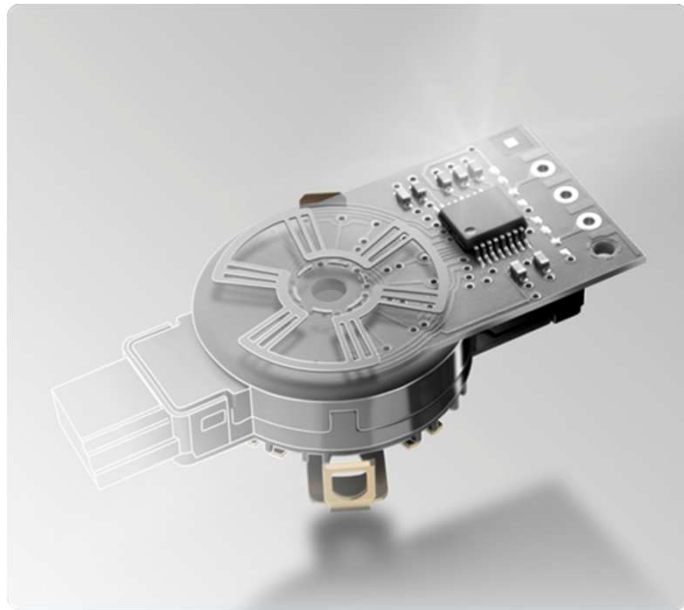




Technology with Vision

Hella 8D Report_ Supplier Training Material



Lippstadt 2017-11-20
HCC-PU-QM



Technologie mit Weitblick

- **Motivation to make the 8D Report**
- How to fill out Hella 8D Report
- 8D Report Evaluation

8D - Introduction

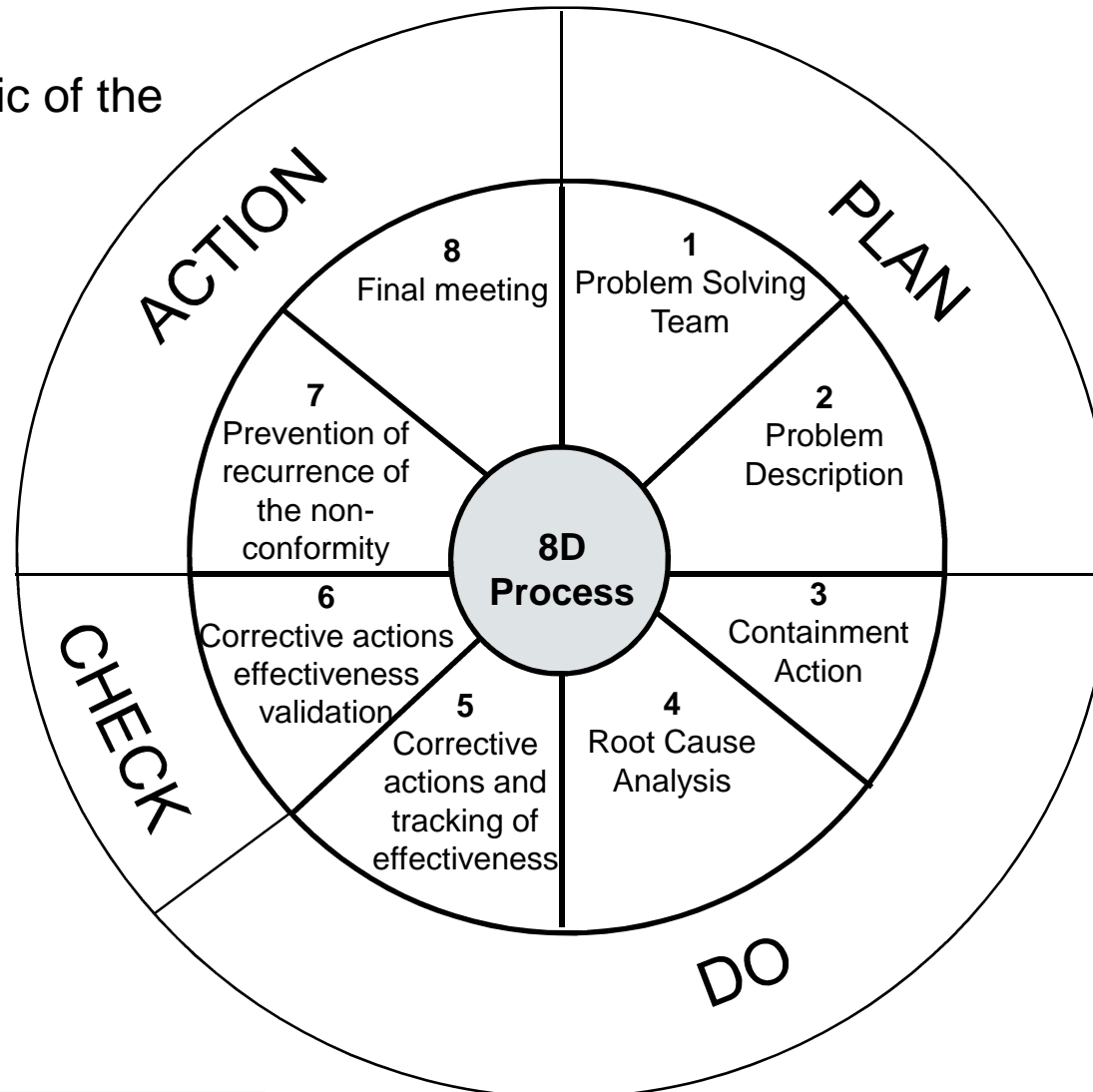
- 8 Disciplines Problem Solving (8D) is a method used to approach and to resolve problems, typically employed by quality engineers or other professionals;
- Its purpose is to identify, correct and eliminate recurring problems, and it is useful in product and process improvement.;
- It establishes a permanent corrective action based on statistical analysis of the problem and focuses on the origin of the problem by determining its Root Cause. Although it originally comprised eight stages, or 'disciplines', it was later augmented by an initial planning stage;
- The 8D follows the logic of the PDCA Cycle.

