Department for Transport

Tools to Manage Reverse Logistics

Reverse Logistics Self-Assessment Workbook

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Acknowledgements

The authors of this research would like to acknowledge the industrial partners who have supported the development of this workbook.

Avon
Christian Salvesen
Consilium
Dale C Rockell
DHL Exel Supply Chain
Entertainment UK
Fuel Champ
Halfords
LCP
Linpac Allibert
Menzies Distribution
O2
PC World
RIP
Stiller Group
Vivendi Universal Games
Wincanton

Introduction

This self assessment workbook has been developed to support practitioners undertake an extensive review of their reverse logistics operations relating to retail product returns management and support them through improvement programmes.

The self assessment workbook has been designed to:

- Allow a comprehensive assessment of current retail return logistics operations
- Support the development of improvement projects for retail returns
- Understand the impact of your retail returns on sustainability
- Be practitioner orientated
- Be simple to use

Reverse Logistics relates to products that flow from the point of use or sale, back up the supply chain for re-use, recycling or disposal. There are a number of activities that can be considered under the umbrella of reverse logistics. Some of the key ones are:

- Customer returns to retail stores
- Retail returns of obsolete stock
- Retail product recalls
- Refurbishment programmes
- 'End of life' producer responsibility
- Service repair logistics

While this self assessment workbook is primarily focussed towards the retail elements of product returns the basic concepts can also be applied to the other areas of reverse logistics.

Management aspects of reverse logistics

The self assessment workbook is arranged around the following 9 key themes that make up the management aspects of reverse logistics:

- Cost and performance measurement
- Avoidance of product returns
- Process management
- Physical network
- Inventory management
- Information and communication technology
- Material handling containers/totes
- Sustainable distribution
- Compliance with legislation

The review cycle

The approach to conducting a review is by following the eight stages as illustrated in figure 1. The first three stages are planning and undertaken prior to the self assessment itself. Stages 4-8 include the self assessment and improvement phases.

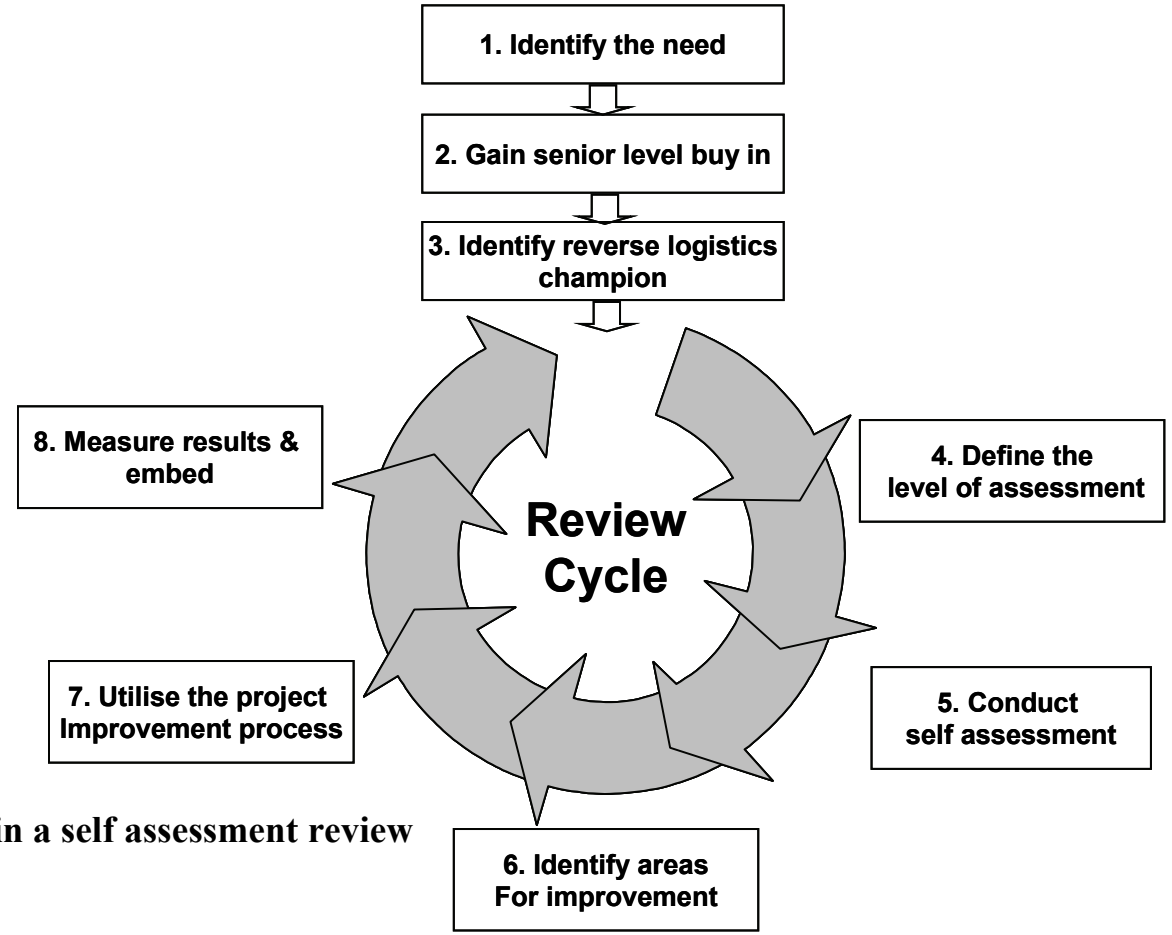

Figure 1. Stages in a self assessment review

The review stages

Stage 1 Identify the need

The potential benefit of improving reverse logistics operations will vary company by company. Therefore, an estimate of the cost and benefits from undertaking a review should be undertaken. The following questions can support this process:

- What is the current level of returns as a percentage of total volume and are these above sector norms?
- What is the current level of returns as a percentage of total value and are these above sector norms?
- What are the total costs of managing returns and what is the estimated value that can be gained from undertaking a review?
- Is there a business threat from not managing returns in a sustainable way?
- Are returns being managed to the same degree as outbound distribution?
- What are the costs and resources required to undertake a review of the current returns process?
- Do the returns management operations support the strategic direction of the company?

In addition, the scope of the assessment may need to be considered. For example, will the assessment cover all products and all markets?

Stage 2 Gain senior level buy in

Once it has been established that there is business benefit from undertaking a review of returns operations it is recommended that senior level buy in established. This will provide the level of management commitment required to ensure that the review has credibility and that there is support throughout the organisation.

Stage 3 Identify reverse logistics champion

To ensure that the project is managed successfully it is recommended that a project champion for reverse logistics be established. This person will have the support from senior level management within the organisation and will be tasked to undertake the review from start to finish while reporting on progress on a regular basis.

The project champion will therefore need a range competencies and skills to successfully implement the review and manage business process improvement.

Stage 4 Define the level of assessment

This workbook has been developed to support a comprehensive evaluation of retail returns operations. However, it has been recognised that to complete every area of the assessment will require a significant amount of time and resource. It is also recognised that while some companies may wish to evaluate the key fundamental elements of their reverse logistics systems they may not wish to undertake a full and comprehensive review. Therefore, the workbook has been designed to allow assessments to be undertaken at two different levels, namely:

- Minimum standard
- Advanced standard

To support the decision on which level of assessment to take the following criteria have been established as a guide.

Use Minimum Standard where;

- Product returns are always likely to represent an insignificant part of your company's supply chain activity and account for minimal amount of total supply chain cost.
- You have little experience with assessing your reverse logistics operations but wish to review your current performance against a set of first principles.
- You wish to undertake an assessment within a few hours.

Use Advanced Standard where;

- Product returns represent a strategic element of your company's supply chain activity and account for a significant level of total supply chain cost.
- You wish to undertake a thorough and detailed examination of all aspects relating to reverse logistics.
- You wish to undertake the assessment within a number of days.

Stage 5 Undertake the self assessment review

The self assessment workbook is available in two formats; hard copy and excel. The layout for the assessment is the same in both formats however the excel format has additional functionality and supporting documentation. The layout of the workbook is shown in figure 2.

