

# GSES - Global Supplier Evaluation System



A Rolls-Royce  
solution



## Contents

1 Definition & Terms .....	2
2 Target .....	2
3 Criteria and weighting .....	3
3.1 Qualität .....	4
3.2 Logistics .....	7
3.3 Purchasing .....	8
3.4 Health, Safety & Environment .....	9
4 Example evaluation.....	10

## 1 Definition & Terms

The global Supplier Evaluation System (GSES) of Rolls Royce Power Systems AG was developed to form a standard basis for Target Suppliers. With these suppliers, RRPS intends to cover most of its future procurement volume.

The evaluation is based on major criteria including quality, logistics, purchasing and environment/health & safety which are again detailed in sub-criteria. Basically, the evaluation criteria are divided into hard facts and soft facts. The hard facts are quantitative evaluation criteria that are automatically generated by our systems (e.g. SAP). The soft facts are qualitative evaluation criteria that are manually assessed once a year by the respective specialized employees.

Fulfillment of these criteria is measured on a scale between 0 and 100 points by applying specific definitions. Taking into account weighting factors, this results in rates for the fulfillment of the main criteria on which the overall assessment is based. Depending on the point score, a supplier is evaluated as **A, AB, B or C-supplier** (A = 100-85 points, AB = 84-80 points, B = 79-60 points, C = 59-0 points).

AB- and B-suppliers are asked to correct any existing deficiencies. C-suppliers are asked to introduce urgent corrective measures. Repeated assessment as a C-supplier jeopardizes the target supplier status. RRPS aims at maintaining long-term supplier relations with A or AB suppliers.

## 2 Target

The target of this supplier evaluation system is to use the results and comparative figures to find ways together with the suppliers to uncover potentials and to expand existing strengths, but also to develop and implement proposals for solutions and alternatives for existing weaknesses. Suppliers are considered partners with whom the increasing competitive pressure can be counteracted.



### 3 Criteria and weighting

Main criterion	Weighting	Objective [points]	Sub-criteria	Weighting	Determination
Qualität	35%	100	PPM	30%	automatic
			Rate of notifications	30%	automatic
			Audit	10%	automatic
			Field costs & support quality	30%	manual
Logistics	25%	100	Meeting delivery deadlines	70%	automatic
			Supplying agreed quantities	10%	automatic
			Logistical supply quality	10%	automatic
			Support logistics	10%	manual
Purchasing	25%	100	Price level	40%	manual
			Price development	40%	manual
			Financial stability	10%	manual
			Support purchasing	10%	manual
HSE	15%	100	Environment & Safety	50%	manual
			Climate Targets and Emissions	50%	manual

**Note:**

Criteria which can be determined automatically are updated each month. Manual criteria are evaluated once per year (November) for the current year and are also relevant for the following year until the next evaluation.

The evaluation is sent monthly with delivery / quality data of the relevant supplied RRPS sites to all target suppliers via email.



### 3.1 Qualität

Main criterion: **Quality**

Weighting: **35%**

Sub-criteria		Points	Evaluation basis
<b>PPM - rate</b>	30%	100	0 PPM
		90	If current PPM meets the PPM guide value then score is 0 points
		0-99	PPM rate >0 (for a description refer to page 4)
<b>Rate of notifications</b>	30%	100	No quality notifications
		0-99	No. of quality notifications weighted with place of detection and divided by complexity and diversification (for a description refer to page 5)
<b>Audit</b> Audit grade assigned only if entire process chain has been audited.	10%	0-100	<p>This criterion is evaluated by the respective audit heads based on the following aspects:</p> <ul style="list-style-type: none"> <li>▪ Number / type of complaints</li> <li>▪ Organization, tidiness, cleanliness at supplier's facility</li> <li>▪ Cooperation during audit</li> <li>▪ Intensity of follow-up of measures (not possible with initial audits)</li> <li>▪ Activities for quality improvement</li> <li>▪ Certification</li> </ul>
<b>Field costs &amp; Support quality</b> Quality costs from field notifications, response time and quality of 8D reports; reduction of repeating faults; information of process changes; information provision/handling; pro-active approach re. quality problems; reaction to enquiries; contacts and their availability; flexibility.)	30%	100	Excellent cooperation and flexibility No quality costs from field notifications
		80	Good cooperation and flexibility*
		60	Average cooperation and flexibility*
		40	Below-average cooperation and flexibility*
		20	Poor cooperation and flexibility*
		0	Very poor cooperation and flexibility*

Note: Evaluation between fixed point scores is also possible

\*consideration of quality costs from field notifications



**Determination of the PPM points :**

Based on the annual delivery of a material number, complained parts cause the PPM rate (parts per million). PPM points are determined by the PPM rate of a material number depending on the subclass of the part and the complexity of the component, as well as the delivered quantity of the last 12 months (rolling) by the PPM guide value.

