



The hidden
Costs
of purchasing

The Tork Report – Issue 2



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The Tork Report

The Tork Report is a publication brought to you by SCA. We have gathered experts and thought leaders to write on the big issues that businesses are facing today, giving you the information to make informed business decisions.

Issue 2

In this issue we look at the potential effects of poor purchasing decisions and explain the direct and often overlooked hidden indirect costs of procurement.



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A step-by-step description of an organisational process that forces buyers to undertake all aspects of buying in a rigorous and robust manner



Effective buying – the hidden costs of purchasing

A GUIDE TO BEST PRACTICE

Professor Andrew Cox BA, MA, PhD, FCIPS, FRSA

Buyers are under pressure to cut purchase price - but aggressive cost-reduction exercises can sometimes lead to sub-optimal buying.

Effective buying requires the ability to manage complex, value-for-money trade-offs and to understand the direct and indirect costs and consequences of ownership.

Interest in effective buying has a long history. The Latin phrase: “*Caveat Emptor*” means “*Buyer Beware!*” It was used in Roman times to warn buyers to be wary over what suppliers offer.

In more recent times in his classic quote from 1865, John Ruskin warned buyers about the adulteration of goods and services by unscrupulous suppliers:

“There is hardly anything in this world that some men cannot sell a little more cheaply and make a little worse. Those who consider price only are this man’s lawful prey.”

What each of these sayings is trying to explain is that, just because everyone regularly buys things, it does not mean that we are all effective buyers. This is because effective buying involves an understanding of fairly complex value-for-money trade-offs and the avoidance of unforeseen, or hidden costs or consequences over time.

How to Understand Value-for-Money Trade-offs

Everyone understands the phrase: “*You get what you pay for*”. It implies that if you source a low quality product or service, then over time you are unlikely to receive the same level of quality that a higher-priced product or service can provide. This means that if you value higher quality you will normally have to pay for it.

An effective buyer must, therefore, always consider the value-for-money trade-offs between the specific performance (functionality) they receive from a product or service, and the total cost of ownership of acquiring it. These issues have been well understood by economists and in *The Wealth of Nations* (1776), Adam Smith explained the problems these value-for-money trade-offs pose for buyers.

Smith explained that when buyers seek value for money they have an immediate problem because, while money is easily understood, the concept of value has at least two meanings as outlined in *Figure 1*.

Smith demonstrates that when acquiring any item a buyer has to think about the relationship between the *value in use* (overall functionality or performance) characteristics they will receive, and the *value in exchange* (the total sum of money) that will have to be exchanged to acquire it both now (the purchase price) and in the future (the total cost of ownership).

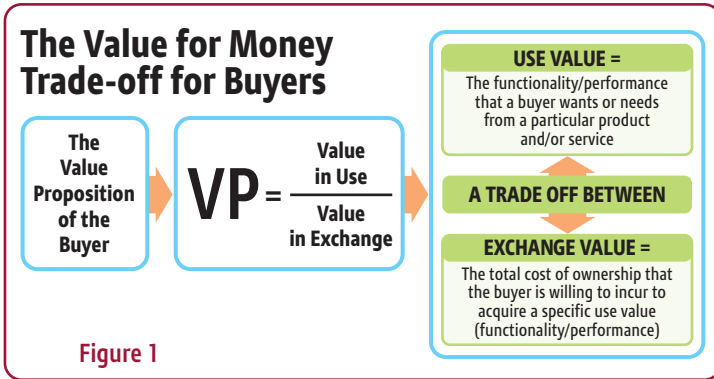


Figure 1

What is meant by these two concepts is simply explained when we think of making the decision to purchase a car. The direct costs may vary slightly when buying a model of car, but over an extended period of time the true cost of ownership may vary widely.

To understand the total cost of ownership we have to first

calculate the *direct costs* of ownership. An expensive 4x4 will cost more than a standard saloon car and will also incur a higher road tax while the cost to insure it will be greater. There are, however, also many potentially unforeseen *indirect costs* such as the replacement of damaged parts, expensive labour costs for servicing, the cost of general maintenance, a higher mile to the gallon ratio, and one factor that many people tend to overlook is the depreciation value of the car.