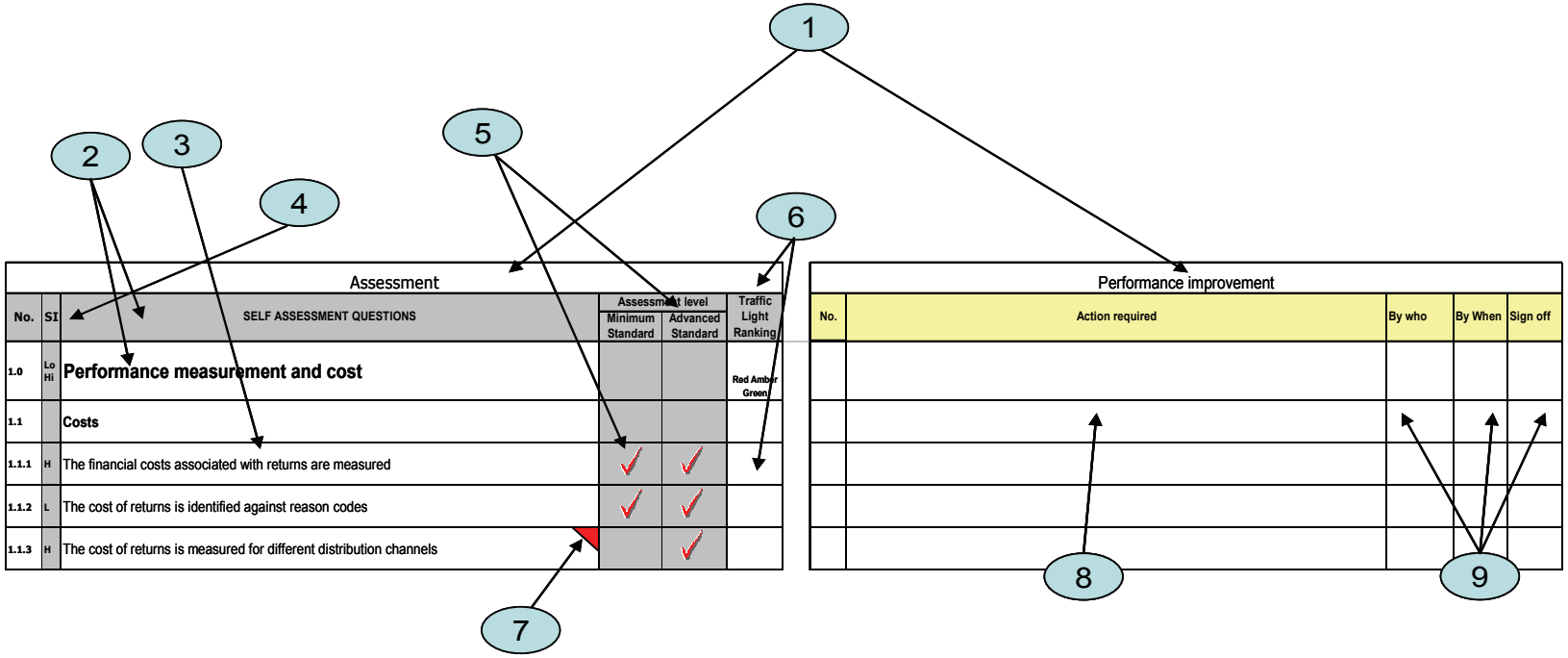

Figure 2. The layout of the self assessment workbook

The various sections of the self assessment workbook are described below with reference to Figure 2.

1. Main headings; The workbook is divided into two main sections. The left hand side contains the self assessment element which companies will undertake to evaluate current performance. The right hand side contains the performance improvement element which supports companies moving to the desired performance.

2 & 3. Assessment themes & Assessment questions; There are nine assessment themes within the workbook. Each of these themes has a range of self assessment questions attached to them. The total number of assessment questions for the advanced level is 207.

4. Impact on sustainable distribution; Each question has been ranked according to the level of impact on sustainable distribution with regard to benefits to the environment and society. The ranking protocol used is Low (L) and High (H)

5. Assessment level; There are two levels of assessment contained within the workbook, namely, Minimum Standard and Advanced Standard. Companies will select one of these levels depending upon their perceived need. The different assessment levels have a different number of self assessment questions linked to them.

6. Traffic light performance measure; The self assessment audit is performed by the assessor answering each question using a simple traffic light system. Each question has a drop down menu to make the process quick and easy to perform. The questions are written as a set of statements. The assessor should assess the statements as green if they can agree with that statement; red should be recorded where there is strong disagreement with a particular statement and amber recorded where there is only partial agreement.

7. Drop down 'Help' box; To provide additional supporting information, a drop down help box is provided for a number of the questions.

8. Identification of action required; The action required box supports the improvement process through the generation and recording of remedial actions for those question that are indicated as ‘red’ (and ‘amber’ where appropriate) during the assessment.

9. Project management; The management of the improvement process can be tracked by using the three far right columns. This allows remedial actions to be identified, assignment of responsibilities, completion dates and final sign off.

Stage 6 Identify areas for improvement

Once the self assessment has been completed all questions that have been identified as amber and red can now be considered as possible candidates for improvement projects. The matrix illustrated in figure 3 can be used to identify the order in which projects should be addressed by plotting them against the variables of ***impact*** and ***ease of implementation***. All the candidates should be mapped on to the framework and those that fall in to the top left hand box of the matrix represent the ***low hanging fruit*** and should be addressed first.

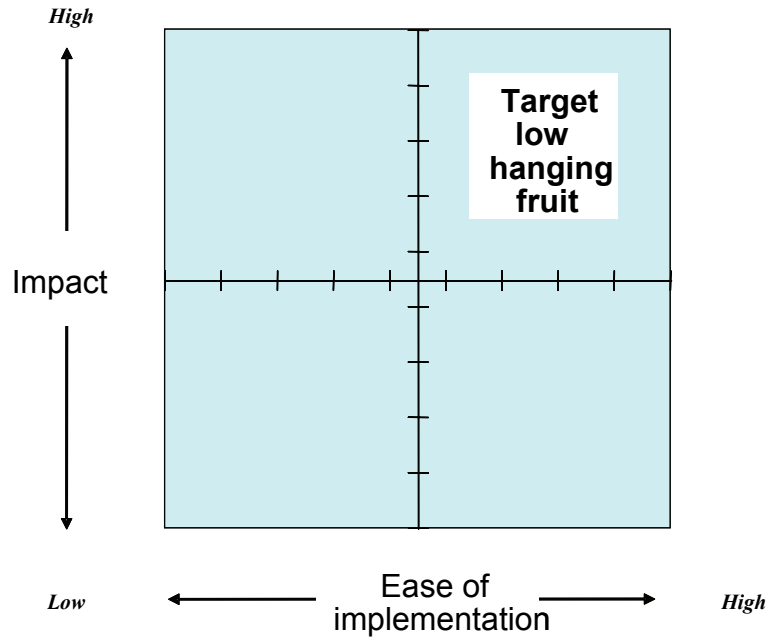

Figure 3. Impact and ease of implementation matrix

Stage 7 Use the improvement cycle and performance improvement record

Once the areas for improvement have been identified the business improvement cycle can be applied to them. In addition, to support the project management of improvement projects, the right hand side of the workbook supports the recording of the issues, the potential solutions and timelines for change programmes. To complete this section of the workbook it is recommended that you follow a Six Sigma improvement process[1]. As illustrated in figure 4, DMAIC stands for the phases for process improvement, namely; Define, Measure, Analyse, Improve and Control. A range of improvement tools[1] are suggested for practitioners to use that can support process improvement in each theses stages. Further supporting references are provided at the end of this section.

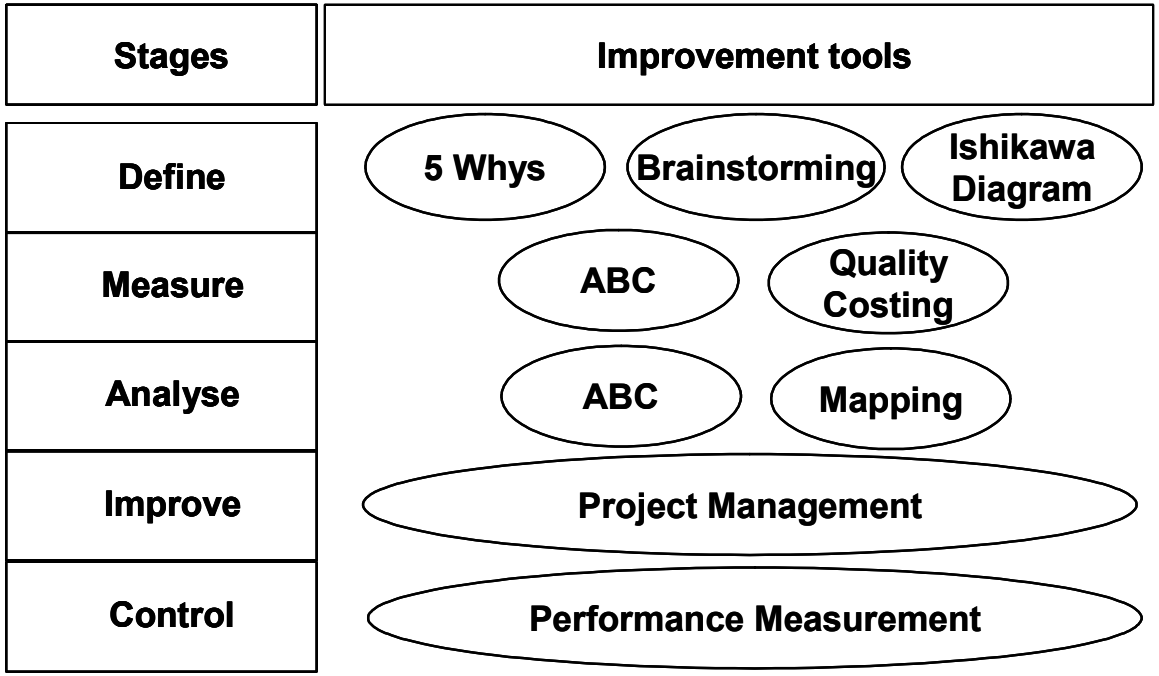

Figure 4. The DMAIC improvement cycle and improvement tools [1]

Stage 8 Measure results and embed

The results from undertaking process improvement should be measured through a cost benefit analysis. In addition, where appropriate, the performance measurement system should be updated to include appropriate metrics and KPI's relating to returns management.