The PPM guide value is an empirically determined theoretical PPM value depending on the subclass, complexity and supplied quantities of the material number, leading to 90 PPM points when reached. The PPM target for each vendor is 0 PPM!

About an analytical investigation a PPM guide value for the supplier emerges from all delivered material numbers. The deviation of the current PPM rate of the supplier of his PPM guide value crosses a hyperbolic to the PPM point value (see. figure). The PPM guide value changes automatically with changing range of parts or delivery quantity.

Example:

PPM guide value = 1.000 PPM

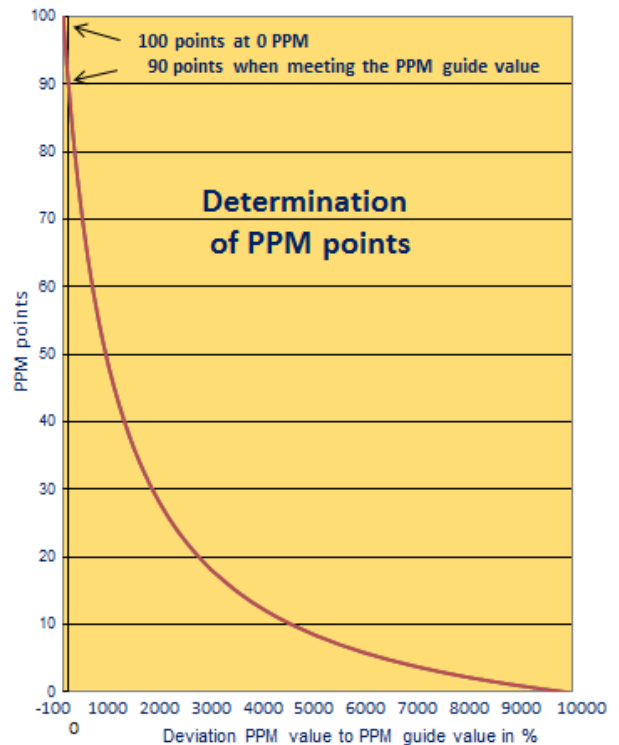
PPM actual value = 3.000 PPM

Deviation = +200%

PPM points = 75

Schematic diagram:

Parts subclass	Parts complexity	PPM guide value <100 pcs./a	PPM guide value <1.000 pcs./a	PPM guide value <10.000 pcs./a	PPM guide value >10.000 pcs./a
Standard parts	all	nn	nn	nn	nn
Raw material	1	nn	nn	nn	nn
	2	nn	nn	nn	nn
	3	nn	nn	nn	nn
	4	nn	nn	nn	nn
Castings machined	1	nn	nn	nn	nn
	2	nn	nn	nn	nn
	3	nn	nn	nn	nn
	4	nn	nn	nn	nn
Electronic material	all	nn	nn	nn	nn
Finished parts PPAP	1	nn	nn	nn	nn
	2	nn	nn	nn	nn
	3	nn	nn	nn	nn
	4	nn	nn	nn	nn
Finished parts w/o PPAP	all	nn	nn	nn	nn





**Determination of the point score for rate of notifications:**

Weighted notifications with respect to level of complexity and diversification (different material numbers) of the delivered components are incorporated in the rate of notifications.

Weighting of notifications:

Type	Factor
1 Initial sample	x 7,5
2 Raw material	x 0,2
3 Linecall low	x 2
4 Linecall medium	x 7,5
5 Linecall major	x 15
6 Field/Customer	x 7,5
7 Other (without 1-6)	x 1

complexity:			Diversification:		
Factor	Level		Factor	Level	Qty. of deliv. mat.nr. 12month roll
1	low		1	low	<10
2	medium		2	medium	<100
3	complex		3	complex	<1000
4	very complex		4	very complex	>=1000

The ratio of the weighted notifications and the product of the level of complexity and of diversification results in the point score rate of notifications by using a formula (Hyperbola).

Example:

2x Initial sample notifications

3x Linecall low

3x Field notifications

Q index  $2 \times 7,5 + 3 \times 2 + 3 \times 7,5 = 43,5$

*the Q index is extrapolated by year*

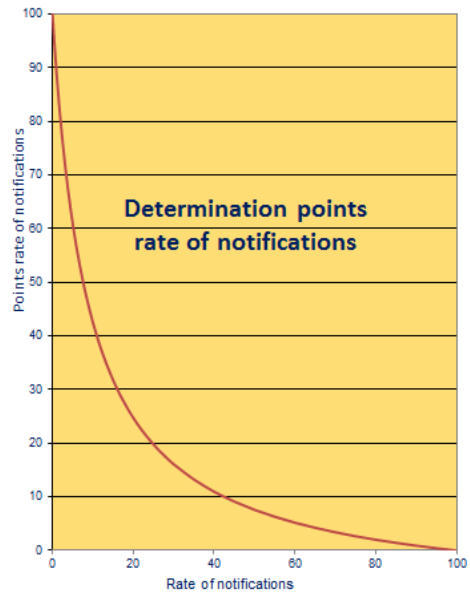
*e.g. on 25th January x 365/25, or on 31th Dec. x365/365 etc.*

