

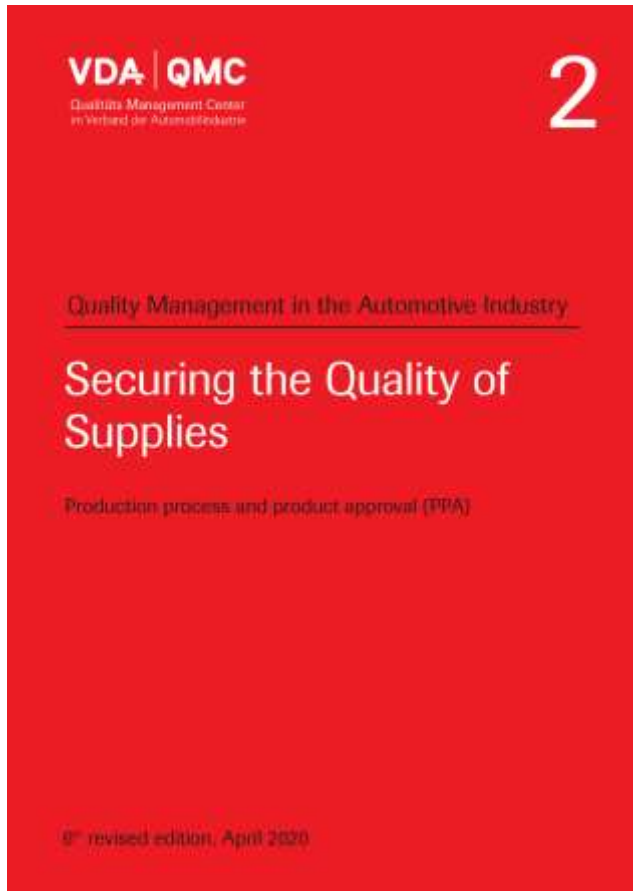
# **PPA procedure of purchased parts – Guideline for suppliers**

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Sumitomo Electric Bordnetze SE  
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# Content

1. Production proces and product approval (PPA)
2. Initiation of the PPA procedure
3. PPA deliverables/Scope of documentation
4. BMG - Additional requirements of the VW Group
  1. BMG for single components
  2. BMG for assembly system - Antennas
5. Releases from other companies
6. PPA procedure of ZSBs
7. IMDS - Declaration of constituents materials
8. Material Quality Verification - VW 52000
9. Result of PPA procedure
10. Retention periods
11. Requalification

# Production process and product approval (PPA)



1. The PPA procedure at SEBN group occurs on the basis of **VDA 2, edition from April 2020.**
2. The supplier is under an obligation to present the documents agreed with SEBN concerning PPA procedure (scope and content) including free sample parts.
3. The PPA procedure described in the VDA 2 aims at a full release **(internal and at the customer)** of a product including the associated production process for series production.

Internal - independently of the PPA procedure towards SEBN, the supplier carries out an internal PPA procedure and documents the results. Thereby, the supplier executes the deliverables according to the requirements in Table 1.

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# Initiation of the PPA procedure

The PPA procedure is initiated for:

**1. New parts**

**2. Changes to products**

**3. Re-use**

Use of lines, machines, tools, cavities and nests after 12 or more months of standstill/ non-use for the specific product.

**4. Customer-specific agreements (e.g. requalification)**

In case of changes to products the initiation towards SEBN is carried out according to the Trigger Matrix (Appendix 8, VDA 2) or SEBN specific agreements.

# Initiation of the PPA procedure

## Decision options of the trigger matrix

1) Is it a change?						If customer-specific agreements have been made, they must be complied with!					
2) Does it apply to Special Characteristics towards the customer?											
3) Does it apply to the technical interface to the customer? (e.g. connection to customer component/assembly with respect to geometry, optics, haptics, functionality, software, etc.)											
4) Change type?											
5) Does it apply to contract documents (e.g. specification sheet, customer drawing, records, specifications, ...)?											
6) Does it apply to fit, form, function, performance, reliability?											
Y	Y/N	All	Y/N	Y/N	Ch in the Special Characteristics of the product, component (electromechanical), production process, etc. specified with the customer.	A					
Y	All	Y/N	Y/N	Y/N	Ch in attachment to vehicle, electron, connections, electron, components.	A					
Y	N	N	N	N	Electron components (see VUC Product/Process Change Notifications - Guidance for Automotive Electronic Components)	A					
					Ch in design, tools.	A					
					Ch in product software through (changed) functional software requirements.	A					
					Ch in product software through (changed) non-functional software requirements.	A					
					Ch in welding material, Ch in an EMC capacitor.	A					
					Ch of dimension not contained in the customer drawing.	A					
					Ch of substance / material.	A					
					Ch in requirements of internal space or tolerance change, outside of customer spec.	A					
					Ch in requirements of internal space or tolerance change, still within customer spec.	A					
					Ch of parts / assemblies of parts / materials with same composition.	A					
					Ch in roughing levels (e.g. pre-roughing dimension of a shaft, roughing of surfaces).	A					
					Ch in the process chain (including supplier, duplication of production lines).	A					
					Ch in test, test flow or other regions.	A					
					Ch in test method, risk higher.	A					
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					Ch in test method, risk higher.	A					
					Y	N	N	N	N	Ch in the process chain (including supplier, duplication of production lines).	A
										Ch in test, test flow or other regions.	A
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# PPA deliverables/Scope of documentation

VDA-No.	Deliverables insofar as they are applicable to the product	Organi- zation	PPA-A
6.1	Cover sheet for PPA report/PPA evaluation	D	S
6.2	Self-assessment for product, production process, and if appl. software	D	S
1. Deliverables of the product development			
1.1	Technical specifications	D	A
1.2	Approved design changes	D	A
1.3	Design, engineering approvals	D	A
1.4	Material data via IMDS	D	S
1.5	Design-FMEA	D	A
2. Deliverables of the production process development			
2.1	Process flowchart	D	A
2.2	Process FMEA	D	A
2.3	Control Plan (CP)	D	A
3. Deliverables of the product verification <i>Exclusively for the requirements from the technical specifications agreed upon with the customer.</i>			
3.1	Geometry, dimensions	D	A
3.2	Material (strength, physical properties, etc.)	D	A
3.3	Function	D	A
3.4	Haptics	D	A
3.5	Acoustics	D	A
3.6	Color	D	A