The performance measures adopted should be designed to not only report on performance but encourage the correct behaviours across the supply chain that lead to good returns management practices.

Notes:

1 Further information relating to the improvement tools presented in stage 7 and figure 4 can found in most good texts relating to the 'six sigma' methodology, Lean principles and Quality Management. The following references provide possible sources of information:

Maxey, J., Rowlands, D., George, M.L. and Upton, M. (2005) The Lean Six Sigma Pocket Toolbook: A Quick Reference Guide to 70 Tools for Improving Quality and Speed. McGraw-Hill Professional

Pande, Peter S., Neuman, Robert P., and Cavanagh, Roland R., (2000) The Six Sigma Way, How GE, Motorola, and other top companies are honing their performance. McGraw-Hill

Self-Assessment Workbook

Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
S1	**Lo Hi**	**Cost and Performance Measurement**			**Red Amber Green**
		Costs			
1	**L**	The financial costs associated with returns are measured	✓	✓	
2	**L**	Total costs of returns are allocated against reason codes	✓	✓	
3	**H**	The cost of returns is measured for different distribution channels		✓	
4	**L**	There is total transparency of costs through the supply chain		✓	
5	**H**	Cost transparency through the supply chain is used to improve performance		✓	
6	**L**	Life cycle costs are identified		✓	
7	**H**	The costs and benefits of a liberal returns policy are measured		✓	
8	**L**	The terms in supplier agreements relating to returns are appropriate		✓	
		Quality Costs For further information see appendix I			
9	**L**	The cost of holding returned products in retail stores is measured		✓	

Performance improvement				
No.	**Action required**	**By who**	**By When**	**Sign off**
1				
2				
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Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
10	H	The cost of holding returned products in warehouses is measured		✓	
11	L	The cost of lost sales due to unavailability of good stock is measured		✓	
12	L	The cost of incomplete returns is measured		✓	
13	L	The cost of “lost-in-transit” products is identified		✓	
		Activity Based Costing			
14	L	Activity based costing is used to identify the cost of reverse logistics processes For further information see apendix II		✓	
15	L	The cost drivers for returns are identified	✓	✓	
16	L	Processes are mapped to take out non-value adding activities		✓	
	L	**Performance Measurement**			
17	L	A balanced scorecard approach is used to measure performance For further information see appendix III		✓	
18	L	There is a target for desired asset recovery values for all returned products		✓	
19	L	The monetary value recovered from product returns operations is measured over time		✓	

Performance improvement				
No.	**Action required**	**By who**	**By When**	**Sign off**
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Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
20	L	Targets are set for each of the measures identified		✓	
21	L	The targets that are set are based on performance by best in class		✓	
22	L	The performance of different retail stores is measured in terms of returns	✓	✓	
23	L	League tables are produced to identify variation in the number of returns by each retail store	✓	✓	
24	L	Retail stores are recharged with the cost of “no-fault found” products		✓	
25	L	The full costs of returns are charged back to the Buying department		✓	
26	L	The time between return of the product and credit by the supplier is measured		✓	
27	L	The volume of fully laden backhauled vehicles is measured		✓	
28	L	The yield from refurbished products is measured		✓	
29	L	The cost of refurbishing products is measured		✓	
30	L	Performance measurement systems are monitored to ensure that they do not encourage dysfunctional behaviour		✓	
31	L	Performance measures are in line with the company strategy	✓	✓	

Performance improvement				
No.	**Action required**	**By who**	**By When**	**Sign off**
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Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
		Collaboration			
32	L	The costs and benefits of partnering arrangements in the supply chain are measured	✓	✓	
33	L	The cost of outsourcing activities are identified and compared with comparative internal costs		✓	
34	L	The benefits of outsourcing are identified and compared with the costs of outsourcing		✓	
35	L	Open book accounting is used with partner organisations to reduce costs and increase value across the supply chain For further information see appendix IV		✓	
S2		**Avoidance of Product Returns**			
		Supply Chain Management			
36	H	All supply chain processes have been evaluated to identify those that drive product returns	✓	✓	
		Forecast Accuracy			
37	H	High forecast accuracy leads to minimal amounts of obsolete stock and product returns		✓	
38	H	The relationship between forecast error, obsolete stock and product returns is measured and acted upon		✓	
39	H	The relationship between forecast accuracy for promotional products / packs and obsolete stock is understood and acted upon		✓	

Performance improvement				
No.	**Action required**	**By who**	**By When**	**Sign off**
32				
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S2				
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Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
		New Product Development			
40	**H**	The appropriate level of quality is designed into new products to minimise return levels under warranty claims		✓	
41	**H**	Pre-launch inspection processes are in place to minimise product returns	✓	✓	
42	**L**	New products are designed for ease of use	✓	✓	
43	**H**	Products are designed to utilise ‘postponement' techniques to avoid finished products becoming obsolete		✓	
		Promotional Activity			
44	**H**	The impact of promotional packs on the level of product returns is known	✓	✓	
		Purchasing Policies			
45	**H**	The purchasing policies within the organisation do not drive excessive product return levels	✓	✓	
46	**L**	The costs of product returns are reflected in the performance / rewards of the purchasing teams		✓	
		Manufacturing			
47	**H**	Manufacturing batch quantities do not drive excessive product return levels of obsolete stock		✓	
48	**H**	Manufacturing quality is at an acceptable level to minimise product warranty returns		✓	

Performance improvement				
No.	**Action required**	**By who**	**By When**	**Sign off**
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Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
		Trading Terms			
49	L	The trading terms between the trading partners support the minimisation of product returns		✓	
		Product Life Cycles			
50	H	The product life cycle is managed to minimise obsolete stock during phasing out of products		✓	
		Product Returns Policy			
51	H	The customer returns policy reflects the different product streams / categories		✓	
52	L	The customer returns policy is easy to understand and apply	✓	✓	
53	L	The customer returns policy covers all situations		✓	
54	L	The customer returns policy is known and understood by all relevant employees	✓	✓	
55	L	The customer returns policy is in line with the product warranty policy	✓	✓	
56	L	The customer returns policy is adhered to	✓	✓	
57	L	The customer returns policy is reviewed periodically		✓	
58	L	There are processes in place that identify abuses to the customer returns policy		✓	

Performance improvement				
No.	**Action required**	**By who**	**By When**	**Sign off**
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Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
59	H	Where appropriate, the customer returns policy helps reduce the level of product returns		✓	
60	L	The product returns policy covers customer service agreements and extended warranties		✓	
		Authorisation of Product Returns			
61	H	There is a defined process for accepting / authorising product returns	✓	✓	
62	L	There are standard reason codes for product returns	✓	✓	
63	L	Standard reason codes are reported upon		✓	
64	L	Authorisation is in line with product returns policy		✓	
65	L	Where appropriate, front line personnel are trained to be flexible in the authorisation of product returns		✓	
66	L	Where appropriate, a management hierarchy is in use for the authorisation of product returns		✓	
67	L	Where appropriate, the authorisation decision making is taken centrally		✓	
68	L	Personnel are trained in processes to detect and handle fraudulent product returns		✓	
69	L	The IT systems are capable of screening and detecting fraudulent product returns		✓	
70	L	The IT systems are used to aid identification of all parts of a product to be returned for a full refund e.g. Remote control		✓	

Performance improvement				
No.	**Action required**	**By who**	**By When**	**Sign off**
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Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
		Cost Avoidance			
71	**H**	Dispositioning of returned product is taken at the earliest opportunity where the cost of returning products is greater than the value that can be recovered		✓	
		Customer Service			
72	**H**	Where appropriate, there is always a service number made plainly available to customers to contact regarding issues of product trouble-shooting		✓	
73	**H**	Call centre staff are trained on the installation and operation of products		✓	
74	**H**	Front line employees are trained on product features, operation and set up to provide support to customers	✓	✓	
75	**H**	Products are checked to ensure that they include clear and accurate instructions	✓	✓	
76	**H**	Where appropriate, there are online downloads / customer help lines to support trouble-shooting		✓	
77	**H**	Where appropriate, there is a process in place to offer discount for products damaged on delivery	✓	✓	
78	**H**	Where appropriate, there is a process in place to rectify faults in the home	✓	✓	
		Product Usability			
79	**H**	Product usability problems are collated and documented		✓	
80	**H**	Relevant information relating to the proper use of products is provided		✓	