Advantages

- Easy and logical method, clearly shows next steps of problem solution.
- The method is known and used by all companies from the automotive industry.
- Often this is a required method of documenting the Corrective/Preventive action for the problem.
- An excellent way of reporting nonconformance's to suppliers and their Corrective/Preventive actions.

8D Problem Solving

8D follows the logic of the PDCA Cycle





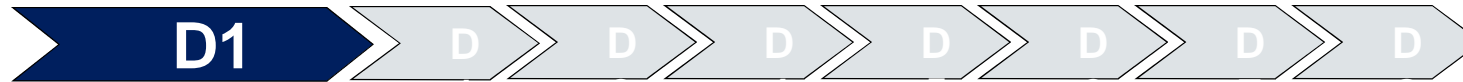
Technologie mit Weitblick

- Motivation to make the 8D Report
- **How to fill out Hella 8D Report**
- 8D Report Evaluation

8D Steps

D1	Problem solving team
D2	Problem description
D3	Containment actions
D4	Root cause analysis
D5	Corrective actions and tracking of effectiveness
D6	Corrective actions effectiveness validation
D7	Prevention of recurrence of the non-conformity
D8	Final meeting

D1 — Problem Solving Team



Task

Select team members

- Members with appropriate skills are nominated based on the problem description
- A team leader is appointed

Action

Target

Confirmation of the team structure and assignment of responsibilities among the team members

D1 — Problem Solving Team

Header of 8D report filled with information come from Hella's Quality Notification letter.

	8D-Report for Suppliers / 供应商 8D 报告 Hella claim no. / Hella 抱怨号:		First issue date / 第一次发布日期:
	② <input type="checkbox"/> Interim-8D-Report / 临时 8D 报告 ③ <input checked="" type="checkbox"/> Final-8D-Report / 最终 8D 报告	① <input type="text" value=""/>	④ <input type="text" value=""/>
			⑤ <input type="text" value=""/>

Please fill in right information according to below explanation:

- ① Hella claim no. can directly get from Hella QN.
- ② Interim 8D Report: D8 not finished.
- ③ Final 8D Report: D8 finished.
- ④ First issue date: Official issue date to Hella, e.g. it's always a date when supplier finished D3 or D5, which is required by Hella SQA.
- ⑤ When 8D is updated, supplier shall update with this date.

Complaint No.: 100300038434 dated 13.06.2017	
<u>Our material No./revision level</u>	<u>Name</u>
325.313-00 /	LOWER HOUSING GR VW
<u>Your material No.</u>	<u>Supplier No.</u>
	48200042
<u>Quantity</u>	<u>Your delivery No.</u>
1,344,000 PC	4912965298
<u>Date of receipt</u>	<u>Material receipt/Item No.</u>
12.06.2017	5001039781 / 0001
<u>Order date</u>	<u>Order No./Item No.</u>

D1 — Problem Solving Team

Information regarding Hella contact person and claim subject

1.0	HELLA claim date / HELLA 抱怨日期 ① Contact person / 联系窗口: ② E-mail / 邮箱: ③ Telephone / 电话: ④ HELLA - Part no. / HELLA 料号: ⑤ Part name / 产品名称: ⑥	Type of failure / 失效件来源 <input checked="" type="checkbox"/> HELLA internal / HELLA 内部 <input type="checkbox"/> 0-km Return / 0-km 退货 <input type="checkbox"/> Field return / 市场退货 <input type="checkbox"/> Logistics failure / 物流失效
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All above items can directly get from Hella QN. As following attachment show:

Your reference

Your Message from

Our reference

Jimmy Zhu ②
HSE-QPP3

Phone 021-6160xxxx ④

Telefax 00

Email Jimmy.Zhu@hella.com ③

Date 20.06.2017

Complaint No.: 100300038434 dated 13.06.2017 ①	
<u>Our material-No./revision level</u>	<u>Name</u>
325.313-00 / ⑤	LOWER HOUSING GR VW ⑥
<u>Your material No.</u>	<u>Supplier No.</u>
	48200042
<u>Quantity</u>	<u>Your delivery No.</u>
1,344.000 PC	4912965298
<u>Date of receipt</u>	<u>Material receipt/item No.</u>
12.06.2017	5001039781 / 0001
<u>Order date</u>	<u>Order No./Item No.</u>



D1 — Problem Solving Team

Type of failure

1.0	HELLA claim date / HELLA 抱怨日期 Contact person / 联系窗口: E-mail / 邮箱: Telephone / 电话: HELLA – Part no. / HELLA 料号: Part name / 产品名称:	<div style="border: 1px solid black; padding: 5px;"> <p>① Type of failure / 失效件来源</p> <p>② <input checked="" type="checkbox"/> HELLA internal / HELLA 内部</p> <p>③ <input type="checkbox"/> 0-km Return / 0-km 退货</p> <p>④ <input type="checkbox"/> Field return / 市场退货</p> <p>④ <input type="checkbox"/> Logistics failure / 物流失效</p> </div>
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- ① If the failure part is detected from Hella plant. Please select 'Hella internal'.
- ② If the failure part is detected from Hella's customers, for example OEM, Tier 1. Please select '0-km Return'.
- ③ If the failure part is detected from consumer side (e.g. 4S store or markets). Please select 'Field return'.
- ④ If the failure part is detected as logistic failure. Please select 'Logistics failure'.