VDA-No.	Deliverables insofar as they are applicable to the product	Organi- zation	PPA-A
3.7	Appearance	D	A
3.8	Surface requirement	D	A
3.9	Technical cleanliness	D	A
3.10	Reliability	D	A
3.11	Resistance to electrostatic discharge (ESD)	D	A
3.12	Electromagnetic compatibility (EMC)	D	A
4. Deliverables of the production process validation			
4.1	Awareness of Special Characteristics according to technical specifications and agreed characteristics (e.g. poka-yoke, 100% inspection, process capabilities, etc.)	D	A
4.2	Laboratory qualification	D	A
4.3	Samples incl. labeling (e.g. identification of series, production lot etc. that allow conclusions to be made about the documentation accompanying production)	D	A
4.4	Master sample	D	A
4.5	Production capacity	D	A
4.6	Tools	D	A
5. General deliverables			
5.1	Evidence of compliance with legal requirements	D	S
5.2	PPA status of supply chain	D	A
5.3	Test equipment list for product and production process	D	A



VDA-No.	Deliverables insofar as they are applicable to the product	Organi- zation	PPA-A
5.4	Measurement equipment analysis studies product and production process	D	A
5.5	Part history	D	S
5.6	Evidence of suitability of the employed load carriers including storage	D	A
6. Deliverables to software			
6.1	SW release (e.g. Appendix 5 "Cover Sheet PPA software")	D	S
6.2	Definition of the scope of the SW product	D	S
6.3	Reference to contractually stipulated quality requirements	D	S
6.4	Documentation of technical SW specifications (functional and non-functional)	D	A
6.5	Implementation of the requirements from 6.3 and 6.4, especially the Special Characteristics	D	A
6.6	Documentation of FOSS (free and open-source software)	D	S
6.7	List of known errors	D	S
6.8	Documentation of development tools	D	A
6.9	Documentation of testing tools	D	A



VDA-No.	Deliverables insofar as they are applicable to the product	Organi- zation	PPA-A
6.10	Documentation of version management	D	A
6.11	Documentation of a process evaluation (e.g. Automotive SPICE)	D	A

**PPA-A** PPA Agreement

**S** Submission to customer

**D** If applicable: Execution, documentation, and archiving by the organization (if appl. for inspection by the customer)

**A** All submission items that go beyond the minimum scope must be agreed upon between the organization and the customer in the PPA agreement.



# PPA deliverables/Scope of documentation

## Assignment to SEBN material groups

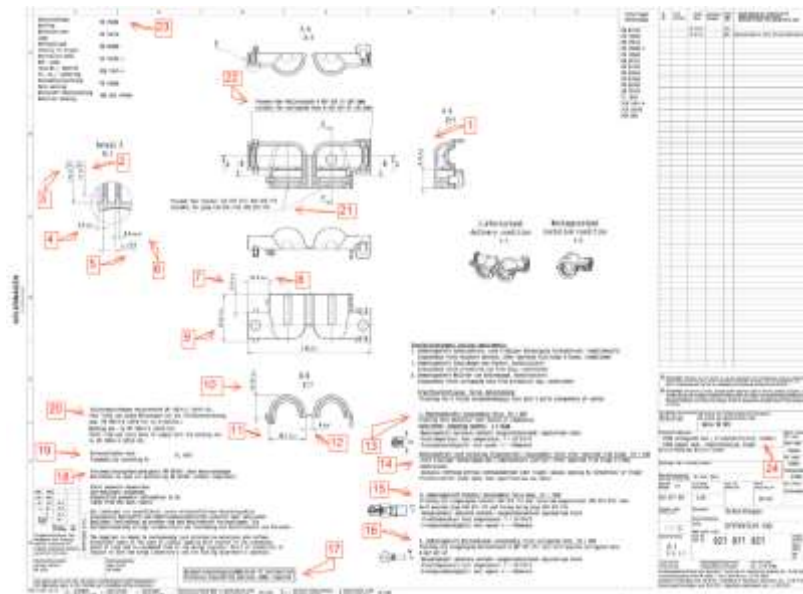
VDA no.	Deliverables insofar as they are applicable to the product	Comments	Material group 910 Terminals, spring pin, cable socket, ring cable socket, etc.	Material group 920 Connectors, flat connector housing, relay adapter, fuse holder, coupling connectors, adapters, fuse boxes, etc. electronic components: control modules, relays, etc.	Material group 930 Grommets, seals, single wire sealing, etc.	Material group 940 Corrugated tube, windscreen water pipes, plastic pipes, protective tubing, distributor, etc.	Material group 950 Foam tubes, etc.	Material group 960 Adhesive tapes, identification tapes, foam strips, etc.	Material group 970 Wires, twisted wires, etc.	Material group 980 Antenna wires, Amec wires, ZSB-airbag wire harnesses, ABS sensor wires, etc.	Material group 990 Protective caps, brackets, security strips, fuse boxes, cable ties, cable feeds, clips, heat protection mats, heat-shrink tubes, screws, washer, fuses, etc. electronics components: control modules, relays, etc.
0.1	Cover sheet for PPA report and PPA evaluation		S	S	S	S	S	S	S	S	S
0.2	Self-assessment for product, production process, and if appl. Software		S	S	S	S	S	S	S	S	S
1.1	Technical specifications	Customer/OEM drawing or manufacturer drawing	S	S	S	S	S	S	S	S	S
1.3	Design, engineering approvals	Technical engineering approval (BMG) if according to the drawing required	S	S	S	S	S	S	S	S	S
1.4	Material data via IMDS	The IMDS no. must be entered on the cover sheet of the PPA report and sent to IMDS ID no. 4244	S	S	S	S	S	S	S	S	S
3.1	Geometry, dimensions	Test results	S	S	S	S	S	S	S	S	S
3.2	Material (strength, physical properties, etc.)	Inspection certificate/Material certificate	S	S	S	S	S	S	S	S	S
3.3	Function	Test results	S	S	S	S	S	S	S	S	S
4.3	Samples including labeling	Quantity according to the agreement and free of charge	S	S	S	S	S	S	S	S	S
5.1	Evidence of compliance with legal requirements	(e.g. Current certificates/country-specific authorization concerning environment, safety, recycling, etc.)	S	S	S	S	S	S	S	S	S
5.2	PPA status of supply chain	According to the LAH.000.971 as an evidence for the PPA status in the supply chain for <b>delivered ZSBs</b> (e.g. WWL, ABS, airbags or antennas), all components must be listed in a material list according to the VW drawing with the release status from sub-supplier	S	-	-	S	-	-	-	S	S
5.5	Part history	Documentation of all changes to the product and production process	S	S	S	S	S	S	S	S	S
5.8	Documentation of the agreements regarding requalification	<b>Every 3 years</b> the VDA 2 cover sheet with reference to the requalification must be sent to SEBN, evidence must be archived at supplier and may not be older than 3 years (e.g. data of incoming goods inspection, product audits and series production tests). Upon request, the evidence of conformity must be submitted to SEBN as well. <b>D/TLTD parts</b> – the requalification must be conducted <b>every 12 months</b>	S	S	S	S	S	S	S	S	S
5.9	Other: BMG concerning basic manufactured cable (BK)	Concerns only antennas	-	-	-	-	-	-	-	S	-
	Certificate concerning flammability according to the TL 1010	Applies if required according to the drawing- the frequency is determined by the customer/OEM	S	S	S	S	S	S	S	S	S
	Microsection catalogue	Contains: (terminal part number and manufacturer, wire cross section and type, tool number). Microsection may not be older than 6 months	S	-	-	-	-	-	-	S	-
	Technical specification concerning unwind strength and adhesive strength, etc.	Concerns only tapes	-	-	-	-	-	S	-	-	-

S – Submission to SEBN

# PPA deliverables/Scope of documentation

## Drawing for PPA procedure – Additional requirements

1. The basis for the PPA procedure at SEBN group is latest released customer drawing of the VW group.  
PPA procedure for parts without customer part number is allowed with base upon drawing which is agreed between SEBN and supplier (e.g. airbag or antennas).
2. The drawing including positioned grounds is to attach to the PPA documentation (examples below).



