

Highway Asset Management Quick Start Guidance Note

Getting Started

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1 Getting Started with Asset Management

1.1 Introduction

Managing and maintaining a transport network is a complex job and we all, over time, have developed and evolved practices for dealing with this. Some of these practices are integrated within an organisation or common across highway authorities whilst others are localised. Some represent good practice, and some represent 'not so good practice'.

The advent of asset management has grown out of maintenance management, and in particular the awareness and recognition at Government and National Board Level, has highlighted the need for all highway authorities to embrace the ethos and embed the practices of asset management. Local Highway Authorities are under increasing pressure to adopt asset management as a means of demonstrating the need for funding, providing efficiencies, measuring performance and compliance, and driving continual improvement. Some of this requires changes to our current working practices, and we all know changes are never easy, especially when we need to get on with the "day job". However, this is the conundrum; Asset Management should be our day job.

The features that characterise the asset management approach are:

- It considers the whole asset together, rather than individual asset components
- It couples sound engineering with sound business and economic practice
- It focuses on the delivery of specific levels of service to customers
- It promotes informed decision making, based on an assessment of the implications of current and future service provision and cost of various options
- It promotes continuous improvement
- It requires an appropriate level of data and knowledge of the extent, and specification, of our highway assets, and their condition and performance.

1.2 Purpose of this Guidance Note

The purpose of this guidance note is to set out a practical means of getting started with asset management, and identifying the sensible steps should be taken to progress this practice, and in what order should you address these.

1.3 Using the Guidance Note

This note provides one possible way of approaching this. However, asset management covers a wide range of issues and, as such, one single approach can never be considered to suit all. There are not any right or wrong answers but, rather, it's about what is appropriate to the individual asset owning, or maintaining, organisation. It is, therefore, recommended that this note should be used as a "checklist" for a high level plan to get started with asset management. It should be appropriately tailored to the specific characteristics and needs of your organisation.

1.4**Content of the Guidance Note**

The Guidance Note contains the following sections:

- Section 2: What is Asset Management?
- Section 3: Getting Started Checklist
- Section 4: Getting 'Buy-in' and Support for Asset Management
- Section 5: Putting the Asset Management Foundations in Place

2 What is Asset Management?

This is not an easy question to answer because asset management means different things to different people and organisations. Part of the problem is that everything that we do to manage our transport network, is effectively asset management. As such, it covers such a wide range of activities (people, processes, data and systems at strategic, tactical and operational levels) that it is difficult to fully appreciate all of the issues that asset management actually covers. It is a common for asset management to be applied to individual assets or services and for the holistic, strategic view to be overlooked.

A wide range of relevant documents exist that describe asset management, including some specifically published for the highway's industry:

- CSS Framework for Highway Asset Management
- Maintaining a Vital Asset
- Maintenance Codes of Practice (for Highways, Structures and Lighting)
- Guidance Document for Highways Asset Valuation

In addition, cross-sector manuals, and standards, include:

- International Infrastructure Management Manual (UK Edition)
- BSI PAS 55: Asset Management

All of the above documents provide sound guidance on asset management. However, the reader can be left at the end still thinking "well, what actually is asset management?" The most recent guidance is BSI PAS 55 (Sept 2008) which represents a pan industry specification for asset management. This document is highly regarded by UK and International infrastructure owners, and is seen as representing the foremost thinking on asset management.

Figure 1 provides an overview of the asset management process.

