



ZF Escalation Model Supplier / Purchased parts

Supplier Management ZF Group | Materials Management



Agenda

1. Definition and escalation criteria
2. Escalation level 1
3. Escalation level 2
4. Escalation level 3

01

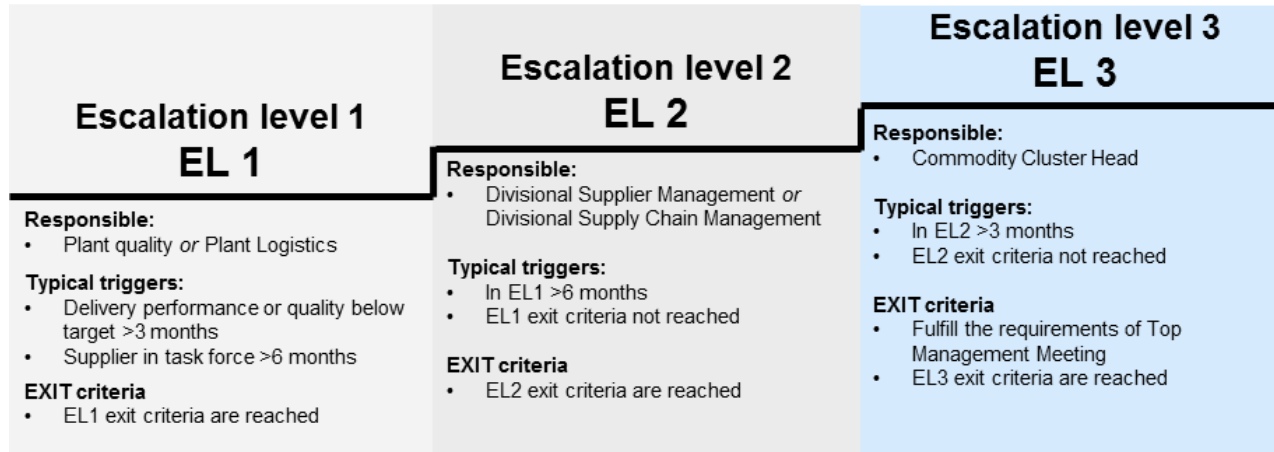
Definition and escalation criteria

Definition

Regulation of the escalation process and responsibilities for suppliers demonstrating an inability to meet ZF quality, delivery, or product launch expectations.

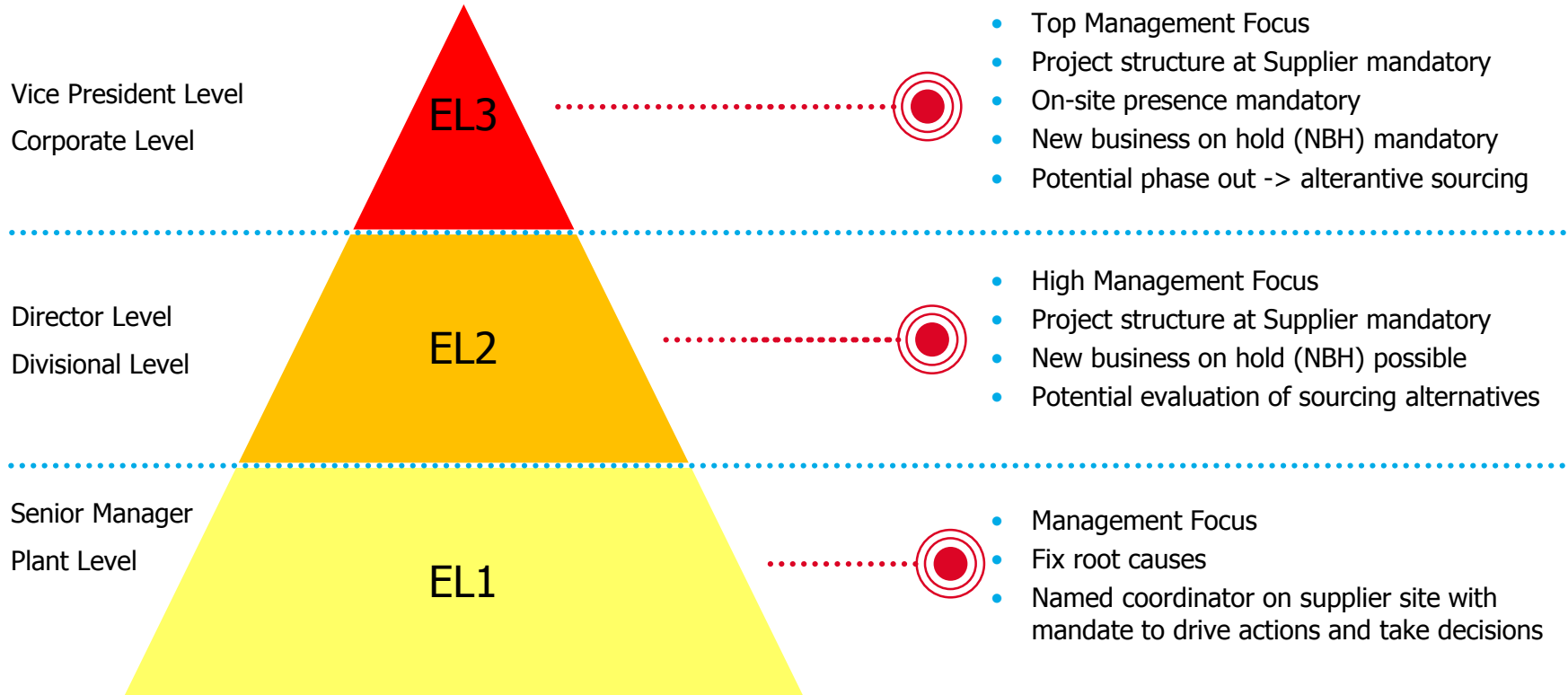
The escalation model is to be applied groupwide, including ZF TRW Automotive Holdings Corp. and all of its affiliates by all ZF locations and direct material suppliers to ZF and refers to external suppliers.