3. All requirements specified in the drawing (dimensions/markings) must be compared in the PPA documentation with the "specification-actual" values.



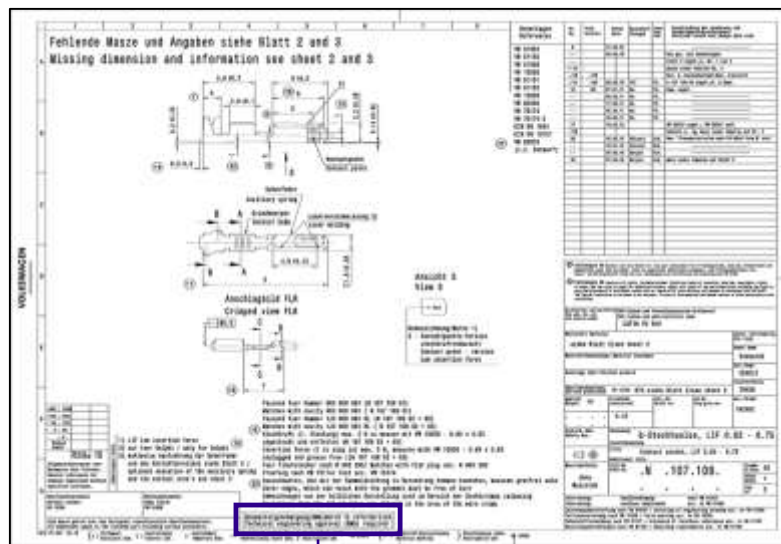
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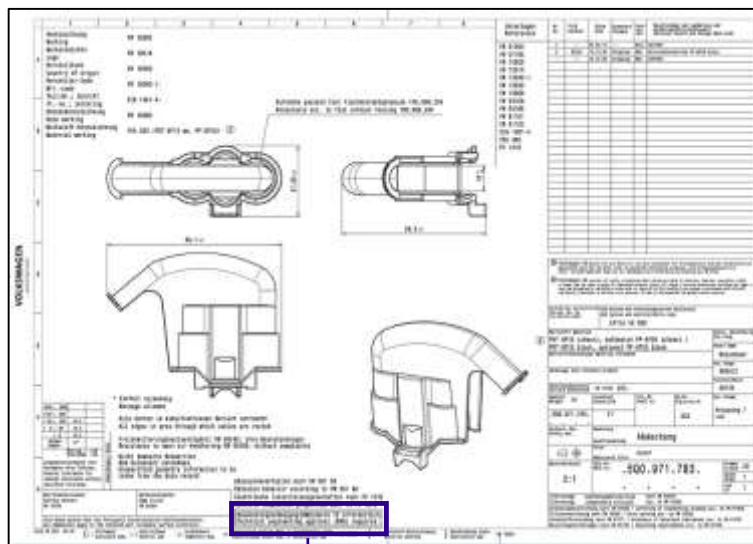
# BMG - Additional requirements of the VW Group

## BMG for single components

1. For all components of a drawing that are marked as subject to technical engineering approval has a technical engineering approval (BMG) to be issued by the technical development (TD) of the group brand.
2. The BMG is issued for the respective production location. If the same component is manufactured at different production locations the BMG must be issued for each location.



Baumustergenehmigung (BMG) durch TE erforderlich  
Technical engineering approval (BMG) required



Baumustergenehmigung (BMG) durch TE erforderlich  
Technical engineering approval (BMG) required

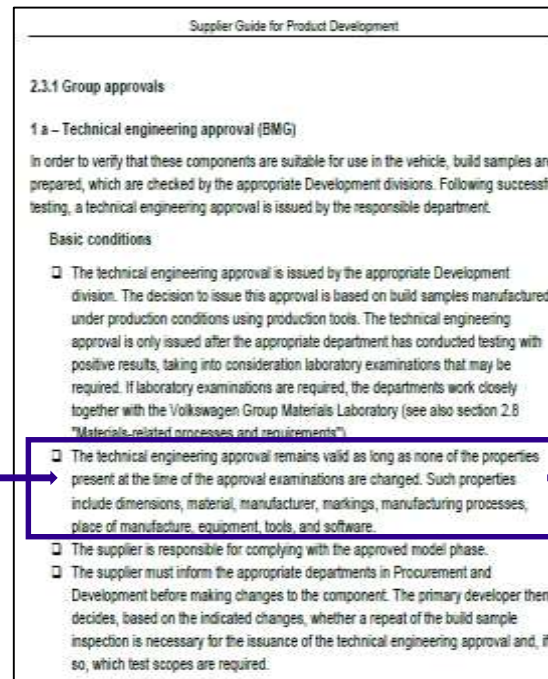
# BMG - Additional requirements of the VW Group

## BMG for single components

### When a new BMG is required?

	Yes	No
technical change of component	x	
change of material	x	
change of manufacturer marking	x	
relocation of tool	x	
change of manufacturing location	x	
tool duplication/new tool	x	
change of production process (e.g. duplication of production lines, adjustment from manual to fully automated process)	x	
change of software	x	
change of supplier (new second supplier, supplier changes the sub-supplier)	x	
text changes on the drawing		x
change of color (e.g. new wire color is added to the drawing)		x

The examples mentioned when a new BMG is required based on the Supplier Guide for Product Development, which describes the requirements of the VW Group concerning the BMG.





# BMG - Additional requirements of the VW Group

## BMG for single components

1. For the usage of components with a missing BMG is a permission of deviation (AWE) necessary.  
The supplier is under an obligation to request the AWE at the VW group development (component developer).

