

A Guide to Collaborative Loss Prevention

AUSTRALASIA

ECR Australasia—working together for total customer satisfaction

Efficient Consumer Response (ECR) is a business concept aimed at better satisfying consumer needs, through businesses and trading partners working together.

In doing so, ECR best practice will deliver superior business results by reducing costs at all stages throughout the supply chain, achieving efficiency and streamlined processes. ECR best practices can deliver improved range, consumer value, sales, service and convenience offerings. This in turn will lead to greater satisfaction of consumer needs.

ECR Australasia reflects a commitment to take costs out of the grocery supply chain and better satisfy consumer demands through the adoption of world's best practice. In an increasingly global food and grocery industry and a retail environment subject to rapid change, the future for Australian and New Zealand suppliers, retailers and wholesalers depends on increased efficiencies, reduced costs and added value for consumers. Influences such as global sourcing, new retail formats and channels, international retailers, competing products and services and technological innovation have all contributed to the pressure for change.

ECR Australasia is an initiative of manufacturers, retailers and wholesalers in the Australian and New Zealand food and grocery industry and is supported by the respective industry associations.

Launched in November 1999 and directed by a Board of nine senior industry executives, ECR Australasia seeks to build on earlier collaborative work in the industry in Australia and New Zealand and to access the outcomes of global ECR related activities and the Global Commerce Initiative. Access to the outcomes of those international activities will enable ECR Australasia to take the best, adapt it to the Australasian scene and avoid the need to reinvent the wheel.

In a supportive industry environment, ECR Australasia has a golden opportunity to achieve best practice at least resource cost.

www.ecraustralasia.org.au

Acknowledgments

The ECR Australasia *Guide to Collaborative Loss Prevention* contains industry findings, case studies and recommendations that reflect the enthusiasm of the project team and a strong response to an industry loss prevention survey.

The guide aims to have practical application within the operations of trading partners throughout the Australasian food and grocery industry and provide a clear statement of the cost to, and issues facing, our industry in the battle to reduce stock loss.

ECR Australasia thanks the following Australian and New Zealand suppliers, retailers, wholesalers and service providers for their valuable contributions:

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Executive summary

Executive summary

The benchmark ECR Europe shrinkage project reported early in 2001 and took up from the many retail loss prevention studies and surveys, to further investigate loss within the fast moving consumer goods and supermarket sector. Closer to home, local industry groups, the Australian Retailers Association and the New Zealand Retail Loss Prevention Consortium, among other forums and individual company efforts, have actively tackled stock loss.

Despite this, when the ECR Australasia Board considered the loss prevention project proposal, the Australasian impact could not be quantified beyond the general acknowledgement that it was of substantial estimated cost to the industry. There was little in the way of formalised or documented retailer and manufacturer collaboration or measures available for review.

The project objective was, therefore, to determine the level of stock loss in the Australasian grocery supply chain, in a way that identifies key points and methods of loss, so that actions can be taken by trading partners individually and in collaboration to reduce the impact. While recognising that loss occurs in many ways, potential solutions to reduce **fraudulent supply chain loss** were the principal

focus of the project. In the spirit of sharing best practice, the project was undertaken with a view to utilising as much of the ECR Europe project methodology as was possible.

The project objective was to determine the level of stock loss in the Australasian grocery supply chain so that actions may be taken by trading partners individually and in collaboration.

Loss prevention is a generic term used to describe risk management activities that aim to protect assets, profit and people against dishonesty, error and accident. As a corollary, stock loss becomes dependant on process design and procedural control. Loss occurs when environmental factors exist or intervene to disguise or lower the effectiveness of this relationship.

The project determined, through an industry survey, that in their last reported year, suppliers, retailers and wholesalers¹ in the supermarket industry reported the value of overall stock loss along the supply chain and within the retail store as A\$942 million or 1.73% of industry turnover.

The all-encompassing figure includes theft, fraud and process failures within the industry supply chain as estimated and reported by industry participants. The Australasian results, while at the lower end of usual estimates, are within ballpark domestic and international retail loss figures. Caution must be applied in such estimations, as inevitably the base of comparison and types of retail stores and product categories differ.

The extent of loss in Australasia demonstrates in the clearest terms the need for supermarket retailers and suppliers to jointly address the underlying causes and areas of concern. Having recognised the extent of the problem, value can be gained from action-oriented outcomes, such as the need for trading partner collaboration, transparent industry measurement and a more organised approach to external legal and jurisdictional agencies.

¹ For comparative purposes, wholesale participants combined and standardised their data to that of a vertically integrated retailer.

The project categorised loss into four commonly used types—internal theft, external theft, process failure and supplier fraud (retailer only)—the incidence of which, for suppliers, retailers and the industry as a whole is as follows:

Table 1: Loss categories in Australasia

	Internal theft	External theft	Process failure	Supplier fraud
Suppliers	1%	4%	95%	Not applicable
Retailers	25%	35%	29%	11%
Industry	22%	31%	38%	9%

The categories of loss by retailers were remarkably similar to the ECR Europe outcome, whereas Australasian suppliers noted a much higher proportion of their losses as process failures.

Of particular significance in an ECR context was the survey finding of a very low level of collaboration between trading partners on the issue of loss prevention. The recommendations of the ECR Australasia project team highlight how suppliers and retailers can collaborate to reduce the incidence of stock loss.

However, a more structured and encompassing method will be required to provide, on an ongoing basis, practical diagnostic tools and an improvement roadmap. The ECR Europe shrinkage report provided a concept called the ‘Stock Loss Reduction Guide’. It consists of step-by-step processes to help trading partners reduce the costs of stock loss. With the concurrence of ECR Europe, the guide is reproduced in this report, together with techniques and tools to help undertake each phase and to deal with problems that may be encountered. The steps are:

- recognise that stock loss shrinks sales and profit
- develop a strategic plan
- map key processes
- analyse risk, identify causes
- develop solutions and prioritise actions
- implement solutions
- evaluate implementation and measure problem

The approach provides structure, yet is flexible enough to meet the varying needs of trading partners.

In addition to measuring the size of the stock loss problem in Australasia, this project sought to highlight the key points and methods of loss, so that ideas may be generated and actions taken by trading partners individually and together to reduce the impact. The project team reviewed the extended supply chain, using their knowledge and experience to highlight the risk areas, report on best practices and promote local case study examples. The extended supply chain was broken down into the three distinct areas of:

- the distribution centre and transport
- the retail store
- the external environment

The distribution centre and transport processes are quite different to many of those within the retail store. Within the modern, centralised distribution centre and the typical transport process, a consistent and thorough audit trail follows any stock movement, and is backed by regular automated and physical checks on stock holdings. Relatively few people come into contact with the vast volume of product that moves through the supply chain. As such, professional thieves and ongoing collusion were rated as far less of a problem in distribution centres than regular staff theft or supplier fraud. Within such a tightly controlled environment, loss was reported as being at greatest risk more explicitly at points of control change or product handover and through product use-by date expiry.

The retailer industry survey highlighted in excess of 95% of their loss as arising at store level, some A\$800 million of stock loss in their latest year. In-store risks are accepted as being within two broad categories—goods receipt and merchandise on display, with quite different tactics used to minimise loss. Retailers noted the greater importance and often seniority being accorded the stockroom manager in recent times.

Solutions that retailers and suppliers are using and/or trialling in-store to achieve increased availability and visibility of product and reduce loss include:

- improved security merchandising aids
- packaging design
- store design and aisle layout
- loss prevention operatives
- electronic article surveillance (EAS)
- trading partner collaboration

While collaboration between individual trading partners can be used to address issues arising with the trading relationship, root causes and broader scale efforts to reduce intentional illegal stock loss lie outside the traditional retailer-supplier supply chain. Project participants were able to identify elements of the community that need to be included in a holistic loss prevention strategy and have highlighted some of the areas that require new or increased efforts by industry. In Australasia, formal industry bodies and associations afford some coordination, along with other specific bodies that have been instituted to tackle stock loss.

Managing the external environment is one of the most challenging aspects of loss prevention facing the supermarket sector and retail industry. While in-store and supply chain measures, both physical and process based, can be constantly improved upon, it is tantamount to ‘placing the ambulance at the bottom of the cliff’—in attempting to deal with loss after the event, rather than reducing the motivation for it to occur in the first instance. This report reinforces the need for an integrated and industry-wide effort to support the efforts being made by individual companies throughout the extended supply chain.

While collaboration between individual trading partners can be used to address issues arising within the trading partnership, root causes and broader scale efforts to reduce intentional illegal stock loss lie outside the traditional retailer-supplier supply chain.

In providing a quantifiable estimate of the impact of stock loss on the supermarket industry in Australasia, ECR Australasia has identified an understanding of where and how that loss occurs. This should serve as a call to trading partners to review the manner in which they are addressing loss prevention and to establish whether the sum of two halves will be greater as a whole, in attempting to reduce the total cost of stock loss. The cost of the status quo is the enormous, and growing figure of A\$942 million dollars per year to Australasian supermarkets and their suppliers.

Recommendations

To provide impetus to the established efforts in addressing stock loss, ECR Australasia recommends that the following actions be taken:

- improve loss prevention collaboration at multiple industry levels, such as between
 - industry working groups
 - trading partners
 - functional areas of individual companies
- improve measurement reporting and visibility of stock loss
- renew industry efforts to engage with law enforcement agencies
- renew industry efforts to implement model retail theft legislation in jurisdictions in Australia and New Zealand
- improve collaboration in the introduction of broad-scale loss prevention technologies



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Introduction

Introduction

The all-encompassing issue of loss prevention is today as topical as ever in the retail industry. Within the ECR community, the initial and benchmark ECR Europe shrinkage project report was undertaken during 2000 and reported at the ECR Europe conference early in 2001. Closer to home, a 1998 Australian industry forum, the Grocery Industry Shrinkage Project, studied stock loss in the supermarket sector, while on a more general retail front, the New Zealand Centre for Retail Research and Studies conducted a retail theft study in 1999. Industry groups, the Australian Retailers Association and the New Zealand Retail Loss Prevention Consortium, amongst other forums and individual company efforts, have also maintained an active stance on this issue.

Notwithstanding the above activity and the other regular and numerous international studies that have been completed on the topic, when the loss prevention project proposal was considered, the Australasian impact could only be acknowledged as being of substantial estimated cost to the industry, with little in the way of formalised retailer-manufacturer collaboration or measures available for review.

The project objective therefore became to determine the level of stock loss in the Australasian grocery supply chain, in a way that identifies key points and methods of loss, so actions can be taken by trading partners, individually and in collaboration, to reduce the impact. Whilst recognising that loss occurs in many ways, potential solutions to **reduce fraudulent supply chain loss** was determined as the principal focus of the project.

The project undertook to use as much of the 2001 ECR Europe shrinkage project methodology as was possible, thus reducing the ECR Australasia project time and taking advantage of the findings and outcomes of the already completed study. Links with the industry and the ECR Europe project team led to the sharing of the European industry survey, enabling an immediate head start by the ECR Australasia project team. The survey tool was modified to reflect the specific circumstances of the Australian and New Zealand supermarket supplier and retailer sector, although otherwise was left intact, making the outcomes directly comparable.

The project undertook to use as much of the ECR Europe project methodology as was possible, thus reducing the ECR Australasia project time and taking advantage of the findings and outcomes ...

These European links and permissions have also enabled the ECR Australasia project report to include a full reproduction of a 'Stock Loss Reduction Guide', from the European report, and it sits alongside analysis of the situation in Australasia and recommendations by the ECR Australasia project team.

The project sought an understanding of the size of the issue and the key loss prevention focus areas of industry participants. It assessed industry solutions which aimed to maintain the integrity of the supply chain from manufacturer through to retail store, allowed continued

display and sale of high value and or market leading products in-store, and recognised the mutual interests of wholesalers, retailers and affected manufacturers. It did not set out to review or recommend any particular technology.

The project report seeks to use the findings to raise industry awareness of the issue, and, somewhat unfortunately, the headline figure of loss will inevitably ensure this is the case. Much more important are the findings of current practices and priorities and the recommendations that emanate from them—these will be the tools that reduce stock loss in the future.

The project findings and recommendations touch all facets of our industry trading relationships as well as the internal practices of both trading partners. There are also significant points made with regard to our industry's dealings with the external environment, such as the engagement of law enforcement agencies and the requirement for, and enforcement of, appropriate legislation.

The most compelling outcome, however, will be recognition of the shared responsibility for loss prevention. As with all circumstances where there is an ongoing business partnership, accountability and ownership varies at different points along the relationship. The most successful relationships will respect and take account of the needs of their trading partners. Both parties will ultimately benefit from such an ECR approach, as their joint efforts satisfy the needs of the consumer, and reward the trading partners with improved business results.



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Stock loss in Australasia—the cost to our industry

Stock loss in Australasia—the cost to our industry

Market background

'Loss prevention' is a generic term used to describe risk management activities that aim to protect assets, profit and people against dishonesty, error and accident. As a corollary, stock loss becomes a function of process design and procedural control. Loss occurs when environmental factors exist or intervene to disguise or lower the effectiveness of this relationship.

This study by ECR Australasia, the first of its kind to specifically review loss prevention in suppliers and supermarket retailers in Australasia, provides intriguing insights into the cost, industry views and priority solutions associated with stock loss. The financial costs may be difficult to specifically calculate,

Loss prevention describes risk management activities that aim to protect assets, profit and people against dishonesty, error and accident.

however they are quantifiable. An additional and less quantifiable effect is the consumer dissatisfaction as a result of stock loss, caused by product unavailability or closed or secure merchandising practices, which counter industry and ECR goals of serving the consumer better.

The Australasian supermarket sector has annual retail sales of approximately A\$54 billion.² Supermarkets and grocery stores are the single largest retail sector in Australia and New Zealand, comprising approximately 40% of retail sales in Australia and approximately 30% of retail sales in New Zealand.³ Supplier turnover, based on industry estimates, is approximately A\$38 billion.

Respondents to the project survey comprised just under half of the supermarket turnover and approximately one-quarter of all supplier turnover, with results scaled-up to full industry value. In high-risk product categories, supplier respondents made up a significantly greater category share. Both Australian and New Zealand operating companies were represented in the supplier and retailer industry surveys.

The cost of stock loss

The headline results of the industry survey conducted as a component of this project are startling if, unfortunately, not surprising. The survey findings show that, in their last reported year, suppliers, retailers and wholesalers⁴ in the supermarket industry reported the value of overall stock loss along the supply chain and into the retail store, as accounting for 1.73% of industry turnover or A\$942 million. Significant additional costs are also incurred in preventing stock loss.

The results quantify the sheer size and magnitude of stock loss within our local industry sector and particularly so when they are broken down—A\$2.6 million per day; A\$107,000 per hour; A\$1800 per minute; A\$30 per second! This all-encompassing figure includes theft, fraud and process failures⁵ within the industry supply chain as estimated and reported by industry participants. The results are at the lower end of ballpark domestic and international retail loss figures, as shown in Table 2. Caution is needed when comparing such studies as it is common, and is apparent in these examples, to have varying project scopes and even methods of measurement, restricting comparative value to an indicative figure only.

2 Source: Australian Bureau of Statistics, Statistics New Zealand, Full Year 2001.

3 Source: Australian Bureau of Statistics, Statistics New Zealand, Full Year 2001.

4 For comparative purposes, wholesale participants combined and standardised their data to that of a vertically integrated retailer.

