused by a non conformity on a component delivered by a supplier without Initial Samples validated and with Deviation Request approved is recorded as a CP1 incident	Non conformity on a component under development is detected by the car maker
CP2	Any component rejected on VALEO production line that is caused by a non conformity on a component delivered by a supplier without Initial Samples validated and with Deviation Request approved is recorded as a CP2 incident.	Non conformity on a component under development is detected by Valeo Project team or in VALEO Process
C1	Any line or end of line reject at the customer or customer complaint that is caused by a component delivered by a supplier is recorded as a C1 incident. Any reject occurring "in the field" that is caused by a non conformity on a component delivered by a supplier is recorded as a C1WR incident (Based on analysis, this incident can be changed to CA)	Car makers line or end of line rejects (C1). Warranty return (C1WR).
C2	Any single component rejected from VALEO plant that is caused by a component delivered by a supplier is recorded as a C2 incident (Based on analysis, this incident can be changed to CA)	VALEO end-of-line rejects. Sorting, rework, and line disruption. Non-conformance identified in the manufacturing process.
CA	Perturbations in VALEO plants that are caused by a suspected component delivered by a supplier is recorded as a CA incident. Based on analysis, this Alert should be closed or cancelled	Valeo or Customer parts rejected and linked with a suspected component delivered by a supplier. Root cause and responsibility need to be determined between Customer, Valeo & Supplier

▸▸ Recurrent incident:

▸▸▸ CP1, CP2, C1 or C2 recurrent incident: occurs on the same component number, the same failure mode and the same suspected or identified root cause coming from parts belonging to a batch produced after implementation of the corrective actions of a previous incident.

▸▸▸ C1WR recurrent incident: occurs on the same component number, the same failure mode, and the same suspected or identified root cause and for which production date is after implementation of the corrective actions.

▸ Definition of Logistic incidents

Category	Definition	Location of the logistic perturbation and example of incidents
L1	The logistic incident affects the VALEO external customers or end users	Customer Service Rate impacted due to shortage of part deliveries leading to have a risk of line customer shutdown
L2	The logistic incident affects the VALEO production lines	Production line shutdown at VALEO due to shortage of part deliveries
L3	The logistic incident affects the Incoming Logistics (Receiving/Warehouse) organization	Perturbation detected at VALEO receiving: ● Parts received at VALEO plant are not compliant with supplier's promise, according to the VALEO Pick-Up Order (VRO: Visual ReOrder) ● Non-respect of the delivery window. ● Errors on delivery documents or missing (written or electronic information (ASN), handling unit identification ● Damaged delivery

▸ Incident processing

When a defective component is identified, VALEO will notify the supplier responsible of the incident using the IMS (Incident Management System) Module of SRM Portal, usage of SAP incident notification or E-Mail.

All suppliers are required to install broadband Internet and to systematically consult and make use of the SRM tool and associated documents. Their response time is measured and recorded by SRM according to VALEO Reactivity requirements:

- Within **24 hours** of the notification: **Quick Response**
- Within **5 days** of the notification: **Plan Do**
- Within **10 days** of the notification: **Check Act**
- After **LLC and Genba check** submission: **Closure**

In the case of a C1 and C1WR, the supplier is required to present to VALEO plant analysis. Physical presence will be required when necessary. All answers (QR, PD, CA & LLC) must be formalized in English.
After the supplier submits its CCL Tooling section self assessment, VALEO will conduct a Genba check prior to incident closure.

Each category of incident shall not be closed without submission of LLC and verification on genba.
The Category Alerts shall not be closed without submission of agreed actions between Valeo & the supplier. Documented analysis will be required when necessary.

▸▸ Cancelled incident:
If the Plan Do analysis concludes the supplier non-responsibility then the supplier incident is cancelled.

▸ Sorting activity:
For any sorting activity requiring a sub-contractor, the Supplier will have to select a sorting company approved by VALEO. Supplier shall ensure that the organization of the sorting shall enable an immediate communication of any relevant information (including especially the sorting results) obtained by the supplier and/or the sub-contractor during the sorting. All costs linked with the sorting, including costs to be paid to the subcontractor, will be borne by the Supplier.

▸▸Sorting at VALEO plant: the Supplier shall mandate a sorting company within the first 2 hours following the incident notification in order to ensure that VALEO is secured latest 4 hours following the incident notification to the Supplier. In case of delay VALEO will contract directly a sorting company and shall charge back to the supplier all related costs.