AWE examples:

<div>Abweichtitel: <b>V17J24 E</b> (20170322355)</div>	<div>Status: <b>410 11/200 11</b> Teilenummer: <b>800.937.700.W</b></div>	<div>Änderungstitel: <b>VERBAU 73-POL, SCH-STECKER</b> <b>1000 000</b></div>	<div>Beruf: Technische Entwicklung Motiv: BMW fehlt Priorität: S2 - Sonstige Änderungen</div>
<div>Vormerkung: Teil: Abteilung: Werk:</div>	<div>CECH, UTH +49-5361-9-31064 88902 11</div>	<div>Entwicklungsauftrag: Modellpflegepunkt: Planform: PNC Nr.: ASG: NEIN</div>	<div>-CDZ (g/m): -Gewicht (g): Anlagen/Ans./TUL-Vers.: A / S1 / S1</div>
<div>Seriefachgruppe: ELEKTRIK</div>		<div>SET: S2</div>	<div>Übergangszeit (KW) von: 06/17 bis: 10/17 Einzelanmeldung: NEIN</div>
<div>Federführende Konstruktionsabtlg.: 88902</div>		<div>AE wird abgelöst durch: 0000 T0</div>	
<div>Betr. Fachgruppen:</div>		<div>Status: /</div>	
<div>Betr. Abtlg.: 88901 88902 88903 88904 88905 88906 ...</div>		<div>Typprüfung: NEIN</div>	<div>Variantenveredelung: Teilausführung: JA</div>
<div><b>Inhalt und Begründung:</b></div>			
<div><b>PROBLEM:</b> Verbau der n.g. T3-pol. FK-Gehäuse aus neuen Duplikationswerkzeugen ohne BMG. Durchführung der "POT" gemäß VW1714 und BMG-Ertelung.</div>		<div><b>TECHN.:</b> FVW - Audi TT/TTS/TTFS E FVW - Audi TT/TTS/TTFS C F1A - Audi Q4 A-CUV A112 F1G - Audi Q7 China A113 F1G - Audi Q3 - A11218 G1D - Audi Q2 China - A1 G1D - XFS RVT A11274/01 G1D - Audi Q3 - A11276 17A - JETTA 17G - Skatlar CH 10A - T-Roc 10B - Golf / Voyage 10C - T-Roc LAR 10D - POLO</div>	
<div><b>ANMERKUNG:</b> "Fertigungsgruppe T (POT 7)" gemäß VW1714 kann derzeit wegen folgender Gegenstände spezielle Weiteranfertigung nicht durchgeführt werden. Teile aus Duplikationswerkzeugen wurden begutachtet. Alle sonstigen BMG-Fertigungen sind i.O., Teile sind steckbar/verwendbar.</div>		<div><b>Betr. Fertigungsgruppe:</b> 11 - WOLFSBURG (VW AG) 15 - EMER (VW AG) 16 - GOLF 1 (AUDI AG) 21 - SKODA (AUDI AG) 22 - SEAT (AUDI AG) 23 - SEAT (AUDI AG) 24 - SEAT (AUDI AG) 25 - SEAT (AUDI AG) 26 - SEAT (AUDI AG) 27 - SEAT (AUDI AG) 28 - SEAT (AUDI AG) 29 - SEAT (AUDI AG) 30 - SEAT (AUDI AG) 31 - SEAT (AUDI AG) 32 - SEAT (AUDI AG) 33 - SEAT (AUDI AG) 34 - SEAT (AUDI AG) 35 - SEAT (AUDI AG) 36 - SEAT (AUDI AG) 37 - SEAT (AUDI AG) 38 - SEAT (AUDI AG) 39 - SEAT (AUDI AG) 40 - SEAT (AUDI AG) 41 - SEAT (AUDI AG) 42 - SEAT (AUDI AG) 43 - SEAT (AUDI AG) 44 - SEAT (AUDI AG) 45 - SEAT (AUDI AG) 46 - SEAT (AUDI AG) 47 - SEAT (AUDI AG) 48 - SEAT (AUDI AG) 49 - SEAT (AUDI AG) 50 - SEAT (AUDI AG) 51 - SEAT (AUDI AG) 52 - SEAT (AUDI AG) 53 - SEAT (AUDI AG) 54 - SEAT (AUDI AG) 55 - SEAT (AUDI AG) 56 - SEAT (AUDI AG) 57 - SEAT (AUDI AG) 58 - SEAT (AUDI AG) 59 - SEAT (AUDI AG) 60 - SEAT (AUDI AG) 61 - SEAT (AUDI AG) 62 - SEAT (AUDI AG) 63 - SEAT (AUDI AG) 64 - SEAT (AUDI AG) 65 - SEAT (AUDI AG) 66 - SEAT (AUDI AG) 67 - SEAT (AUDI AG) 68 - SEAT (AUDI AG) 69 - SEAT (AUDI AG) 70 - SEAT (AUDI AG) 71 - SEAT (AUDI AG) 72 - SEAT (AUDI AG) 73 - SEAT (AUDI AG) 74 - SEAT (AUDI AG) 75 - SEAT (AUDI AG) 76 - SEAT (AUDI AG) 77 - SEAT (AUDI AG) 78 - SEAT (AUDI AG) 79 - SEAT (AUDI AG) 80 - SEAT (AUDI AG) 81 - SEAT (AUDI AG) 82 - SEAT (AUDI AG) 83 - SEAT (AUDI AG) 84 - SEAT (AUDI AG) 85 - SEAT (AUDI AG) 86 - SEAT (AUDI AG) 87 - SEAT (AUDI AG) 88 - SEAT (AUDI AG) 89 - SEAT (AUDI AG) 90 - SEAT (AUDI AG) 91 - SEAT (AUDI AG) 92 - SEAT (AUDI AG) 93 - SEAT (AUDI AG) 94 - SEAT (AUDI AG) 95 - SEAT (AUDI AG) 96 - SEAT (AUDI AG) 97 - SEAT (AUDI AG) 98 - SEAT (AUDI AG) 99 - SEAT (AUDI AG)</div>	
<div>ABGESTIMMT MIT BAUTEILEVERANTWORTLICHEN, WEITERES BETROFFENES: Peters, Dietmar (88902) +49-5361-9-12256</div>		<div>FTECH11 Freigang,Thomas +49-5361-9-80340 FTECH11 Gilman,Joerg +49-5361-9-83936</div>	
<div>ABTEILUNGSLEITER: PETERS, DIETMAR 14.02.2017</div>		<div>GEHEIMNISSTUFE: TECHN.-ENTWICKLUNG VW 22.03.2017</div>	
<div>UNTERABTEILUNGSLEITER: T.V. HANFMEIER, ANDREAS 14.02.2017</div>			
<div>REDAKTOR: CECH, UTH 14.02.2017</div>			

