



RICS Professional Guidance, Global

Strategic facilities management

1st edition



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Acknowledgments

This guidance has been produced collaboratively, recognising that the facilities management sector is populated by a wide range of professionals from a variety of different backgrounds, many of whom have come to the profession with experience in the construction and servicing of buildings. It is hoped that this publication will assist in drawing together the facilities management 'community', which is already benefitting from a more holistic approach to many issues affecting the sector. In particular, the more integrated and collaborative approach to education and training is a considerable benefit to the sector in helping aspiring facilities managers to pick the most appropriate training route.

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The author, Alan D White, is a member of the RICS Corporate Occupier Group and the Public Sector Executive Group as well as being involved with commercial property and consultancy businesses and a number of academic institutions.



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Foreword

The majority of organisations operate from buildings, which represent one of their largest corporate assets and after staff, one of the largest cost liabilities. These assets and liabilities need to be managed with the objectives of the organisation in mind, so that accommodation and facilities services strategies are aligned with business strategies and plans. Many operational managers fail to realise the advantages of this alignment and this can be an expensive oversight, almost certainly resulting in increased costs, with reduced productivity and a loss of competitive advantage.

It is here that the facilities manager holds a key to improving business performance. There is the potential to add value by facilitating improved 'well-being' and productivity from a satisfied and comfortable workforce, enhancing customer experience and controlling costs through efficient management, thereby improving the organisation's performance. But the facilities manager needs to be at the business strategy table with the real estate manager, so that accommodation and services provision are integrated with organisation-wide delivery plans.

Much has been written about the relative importance of the real estate and facilities management disciplines. The fact is that they are of equal importance and their influence and contribution is strengthened by a working partnership which recognises the singular contribution of each in the supply and management of appropriate operational space.

This guidance provides practitioners with strategic and operational pointers to best practice in the planning and management of facilities. It is not an encyclopaedic reference to all aspects of facilities management; rather, it highlights a route-map towards best practice, emphasising those issues which the facilities team should be considering in managing and servicing their portfolio of buildings.

The guidance will appeal to all, whether clients, consultants or service providers. When the text refers to 'business operations', this applies equally to all organisations from retailers to health centres and hospitals to factories. The principles in this document are globally applicable, however, specific reference to practice, experience and sources of information throughout the RICS World Regions may be found at <http://www.rics.org/uk/tag/facilities-management>

The management of facilities demands more than merely maintaining and servicing buildings. It is a management function providing support to corporate operations, enabling the organisation to better achieve its stated objectives. A strategically driven approach to facilities management will provide maximum corporate benefit, with outputs measured by quality of service and value for money rather than on cost alone.

It is hoped that this guidance will provide inspiration and enlightenment and will be judged worthwhile and value-adding by facilities managers and those they serve.

Alan D White BSc FRICS
October 2013

RICS guidance notes

This is a guidance note. Where recommendations are made for specific professional tasks, these are intended to represent 'best practice'; that is, recommendations which in the opinion of RICS meet a high standard of professional competence.

Although members are not required to follow the recommendations contained in the note, they should take into account the following points.

When an allegation of professional negligence is made against a surveyor, a court or tribunal may take account of the contents of any relevant guidance notes published by RICS in deciding whether or not the member had acted with reasonable competence.

In the opinion of RICS, a member conforming to the practices recommended in this note should have at least a partial defence to an allegation of negligence if they have followed those practices. However, members have the responsibility of deciding when it is inappropriate to follow the guidance.

It is for each member to decide on the appropriate procedure to follow in any professional task. However, where members do not comply with the practice

recommended in this note, they should do so only for a good reason. In the event of a legal dispute, a court or tribunal may require them to explain why they decided not to adopt the recommended practice. Also, if members have not followed this guidance, and their actions are questioned in an RICS disciplinary case, they will be asked to explain the actions they did take and this may be taken into account by the examining Panel.

In addition, guidance notes are relevant to professional competence in that each member should be up to date and should have knowledge of guidance notes within a reasonable time of their coming into effect.

This guidance note is believed to reflect case law and legislation applicable at its date of publication. It is the member's responsibility to establish if any changes in case law or legislation after the publication date have an impact on the guidance or information in this document.

Document status defined

RICS produces a range of professional guidance products. These have been defined in the table below. This document is a guidance note.