Once these direct and indirect costs of ownership are known, some people would not want an expensive 4x4. This is because the *use value* (the pleasure they receive from the car) does not fully compensate for the *value in exchange* (total costs of ownership) that must be expended to acquire it. On the other hand, some people are more than delighted with the value-for-money trade-off that they receive from owning an expensive 4x4.

In arriving at the choice of a *value proposition* there is rarely only one choice that a buyer can make about most products or services. Furthermore the more that a buyer requires *high use value*, the more the total cost of ownership is likely to rise.

The first principle of effective buying is therefore that a buyer must be absolutely clear about the *value proposition* they wish to acquire. This means they must be able to clearly specify (and in detail) the level of functionality (*use value*) required, and also understand the overall consequences and total costs of ownership (*exchange value*) of what is acquired. Only by doing so can the buyer ascertain whether they are under or over-specifying requirements, and paying too much or not enough for what they require.

In practice many buyers are not able to do this properly or do not understand the implications of their design and specification decisions for the overall business in which they operate. In facilities management it could mean failing to design a workflow process to ensure efficient labour productivity.

For example, through the appropriate placement of components in a lineside stocking (kanban) system, or the judicious placement of cleaning facilities to reduce unnecessary production downtime and labour costs.

judicious placement of cleaning facilities to reduce unnecessary production downtime and labour costs

If buyers are unable to fully design and specify their requirements, then it is unlikely that they will ever fully understand the *direct costs*, or more importantly the hidden *indirect costs* or consequences, of buying decisions.

The problem for effective buying is that buyers normally learn from experience and if they only experience the buying of one type of product or service, they will be forced to go through this learning experience every time they buy something new. To overcome this problem of learning only from experience (which is time-consuming and impractical for most organisations with multiple supply requirements and a limited number of buyers), competent buying organisations normally put in place a *category management sourcing process*.



This requires the creation of a rigorous and robust process for designing and specifying requirements (*the value proposition*) for every category of organisational spend. In such a process all the questions about functionality (*use value*) and its trade-off with the *direct* and *indirect total costs of ownership* are analysed whenever a buying decision is made. This is undertaken so that before relationships with suppliers are established, the buying organisation can fully understand the total cost implications - and overall operational consequences - for any given level of functionality.

Examples of Effective Buying

World-Class Design and Specification of Supply

For those involved in manufacturing production and supply chain management there is one company that stands out as the leading exponent of the arts of process design and specification and supply chain management. This company is Toyota.

Toyota created the lean production and outsourced just-in-time supply processes that have revolutionised thinking and practice in manufacturing worldwide. Having benchmarked the leading US automotive companies in the 1950s, Toyota decided that its design and specification of production processes was sub-optimal with massive product quality, inefficiency and cost overrun problems. Drawing on its own views about what was possible, Toyota decided not to emulate the highly in-sourced US production model and created its own highly outsourced, just-in-time production and supply chain management process.

Toyota designs and specifies its product requirements in detail, based on an offer to customers that promises continuous improvement in functionality and at a lower cost over time. Toyota (with its luxury Lexus brand) makes the same improved value-for-money offer (although with different levels of functionality and cost for each brand) to every one of its major customer segments in the market.

promises continuous improvement in functionality and at a lower cost over time

Toyota designed its supply chain so that it acts as the detailed designer and specifier of the final product (car brand), but outsources the sub-assemblies, components and sub-components to suppliers, only undertaking the final assembly and testing role in-house. Despite this Toyota understands that, if it requires a world-class just-in-time assembly process, it must work extremely closely with its suppliers (using long-term and highly collaborative working practices). These relationships are built around the use of "stretch" improvement targets to drive continuous improvements in product functionality and with continuous reductions in the total costs of ownership.

The Toyota model has delivered continuous improvement in value for money for all its customers and across all car models. At the same time it has improved the functionality to cost trade-off being received by all car customers in the world. This is because to compete with Toyota all car manufacturers need to have passed increased value to the customer. As a result, since the 1950s Toyota has gone from being a mainly Japanese-based company producing basic but poor quality cars to the world's most successful car assembler today. Understanding how to manage value-for-money trade-offs better than others is clearly critical to business success.