D1 — Problem Solving Team

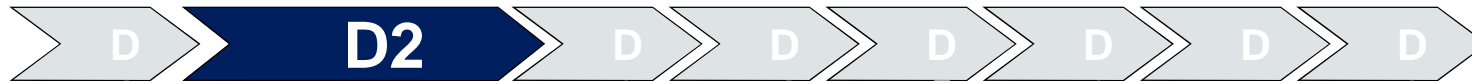
Supplier information: contact person, location, material, tools

<p>1.1</p> <p>Contact Supplier (team leader): / ① 供应商联系窗口 (负责人): [redacted] ①</p> <p>Department / 部门 ② [redacted] ②</p> <p>E-mail / 邮箱 ③ [redacted] ③</p> <p>Telephone / 电话 ④ [redacted] ④</p> <p>Team members supplier (name / function) / ⑤ 供应商小组成员 (名字/ 部门): [redacted] ⑤</p>	<p>Location of production Supplier: / ⑥ 供应商产地: [redacted] ⑥</p> <p>Part no. Supplier / 供应商料号 ⑦ [redacted] ⑦</p> <p>Rejection no. Supplier / 供应商内部追溯号 ⑧ [redacted] ⑧</p> <p>Type of machine / 设备类型 ⑨ [redacted] ⑨</p> <p>Equipment-no. supplier / 供应商设备编号 ⑩ [redacted] ⑩</p> <p>Device no. Supplier / 供应商装置编号 ⑪ [redacted] ⑪</p> <p>Affected cavities / sub tools / 影响的穴/工装 ⑫ [redacted] ⑫</p>
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- ① The name of supplier contact person;
- ② Which department did supplier contact person work?
- ③ Supplier contact person's E-mail;
- ④ Supplier contact person's telephone;
- ⑤ Supplier cross functional team member, including name and Dept.
- ⑥ Supplier manufacturing site/plant/workshop for this defect part;
- ⑦ Supplier internal part No.
- ⑧ Supplier internal claim tracking number;
- ⑨ Type of machine, e.g. injection molding/stamping/die-casting, etc.
- ⑩ Equipment number which defect part manufactured;
- ⑪ Devices number, e.g. tool number, fixture number which dedicated for this part;
- ⑫ The name of supplier which cavity or fixture be affected by this complaint .



D2 — Problem Description



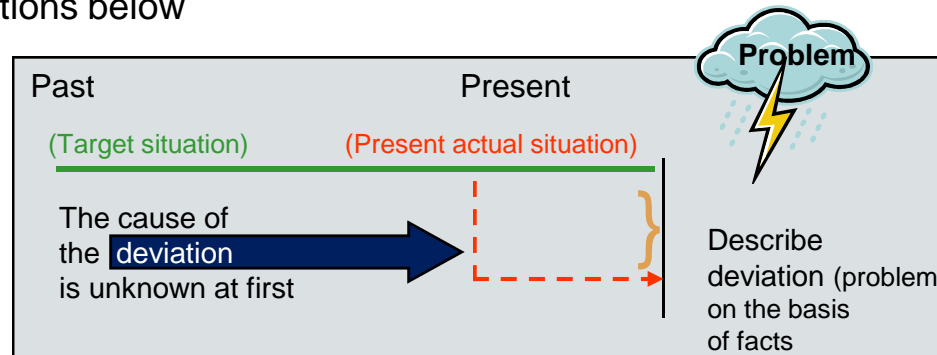
Task

Collect Information, data, facts and figures

- Describe the problem (defect/deviation) as accurately as possible giving quantitative details
- Answer the questions below

Action

- Who?
- What?
- When?
- Where?
- Why?
- How?
- How often?



- All problem solving team members must have a clear and fact based understanding of the problem

Target

Precise **problem** description

D2 — Problem Description

2.0	Problem description HELLA / HELLA 问题描述: ① ...
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Same as the description on Hella's Quality Notification letter.

Dear Sir or Madam,

The following defects were to be found with the material delivered by you:

1	Qty. tested 0,000 PC Place of failure Feature Complaint	No. of defects 200,000 PC Production Assembly soldering transparency is too low	①
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2.1	Problem description Supplier incl. exemplary photos if useful (good part / bad part) / 供应商问题描述, 包含样品照片 (好产品 / 失效产品) ...	what: defects description When: claim date Where: warehouse, production line Who: Hella Incoming, production, or others how many: defects quantity found
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4W1H

② Use Supplier internal language to describe what defects happen. Which characteristic can't meet Hella drawing/requirement. OK/NOK parts shown.

D2 — Problem Description

2.2	Re-occured failure / 是否重复发生? If Yes / 如果是:	<input type="checkbox"/> ① Yes / 是	<input checked="" type="checkbox"/> ② No / 不是	Last HELLA complaint no. / Hella 上次抱怨号: Last Supplier complaint no. / 上次抱怨供应商的追溯号:	<input type="text"/> ③
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- ① If this failure happened before, select 'Yes';
- ② If this failure 1st time happened, select 'No';
- ③ If this is repeat issue, please fill in last Hella claim No. and last Supplier internal claim No.

2.3	Claimed quantity named by HELLA / HELLA 抱怨的数量: Potentially affected quantity / 潜在受影响的数量: Affected period of time / 受影响的时间段:	<input type="text"/> ④ <input type="text"/> ⑤ <input type="text"/> ⑥
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Complaint No.: 100300038434 dated 13.06.2017

Our material-No./revision level	Name
325.313-00 / Your material No.	LOWER HOUSING GR VW Supplier No. 48200042
Quantity 1,344,000 PC Date of receipt	Your delivery No. 4912965298 Material receipt/item No.
12.06.2017 Order date	5001039781 / 0001 Order No./Item No.

- ④ Can get directly from Hella's Quality Notification Letter:
- ⑤ Potential affected Quantity include :
Hella warehouse Q'ty+ On the Way Q'ty+ Supplier warehouse Q'ty.
- ⑥ All parts under the same production condition.



D2 — Problem Description

24	HELLA stock affected / HELLA 库存受影响			
①	Yes / 是 No / 否	Quantity / 数量: <input type="text"/>	(Delivery) lot numbers / 交付批号	<input type="text"/>
②	Parts on route of transport to HELLA affected / 发运到 Hella 途中受影响的产品:			
	Yes / 是 No / 否	Quantity / 数量: <input type="text"/>	(Delivery) lot numbers / 交付批号	<input type="text"/>
③	Supplier consignment stock (if in use) affected / Lieferanten-Zwischenlager betroffen			
	Yes / 是 No / 否	Quantity / 数量: <input type="text"/>	(Delivery) lot numbers / 交付批号	<input type="text"/>
④	Supplier stock affected / Lieferanten-Produktionslager betroffen			
	Yes / 是 No / 否	Quantity / 数量: <input type="text"/>	(Delivery) lot numbers / 交付批号	<input type="text"/>
	Remark / 备注: <input type="text"/>			



- ① If Hella stock affected, please select 'yes', otherwise 'no'. And fill in affected quantity and corresponding 'lot number'.
- ② If parts en route of transportation to Hella affected, please select 'yes', otherwise 'no'. And fill in affected quantity and corresponding 'lot number'.
- ③ If Supplier consignment affected, please select 'yes', otherwise 'no'. And fill in affected quantity and corresponding 'lot number'.
- ④ If Supplier stock affected, please select 'yes', otherwise 'no'. And fill in affected quantity and corresponding 'lot number'.