Complexity 2,4

Diversification 3

Rate of notifications:

$$\frac{2 \times 7,5 + 3 \times 2 + 3 \times 7,5}{2,4 \times 3} = 6,0 \rightarrow 78 \text{ points}$$





### 3.2 Logistics

Main criterion: **Logistics**

Weighting: **25%**

Sub-criteria		Points	Evaluation basis
<b>Meeting delivery deadlines</b>	70%	1 or 100	Automatic determination via SAP based on the following criteria: Determination of average schedule compliance of all incoming goods per month.
			<p>The evaluation of purchase orders and delivery schedules is derived from the following point system:</p> <ul style="list-style-type: none"> <li>• Delay of up to one day* 100 points; Delay of more than 1 day 1 point</li> <li>• Premature delivery up to five days 100 points; Premature delivery more than 5 days 1 point</li> </ul> <p>*The aim is delivery exactly on schedule. Due to possible unforeseen problems (e.g. during transportation), a leeway of one day is granted.</p> <p>For delivery schedules, backlog status is also evaluated. When backlogs appear in the delivery schedule, 1 point is allocated (compliance with deadline and volume).</p> <p><b>The objective for approved delivery deadlines is fixed for all suppliers at 100 points!</b></p>
<b>Supplying agreed quantities</b>	10%	1 or 100	Automatic determination via SAP based on the following criteria: Determination of average quantity compliance of all incoming goods per month. The evaluation of purchase orders and delivery schedules is derived from the following point system:
			<ul style="list-style-type: none"> <li>▪ Excess supply of less than 2% 100 points; Excess supply of more than 2% 1 point</li> <li>▪ Short supply of less than 2% 100 points; Short supply of more than 2% 1 point</li> </ul> <p>For delivery schedules, backlog status is also evaluated. When backlogs appear in the delivery schedule, 1 point is allocated (compliance with deadline and volume).</p>
<b>Logistical supply quality</b>	10%	0-100	Automatic determination via SAP based on the following criteria: <ul style="list-style-type: none"> <li>▪ No. of quality reports „logistic“ in relation to no. of deliveries</li> <li>▪ 0% - 10% claimed deliveries ⇒ 100 points to 0 points &gt; linear evaluation; ≥10% of claimed deliveries = 0 points</li> </ul>
<b>Support Logistics</b> (taken into account: batch size; reacquisition times, packaging requirements; proactive management of product start-up/changes; process integration - supplier adapts to meet RRPS requirements and achieves high level of process consistency; provision/handling of information; pro-active approach to supply problems; reaction to enquiries; processing of reminders/warnings; contacts and their availability / contactability; flexibility re. short-notice requests, delivery call-offs, direct call-offs.)	10%	100	Excellent cooperation and flexibility
		80	Good cooperation and flexibility
		60	Average cooperation and flexibility
		40	Below-average cooperation and flexibility
		20	Poor cooperation and flexibility
		0	Very poor cooperation and flexibility

Note: Evaluation between fixed point scores is also possible.



### 3.3 Purchasing

Main criterion: **Purchasing**

Weighting: **25%**

Sub-criteria		Points	Evaluation basis	
<b>Price level</b>	40%	100	Supplier's prices are within target range	
		60	Supplier's prices are outside target range	
		0	Supplier's prices are well outside target range	
<b>Price development</b>	40%	100	Price development is within target range	
		60	Price development is outside target range	
		0	Price development is well outside target range	
<b>Financial stability</b>	10%			<b>Rating</b>
		100	Financial stability is proved or ensured via affiliation with Group.	AAA
		90	Financial stability seems to be ensured subjectively.	AA
		80	No verified information available	A
		60	-	BBB
		40	Deliveries to RRPS only against cash in advance or bank guaranties. Or: Suppliers who have been rated as critical.	BB
		20	-	B
0	Supplier is involved in insolvency proceedings!	C, D		
<b>Support purchasing</b>	10%	100	Excellent cooperation and flexibility Very good cooperation with SEmL ; frequently makes own proposals	
		80	Good cooperation and flexibility Good cooperation with SEmL; occasionally makes own proposals	
		60	Average cooperation and flexibility Cooperation with SEmL, shows own initiative now and then	
		40	Below-average cooperation and flexibility Below-average cooperation with SEmL, hardly any own initiative	
		20	Poor cooperation and flexibility Poor cooperation with SEmL, no own initiative	
		0	Very poor cooperation and flexibility No cooperation with SEmL	

Note: Evaluation between fixed point scores is also possible.