5 See Glossary for full definition.

Table 2: Comparative table of industry studies—stock loss or shrinkage (% of retail sales value)

ECR Australasia 2001–02	ECR Europe 2000–01	University of Florida Retail Security Survey 2000	NZ Centre for Retail Studies 1999 ⁶	Australian Grocery Industry Shrinkage Project 1998 ⁷
Supermarkets and grocery (including suppliers)	Supermarkets and grocery (including suppliers)	Supermarkets and grocery retailers only	Broader retail estimate (not including suppliers)	Supermarkets and grocery retailers only
1.73%	2.31%	1.53%	2.0%	1.1%

Setting aside the comparative detail, the ECR Australasia figure provides an up-to-date, local and industry specific indicator, with the extent of loss in Australasia demonstrating, in the clearest terms, the need for supermarket retailers and suppliers to jointly address the underlying causes and areas of concern.

Having recognised the extent of the problem, value can then be gained from action-oriented outcomes, such as the need for trading partner collaboration, transparent industry measurement and a more organised approach to external legal and jurisdictional agencies, which are developed, along with other recommendations later in this report.

Table 3: Stock loss in Australasia

	Loss as a percentage of supermarket retail sales	Value A\$ million
Retailers/wholesalers	1.52%	\$823
Suppliers	0.21%	\$119
Industry	1.73%	\$942

The overall industry figure of 1.73% is dominated by loss at retail stores (see Table 3). Stock loss in Australasian supermarket retailers is estimated to be 1.52% of retail turnover, or A\$823 million per year—some 88% of total loss. Stock loss has a direct impact on bottom-line profitability. To illustrate this point: if, based on total industry turnover and a hypothetical supermarket net margin of 3.5% of sales, the industry could reduce retail losses by 25%, it could result in Australasian retailer profits increasing by over 10%. Reductions in retail losses would also see benefits flow through to high-risk suppliers, with proportionate reductions in costly compensatory and preventative measures.

Stock loss within suppliers to Australasian retailers is estimated to be 0.3% of supplier turnover or A\$119 million (equating to approximately 0.21% of overall supermarket turnover). Obviously, reductions in supplier loss would also lead to proportionate business returns.

Most significantly, the stock loss figures serve to highlight the opportunity cost to consumers, as losses translate to product visibility in-store, product availability on the shelf and the final product cost.

Known and unknown stock loss

The 2001 ECR Europe shrinkage report used the concept of stock loss as an iceberg—with a proportion of it known (above the water) and a large and sometimes majority proportion unknown (under the water). Such a metaphor is also appropriate for the results of the ECR Australasia study where, at industry level, over 30% of the loss is unknown.

⁶ New Zealand Centre for Retail Research and Studies, 1999, New Zealand Survey of Retail Theft and Security.

⁷ Grocery Industry Shrinkage Project, Childs Davidson Pacific, 1998.

Table 4: Stock loss—ECR Australasia and ECR Europe results

	ECR Australasia		ECR Europe	
	Retailer	Supplier	Retailer	Supplier
Known	65%	92%	41%	59%
Unknown	35%	8%	59%	41%

Australasian supermarket retailers are hit hard in this regard, due to a large theft and fraud component of their losses—only 65% of their losses are recorded as known, although this is significantly above the European result. Suppliers believe they know about an extremely high 92% of their losses. The supplier-known figure is considerably higher than the ECR Europe report, where suppliers recorded only 59% of their losses in this way.

It is prudent to observe, particularly with theft and fraud, that you only know about the losses you find, and well-disguised theft or fraudulent activities may never be discovered. Several supplier responses acknowledged this point, noting the difficulties in attempting to determine and then quantify losses into the broad categories within the supplier survey. This may suggest a higher degree of unknown loss exists in suppliers.

Suppliers, perhaps due to a high degree of outsourced distribution, expressed a reliance on management reports and practices of their third-party service provider. It was common for these losses to be at the cost of the third party provider and perhaps less likely to be a focus of supplier attention.

Australasian suppliers also recorded a very high rate of process failure within their overall loss, and this may partly explain the high level of known stock loss. Additionally, the higher known loss figure amongst both retailers and suppliers in Australasia may be reflective of a simpler and more centralised supply line, by way of comparison to a pan-European chain.

... the industry reports a combined annual figure of close to A\$300 million dollars in stock loss and of which the source cannot be pinpointed.

These possibilities do little to disguise the core point as reported by suppliers and retailers. For retailers, the figures equate to an unknown loss of A\$283 million. Upon adding in supplier unknown losses, the industry reports a combined annual figure of close to A\$300 million in stock loss and of which the source cannot be pinpointed.

Types of stock loss

The project categorised loss into four commonly used types -internal theft, external theft, process failure and supplier fraud (retailer only). Table 5 displays the break-up of these categories for suppliers, retailers and the industry as a whole.

Losses arising from illegal activities such as supplier fraud and theft (internal and external) account for 1.08% of retail turnover—71% of overall loss—or just on A\$588 million, 99% of which is occurring at retail level. The ECR Europe study reported theft and fraud as comprising approximately 1.28% of industry turnover, representing 73% of overall losses.

Table 5: Types of stock loss in Australasia⁸

	Internal theft	External theft	Process failure	Supplier fraud
Retailer	25%	35%	29%	11%
Supplier	1%	4%	95%	Not applicable
Industry	22%	31%	38%	9%

Retailers identified the vast majority of their losses, over 95%, as occurring at store level. They reported professional thieves as the source of their biggest stock loss within stores, followed at some distance but equally, by opportunistic external and staff thieves. Within the distribution centres, for both suppliers and retailers, supplier and staff or contractor theft was recorded as the greatest risk. Systemic professional theft and collusion were not rated as such high risks.

Retailers identified the vast majority of their losses as occurring at store level.

Process failures at supplier or retailer distribution and retail store level comprised 0.65% of industry turnover or an annual cost of A\$354 million. One-third of this can be attributed to supplier process failures, with the balance related to retail stores. Process failures, in this project, encompassed paper and/or administration losses, such as delivery or pricing errors and product handling errors like damaged or short-code product discounting or disposal, clearance of excess or low-selling store stock and so forth. Fresh fruit and vegetable spoilage is not included in these figures. Some of the losses were reported as being caused by poor internal business practices, such as forced stock allocations to stores.

One respondent also noted stock swellage at distribution centre (DC) level, where inventory stocktakes recorded more stock than was reflected in inventory systems. This highlights process failures relating to stock receipt and distribution practices.

Process failures dominated supplier losses, [at] an estimated 95% of all loss.

This project limited analysis of supplier losses to those within the suppliers' storage and distribution processes. Process failures as shown in Table 5, dominated supplier losses, with an estimated 95% of all loss and as noted previously, may provide an insight into why the supplier-known loss figure is so high. Suppliers encountered three-quarters of the losses within their distribution centre operations, where stock damage, picking errors and out-of-date stock were reported as the major process failures.

Process failures are a crucial element in overall loss prevention and participants made mention of individual programs that had reduced reported loss through simple process and system improvements. Close cooperation between finance and audit teams with those responsible for loss prevention, was highlighted as a critical factor in reducing the level of paper-loss process failures.

Retailer categories of loss very closely matched those figures from the ECR Europe study and, directionally, were in line with international and other study estimates. In directly comparing the Australasian and European results, Australasian retailers reported process failures to be 29% of their value of their losses, as against 27% in Europe, supplier fraud 11% (12%), internal theft 25% (24%) and external theft 35% (37%). For suppliers, process failure has been mentioned at the high level of 95% of all loss, whereas internal theft was recorded at a very low 1% and external theft also a very low 4%, by way of comparison with the ECR Europe study, where the figures were 78%, 11% and 11% respectively.

⁸ Figures have been calculated on a weighted dollar basis.

Supplier variations in stock loss

The industry stock loss survey revealed significant sectoral differences between product macro-categories and the methods of stock loss. Amongst suppliers, where the total loss was rather low—0.21% of industry retail value, there was significant variation between those companies that could be classified as high risk and those of low risk. There was just as distinct a difference in what type of loss most commonly affected a supplier company. Retailers had no such obvious differences, with all participants recording loss figures close to the overall retail figure. It was acknowledged, however, that independent operators often had lower loss figures than chain-based stores. This feedback was

The industry stock loss survey revealed significant sectoral differences between product macro-categories and the methods of stock loss.

anecdotal and was not corroborated by the results received in the industry survey.

The first obvious supplier difference is between food and non-food companies. Food companies had a much higher proportionate loss through process failures—most notably stock going out of date—with little reported loss through theft. Overall, food companies reported a higher stock loss figure than did non-food companies.

Non-food companies again exhibited a dichotomy of results. Those with higher loss figures were most vulnerable to theft (typically, risk product categories were within personal care and electrical groups) and those with lower figures identified most problems through process failures.

Typically, higher risk companies, both food and non-food, had an upper range of loss of around 2% of sales, whereas low risk non-food companies recorded essentially negligible loss.

Activities to reduce the risks

Most companies conducted at least two stocktakes or inventory counts in stores and supplier and retailer distribution centres each year. Most companies also noted that regular cycle counts were used to supplement formal stock takes. It was quite common for high-risk items to be subject to extra protection measures, such as increased frequency of count, secure locations and procedural controls.

Retailers reported spending most of their in-store loss prevention expenditure on physical deterrent measures, such as cash protection equipment, closed circuit television and alarm systems, ahead of the actual cost of loss prevention and/or audit teams. Expenditure on electronic tagging systems was low overall, however there was a distinct country-based difference in approach to these systems (high in Australia, low in New Zealand). Analysis of electronic-point-of-sale (EPOS) data and automated stock ordering systems was generally not widely used by retailers as a tool to reduce stock loss.

Suppliers reported devoting a high percentage of their loss prevention expenditure at manufacturing sites on anti-contamination equipment, with the objective of preserving product integrity and reducing process failures.

In distribution centres, expenditure was skewed toward external security measures, like shutters, fences and contracted security staff, although procedural controls, such as checking stock deliveries, perpetual inventory systems, pallet configuration checks and regular cycle counting (particularly with vulnerable lines) were reported with a high level of use. Approximately one-half of supplier respondents used sealed deliveries or pallet security, although this is most likely higher than true industry usage, due to the nature of the companies that responded to the survey. In addition, pallet weighing was used by around 20% of supplier respondents.

It would appear the modern, centralised distribution systems used by most suppliers, retailers and wholesalers provide a high level of procedural controls and physical security measures that minimise the opportunity for stock losses. Losses were seen to arise where these controls were not followed or were deliberately and fraudulently abused.

The linkage of personal key performance indicators (KPIs) with loss prevention was seen quite differently amongst the industry respondents. Within retailers, outside of the security or loss prevention department, only store operations personnel were unanimously noted as having loss prevention as an integral part of their KPIs. The next most common were retail distribution centres (RDCs) to store supply chain management and the Board of Directors. Half of the responding retailers included reducing stock loss as a KPI for buying and/or trading personnel. Outside of those involved in supplier logistics and supply chain management, the use of stock loss or loss prevention as an integral part of performance measure was limited to factory operations and DC management. Few suppliers noted any other department as having KPIs linked to loss prevention.

Modern, centralised distribution systems provide a high level of procedural controls and physical security measures

The methodology employed to record losses is quite different amongst retailers, with no clear systematic process for particular types of losses evident. Most companies used a mixture of recording practices (paper and computer); some companies keep no records; and there was one example of totally computerised record keeping. A similar pattern existed within suppliers, where there was no consistent approach to recording stock loss, whether it arose through DC operations or goods in transit. If any consistent approach could be identified, it was that process failures were the most common type of loss systematically recorded via computer-based systems, whereas theft of goods in transit was most likely to not be recorded, or be recorded on paper-based systems only.

Improvements in recording and measuring loss and, where appropriate, sharing the information with trading partners are obvious measures to identify and reduce the incidence of product loss.

The need to work together

Of particular significance, in an ECR context, was the survey finding of a very low level of collaboration between supplier and retailer trading partners on the issue of loss prevention—all respondents recording a negative or occasional/ad hoc response to the question of working with their trading partners. While most retailers said they worked reasonably regularly with other retailer groups, police (although with little satisfaction expressed) and security equipment suppliers and consultants, a much

Supplier and retailer participants reported a very low level of collaboration between trading partners.

lower response was received in terms of working with manufacturers—either individually or in joint industry activities.

Suppliers provide a similar contrast. In relation to loss prevention, nearly 90% of suppliers noted their organisation's regular or frequent involvement with third-party logistics providers. While about two-thirds said they were working with retailers to reduce stock loss, nearly all recorded this contact as being occasional, ad hoc or as required. Beyond even this low level of contact, involvement levels and frequency dropped away substantially. On a positive note, one high-risk company noted the existence of company resources that are allocated to working directly with retailers to reduce loss.

Internal company barriers also appear to exist in tackling stock loss. Whereas loss prevention departments within retailers were seen as responsible for loss prevention and generally had regular or high levels of involvement with associated departments, such as retail operations and RDC to stores processes, participants predominantly recorded having only occasional involvement with the buying/trading group. Similarly, logistics and operations within suppliers tended to own loss prevention, however recorded only occasional contact with the departments responsible for marketing and product design or sales/trade marketing and category management.

When it comes to planning or implementing possible loss prevention solutions involving a trading partner, this lack of regular and coordinated engagement both internally and externally is likely to be an impediment.

Plans and preferences for the future

Industry members, in describing individual company plans and the priorities for engagement with their trading partners, highlighted a mixture of preventative and reactive activities.

Reducing store-based losses through theft resistant packaging and anti-sweep shelf merchandising practices were high priority requests of suppliers from retailers. Several retailers also mentioned EAS as an activity being trialled or considered for implementation and therefore source tagging for EAS equipment was an upcoming priority. Reinforcing the poor reported collaboration, retailers made only minor mention of initiatives to educate or provide greater awareness of loss prevention to suppliers or broader external agencies.

Suppliers noted they would like three broad areas of action from their retailer trading partners, namely the receipt process of goods (at DC and in-store), the rotation of goods (at DC and in-store—shelf life) and in the merchandise display and security practices in-store. Suppliers also sought process-based improvements to reduce leakage points along the supply chain and to provide confidence in allowing open merchandising of high-risk items.

Future supplier initiatives were most commonly related to special or tamperproof packaging and sealing of deliveries, and in actions that would reduce process failures. Completing somewhat of a mismatch in supplier and retailer objectives, EAS source tagging was noted by very few respondents as an initiative to be introduced in the next year.

Summary

The survey results provide a valuable insight into the size of the stock loss problem in Australasian supermarkets, the causes of stock loss and the way trading partners are working to reduce the problem, both within their own organisations and in working together.

It has highlighted significant challenges in minimising the problems that are sucking nearly A\$1 billion per year from the supermarket sector. The results and challenges translate to clear messages on the need for trading partners to improve the manner in which they are working together along the supply chain. The clear differences in the future initiatives reported by supermarket suppliers and retailers are a pointer to the size of the opportunity for a greater partnership in loss prevention.



4

The benefits of reducing stock loss

The benefits of reducing stock loss

The headline results of the ECR Australasia loss prevention project survey highlight the sheer significance of the reduction opportunity for suppliers and retailers—A\$942 million per year being lost to theft, fraud and process failures.

This project report began by reminding us that ECR is about working together to serve the consumer better. The survey results have provided an insight into the ways and means that this may occur between retailer and supplier trading partners. Effective loss prevention strategies will also serve the consumer.

The understanding of consumer demand, stimulated by openly merchandised, visible and available product, is keenly sought after and can be leveraged to drive the complete supply chain. Consumer demand can be severely compromised by significant product loss in the supply chain. The benefits of reducing stock loss for consumers, retailers and manufacturers are listed in Table 6.