ÄND-AB <b>20170322355</b> (20170322355)	Projekt: <b>VW76/000_E</b>	Änderungstitel: <b>VERBAU VON SCHUTTSCHAPPE UND WASSERLEITUNG 0000 000</b>	Teilenummer: TMB.916.822.B (Platz: 031/ / / 000)
Vormerkung: Teil: Abteilung: Werk:	FORRELL, GUTENBERG +49-5361-9-49533 88906 11	Entwicklungsauftrag: 842448 Modellpflegepunkt: Planform: PNC Nr.: ASG: NEIN	-CDZ (g/m): -Gewicht (g): Anlagen/Ans./TUL-Vers.: A / S1 / S1
Fachgruppe: E		Einbaueinheit: 492	BMG-Relevant: Erprobung auf: Abweichung erf.:
SET: S1		FK-Gr.: 492 ASG: NEIN	YPP: 48/16 FPD: 03/17 OD: 18/17 BCP: 31/17 Gültigkeit (KW) von: 13/17 bis: 24/17
Motiv: Technik		AE wird abgelöst durch: 0000 T0	
Federführende Konstruktionsabtlg.: 88906		Status: /	
Betr. Abtlg.: 88906		Variantenveredelung:	
Betr. Fachgruppen:			
<b>Inhalt und Begründung:</b>			
<b>PROBLEM:</b> BMG-Fertigungen für die Schutzschappe 4A1_011_881_D und die Wasserleitungen 20A_955_643_ / _B / _E sind noch nicht abgeschlossen.		<b>TECHN.:</b> 10A - T-Roc 10C - T-Roc LAR	
ABGELEB (ANNAHMEFERT, VERSUCH, WEITERARBEITUNG ETC.)		<b>Betr. Fertigungsgruppe:</b> 41 - SEAT (AUDI AG) 42 - SEAT (AUDI AG) 43 - SEAT (AUDI AG) 44 - SEAT (AUDI AG) 45 - SEAT (AUDI AG) 46 - SEAT (AUDI AG) 47 - SEAT (AUDI AG) 48 - SEAT (AUDI AG) 49 - SEAT (AUDI AG) 50 - SEAT (AUDI AG) 51 - SEAT (AUDI AG) 52 - SEAT (AUDI AG) 53 - SEAT (AUDI AG) 54 - SEAT (AUDI AG) 55 - SEAT (AUDI AG) 56 - SEAT (AUDI AG) 57 - SEAT (AUDI AG) 58 - SEAT (AUDI AG) 59 - SEAT (AUDI AG) 60 - SEAT (AUDI AG) 61 - SEAT (AUDI AG) 62 - SEAT (AUDI AG) 63 - SEAT (AUDI AG) 64 - SEAT (AUDI AG) 65 - SEAT (AUDI AG) 66 - SEAT (AUDI AG) 67 - SEAT (AUDI AG) 68 - SEAT (AUDI AG) 69 - SEAT (AUDI AG) 70 - SEAT (AUDI AG) 71 - SEAT (AUDI AG) 72 - SEAT (AUDI AG) 73 - SEAT (AUDI AG) 74 - SEAT (AUDI AG) 75 - SEAT (AUDI AG) 76 - SEAT (AUDI AG) 77 - SEAT (AUDI AG) 78 - SEAT (AUDI AG) 79 - SEAT (AUDI AG) 80 - SEAT (AUDI AG) 81 - SEAT (AUDI AG) 82 - SEAT (AUDI AG) 83 - SEAT (AUDI AG) 84 - SEAT (AUDI AG) 85 - SEAT (AUDI AG) 86 - SEAT (AUDI AG) 87 - SEAT (AUDI AG) 88 - SEAT (AUDI AG) 89 - SEAT (AUDI AG) 90 - SEAT (AUDI AG) 91 - SEAT (AUDI AG) 92 - SEAT (AUDI AG) 93 - SEAT (AUDI AG) 94 - SEAT (AUDI AG) 95 - SEAT (AUDI AG) 96 - SEAT (AUDI AG) 97 - SEAT (AUDI AG) 98 - SEAT (AUDI AG) 99 - SEAT (AUDI AG)	
GEMÜSSIGT VON SEBEN/VERFAHREN:			
<b>URSACHE:</b> Verzögerungen bei der Validierung.			
<b>ANMERKUNG:</b> Verbau der Schutzschappe 4A1_011_881_D und der Wasserleitungen 20A_955_643_ / _B / _E ohne BMG in den FVW-Fertigungsgruppen.			
ABGESTIMMT MIT BAUTEILEVERANTWORTLICHEN, WEITERES BETROFFENES:			

2. The AWE must contain the affected projects at SEBN.

# BMG - Additional requirements of the VW Group

## BMG for assembly system - Antennas

1. According to the LAH.000.971 (Quality requirements for wiring harnesses) for release process of antennas the supplier is obliged to submit the BMG for assembly system.
2. The requirements regarding the BMG for assembly system are described in the following specifications and named as **basic manufactured cable (BK)**:
  - **LAH V03 825** - Manufactured Coaxial Cables,
  - **LAH V03 825 D** - Manufactured HSD and HSDe cables,
  - **LAH V03 825 E** - Manufactured cables for 1000 BASE-T1 Ethernet.
3. Basis manufactured cable (BK) consists of assembly of two components: **wire+terminal\***  
\*In order to obtain the BMG for BK, the BMG and the release of the two standard parts must be first available at the supplier.
  - The BMG (V03...) issued for basic manufactured cables (BK) replaces the BMG and initial sample release of the two single components (wire and terminal) of the associated basic assembly.
  - Other single components shown on the antenna drawing, such as housings, adhesive tapes, cable ties, shrink tubes, etc., must be sampled by antenna manufacturer in accordance with VDA 2.  
The same regulation applies to the wires and terminals which have no relation to the basic assembly (there is no V03... number).
4. The changes (e.g. new wire or terminal supplier, etc.) must be evaluated by the antenna manufacturer in accordance with VDA 2 and reported to SEBN. The scope of the PPA procedure must be agreed with SEBN.





# Content

1. Production process and product approval (PPA)
2. Initiation of the PPA procedure
3. PPA deliverables/Scope of documentation
4. BMG – Additional requirements of the VW Group
  1. BMG for single components
  2. BMG for assembly system - Antennas
5. Releases from other companies
6. PPA procedure of ZSBs
7. IMDS - Declaration of constituents materials
8. Material Quality Vrification - VW 52000
9. Result of PPA procedure
10. Retention periods
11. Requalification

# Releases from other companies

1. Sumitomo Electric Bordnetze Group accepts the following releases :
  - **all releases of the plants of SEBN Group,**
  - **all releases of the plants of VW Group (VW, Audi, Seat, Skoda, Porsche, etc.),**
  - **all releases from other wire harness manufactureres (e.g. Dräxlmaier, Kromberg&Schubert, Fujikura, Leoni, etc.).**
2. Concerning releases from other companies, the cover sheet (BeOn or VDA 2 form) including BMG (if required) must be submitted to SEBN. In addition, the IMDS data must be sent to IMDS no. 4244 (Sumitomo Electric Bordeze SE).
3. The releases must based on latest approved customer drawing of the VW Group. Releases for parts without VW Group number (e.g. single components of ZSBs or ZSBs) must based on latest approved drawing agreed between SEBN and supplier.
4. The DUNS number of the relevant production location in the BMG and PPA documentation must be identical.
5. In exceptional cases, SEBN reserves the right to use its own PPA procedure.