D3 — Containment Actions



Task

Determine the most suitable containment actions

- Containment actions must be taken to safeguard the situation, in order to prevent a recurrence of the problem at the customer.
- Containment actions therefore serve only as a safeguard and often bear no relation to the cause of the problem.
- Cost considerations should play little or no part in the initial response.
- A schedule for implementing the containment actions must be developed and the effectiveness of the measures must be assessed.

Action

Target

Instant information and support to the customer and implementation of containment actions as quickly as possible.

1. 24 hours: quick response e.g. containment actions at HELLA
2. 48 hours: containment actions fully implemented (D3 completed and sent to HELLA)

D3 — Containment Actions

3.0	Containment Action: e.g. rework, sorting, stock exchange / 围堵措施: 如: 返工, 分类拣选, 库存交换, 包含不良率信息	Date (CW not accepted) / 日期(不接受周)	Responsible / 责任人	Remarks / 备注	Effectiveness in % / 有效性%
	■ ①	■ ②	■ ③	■ ④	■ ⑤
	■	■	■	■	■

- ① In order to ensure Hella restart production, supplier need carry out effective urgent action, e.g. sorting, rework, stock exchange.
- ② Supplier action date instead of week.
- ③ Person who is responsible for containment action.
- ④ Additional comments.
- ⑤ Supplier shall fill in real effectiveness from Hella feedback.

Containment action shall include 'how to process affected stock' and 'how to ensure good parts to Hella'.

D3 — Containment Actions

3.1	Result of the executed sorting actions referring to section 3.0 / 结果来自于 3.0 执行的分类挑选措施项.			
	Location of sorting / 分拣场所 ①	Sorted pieces / 分拣的数量 ②	Defective parts / 缺陷品 ③	Ppm defect / 缺陷 PPM ④
	■	■	■	■
	■	■	■	■
	■	■	■	■
	■	■	■	■
	Total / Summe ⑤	■	■	■
3.2	First delivery after implementation of containment actions / 围堵措施后的第一次交货信息:		Date / 日期: ■ ⑦	
Marking of this delivery / 该批交货的标识: ■ ⑥				

Must update sorting result after sorting action

- ① Location of supplier sorting
- ② Total sorting quantity
- ③ Total defects quantity
- ④ Total defects PPM
- ⑤ Don't forget to summarize this
- ⑥ Mark/label of this delivery for better tracking
- ⑦ First delivery after implementation of containment actions, PS: from supplier side



D4 — Root Cause Analysis



Task

Determination of the root cause

- All possible causes of the defect must be considered.
- All possible causes should be determined and compared with the problem profile through systematic application of valid procedures, based on the physical, chemical and technical relationships and application of appropriate quality tools.

Action

- The "Why" questioning technique should be applied determining the root cause.

Target

Confirmation of the root cause

D4 — Root Cause Analysis

4.0 Analysis (i.e. visual inspection, 3 D measurement, X-ray, chemical analysis etc.), useful details to be added from page 5 on
 分析(例如, 目视, 3D 测量, X-Ray, 化学分析等), 可以从第五页获得有用的信息

...

Detail measurement methodology and procedure should be specified here.

Use appropriate measurement to measure potential characteristics for OK parts and failure parts, also show all test result for analysis.

PS:
 It's better that supplier provide specification or drawing for potential characteristics.

4.1 Using 5 Why is **mandatory**, other Q-Tool (i.e. Ishikawa, FTA 5 M Method) can be added on the last page of the format /
 务必使用“5个为什么”分析真因, 其他质量工具的分析资料(像鱼骨图, 故障树分析法, 5M)可以放在最后一页的附加资料中

	Analysis of failure occurrence / 失效发生的分析	Analysis of non- detection / 失效没有探测出来的分析	Analysis of the system (management root cause) / 系统分析(管理系统上的根本原因)
Why? 为什么? Because! 因为!			

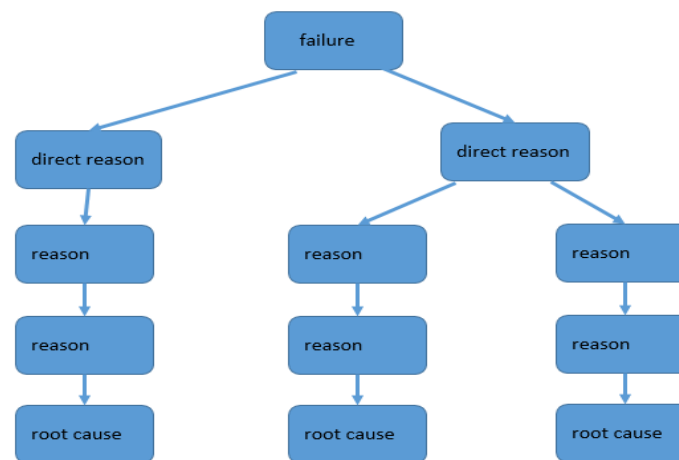
analysis for occurrence, non-detection, system are mandatory



D4 — Root Cause Analysis



- Appropriate quality tool to investigate all potential root cause, e.g. Fishbone, Failure Tree. It will help us to find all root cause.
- All root cause shall be analyzed with 5why.
- The analysis procedure should be clear & reasonable and in system methodology. Recommend to attach detail analysis report in the last page.