Table 6: Benefits of reducing stock loss⁹

Consumer benefits	Retailer benefits	Manufacturer benefits
Lower out of stocks	Lower cost	Lower cost
More open merchandising	Higher store loyalty	Higher brand loyalty
Greater choice	More efficient replenishment	Better planning
Leading to: <ul style="list-style-type: none"> • higher consumer satisfaction • more convenience 	Leading to: <ul style="list-style-type: none"> • increased sales • increased profit 	Leading to: <ul style="list-style-type: none"> • increased sales • increased profit

This ECR Australasia report highlights several ways the industry can work to reduce the problem of stock loss. However, a more structured and all-encompassing method will be needed to handle, on an ongoing basis, practical diagnostic tools and provide a roadmap to further improvements.

The ECR Europe shrinkage report contains a concept called the 'Stock Loss Reduction Guide'. It consists of step-by-step processes to help trading partners reduce the costs of stock loss, and appears to be of direct relevance to the Australasian market. The guide is reproduced on the following pages with the permission of ECR Europe. ECR Australasia greatly appreciates this assistance.

⁹ Source: ECR Europe report, *Shrinkage: Introducing a Collaborative Approach to Reducing Stock Loss along the Supply Chain*, 2001.



5

Stock Loss Reduction Guide

Reproduced from the 2001 ECR Europe report on shrinkage.

Stock Loss Reduction Guide

The FMCG sector is a highly complex competitive business, with retailers often stocking in excess of 20,000 SKUs and manufacturers managing pan-European supply networks that handle multi-million numbers of cases of product each year. In addition, companies have a plethora of systems, procedures, policies and practices in place to move products from the point of manufacture to the point of sale.

Throughout this process there is a multitude of opportunities for products to be either lost, broken, stolen, eaten, under priced or to go out of date. The challenge is minimising these risks. In theory, the concept of stock loss reduction is simple. It can be described in terms of the three following steps:

- make stock highly visible so that loss is immediately noticed;
- quickly identify the cause of the loss; and
- implement preventative solutions to resolve the cause of the loss and prevent reoccurrence.

In practice, whilst this concept is simple to describe, its implementation is not. Difficulties in implementation arise for a wide number of reasons. Not least is the complexity of the sector, the absence of reliable data on the extent and nature of the problem, and a lack of cooperation both within companies and between companies in the supply chain to develop shared solutions. But the difficulties also stem from the lack of a 'road map' for undertaking stock loss reduction projects.

For this reason, the key output from the ECR Europe shrinkage project is the 'Stock Loss Reduction Guide' presented here. The guide acts like a manual, describing the overall activities that need to be undertaken in order to reduce stock loss. This guide consists of a general approach made up of the steps a company needs to follow, together with techniques and tools to help undertake each phase and to deal with problems that may be encountered. The general approach that forms the heart of the guide is shown in Figure 1. This structure is systematic and provides the means for planning and undertaking stock loss reduction projects while guiding users towards continuous improvement through the cycle.

Figure 1: A systematic approach to reducing stock loss

0: Recognise stock loss shrinks sales and profit
1: Develop a strategic plan
2: Map key processes
3: Analyse risk, identify causes
4: Develop solutions and prioritise actions
5: Implement solutions
6: Evaluate implementation and measure problem

Stock loss reduction involves problem diagnosis and solution implementation. The essence of the guide is that through well-planned investigation, pressing needs are identified. These are followed by small-scale experiments that explore the stock loss problem, identify likely causes and develop appropriate solutions. Undertaking trials can then assess the effectiveness of solutions. Where a solution is found to be successful it can be implemented widely and practices standardised around it. Given the uniqueness of each business environment where stock loss occurs, a single, 'right' strategy for reducing stock loss does not exist.

Whilst this guide provides a basic structure for practitioners, the approach needs to be tailored to match prevailing circumstances in order for it to be effective. Knowing the scope for variation, what does and does not work and the reasons why, comes with learning through experience. It is therefore important to recognise that reducing stock loss is a long-term and ongoing learning process.

Therefore, success comes from using the systematic approach to building the capability to identify and understand the causes of shrinkage and reinforce practices that reduce loss. The approach described in this guide provides a means for involving all company employees in stock loss reduction.

Widespread involvement provides knowledge of current practices, such as stock control, and helps build commitment that allow changes to be implemented. This involvement stretches from the creation of radical visions for the supply process, analysis of the current process and its performance through to process redesign, implementation and review.

To help undertake the steps of the general approach, a number of techniques and tools are recommended. These have been chosen to aid communication and understanding. This list is not comprehensive and practitioners should introduce their own tools where they find them to be more useful.

Step 0: Recognise that stock loss shrinks profit and sales

Objective:

- Recognise need to change
- Evaluate approach to tackling stock loss
- Recognise the need to change

The FMCG sector suffers significant losses each year through shrinkage (€18 billion). These losses occur all along the supply chain: from point of manufacture, throughout the distribution process, to the point of sale. While €10 billion of this loss cannot be accounted for, the effects of shrinkage are clear: the shopper suffers through added cost and poorer service.

The outlook for retailers, manufacturers and consumers concerning shrinkage is bleak unless action is taken quickly. Against a background of significant losses today, future levels are likely to increase. Food retailers continue to expand the number of non-food items they carry, such as CDs, clothes and electrical items, which are products perceived by them to be at greatest risk of theft.

Evaluate approach to tackling stock loss

In general, current attempts to address shrinkage are unfocused and unstructured. Despite its dramatic impact on the shopper, there is little collaboration either within companies or between companies to tackle the problem.

0: Recognise stock loss shrinks sales and profit

1: Develop a strategic plan

2: Map key processes

3: Analyse risk, identify causes

4: Develop solutions and prioritise actions

5: Implement solutions

6: Evaluate implementation and measure problem

Table 7: Conceptual approaches to stock loss reduction

Category \ Rating	Ad hoc	First steps	Systematic practices	Strategic policy deployment
Philosophy	Shrinkage is not an identified issue.	Reactive firefighting with emphasis on detection.	Emphasis on detection and prevention.	Strategically led systemic approach.
Accountability	Nobody is accountable for shrinkage.	Accountability lies primarily with the store manager.	Specialist security/loss prevention and audit departments.	All departments have stock loss accountability and are measured against their target as frequently as sales.
Responsibility	Shrinkage not seen as a priority therefore nobody takes responsibility for it.	Board sees stock loss as a 'cost of doing business'. Responsibility for stock loss is not taken centrally, but by local operatives.	Specialist security/loss prevention and audit departments but not responsible to the Board.	Board reviews stock loss quarterly. Head of stock loss reports to Board. All departments have responsibility for stock loss and producing quarterly reports on it.
Culture	Staff not used.	Some effort made to use staff through raising awareness and encouraging honesty.	Staff receives ongoing training to tackle shrinkage. Methods adopted to screen new staff.	All staff carefully screened and then seen as the main defence against crime. Staff used as the main resource for better prevention.

Current practices are characterised by a heavy reliance upon reactive strategies that are only triggered when a particular problem becomes intolerable. Such knee-jerk and insular reactions not only fail to resolve the causes of loss, but they can also have a detrimental effect upon the profitability of a company. For instance, adopting 'defensive merchandising' can cause problems with replenishment and availability. Hence, the need to wake-up to a different approach.

To help companies review their current stock loss reduction strategy, Tables 7 and 8 can be used as a benchmarking tool, both in terms of gauging the conceptual approach adopted and the practices presently employed. This 'look in the mirror' is an important step in recognising how a company compares against best practice, as well as identifying the gap between what is presently done and what needs to be achieved in the future.

Table 8: Company-wide practices employed to control stock loss

Category	Rating	Ad hoc	First steps	Systematic practices	Strategic policy deployment
Intra-organisation collaboration	None		Some cooperation between security/loss prevention and audit departments, and store staff. Occasional pilot projects.	Security/loss prevention and audit departments liaise with other parts of organisation occasionally, but only on specific problems.	Regular cross-functional dialogue to design out stock loss throughout the supply chain.
Inter-organisation collaboration	None		Pilot projects with isolated suppliers/customers based upon ad hoc arrangements.	Occasional projects to resolve specific problems with suppliers/customers and trade bodies.	Regular inter-organisational process evaluation and coordinated action on joint projects. External collaboration with other groups such as retailers, trade bodies, suppliers, police.
Data availability		Annual inventory counts undertaken, with stock loss data recorded at store/department level only and not available electronically.	Annual inventory counts undertaken and computerised centralised data available for some stock loss problems (process failures).	Annual inventory counts with supplementary checks on 'at risk products'. Computerised records of most types of stock loss collated centrally.	Annual inventory counts topped up with more frequent counts for hot products, with all data recorded in electronic format. Reports on stock loss performance issued as frequently as sales reports.
Data analysis		No analysis performed on stock loss.	Emphasis on summarising inventory counts and process failure data.	Regular analysis of most types of stock loss including company-wide and store-specific profiles over time.	Regular data mining. Analysis tools used to identify patterns, adjustments data used to get to line level losses.
Evaluation of effectiveness of efforts		Not done—considered far too hard.	Occasional or one-off reviews.	Regular internal reviews.	Ongoing evaluation with all supply chain partners.

Step 1: Develop a strategic plan

Objective:

- Set goals

Current efforts to contain stock loss are at best piecemeal, with few companies even operating an organisation-wide approach to resolving the problem.

Companies need to recognise that traditional approaches, that is only tasking security, audit or health

and safety departments with the challenge, are not effectual in tackling stock loss. Instead, companies need to change their approach to resolving stock loss and make use of a wider range of people. In changing their approach, companies need to choose one that is both systematic and systemic. A systemic approach requires information from stakeholders across a company and throughout the supply chain. Collaboration is therefore necessary not only between company functions, such as buying, logistics, marketing and IT, security and audit departments, but also between companies: manufacturers, distributors and retailers. Only through such a degree of collaboration can an effective strategy be developed for tackling shrinkage.

The systematic approach

In general, stock loss is not currently approached in a systematic manner. Most companies do not plan and they do not know if they are making the slightest difference in reducing loss. Few of the organisations studied during this research have even the simplest structure to guide their approach to reducing stock loss, nor were they able to determine the effectiveness of any of the solutions they currently use to reduce it. Instead, most companies rely on a mixture of security folklore—security

0: Recognise stock loss shrinks sales and profit

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guards are a good thing—and a fixation with the ‘latest’ technological solutions. Whilst technological advancements may lead to new solutions that make inherent sense, the problems they solve are rarely quantified so the effectiveness of new equipment is often only justified anecdotally and over short periods of time.

In order to break away from the culture of half-truths and anecdotes, a systematic approach provides the way for a company to quantify and prioritise its problems, to analyse the causes of these problems and to direct its available resources to the most cost effective solutions. Finally, the true effectiveness of these solutions needs to be determined after their implementation and this information then used to guide future investment.

The first step in the systematic approach to stock loss reduction is planning. Planning is based upon clear, realistic, attainable objectives with criteria for knowing when these objectives are met. This requires the project team responsible for delivering reductions to have answers to the following questions:

- What is the supply chain process to be improved
- When does the supply process to be improved start and finish
- What are the goals of the stock loss reduction activity
- When is the date by which some benefits must be felt
- What are the attributes of the ideal supply process
- What are the constraints to improvement
- What are the stock loss threats faced by the company

The answers to these questions guide the project team’s activities towards achieving their goals. Starting the project in this way is especially important in cross-functional projects where the effectiveness and efficiency with which project resources are used dramatically improves with upfront investment in planning.

An organisation undertaking a stock loss reduction project will benefit from knowing how its approach to shrinkage stands in comparison to best practice. This can be determined by making an assessment against the conceptual approach that a company applies to its stock loss efforts and the practices used to control loss.

The systemic approach

Effective stock loss reduction requires companies to be systemic by identifying, for the supply chain as a whole, where problems occur and can best be resolved. Such work requires collaboration along supply chains between suppliers, distributors and retailers as well as across the FMCG sector as a whole. Only when internal and external problems are considered together can comprehensive analysis be undertaken to deliver early, tangible results. Research demonstrates that efforts to reduce stock loss today are not systemic. Companies are simply not taking advantage of the opportunities to share expertise with either their competitors or suppliers, or indeed internally. The first phase of this ECR Europe shrinkage project found that whilst 70% of retailers are working individually with other retailers, only one-half of them are working in representative groups of retailers to ensure that sector-wide solutions are investigated and shared. The picture is different in the manufacturing sector, where only 15% of companies are working with other manufacturers to reduce stock loss and less than two-fifths of companies are working in joint groups looking at issues of shrinkage. Whilst this paints a picture of low cross-sector collaboration, cooperation between retailers and manufacturers is even more concerning. Only one-half of all retailers and manufacturers are working together to tackle stock loss. This graphically demonstrates that problems affecting the whole of the supply chain are not being addressed in a systemic manner.

Step 2: Map key processes and measure problem

Objectives:

- Performance measure
- Process map

Reducing stock loss begins with a rigorous diagnosis of the problem. This diagnosis starts by understanding the nature of the losses and then identifying their causes.

Understanding the current operational system and processes is also the first step in gaining widespread recognition of the problem and establishing the need to change within an organisation. The act of creating a business process model that identifies the source of stock loss can develop the critical momentum required to change existing behaviour. Security-led approaches to reduce stock loss tend to be based upon better detection of theft. A process-led approach applies process analysis to the stock loss problem and emphasises prevention. Traditional security strategies can therefore be supplemented by better understanding of the replenishment supply process. Process mapping and measurement provide the mechanisms to do this. Preventing system and procedural losses also reduces loss from theft by removing the opportunity to abuse deficient systems.

Process mapping

Documenting an existing process helps individuals view their work from a process perspective. Often, existing ways of working have never been described or even viewed as processes. Without the ability to communicate the need for improvement from this perspective, those who do not view their current activities in process terms are not likely to readily adopt revolutionary solutions. Process mapping is a technique used to detail business processes that focuses on the important elements that influence behaviour, allowing the business to be viewed at a glance. Mapping and measuring a process establishes the performance base-line that enables the effectiveness of solutions to be measured. An example of a top-level supply chain is depicted in Figure 2. This diagram shows two supply chains from Gillette in the UK to two of their customers, ICA in Sweden and Tesco in Hungary.

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Figure 2: Gillette supply chains to ICA, Sweden and Tesco, Hungary

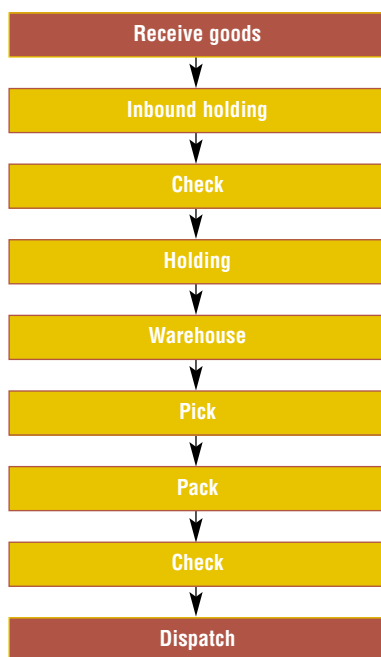
Whilst Figure 2 gives an understanding of the total supply chain, it provides few details. In order to show more in-depth information, a more rigorous process map is required.

Simple flow charting techniques are often the most appropriate technique to use when process mapping for the first time. Process maps are developed by physically following products as they pass along the supply chain. This involves visiting each site that the products pass through and documenting the steps involved in receiving, storing and dispatching them.