# Content

1. Production process and product approval (PPA)
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  2. BMG requalification for wires
  3. BMG for assembly system - Antennas
5. Releases from other companies
6. PPA procedure of ZSBs
7. IMDS – Declaration of constituents materials
8. Material Quality Verification - VW 52000
9. Result of PPA procedure
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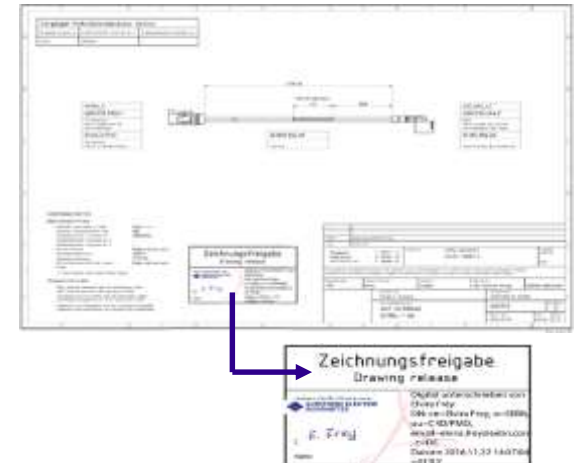
# PPA procedure of ZSBs

## 1. ZSBs with VW number

- The PPA procedure occurs based on the latest released VW Group drawing,
- When the ZSB is subject to technical engineering approval (BMG), the BMG has to be presented,
- For the usage of ZSBs with a missing BMG or release is a permission of deviation (AWE) from customer (OEM) necessary,
- The requirement for successfully completing the PPA procedure for ZSB is the BMG presence (if required) of the single components for the relevant production location and release with grade 1 (Customer-ready/Ready for series production) of the single components.

## 2. ZSBs with internal SEBN number (without VW number)

- The PPA procedure occurs based on latest released customer (OEM) or manufacturer drawing,
- The manufacturer drawing has to be released by SEBN,
- The requirement for successfully completion the PPA procedure for ZSB is the BMG presence (if required) of the single components for the relevant production location and release with grade 1 (Customer-ready/Ready for series production) of the single components.



# PPA procedure of ZSBs

## 3. Single components of ZSBs

The supplier is responsible for the release of all the components of his supply chain and is under an obligation to present these with the PPA documentation.

### 3 a. Single components of the VW Group (VW number) at ZSBs

- For single components of the VW group the parts have to be released according to the current VW Group drawing,
- When the single component is subject to technical engineering approval, the BMG has to be presented,
- For the usage of ZSB with a missing BMG or release of single components is a permission of deviation (AWE) from customer (OEM) necessary,

### 3 b. Single components without VW number at ZSBs

- For single components without VW number the parts have to be released according to the current manufacturer drawing,
- For the usage of ZSB with a missing release of the single components is a permission of deviation (AWE) from customer (OEM) necessary,

## 4. In case of changes to single components of ZSB (e.g. new part, change of supplier, technical change to the part, new tool, relocation of tool, relocation of the manufacturing location), the supplier is obliged to present a new PPA procedure for the ZSB at SEBN.

# PPA procedure of ZSBs

5. Multiple variants of ZSBs may be released in a common PPA procedure (e.g. AMEC or airbag cables, antennas):
- The release of product families is only to be used if the products are manufactured with the same production processes and production facilities and have the same product characteristic,
  - The fulfillment of requirements for characteristics of product families can be demonstrated on the basis of a one product. The evidence applies across the board to the whole product family,
  - The details of the PPA procedure for the release of product families are to be agreed in the coordination of the PPA procedure with SEBN.

# PPA procedure of ZSBs

## PPA status of supply chain

According to the LAH.000.971 as an evidence for the PPA status in the supply chain for delivered ZSBs (e.g. ABS, airbags or antennas), all components must be listed in a material list according to the VW drawing with the release status from sub-supplier.

List of materials to >drawing number<; status: >date<

Supplier assembly part/ DUNS-No.: >Supplier< / >DUNS - No.<

Creation date: >date<

Creator (complete): >name<

Supplier part no.	OEM part no.	Designation	Manufacturer + production side	DUNS no. single component manufacturer	Drawing date	BMG	BMG date	Initial sample approved organisation	Initial sample release date	Initial sample test report no.	Grade	Date of last requalification



# Content

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# IMDS - Deklaration von Inhaltstoffen

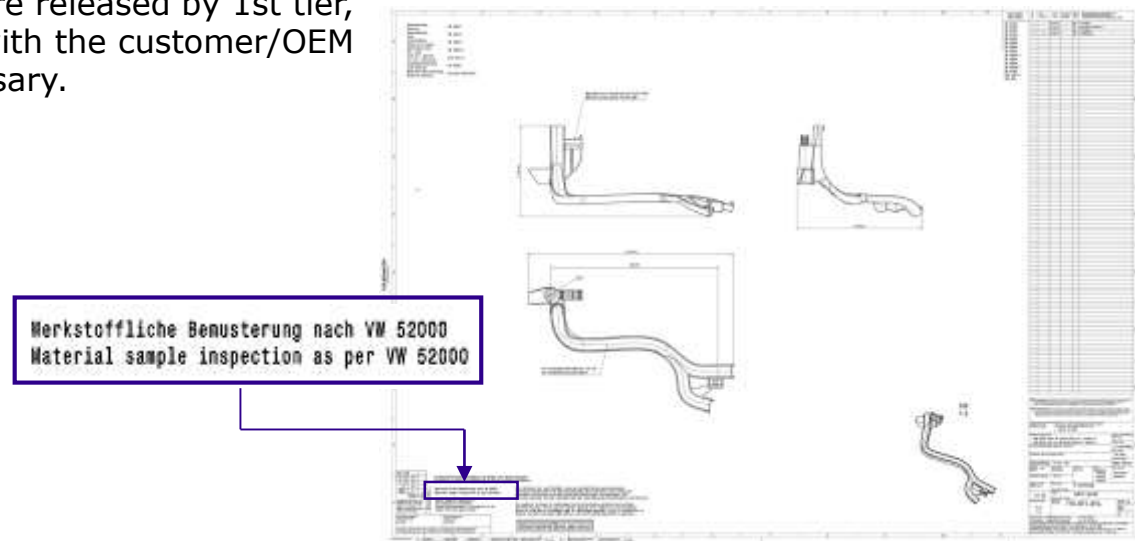
1. The material data sheets have to be created via IMDS under **[www.mdsystem.com](http://www.mdsystem.com)** and to be send to **IMDS-ID 4244** (Sumitomo Electric Bordnetze SE).
2. The supplier is under an obligation to ensure that the sent material data sheets are veridical and are shown according to the mandatory, detailed and current specifications of the IMDS-Recommendations.
3. The verification of the material data of purchased parts in the IMDS by the SEBN locations takes place in accordance with the following requirements:
  - VW AG guideline for the creation of Material Data Sheets,
  - VW 01155 – Vehicle Parts  
Approval of first supply and changes,
  - VW 91101 – Environmental Standard for Articles  
Material and Chemical Conformity,
  - VW 91102 – Environmental Standard for Vehicles  
Recycling Requirements, Use of Recycled Material, Recyclability Type Approval.