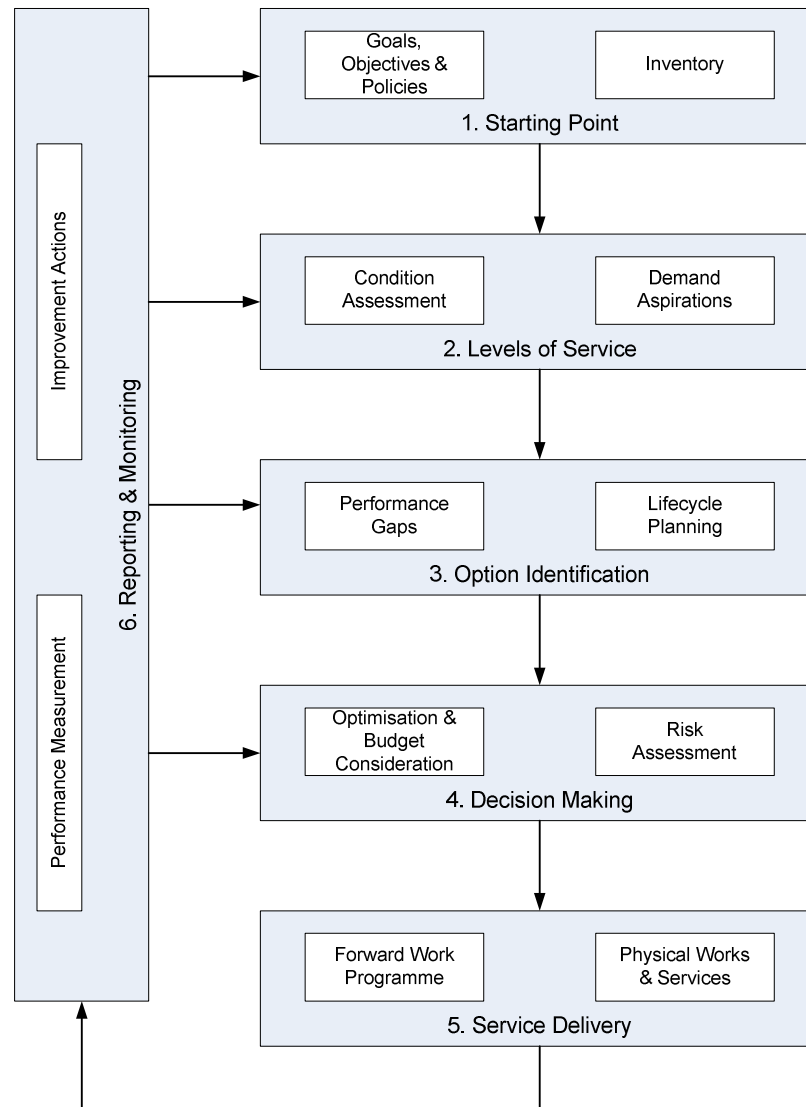


Figure 1 Overview of Asset Management Processes

Conceptually, asset management may be thought of as a “jigsaw” that acts as a framework, and which links together a wide range of activities in a logical and holistic manner.



Figure 2 The Asset Management Jigsaw

The “jigsaw” demonstrates a very important point; asset management is NOT something completely new, rather asset management embraces many existing practices and simply seeks to improve these by adding new practices and, importantly, taking an integrated ‘service-wide’ strategic approach.

Therefore, in getting started, it is important not to get ‘bogged down’ in philosophising about what asset management actually is. It is better to see it as a series of interrelated activities that are going to enhance and improve your management activities.

The specifics of any “Quick Start” will depend on:

- Where you are now
- Where you want to get to in the future, and
- How quickly do you want to get there

Before we look at how to get started, it is worth looking at why we want to invest a lot of our time and resources in managing our assets. The following are some of the typical problems currently experienced by many organisations, and that an asset management approach can start to address:

- Poor highway network referencing model
- Inadequate/ ‘out of date’ inventory
- Poor understanding of historic costs
- Historical based budgets
- Lack of predictive models (technical/ financial)
- Standards unrelated to customer needs
- Assets managed by different departments (‘silos’)
- Definition of maintenance ‘backlog’
- Outside factors e.g. Statutory Undertakers
- Political ‘Short-Termism’
- Inability to defend claims
- Unable to calculate improvement efficiencies

3 Getting Started Checklist

The following table presents a list of key considerations for getting started with asset management, which are presented under the following headings, and follow a loose order of priority under each:

- **A: Getting ‘Buy-in’ and Support for Asset Management** – the activities that should be undertaken to ensure there is appropriate internal support for embedding asset management. To help achieve the cultural change necessary, and to break down any ‘silos’ and effect local ‘ownership’ of the process.
- **B: Putting the Asset Management Foundations in Place** – the “frontline” activities that should be undertaken as a matter of priority to safeguard the public and your organisation; and which at the same time will form a sound basis for developing asset management practices.
- **C: Growing the Asset Management Practices** – examples of the more advanced features of asset management that should be developed once the fundamentals are in place.