D4 — Root Cause Analysis

4.1	<p>Using 5 Why is mandatory, other Q-Tool (i.e. Ishikawa, FTA 5 M Method) can be added on the last page of the format / 务必使用“5个为什么”分析真因，其他质量工具的分析资料（像鱼骨图，故障树分析法，5M）可以放在最后一页的附加资料中</p>		
	<p>Analysis of failure occurrence / 失效发生的分析</p>	<p>Analysis of non- detection / 失效没有探测出来的分析</p>	<p>Analysis of the system (management root cause) / 系统分析(管理系统上的根本原因)</p>
Why?为什么? Because!因为!	<p>1. Why did our manufacturing process not prevent the incident?</p> <p>2. Repeat asking "Why" until you found the root cause (basic incidence), which is feasible to be controlled, e.g. 'operation WI', weakness design, supplier management, etc.</p>	<p>1. Why did our quality process not detect the incident?</p> <p>2. Repeat asking "Why" until you found the root cause (basic incidence), which is feasible to be controlled, e.g. 'inspection WI', different requirement between xxx with customer or supplier, etc.</p>	<p>Why did quality planning process not predict this defects?</p> <p>For example, no lessons learned, different requirement between xxx with customer or supplier, Poke Yoka, etc</p>
Why?为什么? Because!因为!			
Why? Because!			
Why?为什么? Because!因为!			
Why?为什么? Because!因为!			

The 5 Whys is a question-asking technique used to explore the cause-and-effect relationships underlying a particular problem. The primary goal of the technique is to determine the root cause of a defect or problem.

D4 — Root Cause Analysis – example 1

Put a example with possible root causes analysis and verification, and 5 why analysis.

Problem description: HELLA complaint Lower Housing can not be welded properly and burnt on the top surface. Defect rate around 6%. Transmission rate of Lower Housing is less than 18% (Spec:min.18%).

4.1 Using 5 Why is **mandatory**, other Q-Tool (i.e. Ishikawa, FTA 5 M Method) can be added on the last page of the format *Die 5 Why Methode ist zwingend anzuwenden, andere Q- Werkzeuge (i.B. Ishikawa, FTA, 5-M-Methode) können auf der letzten Seite eingefügt werden.*

	Analysis of failure occurrence <i>Analyse des Fehlerauftretens</i>	Analysis of non- detection <i>Analyse der Nicht- Entdeckung</i>	Analysis of the system (management root cause) <i>Analyse des Systems (Organi-satorische Grundursache)</i>
Why? Because!	1. Why transmission rate failed? Because transmission rate less than 18% cause laser welding energy focus on the welding surface	1. Why transmission failure flow out to HELLA? Because transmission rate was not detected in supplier side (in-process, out-going...)	1. Why transmission rate failure allowed in system? Because supplier didn't know transmission rate is an important character for HELLA process
Why? Because!	2. Why transmission rate less than 18%? Because raw material MVR index is lower than before (from 118 to 90)	2. Why transmission rate not detected in supplier side? Because there is no requirement in inspection WI to define transmission rate check	2. Why supplier didn't know transmission rate is an important character for HELLA process? Because there is no risk analysis for transmission rate failure during development phase
Why? Because!	3. Why raw material MVR index is lower than before ? Because there is no control on MVR in supplier side.		3. Why is there no risk analysis for transmission rate failure during development phase? Because there is no lessons learnt on laser welding process of injection parts



Occurrence Root Cause: 5M1E checked with fishbone by supplier, only MVR of raw material has variation. DOE was carried out to prove that MVR is a real factor/root cause.

D4 — Root Cause Analysis – example 2

Put a example with possible root causes analysis and verification, and 5 why analysis.

Problem description: HELLA complaint there is a dent on the LED hole surface as right picture show. Defect rate is around 1%.

4.1 Using 5 Why is mandatory, other Q-Tool (i.e. Ishikawa, FTA 5 M Method) can be added on the last page of the format / 务必使用“5个为什么”分析真因, 其他质量工具的分析资料(像鱼骨图, 故障树分析法, 5M)可以放在最后一页的附加资料中			
	Analysis of failure occurrence / 失效发生的分析	Analysis of non-detection / 失效没有探测出来的分析	Analysis of the system (management root cause) / 系统分析(管理系统上的根本原因)
Why?为什么? Because!因为!	Why: there is dent on the LED hole surface. Because: 2nd shot material short shot on the LED hole surface	Why:The dent escape from supplier side? Because:This defect is not detected during 100% apperance inspection process	Why: This dent issue not contrlled well in supplier side. Because:Supplier didn't have sufficient risk assessment in advanced quality planning process.
Why?为什么? Because!因为!	Why: 2nd shot material short shot on the LED hole surface Because:TPU material powder stick on tooling surface(TPU fragement happen at parting line,it can't be avoided and prevented in industrial)	Why:This defect is not detected during 100% apperance inspection process Because:This defect is not easy to find by naked visual inspection	Why:Supplier didn't have sufficient risk assessment in advanced quality planning process. Because: Supplier didn't have TPU manufacturing experience.
Why? Because!	Why: Material powder stick on tooling surface Because:No one clean the tooling surface termly during production.	Why:This defect is not easy to find by naked visual inspection Because:The dent is very small/less than 0.2mm*0.2mm size.	Why:Supplier didn't have TPU manufacturing experience. Because: This is the first TPU application in 2K process.
Why?为什么? Because!因为!	Why: No one clean the tooling surface termly during production. Because:No working instruction to define how and when to clean the mold surface		



Occurrence Root Cause: 5M1E checked with fishbone by supplier, no process change happened. However, no action for tooling surface cleaning (Comment: TPU fragment happen at parting line and it's unavoidable.)