Cross Docking for Improved Cycle Time and Labour Productivity

One of the very best examples of improved cycle time and labour productivity comes from the experience of Wal-Mart and the development of its famous cross-docking production and logistics system with suppliers. For supermarket chains the costs of holding and handling stock has always been a major cost of operations. This is because supermarkets with national outlets have traditionally had to create regional distribution centres to hold stock from multiple suppliers, and then re-consign it to specific retail outlets. By creating regional distribution centres labour costs are incurred in storage and handling. To reduce these costs—which can account for 10 percent of overall product and operational costs—companies have normally replaced labour-intensive warehousing (people with fork-lift trucks handling and storing stock) with more automated (robotic storage) systems.



Wal-Mart, while adopting automation, also radically improved its cycle-time and labour productivity while significantly reducing its total logistics costs. This has been achieved by reducing the need for regional warehousing through the development of a sophisticated management information system that allows for the maximum amount of cross docking rather than storage at regional distribution centres.

By providing timely information to suppliers about which products are required by retail outlets, these can be pulled through the production and logistics system with suppliers with much lower storage and labour costs. This is achieved by ensuring that the goods from suppliers arrive at regional distribution centres so that instead of being stored and handled (using costly and often labour-intensive techniques), they can be moved immediately from inbound trucks arriving in one docking (loading or unloading) bay into outbound trucks departing from another.

**50 percent reduction
in the costs of storage
and labour**

In this way cycle time and labour productivity is massively improved with the costs of storage and handling at regional distribution centres significantly reduced. The bottom-line benefits can be as high as a 50 percent reduction in the costs of storage and labour, depending, of course, on the current efficiency and effectiveness of a company's logistics processes and systems.

The Efficient Management of Assets

Working closely with suppliers to understand the functionality and total costs of ownership of a system can also provide significant benefits for buyers. After detailed consideration of the efficiency of its current hybrid paper and computer-based approach to asset management with its outsourced facilities management (FM) supplier, a major global professional services company has recently implemented a Computer Aided Facilities Management (CAFM) software solution for the effective management of all its assets.

The software package provides complete control of all facilities and maintenance activities within one system, using a database that details every engineering asset (everything that requires maintenance e.g. boiler, heating, lighting). The software solution includes:

- Reactive repair and maintenance of assets through a helpdesk
- Comprehensive Planned Preventative Maintenance schedules

The buyer, in conjunction with their FM supplier, assigns a maintenance regime to every asset to develop a planned preventative maintenance schedule. In addition the FM supplier also covers breakdowns of assets. If a breakdown occurs it is logged into a help desk (via a web interface) and the jobs are assigned and sent to an engineer on wireless hand-held devices.

The use of mobile devices means that engineers can spend less time in the office and more time in the field completing essential tasks, whilst keeping the database up to date regardless of location.

The implementation of this new asset management model has delivered improved functionality in terms of speedier turnaround of problems, higher quality fixes, and better management information and metrics. These have allowed the buyer to measure asset performance and key business metrics at a glance allowing for a strategic, enterprise-wide approach to facilities and maintenance management. It has also resulted in a 40 percent reduction in the total cost of ownership.

These examples show that effective buying normally comes from the rigorous design and specification of requirements, developing a close working relationship with potential suppliers and also from a robust understanding of the direct and especially the often hidden, indirect costs and consequences of ownership.

It has also resulted in a 40% reduction in the total cost of ownership

A Structure for Effective Buying

Given the problems inherent in learning only from experience, most organisations put in place a structure to support best practice buying.

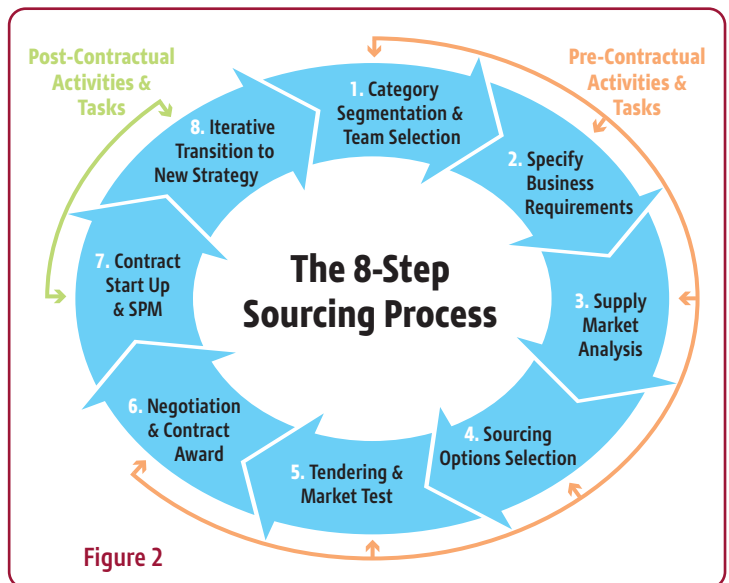
This normally involves the creation of an organisational process that forces buyers to undertake all aspects of buying in a rigorous and robust manner - from the initial design and specification of the requirement (value proposition) to its eventual market testing with suppliers, through negotiation and contract award to supplier post-contractual performance management and eventually to knowledge management, learning and feedback within the organisation.