▸ Supplier Liability
Supplier remains liable for all direct and indirect costs caused by any non conformity to contractual specifications or applicable regulations.

II.2 Quality and Logistic performance indicators

- Quality indicators

Among other, the Quality performance of suppliers will be measured with the following indicators based on 3 months rolling (M + (M-1) + (M-2))

IPB – 3 Months:

1. DEFINITION

Incidents per Billion: This indicator measures the total number of quality incidents which are the responsibility of external suppliers (Category 1, Category 2), related to one billion parts delivered by the suppliers to Valeo.

The purpose of this indicator is to measure the quality performance in proportion to the quantities received by reference from our suppliers.

2. CALCULATION FORMULA

$$IPB = \frac{(C1 + C2 + C1WR)\ [3\ Months] \quad x\ 10^9}{(Quantity\ Received)\ [3\ Months]}$$

Quality

Incidents C3M:

- Number of total incidents (C1+C1WR+C2)

- Number of incidents C1 and C1WR

- % of Reactivity: QR within 24 hours & PD within 5 days & CA within 10 days

- Number of incidents CP1

- Unqualified Initial Samples (UIS)

- Logistic indicators

none to date .

II.3 Systemic Recovery Plan

Valeo supplier, drifting from quality performance has to define action plan to identify systemic weaknesses and propose corrective actions – **Systemic Recovery Plan**

Systemic Recovery Plan contains:

- Systemic/management weaknesses list based on findings from Genba and 5Whys
- Root-causes
- Corrective actions
- Standards definitions, deployment and enforcement as output of actions
- KPIs defined to track efficiency of actions

The Systemic Recovery Plan is led by supplier top management and submitted to Valeo on regular basis.

II.4 Supplier development & follow-up

Valeo makes available to each Supplier a set of tools (tool box) applicable according to Supplier Quality Performance level:

- Supportively, when the supplier Quality performance is stagnating, the following activities: QRQC Deployment, Fundamentals of Quality may be launched by VALEO.

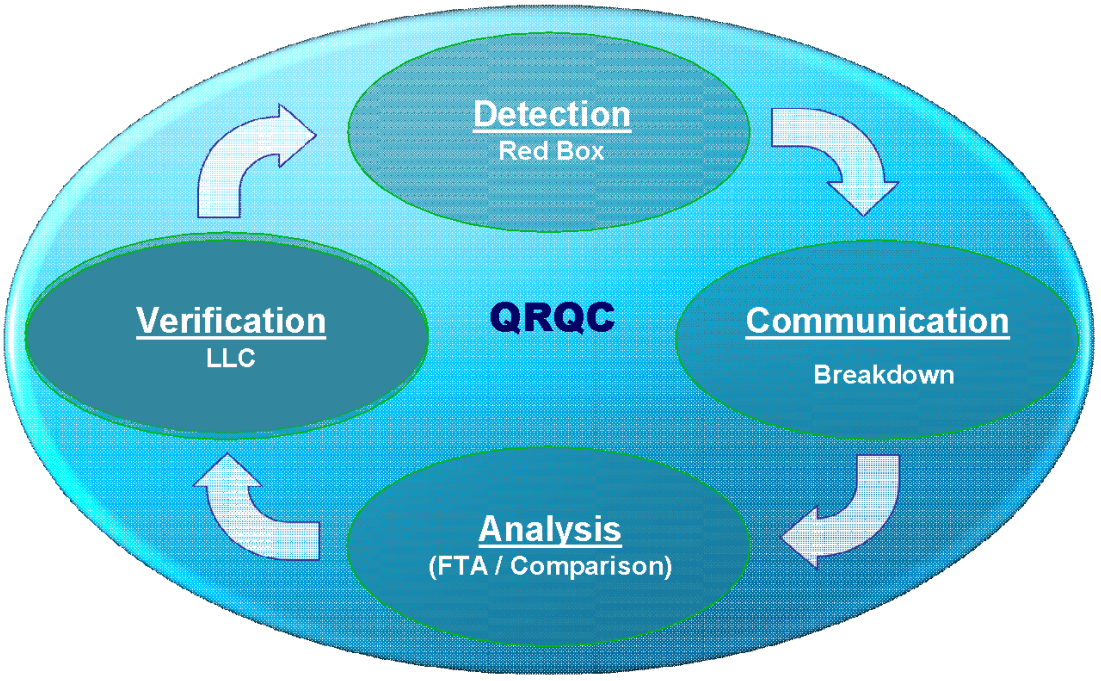
- Proactively, when the supplier Quality performance is identified at risk to drift, the following activities: **Supplier Development & Preventive (SD&P)** program may be launched by VALEO.