Figure 3 is an example of a process map showing the flow of products through a distribution centre. This gives an overview of the steps involved in receiving, storing and dispatching goods; therefore it provides a higher level of detail.

Even when the flow chart does not provide a complete or totally accurate model of a process it is still able to promote a process-orientated approach to improvements and to communicate understanding.

Figure 3: Distribution centre product flow chart



Hot products

Processes and systems usually contain a wide range of product items. Rather than map all the various routes taken by all the different items it is appropriate in the initial cycle of analysis to focus on 'hot products'. Following the path of these products through the supply chain illustrates general features of the process and exposes major problems inherent within it.

'Hot products' is a concept that many retailers and manufacturers are familiar with, and generally refers to those products most attractive to thieves. If retailers and manufacturers were to gain a better idea of what makes a product 'hot', then this could, by reducing the levels of the theft element within stock loss, help dramatically reduce levels of shrinkage within the whole supply chain. Crime prevention specialists are beginning to acknowledge that preventative methods must not be spread too thinly and should be

directed towards areas that will produce the greatest benefit. In the FMCG sector, this means concentrating activities on the products that are most at risk of theft. The hot products concept offers a framework of factors that affect the likelihood of a product being taken by shop thieves or members of staff.

Hot products are those that are 'CRAVED' by thieves, and possess the following characteristics:

- Concealable
- Valuable
- Removable
- Enjoyable
- Available
- Disposable

At the moment, the list of hot products a retailer may stock or a manufacturer produce are usually based upon perceptions of the security department, as methods are not always in place to analyse the true nature of stock loss. As shown earlier, retailers can only identify 41% of their losses and manufacturers are aware of 59% of the losses they suffer. However, evidence from the ECR Europe survey finds that non-food products are perceived to be most at risk of theft, particularly; tobacco goods, videos, CDs, DVDs, beers, wines and spirits, health and beauty products and electrical goods. These items increasingly feature within FMCG stores, so the need to control their loss may be the trigger for retailers and their suppliers to work collaboratively to deal with this problem. While the concept of hot products refers mainly to items that are stolen, lessons learnt from closely monitoring their progress throughout the entire supply chain may have more generalised benefits for improving the processes used to move these, and all other products.

Measuring the problem

It was found that currently within the FMCG sector, most retailers keep records of supplier fraud and process failures, but few keep computerised records of internal and external theft, either at a company or store level. Manufacturers were found to keep computerised records of process failures, but few recorded any form of theft on a computerised system. The majority kept either no record whatsoever or only paper files. It is only through the use of computerised databases that trends can be identified and a more information-led strategic approach can be adopted to deal with all the elements that account for shrinkage.

There are a number of fundamental measures of stock loss that are required in order to determine the what? how? and when? for each stock loss incident. From a supply chain perspective, the following basic measures need to be collected:

- the level of loss in deliveries to a site
- the level of loss from a site
- the level of stock loss in deliveries from a site

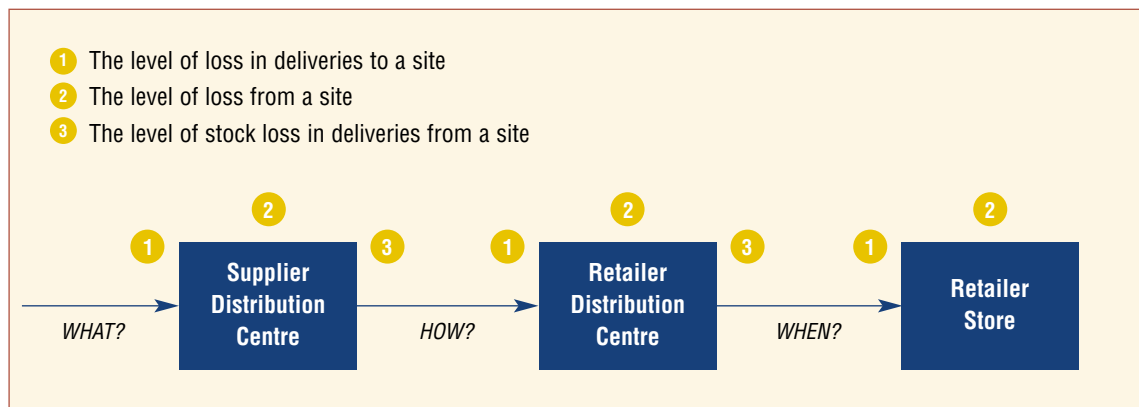
These measures allow a 'top-level' assessment of the extent and location of stock loss across a supply chain. In addition, it is necessary to collect data on the following factors:

- the type of incident
- how the incident occurred
- when it happened

This allows the nature of the type of stock losses suffered to be better understood. The points in the supply chain where these measures should be taken are shown in Figure 4. In addition to where the loss has taken place, companies need to develop systems that track how and when particular incidents

occur, and they need to do this for all types of stock loss. Companies need to develop an approach that is systematic and part of an ongoing process for collecting and collating timely and useful information that describes patterns, trends and information on stock loss throughout the supply chain—from first delivery to final checkout.

Figure 4: Points of measurement across the FMCG supply chain



Step 3: Analyse risk, identify causes and prioritise actions

Objectives:

- Understand process structure and flow
- Identify most significant causes of loss

Having mapped and measured the current operation, this data should be analysed to understand and describe exactly what is wrong. Having understood this, the causes of problems can be identified.

Cause and effect analysis

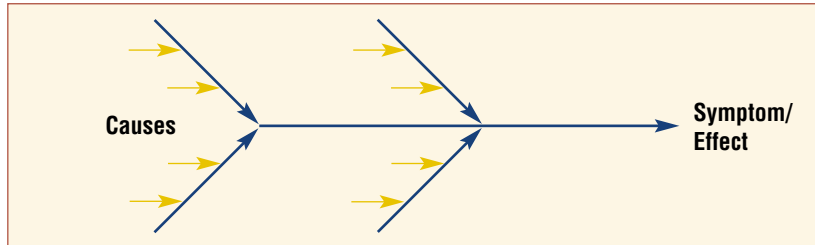
Cause and effect analysis can be applied to identify the causes of stock loss. This technique benefits from a long and successful history of application in the investigation of quality problems and is fairly simple to understand and use.

Having identified specific symptoms of poor performance the cause and effect diagram, Figure 5, is an effective way of capturing possible contributing causes to it. This diagram is most useful in brainstorming sessions where the project team can contribute their findings, experience and understanding. Brainstorming is an effective way of bringing out contributions.

The main spines of the diagram are given broad headings around which causes to the symptom of a problem are grouped. The choice of these headings is fairly arbitrary.

0: Recognise stock loss shrinks sales and profit
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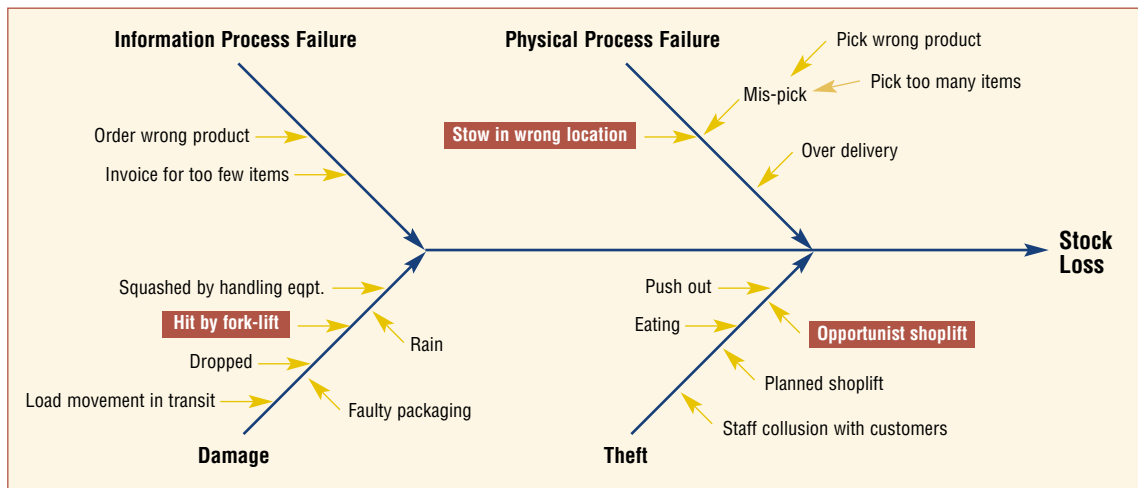
Figure 5: A cause and effect diagram



To focus effort, the major causes of problems need to be identified from amongst the trivial many. This could be achieved statistically through the collection of data from the process using check sheets to determine the number of incidents associated with each of the causes that have been suggested. However, it is possible to get the project group members to identify many of the most significant problems from their experience.

In Figure 6, three causes of stock loss have been highlighted as being the most significant ones for this particular site. These are the causes that will be investigated further. This approach follows the Pareto Principle that the 'vital few' causes are responsible for the bulk of problems.

Figure 6: Stock loss cause and effect diagram with three significant causes highlighted

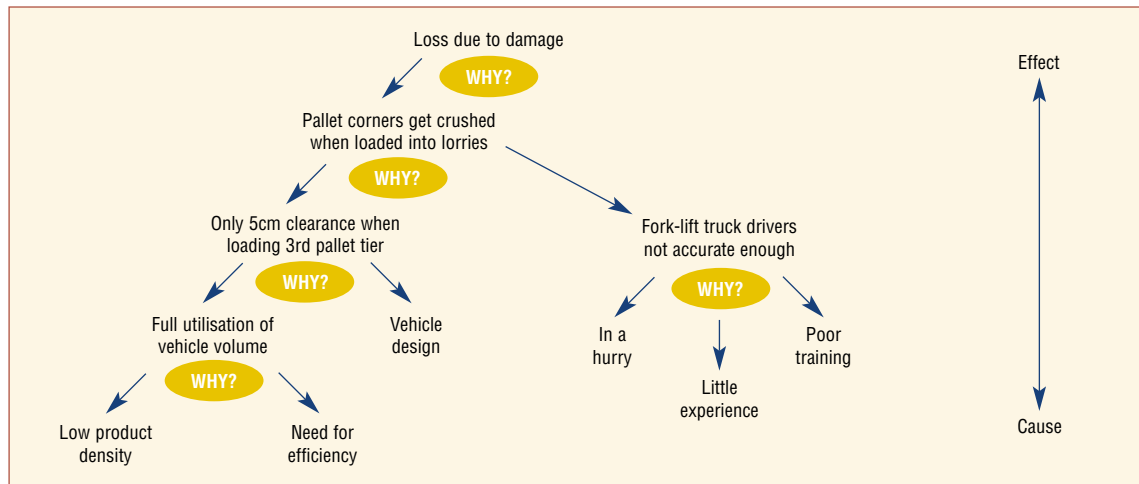


Five whys

Initial ideas about the causes of problems are unlikely to identify underlying root causes. Having tidied the initial ideas and focused upon the significant ones, deeper cause and effect structures need to be identified. A technique to explore causes beyond those first perceived is the '5 whys' technique. This involves understanding the cause and effect relationship as fully as possible by repeating the question, 'why does that cause stock loss?' This technique is illustrated in Figure 7.

Identification and understanding of root causes concludes the diagnosis of the causes of stock loss and starts the 'remedial journey', where solutions to these problems are sought. It is important to stress however, that the problem of stock loss is dynamic, particularly when considering the threat from internal and external thieves. Companies need to continually analyse the threat in order to react promptly to new approaches adopted by offenders.

Figure 7: A 'Five whys' diagram used to investigate the root causes of effects



Step 4: Develop solutions and prioritise actions

Objectives:

- Design technical solutions
- Define skills/staffing needs
- Specify organisational structure

Organisations traditionally start their stock loss reduction efforts at this, the solution stage. It is not uncommon to find a great solution and then search for a problem to apply it to. The problem with this approach to resolving stock loss is that it is very tempting given the large number of seductive solutions currently available. However, this is totally at odds with the systematic approach advocated here.

Having been through the systematic process of investigation described in Steps 0–3 of this guide, where a stock loss problem has been investigated and its causes identified, the development of solutions that resolve this cause and reduce loss is usually extremely context-specific. However, it is possible to associate particular solutions with particular problems. A series of options are presented in Appendix 2: Stock Loss Reduction Solutions, which provide guidance in this matter, and a summary is presented in Table 9, offering a ‘quick-check’ guide.

Designing particular solutions into the practices and procedures of an organisation can be undertaken through one of two general approaches:

- clean sheet
- renovate existing operations

The clean sheet approach sets existing systems to one side and starts afresh. This recognises that current practices are beyond salvage and have no further use. Renovating existing processes builds upon the capabilities that have underpinned the historical success of the organisation. This requires those capabilities to have retained some value, which may not be the case.

- | |
|--|
| 0: Recognise stock loss shrinks sales and profit |
| 1: Develop a strategic plan |
| 2: Map key processes |
| 3: Analyse risk, identify causes |
| 4: Develop solutions and prioritise actions |
| 5: Implement solutions |
| 6: Evaluate implementation and measure problem |

New processes and systems should be accompanied by newly designed performance measurement systems. In the same way that processes are redesigned to deliver their objectives, so the performance measurement systems also need to be redesigned to monitor and control the new processes. Such a system requires a suite of measures. These reflect the range of factors important to the organisation that the improvement project needs to enhance. Considering them in harmony, for instance by using a 'balanced scorecard',¹⁰ promotes improvements across a broad front or at least ensures performance is maintained for the basket of measures whilst driving progress in a key one. Using a balanced scorecard can show people how their efforts affect strategically important measures.

Where performance levels essential to future success have been identified, but the process design that delivers them is not understood, benchmarking¹¹ can be a useful technique to help overcome this. A benchmarking exercise helps identify the processes used in other organisations that enable them to achieve superior performance, for example by benchmarking against other hot products or items from other categories.

Table 9: Solutions to reducing stock loss

PROCEDURES AND ROUTINES	EQUIPMENT AND TECHNOLOGY
Annual stock loss awareness campaign Company-wide stock loss refresher training Customer returns & refund controls (operator and customer database) Damaged goods resale controls Employees exit searches Hot product identification Hot product management Hot products routine counting Security newsletter Internal key control Patrol routes for employees (red routes) Point of sale information or data checks Random till cash checks Rigorous delivery checking procedures Shelf replenishment techniques Induction training for new employees Unique till operator PIN numbers 'Watertight' product monitoring procedures	Automated ordering processes Automated ordering processes Cash protection tactics and equipment (both cash offices and tills) Company-wide stock loss awareness posters Dummy display cards in place of high-risk products E.A.S. hard tagging (recycled) E.A.S. soft tagging (disposable) E.A.S. source tagging (either disposable or recycled) Employee purchasing arrangements Employee panic alarms Employee uniforms without pockets Intruder alarm systems Non-active CCTV Point-of-sale camera monitoring Protector display cases applied by retail outlets R.F.I.D. intelligent tags on pallets, cases or items (radio frequency) Replenishment equipment to support techniques Secure lockers for employees Security-sealed containers/shippers Shoplifting and theft policy posters for customers and staff Specialist anti-theft display equipment
PEOPLE AND PROCESSES	DESIGN AND LAYOUT
Anonymous phone line Civil recovery Covert surveillance of customers or employees Employee awareness and training Employee stock loss training and education Employee incentives—discount purchase schemes Employee incentives—stock loss bonus schemes Employee integrity checks External compliance monitoring External security/loss prevention function External stock audit function Internal compliance monitoring Internal security/loss prevention function Internal stock audit function Random checks on distribution centre picking accuracy Store detectives Test purchasing (mystery shopper) Uniformed security guards	Appropriate product location strategies Designing-out blind spots Designing-out crime programme Distribution centre secure storage Employees entry/exit access control External security—fences, anti-ram raid, roll shutters Risk-based design and layouts Robust anti-theft packaging Single direction product flow Supply chain and logistics network design
<p>The 67 solutions listed above have been grouped into four different types: procedures and routines; design and layout; equipment and technology; and people and processes. It is in no way an exhaustive list of possible stock loss reduction options, but merely examples of the different approaches currently available. They are listed in alphabetical order and no attempt has been made to 'rate' their effectiveness. A more detailed description of these solutions can be found in Appendix 2.</p>	

¹⁰ Kaplan, RS 1996, *The Balanced Scorecard: Translating Strategy Into Action*, Harvard Business School Press, Boston, Mass: USA.