D4 — Root Cause Analysis

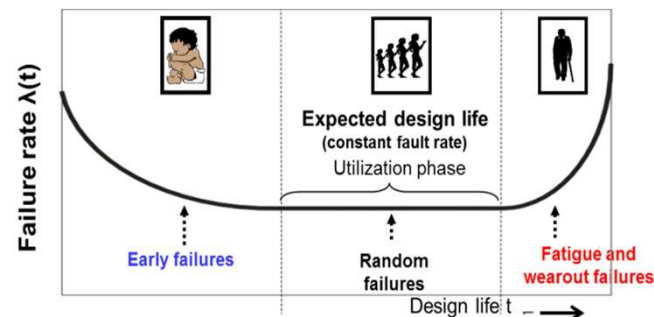
4.3	Risk analysis / 风险分析.			
①	Occurance rate of the suspected quantity incl. identification of suspected parts and calculation of the failurerate / 可疑数量的发生率, 包括可疑产品的识别和不良率的计算.			
②	Early failure CLR / 0-Km 早期失效	Yes / 是	No / 否	Unknown / 不清楚 ppm
③	Failure over lifetime / Ausfall über Lebensdauer.	Yes / 是	No / 否	Unknown / 不清楚 ppm

- ① Total sorting quantity, and total defects parts quantity and calculate PPM value.
$$\frac{\text{Total defect parts of lifetime}}{\text{Total produced parts of lifetime}} * 10^6$$

Show mark/labeling to highlight the suspect parts.

- ② The problem is easy to find and identify, short period failure. If yes, please calculate PPM and fill in.

- ③ The problem is difficult to find or never found but was existing, long period failure. Even from the SOP to now. If yes, please calculate PPM and fill in.



D4 — Root Cause Analysis

4.4	Risk Reduction / 风险降低: Could this failure mode occur at other HELLA locations? / 该缺陷是否会发生在 Hella 其它的工厂? <input type="checkbox"/> Yes / 是 <input type="checkbox"/> No / 否	
	If yes, at which HELLA locations? / 如果是, 是海拉的那个工厂 <input type="checkbox"/>	Who was informed? / 谁被通知到了 <input type="checkbox"/>
	If yes, are the actions of section 3.0 and 5.0 implemented at other location, too? / 如果是, 3.0 和 5.0 的措施也在 Hella 该工厂落实了吗? <input type="checkbox"/> Yes / 是 <input type="checkbox"/> No / 否	
	Could this failure mode occur at other products / processes / Supplier locations? / 该缺陷是否会发生在 Hella 其它的产品/工序/供应商处? <input type="checkbox"/> Yes / 是 <input type="checkbox"/> No / 否	
	If yes, for which parts / processes at Supplier locations? / 如果是, 是哪个产品/工序在供应商处受影响?: <input type="checkbox"/>	If yes, who was informed? / 如果是, 谁被通知到了?: <input type="checkbox"/>
	If yes, are the actions of section 3.0 and 5.0 implemented for that, too? 如果是, 3.0 和 5.0 的措施落实了吗? <input type="checkbox"/> Yes / 是 <input type="checkbox"/> No / 否	

The easiest lesson learned is spreading the experience to other similar products and processes.

Read across is a good approach to gain lessons learned. Don't neglect this process.

D5 – Corrective Actions and Tracking of Effectiveness



Task

Confirm "optimum" corrective actions

- All measures that can solve and ultimately eliminate the problem must be compiled.
- The effectiveness of the measures must be verified and side-effects must be assessed.

Action

- "Optimum" corrective action must be determined and confirmed.
- Action plan with introduction timing and responsibilities must be determined and released.

Target

Approval and application of the corrective measures

D5 – Corrective Actions and Tracking of Effectiveness

5.0	Mid- / Long term measure to prevent further occurrence / 中期/长期措施—真因再发防止措施	Date (CW not accepted) / 日期 (不接受周)	Responsible / 责任人	Remarks / 备注	Effectiveness in % / 有效性 (%)
	①	②	③	④	⑤

- ① Corrective actions must be provided and all of them could prevent the issue from happening in the future.
- ② Supplier action date instead of week.
- ③ Person who is responsible for containment action.
- ④ Additional comments.
- ⑤ Supplier must confirm if countermeasure is carried out and effective.

Long term measures should link to D4 root causes

D5 – Corrective Actions and Tracking of Effectiveness

5.3	First delivery after implementation of corrective actions / <i>执行改进措施后的第一批次交货.</i>	Date / 日期: <input type="text"/> ①
	First delivery after implementation of detective actions / <i>新的探测方法执行后的第一次交货.</i>	Date / 日期: <input type="text"/> ②
	Marking of this delivery / 交货的标识: <input type="text"/> ③	

- ① Please fill in the date after corrective action taken for occurrence.
- ② Please fill in the date after corrective action taken for detect.
- ③ Please also attach the picture of the marking of the first delivery.

D5 – Corrective Actions and Tracking of Effectiveness

5.4	FMEA updated / FMEA 已经更新?: <input type="checkbox"/> Yes / 是 <input type="checkbox"/> No / 否 If not, why not / 如果没有, 为什么没有? <input type="checkbox"/>
	Failure already registered in the FMEA before? / 失效已经登录到之前的 FMEA 中?: <input type="checkbox"/> Yes / 是 <input type="checkbox"/> No / 否 先前的 FMEA Severity / 严重度: <input type="checkbox"/> Occurrence / 法深度: <input type="checkbox"/> Detection / 探测度: <input type="checkbox"/> RPN / RPN 值: <input type="checkbox"/> 修订后的 FMEA Severity / 严重度: <input type="checkbox"/> Occurrence / 发生度: <input type="checkbox"/> Detection / 探测度: <input type="checkbox"/> RPN / RPZ: <input type="checkbox"/>

“Why was the failure not detected by yourself” links to “Detection” in FMEA
 “Why did the failure happened” link to “Occurrence” in FMEA. Attach updated FMEA here.

Severity only allowed to change when the design of component changes according to complaint.

Occurrence only allowed to change when 5.0 take relevant actions to 4.0.

Detection only allowed to change when 5.1 take relevant actions to 4.1.