Section 4 discusses the points in Category A, and Section 5 discusses the points in Category B. Discussion of the points under category C is outside the scope of this current guidance.

ID	Getting Started Activity
A: Getting Buy-in and Support for Asset Management	
A1	Identify an Asset Management Champion
A2	Arm yourself – get the guidance
A3	Asset Management Business Case
A4	Seek commitment from Senior Management for Gap Analysis
A5	Asset Management Working Group
A6	Gap Analysis
A7	Improvement Plan – activities and resources
A8	Seek commitment from Senior Management to Improvement Plan
B: Putting the Asset Management Foundations in Place	
B1	Understand your Legal Obligations
B2	Data Collection and Storage
B3	Identifying your Assets
B4	Collection of Inventory Data
B5	Inspection and Survey Regime
B6	Collection of Condition and Performance Data
B7	Objective Prioritisation of Needs
B8	Asset Management Training
C: Growing your Asset Management Practices	
C1	Produce a HAMP/TAMP
C2	Asset Valuation
C3	Lifecycle Planning/ Financial Planning

C4	Value Management
C5	Levels of Service/ Performance Framework
C6	Sustainable Development
C7	Information Management Strategy
C8	Contracts
C9	Decision Support Tools
C10	Continual Improvement (benefits and efficiencies)

4 Getting ‘Buy-in’ and Support for Asset Management

4.1 General

The content of this section may appear self evident, and common sense, but this must not be overlooked. Development, and embedment, of asset management has failed in many organisations because these relatively straightforward activities have not been undertaken, or not followed systematically. If appropriate time and effort is spent on these activities it will pay dividends in the long-term because the purpose, objectives and responsibilities for asset management will be clearly established, understood and supported.

4.2 A1: Identify an Asset Management Champion

Identify one member of staff to act as the Asset Management Champion, ideally a relatively senior member of staff who will be capable of developing, presenting and defining an initial Asset Management Business Case to senior management and, where appropriate, elected members. The individual should be suited for the task – enthusiastic with some knowledge of highway asset processes, costs, benefits and risks and able to allocate two to three days of time to developing a business case. It is vitally important that the Champion has senior management support (at the highest level), and this may also extend to the necessary political support.

It is recognised that staff resources are stretched in many local highway authorities and, as such, there may be practical considerations for engaging consultancy support to help deliver asset management. If this approach is taken it is vital that the consultancy support is just that, “support”. The “ownership” for asset management (from the beginning and thereafter) must reside with the organisation, everyone involved in the process and, in particular, the Asset Management Champion.

4.3 A2: Arm yourself – get the guidance

Important guidance and documentation that extols the virtues and need for asset management are widely available. As a minimum the Asset Management Champion should have an understanding of the principles in the following documents, which should be compiled into an asset management library:

- Maintaining a Vital Asset
- Framework for Highway Asset Management
- Well-maintained Highways: Code of Practice for Highways Maintenance Management
- Management of Highways Structures: A Code of Practice
- Well-light Highways: Code of Practice for Highway Lighting Management
- Guidance Document for Highway Infrastructure Asset Valuation
- Comprehensive Area Assessment (CAA): Highway Asset Management

Electronic copies of all of the above documents can be obtained from:

<http://www.ukroadsliaisongroup.org>

<http://www.roadscodes.org>

Other beneficial asset management guidance/standards include:

- BSI PAS 55 (2008): Asset Management – Parts 1 and 2
- International Infrastructure Management Manual (UK Edition)

Hard copies can be purchased from The Institute of Asset management (<http://www.iam-uk.org>).