¹¹ Camp, RC 1989, *Benchmarking: the search for industry best practices that lead to superior performance*, Quality Press: New York, USA.

Step 5: Implement solutions

Objectives:

- Develop implementation plans
- Pilot implementation
- Monitor progress and refine full rollout

In a similar manner to the approach used to plan the project investigation, the implementation of the solution that will reduce stock loss requires project planning. Successful projects require a sponsor to be responsible for delivering the benefits of the project. To achieve success the sponsor, usually a senior manager, needs to ensure that the project team constructs a clear and robust business case. This business case defines what is to be delivered, the benefits this will bring and the resources required.

A project plan is used to map the best use of resources to achieve the desired objectives within time and cost limitations. Here the tools of project management will prove useful. These can be applied on both small- and large-scale projects. Where a project team undertakes planned change for the first time, the plan should consider not just the task but also the learning necessary to deliver it.

At a top level, a project plan is constructed by following a sequence of steps. The following provides an overview of such a process:

- identify the overview tasks needed to complete the project
- show the interrelationships between tasks and the sequence in which they can be undertaken on a network diagram
- estimate the types and amount of effort needed to complete these tasks
- calculate the resource profile over time to complete the project
- identify potential risks to successful project delivery
- mitigate risks or plan contingency
- iterate the plan to match it against resource availability
- secure resource
- put in place procedures for evaluation

Evaluating the effectiveness of the stock loss reduction effort provides information that guides the direction of the next cycle of reduction. Stock loss reduction needs to be ongoing to ensure loss reduction efforts are compatible with developments across the supply chain and to counter the resourcefulness of criminals.

0: Recognise stock loss shrinks sales and profit

1: Develop a strategic plan

2: Map key processes

3: Analyse risk, identify causes

4: Develop solutions and prioritise actions

5: Implement solutions

6: Evaluate implementation and measure problem

Step 6: Evaluate implementation

Objectives:

- Determine solution effectiveness
- Identify further steps to reduce stock loss

The stock loss reduction project ends with an effective solution in place. However, this is not the end of stock loss reduction as a whole. From the organisation's perspective, evaluation of one project is important in order to:

- determine the success of the solution
- guide future projects

The review is therefore the last step of one project and the first step of the next. The ability to sustain significant improvements in stock loss over long periods of time rests on the capability to learn from experience and to ensure that companies access the wide range of developing tools at their disposal.

A review of the implementation must be objective. All too often reviews are undertaken with the aim of justifying the work that has been done and fail to provide an honest appraisal of what solution worked and why. Therefore, the evaluation should be rigorous, robust and led by somebody who can provide an objective review, independent of equipment providers and those who may have commissioned the project in the first instance. They need a clear mandate to assess the performance of the implemented solution and compare this against the level of performance originally planned.

This assessment should consider how the implementation of solutions was justified, for example by the use of a cost-benefit analysis. In this example, the actual cost of the solutions and their implementation should be determined. These figures should then be contrasted in the following ways:

- actual cost against planned cost
- actual benefit against planned benefit
- actual cost-benefit against planned cost-benefit
- performance over time

This information provides the feedback that allows the stock loss reduction team to objectively consider the effectiveness of the:

- approach the project team took to reducing stock loss
- specific solutions they implemented

The aim of this feedback is to identify whether any further action is required before the current project can be signed off, and to gain a better appreciation of successful approaches and solutions that might be applied during future projects. It should be noted, however, that the evaluation process may need to be ongoing—the performance of an initiative can change as its 'environment' alters. For instance, criminals may gradually find ways of defeating the newly adopted approach or changes in product range or levels of staffing might reduce its effectiveness. Therefore, periodic reviews of newly adopted measures may need to be carried out in order to gauge their effectiveness over time and to evaluate whether any corrective measures need to be taken.

0: Recognise stock loss shrinks sales and profit
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6

**Australasian case studies and tools to
reduce stock loss**

Australasian case studies and tools to reduce stock loss

Loss prevention is a mindset which:

- fosters awareness and adherence to policies and procedures
- is built on ethical standards
- supports positive behaviour to eliminate loss and waste (Source: Woolworths NZ)

In addition to assessing the size of the problem, the loss prevention project seeks to highlight the points in the supply chain at which stock loss occurs and the methods and root causes of the loss, so ideas may be generated and actions taken by trading partners individually and together to reduce its incidence. While recognising loss also occurs through process failures, and the industry survey confirmed this component to be just under 40% of all loss, the focus is on reducing theft and fraud.

ECR Australasia reviewed the joint extended supply chain, to highlight the risk areas and report on best practice and local case study

examples. The extended supply chain was broken down into three distinct areas:

- the distribution centre and transport
- the retail store
- the external environment

The distribution centre and transport does not distinguish between supplier or retail ownership, believing the core processes to be the same. The retail store, as reported throughout this study, is the highest risk area for stock loss. It is where tightly controlled processes and procedural controls come into contact with an unpredictable variable—the consumer—and, in doing so, relaxes many stock loss

controls to allow the consumer to see the products and make their product choice. The external environment includes the interface with legislative and law enforcement bodies to provide and enforce suitable deterrents and programs that will minimise stock loss.

As defined earlier in this report, loss prevention is a collective term for activities put in place to protect company assets (physical and human) and profitability.

Effective loss prevention is said to begin with the application of, and adherence to, company policies and procedures.

While supplier survey respondents did not report the significant existence of separate loss prevention departments, those responsible for loss prevention within suppliers, reported widespread use of procedural and physical environmental security measures common to retailer operations. Missing were those activities associated with retail stores and investigative loss prevention resources.

A very large retailer (supermarket or other retail) may have loss prevention operations that resemble mini police departments, with criminologists, analysts, physical security, warehouse security, transport security, investigative personnel, and covert and overt operatives.¹² The Australasian retailers that responded to the industry survey identified many of these elements as a part of their loss prevention activities.

Global positioning systems (GPS), an emerging loss prevention tool

The scheduling of transport and delivery runs is kept to tightly mapped routes and timetables, to manage transport efficiency and health and safety goals. Theft often relies on third parties and non-authorised stock movement. This is not always with those involved in the distribution of goods. For highly valuable or disposable items, goods in transit are attractive targets for unrelated criminal third parties. GPS are becoming increasingly used as a management, safety and investigative tool in transport and distribution.

¹² The Investigator publication, "Profit Making or Profit Taking", October-December 2000, Denny Van-Maanenbergh.

The distribution centre and transport

The distribution centre and transport processes differ markedly from those within the retail store environment. Within the modern, centralised distribution centre and the typical transport process, a consistent and thorough audit trail follows any stock movement, and this is backed by regular automated and physical checks on stock holdings. Relatively few people come into contact with the vast volume of product that moves through the supply chain. Professional thieves and ongoing collusion were rated as less of a problem in distribution centres than regular staff theft or supplier fraud. Within such a tightly controlled environment, loss was reported as being at greatest risk at points of control change and product handover and through product expiry.

Table 10: Risk elements within the distribution centre and transport

Process	Risk	Recommendations
Storage	Stock counts may uncover under/over stocks.	A sensitivity benchmark or tolerance for variations that would trigger recounts. The use of two personnel for item counting and rotation of staff to minimise collusive activities.
Pick and pack	Stock not moved accurately from warehouse locations, Stock stored loose in pick face.	Daily cycle counts can check validity of internal stock movements and audits at the pick face can identify losses
Dispatch	Loss through fraudulent orders, loading.	Order runs and picking notes should be verified, with the use of rotating third persons to verify procedures.
Transit	Removal of product between despatch and receiving points.	Load receivers should confirm and accept responsibility against order. Sealed deliveries add integrity. Routes and drivers should be rotated to minimise collusive opportunities.
Receival	Integrity procedures not followed—including seals or paperwork.	Load delivery and quantity must be confirmed with discrepancies reported and acknowledged by driver. Proof of delivery docket is a vital record.

Nevertheless, a process is only as good as the people enforcing it and inevitably some loss occurs. Focus is continually directed to removing the opportunity for variation to desired procedures and these are highlighted in the risks and recommendations for DC and transport. The identified risk areas and recommendations assume that physical prevention measures, such as locks, cages and closed-circuit television (CCTV) would be in place. Table 10 shows procedural recommendations to reduce theft.

The paper trail is the critical element within the distribution and transport processes, with each party needing to establish accuracy between documentation and physical stock and assume responsibility or accountability for it. During the project, supply chain practitioners called for greater uniformity in the type of paperwork and processes used between trading partners.

The case studies on the following page have been provided to highlight how procedural barriers may be broken and allow the opportunity for theft to occur.

Case study one

Collusion between the various parties in the supply chain provides the framework for the theft cycle. In combating collusion there is a need for the companies concerned to take a collaborative approach to identifying the perpetrators, reviewing processes and practices, and developing strategies to manage, mitigate or eliminate the risks. This requires close cooperation between company security and investigation teams, internal audit departments and, where necessary, law enforcement. By adopting a systematic, structured and planned approach, the group can review and target the pertinent risk areas within the supply chain. In this example, a transport driver was identified as moving illicit pallet loads of product from a distribution centre to a receiver who would then on-sell the stolen product.

The theft involved collusion between the driver and the distribution shipping staff. The latter had responsibility for directing the loading of the truck and in conjunction with the driver, verifying the accuracy of the load. This was the final check with the site security performing no independent verification to ensure the legitimacy of the load. For these reasons, there was very little risk that the movement of the additional stock would be detected.

The key internal factors contributing to this situation were the lack of independence in the checking process; and a negligible asset protection role being performed by the security officers at the perimeter gate; combined with the potential collusion with the security officers. The major external factor was the demand that existed for illegally sourced materials and this demand drove the offenders to manipulate the processes for their own gain. Ensuring that all parties, including the receiver, are arrested as part of any police investigations and that cost recovery strategies are taken against the perpetrators can reduce the 'black market' demand.

Case study two

Customers can contribute to creating an environment conducive to theft by failing to take adequate accountability for the product they receive. Inattention during the delivery process, or a misplaced trust in some deliverers can contribute to the activity of 'skimming', which is the short supply of products to the customer. For example, a transport driver was identified as regularly supplying stolen product to a third party receiver. Investigations ruled out theft from the distribution site and, while under surveillance, it was noted that the driver was delivering sizeable quantities of product to the third party. These products were being removed from the orders of high volume customers. The investigation resulted in the arrest of both the driver and the customer, with the latter admitting he had received product of similar quantities on a weekly basis for a period of 12 months after being initially approached by the driver.

In a separate incident, an uncommon, high-value item was offered to shopkeepers in a regional centre by a delivery driver. A process review indicated that only one customer in the area received this specific product type and that the likely scenario was theft from the customer by the driver. This was confirmed after the customer indicated that his goods receipting process involved providing the delivery driver with the key to his warehouse, that was located off-site as he trusted him to accurately and honestly deliver his stock. The driver identified and exploited this process weakness at an unknown cost to the customer.

The retail store

The retailer industry survey highlighted in excess of 95% of supermarket loss as arising at store level, some A\$823 million of stock loss in the latest year. In-store risks are accepted as being within two broad categories—goods receipt and merchandise on display—with quite different tactics used to minimise loss. The checkout and store office processes are store ‘leakage’ points for either physical stock or paper losses. While outside of this project scope, these areas will play a key role in retailer loss prevention strategies.

Receival

Retailer participants likened the receipt process at the store as the store ‘cheque book’, noting acceptance of goods and documentation at this point became a benchmark cost for the store gross margin. Risks were seen as higher than at retailer distribution centre receipt points, due to the less coordinated manner and structure able to be managed at store level. Additionally, due to the differing manner in which goods arrived, the store receipt area is likely to become congested and susceptible to

Retailer participants likened the receipt process at the store as the store ‘cheque book’

stock loss, be it through dishonest activities or genuine damages or mistakes by retailer, delivery or supplier personnel.

Retailers noted the greater importance and, often, seniority being accorded the stockroom manager in recent times. It was acknowledged that historically insufficient value was placed on the quality of the individual employed as stockroom receiver, the level of authority given to this person or of the level of training given (particularly true of staff receiving late and weekend deliveries).

No longer is the stockroom seen as an automatic promotion for the ‘trolley boy’. The emphasis today is on:

- recruiting of people with the attributes for receiver role
- designing clear job descriptions—defining role and responsibilities
- promoting importance (seniority) of position giving authority to that employee
- training and development, for all delivery times (late night, weekends)
- introducing procedures and controls to reduce opportunities for stock loss

The yellow line

Retailers highlighted a ‘yellow line rule’ as a simple receiving tool to reduce stock loss:

- A thick painted line on the dock restricts entry to and departure from the stockroom by store and non-store personnel.
- Stock is unloaded and always checked before being allowed to cross the yellow line into the store area.

All stock received should be checked and stored securely upon receipt. For certain, high-risk theft items, such as cigarettes, liquor, electrical and razor blades as highlighted in the retailer survey, specific processes are utilised.

High-risk items are generally:

- unloaded before any other stock (often within sealed delivery units on a general load)
- individually checked against delivery papers
- subject to additional receipt paperwork
- taken immediately to the security area or cage within the store

Table 11: Causes of stock loss in receiving and delivery areas

Known losses	Unknown losses
Breakages, soiling, damage to stock Invoice and credit errors Theft	Disorder and mess at dock Soiling and damages Careless receiving and checking of stock and accompanying paperwork Receipt of damaged goods Collusion Theft

These procedures are instituted in the receiving area to reduce all four of the identified types of stock loss—internal theft, external theft, supplier fraud and process failures. After the receiving areas, these processes reduce the opportunity for internal theft and, with excess stock kept in secure areas, minimise the value of product on display—particularly in full store-packs or cartons.

High-risk items will usually also have restrictions placed upon them at shelf level, from where and how they are displayed to how many are available to the consumer. The challenge between maintaining security and openly merchandising products to allow consumer availability and visibility will be explored later in the report.

Retail receival guidelines and stock loss control procedures are a given for any supermarket operation today. The importance of building a culture of adherence to these guidelines, by retail staff, visiting supplier and other third party staff, is at least as important as the guidelines themselves.

Sealed truck deliveries
As an extra security measure, it is becoming common for transport providers to employ sealed deliveries from suppliers and retail distribution centers, including multiple store drop-offs. At the receival point, seal numbers are compared to delivery run-sheets, with authority to break delivery seals being restricted to a small number of store personnel. Drivers are not permitted to break the seals on their loads.

This will result in a receival process that is effective and ensures:

- control of the receiving function
- correct costs of goods
- correct quantities of goods
- all items received are authorised and meet appropriate quality standards

Such a process will minimise stock loss.