Performance improvement				
No.	**Action required**	**By who**	**By When**	**Sign off**
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Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
		Easy to Use Instructions			
81	**H**	Where appropriate, quick set up guides are available	✓	✓	
S3		**Process Management**			
		General			
82	**L**	The right degree of management focus is placed on processing product returns	✓	✓	
83	**H**	All return processes have been mapped and a value analysis undertaken		✓	
84	**H**	If there is a need to inspect product returns, this is undertaken in the appropriate facility		✓	
85	**H**	If there is a need to repair / refurbish product returns, this is undertaken in the appropriate facility		✓	
86	**L**	Sufficient capacity is available to process returns effectively. e.g. separate returns desk away from selling desk		✓	
87	**L**	Product returns are processed in a timely manner	✓	✓	
88	**L**	Processes are in place to manage seasonal peaks		✓	
89	**H**	The root causes of product returns are known and used to reduce the level of returns		✓	
90	**L**	Processes are in place to maximise the asset recovery value of product returns upon receipt from customer	✓	✓	

Performance improvement				
No.	**Action required**	**By who**	**By When**	**Sign off**
81				
S3				
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Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
91	L	Where appropriate, advanced delivery notification is used so that all product returns deliveries are expected at receiving centres		✓	
		Product Handling			
92	L	The bar code on the original packaging can be used to identify the product and accessories being returned		✓	
93	L	Restrictions relating to product handling for returned products are adhered to		✓	
94	L	Where appropriate, reduced refunds are applied on products not brought back in original packaging		✓	
95	L	No further damage occurs to product returns due to handling	✓	✓	
S4		**Physical Network**			
		Warehousing			
96	L	The management of product returns through warehousing operations is designed to minimise loss and damage		✓	
97	H	The management of product returns through warehousing operations is designed to minimise throughput times		✓	
98	L	The material handling equipment and storage systems used for product returns in warehouse operations is appropriate for moving product returns		✓	
99	L	The storage and racking systems used for product returns in warehouse operations is appropriate for handling product returns		✓	
100	L	The repair / refurbishment processes maximise the asset recovery value or yields of product returns		✓	

Performance improvement				
No.	**Action required**	**By who**	**By When**	**Sign off**
91				
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S4				
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100				

Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
101	**L**	A high prioritisation of processing product returns avoids a loss of product quality / deterioration		✓	
102	**L**	The location of warehouse operations for product returns is based on minimising overall logistics costs		✓	
103	**L**	The number of warehouses used for product returns is based on minimising overall logistics costs and maximising asset recovery values		✓	
		Warehousing – Dedicated Facility			
104	**H**	A strategic decision has been taken on whether to integrate returns management into warehousing operations or to use a separate facility		✓	
105	**H**	A strategic decision has been taken on whether to integrate returns management into warehousing operations or to use a third party facility		✓	
106	**H**	A separate facility for handling returns has been evaluated based on improving authorisation and processing returns		✓	
107	**H**	The full costs of the warehousing of product returns is measured and reported upon	✓	✓	
108	**L**	Targets for reducing the warehousing costs relating to product returns are set and reported upon		✓	
109	**L**	The management of product returns ensures that it does not interfere with space, labour and equipment required for outbound warehouse operations		✓	
110	**H**	Where a separate warehouse facility is used for product returns it is in the optimal location in the network		✓	
		Transportation and Vehicle Utilisation			
111	**L**	Product returns can be restrained and protected correctly to avoid further damage during transport		✓	

Performance improvement				
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Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
		Mode of Transport			
112	**H**	The mode of transport used is the best for the type of product returns	✓	✓	
113	**H**	The reverse flow can be integrated with the forward flow at no detriment to distribution operations	✓	✓	
114	**H**	Where appropriate, delivery staff are authorised to offer a discount on damaged/incomplete products		✓	
115	**H**	Transport planning relating to product returns is aimed at maximising vehicle utilisation		✓	
116	**H**	Load management of vehicles is designed to minimise further damage to returned products		✓	
117	**H**	The appropriate container / protection is used during the transport of product returns e.g. pallets / cages / containers / boxes		✓	
		Sortation - Product Type and Size			
118	**L**	Clear procedures are in place to classify product returns	✓	✓	
119	**L**	Classification of product returns leads to the highest asset recovery rates		✓	
120	**L**	The correct level of investment in IT and automation leads to high performance in sortation		✓	
121	**L**	Where appropriate, sortation prioritisation is based on highest asset value recovery		✓	

Performance improvement				
No.	**Action required**	**By who**	**By When**	**Sign off**
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Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
		Speed of Sorting			
122	**L**	Performance metrics for measuring the speed of sorting returns from receipt at the returns warehouse are in place		✓	
123	**H**	Disposition routes are clearly defined for all returned products	✓	✓	
124	**L**	Sortation procedures are in place to efficiently identify 'non defective product returns' at the earliest possibility	✓	✓	
		Disposition – Factory Outlets			
125	**H**	Where appropriate, factory outlets are used as a disposition route		✓	
		Disposition – Vendor Agreements			
126	**H**	Appropriate agreements are in place with vendors for returned products	✓	✓	
127	**H**	Where appropriate, sale or return agreements are in place with vendors		✓	
		Disposition – Jobbers and Repairers			
128	**L**	Jobbers and repairers are approved		✓	
129	**L**	Jobbers and repairers are continuously assessed		✓	
130	**L**	There is no danger of cannibalising and brand equity from using jobbers and repairers	✓	✓	

Performance improvement				
No.	**Action required**	**By who**	**By When**	**Sign off**
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Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
131	L	Negotiation with jobbers and repairers leads to maximum asset recovery values	✓	✓	
		Disposition - Recycling			
132	H	Where appropriate, recycling operations are in place to maximise asset recovery values and / or minimise cost of disposal		✓	
		Disposition - Landfill			
133	H	Product return procedures are in place to minimise the quantity of material disposed of in landfill		✓	
		Disposition – General Issues			
134	H	All disposition routes have been identified and evaluated in terms of maximising asset value recovery rates	✓	✓	
135	H	Procedures are in place to avoid fraudulent use of product dispositioning		✓	
136	H	Where appropriate, suppliers requirements for dispositioning are adhered to		✓	
		Disposition – Speed of			
137	L	Returned products are processed in a timely manner so that there is no additional loss of value through depreciation		✓	
138	L	Disposition cycle times are recorded and managed		✓	

Performance improvement				
No.	**Action required**	**By who**	**By When**	**Sign off**
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Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
S5		**Inventory Management**			
139	L	Procedures are in place to minimise the number of product returns that are not easily identifiable		✓	
140	L	Appropriate traceability of returns inventory is in place		✓	
141	L	Cost advantages of reducing cycle times are known and managed		✓	
142	L	Procedures are in place to manage security and shrinkage of returns	✓	✓	
		Over Stocking			
143	L	Where appropriate, sound commercial agreements with vendors are in place for product returns of unsold obsolete stock		✓	
144	H	Re-order levels that can lead to high product returns of obsolete stock are routinely challenged		✓	
		Reuse for Spares			
145	H	Where appropriate, product returns are broken down and reused as spares		✓	
S6		**Information and Communication Technology**			
		Design			
146	L	The IT systems used for all aspects of product returns is ‘fit for purpose’	✓	✓	

Performance improvement				
No.	**Action required**	**By who**	**By When**	**Sign off**
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Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
147	L	Where appropriate, the IT systems used for managing product returns are integrated across functional boundaries		✓	
148	L	Where appropriate, the IT systems used for managing product returns are integrated across organisational boundaries		✓	
		Production			
149	H	Where appropriate, information relating to the reasons for product returns are recorded and fed back to manufacturing to improve future product designs		✓	
150	H	The IT systems support the early detection of common product quality issues to support remedial action to be taken		✓	
151	H	The IT systems collate information on product returns to support future sourcing decisions		✓	
152	L	The IT systems support the identification of returned products at the point of receipt from the customer		✓	
153	L	The IT systems collate information to produce management reports relating to product returns	✓	✓	
		Tracking and Documentation			
154	L	Where appropriate, the IT systems can track and trace product returns from receipt to disposition		✓	
155	L	The IT systems support the crediting process relating to product returns		✓	
156	L	The IT systems can be used to validate product returns, e.g. Interrogation of the serial number on the system for returns without receipts		✓	

Performance improvement				
No.	**Action required**	**By who**	**By When**	**Sign off**
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Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
		Inventory Management			
157	L	The warehouse management system is capable of managing product returns	✓	✓	
158	L	The warehouse management systems facilitates the speed in returning products to stock		✓	
159	L	Return rates are determined by use of the IT systems		✓	
160	L	The IT systems are used to predict product return rates		✓	
161	L	The IT systems are capable of keeping a record of return inventory turnover rates		✓	
162	L	The IT systems update the inventory system in real time		✓	
163	L	The IT systems support advanced delivery notices to all receiving points		✓	
164	L	Where appropriate, the IT systems of the company are integrated with those of third party logistics providers		✓	
165	L	The product returns IT system is fully integrated with the IT system for distribution		✓	
		Online Templates			
166	L	Where appropriate, the IT systems support customers to print online product returns templates/return requests		✓	
167	L	Where appropriate, the IT systems allow customers to request a return authorisation		✓	