This type of process is normally also linked with the training of individuals in the basic principles of best practice so that they have competence in managing processes and knowledge of different types of categories of spend, both theoretically and in practice.

There are a number of ways in which a sourcing process can be created, but in general terms any process must accommodate the eight steps shown in *Figure 2*.*

Obviously while this describes the overall process, as *Figure 3* demonstrates it can be operated with varying degrees of rigour and robustness.

Figure 3 shows the results of an on-line benchmarking exercise using the PSCM Index organisational competence assessment tool with over 200 public and private sector organisations. Using web-based functionality the PSCM Index benchmarks an organisation against 184 world-class organisational process and system attributes (www.newpointconsulting.com).



*See page 13 for a detailed description of the 8 Step Sourcing Process.

The Figure shows that some industries score much higher than others. Not surprisingly Retail (80.2 percent), Automotive (79.3 percent) and Consumer Goods/FMCG (76.4 percent) score highly, with the lowest scores being

recorded by national government (11.3 percent), followed by regional and local government (14.6 percent). The distribution of total scores by organisation shows that most organisations are “middling” in the sense that the majority receive scores of between 40 percent and 56 percent. This means that they have most of the attributes required for managing the procurement process, but do not achieve the highest

Benchmarking Organisational Processes & Systems by Industry

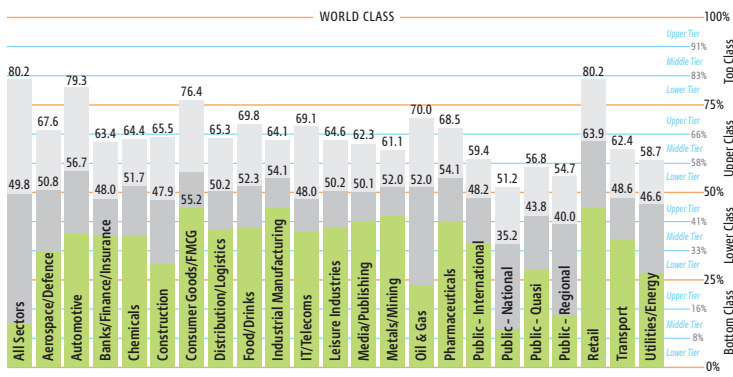


Figure 3

levels of sophistication and/or on-line capability in their systems and processes compared with what is feasible. In general terms the research shows that when buying has a strategic impact on an organisation's mission, then it is likely that it will be fully resourced for most categories of spend. This is common in industries where production is heavily outsourced and profits are low (such as automotive, food retailing, computer assembly etc). In industries with little outsourcing of production and high profits, buying is normally less critical and the strategic sourcing process may be rudimentary and under-resourced with evidence of buying being managed sub-optimally in most categories of spend (Cox, 2008).

understand both the direct and indirect costs particularly labour cost

The challenge for practitioners is, therefore, to understand the organisational processes that support best practice, and then to convince senior management of the need to resource the process effectively. This involves embedding a robust process and undertaking rigorous training of buyers so that they understand how to design and specify, as well as evaluate, alternative value propositions and understand both the direct and indirect costs - particularly labour cost - and consequences of ownership for all their categories of spend.



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- www.newpointconsulting.com

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Small purchase big effect

BUSINESS MANAGERS WILL NATURALLY FOCUS MORE HEAVILY ON THE LARGER ITEMS OF PLANT AND EQUIPMENT WHEN MAKING PURCHASING DECISIONS FOR THEIR PREMISES

But if they fail to take into account the hidden costs of smaller purchases this omission could cost them dear.