Merchandise display and the on-sale areas

Retailers and suppliers share the objective of merchandising product in such a way to maximise sales and profitability, while balancing constraints such as days of supply on shelf, shelf utilisation and, for high risks products, the risk of stock theft—that is, maximise availability, minimise loss.

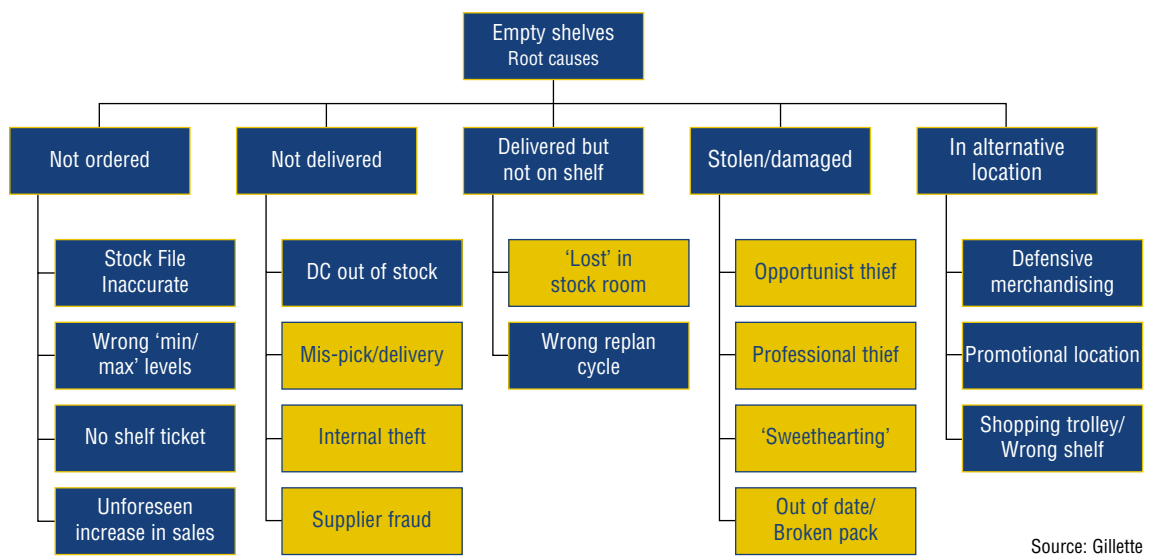
The ECR Australasia loss prevention project included an objective to uncover solutions that would allow continued display and sale of high value and or market leading products in-store, and would recognise the mutual interests of retailers and affected manufacturers in achieving this goal.

The causes of empty shelves are wide-ranging, many unrelated to loss prevention, but all are contributors to consumer dissatisfaction. The ECR Australasia publication, Efficient Replenishment and Reducing Stock outs,¹³ estimated between 5-10% of products were unavailable on the shelf at any one time—with higher turnover products at a significantly higher rate.

¹³ ECR Australasia, *Efficient Replenishment and Reducing Stock Outs*, 2001.

There are innumerable studies on consumer responses to the unavailability of their preferred product and the associated costs. The above report suggested between 20% and 40% of sales are lost from the retailer when the product is unavailable, with consumers deferring the purchase or shopping elsewhere.

Figure 8: Root causes of empty shelves



Solutions that retailers and suppliers are using or trialling in-store to achieve increased availability and visibility and reduce loss include:

- improved security merchandising aids
- packaging design
- store design and aisle layout
- loss prevention operatives
- electronic article surveillance
- trading partner collaboration

Merchandising security

Batteries and razor blades are two product categories ranked very highly on retailer stock-loss risk-lists. It is common in Australasian supermarkets to find these and other high-risk products removed from their usual shelf location and only displayed on checkout stands, or behind store customer service desks. With a reduction in sales to match the reduction in theft, retailers and manufacturers are highly conscious of the need to improve merchandising security for these products.

Typically displayed on hang-sell units, batteries and razor blades are susceptible to sweeping. This is where thieves literally sweep the hook clean of product, potentially causing hundreds of dollars of stock to be lost in single incidents. Recent versions of brand-owner supplied hang-sell units have incorporated bars across the front of each hook to minimise this practice. Unfortunately, this limits product visibility and is difficult to re-stock, contributing to regular stock-outs.

Most recently, a battery and shaving products supplier has introduced a version of this merchandising aid that largely overcomes these barriers.

Figure 9: High security merchandising aids



The visibility limiting bars have been reduced to tabs—maintaining an anti-sweeping effect while improving re-supply and product visibility. Additionally, they have been designed with a slight angle to the hook, allowing a gravity-feed face-up of the product each time one is removed, improving the product and category appearance and, due to the space efficiency of design, has enabled an additional product facing to be introduced into the category in some stores.

This unit is progressively being placed into Australasian supermarkets and has attracted interest in other high-risk categories, such as film.

In conjunction with security aiding merchandising units, shelf replenishment practices of high-risk products are often different to normal product lines. If, as in the above example, fewer items are placed on sale, thus reducing the value of products at risk, associated replenishment strategies need to be adopted. These may include the secure storage of replenishment product in cupboards on or below the fixture—removing the need for staff to constantly visit secure back room areas. The use of a limited staff, e.g. day crew only, for secure product replenishment may also build ownership of loss prevention. Multi-functional supplier and retailer collaboration in the use of process (staff procedures) and environmental measures (merchandising units) is critical to reducing stock loss.

Packaging design

Packaging design plays a crucial role in overall brand or product positioning, displaying cues that reinforce brand image, price positioning and product benefits or attributes. For high-risk products, package design must also incorporate features that allow and encourage open merchandising by a retailer and reduce and discourage product interference, damage or theft by consumers and staff. Package design tailored to reduce stock loss is particularly important where the primary product can be hidden or concealed due to its small size.

Common techniques include fully sealed cardboard packages, where consumers cannot open outer packaging to test or remove the primary product, cellophane or plastic wrapping, as is often found on electrical, skincare and cosmetic products and plastic 'clam-shells' or blister packaging, where hard plastic packaging must be destroyed to access the primary product.

Packaging design to reduce stock loss

Olay Total Effects is a premium skincare product marketed by Procter and Gamble and introduced into Australasia during 2001. Significant anti-theft elements were incorporated into the product packaging as the physical product size (50gm jar) and value (A\$30) were deemed to increase its potential to suffer significant theft in the retail environment.

The Total Effects jar is placed a clear plastic clam-shell that is snapped closed with a button and the button is then crush sealed. The crush seal is extremely difficult to open without very obvious effort, or the use of an assisting tool, such as a knife or scissors. Such deterrence value mitigates the risk of the product being opened in-store. Additionally, due to the product's physical size, the secondary packing must not be too small. Total Effects packaging was designed to be large enough to make it difficult to pocket or place in handbag, yet balanced carefully against the retail shelf space the product would take up and also is careful not to mislead consumers as to the nature and size of the product. Finally, the secondary carton contains a large clear window and the inner clam-shell is transparent, enabling visibility of the product to intending purchasers, but also alerting store staff to any product interference.

Store design and aisle layout

Store design and layout have an impact on all elements of loss prevention. Retailers noted regular interaction between store design and loss prevention departments, most particularly with new stores and refurbishments.

Loss prevention through in-store location

A project participant highlighted a case where batteries were located in an aisle display at the rear of the store, adjacent to the meat unit—a highly staffed area. However, twice a range of batteries (valued at between \$750 and \$1000) was stolen. It was found that, although the store had extended trading hours until midnight, at 8pm the butchery section closed and the area was not staffed. Having become aware of the problem, the batteries were re-located to the front of the aisle within view of the service desk. No further significant losses of batteries have occurred in the store.

A standard set of physical security measures are applied in any store design, including fire safety, shutters, exit barriers, alarms and CCTV systems. Not so obvious are measures such as the location of staff rooms or common areas. Some store designs incorporate such facilities forward of the checkout, so staff members have little reason to carry bags or product into or away from the sales area, thus reducing temptation and opportunity for staff theft.

The in-store aisle location for products are also well planned. High-risk categories for theft are planned to be located in well-shopped, high traffic areas, for example near fresh fruit and vegetables or delicatessen areas, or in proximity to or line-of-sight of regularly staffed areas, such as service desks and checkouts. Within Australasia, at least one supermarket group uses aisles that run across (east/west) the store behind the checkout areas, as opposed to the traditional up and down (north/south) orientation.

While an integral part of the overall store traffic design, this also allows the display of high-risk items very close to checkout and service areas.

These design characteristics are intended to remove the sense of anonymity afforded thieves within a store, thus deterring store theft.

Loss prevention operatives

A core part of retail loss prevention is the use of covert and overt security and loss prevention operatives. Through highly structured and tailored programs based on loss statistics, retail stores have a regular presence of officers patrolling the shop floor.

Loss prevention officers have the responsibility to observe and detain suspected shop theft offenders and conduct procedures associated with Police reporting.

Electronic article surveillance (EAS)

Supermarkets today carry many more high-value and premium consumer products, from personal care items to consumer electronics, than ever before. Sadly, crime statistics within today's society are also affecting retail outlets more than ever before. As these changes have taken place and technology has improved, EAS as a loss prevention tool is more commonly being used in supermarkets, having previously been associated with department, mass discount and specialty retail stores.

An EAS system would usually comprise:

- an electronic tag that is placed on identified risk products
- a reading or sensor mechanism—usually placed at store exit areas
- a disabling mechanism—usually within checkouts or point-of-sale scanners

Tags that pass through the reading mechanism and are not disabled (such as on stolen products) would usually trigger an alarm or notification signal. EAS systems can use hard-tags, like those often found on clothing, or soft-tags, which look much like a paper-thin label. EAS systems in particular target internal and external theft, where goods are removed from the store via reader- or sensor-protected exits. The

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use of hidden or disguised tags placed within product packaging during the manufacturing process, known as source tagging, is a preferred method of applying tags for most retailers using EAS.

EAS source tagging is often seen as a more effective method of protecting high-risk items, due to the ability to hide or disguise tags within product packaging and the efficiency of application during the manufacturing process. The benefit can be reduced where products

have complex or international supply chains requiring local product re-work, where source tagging for selected customers results in multiple variations (tagged/non-tagged) of the same product or through the creation of manufacturing inefficiencies (e.g. line-speed). These complexities add to product cost over the cost of the actual EAS tag.

EAS proponents stress that only a small proportion of all supermarket products are identified as high-risk loss items and are a preferred EAS (and source tagged) candidate. Proponents believe there are benefits for both suppliers and retailers of high-risk merchandise where EAS systems are installed, such as reduced stock loss, confidence in open merchandising, increased consumer interaction with product leading to increased impulse sales and profits and reduced retail staff involvement in product selection. They believe that, where source tagging is involved, the overall benefits outweigh the costs.

Others comment, however, that other methods of stock loss, including losses not taken through primary store exits (or done so in grab-and-run incidents) are not addressed by current EAS, and that technology failings and costs reduce the benefits of EAS systems. Concerns are raised that the identified ripple effect of EAS will inevitably shift theft to other products, and subsequently increase the range of products sought for EAS source tagging, or to other stores, simply shifting the problem.

Where EAS has been used in Australian supermarkets in the past, the respective technologies chosen have not been aligned across users, thereby limiting the efforts of those who believed source tagging could be achieved at a cross-industry level. Recent industry consolidation and any increased adoption of like EAS technology within supermarkets may change this position. In New Zealand, no major supermarket group has broadly adopted EAS, although project participants confirm it is a loss prevention tool continually reviewed, and it is present in closely related retail environments.

In Australian supermarkets, EAS has a disjointed history. ECR Australasia made a conscious decision at the project outset not to allow this single element of the many loss prevention measures to distract from the overall project goal of identifying loss prevention solutions.

If Australasian supermarkets and other mass-market consumer product retailers do emerge with a clear, consistent and reliable EAS technology, logic would suggest retailers and suppliers should establish a common and consistent framework for its implementation. This does not suggest industry solutions can be applied in a blanket fashion—circumstances will differ and decisions will need to be negotiated on a case-by-case basis between trading partners.

EAS has been discussed here purely relating to in-store usage. This is by no means the sole use of EAS technology relevant to the supermarket industry, and specifically with the radio frequency EAS method. Further up the supply chain, radio frequency technology is used extensively as a tool in stock management. For example, in warehouse customer or store order picking, and as an emerging application, being embedded in pallets or outer packaging of shipping units.

A more futuristic solution is being funded through many supermarket industry players, including suppliers, retailers and service and technology providers at the Auto-ID Center, headquartered at the Massachusetts Institute of Technology and with branches at Cambridge University, England and more recently at the University of Adelaide.

The Auto-ID Center has a vision of a global system of identifying objects, from time of manufacture to the time of recycling, using low-cost radio-frequency identification (RFID) tags.¹⁴ The tags will have the ability to communicate with readers that may be located in warehouses, trucks, pallets, on supermarket shelves or even with a home microwave.

Considerable development work remains to be done and the tags (or miniature computer chips) and associated readers remain too expensive for widespread application. However, a trial commenced in late 2001 to verify the real-world application of the tags to the grocery supply chain.

The Auto-ID Center has a vision of a global system of identifying objects, from time of manufacture to the time of recycling

The Auto-ID Center anticipates that the new technology, which can be thought of as an interactive replacement of the current barcode, may be commercially viable from 2005 and would have a revolutionary effect on grocery supply chain visibility, including loss prevention.

Collaboration

The industry survey confirmed that trading partner collaboration has been a missing component of many loss prevention efforts. It highlighted that, where the low to occasional interaction between trading partners did occur, it was often on a silo basis, with a single or narrow objective in mind, such as methods to reduce loss on a particular SKU or range of products. Project participants were unable to identify consistent and coordinated efforts between differing departments within trading partners to reduce stock loss as part of an overall category strategy or plan.

Ideally, the risk of stock loss, balanced with the ideal category display dynamics, will be factored into the category management—particularly shelf positioning—and store layout processes. For example, relocation to front-of-store or front-of-aisle may mean the category remains available and visible to genuine purchasers, while reducing theft opportunity. This may be considered in conjunction with a review of the receipt, stock storage and shelf replenishment processes of the product, the use of higher security merchandising aids, well positioned CCTV cameras and EAS tagged products.

Category driven in-store loss prevention

Woolworths New Zealand is a major supermarket operator in New Zealand. As an emerging element of their loss prevention program, the loss prevention department regularly supplies category buyers with loss statistics that are compiled as a component of the civil recovery program and other quantitative record keeping activities. The category buyers are using these statistics jointly with affected suppliers to develop and implement category and store-specific aisle and shelf layouts that consider the identified risks. A growing trend in the Woolworths New Zealand health and beauty categories is use of reduced-height island shelf units, providing a more leisurely and enjoyable shopping experience. The location, orientation and shelf layout of these units reflects stock loss risk management. High-risk items, such as razors, cosmetics and skin creams and hair colourants, are located toward the front of the store, face the service counter, are higher on the shelf unit and have direct CCTV coverage.

¹⁴ Source: Auto-ID Center website, www.autoidcenter.org.

Implementation of a category plan that involves these elements will not be possible solely between an account manager and buyer or loss prevention department and a sales manager or a sales representative and grocery department manager. Such a strategy will require many cross-functional interface points that span account-wide strategies and tailored, store specific actions. It will require acceptance and understanding of the interests and constraints of both trading partners and a willingness to explore innovative approaches to meet consumer needs while also improving joint sales and profitability.

