

# **VOLVO**

## Key Elements Procedure 4 Cost Management

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## 1. FOREWORD

In the context of this Key Elements Procedure and all future discussions with Volvo cost should be considered as not just the initial purchase price but also covering the 'Total cost of ownership'. This includes product costs, warranty costs and other related cost impacts such as payment terms. Volvo's aim in conjunction with its suppliers is to achieve the best total cost of ownership.

The Key Elements of a Volvo Group supplier highlight the need for cost transparency. The purpose of this requirement is to not just to make sure that a fair price is established between Volvo and its suppliers, which reasonably covers the cost of efficient manufacture and supply and provides a reasonable profit to allow a sustainable business. But also to clarify the cost drivers for that part or commodity, to allow fact based discussion for any future negotiations. In addition it is expected that the total cost of ownership is actively reduced over time, through efficiency improvements gained through product and process experience and then subsequently reflected within the total cost.

## 2.0 Cost Management

It is desirable and beneficial for Volvo and its suppliers to work closely together and provide opportunities to gain the suppliers involvement in each phase of the product life cycle. It is commonly understood that a large proportion of the product cost is defined by the drawing and specification, so particular emphasis should be placed on applying a best practice and proactive approach before the drawing is fixed at the pre series phase.

### 2.1 Product Development – pre series

The first step for a potential Volvo supplier is to fulfilling the Request For Quotation. This is a two way communication process where the supplier gains all the necessary information on proposed design, specification and business requirements to allow a quotation to be submitted which complies with the information received. But also to submit quotations based on proposals on how to reduce the cost with potential ideas such as drawing or specification changes. This process is supported by the 'Review of Technical Specification' (RFQ) activity.

The RFQ documentation not only contains the Drawing and appropriate Volvo specifications, but also the broader Volvo Business Requirements.

These include:

- Framework agreement (business terms and conditions)
- Business requirements . Link : <http://www.volvo.com/Suppliers/global/en-gb/supplierselection/ourrequirements/> (Key Elements for a Volvo supplier)
- Expected Volvo Payment terms. As a minimum this should be at 90 days, free delivery end of month, unless otherwise informed.
- Project timing. When Series Production is planned for, including timing for test parts and initial samples.

Supplier's response shall include :

- Cost Breakdown in sufficient level to:
  - Understand the cost drivers from this part specification to allow clarity of understanding within series production.
  - Ensure that the supplier clearly quoted according to the specification
  - Support further optimisation between Volvo and the supplier
- The Cost breakdown should contain the element as per the Volvo template, including items such as material, labour, overhead, transportation etc...).
- All above is also valid for the tooling, regardless of the tool ownership.
- To make sure the optimum cost is achieved a Drawing and specification review can be requested either by Volvo or the supplier.

This can be to ensure or confirm that:

- The proposed manufacturing processes can achieve the drawing and specification.
- Generate proposal of optimisation (quality and cost), and feed them back through the review of technical specification (RTS) :
  - Based on current specification and design, as they are
  - Based on potential changes of the specification (material content, technology of the manufacturing process etc...)

## 2.2 Serial production

As an on going basis, Volvo expectation is continuous improvement regarding quality, delivery and cost.

Supplier initiatives :

As a supplier partner, Volvo would like to encourage proposals for improvements regarding productivity through potential changes in the manufacturing method or flow, material or sub supplier location, or sub supplier part specification. These could also include proposals that may change the product function and specification. These initiatives although welcome must be agreed with Volvo , prior to any change being implemented (Ref : Key Element, procedure 2) to ensure that appropriate part or product verification can be performed to reduce any potential risks to the final customer, including managing the after sales supply.

Volvo initiatives :

Due to business environment, Volvo may trigger some joint actions in order to identify additional potentials. These can include:

- Product Design changes, known as Engineering Change Requests. ( Ref to Key Element N°3.)
- Efficiency work shops :
  - A joint activity between the Supplier and Volvo with a dedicated team,
  - The aim is to optimise the full supply chain cost by removing waste (manufacturing processes, logistics through to Tier2 supply etc...)
  - This process can also be requested by the supplier in order to support the agreed business targets.
  - This workshop consists in several steps :
    - Management kick-off
    - Expectations, targets
    - Commercial framework (sharing rules)
    - Resource and timing

- Joint team dedicated to this activity
- Drive the survey through the complete supply chain
- Report and document the findings and action plans
- Support implementation

### **2.3 After Market.**

To ensure that the Volvo Customer is satisfied then Volvo Commits to supplying the aftermarket for a period of time after the finish of serial production, The duration of supply will be specified within the purchase contract and conditions between the Volvo company and its supplier and may vary depending upon product line.

It is expected that the costing for service parts follow the same cost structure as those supplies for serial production whilst the part is in serial production. Once out of serial production potentially a revised cost structure could be approved, to cover items such as additional set up costs etc.

It is Volvo's target to minimise aftermarket quality issues and hence minimise warranty costs and this approach is also expected from its suppliers. In the unfortunate event that cost related to warranty occur then the distribution and liability of these costs should be defined within the Volvo Frame Work Agreement.