Performance improvement				
No.	**Action required**	**By who**	**By When**	**Sign off**
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Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
168	L	Where appropriate, the IT systems can support the authorisation process and arrangement of collection of product returns		✓	
		IT Enabled Processing			
169	L	The IT system used for product returns is easy to use and is the same version used across the supply chain		✓	
170	L	Staff have been sufficiently trained on the use of the IT system for product returns	✓	✓	
171	L	The IT systems can track and record costs associated with managing product returns	✓	✓	
172	L	The IT systems support the automation of the crediting process to customers		✓	
173	L	The IT systems are able to record performance at various points in the product returns pipeline		✓	
174	L	The IT systems are used to provide disposition logic at earliest point of return		✓	
175	L	The IT systems can be used to detect product return trends		✓	
S7		**Material Handling Containers / Totes**			
176	L	The containers / totes used for moving returned products supports traceability / speed of sortation For further information see appendix V	✓	✓	
177	L	Where applicable, the containers / totes used to transport returned products provides the right level of security For further information see appendix VI	✓	✓	
178	H	The containers / totes used for transporting product returns are nestable and support efficient palletisation For further information see appendix VII		✓	

Performance improvement				
No.	**Action required**	**By who**	**By When**	**Sign off**
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Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
179	**H**	Where appropriate, containers / totes provide the correct level of protection against spillage and hazardous substances	✓	✓	
180	**L**	The selection of container / tote type has been made based on the full life cost		✓	
181	**L**	The movement of containers / totes adheres to the health and safety legislation regarding manual handling	✓	✓	
182	**L**	RFID tags attached to containers / totes has been considered as a method to support traceability of returns		✓	
S8		**Sustainable Distribution**			
		Vehicle Efficiency and Utilisation			
183	**H**	The amount of light / empty vehicle running relating to your product returns is monitored		✓	
184	**H**	Targets are set to reduce light / empty running of vehicles relating to product returns		✓	
185	**H**	Consideration of vehicle type used in the transport of product returns is made to minimise vehicle emissions	✓	✓	
186	**H**	Processes are in place to review the distances products travel relating to your product return activities		✓	
187	**H**	Measurements are in place for the amount of fuel consumption relating to your product return activities		✓	
188	**H**	Targets are set to reduce the amount of fuel consumption relating to your product return activities		✓	
189	**H**	The targets set to reduce the amount of fuel consumption are routinely reviewed, updated and reported upon		✓	

Performance improvement				
No.	**Action required**	**By who**	**By When**	**Sign off**
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Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
190	**H**	Different modes of transport are considered for your product returns management to minimise the impact on road congestion, i.e. train	✓	✓	
191	**H**	Where appropriate vehicle utilisation for transporting product returns is maximised through vehicle routing and load planning for both HGVs and small vehicles		✓	
192	**H**	The use of small vehicles is considered for low volume and / or low population areas	✓	✓	
193	**H**	The impact of the frequency of pick up /delivery of product returns to reduce light running of vehicles is considered		✓	
		Emissions			
194	**H**	There is traceability of the total distance travelled of your product returns from the point of receipt back in to your supply chain to the final point of disposition	✓	✓	
195	**H**	The CO2 vehicle emissions relating to your product returns from the point of receipt to final point of disposition is known	✓	✓	
196	**H**	The CO2 emissions produced by vehicles relating to product return activities are routinely reported on – both own operator vehicle fleet and third party	✓	✓	
197	**H**	Targets set to reduce the CO2 emissions produced by vehicles relating to product return activities	✓	✓	
198	**H**	Targets set to reduce the CO2 emissions are routinely reviewed updated and reported upon	✓	✓	
		Procurement of services			
199	**H**	Third party service providers are audited for their environmental and societal impact in relation to your product return activities	✓	✓	
200	**H**	The findings from environmental and societal audits of service providers inform future sourcing and contractual decisions		✓	

Performance improvement				
No.	**Action required**	**By who**	**By When**	**Sign off**
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Assessment					
No.	**SI**	**SELF ASSESSMENT QUESTIONS**	**Assessment level**		**Traffic Light Ranking**
			Minimum Standard	**Advanced Standard**	
		Disposition			
201	**H**	Full traceability of the waste produced from your product return operations is recorded	✓	✓	
202	**H**	Targets are set to reduce the waste arising from your product returns operations	✓	✓	
203	**H**	The targets set to reduce the waste arising from your product return operations are routinely reviewed, updated and reported upon	✓	✓	
204	**H**	The principle of reduce, reuse, and recycle is embedded in all supply chain operations, through design, plan, source, make, distribution and reverse logistics		✓	
S9		**Compliance with Legislation**			
205	**H**	Our organisation is compliant with the EU Directive on Waste of Electrical and Electronic Equipment (WEEE)	✓	✓	
206	**H**	Our organisation is compliant with the EU Directive on the Restriction of Hazardous Substances (RoHS)	✓	✓	
207	**H**	Our organisation is compliant with the EU Directive on Packaging and Packaging Waste	✓	✓	

Performance improvement				
No.	**Action required**	**By who**	**By When**	**Sign off**
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Notes to the Self-Assessment Workbook

Notes	
S1	**Cost and Performance Measurement**
	Costs
2	This enables the total cost of returns to be subdivided into the main causes of returns. This measure then facilitates actions aimed at reducing the cost of returns (e.g. if products are identified as no-fault found, it may be that instructions that go with the product are not understandable).
3	This enables the total cost of returns to be subdivided by different distribution channels (e.g. retail store, internet , catalogue etc).
5	In order to understand the costs incurred at different stages of the reverse logistics process, it helps to share information about the costs of different processes. This may involve partner organisations (suppliers / customers) sharing cost information about their part of the supply chain.
6	Costs are identified covering the full range from "cradle to grave".
8	This enables decisions to be taken about the costs and benefits associated with 'bought out' rates with suppliers, returns agreements and the provision of supplier helplines for customers.
	Quality Costs
11	Goods that are unsaleable are denying shelf space to goods that could be sold in stores
12	e.g. a television returned without its remote control.
	Activity Based Costing
	Performance Measurement
18	Does the company have a minimum value that they wish to realise on each type of returned product, whether this be the original cost price or some other notional price?
19	An important measure of returns operations is the amount of value that can be retrieved from returns operations. Therefore, the monetary value should be recorded over time so that trends can be monitored.
24	Retail stores typicaly receive a credit for a product they send back as a return. However, if it is subsequently found to be in good working order, i.e. 'No Fault Found', are stores then re-charged for the costs of accepting the product back.?
25	It has been found that the Buying departments in some companies purchase products with little regard to the levels of returns that are a consequence of their purchasing decisions. Therefore, does your company monitor these costs and charge them back to the Buying department?
26	It is important to measure the product return 'cash to cash' cycle time. It is the time between refunding a customer for a returned product and receiving a credit from the supplier for the product
28	The cash recovered from refurbishment programmes can be identified and measured.

Notes	
29	The costs incurred in recovering goods for resale through refurbishment programmes are identified and measured.
30	Do people use the monitoring systems to their own advantage, and therefore, does the company keep track to ensure that this is not happening?
	Collaboration
32	Partnering and collaboration often requires an initial investment in time and resource, but it is also important to recognise that significant improvements in cost and service can be obtained through such agreements.
33	This is really a classic “make or buy decision”. It enables decisions to be taken around core competence and the possibilities of improving both service and cost through outsourcing.
S2	**Avoidance of Product Returns**
	Forecast Accuracy
37	Poor forecast accuracy leads to higher than needed inventory levels. This will result in high levels of product obsolescnece at the end of the product life cycle.
	New Product Development
41	As an example, Halfords were finding that one of the Satellite Navigation Systems that they were selling did not do what they advertised on the packaging. Therefore, Halfords put in place a process whereby before each new product launch, the item would be checked by the Quality Team to ensure that all the advertised functions were indeed operable.
42	This might also include the use of 'Quick Start' instructions, so that the customer can get there product working as quickly as possible without having to read the comprehensive instructions. This type of approach is often used in the sale of new computer hardware.
43	Where a product can have a range of customer specified variants this can lead to high levels of obsolescence if finished products are held for all possible variants. Therefore, 'Postponement Techniques' can be applied to mitigate this risk. Postponement is where products are produced to a forecast but kept in a generic state. Only as customer orders are received is the final product made to the order specification. This is classically known as assemble to order and Dell is the most prominent industrial example.
	Purchasing Policies
45	As an example, purchasing policies may be based on factors other than customer demand, e.g. lowest unit cost. This could drive purchasing decisions based on large quantity orders to achieve price discounts. However, this may lead to excessive inventory and product obsolescne at the end of the product life cycle.
46	In order to ensure that a company's purchasing team does not buy too much of a particular product (which results in returns), it is suggested that the rewards system for the purchasing team takes into account the amount of products that are returned, thus ensuring they remain focused on buying the quantities that the company can sell.