### 3.4 Health, Safety & Environment

Main criterion: **Health, Safety & Environment**

Weighting: **15%**

Sub-criteria	Points	Evaluation basis	
<b>Environmental and Occupational Safety</b>	50%	100	Environmental <b>and</b> health & safety certificate available (ISO14001, EMAS / ISO 45001, BS-OHSAS 18001 or comparable certificate)
		90	Environmental <b>or</b> health & safety certificate available (ISO 14001, EMAS./ ISO 45001, BS-OHSAS 18001.....)
		80	Environmental / health & safety certificate aimed for within 18 months or RRPS audit re. environment / health & safety is OK.
		60	Declaration of Principles or Human Rights Directive
		40	Health, safety and environment are organisationally anchored in the company and there are trained specialists available (e.g. occupational safety officers)
		20	Compliance with legislation, technological status or no information available.
		0	No identifiable environmental / health & safety awareness; supplier development necessary.
<b>Climate protection Targets and Emissions</b>	50%	100	Validated target according to SBTi (or comparable climate protection standard) 1.5° compliant <b>and</b> Life Cycle Analysis (min. GHG) available for delivered products
		90	Validated target according to SBTi (or comparable climate protection standard) 1.5° compliant <b>or</b> Life Cycle Analysis (min. GHG) available for delivered products
		80	Committed target according to SBTi (or comparable climate protection standard) 1.5° compliant and estimate of greenhouse gas emissions at product level
		60	Climate protection targets and greenhouse gas emissions for Scope 1, 2 and 3 are available
		40	Climate protection targets and greenhouse gas emissions for Scope 1 and 2 are available
		20	Greenhouse gas emissions for Scope 1 and 2 are captured
		0	No climate protection targets and greenhouse gas emissions available

Note: 0-20 points in the main criteria HSE will not be permanently accepted by Rolls-Royce Power Systems AG. In the absence of improvement activities, the business relationship will be terminated.

Conversion table / grade <> points		
Grade		Points
<b>1,0</b>	<b>excellent</b>	<b>100</b>
1,5	excellent – good	90
<b>2,0</b>	<b>good</b>	<b>80</b>
2,5	good – fair	70
<b>3,0</b>	<b>fair</b>	<b>60</b>
3,5	fair – needs improvement	50
<b>4,0</b>	<b>needs improvement</b>	<b>40</b>
4,5	needs impr. – needs signif. impr	30
<b>5,0</b>	<b>needs significant improvement</b>	<b>20</b>
5,5	needs signif. impr.- unacceptable	10
<b>6,0</b>	<b>unacceptable</b>	<b>0</b>



## 4 Example evaluation



### LB Report Supplier Evaluation



Supplied site: Friedrichshafen / Überlingen

<b>Vendor</b>			<b>Supplier number</b>
<b>Calendar year</b>	2023		<b>Value of parts supplied</b>
<b>No of compl. parts</b>	0		<b>No QL notifications*</b>
<b>Last update</b>	2023-06-28	19:49:56	<b>Address</b>

Main criterion	Weighting	Sub-criterion	Weighting	Points sub-criterion	Points main criterion
<b>Quality</b>	40 %	PPM	34 %	100	
		Rate of notifications	33 %	100	
		Rate of residual quality costs	0 %		
		Audit	0 %	0	
		Field costs / Support quality	33 %	85	95
<b>Logistics</b>	25 %	Meeting delivery deadlines	70 %	96	
		Supplying agreed quantities	10 %	98	
		Logistical supply quality	10 %	100	
		Support logistics	10 %	98	97
<b>Purchasing</b>	25 %	Price level	40 %	85	
		Price development	40 %	80	
		Financial stability	10 %	80	
		Support purchasing	10 %	100	84
<b>Health, Safety &amp; Environment</b>	10 %	Environment & Safety	100 %	100	
		Climate Targets and Emissions	0 %	0	100
<b>Overall evaluation</b>					93

1 - A-Supplier [100-85 Pts]   2 - AB-Supplier [84-80 Pts]   3 - B-Supplier [79-60 Pts]   4 - C-Supplier [59-0 Pts]   5 - no Evaluation   classification: **1**

#### Details: Rate of notifications / notification type

Q index	Level of complexity	Level of diversification	Rate of notifications points			
0	0.0	0	100.0			
<b>Total no. of notifications</b>						
PPAP	Raw materials	LC minor	LC medium	LC major	Field	other
0	0	0	0	0	0	0

Logistical supply quality	No. of QL reports (log)	No. of Inc. Goods	Points
	0	655	100

\* PPM and rate of notifications include only quality notifications concluded and with status 8D.  
Until further notice no evaluation of the residual quality costs because of technical reasons.