Preferably, hard copies should be held as these provide a better impression when “selling” asset management to senior management/ members. The hard copies can be used to illustrate the volume of national codes and guidance that support the need for asset management.

4.4

A3: Asset Management Business Case

The purpose of this Business Case is to strengthen the organisation’s “commitment”, both from senior management and members, to producing a HAMP, and to starting the process of a formal asset management Gap Analysis, and the development of an Improvement Plan. The Business Case should:

- Lean heavily on the aforementioned documentation to demonstrate the need for and benefits of adopting an asset management approach.
- Illustrate (graphically) where asset management will sit within your organisation, i.e. what will inform it (Corporate Plans), what activities will it embrace, and what processes and performance indicators it will support.
- Explain the need to set up an Asset Management Working Group and suitably empower the individuals on this group, clearly defining, in due course, their roles and responsibilities.
- Explain that the first key activity in adopting an asset management approach, and producing a HAMP, is to undertake a formal Gap Analysis that describes the current (“As-Is”) and desired (“To-Be”) positions for the organisation in terms of people, data, processes and systems. Then, based on the findings, develop a prioritised Improvement Plan, and put into place project and change management plans, and resources, to support the development.
- Provide a brief description of the work required and how it will be delivered.
- Describe the benefits and risks associated with the adoption of asset management practices, and the how they will be managed.
- Provide details of the proposed programme, resources and costs (internal and, if required, external).

The Business Case should be brief and to the point, but it is important to be realistic and pragmatic about the programme and resources required, which will differ by each individual organisation. The development of the Business Case should take no more than 2 or 3 days of staff time.

4.5

A4: Seek commitment from Senior Management for Gap Analysis

Firm commitment should be sought from senior management/ members for the Asset Management Business Case. It is preferable that this also includes agreed dates/ milestones for updates and deliverables. It is important to use this opportunity to engage with senior management/ members and enthuse them about asset management. If possible, the Business Case should be accompanied by a brief, but well thought out, presentation.

In seeking commitment it is important to avoid overselling of asset management, a tactic that some organisations have fallen foul of. Senior management/ members are frequently interested, for good reason, in the “quick win” financial benefits that can be achieved from new initiatives.

It is important to put across the point that asset management is about adopting good practices, and appropriate stewardship, to safeguard the highway network. It will require initial ‘upfront’ investment (for example, in people, processes, systems and data), and it is in the longer term that the organisation will see the real benefits from asset management, e.g. intelligence-based interventions, improved efficiency of delivery, reduced claims, better targeting of resources. Explain that asset management will include putting in place the checks and measures to

monitor these activities and to demonstrate the benefits of asset management (*Note: a backward comparison is of limited benefit as the relevant data was rarely systematically compiled*).

Progress on the following activities is dependent upon 'buy-in' and commitment at this stage.

4.6 **A5 Asset Management Working Group**

An internal Asset Management Working Group should be set up to drive forward the Gap Analysis and development of the Improvement Plan. The specific make-up of this group will vary from one organisation to another but, at this stage, should attempt to cover as many of the highway related services as possible. As a minimum, it is suggested the group should be comprised of:

- Asset Management Champion – acting as the focal point (and chair).
- Carriageway/ footway representative
- Structures representative
- Lighting representative
- Computerised Systems/ IT representative

The default chair for the working group should be the Champion, but the overriding consideration is that the chair should preferably be someone at a very senior level, who can command the respect, support and commitment required. This may not be the same as the Champion, but the work outside of the working group would still be co-ordinated by the Champion, and the only work required from the chair would be to attend the meetings.

The group should seek to meet at regular intervals, preferably monthly, or more frequently. The purpose/ mission of the Group should be agreed (this will focus on the Gap Analysis/ Improvement Plan initially) along with the roles and responsibilities of the individuals. It may be beneficial to have an independent/ outside party on the group to provide expert advice, and to support facilitation of meetings and, possibly, note taking.

