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DRIVEN BY QUALITY

A PACCAR COMPANY

PACCAR COST MANAGEMENT PARTNERSHIP

To the (potential) supplier of PACCAR.

This publication has been developed to assist PACCAR suppliers in understanding the PACCAR Cost Management Partnership (CMP) program and to provide examples and suggest ideas for CMP proposals.

PACCAR encourages all suppliers to continually search for cost savings. It is a means by which suppliers remain competitive with dependable growth of their business with PACCAR. The CMP program is a process to achieve cost reductions and to increase PACCAR's – and the PACCAR supplier's competitiveness.

PACCAR BUSINESS STRATEGY A key part of the PACCAR Business Strategy is ensuring that both PACCAR and the supplier remain competitive. The role of the supplier is significant as over 75% of the value of a truck is purchased from the PACCAR supply chain. This involves over 500 suppliers, all contributing to build a complete PACCAR truck. Removing cost from the supply chain is a key focus for continuous improvement. CMP submissions are of paramount importance to PACCAR with the purpose that the supplier positively contributes to and ensures PACCAR's Business Strategy.

PACCAR's Commodity Managers are tasked with consistently gaining assurance, via CMP proposals, that all levels of this supply chain are looking at their activities and trying to remove unnecessary costs. With the frequent introduction of new technology to PACCAR's products, this process is key to ensure PACCAR continues to grow by offering its products to the customer at a competitive price.

How do you, as the supplier, contribute and assure to the satisfaction of PACCAR's customers?



SUPPLY MANAGEMENT VISION

HOW DOES A CMP FIT WITHIN THIS VISION?

Supply Management represents our purchasing vision, which helps us to be competitive in the truck market. PACCAR has set challenging goals for our suppliers and ourselves, ensuring we mobilize the necessary capacity and supporting systems to achieve these goals. PACCAR and its suppliers will only be successful if we work together to meet the wishes and requirements of our customers. Our suppliers of today are our co-designers, co-producers, co-developers and partners of tomorrow. The suppliers of PACCAR must therefore show excellent performance with respect to the following aspects.

QUALITY The characteristics of the quality policy are: proactive and continuous improvement. Suppliers' production processes must conform to PACCAR's quality requirements (drawn up in accordance with ISO guidelines). Quality procedures and APQP techniques must already be applied in the product development phase. 'Six Sigma' is a technique applied by PACCAR and its suppliers to achieve a 50 Parts Per Million (PPM) quality level, to support high reliability.

LOGISTICS For every supplier, commercial and quality agreements as well as individual logistic agreements are stipulated. Additionally, the performance of every supplier is measured by PACCAR and reported to the supplier.

KNOW-HOW PACCAR Purchasing is responsible for keeping abreast of technological developments in the market and for spreading this knowledge within the PACCAR organisation. Suppliers should give access to the technology and know-how of new products and systems.

COMPETITIVE POSITION The supplier must have a favorable market and financial position and be able to offer innovative solutions to PACCAR with a continued commitment to improving their competitiveness.

TOTAL COSTS The total costs within the value chain must be as low as achievably possible so that a competitive price can be set for the final product. Our suppliers are expected to participate in various projects initiated within PACCAR Purchasing to improve products and processes through a CMP. These projects enable continuous improvement and optimization with regard to costs, quality and functionality.

All of these elements can be addressed through a proactive and all-encompassing CMP.

CMP OVERVIEW

Active participation in the CMP process is a vital requirement for all PACCAR suppliers and embraces all areas of the supplier profile. Suppliers are challenged to work with PACCAR to find ways to reduce the total life cycle cost of their product. With the clear expectation that all suppliers have to submit, as a minimum, proposals to reduce PACCAR's cost by at least 2% of the supplier's annual sales to PACCAR.

Reductions may be a direct result of design changes and adjustments to the assembly process. At any location, be it at PACCAR, supplier or sub-supplier factory, or in the form of creative marketing, programs directly impact the end-customer.

PACCAR's passion for quality, superior product performance and disciplined cost control drives its demands for continuous improvement throughout the organisation and the supply chain. Expected improvements are based on many small changes rather than the radical changes which might arise from research and development. As already stated,

the supplier is expected to employ know-how of their own products and logistics to routinely formulate and propose improvements to PACCAR. Key focus areas for PACCAR CMP impacting program can be seen below.

CMP is a contentious program requiring constant attention. All processes can be improved and PACCAR's customers must feel the benefit of those collaborative actions.

These actions will both strengthen the competitive position of the supplier and improve the cost effectiveness of PACCAR's product to the customer.



THE CMP PROCESS

The CMP process is one of continued feedback and collaboration.