D5 – Corrective Actions and Tracking of Effectiveness

5.5	Product- / Process documentation changed / Produkt- / Prozessdokumentation geändert?:	<input type="checkbox"/> Yes / Ja	<input type="checkbox"/> No / Nein
①	Control Plan Updated / 控制计划以更新:	<input type="checkbox"/> Yes / 是 Date / 日期:	<input type="checkbox"/> No / 否 <input type="checkbox"/> Not relevant / 不相关
	Procedures / written instructions updated / 文件/书面指导书已更新:	<input type="checkbox"/> Yes / 是 Date / 日期:	<input type="checkbox"/> No / 否 <input type="checkbox"/> Not relevant / 不相关
	Information to other supplier factories / sub-supplier: 其他供应商工厂/子供应商信息:	<input type="checkbox"/> Yes / 是 Date / 日期:	<input type="checkbox"/> No / 否 <input type="checkbox"/> Not relevant / 不相关
	Test concept updated / 测试方法已经更新:	<input type="checkbox"/> Yes / 是 Date / Datum:	<input type="checkbox"/> No / 否 <input type="checkbox"/> Not relevant / 不相关
②	Test equipment capability checked after implementation of 5.0 / 在执行 5.0 后测试设备能力检查	<input type="checkbox"/> Yes / 是 Date / 日期:	<input type="checkbox"/> No / 否 <input type="checkbox"/> Not relevant / 不相关

- ① Ensure all relevant documentations are updated on time.
- ② If the long term counter-measure in 5.0 related to test method or equipment changed, capability study must be re-checked.

D6 – Corrective Actions Effectiveness Validation



Task

Establish plan to introduce corrective actions

- As many actions as required, but as few as possible, should be implemented in accordance with D5 result.

Action

- Decision about the need to continue containment actions.
- Determination of process monitoring requirements and need of documentation.

Target

Implementation of the corrective actions

D6 – Corrective Actions Effectiveness Validation

6.0	Planned date of effectiveness check / 有效性验证的计划日期 <input type="text"/> ①
	Validation method of effectiveness check (i.e. capability study, temporary 100% check, etc.) / 有效性检查的验证(例如, 产能研究, 临时 100%检查, 等): <input type="text"/> ②
	Effective / Wirksam: <input type="checkbox"/> Yes / 是 <input type="checkbox"/> No / 否 Date / 日期: <input type="text"/>
	Evidences required and to be added from page 5 on / 证据是要求的并且请放在第 5 页. ③

- ① Verify all effectiveness for both occurrence root cause and outflow root cause and fill in related date.
- ② How to check the effectiveness should be specified. At least should be more strict than normal check method.
- ③ Attach 'Hella full run report' or SPC report, or other verification report.

Without this verification, this 8D report will not be closed by Hella. Please attach all evidence in the last page of format.

D7 – Prevention of Recurrence of the non-Conformity



Task

Formulate measures to improve and safeguard processes

- Process-related evaluation and analysis is key.
- Identical and similar products and processes are in focus.
- Application of the "3 x 5 Why" questioning technique:
Why was the problem ...
... not predicted by the product planning/engineering process?
... not prevented by the production/manufacturing process?
... not protected by the quality assurance process?
- Knowledge gained is used to improve processes.

Action

Target

Release and application of corrective actions for system and process improvement

D7 — Prevention of Recurrence of the non-Conformity

7.0	Final judgement 最终判定: <input type="text"/>	①	
②	Claim is accepted / 接受抱怨	Quantity of accepted faulty parts / 可接受的失效件的数量: <input type="text"/>	③
④	Claim is not accepted / 抱怨不能接受		

Whatever for final judgement, supplier must finish D4.

- ① Fill in date of supplier final judgement for below information.
- ② If it is a supplier responsible issue, supplier need to select 'claim is accepted'.
- ③ If this issue is supplier responsible, please provide all failure part quantity after sorting/rework for Hella stock.
- ④ If this issue is not supplier responsible and get Hella agreement, supplier can select "claim is not accepted".

D8 – Final meeting



Task

Final meeting of the 8-D team

- During the concluding discussion, the problem solving team conducts a critical evaluation of all 8-D steps and actions.
- The 8-D report is officially closed.

Action

- Combined efforts by the team are acknowledged by supervisors and praised accordingly.
- The customer is informed of the conclusion and sent the 8-D report, signed by those responsible.
- The completed 8-D report is archived.

Target

Final conclusion of 8-D activities related to this problem

D8 — Final meeting

8.0	Interim-8D-Report / 临时 8D 报告: Name - date / 名字-日期: <input type="text"/>
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Please fill in interim 8D report submission date and responsible person's name.

8.1	8D-Report finished / 8D 报告完成: Name - date / 名字-日期: <input type="text"/> Congratulation: Thank you to the 8D team for the successful closure of the <u>claim</u> / 祝贺: 谢谢贵司的 8D 团队成功关闭这个抱怨
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Please fill in Final 8D report submission date and responsible person's name.



Technologie mit Weitblick

- Motivation to make the 8D Report
- How to fill out Hella 8D Report
- **8D Report Evaluation**

8D Report Evaluation

Why need to do evaluation?

- Use the same criteria to assess 8D report objectively, to reflect the capability of suppliers.
- Be able to clearly recognize which part of the report does not meet the requirements and make corrections accordingly.
- Suppliers can assess by themselves if 8D report meet the requirements before submit to Hella, which can improve the effectiveness of the work.
- According to the evaluation results, the interior of Hella can define the tracking plan for each case.
- Evaluation result is one of the evidence for annual performance scoring.

8D Report Evaluation

How to fill out 8D quality survey?