Paper products tend to feature fairly low on the list of priorities for the premises manager, who will understandably focus more strongly on major purchases such as plant, equipment and furniture. So the temptation will always be to choose the cheapest consumables to offset those heavier costs.

the premises manager will be able to save substantial sums over a relatively short period

A typical low-price purchasing decision would be a supply of traditional toilet rolls bought in bulk from the cash-and-carry, and perhaps a stack of cheap paper hand towels that can be left on the washroom units.

Loose paper napkins could be the lowest-cost option in the self-service restaurant, while the workshop manager might decide to equip the premises with a few wiping rolls to cater for spills and oily hands.

Such decisions often prove to be a costly mistake. By making a small initial investment in a dispensing system, the premises manager will be able to save substantial sums over a relatively short period.

Take the case of the bulk loo rolls. To avoid the need for frequent maintenance checks or the problem of toilet tissue running out, spare toilet rolls will need to be supplied in every cubicle. The washroom manager may choose to stack these on surfaces, window sills or the floor.

Some will inevitably become wet or soiled while others will find their way into people's pockets or handbags - or even down the toilet, whether by accident or design. This in turn may lead to toilet blockages which could be costly, inconvenient and time-consuming to staff.



A good dispensing system will address all these problems. Substantial savings can be made by switching to a lockable dispenser containing a long-lasting toilet roll or individual sheets of folded toilet tissue. Such a system will protect the paper from pilferage or contamination while also controlling consumption, since most modern dispensers are designed to give out only one sheet at a time.

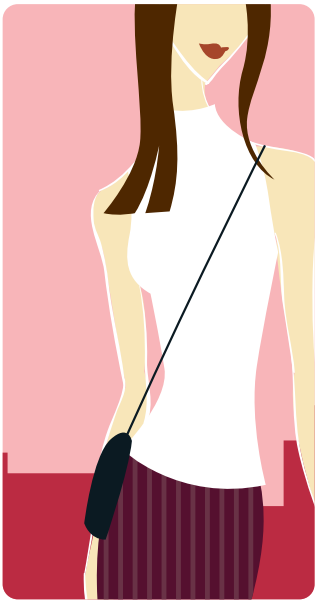
Sometimes it can actually be more cost-effective to use higher quality towels

Washroom managers who opt for a pile of loose hand towels on the shelf will also be storing up hidden costs. Here again, washroom visitors are likely to take more towels than they need and maybe drip their wet hands on to the remainder.

These wet towels will be shunned by subsequent visitors and consequently wasted.

Again a good dispensing system containing a supply of towels that are withdrawn singly will protect the towels from contamination while also naturally reducing consumption.

In order to keep down costs it can be tempting for premises managers to choose the lowest-grade towels they can find. But sometimes it can actually be more cost-effective to use higher quality towels.



Efficient Placement

Staff at a company where North Sea Oil drills were being manufactured positioned one large wiping roll in the centre of their vast premises. The roll was handy for some - while others had to walk up to a quarter of a mile to pick up a length of wiper.

By changing to smaller units of wipers positioned at various strategic points around the factory, the company dramatically improved their productivity and down time.

Another point to consider is the purpose of a wiper. If operatives are only using wipers for cleaning their hands and mopping up light spills, an all-purpose wiper on a large roll could be the answer.

But where delicate or wet wiping operations also take place, care has to be taken to prevent operatives from using the wrong wiper.

Quality of Towels

In one NHS study a hospital trust cut its washroom hand towel bills by 15 percent by switching from an abrasive towel to a softer, higher quality version.

Staff at the hospital were taking three or four of the cheaper towels out of the dispenser at a time to dry their hands. Once the hospital switched to higher quality towels, staff would only take out one or two because the towel was more efficient.

Moving on to the shop floor, a dispensing system can be more cost-effective than either a few loose wiping rolls or one large, centrally-placed wiping roll on a floorstand.

Loose paper rolls, like toilet rolls, are easy to pilfer and they may also roll on to the floor where they will quickly become soiled and unusable. There is also a tendency to discard these rolls before the paper has completely been used up.

A good alternative is to house these rolls in centrefeed dispensers affixed to the wall. These will protect the paper from contamination or pilferage and the ends of the roll are less likely to be wasted since the paper is actually being taken out from the middle.