Type of document	Definition	Status
Standard		
<i>International Standard</i>	An international high level principle based standard developed in collaboration with other relevant bodies	Mandatory.
Practice Statement		
<i>RICS practice statement</i>	Document that provides members with mandatory requirements under Rule 4 of the Rules of Conduct for members	Mandatory.
Guidance		
<i>RICS Code of Practice</i>	Document approved by RICS, and endorsed by another professional body/ stakeholder that provides users with recommendations for accepted good practice as followed by conscientious practitioners	Mandatory or recommended good practice [will be confirmed in the document itself]
<i>RICS Guidance Note [GN]</i>	Document that provides users with recommendations for accepted good practice as followed by competent and conscientious practitioners	Recommended good practice
<i>RICS Information Paper [IP]</i>	Practice based information that provides users with the latest information and/or research	Information and/or explanatory commentary

The arrangement of this publication

This publication is arranged in three parts:

Part 1 – Guidance note: focuses at high level on the strategy, planning, delivery and review of facilities management and support services to organisations. This is not a detailed step by step exposition – it is a route-map to the processes required to best support an organisation and enhance overall business performance.

Part 2 – Managing facilities: looks in some detail at the provision of facilities management functions and reviews some of the principal tasks of the facilities manager in the delivery of services to organisations.

Part 3 – Appendices: provides reference material, including a brief history of the facilities management discipline, with an exposé of abbreviations and key terms used in the FM sector as well as a further reading schedule about facilities management and related subjects, including real estate management.

While Part 1 constitutes the guidance note, practitioners should take note of the operational elements of the facilities management function described in Parts 2 and 3 of this publication, which provide important strategic and operational information on the delivery of supportive facilities services. In particular, the requirement for compliance with legislation and regulation in the conduct of service delivery is an essential requirement for all involved in facilities service delivery.