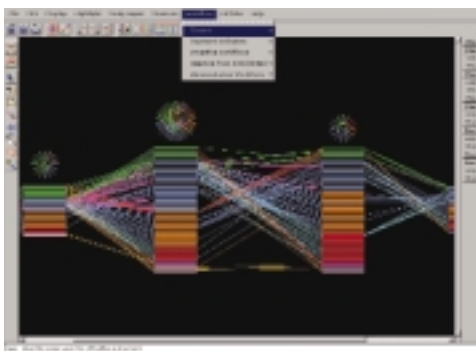
A positive, category focused, consumer driven and openly merchandised display will not always be acceptable in very high risk store locations, but it is a far preferable starting option to the defensive strategy of closed merchandising and resultant consumer dissatisfaction.

Beyond the physical loss of product and strategies that are employed to reduce the risks, there is growing recognition of the potential for identifying, tracking and monitoring irregularities in the large amount of data within a supply chain as an additional process to help organisations identify major stock loss or fraud.

Fraudulent activities are generally centred on using standard business transactions in such a way that the transaction itself becomes lost amongst others. It would suggest that the individual has a good understanding of a company's procedures and the points at which exception reports would be raised. To be successful, a fraudulent transaction would appear normal enough not to breach any policy to the point where it generates an exception report. Typically these activities have focused on retail transaction data, though are now being used along trading relationships, where trading partners can provide data that spans a series of handover or exchange points to search for fraudulent activities.

Data analysis techniques can help an organisation identify irregularities and then detect whether fraud or stock-loss has occurred, how it is conducted and who are the parties responsible. NetMap Analytics, one such data analysis company, provided an example of this technique to the project team, in which a general merchandise retail store reduced stock loss by over 60%. Data analysis techniques identify the hidden links between people and places, objects and owners, actions and outcomes—virtually any data element from any source—and reveals relationships between them.

Figure 10: NetMap Analytics—data visualisation



It presents its findings as visual maps (see Figure 10) that could have an immediate impact on the user, who can instantly see irregularities in patterns of activity and identify the source details. Visualisation of data and step-linking reveals direct and indirect relationships. This displays the degrees of separation in the data that can mask stock loss.

The external environment

While collaboration between individual trading partners can be used to address issues that are arising within the trading relationship, root causes and broader scale efforts to reduce intentional illegal stock loss often lie outside of the traditional retailer and supplier supply chain.

Project participants identified other elements of the community that needed to be included in a holistic loss prevention strategy and have highlighted some of the areas that require new or increased efforts by industry. The industry survey highlighted professional thieves as a major source of concern and in-store theft and loss prevention specialists within the project team emphasised the need to work collaboratively and externally to reduce industry-wide loss.

The activities of professional shop thieves constitute a threat that requires the industry to proactively address external factors that have a direct bearing on stock loss at various points along the supply chain. Removing the demand for stolen product, by breaking such organised criminal operations, is a key to lowering stock loss through denial of supply and consequent elimination of demand.

Reselling—a case for industry action

A New Zealand example

On the basis of industry information and cooperation, New Zealand Police apprehended and prosecuted professional criminals through a very successful operation at a weekend market. A large amount of health and beauty and electrical product was on display for sale at extremely cheap prices, in most cases well below cost. The majority of the product had been store or security stamped by originating retailers and there were obvious signs of attempts to erase these identifying marks. The market vendor could not provide proof of purchase or ownership. The value of stock recovered was in the tens of thousands of dollars.

An Australian example

The work of covert loss prevention staff and subsequent apprehension of a known shop thief resulted in investigating police raiding an address which was set-up as a small supermarket—down to a stack of plastic baskets to take while you did your ‘shopping’. Rooms in the house were fitted with supermarket shelving. Each shelf was faced-up very similar to a normal supermarket. The masterminds would place regular orders with shop stealers to fill specific stock lines. In excess of two hundred thousand dollars worth of stock was recovered, which was identified to have come from multiple retail groups.

Investigations into activities of this sort may or may not be undertaken by industry’s own resources. The nature of the evidence collected will dictate the nature and level of police support. Suppliers and retailers need to be aware that there is an increasing expectation by Police that detailed internal investigations into these criminal activities will be conducted in such a way that is admissible in court and that Police may handle a smaller component of the whole investigation. This requires investigating teams to be suitably skilled to ensure evidence is collected in the appropriate way.

There may be scope for industry guidelines to be drawn up, on the basis of recent industry and Police experience, to facilitate the most effective cooperation between industry and Police. Similar guidelines exist in Australia for managing product contamination and extortion.

In some instances, and with a clear understanding of Police requirements, the decision may be made that the evidence does not meet the criminal burden of proof. However, incidents should still be reported to police in order to allow them to understand the nature and scale of issues facing the industry.

Police are becoming more businesses focused and provide their resources where the need exists. If matters are not reported, Police are unlikely to have an accurate appreciation of the impact of product theft on the industry.

Such an approach may well be better handled on an industry basis, with losses not likely to have come from a single source. In Australasia, existing industry bodies and associations afford some coordination, while specific bodies have also been established to tackle stock loss.

The New Zealand Retail Loss Prevention Consortium, for example, was established during 2000, with representatives from major retail organisations in New Zealand and the Police Commissioner's office. The consortium aims to take a wide-ranging crime prevention approach in order to reduce their individual exposure to the costs of retail crime.

As depicted in the Figure 11 tree-diagram, the consortium has targeted relevant bodies outside the retail sector, in an effort to deal with the factors that are responsible for theft from the participants' stores. It has done so through the involvement of the New Zealand Police at national and regional levels, an industry level approach with security contractors, a coordinated approach to government for legislative change and the ability to better use joint resources for investigations and information sharing.

Longer-term efforts are being put into promoting retail loss prevention activities, using media where necessary, and developing education programs. The consortium has prioritised the development and implementation of an improved reporting mechanism to the New Zealand Police.

Retail civil recovery is a process allowing a retailer to use civil law to reclaim directly from an offender costs and losses that arise from a retail theft occurrence.

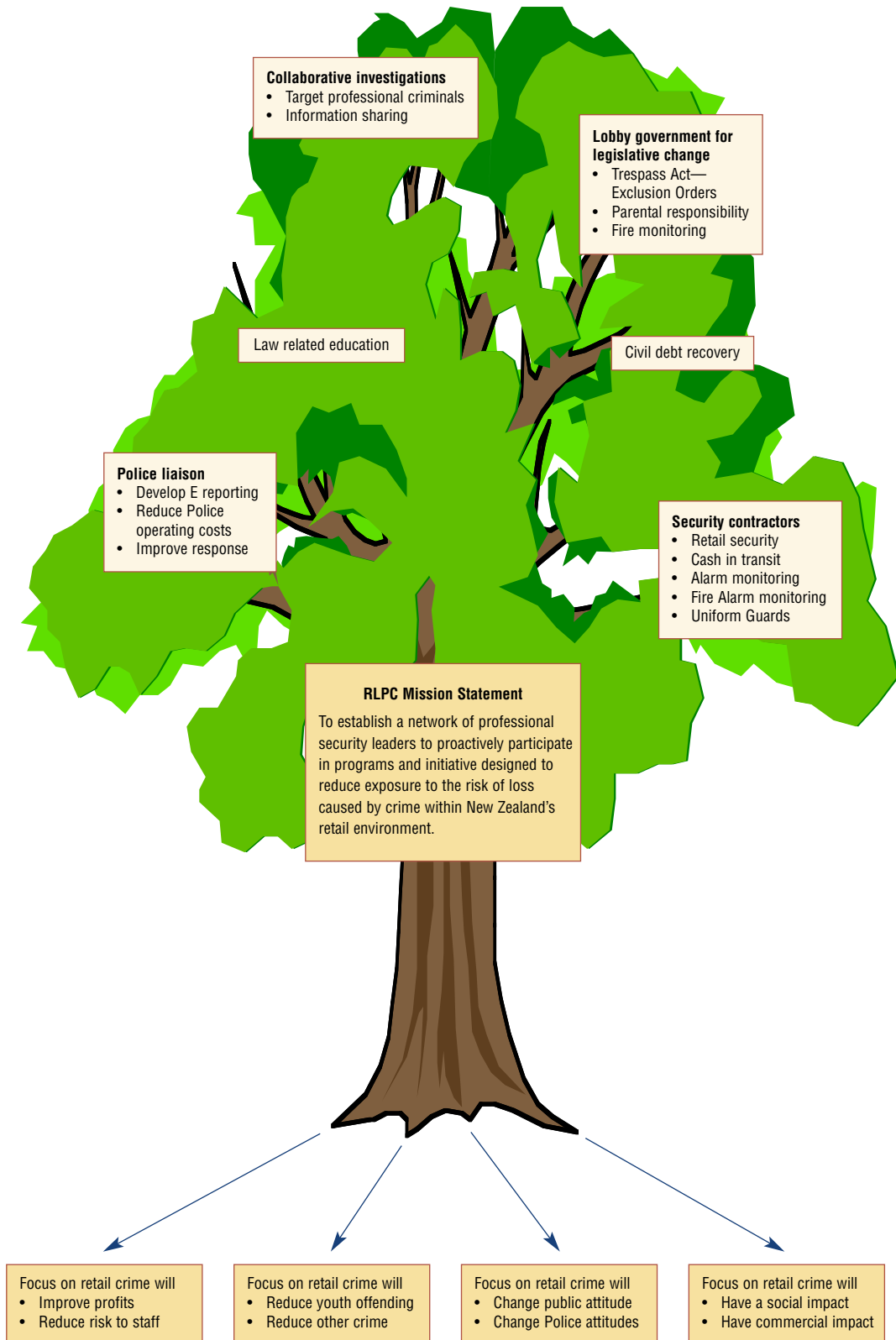
The consortium has implemented a retail civil recovery program and is actively promoting the concept and gaining support from other retail organisations. Civil recovery is a process allowing a retailer to use civil law to reclaim directly from an offender its costs and losses that arise from a retail theft occurrence. Retail civil recovery is used in conjunction with any appropriate criminal law (that is, stealing) usually through a letter of demand for costs and, if this is not successful, through a civil court action.

Retail civil recovery in New Zealand is based on a similar program from the United Kingdom. Its purpose is to deter offenders, by applying financial penalty in addition to any criminal penalty. This is particularly relevant, as a high proportion of shop thieves are only cautioned or warned by the legal system. Furthermore, it provides some, albeit limited, financial recompense to retailers where none is available now. For Loss Prevention Officers, a single apprehension for suspected shop theft may take several hours to process.

In Australia, the Australian Retailers Association is pursuing the introduction of a retail civil recovery program. The other types of activity embraced by the New Zealand Retail Loss Prevention Consortium are supported, if not actively undertaken, by retailers in Australia, with similar desires to improve Police liaison and develop specific legislation to deal with retail based crime—both of which are hindered by the state-by-state approach necessary in Australia.

Managing the external environment is one of the most challenging aspects of loss prevention facing the retail and supermarket industry. While in-store and supply chain measures, both physical and process based, can be constantly improved on, it is tantamount to 'placing the ambulance at the bottom of the cliff'—in attempting to deal with loss after the event, rather than reducing the motivation for it to occur in the first place. This report reinforces the need for an integrated and industry-wide external effort to support the efforts being undertaken by individual companies throughout the extended supply chain.

Figure 11: New Zealand Retail Loss Prevention Consortium





7

Conclusions and recommendations

Conclusions and recommendations

The ECR Australasia loss prevention project has been able to provide, for the first time, a quantifiable estimate of the impact of stock loss on the supermarket industry in Australasia and an understanding of where and how that loss occurs between trading partners.

While this is a significant and worthwhile achievement, the uncovering of the cost should only serve as a call to trading partners to review the manner in which each party is addressing loss prevention and to establish how they can collaboratively reduce the cost of stock loss to the industry. The cost of the status quo is the enormous, and growing, figure of A\$942 million per year to Australasian supermarkets and their suppliers.

ECR Australasia has identified five actions to improve the supermarket industry approach to loss prevention and recommends them for priority implementation. The recommendations are made on an Australasian basis while recognising they may have greater or lesser applicability within Australian or New Zealand retail environments.

ECR Australasia recommends that the following actions be taken:

1. Improve loss prevention collaboration across the industry, between trading partners and within companies

Retailers and high-risk supplier companies have significant programs in place to address loss prevention. The findings of the project however, sustain the belief that these efforts can be further supported through greater industry level, trading partner and intra-company collaboration.

Subsequent recommendations include the need for law enforcement engagement, legislative change and industry agreement on loss prevention technology implementation protocols. These actions may be best served at retailer and supplier industry representative levels.

Collaboration between trading partners was reported in the industry survey at low levels, particularly in coordinating cross-functional trading partner strategies. Suppliers and retailers need to review their approach, including intra-company processes, to develop the most effective joint approach to loss prevention. There are a large number of strategies centred on processes and procedures that if adopted, through supplier-retailer collaboration, will help address stock loss. Most can be easily implemented and at a low cost, with the key to success a shared vision and a rigorous and disciplined approach in execution.

Improved collaborative efforts should not be restricted to fraudulent loss, as there is commonality in the method of loss and hence improvement areas for both supplier and retailer within process failures. Areas such as product distribution, handover and receival points, standard documentation and audit trails and effective management of product shelf-life are common areas of opportunity for improvement.

2. Improve measurement reporting and visibility of stock loss

Realisation of the sizeable proportion and enormous cost of unknown stock loss, close to A\$300 million per year, was a significant outcome of the project. Given the nature of supermarket retailing, it is not surprising that the majority of stock loss occurs at the retail end of the supply line.

However, the extraordinarily low estimate of unknown loss by suppliers—only 8% of all losses—and the significant difference between it and the 41% unknown loss reported by European suppliers, provides some food for thought as to the accuracy of supplier data and the effectiveness of process controls. The methods of stock loss reporting, by both suppliers and retailers, which rely heavily on document-based processes, and which themselves may lead to non-reporting of unknown stock loss, may generate substantial inaccuracies or gaps in available data.

3. Renew industry efforts to engage with law enforcement agencies

A loss prevention approach that fails to include law enforcement agencies lacks a crucial piece of external orientation. The project team expressed concern and frustration at its inability to arrive at a sustainable and efficient method of incidence reporting, response and longer-term strategic engagement with enforcement agencies to address retail crime. The industry needs to renew efforts to develop appropriate links with enforcement jurisdictions to highlight the magnitude and seriousness of retail crime and to develop education and awareness campaigns to support apprehension programs. Collaboration with suppliers and retailers in other industry sectors should also be sought to reinforce the significant cost of stock theft to society.

4. Renew industry efforts to implement model retail theft legislation in jurisdictions in Australia and New Zealand

The perception of retail crime as victimless and without subsequent consequence is sustained by the absence of specific legislation and penalties for the offence. Model legislation has been drawn up by the Australian Retailers Association Loss Prevention Sub-committee and been presented to Australian Attorney's-General, so far without successful adoption. ECR Australasia believes a renewed and concerted approach to having the legislation implemented in Australia and New Zealand to be a fundamental plank on which to build industry attempts to reduce stock loss.

5. Improve collaboration on the introduction of loss prevention technologies

It is clear, in Australia at least, that EAS is a loss prevention tool that is likely to increase penetration in supermarkets. While maintaining a conscious decision not to recommend any particular loss prevention technology, ECR Australasia believes that adoption of agreed industry standards or protocols, for both technologies and affected products, on the basis of agreed cost-benefit analysis, is essential to avoid the introduction of unnecessary costs throughout the supply chain. The final decision to implement particular solutions, and on what commercial basis as always, will remain the privilege of trading partners.