There are 3 escalation levels: EL1, EL2 and EL3 (see figure). Usually the escalation process is initiated with EL1. Upon good cause shown, suppliers can be directly escalated to a higher escalation level or levels can be skipped.



Escalation levels

ZF Escalation Model



Refining of escalation criteria in order to ensure fast upwards escalation and focus on de-escalation

Only a selection of escalation criteria, not comprehensive

EL	Escalation criteria Quality	Escalation criteria Logistics
1	<ul style="list-style-type: none"> A- or W-complaints out of target for over 3 months or more than one A-complaint per month Unauthorized product- or process change, without pre-information, with negative impact on ZF. No or inadequate response for more than one week (e.g. on 8D reports) APQP fulfillment out of plan, impact on ZF milestones Non-compliance with mandatory ZF- or industry standards 	<ul style="list-style-type: none"> DPI <80% over 3months danger of airfreight or expedited freight within order horizon Delivery plan is not confirmed at all or reduced by up to 20% Installed capacity at supplier will fall below ZF demands and/or capacity commitment within the next 9 months
2	<ul style="list-style-type: none"> EL 1 status longer than 6 months or de-escalation criteria not fulfilled/not fulfillable Unauthorized product- or process change, without pre-information, with negative impact on ZF's customer. No or inadequate response for more than four weeks (e.g. on 8D reports) APQP fulfillment out of plan with impact on ZF's customer project milestones 	<ul style="list-style-type: none"> DPI <70% over 3 months, trend negative existing airfreight, one-time event, max. one week's demand Delivery plan is not confirmed at all or reduced by up to 30% Installed capacity at supplier will fall below ZF demands and/or capacity commitment within the next 6 months
3	<ul style="list-style-type: none"> EL 2 status longer than 3 months or de-escalation criteria not fulfilled/not fulfillable Supplier's management not committed or not capable to ensure ZF's supply with required quality level Supplier quality issues impacting product safety (life is in danger; except PPAC issues) 	<ul style="list-style-type: none"> DPI <50% over 3 months, trend negative Existing airfreight, repeated, over one week's demand Delivery plan is not confirmed at all or reduced by up to 40% Installed capacity at supplier will fall below ZF demands and/or capacity commitment within the next 3 months



Escalation Model “Supplier / Purchased Parts”

Main reasons for escalation:

- Supply of defective parts (quality)
- Inadequate delivery reliability (quantity and/or timing)
- Lack of supplier production capacities endangering future supply
- Failure to implement corrective actions
- Insufficient collaboration in APQP, Supplier Readiness and launch

Other reasons might be possible.

Terms and Definitions:

APQP	Advanced Product Quality Planning
DPI	Delivery Performance Inbound
EL	Escalation Level
NBH	New Business Hold
ZAMS	ZF Audit Management System

02

Escalation level 1



Escalation level 1 (EL1)

If the ZF plant has decided on the basis of available facts, to apply level EL1 to the supplier, then increased attention is required in the incoming goods inspection of ZF.

The supplier will be informed officially in written form (EL1 escalation letter). Additionally the case is documented in ZAMS (ZF-Audit Managements System), which is worldwide available in ZF.