- Reactively, when the supplier Quality performance is worsening, the following activities: **Recover Supplier Quality (RSQ) program**, NBOH Alert / NBOH Status may be launched by VALEO.

‣ **Quick Response Quality Control (QRQC) deployment**:

VALEO may propose to support supplier improvement activity by sharing the QRQC / PDCA Methodology which is based on 4 principles:

- Detection: ability to self-detect the problem.
- Communication: ability to communicate in the right manner (simpler & quicker).
- Analysis: ability to analyze the problem by comparing good & bad.
- Verification: ability to check and to learn from your experience.



▸ Supplier follow up

Valeo assesses and monitors regularly suppliers' quality performance in order to prevent potential risk. Supplier assessment is based on criteria covering project development, production quality and logistics results. There are 3 Risk Levels: HR (High Risk), MR (Medium Risk), NR (No Risk)

VALEO has deployed a SQA Strategy to support the supplier improvement activity by deploying preventive or corrective activities.

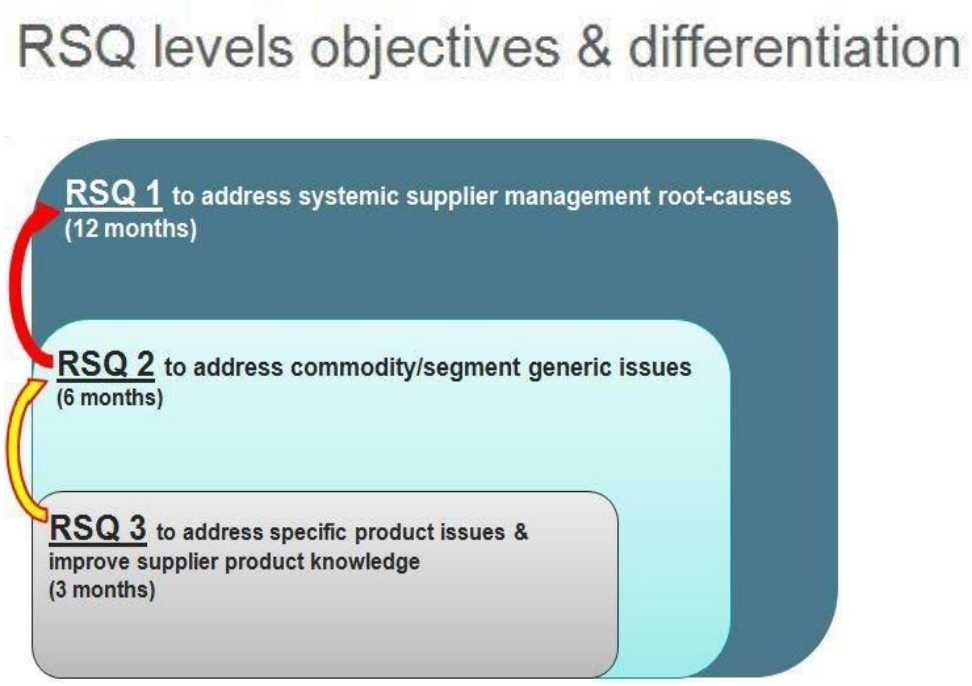
Based on the Suppliers Quality performance level, VALEO identifies suppliers at risk to deploy preventive and / or corrective activities within the perimeter of SD&P and / or RSQ program

- **Preventive** activities dedicated to suppliers starting to drift according to specific criteria set up by Valeo. The support will be given in function of the weaknesses detected and within a **Supplier Development & Preventive (SD&P)** tool box.

- Corrective activities dedicated to top contributing suppliers to help them to recover quality level within a program called **Recover Supplier Quality (RSQ)**

- **Recover Supplier Quality (RSQ)**

The suppliers are ranked among 3 Recover Supplier Quality (RSQ) categories: RSQ1 – RSQ2 – RSQ3. RSQ1 being the category most critical.