→ Form sheet:

Page 1 (Assessment)

8D-Report Quality Survey			
Assessor (Name and Department)	Date		
8D-Report No.:	Please attach the 8D-Report to this survey		
Author of the 8D-Report (Name/Plant):	Please fill your result into the red boxes!		
Occurrence			
Root cause of occurrence: Analysis procedure: The following steps must be accomplished for a correct analysis procedure: 1. All potential root causes of a problem must be identified. 2. The real root cause and their contribution to the failure must be proven by tests, etc. Objectivity: An objective analysis requires the impartial analysis of potential root causes in the complex process chain. The real root cause must be verified by analyst whose is based on figures and facts. Description: The failure, the proven root cause and the countermeasures must be described and documented so comprehensively that uninvolved people involved may understand the root cause and the countermeasures after reading the 8D-report. 3 Why: The analysis of the root cause must go as deep as necessary until the real root cause can not only symptoms of the problem has been found.	9,5 good 0,5 points weak 0 points		
Countermeasures of re-occurrence: An effective countermeasure addresses the root cause of a problem and assures that the problem does not occur again.	3,0 good 3 points weak 1 point none 0 points		
Confirmation of effectiveness: The effectiveness of a countermeasure must be proven by tests and trials.	3,0 good 3 points weak 1 point none 0 points		
Outflow to the customer			
Root cause of outflow to the customer: The following steps must be accomplished for a correct analysis procedure to prevent outflow to the customer: 1. All potential root causes of a problem must be identified. 2. The real root cause and their contribution to the failure must be proven by tests, etc.	2,0 good 2 points weak 1 point none 0 points		
Countermeasures of outflow to the customer: An effective countermeasure fights the root cause of a problem and assures that the problem does not occur again and prevents the outflow to the customer.	3,0 good 3 points weak 1 point none 0 points		
Confirmation of effectiveness (2 points): The effectiveness of a countermeasure must be proven by tests and trials.	3,0 good 3 points weak 1 point none 0 points		
Others:			
Risk analysis possibility: It would be analysis fun to be done if there is a list of further potential complaints or if other products could fail, too.	3,0 good 3 points weak 1 point none 0 points		
Miscellaneous (total 8D-report): Were the team's countermeasure actions appropriate for the problem and were they documented in detail? Were the findings of this complaint implemented consistently in change management systems so that other colleagues can learn from this? Was the problem solved in a satisfying time period from the customer's point of view? Had the measurement equipment been analyzed, if a part complained about it being defective as a result of a part?	1,5 yes 1,5 points no 0 points 3,0 yes 3 points no 0 points 3,0 yes 3 points no 0 points 3,0 yes 3 points no 0 points		
Total Points		25,0	
8D-Report Quality		100%	

1. Occurrence
(max. 11 points)

2. Outflow to the customer
(max. 7 points)

3. Others
(max. 7 points)

Page 2 (Comments)

Comments of the Assessor	
Occurrence	
Root cause of occurrence:	
Analysis procedure:	
Objectivity:	
Description:	
3 Why:	
Confirmation of effectiveness:	
Outflow to the customer	
Root cause of outflow to the customer:	
Confirmation of effectiveness (2 points):	
Confirmation of effectiveness (2 points):	
Others:	
Risk analysis possibility:	
Miscellaneous (total 8D-report):	
Team containment actions:	
Change management:	
Satisfying time period:	
Measurement equipment:	
Comments of "Quality Manager Plant" → Assessor: <input type="checkbox"/> Quality: effectiveness	

If maximum number of points is not reached, please add your comments regarding deviations here!

→ Results:

- result of assessment: maximum 25 points (100 %)

8D Report Evaluation

Scorings



Please take note that HELLA is internally doing an 8DR assesment, you should take influence to the score by considering the below listed questions before providing the final 8DR.

Questionnaire - 8DR assessment

Occurence		Outflow to the customer	
<p><u>Analysis procedure:</u> The following steps must be accomplished for a correct analysis procedure: 1.) All potential root causes of a problem must be identified. 2.) The real root causes and their contribution to the failure must be proven by tests etc.</p>	<p>good: 0.5 points weak: 0 points</p>	<p><u>Root cause of outflow to the customer:</u> The following steps must be accomplished for a correct analysis procedure to prevent outflow to the customer: 1. All potential root causes of a problem must be identified. 2. The real root causes and their contribution to the failure must be proven by tests etc.</p>	<p>good: 2 points weak: 1 points none: 0 points</p>
<p><u>Objectivity:</u> An objective analysis requires the impartial analysis of potential root causes in the complete process chain. The real root causes must be verified by analysis which is based on figures and facts.</p>	<p>good: 0.5 points weak: 0 points</p>	<p><u>Countermeasures of outflow to the customer:</u> An effective countermeasure fights the root cause of a problem and assures that the problem does not occur again and prevents the outflow to the customer.</p>	<p>good: 2 points weak: 1 points none: 0 points</p>
<p><u>Description:</u> The failure, the proven root cause and the countermeasures must be described and documented so comprehensibly that uninvolved people immediately understand the root cause and the countermeasures after reading the 8D-report.</p>	<p>good: 0.5 points weak: 0 points</p>	<p><u>Confirmation of effectiveness (2 points):</u> The effectiveness of a countermeasure must be proven by tests and trials.</p>	<p>good: 3 points weak: 1 points none: 0 points</p>
<p><u>5 Why:</u> The analysis of the root cause must go as deep as necessary until the real root cause (and not only symptoms) of the problem has been found.</p>	<p>good: 3.5 points weak: 1,5 points none: 0 points</p>	<p><u>Others:</u></p> <p><u>Risk analysis possibility:</u> A sound risk analysis has to be done if there is a risk of further potential complaints or if other products could fail, too.</p>	<p>good: 2 points weak: 1 points none: 0 points</p>
Countermeasures of re-occurrence		Additional questions (total 8D-report)	
<p><u>Counter-measures of re-occurrence:</u> An effective countermeasure addresses the root cause of a problem and assures that the problem does not occur again.</p>	<p>good: 3 points weak: 1 points none: 0 points</p>	<p>A: Were the interim containment actions appropriate for the problem and were they documented in detail?</p> <p>B: Were the findings of this complaint implemented consistently in change management process, so that other colleagues can use them, too?</p> <p>C: Was the problem solved in a satisfying time period from the customer's point of view?</p> <p>D: Has the measurement equipment been analyzed, if a part complained about is being detected as a not-OK part?</p>	<p>yes: 1,5 points no: 0 points</p> <p>yes: 0,5 points no: 0 points</p> <p>yes: 1,5 points no: 0 points</p> <p>yes: 1,5 points no: 0 points</p>
<p><u>Confirmation of Effectiveness:</u> The effectiveness of a countermeasure must be proven by test and trials.</p>	<p>good: 3 points weak: 1 points none: 0 points</p>		