The escalation team defines the following:

- Define **affected ZF plant and supplier**
- Describe **reason(s)** for escalation
 - Parts affected
 - Characteristics of the parts affected
- Define required **inspection & sorting** activities:
 - Type of inspection
 - Marking of certified product and shipment in accordance with QD83
 - Sorting process to be conducted by supplier, by ZF, or an approved third party.
- Set short-term **actions incl. due dates** to ensure supply to ZF as well as to ZF customers, e.g. 100% goods leaving inspection, examination of all products at affected ZF plant(s)
- Define **type and scope of documentation** (to be implemented by supplier)
- Describe quantifiable and measurable (S.M.A.R.T.) **de-escalation criteria** ("exit criteria")
- Define **method of confirmation** for the corrective actions (e.g.. GMMOG, line walk, run@rate, audits)
- Specify additional documentation if required

Escalation level 1 (EL1)

The supplier is required to submit the signed escalation checklist to ZF and to **undertake all necessary actions** to graduate from the escalation as soon as possible.

The progress of escalation measures must be **reported by the supplier** to ZF at least weekly.

If the **exit criteria are sustainably** reached, the escalation leader, after consultation with the steering team, de-escalates the supplier and terminates the escalation.

In general, the maximum period for a supplier to remain on EL1 is **6 months**.

If the exit criteria are not reached or can foreseeably not be reached despite deployment of all defined actions, the escalation leader must promptly **escalate the case to a higher level**

At the **supplier**, the responsibility for the escalation activities lies with the executive management, who is requested to take direct ownership of the case. Furthermore, the supplier must **define a formal project organization** and **identify an escalation coordinator** who has adequate decision-making power to effectively drive the requested improvements

Costs incurred by applying the Escalation Model have to be covered by the supplier.

03

Escalation level 2



Escalation level 2 (EL2)

If the verification required in level EL1 is not provided or is not provided on time, then the supplied ZF plant can introduce escalation level 2.

The supplier will be informed officially in written form (EL2 escalation letter). Additionally the case is to be updated in ZAMS (ZF-Audit Managements System), which is worldwide available in ZF.

The supplier is required to submit the signed escalation checklist to ZF and to undertake all necessary **actions to graduate** from the escalation as soon as possible.

A **face-to-face meeting** must be realized at ZF, where the supplier is required present and commit to an effective action plan. The progress of escalation measures must be **reported by the supplier** to ZF at least weekly.

Further actions in EL2:

- Optionally, the supplier's status can be set to "New Business Hold" (NBH)
- Customer notification of supplier-driven issue
- Supplier certification body (registrar) notification of issue and ZF impact
- Partial shift of volume to mitigate supply risk

Escalation level 2 (EL2)

If the exit criteria are sustainably reached, the escalation leader de-escalates the supplier to a lower level or ends the escalation.

The maximum period for a supplier to remain on EL2 is **3 months**, if no different decision is taken.

If the exit criteria are not reached or can foreseeably not be reached despite deployment of all defined actions, the escalation leader must promptly escalate the case to EL3.

At the **supplier**, the responsibility for the escalation activities lies with the executive management, who is requested to take direct ownership of the case. Furthermore, the supplier must **define a formal project organization** and **identify an escalation coordinator** who has adequate decision-making power to effectively drive the requested improvements

Costs incurred by applying the Escalation Model have to be covered by the supplier.

04

Escalation level 3



Escalation level 3 (EL3)

If the verification required in level EL2 is not provided or is not provided on time, then the supplied ZF plant can introduce escalation level 3.

The supplier will be informed officially in written form (EL3 escalation letter). Additionally the case is to be updated in ZAMS (ZF-Audit Managements System), which is worldwide available in ZF.

The supplier is required to submit the signed escalation checklist to ZF and to undertake all necessary **actions to graduate** from the escalation as soon as possible.

A **face-to-face meeting** with **supplier's top management** must be realized at ZF, where the supplier is required present and commit to an effective action plan. The progress of escalation measures must be **reported by the supplier** to the escalation team daily.

The supplier's status must be set to "New Business Hold" (NBH).

Further actions in EL3:

- Customer notification of supplier-driven issue
- Supplier certification body (registrar) notification of issue and ZF impact
- Partial shift of volume to mitigate supply risk
- Specification of a phase-out plan as applicable (Class Z, status P)
- Termination of supply contract

Escalation level 3 (EL3)

If the exit criteria are sustainably reached, the escalation leader de-escalates the supplier to a lower level or ends the escalation.

At the **supplier**, the responsibility for the escalation activities lies with the executive management, who is requested to take direct ownership of the case. Furthermore, the supplier must **define a formal project organization** and **identify an escalation coordinator** who has adequate decision-making power to effectively drive the requested improvements

Costs incurred by applying the Escalation Model have to be covered by the supplier.