Recover Supplier Quality Levels

RSQ # 3

- RSQ #3 level involves Supplier Production Team
- Monthly follow-up on Genba addresses supplier product issues and knowledge with verification of PDCA actions on Genba and Lessons Learnt Card cross fertilization.
- **Yearly Initial Sample** and Project Management are also addressed.
- This program will last 3 consecutive months.

RSQ # 2

- In addition to RSQ 3 activities, RSQ 2 level involves Supplier Plant Management
- Monthly follow-up on Genba addresses supplier ability to improve process knowledge support by StEDE activities leading to Systemic Weaknesses on Plant level.
- This program will last 6 consecutive months in order to ensure a sustainable improvement

RSQ # 1

- In addition to RSQ 2&3 activities, RSQ 1 level involves Supplier Top Management (Group Senior Management or Chief Executive Officer)
    - Bi-Monthly follow-up addresses Systemic Weaknesses of Organization leading to changes in management, system and organization.
    - This is the highest level of escalation, this program will last 12 consecutive months in order to ensure a sustainable improvement with strict follow up of defined exit criteria

Valeo develops a specific approach to assess and monitor quality performance of Suppliers delivering electronic components. The eligible Suppliers are requested to join a **RSQe** program which is equivalent to the RSQ2 in terms of tool box but deployed within a period of 12 Months

The exit of RSQ Program, extension for a specific period or escalation to the next RSQ category will be decided by VALEO upon satisfactory achievement of the targets agreed at the beginning of the program with the supplier.

CSL1 and CSL2 will be required to the supplier in order to assure certified deliveries while awaiting the full recovery of conformance on the production process or /and the product.

- CSL1 – Following a request from VALEO, the supplier will implement a CSL1 in addition to the sorting of his production.
  The CSL1 and the sorting activity will be operated out of the production line in a dedicated zone and in accordance with a specific control instruction approved by VALEO – Supplier will make available the evidence that sorting operators have been trained to the sorting and CSL1 Instructions – the performance of the sorting activity will be monitored on a daily basis by the supplier and reported by the supplier in SRM on an agreed frequency basis. The supplier formally guarantees the conformance of goods delivered for each delivery that takes place while CSL1 is in the process of implementation. The cost of sorting will be borne by the supplier.
  When the supplier fails to meet the commitments stipulated by CSL1 period, CSL2 is then required to be implemented.

- CSL2 – the supplier is required to put in place a sorting activity by an external company, validated by VALEO, in line with criteria defined along the CSL1. The cost of sorting will be borne by the supplier. Sorting results will be communicated to both VALEO and the supplier. VALEO has developed a panel of sorting companies that VALEO suppliers will be required to work with.

- Exit of CSL1 or CSL2: status can be lifted only after formal acceptance from VALEO in accordance with the exit criteria defined in the CSL notification.

- In case of recurrent non-conformance, where the supplier clearly does not have sufficient control of his production process, the Control Shipment Level (CSL) procedure will be applied.

In case of continuous drift (RSQ program) or potential risk at Valeo or its Customers, Valeo will send a notification letter to request further investigation or assessment at corresponding level.

If there is no appropriate reaction from the supplier, Valeo may decide to apply a NBOH process.

- **Phase OUT:**

If the supplier is not showing improvements, VALEO may decide to end the relationship with the Supplier.

II.5 Product & Process Change Management

When an engineering standard/specification change results in a product **design change**, Supplier has to refer to the requirements in ISO 9001, Section 8.3.6.
When an engineering standard/specification change results in a product realization **process change**, refer to the requirements in IATF 16949 Section 8.5.6.1.

The supplier has the obligation to communicate to VALEO Project / Productivity Buyer through SRM Portal (Deviation / ECR Module), any product or process change intention (design, manufacturing process, material, colour …) prior to its implementation, in order to obtain approval from VALEO

If a component subject to a change (previously approved by VALEO) is shipped to several VALEO sites – each of the sites have to be informed and each VALEO site will advise the supplier on the validation to be performed by the supplier to proceed with the change – shall the validation be successful. Upon receipt of written agreement from each VALEO site, the supplier is authorized to implement the change.