Part 1. RICS Guidance Note

1 Introduction

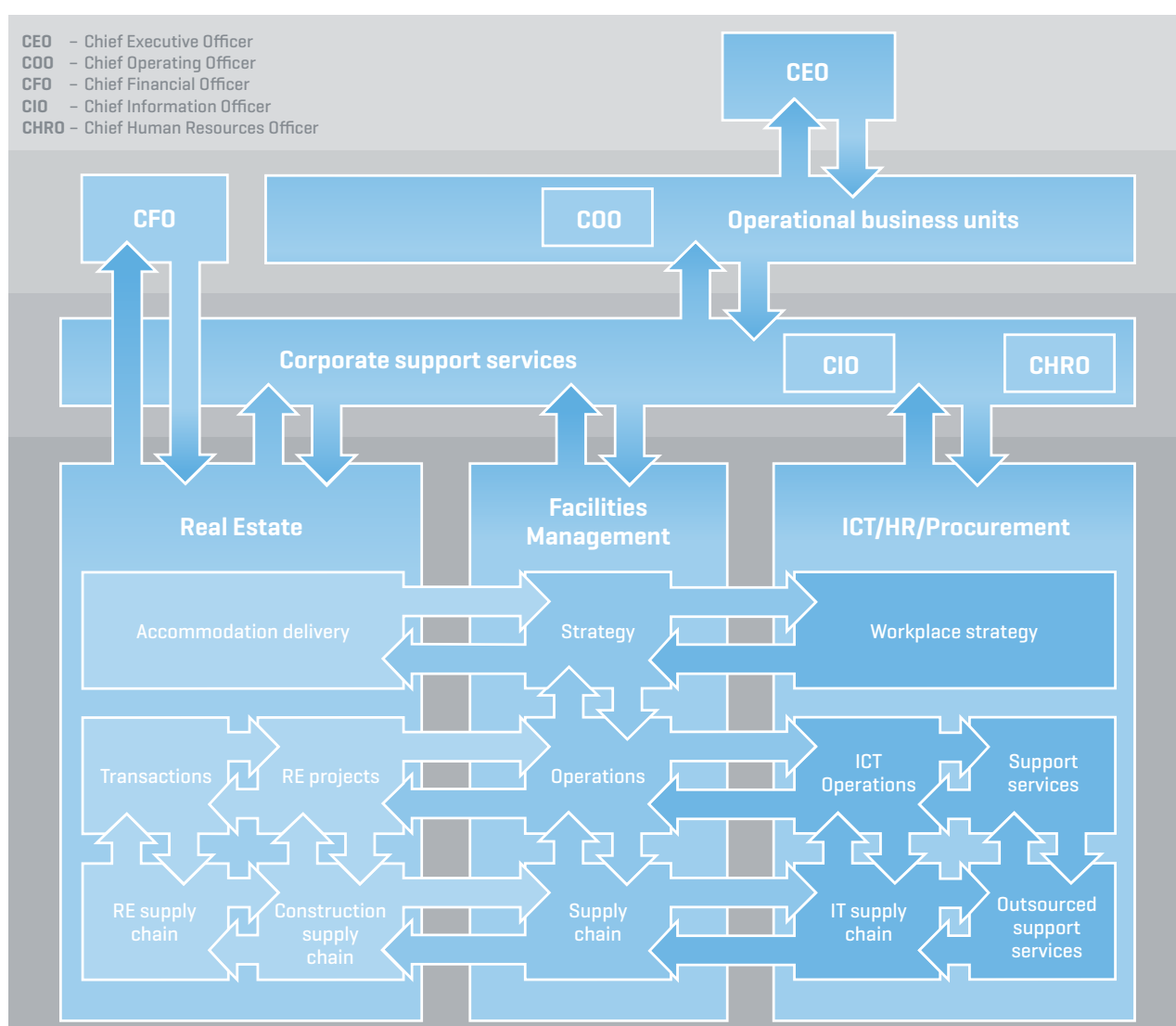
Overview

This guidance provides a practitioner's route-map of the processes which should be followed in aligning business and facilities strategies and plans, together with managing service delivery and performance.

There are many definitions of the term 'facilities management' and they are discussed in Part 3, Appendix 1. Organisations vary about what is involved in the facilities role; some include real estate asset management oversight and others minor or, sometimes major projects, in addition to the traditional core service delivery responsibilities. The definition used in this guidance is:

The effective management of place and space, integrating an organisation's support infrastructure to deliver services to staff and customers at best value whilst enhancing organisational performance.

Figure 1: An example of the complex relationships of facilities managers in larger organisations



This guidance is designed to appeal to all those involved with the management of facilities and the provision of support services, whether via in-house teams or through specialist 'supply side' organisations.

1.1 The 'client side' facilities manager

The client side or in-house facilities manager is a key member of the central business support management team with an internal network of contacts throughout the organisation. A generic example of the inter-relationship of the facilities, real estate, ICT, HR and procurement teams, as well as the important links to the operational business units and the chief operating officer (corporate support service group COO) is shown in Figure 1. The imperative of a support service team effort is seen particularly in the supply and management of the workplace, including support for flexible working strategies. The real estate team in this example has a direct line to the chief finance officer (CFO), highlighting the importance of the high asset value buildings portfolio, but ideally the real estate and facilities team should have a common reporting line to ensure good strategic alignment between the two groups. In this example, which might relate to a retail business, the facilities team report through to the COO. Their primary aim here should be to support the retail delivery strategy, providing an appropriate environment for customers and staff alike. Of great importance is the correct placement of the facilities team in the corporate structure, enabling the establishment and maintenance of communication links to all parts of the business. This ensures that the team is directly aware of the business strategies being followed and the FM services required by each part of the organisation.

It is sometimes difficult to 'educate' operational managers about the value of strategically aligned facilities services in enhancing business performance. This is a time-consuming task, greatly assisted by the correct positioning of the facilities team within the organisational structure. These issues have been investigated and are reported in detail in the RICS research publication *Raising the Bar, Enhancing the Strategic Role of Facilities Management*².

1.2 The 'supply side' facilities manager

The supply side facilities manager has a dual role of delivering designated services to the client while also managing the service company's 'bottom line' to best corporate advantage. Markedly different skills are required for each role. The involvement with the client is dependent upon the level of services which the client organisation is buying and the degree of external management desired.

Whatever the extent of the contract or service, a co-operative approach between respective facilities managers (client and supplier) will deliver the greatest advantage to both parties. Such an approach recognises the business interests of client and supplier and aligns strategies and delivery plans for mutual benefit.

In whichever of these roles the facilities manager is operating, skill in negotiation and in contract and change management will be required to ensure reliable and quality services are delivered at a competitive cost.