Where one large, centrally-placed roll is provided, careful thought needs to be given to the number of workers using the dispenser and how far from their work bay it is situated. If operatives have to walk some distance to access the wiping source, much time can be lost and the hidden costs of labour become huge.



Using the Right Product

A Durham lawnmower manufacturer decided to cut corners by cleaning lawnmower moulds with a low-cost, all-purpose wiper. But this left behind small particles of lint which clogged up the threading on the moulds.

As a result the lawnmower parts were deformed and could not be snapped together. The company had already made 10,000 of these faulty parts before they discovered the problem – at a cost of around £25,000.

Since it is important that the right wiper should be used for the task in hand, it is beneficial to assess a company's wiping needs before positioning strategically-placed dispensing systems containing appropriate wipers. And if these dispensers also advertise the product inside and the purpose for which it is intended, operatives are less likely to use the wrong one.



A good dispensing system can also save a fast food restaurant from hidden costs. When taking one's full tray to a table it is all too tempting to take a bundle of loose paper napkins from the stack provided. Once the diner discovers he or she has many more than they need, it is too late to put them back for reasons of hygiene. So the unwanted napkins are discarded along with the burger box and empty drink carton.

Dispensers that give out only one paper napkin at a time can greatly cut consumption. The hungry diner is unlikely to stand by the dispenser taking out napkin after napkin in case he or she needs them – instead they will take only one or two which will usually be sufficient.

Whether you are choosing a cost-effective dispensing system for your washroom, workshop or restaurant there are several factors to be taken into account. Is the dispenser easy to clean, for example? Is it easy to open and refill? Can you tell without opening it whether or not it needs refilling? Can the dispenser be kept conveniently topped up to prevent the product inside from running out between maintenance checks?

Other factors to consider are: does the dispenser automatically control consumption? Does it protect the product from contamination? Does it add value to the product?

A good dispensing system will reduce expensive labour time for maintenance and increase the period of time between refills. Aesthetically-pleasing systems will also enhance the image of the premises, while functional dispensers will improve efficiency and present a professional appearance.

But above all, a good dispensing system will help to reduce the hidden costs of purchasing.

**A good dispensing system
will reduce expensive
labour time**

8-Step Process for Effective Sourcing

Step 1: Category Segmentation and Team Selection

The first step requires the buying structure to be agreed and the decision as to whether goods will be purchased locally or on a national level. For example facilities could be managed globally for all service requirements, or they could be managed locally for discrete service requirements.

Step 2: Specify Business Requirements

The second step requires the strategy team to define the value proposition. This involves the design and specification of the functionality (use value), and the acceptable total cost of ownership for a particular product or service. For example an organisation might specify the frequency and coverage as well as quality standards and what is the anticipated total cost of ownership, while also allowing for labour-intensive activities such as grounds maintenance or office cleaning services.

Step 3: Supply Market Analysis

The third step requires the strategy team to analyse supply markets and supply chains to select the most appropriate suppliers for market testing. This may involve the team undertaking purchase price cost analyses (PPCA) and quotation analyses to identify and pre-qualify preferred suppliers.

Step 4: Sourcing Options Selection

The fourth step requires the strategy team to identify the most appropriate sourcing strategy to manage suppliers post-contractually. This may involve the development of short-term and arm's-length relationships at one extreme (for example, the regular market testing of commodity items such as energy or cleaning products), to fully collaborative, long-term approaches at the other (for example, the use of Full Service Vendor Management outsourcing approaches in facilities management).

Step 5: Market Test

The fifth step requires the strategy team to undertake a rigorous and robust market test of the supplier selected for evaluation and assessment.

Step 6: Negotiation and Contract Award

The sixth step requires the strategy team (when necessary) to undertake a rigorous and robust negotiation process, with eventual supplier selection and contract award.

Step 7: Supplier Performance Management

The seventh step requires the strategy team to put in place a structured process for recording, reporting and managing supplier performance against the terms and conditions in the contract.

Step 8: Transition to Next Strategy

The eighth step requires the strategy team note the areas of potential improvement and store the notes for shared learning across the organisation.





Tork Report is published by:
SCA Tissue Europe
Away From Home
Southfields Road
Dunstable
Bedfordshire
LU6 3EJ
Registered in England no. 3226403
www.scatissueeurope.com
www.tork.co.uk

Printed on Revive 75 a product manufactured
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