The following chart is giving some examples of product and process changes – the list is not exhaustive:

4M	Definition	Examples of Product Process Changes
Material	Changes to be made to what is used in the components or raw materials or to the component or raw material source	· Material change from Polyamide Polypropylene · Packaging material from 3 ply cardboard 2 plies · Shape of packaging · Label · Change supplier or sub-supplier · Packaging operation conducted at end of line packaging operation moved to the warehouse
Method	Changes to be made in how we produce or test or control components	· Automatic process manual process · Single component processing batch processing · Temperature in heat treatment furnace · Control frequency change from 100% to 5 at start of production, or vice versa
Machine	Changes to be made in the machines, gauges or tools used to produce or test or control components	· Change layout of production line, but no change in equipment · Stop supplying VALEO from a production site in France, and start supplying from a production site in China · Purchase new press in order to increase capacity · Renovation of old mould · Purchase new test equipment
Man	Changes to be made in the organizational of the workforce involved in the manufacturing of the goods	· Hoshin activity of Line rebalance from 4 operators to 3 operators · Lower skill set of the operators to reduce direct labor costs · New shift has to be constituted at the supplier to extend capacity

▸▸ Implementation of a Product or Process change by a supplier with no VALEO written agreement will be reported to the IATF certification body by VALEO.
VALEO will require from the supplier to be placed under CSL2.

II.6 Audits & Audit schedule

During serial production, Supplier Sites / Products must be re-evaluated on a regular basis (see chart below). A new audit may be scheduled at any time by VALEO.

A Yearly Initial Sample audit will be performed by supplier in accordance with the control plan approved along the AQP.pp process developed for the validation of Initial Samples. *This requires an agreement to follow the YIS approach.*

The product audit will include a review of:

- VALEO needs and technical specification adjustment in the light of the gained field experiences
- Field performance surveys or new technology.

The quality system of the supplier will ensure that any production return of experience involving a product or process change(s) is fed-back for a post mortem analysis.

Type of Audit	Validity Period	Leader	Where
EVAL	New Suppliers, then No Limit except entering in RSQ1 Program	VALEO Purchasing and Group SQA	At supplier's plant
Process Audit (*)	1 Year	Supplier (Self-Assessment)	At supplier's plant
	VALEO reserves the right to perform process audits every 2 years (after IS validation)	VALEO SQA	At supplier's plant
Product Audit / YIS (*)	1 Year	Supplier (Self-Assessment)	At supplier's plant
CCL	No limit except in case of new incident or entering in the Supplier Quality Improvement Program or along Process Audit when it has to be re-assessed	Supplier (Self-Assessment) VALEO SQA	At supplier's plant
IATF 16949 (latest valid Edition)	3 Years (including yearly follow-up)	IATF 16949 Accredited bureau	At supplier's plant

(*): Supplier to provide results of the Product / Process Audit with the Yearly Initial Sample submission to VALEO.

The supplier has to ensure that the competencies of auditors comply with the requirements in IATF 16949 Section 7.2.3 and 7.2.4

III -END OF MASS PRODUCTION MANAGEMENT (EMP)

End of mass production life management cycle starts when the production of OEM product is stopped. Then, the production of components from Suppliers is only for OES and Aftermarket needs.

The purpose of this chapter is to define how supplier ensures that once mass production is terminated, process at Supplier is capable of providing for OES and Aftermarket.

III.1 Evaluation of potential changes

6 months before the end of mass production, supplier has the responsibility to fill-in the EMP changes evaluation checklist (Appendix 12 EMP – Section: Potential Changes Evaluation). This document aims at listing any process changes that are planned to be executed by the supplier before EMP.

Supplier submits the check-list to VALEO Buyer and SQA in charge to obtain a formal Valeo approval.
Supplier will execute the required modifications, in line with the Product and Process change management section and proceed with next step.

III.2 Supplier self process-assessment

One month before EMP, the supplier has the responsibility to self assess its process through EMP process assessment checklist.

The EMP process assessment checklist will then be submitted to VALEO SQA to check respect of steps (Appendix 12 EMP - Section: Process Assessment)

PQA status has to still be managed in accordance with PQA management rules.
No more systematic yearly initial sample submission is then requested the year following the end of the OEM life and no more systematic periodical VALEO process audit will be performed.

VALEO process audits and initial sample submission will be nevertheless required following a product or process changes occurring at the supplier.