Notes	
	Manufacturing
47	Making in large batch quantities to achieve lower unit cost of production may lead to higher levels of obsolescence.
	Product Returns Policy
53	There are a variety of reasons why a customer may return a product. Therefore, the returns policy should be written to cover all eventualities..
54	Your company ensures that all customer facing staff who have to deal with product returns are fully trained in the implementation of the customer returns policy. This includes, where appropriate, refresher training at regular intervals.
56	Does the company know whether or not the customer returns policy is adhered to, or is there variation in the way the policy is applied.
58	Does the company measure / monitor the reasons for returns to the extent whereby it can be identified that products are being returned for reasons that are not legitimate. This might involve identifying individuals / retail stores that are more liberal in their attitudes towards accepting returns.
	Authorisation of Product Returns
62	When products are returned there is a list of standard reasons against which product can be identified. For example, this list may include the following: Unwanted gift; Faulty; Parts missing, etc.
63	The information that is collated from the reason codes of returned products is used to ensure that the company makes better decisions in the future with regard to the management of returns.
66	For some types of returns (e.g. expensive products) it may be necessary for a senior member of staff to authorise the return to ensure that it is fully compliant with the returns policy.
67	In some cases it might be necessary for each individual return to be approved by a central department. For example, when a product bought over the internet is returned to a high street outlet, the outlet might have to ring the On-line department for permission to carry out the return.
69	An example might be the capability to spot trends, such as, the number of returns by a single customer. If the number of returns is high this may indicate a potential fraud
70	When a product is returned which might have multiple parts (e.g. a television might contain: television, stand, power lead, remote control, batteries, scart lead, instructions etc) iIs the company's IT system (for example The Point of Sale Terminal) able identify the product and inform the operator what components should be returned in order to give a full credit.

Notes	
	Cost Avoidance
71	For many products the cost of returning them can be higher than their value. In the case of Halford's they decided that any product with a retail price of less than £15 should not be returned through the logistics system but should be sold off at the retail store as a 'Managers Special' at a reduced price.
	Customer Service
72	For some products (e.g. electrical products) the cost of returns can be quite large and inconvenient. Therefore, in an effort to reduce the number of returns which are due to the customer not being able to make the product work, etc. some manufacturers have set up help lines which the packaging / instructions encourage the customer to ring before returning the product.
73	For some products (e.g. electrical products) the cost of returns can be quite large and inconvenient. Therefore, in an effort to reduce the number of returns which are due to the customer not being able to make the product work etc, some manufacturers have set up help lines which the packaging / instructions encourage the customer to ring before returning the product.
76	In products which might require some level of set up before they can be used, it might be beneficial to create a website to assist in the set up.
77	Often, it is less costly to offer a discount to a customer for a product that is found to be damaged at the point of delivery than to have to take it back and replace it. However, this requires delivery staff to be adequately trained in the procedure.
	Product Usability
80	In some instances Halford's were finding that they were getting significant amounts of Sat Nav systems returned because of problems associated with customers been unable to use the product. They therefore put in place an advisor in each retail store, who is able to discuss the merits of individual products with the customers before they make a purchase.
S3	**Process Management**
	General
82	Depending on the size of company and the amount of product returns that they are experiencing, it is important that the person with responsibility for returns has the appropriate level of seniority to ensure that they are dealt with effectively. To this end some companies have created the role of Reverse Logistics Manager.

Notes	
84	In the first instance this inspection might be to check that all the component parts have been returned to the retail store in the packaging. In some cases this might be a time consuming task and require a dedicated 'Returns Desk' so that the 'Sales Desks' are not slowed down from serving customers buying new products. In the second instance, it may be necessary to have a dedicated returns facility where the returned product can be checked for faults and refurbished as appropriate.
85	This could be a specific part of an outbound / returns DC which is equipped with any appropriate equipment and personnel to check the returned products. This task might also be carried out by outside contractors, who might take the products to their own premises for refurbishing.
87	Products are dealt with speedily upon reciept. Speed is important to maximise the asset recovery value and reduce opertaing costs.
	Product Handling
94	If a retail store returns a product in anything but its original packaging are they credited with a percentage of the full value rather than the full amount. This may be more important if the product being returned is 'No Fault Found', and could be resold if the packaging is returned.
95	Once a product is taken back by a retail store, it needs to go through the company returns network (storage and handling). Care must be taken to ensure that no further loss of value occurs during handling.
S4	**Physical Network**
	Warehousing
102	The decision on where to locate the returns warehouse operations should minimise the overall distance travelled of returned products and the amount of inter-depot handling. It is recommended that a 'centre of gravity' approach to the location issues should be undertaken.
	Warehousing – Dedicated Facility
104	This decision will be based on the volumes and range of products being returned.
	Mode of Transport
113	Product returns is often seen as 'no cost' as it uses the backhaul leg of a delivery vehicle. However, it is worth considering the fact that the backhaul trip can have additional opportunity costs. For example, by loading and unloading the extra returned products does take time for the driver. On a delivery route that takes in a number of retail stores these returned products can get in the way of the delivery of new products, meaning that they have to off-loaded and re-loaded a number of times before returning to the DC. The empty backhaul could be used to move something else, thus missing an opportunity to gain extra income.

Notes	
114	Product returns can often be avoided at the point of delivery. Therefore, delivery staff should be trained in techniques that minimises the opportunity for causing a return. Examples include, proper handling at the point of delivery to avoid damage, visual inspection of the product when unpacked, installing the product correctly and agreeing a discount for cosmetic damage.
115	The returns from retail stores are sent back to the DC in full truck loads to ensure that the vehicle is used to its full capacity / potential. However, the down side of this approach is that the retail store might not have enough storage space to hold the amount of products required for a full load, and even if it does this may be considered to be a waste as this space could be used for storing / selling new good products. Equally, by holding products until there is enough for full load, time will have passed in which the products could have been re-distributed and sold.
	Sortation - Product Type and Size
118	The returns staff have definitive procedures to follow when handling the return of a product. This might include, checking that everything is in the box, establishing what is wrong, can the product be resold, does it need refurbishing, does it need to destroyed, does it need labelling for its return, is a reason code assigned and logged on the IT system, etc.
119	By classifying all the returns do you feel this makes the company more efficient in terms of how it deals with its returns and maximises the value from them?
120	Do you feel the company gives the right amount of resources to sorting the returns to ensure that the highest possible value can be achieved from the returned products?
121	Does the company sort and process the higher value returned products first or, are returns processed in the order that they arrive at the returns centre / DC?
	Speed of Sorting
123	Disposition routes are the various ways in which returned products are disposed of. These may include, land fill, jobbing, outlet shops, managers mark downs, charities, refurbishment, recycling, web auction sites, etc. To maximise asset values, companies need to have a clearly defined strategy for final dispositioning of products.
124	Through staff training and procedures, the company ensures that any returned products which are 'no fault found', or unwanted can be recognised and returned to stock as soon as possible. There are some exceptions to this i.e. electrical products.
	Disposition – Jobbers and Repairers
130	It may be necessary to specify certain restrictions of which secondary markets products can be sold into.

Notes	
	Disposition – General Issues
134	While a company may have various disposition routes for different types / value of products. Have they been checked (and continue to be checked on a regular basis) to ensure that they are the most appropriate for a particular product and thus ensure that the highest value possible is recovered.
S5	**Inventory Management**
139	Significant costs in processing returns can be avoided through clear identification of returned products. Often products are not returned in their original packaging. In addition, complex products with multiple components such as a home cinema systems will be returned in more than one box. Therefore, clear marking / labelling is important.
141	This is probably more important on product returns that have a high value and or short shelf life products.
S6	**Information and Communication Technology**
	Design
147	The company employs a system for returns which is integrated across the entire company. Thus enabling all relevant functions / departments to receive information on returns.
148	The company employs a system for returns which can be seen by their suppliers. Thus giving them advanced notice on the volumes and types of products that are likely to be returned.
	Tracking and Documentation
	Inventory Management
159	The IT system enables all concerned to see what the current rates of returns for individual products and productsgroups are.
163	As the volume and variety of product returns is usually unpredictable, advance delivery notices allow the receiving points to plan for receipt of delivery.
	Online Templates
167	In a B2B environment, to reduce the administration costs of authorising product returns, the use of an online authorisation system is advisable. This allows the customer to enter all the relevant details relating to a request for returning product(s) to be sent to the supplier through a web enabled platform. This automates the process reducing cost, errors and time.
173	The IT system is used to track processing times, etc. at various stages of a products return journey. Thus allowing management to monitor where bottle necks are occurring.