This group should seek to grow and evolve as the organisation's asset management practices grow, and representatives that join (be it permanently or for short periods) at a later stage may include Traffic Management, Drainage, Street Furniture and Finance, or other asset or service leads.

4.7 **A6: Gap Analysis**

The Gap Analysis is used to determine the Current ("As-Is") Practice and Desired ("To-Be") Practice which then forms the basis for developing a prioritised and costed Improvement Plan. Guidance on performing a Gap Analysis is provided in:

- Framework for Highway Asset Management- Section 1.6
- Management of Highway Structures – Section 11

It is suggested that the Gap Analysis focuses on the people, data, processes and systems associated with the key asset types of carriageway/ footway, structures, highway drainage and lighting. The representatives on the Asset Management Working Group will have responsibility for their respective asset areas, and the role of the AM Champion is to support all Gap Analyses.

A standard approach/ template should be used for all the Gap Analyses to aid ease of comparison and compilation when developing/ prioritising for the Improvement Plan. It is recommended that the gap analyses are performed against the requirements and recommendations in the Codes of Practice.

In developing a Gap Analysis template the following headings should be considered:

- Area of assessment, i.e. people, processes, data or systems.
- Good practice requirement/ recommendations
- Source – identify the source of the Good Practice
- Existing, and desired, Service Levels and Performance Targets
- Assessment Criteria, i.e. a description of what is being assessed / reviewed under the good practice requirement / recommendation
- Current rating, e.g. on 1 to 5 scale
- Desired rating, e.g. on a 1 to 5 scale (this may also be time dependent, i.e. rating sought after 1 year, 3 years and 5 years, this may help to prioritise activities in the next stage)
- Evidence – what evidence supports the current rating, e.g. documented, verbal, anecdotal?
- Benefits – a brief description of the perceived benefits of closing the gap
- Risks - a brief description of the risk of not closing the gap
- Recommended action – what needs to be done to close the gap
- Owner – the person best placed to manage the action
- Priority – a priority assigned to the action, e.g. High, Medium or Low
- Duration – estimated duration of the activity
- Resources – estimate of resources required. Ideally this should be split into internal staff time and costs and, if required, external staff time and costs
- “Quick Win” – a simple Yes/ No field to indicate if this is considered to be an area where the organisation can make a “Quick Win”
- Approval Status – to track the approval of each action
- Delivery Status – a simple qualitative or quantitative indicator for example 0% to 100% or not commenced, in progress, complete

It is suggested that the Gap Analysis template is tested on a sample of requirements to check its “usability”, and whether or not it is capturing the appropriate information for the Improvement Plan. Appropriate time and effort should be spent on determining the format/ approach, as the Gap Analysis should be repeated periodically (i) to demonstrate improvements/ closure of gaps; and (ii) to support updating of the Improvement Plan. Organisations may wish to consider developing a Gap Analysis template in collaboration with other highway authorities, as this supports comparison and benchmarking activities. Such templates may also be sourced from external advisers.

4.8

A7: Improvement Plan – activities and resources

The information from the Gap Analysis should be used to form a prioritised Improvement Plan. The Improvement Plan should have clearly identified activities with owners, associated benefits and risks, and a detailed budget and delivery programme. The priority of activities should be agreed by all parties on the Asset Management Working Group as this will directly affect which activities ‘are/ are not’ taken forward when a budget is agreed.

It is suggested that the activities described in Section 5 are treated as high priority (across all asset types) where these are not already in place.

In developing the Improvement Plan, it is important to be pragmatic and practical about what can be delivered (given the likely staff resources and budget). It is also important that project and change management resources are provided.

4.9**A8: Seek commitment from Senior Management for Improvement Plan**

The Improvement Plan should be submitted to Senior Management/ members and formal commitment/ "buy-in" sought, in particular to reach agreement on the staff resources and budget that will be provided to realise the plan (consultation with Senior Management at a draft stage is recommended in order to gauge the likely level of staff and financial commitment – this can be achieved by the WG chair position being from senior management).