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1. Production process and product approval (PPA)
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# Material Quality Verification – VW 52000

1. VW 52000 specifies the requirements for materials testing and for the evaluation and documentation of the test results.
2. In case that this standard is listed on a purchased part drawing, applies to all material quality verification during the development phase (especially for a build sample inspection) and to the production process and product approval procedure (PPA procedure) **at the Volkswagen Group.**  
If this is not the case, no evidence in the form of the standard test report is required.
3. Should the VW 52000 change so that the standard should also apply to components which are released by 1st tier, a new evaluation and discussion with the customer/OEM regarding wire harnesses is necessary.



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# Result of PPA procedure

## 1. Customer-ready/Ready for series production

Serial delivery of the products has been approved:

- The agreed customer requirements are completely fulfilled,
- As an alternative, deviations are accepted permanently by the customer following a joint risk assessment carried out by the organization and the customer.  
A separate deviation approval is not necessary.

**The PPA procedure towards customer is closed**

- The agreed customer requirements are not completely fulfilled.  
Deviations are accepted by the customer for a limited time or quantity following a joint risk assessment carried out by the organization and the customer.  
A separate deviation approval is not necessary if not otherwise agreed between the organization and the customer.

**Update of PPA documentation is required**

After the implementation of the agreed actions, the updated PPA documentation must be submitted.

Customer decision			
Customer-ready/Ready for series production	<input type="checkbox"/>	Not customer-ready / Not ready for series production	<input type="checkbox"/>
PPA procedure towards customer closed	<input type="checkbox"/>	PPA procedure required	<input type="checkbox"/>
Update of PPA documentation required	<input type="checkbox"/>	Update of PPA documentation required	<input type="checkbox"/>
Report number/version Customer			
Name		Remark	
Department			
Telephone			
E-mail/Fax			
Date		Signature	

# Result of PPA procedure

## 2. Not customer-ready/Not ready for series production The serial delivery approval is not granted:

Customer decision			
Customer-ready/Ready for series production		Not customer-ready / Not ready for series production	
PPA procedure towards customer closed		New PPA procedure required	
Update of PPA documentation required			
Report number/version Customer			
Name		Remark	
Department			
Telephone			
E-mail/Fax			
Date		Signature	

- Legal requirements have not been met,
- The agreed customer requirements have not been fulfilled (e.g. BMG is missing, IMDS requirements are not fulfilled, marking of the plastic parts according to VW 10500 is missing, processing and assembly of the parts is very difficult or the function is affected negatively),
- A permission of deviation **may not be granted**.  
Delivery of products **is not permitted**.

**A new PPA procedure is required**

### Important for the customer decision:

- ✓ The worst individual result determines the overall result,
- ✓ The decision concerning submission updated PPP documentation must be made by the customer,
- ✓ Adjustments to the specifications are to be documented by the customer in the release document for the PPA

# Content

1. Production process and product approval (PPA)
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# Retention periods

After PPA procedure, the initial sample reports, technical engineering approvals and measures must be retained for 30 years from the date of creation (according to the VDA 1). The same period concerns the reference samples (according to the VDA 2).

## Retention period 30 years



### Class Product development

<b>Class designation</b>	Documentation of the series/end product, including releases
<b>Description</b>	This class encompasses all releases and other documents subject to mandatory documentation for the development of the series- or end product. This documentation documents products, components and parts properties and functions of the series-/end product. This also includes all changes after series release subject to release and documentation. This class also includes release documentation for early milestones in the production process (e.g. design- or planning releases) and all documentation for administration, control and evaluation.
<b>Retention period</b>	30 years, beginning with the event
<b>Event</b>	Day generated
<b>Examples</b>	<ul style="list-style-type: none"> <li>Release reports, prototype technical releases, confirmations/certificates of non-objection of suppliers, planning releases, technical program planning committee/brand planning committee</li> <li>Development releases, result sheet safety verification, <u>sample reports</u>, release-relevant test reports</li> </ul>
<b>References</b>	<ul style="list-style-type: none"> <li>Configuration- and country-</li> </ul>

### Production class

<b>Class designation</b>	Documentation of the quality assurance for production planning
<b>Description</b>	This class encompasses documents subject to documentation for proof of quality-ensured production. This includes documents which confirm the compliance of the quality of production and the manufacturing processes with the requirements (technical specifications, test- and manufacturing plans), or, if applicable, verify remedial measures.
<b>Retention period</b>	30 years beginning with event
<b>Event</b>	Date generated
<b>Examples</b>	<ul style="list-style-type: none"> <li><u>Samples documentation and measures</u>, initial sample reports</li> <li>Conformity of Production test protocols and -reports</li> <li>Production-, release documentation, process requirements, instructions for gluing - sealing - insulating</li> <li>Stage of maturity evaluations, test reports</li> <li>Process-FMEA</li> <li>Machine- and process aptitude examinations (MPL/PPU)</li> <li>Conformity declarations</li> </ul>
<b>References</b>	-

## Retention period 30 years



### Master sample

The organization must retain a master sample for the same period as for the documentation of the PPA procedure. Procedures deviating from this must be agreed upon between the organization and the customer

4.4

# Content

1. Production process and approval (PPA)
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# Requalification

1. All products (purchased parts and also manufactured products) have to undergo a requalification testing.
2. The requalification testing of all products is a requirement as to :
  - IATF 16949 - Chapter 8.6.2
  - Formel Q konkret - Chapter 4.6
  - Quality specification for supplier and purchased parts management in the Volkswagen Group – Chapter 4.6
  - VDA 2 - Chapter 10
  - VDA 6.3 - Chapter 5.5 and 7.1
  - VDA 6.4 - Chapter 8.2.4.1
  - VDA Product manufacture and product delivery  
„Robust production process“- Chapter 5.3.4
3. With the requalification testing, the supplier confirms that all characteristics proven for grade 1 (Customer-ready/Ready for series production-according to the new edition of VDA 2 from April 2020) still continue to meet the drawing requirements regarding dimension, material and function **during series production.**
4. The requalification does not replace the initial sample release.  
For this reason, the material list has been supplemented by a column „Date of last requalification“ in accordance with the LAH.000.971 - Quality requirements for wiring harnesses.