Glossary

A

Term	Definition	Source
3PL (Third Party Logistics)	3PL - Third party logistics companies provide services for OEMs, ODMs and Branded Companies. Some of these services include, but are not limited to: transportation, (including domestic and international) warehousing, distribution, fulfilment and packaging.	Reverse Logistics Association
Activity Based Costing	A methodology that measures the cost and performance of cost objects, activities and resources. Cost objects consume activities and activities consume resources. Resource costs are assigned to activities based on their use of those resources, and activity.	Council of Supply Chain Management Professionals
Asset recovery	The classification and disposition of surplus, obsolete, scrap, waste and excess material products, and other assets, in a way that maximizes returns to the owner, while minimizing costs and liabilities associated with the dispositions.	www.rlec.org

B

Backhaul	The return movement of a vehicle from its original destination to its original point of origin, especially when carrying goes back over all or part of the same route.	MSI Express Logistics
Balance Scorecard	A structured measurement system developed by David Norton and Robert Kaplan of the Harvard Business School. It is based on a mix of financial and non financial measures of business performance. A list of financial and operational measurements used to evaluate organisational or supply chain performance. The dimensions of the balanced scorecard might include customer perspectives. It formally connects overall objectives, strategies, and measurements. Each dimension has goals and measurements.	The Council for Supply Chain Management Professionals

Benchmarking	The process of comparing performance against the practices of other leading companies for the purpose of improving performance. Companies also benchmark internally by tracking and comparing current performance with past performance.	MSI Express Logistics

C

Centralised Return Centre (CRC)	A facility where a company's returns are processed.	www.rlec.org
Customer Facing	Those personnel whose jobs entail actual contact with the customer.	The Council for Supply Chain Management Professionals

D

Deshopping	"deliberate return of goods for reasons other than actual faults in the product, in its pure form premeditated prior to and during the consumption experience."	Schmidt, R., Sturrock, F., Ward, P., Lea-Greenwood, G. (1999), "Deshopping the art of illicit consumption", The International Journal of Retail & Distribution Management, Vol. 27 No.8, pp.209-301.
Distribution Centre (DC)	The customer's facility from which vendor orders are received and then distributed to the appropriate stores.	InfoAccess.net

E

F

Failure Mode Effect Analysis (FMEA)	FMEA is a tool that makes it possible to determine a possible modes of failure and then to establish the effects of those failures on the overall performance of the system. It is widely used as a quality improvement tool and can be applied equally to physical systems, e.g. vehicles, and non-physical, e.g. supply chain processes. The purpose of FMEA is to prevent process and product problems during the design phase.	Cranfield School of Management (2003) Creating Resilient Supply Chains: A Practical Guide
Forecast Accuracy	Measures how accurate your forecast is as a percent of actual units or dollars shipped, calculated as 1 minus the absolute value of the difference between forecasted demand and actual demand, as a percentage of actual demand. Calculation: [1-(Sum of Variances / Sum of Actual)]	The Council for Supply Chain Management Professionals

G

Gatekeeping	For years, retailers and manufacturers have focused solely on massaging profitability into and out of the inventory management process but only from a forward distribution perspective. Our research shows that the time has come to give similarly focused attention to the reverse logistics management function—and every company has one. Point of entry into the reverse logistics pipeline—or "gatekeeping," as we call it— deserves much more attention. Gatekeeping is the screening of defective and unwarranted returned merchandise at the entry point into the reverse logistics process. Good gatekeeping is the first critical factor in making the entire reverse flow manageable and profitable.	www.rlec.org
Grey market	Products sold through unauthorized dealers or channels; generally do not carry a factory warranty.	www.rlec.org

H

I

Intermodal Transport	Transporting freight by using two or more transportation modes such as by truck and rail or truck and ocean going vessel.	The Council for Supply Chain Management Professionals
Inventory Management	The process of ensuring the availability of products through inventory administration.	MSI Express Logistics
Ishikawa Diagrams	Also known as Fishbone diagrams, they are a simple visual means of tracking a problem or risk back to a number of (sometimes widely dispersed) root causes. In turn these root causes may have other contributory factors. Diagrammatically the main problem is represented as the fish's 'head' with the major categories of potential causes as structural 'bones' leading off the central 'spine'. A number of 'ribs', each representing a specific cause, are depicted as branches off the 'bones'. Fishbone diagrams are a well-known tool in the worlds of quality management and continuous improvement.	Cranfield School of Management (2003) Creating Resilient Supply Chains: A Practical Guide

J

K

Key Performance Indicators (KPIs)	A measure which is of strategic importance to a company or department. For example, a supply chain flexibility metric is supplier On-time Delivery Performance which indicates the percentage pf orders that are fulfilled on or before the original requested date.	The Council for Supply Chain Management Professionals

L

Landfill	A controlled environment for burying municipal solid waste.	www.rlec.org

M

Materials Handling	The physical handling of products and materials between procurement and shipping.	MSI Express Logistics

N

No Fault Found or Non-defective defectives	When customers return a product claiming it to be defective, when in fact, the problem is not with the product, but often with the customer's ability to properly operate the product.	www.rlec.org

O

Obsolete Stock / Inventory	Inventory for which there is no forecast demand expected. A condition of being out of date. A loss of value occasioned by new developments that place the older property at a competitive disadvantage.	The Council for Supply Chain Management Professionals
Outbound Logistics	The process related to the movement and storage of products from the end of the production line to the end user.	MSI Express Logistics
Outsource	To utilise third-party provider to provide services previously performed in-house.	MSI Express Logistics

P

Performance Measures	Indicators of the work performed and the results achieved in an activity , process, or organisational unit. Performance measures should be both non-financial and financial. Performance measures enable periodic comparisons and benchmarking. For example, a common performance measure for a distribution centre is % of order fill rate.	The Council for Supply Chain Management Professionals
Point of Purchase (POP)	The time and place at which a sale occurs, such as the checkout counter. POP is also used to refer to the displays and other sales promotion tools located at checkout counter.	The Council for Supply Chain Management Professionals
Point of Sale (POS)	The time and place at which a sale occurs, such as a cash register in a retail operation, or the order confirmation screen in an on-line session. Supply chain partners are interested in capturing data at the POS, because it is a true record of the sale rather than being derived from other information such as inventory movement.	The Council for Supply Chain Management Professionals
Point of Sale Information	Price and quantity data from retail locations as sales transactions occur.	The Council for Supply Chain Management Professionals
Postponement Techniques	The delay of final activities (i.e. assembly, production, packaging, etc.) until the latest possible time. A strategy used to eliminate excess inventory in the form of finished goods which may be packaged in a variety of configurations.	The Council for Supply Chain Management Professionals
Process Improvement	Design or activities, which improve quality or reduce costs, often through the elimination of waste or non-value-added-tasks.	The Council for Supply Chain Management Professionals
Product Life Cycle	Product life cycle represents the growth and decline in demand for a specific product in a particular market.	Christopher, M and Peck, H, (2003) Marketing Logistics, 2nd edition, Butterworth Heinemann

R

Radio Frequency Identification (RFID)	The use of radio frequency including RFID tags and tag readers to identify objects. Objects may include virtually anything physical, such as equipment, pallets of stock, or even individual units of product. RFID tags can be active or passive. Active tags contain a power source and emit a signal constantly. Passive tags receive power from the radio waves sent by the scanner / reader.	The Council for Supply Chain Management Professionals
Reconditioning	When a product is cleaned and repaired to return it to a "like new" state.	www.rlec.org
Recycle	When a product is reduced to its basic elements, which are reused.	www.rlec.org
Refurbishing	Similar to reconditioning, except with perhaps more work involved in repairing the product.	www.rlec.org
Remanufacturing and Refurbishing	Remanufacturing and Refurbishing can be classified into five categories. The first three categories: repair, refurbishing, and remanufacturing, involve product recondition and upgrade. These options differ with respect to the degree of improvement. Repair involves the least amount of effort to upgrade the product, and remanufacture involves the greatest.	www.rlec.org
Return to Vendor (RTV)	Material that has been rejected by the customer or the buyer's inspection department and is awaiting shipment back to the supplier for repair or replacement.	The Council for Supply Chain Management Professionals
Returns Management	Returns Management is that part of supply chain management that includes returns, reverse logistics, gatekeeping, and avoidance. This definition includes activities that are critical to supply chain management such as avoidance and gatekeeping . Avoidance involves finding ways to minimize the number of items that need to enter the return flow. It can include	www.rlec.org

	ensuring that the quality of product and user friendliness for the consumer is at the highest attainable level before being sold and shipped, or changing promotional programs that load the trade when there is no realistic chance that the product shipped to the customer will actually be sold.	
Reverse Logistics	A specialised segment of logistics focusing on the movement and management of products and resources after the sale and after delivery to the customer.	MSI Express Logistics
RoHS	Restriction of Hazardous Substances	BIFFA website - Frequently Asked Questions

S

Shrinkage	Reductions of actual quantities of items in stock, in process, or in transit. The loss may be caused by scrap, theft, deterioration, evaporation etc.	The Council for Supply Chain Management Professionals
Stock Keeping Unit (SKU)	A category unit with unique combination of form, fit, and function (i.e. unique components held in stock). To illustrate: If two items are indistinguishable to the customer, or if any distinguishing characteristics visible to the customer are not important to the customer, so that the customer believes the two items to be the same , these two items are part of the same SKU.	The Council for Supply Chain Management Professionals

T

Tracking and Tracing	Monitoring and recording shipment movements from origin to destination.	The Council for Supply Chain Management

V

Value Added	Increased or improved value, worth, functionality or usefulness.	MSI Express Logistics

W

WEEE - Waste of Electrical and Electronic Equipment	Commencing 1 July 2007 any business that manufactures, brands or imports electrical and electronic equipment are responsible for the cost of collection, treatment and recycling of obligated WEEE generated in the UK. The regulations also affect distributors and retailers of EEE as well as end users.	www.weeecare.com

Appendices

Appendix I – Quality Costing

A useful classification of costs, which links into the desire to improve quality within organisations, is to classify costs into different types of quality costs. The key driver here is to both reduce costs and increase the quality offering to the customer.