5 Putting the Asset Management Foundations in Place

5.1 General

The activities identified in this section are presented in a loose order of priority. It is considered that all of these activities should be addressed as a matter of priority (for all key asset types) where they are not currently in place. Undertaking these activities will provide strong foundations for the development of more refined and advanced asset management practices. It is important to note that a number of these activities are interdependent and may need to be progressed in parallel.

Note: the following are relevant to all asset types. However, where the current practices have been rated as poor against carriageway, footway, structures, highways drainage or lighting, then these should take preference over other asset types.

5.2 B1: Understand your legal obligations

It is essential that those responsible for highway maintenance and asset management clearly understand their legal obligations. The following statements reflect this:

“All employees, elected members, contractors and agents for the organisation involved in the procurement or delivery of highway maintenance services should understand the extent, nature and policy background of the organisation’s legal liabilities and risks for highway maintenance. This is particularly important with regard to the distinction between duties and powers, and how these relate to their particular responsibilities”.

Source; Maintaining a Vital Asset

“The majority of highway maintenance, including structures maintenance, is based upon statutory duties and powers contained in legislation as supported by legal precedent. Even in the absence of specific reference to duties and powers, authorities have a general duty of care to users and the community to maintain the highway in a state that is safe for use and fit for purpose. These principles should be applied to all decisions affecting policy, priority programming and implementation of works on highway structures”.

Source; Management of Highway Structures: A Code of Practice

With regard to highway maintenance/ asset management, organisations should align with the principles and policies set out in the Codes of Practice. Any variations in policies and practices from those in the codes should be clearly documented (including the supporting rationale). In all cases, the approval and adoption process should involve the organisation’s Executive and be explicit, transparent and inclusive.

For authorities getting started with asset management, the Gap Analysis and Improvement Plan can act as a statement of current practice and demonstrate that a formalised and systematic approach has been adopted to align (in due course) with the policies and practices set out in the Codes of Practice. As such, it is essential that the prioritisation of actions within the Improvement Plan is robust, as this may be required to defend the organisation’s actions.

Risk management lies at the heart of good asset management. One of the foundations of good highways asset management should, therefore, be a 'living' Risk Assessment Matrix. This is described in more detail in the accompanying guidance on Highway Asset Risk Management.

5.3 **B2: Data collection and storage**

This activity is likely to run in parallel with a number of following data items. However, it is important that consideration is given 'upfront' to the way that data will be collected, stored and maintained. Failure to do so can result in additional (and costly) data collection that could have been avoided.

An organisation should consider developing a formal *Information Management Strategy* that clearly sets out their data needs, data collection practices, data storage practices and how data is maintained over time. Data needs are relatively well established for highway assets and the Codes of Practice should be consulted. Guidance on developing an Information Management Strategy is provided in *Data Management for Road Administrations: A Best Practice Guide* (WERD/DREO, 2003). The following provides some initial points for consideration on data collection and data storage.

5.4 **Data Collection**

Data collection will depend on the current status of your data, and the balancing of cost vs. risk (or liability). For example:

- If an organisation considers it has an incomplete (say less than 80%) record of key asset types (e.g. bridges and lighting) then it may be appropriate to commission a "walk round" survey that can quickly establish the assets that the organisation is responsible for, and if any are considered to be in an unsafe state (but would not necessarily include the collection of inventory and condition data). Such a survey could be quickly commissioned and undertaken (say within 1 to 3 months).
- If an organisation has good coverage of key assets but lacks certain details (for example, dimensions to be used for asset valuation), then the most cost effective approach may be to collate dimensions as part of the regular inspection/ survey regime.

The above simple examples show the "trade off" authorities need to consider between 'cost and risk' when determining data collection. In the former the organisation may be holding a significant liability because they do not know if key assets are currently posing a risk to the public. Whereas, in the latter case, it is unlikely that lack of data on dimensions is causing safety issues. However, this information could prove beneficial for other asset management activities, and so programming its collection alongside condition surveys may be cost effective.