The stages are designed to ensure ideas are filtered and implemented in a timely and efficient manner.

The first step is **to submit an idea** using the standard PACCAR form. PACCAR will review, register internally with a number and provide supplier feedback.

The **evaluation phase** begins by reviewing this proposal with a number of PACCAR functions and evaluating its potential. Additional supplier feedback will be provided at this point.

Once initially approved and if required, a **test plan** will be finalised and implemented. Subject to a successful test, a go/no-go decision will be made and communicated to the supplier.

The final stage is to **implement** the idea in line with a project plan and commercial agreements.

The implemented idea will be constantly monitored and evaluated with regard to:

- Timing
- Cost
- Quality

In addition, the following are key elements of the CMP Process:

LINE WALKS PACCAR encourages all suppliers to regularly visit the production facilities. A comprehensive walk of the production line allows a full review of the potential opportunities available to you, as the supplier, to make proposals as part of this process.

ACCELERATED CMP PROCESS PACCAR operates a successful accelerated CMP process where suppliers are requested to participate in promoting the quick generation and implementation of ideas and cost reductions

Speak to your Commodity Manager for more details.



CMP PROPOSAL EXAMPLES

There are various types of CMP ideas that can be submitted, some typical examples are outlined below.

ALTERNATIVE MATERIAL Change in the grade of steel, more affordable material, lighter and robust, new technology.

ALTERNATIVE MANUFACTURING PROCESS

Implementation of new processes and equipment, for example High Pressure Die Casting vs Sand Casting.

ALTERNATIVE DESIGN Re-design a two-piece component to a one-piece component, modify construction to eliminate process steps, alternative fasteners to improve assembly.

CHANGE LOGISTICS ROUTE Use of other manufacturing facility, pick up in a different location, more efficient solution for handling costs.

GEOGRAPHIC REALLOCATION Lower labour cost regions can be considered.

CHANGING THE CURRENT PACKAGING

Utilizing PACCAR returnable packaging, reduction in packaging required.

IMPROVING THE PRODUCTION PROCESS

Execute opportunities for improvements to increase volume output and reduce labour content, fewer defects, removal of process steps, in house production vs. outsource decisions.

TIER 2 / 3 SUPPLIER PARTS Include proposals from tier 2 and 3 suppliers, alternative sources of material and products within your supply chain.

PRE-ASSEMBLY, KITTING AND LINE SEQUENCING Reducing PACCAR operator time, adding value to the PACCAR assembly operation.

PART RATIONALISATION Utilizing a common part for multiple applications.

RELIABILITY IMPROVEMENT Increase reliability by using more robust solutions and improved up-time.

INVENTORY REDUCTION A supplier may submit a CMP proposal to reduce PACCAR's inventory.

AFTER MARKET ASSORTMENT RATIONALIZATION

Reduce number of stock keeping units by updating the parts assortment to market needs and deleting non-moving items.

CHANGE PARTS RETAIL PACKAGING

Supply of spare parts directly in sellable packaging with pack quantities according to dealer requirements. Use alternative and cheaper packaging material.

SCRAP REDUCTION Best use of materials and elimination of waste.

HANDLING COSTS Improvements to products, packaging or services provided by the supplier, which reduce PACCAR's handling costs, will be welcomed as a CMP proposal.

OPEN BID If a supplier can deliver a cost saving by means of providing an alternative process or technology to produce a component currently provided by another supplier, a CMP proposal can be submitted. Like all other CMP proposals, CMP savings are to be considered as a total net cost saving. A supplier may identify this CMP during a plant tour, otherwise suppliers are encouraged to look for additional business opportunities.

CMP PROPOSAL EXAMPLES

MATERIAL

SITUATION To protect nylon tubes fitted to the vehicle from damage caused by heat. The projection with a metallic sock was first introduced from suitable material available at the time of design.

PROPOSED CMP The supplier submitted a CMP to change the heat sock to a newly available, more efficient material. The material is now produced in high volumes, resulting in a lower cost per metre. The supplier was able to submit data showing the comparative performance of the current material to the alternative material. The CMP resulted in lower cost piece price for a higher performing product.

ENVIRONMENT Some suppliers submitted ideas to reduce CO_2 emissions at the truck level. Contributions to reduce greenhouse gases or CO_2 emissions are becoming more and more important. PACCAR is aware of its role to reduce emissions and welcomes the suppliers' ideas, for example on tyres, aerokit parts, more efficient powertrain components and engine auxiliaries. In combination with better performance, lower weight and lower cost levels for our customers can be submitted as CMP.

LOGISTICS

SITUATION A supplier to PACCAR produced plastic parts from its facility in southern Europe. Although acceptable in terms of time to ship parts from the supplier to PACCAR, this logistic process was targetted by the supplier for improvement.