Definition

Quality costs can be classified as follows:

Cost of conformance:

Cost of prevention – the costs incurred up-front to ensure that good quality products or services are delivered to the customer.

Cost of appraisal – the costs of monitoring incurred in order to ensure that only good quality products or services are delivered to the customer.

Cost of non-conformance:

Cost of internal failure – the costs arising out of inadequate quality discovered before the transfer of ownership to the customer.

Cost of external failure – the costs arising from inadequate quality discovered after the transfer of ownership to the customer.

Example

A simple example of the use of quality costing in the reverse logistics area:

Cost of prevention – training employees in stores in order to reduce customer returns.
Cost of appraisal – following checklist of processes to ensure that returns are minimised.
Cost of internal failure – costs of warehouse space allocated to returns from stores that never reached the customer.
Cost of external failure – costs of warehouse space allocated to returns from customers.

The failure costs identified above are particularly important because of the “opportunity cost” of space being unavailable for good stock.

Appendix II –Activity Based Costing

Activity based costing is a relatively new approach to costing that focuses on processes rather than functional activities. The basic concept is that managers can only manage costs by managing the activities that cause the costs. The key aspect of activity based costing is therefore to identify the cost drivers and to allocate costs to an activity (process) on the basis of that cost driver. We are talking here about the indirect costs of an organisation (or costs across different organisational boundaries) that have been traditionally allocated to products on the basis of some very arbitrary overhead absorption allocation method. Activity based costing can be used in conjunction with open book accounting and quality costing to take out non-value adding processes.

Definition

Activity based costing is a cost accounting system that focuses on the various activities performed in an organisation and collects costs on the basis of the underlying nature and extent of those activities. Activity based costing collects data on activities that cut across traditional organisational functional boundaries and can be used alongside business process improvement programmes that can be used to create a leaner and more responsive organisation. There are basically four stages to an activity based costing system – identify the major activities taking place in an organisation (or across organisational boundaries); create a cost pool for each activity; determine the cost driver for each activity; trace the cost of activities to products according to a product's demand for activities.

Example

A simple example of the use of activity based costing in the reverse logistics area would be to identify the drivers of product returns. In our reports, we have identified a whole range of drivers and these are present across the whole supply chain (e.g. product design, instructions design). Also, the full process of reverse logistics management would incorporate activities upstream as well as downstream in the supply chain. By identifying cost pools for each activity, rather than just lumping them together under functional headings (e.g. transport, warehouse), we can start to understand the real cost of reverse logistics processes. By identifying the drivers associated with product returns, we can start to initiate returns avoidance strategies (see the toolkit) in order to both reduce costs and increase value creation in the reverse logistics process. A better understanding of the real nature of costs involved here will create momentum for continuous improvement in this area.

Appendix III- The Balanced Scorecard

The Balanced Scorecard is a way of measuring and managing performance which goes beyond the basic identification of key performance indicators. The greatest impact comes when it is used to drive the change process. The key concept behind the Balanced Scorecard is the use of both financial and non-financial measures linked to the strategy being followed by the organisation.

Definition

The Balanced Scorecard consists of measures in the following four areas (although many companies have adopted this to include more than four headings or by using different headings):

- Financial perspective
- Customer perspective
- Internal Business perspective
- Innovation and Learning (and Growth) perspective

Another important feature of the Balanced Scorecard is to understand the cause and effect relationship between the different aspects of the balanced scorecard. For example, how do training programmes impact on the financial performance of the organisation?

Example

A simple example of the use of the Balanced Scorecard approach in the reverse logistics area:

Financial perspective – cost of returns of Satellite Navigation Systems

Customer perspective – percentage of returned Satellite Navigation Systems

Internal Business perspective – number of times Satellite Navigation Systems handled.

Innovation and Learning (and Growth) perspective – percentage of staff trained in correct processes for dealing with Satellite Navigation System sale.

Appendix IV – Open Book Accounting

One of the features that we have identified as being important in terms of improving the management of the reverse logistics process is the ability to collaborate with others. Such collaboration includes outsourcing operations and potential collaborative arrangements with suppliers and competitors. Open book accounting is a technique that can help to facilitate such collaborative arrangements.

Definition

Open book accounting basically involves sharing cost information about relevant processes that happen both within each organisation and across organisations. The purpose is to identify non-value adding processes that could be withdrawn without having a negative impact on the customer. In fact, the identification of such non value-adding processes will very often improve the service to the customer. Disclosing such data to supply chain partners is a practice that appeared with the spread of lean ideas in the 1990s. Very often, companies are reluctant to share cost information with other organisations. However, the argument in favour of open book accounting is that it enables margin improvement through cost reduction and this margin improvement can be shared between the partner organisations in an agreed manner.

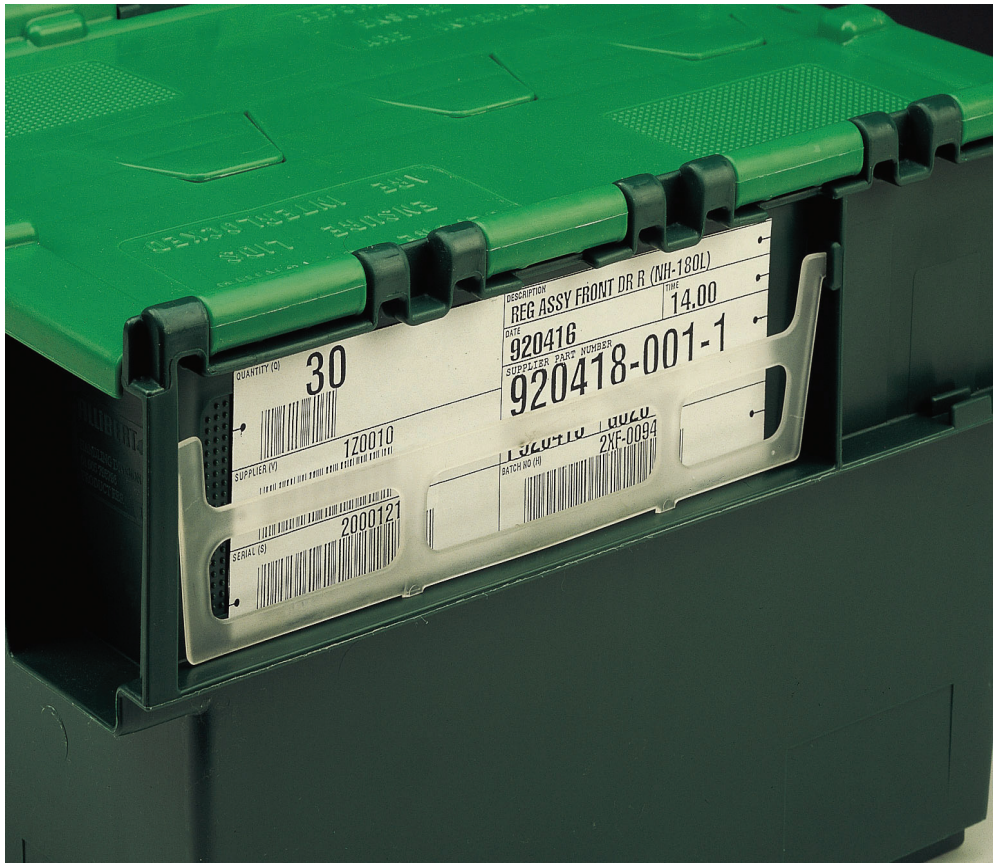
Example

A simple example of open book accounting in the reverse logistics area would be where a retail organisation outsources the refurbishment activities of returned products to a third party. There are a number of processes involved in handling the returned products, for example:

At the retailer store, warehouse and distribution centre
Transport between retailer and refurbisher
Refurbishment processes
Warehousing and transport back to the retailer or to other methods of disposition

Sharing of cost information and processes relating to these different stages of the refurbishment process could well lead to reductions in overall cost and improved satisfaction to customers. There may be duplication of processes or processes being undertaken at an inappropriate parts of the supply chain. For example, where the full set of parts associated with a particular electronic item are not sent to the refurbisher this may cause delays and waste in the overall process. Through the use of open book accounting, actions can be taken to improve the processes.

Appendix V - An example of a returnable tote with traceability



Picture courtesy of Linpac Allibert
For further information contact Nick Clements, Linpac Allibert, at nick.clements@linpac.com

Appendix VI - An example of a security seal used for the closure of totes

Picture courtesy of Linpac Allibert
For further information contact Nick Clements, Linpac Allibert, at nick.clements@linpac.com

Appendix VII – An example of returnable tote nesting

Picture courtesy of Linpac Allibert
For further information contact Nick Clements, Linpac Allibert, at nick.clements@linpac.com