8

Appendices

Appendix 1: Glossary

Balanced Scorecard: A technique for structuring performance measurement that considers the perspectives of shareholders, customers, internal processes and the creation of future value.

Distribution Centres, DC: Supply centres that are used and/or managed (but not necessarily owned) by manufacturers and constitute an integral part of their distribution network.

External Theft: The unauthorised taking of goods or cash from a store at any time of the day or night by customers or other non-company employees. This includes incidents of shoplifting, fraudulent return of goods, till snatches and burglary (breaking into and entering a store whilst it is closed).

Hot Products: Particular items or types of product that have been identified by retailers to be especially at risk from theft. Such products are easily concealed and often have special procedures and security policies associated with them to provide additional protection and reduce losses.

Internal Theft: The unauthorised taking of goods or cash from a store at any time of the day or night by staff employed by the company (including contract staff, for instance third party security staff or maintenance workers). This includes staff theft, collusion between customers and staff, employees eating stock, till shortages and the deliberate manipulation of prices.

Known Stock Loss: A calculable total where there is some form of record of the loss, for instance, paper or computerised records of incidents such as theft or the disposal of goods that are out of date.

Percentage of Stock Loss: Total value of stock loss at retail value (including taxes) as a percentage of total sales. For manufacturers, this excluded losses incurred as part of the manufacturing process.

Process Failures: Losses due to operating procedures within the organisation including products which have become out of date, or have been reduced in price; incorrect pricing; product identification errors; incorrect stock counting; products which have been damaged; scanning errors; and errors in deliveries to the stores (e.g. short deliveries due to errors in picking and dispatch from distribution centres).

Retail Distribution Centres, RDC: Supply centers which are used and or managed (but not necessarily owned) by retailers and constitute an integral part of their logistical network.

Shrinkage: Losses due to a combination of supplier fraud, process failures, internal theft and external theft. See also Percentage of Stock Loss.

Stock Loss: see shrinkage.

Supplier Fraud: Losses due to suppliers or their agents deliberately delivering less goods than what you are eventually charged for by them. This includes vendor and contractor fraud but does not include discrepancies in the goods supplied from company DCs.

Unknown Stock Loss: A calculable total but where there is no record of how, where or when the losses occurred within an organisation.

Appendix 2: Loss prevention solutions

Detailed below are 67 solutions grouped into four different types: procedures and routines; design and layout; equipment and technology; and people and processes. It is in no way an exhaustive list of possible stock loss reduction options, but merely some examples of the different approaches currently available. They are listed in alphabetical order and no attempt has been made to 'rate' their effectiveness.

Procedures and routines

Annual stock loss awareness campaign: Create themes, activities and performance measures to engage every part of the organisation. This could include awareness of current performance, risks and prevention procedures. Often supported by departmental action teams to gain feedback.

Company-wide stock loss refresher training: Scheduled training that covers every employee within a reasonable time frame. It uses the most relevant materials based upon recent stock loss performance, responsibilities, industry 'best practices' and specialist loss prevention techniques.

Customer returns and refund controls (operator and customer database): Sets maximum values for refunds without supervision, develops over-rider facilities procedures, management 'halos' to ensure that high value, hot product or high abuse items are tracked, e.g. clothes, videos, CDs etc.

Damaged goods resale controls: Procedures that make it less attractive for employees to deliberately damage 'premium goods' to enable them to be bought later at a reduced price or to get them free of charge.

Employees exit searches: Using a precise record of shift patterns allowing management or security teams to carry out employee searches either by a random, arbitrary or targeted schedule.

Hot product identification: Hot products vary by outlet, location, time of year and demographics. Once identified, various approaches can be considered to reduce their loss, e.g. delivery checking, shelf replenishment techniques, use of special storage, display location and equipment and regular counting routines.

Hot product management: A unique set of procedures and guidelines, which aim to control the risks associated with these groups of products. Because varying degrees of risk occur throughout the replenishment cycle, checkpoints should be invoked at all key stages of the supply chain process.

Hot products routine counting: Used to identify levels of loss, timing of loss and if possible whether the loss occurred on the sales floor, in the storeroom or in transit. Frequency of count should be weekly minimum and hourly maximum. Counting may deter theft as the products receive more regular attention and therefore thieves will be prone to more surveillance.

Induction training for new employees: Use the captive and influential opportunity during induction to enlighten new employees to issues of stock loss prevention, including areas and products at risk, common theft techniques and the organisation's policy on prosecutions. Should also be supported by brochures, videos and memory aids.

Internal key control: Logging systems to determine whom, when and why particular areas, such as 'hot product' secure lock-ups, are opened and secured after each activity.

Patrol routes for employees (red routes): Standard or set routes through storage and sales floors areas that all employees are required to use. Enables vulnerable stock areas to be more carefully monitored.

Point-of-sale information or data checks: Point-of-sale audits against targeted personnel based upon suspicion, anecdote or concerns about an individual's honesty. Could also cover internal and or external collusion.

Random till cash checks: Random, arbitrary or targeted cash checks to detect mid-shift or end of shift under-ringing and cash abuse/theft.

Rigorous delivery checking procedures: Clear and detailed procedures covering all types of delivery checks for internal and external suppliers of stock. This should include detailed levels of claims for shortages, timescales and validation processes for claims. This can include special procedure for high-risk products.

Security newsletter: Regular communication alerting employees at all levels about loss prevention techniques and up-to-date information on fraud and theft trends and cash and stock controls. Depending on sensitivities and civil rights, examples of external and or internal theft and vigilance awards for employees can be highlighted.

Shelf replenishment techniques: A range of techniques to reduce the risk of internal or external theft by regulating the flow of goods onto the shelves. Examples include a maximum of one day's sales on shelf, loose stock secured between replenishment cycles, stock secured between cycles and replenishment cycles increased for high-risk lines.

Unique till operator PIN numbers: A unique electronic operator number that enables transaction monitoring and an audit trail at operator level to be determined. It can also enable other electronic tracking devices, such as CCTV, to be used to investigate individual operators.

'Watertight' product monitoring procedures: Used to identify skilled theft of high-risk products. CCTV cameras monitor the shelf stock of high-risk products. The quantity of shelf stock is checked twice a day, morning and afternoon, by a hand count. The number of items taken from the shelf is compared against EPOS data. If a loss is found to have occurred then the CCTV tape is reviewed to identify likely culprits. Files are kept on these people and evidence collected over time on their behaviour patterns until enough is known to act to stop them.

Design and layout

Appropriate product location strategies: This approach locates high-risk products in an area of high visibility and control during storage and in the sales area.

Designing-out blind spots: This involves improving the physical layout of a facility, for example through better lighting, improving the positioning of CCTV cameras and giving better line-of-sight visibility to members of staff from their work locations.

Designing-out crime program: Using up-to-date techniques to ensure that thieves cannot loiter undetected, cannot steal large quantities of high-risk products easily, and cannot conceal themselves internally or externally in any part of the building. A range of equipment, e.g. one-way entrance/exit gates, low-level fixtures, CCTV, anti-theft display equipment and robust packaging, should support this approach.

Distribution centre secure storage: These solutions consist of isolated distribution centres or sections within a distribution centre designed to handle high-risk product groups with uniquely rigorous receiving, picking, access control and despatch processes.

Employee entry/exit access control: A unique entrance and exit facility for employees to ensure that arrivals and departures can always be monitored. This area will include a place where either management or security employees can perform discreet searches.

External security—fences, anti-ram raid, roll shutters: A range of defensive approaches designed to ensure that exterior and out-of-business-hours breaches are made more difficult and do not go undetected.

Risk-based design and layout: In place of a one-size-fits-all approach to store design, this approach considers risk profiling or modelling of each unit based on their specific levels of risk of stock loss. This method makes use of records of internal and external theft, insurance risk (industry data), historical stock loss performance, local demographic data, rates of staff turnover, trading hours and cash losses to develop an accurate picture of the risks associated with a particular site.

Robust anti-theft packaging: The use by manufacturers of extra strong and robust packaging. Includes design concepts such as 'too large to fit in the average pocket' packaging.

Single-direction product flow: A one-way process that does not have any ability to reverse the movement of stock for any reason. Quantities are designed to always fit into the despatch, delivery and replenishment requirement of a recipient, without fail.

Supply chain and logistics network design: Consideration of a range of specific secure delivery methods that could include, cross docking, unique hot product delivery processes, third party consolidation and delivery service for hot products, central distribution high-risk product routine check points throughout the network and unit item picking in a controlled environment.

Equipment and technology

Active CCTV: Either black-and-white or preferably colour systems that operate during working or trading hours and record incidents throughout the key areas of the building.

Automated ordering processes: Computer based ordering processes usually either sale based or sales trend based. May include manual intervention capability to adjust final order quantities.

Cash protection tactics and equipment: (both cash offices and tills): A wide range of equipment and approaches are available including cash drawer covers to prevent till snatches, cumbersome metal till cash pick up units, maximum values between till pick ups, heavily supervised/guarded pick ups and timed 'dead locks' on safes.

Company-wide stock loss awareness posters: Use the most appropriate and relevant themes. Position in key employees areas, changing rooms, main corridors and stairways, employee restaurants, department notice boards, to capture the attention of full-time and part-time employees. It is important to be creative and rotate themes in order to stimulate interest and sustain attention.

Dummy display cards in place of high-risk products: Professional replicas of product with signage explaining clearly to customers how and where this product can be obtained and paid for.

EAS hard tagging (recycled): Radio Frequency, Acosta Magnetic or Electro Magnetic tags placed on high-risk products by employees to raise alarm if products are removed and not purchased. Usually disarmed or identified at point of sale and used extensively on clothing.

EAS soft tagging (disposable): Radio Frequency, Acosta Magnetic or Electro Magnetic tags placed on high-risk products by employees to raise alarm if products are removed and not purchased. Usually disarmed or identified at point of sale. Can sometimes cause problems with systems in other locations if 'deactivated' products are taken there.

EAS source tagging (either disposable or recycled): Radio Frequency, Acosta Magnetic or Electro Magnetic tags placed on high-risk products by manufacturers, to raise alarm if products are removed and not purchased. Usually disarmed or identified at point of sale.

Employee purchasing arrangements: Facilities that make monitoring of staff purchases and benefits easier to track. It often requires heavy investment to create an exclusive or unique facility for staff.

Employee panic alarms: Alarm buttons strategically placed and often connected to the local police station to reduce the risk of personal injury, armed robbery as well as the theft of cash and goods.

Employee uniforms without pockets: Reduces the opportunity for staff to conceal either cash or stock while at work.

Intruder alarm systems: Make use of passive beams, infrared or wire-based anti-breach burglary alarms. Can be used to control stock security either during operating hours or secure buildings when closed to the public.

Non-active CCTV: Dummy cameras that look as if they are real but have no facilities for enabling monitoring or recording of incidents.

Point-of-sale camera monitoring: Cameras targeted on till operators and used in conjunction with a computerised till monitoring system that tracks 'unusual' incidents such as till drawer open for more than an acceptable amount of time, consistently low transaction values etc.

Protector display cases applied by retail outlets: Robust product containers that are applied in the retail outlet to protect products such as CDs, music tapes and videos. Usually removed at the point of sale with special equipment.

RFID intelligent tags on pallets, cases or items (radio frequency): Tags that can track the correct stock despatch to the right outlet. Usually focused on high-risk product groups but could extend to all products over time.

Replenishment equipment to support techniques: Specialist equipment for high-risk products, which allows secure storage for loose hot products before, during and between replenishment cycles and operator shifts.

Secure lockers for employees: An employee facility to ensure that personal possessions or money are not accessible during business hours for employees; always maintaining a management prerogative to search if suspicion exists.

Security-sealed containers/shippers: Specially designed secure containers for hot products moving from supplier to distribution centres, and between distribution centres to outlets. These range from hot sealed opaque bags to lockable/sealed boxes or containers.

Shoplifting and theft policy posters for customers and staff: Signs distributed around any stock areas, both for employees and customers, clearly stating the policy to arrest, prosecute or detain anyone suspected or caught in possession of unpaid goods.

Specialist anti-theft display equipment: Restrictors on the level of fill and/or restrictors to reduce removal of more than a single product per customer. Also includes lockable display units, dummy display units and customer service dispensing only systems.

People and processes

Anonymous phone line: Constantly manned or answer phone-based hot line, which enables employees to report any known internal theft or incidents of collusion that they are aware of, but would prefer not to be identified for fear of reprisals. This could also extend to external events that are known about and reported by customers in high-risk locations.

Civil recovery: A process that takes theft-related offences beyond standard police prosecution and utilises civil law to recover the costs of stolen property from the offender (both customers and employees).

Covert surveillance of customers or employees: Use of CCTV or trained personal to observe suspected employees without them knowing it is taking place.

Employee awareness and training: A wide-ranging program, which can help to change organisational culture if sponsored by senior management. Makes use of internal and external specialists to enlighten, facilitate and help create change within the organisation. It is important to identify the intended outcomes and to measure them accordingly.

Employee incentives—discount purchase schemes: These are schemes which encourage employees to buy products from the company at discounted prices, and act as an alternative to stealing product during working hours. Some schemes are only valid after a certain minimum number of months of employment.

Employee incentives—stock loss bonus schemes: A range of schemes to encourage employees to improve stock loss performance. Industry examples range from percentage of annual savings shared with employees to developing and rewarding key performance indicators such as degree of compliance with procedures, cost controls and sales performance.

Employee integrity checks: Pre-employment screening to ensure no relevant previous criminal record exists.

Employee stock loss training and education: Continuous structured programs facilitated by a range of internal and external specialists, which may include, security, loss prevention, stock management, customer service, manufacturers, police and consultants.

External compliance monitoring: External staff contracted to measure key process adherence to existing stock loss prevention procedures. They can also provide industry standards, best practice and up-to-date thinking on new procedures.

External security/loss prevention function: External staff contracted to measure security procedure adherence on cash, stock, alarms, key holder controls, and perform risk assessments. They can also provide industry standards, best practice and up-to-date thinking on security issues.

External stock audit function: External staff contracted to count stock on a regular basis either through entire inventories across all processes or alternatively more focused counting on high-risk products in high-risk outlets. Used to produce performance results in a consistent format enabling comparisons over time to be made.

Internal compliance monitoring: Staff employed to measure key process adherence to existing stock loss prevention procedures. Unless they are specialists it is unlikely that they can provide or compare results with industry standards. Their performance can be enhanced if they are able to report directly to senior management.

Internal security/loss prevention function: Staff employed to measure security procedure adherence on cash, stock, alarms, key holder controls, asset risk assessment. Unless they are specialists, it is unlikely that they can provide industry standards. Research shows that such a function has a greater impact if it reports directly to senior management.

Internal stock audit function: Staff used to count stock on a regular basis either through entire inventories across all processes or alternatively more focused counting on high-risk products in high-risk outlets. Used to produce performance results in a consistent format enabling comparisons over time to be made.

Random checks on distribution centre picking accuracy: Internal or external agencies who carry out load checks prior to despatch to identify picking errors. Usually focused on high risk product groups.

Store detectives: Plain-clothed security operatives employed to detect or deter would-be shop thieves.

Test purchasing 'mystery shopper': Customer decoys who take a normal or targeted shopping load through suspected or regular employee to check accuracy of transaction, cash handling and observational skills of checkout operators.

Uniformed security guards: Either contracted from a specialist company or trained as a member of the organisation. Used as a visible deterrent to would-be offenders and often positioned near at-risk products. Also employed to reassure staff who may feel vulnerable to crime, especially violent crime.