In determining data collection requirements consideration should be given to issues such as:

- Identifying what data must be collected as a matter of urgency to safe guard the public, and reduce the organisation's risk exposure. When identifying data needs, and the extent of asset attributes to collect, it is important to know how it will be used, how it may be challenged, and which management systems it will support. Data should not be collected 'just for the sake of it'.
- Immediate versus long term data needs, i.e. is it cost effective to collect data now that will be beneficial at a later stage thereby avoiding several data collection exercises? Care is also needed so as not to collect data prematurely i.e. data that, when it is required, has become out of date.
- Identifying static (e.g. dimensions, location) and dynamic data (e.g. condition)
- Identifying the appropriate regimes for the collection of static and dynamic data.
- Identifying if data gaps should be closed by (i) a one off data collection exercise; or (ii) through on-going survey/ inspection regimes.
- Identifying data collection efficiencies by combing data collection activities.

- Making use of standard data requirements/ pro-forma (as set out in the Codes of Practice).
- Making use of technology enablers, e.g. hand held devices, where they provide clear benefits, e.g. better data consistency, better data quality, faster data transfer etc.
- Techniques that will be used for checking and validating data.
- Where appropriate, training for staff who carry out the data collection.

Data collection is an expensive activity and, as such, it is recommended that suitable time and effort is set aside in the Improvement Plan to develop a formal *Information Management Strategy* that will provide benefits and, cost savings, in the longer term.

5.5

Data Storage

Asset management requires considerable data analysis, trending and manipulation to support operational activities and performance reporting. It is, therefore, important that a suitable data storage tool and management process is developed to meet these needs. Given the volume of asset records, organisations will find that it is inevitable that use is made of an appropriate computerised asset management system (commercial or bespoke) to manage their asset data.

Computerised asset management systems can be expensive and sometimes complex. Their usage (e.g. data storage and how the data is accessed, used, manipulated etc.) must, therefore, form a core part of the *Information Management Strategy*. Such systems must not become an end in themselves, or burden the organisation with unnecessary extra administration. It should be recognised that a computer system has a life-cycle of its own, starting with a resource and cost-intensive implementation phase; being used and regularly updated during its operational phase; and finally being decommissioned once it has reached the end of its useful life. The important point to note is that while a *system* will have a finite life, the *data* within it potentially has a much longer life, and so the design of the system must allow for data to survive and be transferred to any successor system. Using standard data definitions and formats is the most effective way of ensuring this, and export/ import functions should be available to facilitate data transfer.

Transfer of information between systems has become more of an issue now that responsibilities and outsourced contracts etc., often require the handover of information between different parties. It should be the responsibility of the data owner to safeguard his information, and prepare contingency plans in the event that it may need to be made available to another party in these circumstances. On the other hand, writing data requirements into contracts will ensure that information required by a client organisation is made available to a standard and at a frequency needed to support the business. The *Information Management Strategy* should cover all of these issues, relating each aspect to both the long- and short-term business needs of the organisation.

5.6

B3: Identifying your assets

If the Gap Analysis identifies that the organisation has incomplete knowledge of the key assets under its stewardship then this should be addressed as a matter of priority. A “walk round” survey should be organised to determine:

- The type and location of assets, e.g. carriageway, footway, structures and lighting.
 - This will require clear definitions for each asset type, and
 - An appropriate network and asset referencing system.
- Identification of any aspects/ defects that may represent an immediate risk to public safety.
 - This may require a checklist of issues to look for and/ or training of staff prior to the survey.

The objective of this activity is to provide the organisation with a full list of their key asset types and an opportunity to identify and address any immediate safety concerns.