PROPOSED CMP The supplier submitted a CMP proposing to relocate production of these parts to its facility in northern Europe. This change represented a significant cost saving for both parties due to reduced transport time and distance to PACCAR's UK and Netherlands production facilities.



KNOW-HOW

SITUATION The supplier challenged the product specification of a widely used part in the assembly process after completing a line walk at the Eindhoven production facility.

PROPOSED CMP The specification was reviewed with Product Development and the temperature requirements lowered so an alternative, cheaper product could be selected for the same application.



TOTAL COST / LOGISTICS

SITUATION A PACCAR supplier acquired an additional production facility in a lower cost labour region.

PROPOSED CMP The supplier submitted a CMP to move production of the parts being manufactured for PACCAR to this new facility in a lower cost labour region. This was approved by the relevant PACCAR stakeholders (for example Supplier Quality, Product Development and Purchasing) and when complete resulted in landed cost. In parallel, the supplier submitted an additional CMP for a logistics saving based on DAF agreeing to a direct pick up from the new facility. This led to the supplier receiving additional opportunities for business with PACCAR.

Moreover, it is important to have your personnel, who regularly work for PACCAR, involved in the CMP process.

SUPPLIER CMP PROJECTS

In order to reach the optimal position within the supply chain and to ensure both PACCAR and yourself contribute to the profitability of the customer, you as a supplier have to:

- Review all opportunities in your process to remove cost
- Review all opportunities in your supply chain to remove cost and pass this partnership process on to all of your suppliers
- Embrace a continuous improvement culture in line with both the CMP and Six Sigma methodologies employed at PACCAR

You can submit your CMP proposals to your Commodity Manager using the PACCAR CMP Form. As detailed in this booklet, a review process is conducted at PACCAR, which will involve a number of discussions.

All proposals should be considered for submission: no idea is a bad idea.

SUPPLIER OF SERVICES PACCAR has carefully selected suppliers that provide a wide portfolio of specialized services. These suppliers operate closely with PACCAR and frequently offer their services on a day to day basis on our premises. The suppliers of services are challenged within their expertise areas, to critically review the applied processes and working methods within PACCAR. Your wide experience could lead to CMP suggestions that, for example, help to simplify the processes by eliminating waste or non value-added activities. Any opportunity to obtain more effectiveness and efficiency is a potential for CMP. A major guideline that can help you in generating CMP ideas is to always question yourself "Five times WHY" for all the activities you perform.

FINAL REMARKS To stay ahead in today's competitive market there is a need to ensure you offer a product meeting the needs of a PACCAR Customer, clearly defined as Quality, Logistics, Know-how, Competitive Position, and Total Cost. These are clearly laid out in the PACCAR Purchasing Strategy.

This publication has given you an overview of the CMP process, where it fits within the PACCAR strategy and covered a number of examples and areas for review. This process is successfully employed with all PACCAR long term suppliers and should become part of the culture of your business and within your supply chain.

PACCAR Purchasing Europe
DAF Trucks N.V.
Hugo van der Goeslaan 1
P.O. Box 90065
5600 PT Eindhoven
The Netherlands
Tel.: +31 (0) 40 21 44 141
E-mail: daf.purchasing@daftrucks.com

PACCAR Purchasing Europe Leyland Trucks Ltd. Croston Road, Leyland Lancashire, PR26 6LZ United Kingdom Tel: +44 (0) 1772 62 58 22 E-mail: daf.purchasing@daftrucks.com

PACCAR Purchasing Brazil
DAF Trucks Brazil
Avenida Senador Flavio Carvalho
Guimaraes, N 6000
CEP 84.072-190,
Ponta Grossa – Parana
Brasil
Tel.: +55 (0) 42 3122 8502

E-mail: daf.sa.brasil.operations. purchasing@daftrucks.com PACCAR Purchasing China PACCAR China Room 1601-1604, Metro Tower 30 Tian Yao Qiao Road Shanghai China

Tel.: +86 (0) 21 24 1 6588

E-mail: paccarchinaprchs@paccar.com

PACCAR Purchasing India PACCAR India Private Limited 4th Floor, Prabhavee Tech Park Baner, Pune – 411 045 India

Tel.: +91 (0) 20 42 037 064

E-mail: india.purchasing@paccar.com

DAF Trucks Hungary Kft.
DAF Purchasing Central East Europe
Agrogate Logistic Park 0150/2
P.O. Box 28
2072 Zsábék
Hungary

Tel.: +36 (0) 23 566 200

E-mail: daf.purchasing.cee@paccar.com

www.daf.com and www.paccar.com or alternatively the Commodity Manager

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