IV- SUPPLIER QUALITY POLICY

The supplier, a professional in its field, is perfectly aware of the demands and requirements of the Automobile Industry, in particular in terms of quality. It is the supplier's responsibility to define and implement a quality policy in compliance with this Industry's standards and customary practices, as well as with laws, regulations and standards in force. This SQM shall supplement supplier quality policy.

Nothing under this SQM may be interpreted as relieving the Supplier from any of its obligations towards VALEO and especially its responsibility to deliver the Components in compliance with all documents that govern the relationship between VALEO and the Supplier in connection with the supply of the Components.

Activities performed by each Party under this SQM and especially, inspection, audit, validation, testing and/or approval made or granted by VALEO under this SQM as well as VALEO decision not to enforce all or part of this SQM shall not affect Supplier responsibility concerning the quality and reliability of the Component and compliance with its contractual obligation.

Definition	
AQP.pp	ADVANCED QUALITY PLANNING for product and process: aim of AQP.pp is provide VALEO with all the guarantees concerning the means to achieve product quality. The AQP.pp includes: VALEO Requirements File (VRF), Quality Assurance File (QAF), Initial Samples File (ISF) and a Quality Monitoring File (QMF).
CAR	CORRECTIVE ACTION REQUEST
CARRY OVER	Part already validated and used with same revision level in a project of any Valeo Site in current or stopped mass production
CCL	COMMODITY CHECKLIST
CERTIFICATION	Notice given by an OFFICIAL organization on the basis of the appropriate procedures or documents by which the component is recognized as being in compliance with STATUTORY requirements
CONFORMITY	Fulfilment of a requirement. Note: The term "CONFORMANCE" is a synonymous but deprecated. (ISO 9000 - 2000)
CONTROL PLAN	Documented description of the systems and processes required for controlling the manufacturing of a product. (IATF 16949)
CSL	CONTROLLED SHIPMENT LEVEL 1 and 2: CSL1 and CSL2 are provisional procedures implemented with a view to guaranteeing certified deliveries while awaiting the re-establishment of the conformance of the production process.
EVAL	VALEO supplier evaluation tool taking into account 8 key criteria concerning operational and strategic performance of the suppliers. This grid is used to select as well as to evaluate suppliers (present and potential suppliers).
FDPR	FULL DAY PRODUCTION RUN: Production run to validate the "full capacity / quoted rate" conditions. A sufficient quantity of components shall be manufactured during this day to be considered statistically significant. It shall extend for a period between 1 hour and 8 hours (one shift). At least 300 components shall be manufactured unless a specific quantity is specified in relation to the rate of manufacture.
FMEA	FAILURE MODE and EFFECT ANALYSIS: Deductive method and tools used to identify potential failure modes, their causes and effects, and assess criticality of these failure modes, based on severity, occurrence and detection probability criteria. Generic FMEA is applied on Product Design (DFMEA), Process Design (PFMEA), and Equipment. It can also be applied on Product functions (Concept FMEA)
Genba Check	Physical verification on the process to check if corrective actions from PDCA are implemented in "real place"
HOSHIN	A VPS tool for identifying simple solutions which can be applied immediately, to eliminate waste and produce just-in-time, carried out with the involvement of personnel in all the areas concerned.
IMS	INCIDENTS MANAGEMENT SYSTEM: Incident Management System (IMS) enables to notify quality incidents to suppliers and to receive and approve their Quick Response PDCA (launching an alert after 24 hrs) and their Analysis PDCA and Factor Tree Analysis (5 days to submit, 10 days to implement).
IS	INITIAL SAMPLES: Units manufactured by final production methods and under "full production conditions". IS approval shall validate the production equipment. After approval, they are used as reference for the volume production.
ISR	INITIAL SAMPLE REPORT
KOSU	The actual direct labor time needed to produce one good part
LLC	Lesson Learned Card: used to capitalize acquired knowledge and experience
MAQL	Minimum Acceptable Quality Level
PASS THRU	A pass thru component corresponds to a part produced by a Supplier of Valeo who delivers this very part directly to Valeo Customer
PDCA	PDCA (PLAN, DO, CHECK, ACT): is a methodology to settle and solve problems effectively. Based on continuous improvement, PDCA comprises four different steps: Plan: grasp the problem, analyze causes and effects and set objectives. Do: investigate solutions, identify the most effective one and implement it. Check: check the result in comparison to the objectives. Act: set a new standard to consolidate the result and take action to prevent the re-occurrence of the problem.