5.7 **B4: Collection of inventory data**

Inventory data is required for a wide range of asset management activities, including:

- Presenting a breakdown and statistics of the organisations assets
- Classifying assets, e.g. hierarchy
- Assigning inspection and survey regimes
- Prioritising maintenance needs
- Asset valuation
- Grouping assets for lifecycle planning

If the Gap Analysis identifies poor quality, and completeness, of key inventory data for a key asset type then a programme of data collection should be developed. Key inventory data is considered as that which has an impact on maintenance/ management activities and decisions, for example:

- Asset name/ reference
- Asset location
- Asset usage, e.g. road type, obstacle crossed
- Key dimensions
- Material type/ manufacturer specification
- Data of construction/ replacement

As mentioned earlier, the level (or attributes) of inventory data required needs to be clearly identified before any collection process begins e.g. is the exact location of gullies required, or just numbers in each street? This type of questioning will vary by individual organisation, as will each organisation's data requirements. The relevance and priority associated with each data type will vary by location. This, in turn, is best defined using standardised classification criteria (e.g. hierarchy) for road section in the network. Applying the classification should be the very first task in setting up the system and defining the data requirements.

5.8 **B5: Inspection and survey regime**

If the Gap Analysis identifies that the current inspection/ survey regime does not meet minimum requirements for key asset types, then this should be addressed as a matter of priority. An appropriate inspection and survey regime should be agreed and implemented for all key asset types. For some organisations, and for some asset types, an inspection regime above the minimum required may be appropriate.

The regimes should ideally adhere to those defined in the Codes of Practice (utilising risk assessment where appropriate to define inspection types and intervals). Where the organisation adopts an inspection regime that does not align with the Codes this must be fully documented and signed off by the organisation's Executive.

5.9 **B6: Collection of condition and performance data**

Condition and performance data drives the short and long-term maintenance and financial plans, and forms a key input for the prioritisation of maintenance.

If the Gap Analysis identifies poor quality, and completeness, of key condition/ performance data this should be programmed for collection. It is likely that much of this can be collated through the aforementioned *Inspection and Survey Regime*.

Condition and performance data should be collected in accordance with agreed national procedures and, where appropriate, be supplemented by local practices.

5.10 **B7: Objective prioritisation of needs**

Objective prioritisation of maintenance needs provides an organisation with a formal and systematic means of allocating available funds. This is an important approach to take to minimise risk exposure.

Ideally prioritisation should be across asset types, but this should be seen as a longer term aspiration. The immediate priority is to develop a robust prioritisation (or Value Management) approach for each key asset type. The prioritisation should identify the key criteria to be considered and assign an appropriate weighting to each, for example:

- Safety, e.g. risk to road and non-road users or road workers
- Asset condition
- Asset performance, e.g. structural capacity, lighting level
- Asset importance/ hierarchy, e.g. impact on customers
- Visual appearance

This will provide an initial list of priorities for maintenance. Any changes made to the priorities should have supporting rationale/ evidence.

5.11 **B8: Asset management training**

The organisation should set up a structured plan of asset management training (via internal and external activities) for key staff involved in the development and delivery of asset management activities and, if necessary, should consider bringing in external experts to deliver this.

6 Conclusions

Asset Management is now a 'fact of life' for all organisations that have responsibility for operating and maintaining highway networks in the UK.

A wealth of 'best practice' exists and may be accessed through published documents, meetings organised by professional bodies, joining local networking groups, and using expert advisers. Endorsement of the asset management approach has come from the UK Roads Liaison Group and the Department for Transport, and is currently facilitated by the Roads Board's Asset Management Working Group. It is, therefore, not an option to put off getting started on any of the initiatives required to embrace asset management. The benefits of good asset management are within the grasp of any competent professional highway organisation, whether acting as the asset owner, the client for highway services, or the deliverer of services.

Appendix A – References

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- Guidance Document for Highway Infrastructure Asset Valuation, UK Roads Liaison Group/ CSS/ TAG, July 2005
- Comprehensive Area Assessment (CAA): Highway Asset Management, Audit Commission 2007
- PAS 55 (2008): Asset Management – Parts 1 and 2 (2004, revised 2008), British Standards Institution
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