**The requalification starts with the completion of the PPA process.**

# Requalification

Cover sheet PPA report		Organization	
Organization		Reason for report creation	
		Report on production process and product approval (PPA)	
		Report on other samples	
		Requalification	
		Trigger of PPA procedure	
		Sample presentation	
Customer (recipient)		New part	
		Changes to product	
		Changes to production process	
		Change to supply chain	
		Re-use > 12 months standstill	
		Updated PPA documentation	
Information about the organization		Information about samples	Information about the customer
Report number		Delivery note number	Customer
Report version		Delivery quantity	
Delivery location		Batch number	Order Number/PPA sam
Production location		Sample weight [kg]	Unloading point
Part Number		Hardware version	Part Number
Name		Diagnosis status	Name
Drawing number		Software version	Drawing number
Version / Date		Identification/DUNS	Version / Date
Bauteil mit besonderer Archivierungspflicht		Hardware approval	Software approval
Confirmation of organization			
It is hereby confirmed that the PPA procedure was carried out in accordance with the agreements made in the PPA agreement and the specifications of VDA Volume 2.			
The IMDS record was created under the MDS ID No.:			
Name		Remark	
Department			
Telephone			
E-mail/Fax			
Date		Signature	
Customer decision			
Customer-ready/Ready for series production		Not customer-ready / Not ready for series production	
PPA procedure towards customer closed		New PPA procedure required	
Update of PPA documentation required			
Report number/version Customer			
Name		Remark	
Department			
Telephone			
E-mail/Fax			
Date		Signature	

5. The supplier is under an obligation to conduct the requalification testing at least **every three years\*** and to present it **at SEBN** (\* frequency is determined by the customer).

**D/TLD parts** – the requalification testing must be conducted **every 12 months**.

6. SEBN Group requires for requalification testing the cover sheet according to VDA 2 (when the requalification is carried out by SEBN) – Reason for report creation „Requalification“.

The evidence of conformity for the requalification testing must be documented internally by supplier, stored securely, presented to the customer on request and **may not be older than 3 years, concerning D/TLD parts 12 months**.

For this purpose, data of series production tests, incoming goods inspections and product audits may be used. During the requalification testing, the supplier must also check the validity of the IMDS data (e.g. change in legal requirements) and send it to SEBN.

7. In case of requalification, the products may be formed in a product families. This is applicable if the products are manufactured with the same production processes and production facilities and have the same product characteristics.

# Our values





## SWS WAY

Action principles for all of us in the Sumitomo harness business

### ***PROFESSIONALISM***

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•Customer satisfaction •Honesty & Integrity •Pride in what we do

### ***TEAMWORK***

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•Mutual communication •Accountability & Cooperation •Diversity & Inclusion

### ***CHALLENGE***

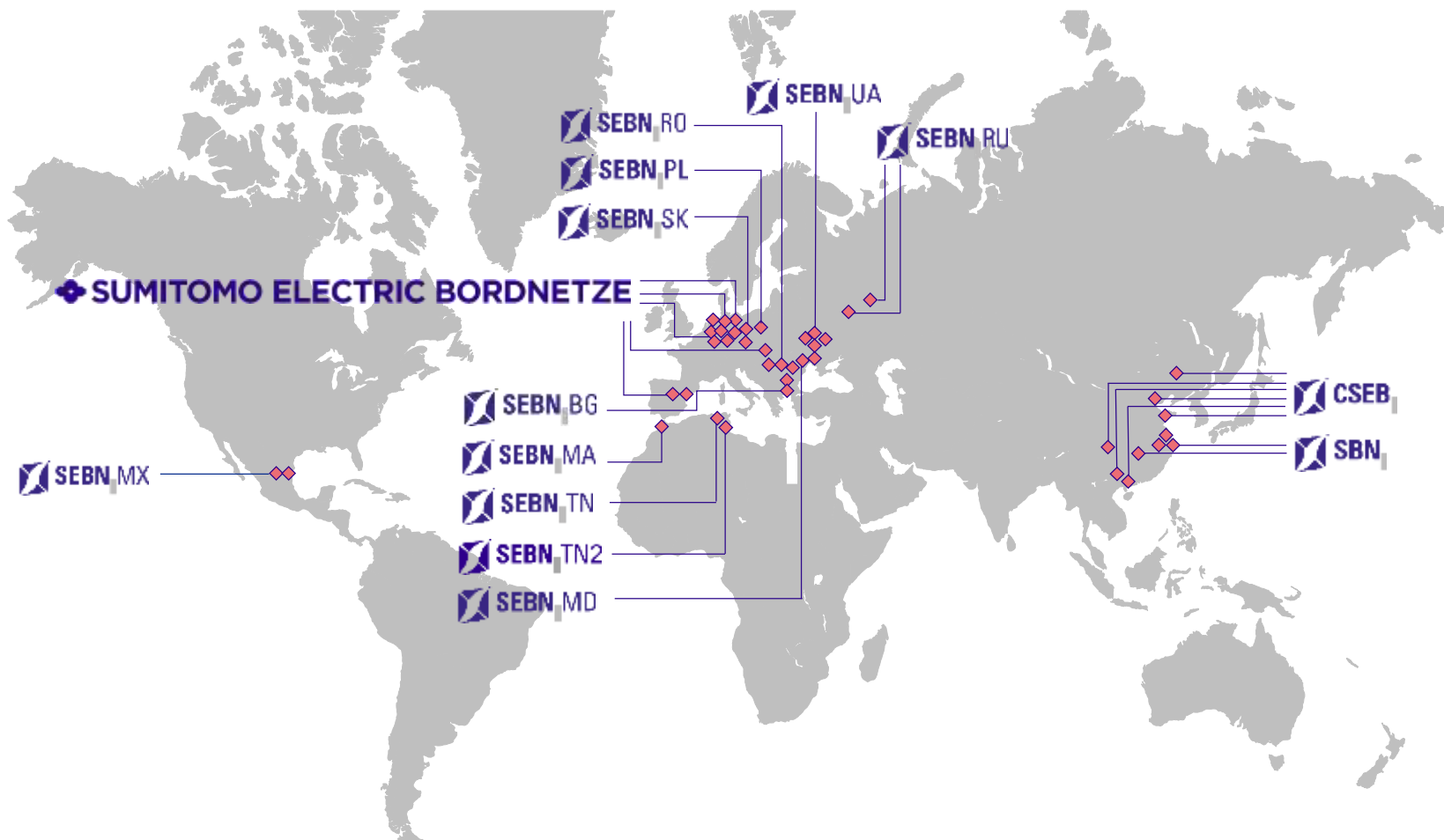
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•Forward thinking •Learning from experience •Ambition & Perseverance



**Board of Directors:** Soichiro Namba (CEO and Member of the Administrative Board),  
Sohei Kanazawa, Carsten Schulze, Henning von dem Hagen, Sven-Uwe Niemann

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