POKA YOKE	PROOFING (POKA YOKE): Product and manufacturing process design and development to prevent manufacture of non conforming components. (ISO TS 16949)
PPB	PARTS PER BILLION: measures the ratio of defective supplier production parts detected at reception, in production and at the customer. It includes technical defects as well as packaging and labelling errors. $PPB\ C3M = \frac{Number\ of\ nonconforming\ parts * (3\ months\ to\ date\ sliding)}{Total\ number\ of\ parts\ received * (3\ months\ to\ date\ sliding)} x1.10^{9**}$ * Only parts that have entered the site; consignment stocks awaiting reception are not included. ** For raw materials, replace number of parts by number of delivery units, i.e. unit of weight in most cases. Non conformance is determined in terms of specifications: identification, size, aspect, function, mix, error in quantity, etc. Non conforming parts formally accepted by VALEO are not included in the measurement of defective parts; batches of products that have been destroyed or returned will be recorded as non conforming. In the event that sorting operations have to be carried out at VALEO to which the supplier has agreed and paid for, only the defective parts will be recorded as non conforming. In all other cases, the whole batch is recorded as being defective.
RSQ	Recover Supplier Quality – Program dedicated to top contributing suppliers to help them to recover quality level.
QRAP Board	QUICK RESPONSE ACTION PLAN board
QRQC	QUICK RESPONSE QUALITY CONTROL : It is a way of management of problems applicable in every area: Production, Projects, Logistics, Purchasing, etc
RSQe	Recover Supplier Quality electronic - Program dedicated to top contributing Electronic component suppliers to help them to recover quality level.
RUCSL	Ramp Up Controlled Shipment Level , provisional procedure implemented with a view to guaranteeing certified deliveries during ramp-up / probationary period of newly developed / modified component's production process. RUCSL workstation to be considered as the entry point of the Valeo plant.
SD&P	Supplier Development Program dedicated to suppliers starting to drift – support will be given by focusing on Production, Project and Logistics
SPC	STATISTICAL PROCESS CONTROL: Consists of monitoring a process by the statistical measurement of key parameters to detect process variations that impact the components ability to meet a required function. The use of this method of control can therefore prevent the production of non-conforming products. SPC can only be used for capable processes (see also "capability").
SPPC	SPECIAL PRODUCT and PROCESS CHARACTERISTICS: and measurable characteristics of a component, System or assembly which may have an adverse or degrading effect on the function, quality or reliability if an out of tolerance condition occurs, Measurable elements of the process used to manufacture or assemble a component that have significant impact on the function, quality or reliability of that components.
SRM	SUPPLIER RELATIONSHIP MANAGEMENT: It is an Internet secured portal used to communicate with suppliers, through which, we can exchange several kinds of information (as for example: Quality incidents, performances, standards, suggestion, etc.). (https://suppliers.VALEO.com/suppliers/)
SVRF	Specific Valeo Requirements File
TOOLING LOAN AGREEMENTS	A document attesting to VALEO ownership when tooling has been placed at supplier premises for the production of components. This document must be signed by the supplier receiving the tooling or equipment. This agreement addresses the following major aspects: Ownership of tooling, term and termination of the agreement, conditions on the use of the tooling, maintenance and insurance.
YIS	Yearly Initial Samples (see PQA Approach 7 – Product Quality Assurance management)

VI- APPENDIX

Appendix 1	VALEO Advanced Quality Planning for product and process - AQP.pp
Appendix 2	VALEO Requirements File - VRF
Appendix 3	FMEA Guideline (SPPC Identification Procedure GSI-RD-H01-0000-035)
Appendix 4	Validation Plan
Appendix 5	Full Day Production Run Report
Appendix 6	FDPR Preparation Form
Appendix 7	Process Audit Questionnaire & Report - (Appendix 3 & 4 of Procedure SQ 2102)
Appendix 8	Total Line Reject calculation
Appendix 9	Cpk calculation sheet
Appendix 10	Initial Sample Report Form
Appendix 11	PQA Management Flow
Appendix 12	EMP Changes Evaluation checklist and EMP Process Assessment checklist
Appendix 13	Design Review With Supplier (GST-RD-H01-0000-185)
Appendix 14	SQA Tier N Management Tracking Check List
Appendix 15	Identification of Shipments