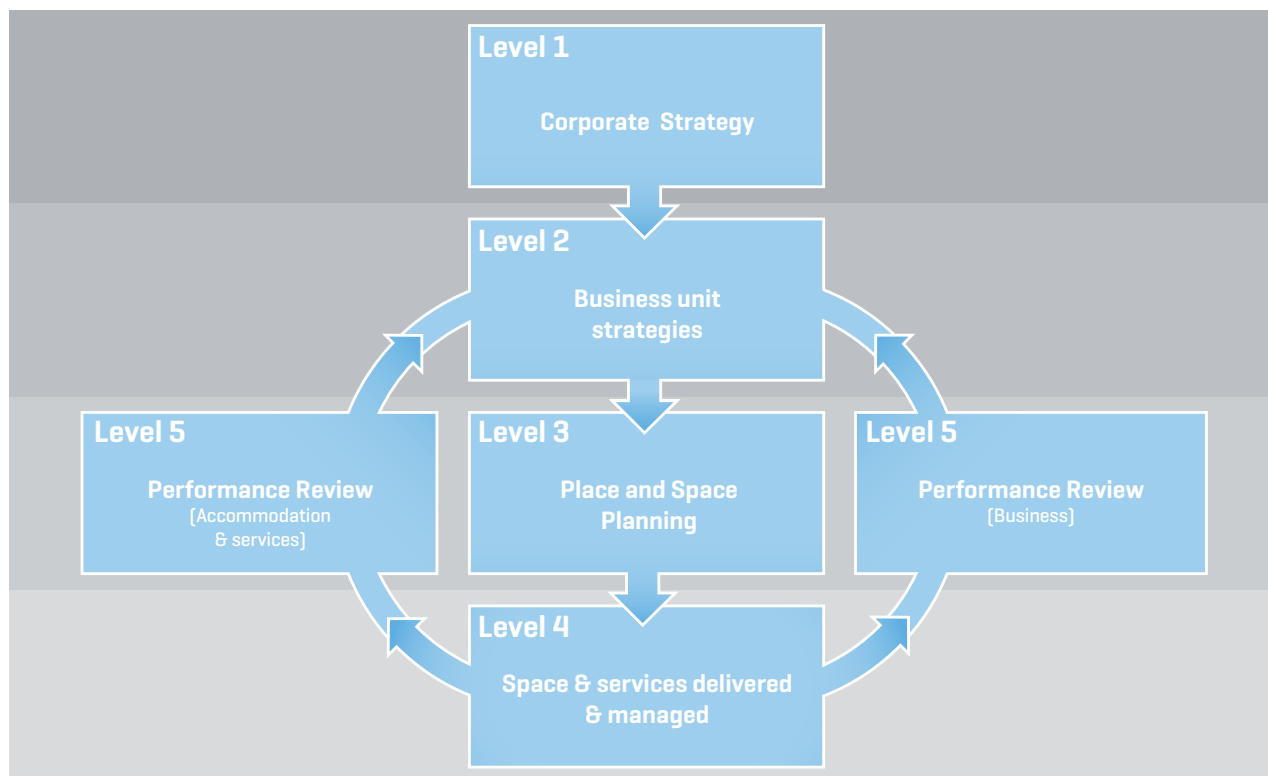
1.3 Strategic business focus

The success of the facilities management operation depends on the delivery teams, both as client and supplier, understanding the strategic focus of the organisation and, in larger businesses, the varying strategies of each business unit. The networking of the in-house team through the organisation, capturing the 'over the horizon' vision of operational managers will assist in producing an aligned and supportive operational strategy by the facilities group. In these circumstances, it may be that the facilities manager is the conduit who relays the operational strategies to the real estate, ICT, HR and other corporate service support groups. It is also imperative that the client-side facilities manager passes on the strategic and delivery information to the supply-side manager so that there is a commonality of understanding about the direction of the business and support levels required to achieve business-wide objectives.

The communication networks should be used to gather operational and strategic information to inform the on-going accommodation and facilities management strategies but also to 'sell' the facilities service as a key constituent of the corporate support group.

1.4 The strategy, plan, delivery and review sequence

The method of delivering facilities services should be decided by an analysis of the business case and the capabilities of the team, remembering that the skills needed for managing outsourced services will be different from those required to deliver in-house services. Whichever delivery route is chosen, the service performance should be measured and the metrics shared with the occupiers and the management team. The continual review of operational strategy, service suitability, the delivery process and performance measures, will bring the overall supply of facilities services nearer to optimum performance, enhancing the value to the overall business organisation. This sequence is illustrated in Figure 2.

Figure 2: The process for the supply of accommodation and services

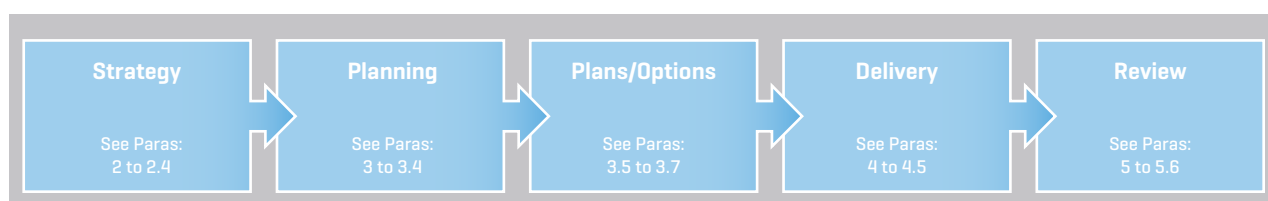
Here the process of corporate strategy formulation is shown at Level 1, cascading down to business unit strategies at Level 2, where the real estate and facilities teams begin the process of matching space and service requirements to operational needs. This results in detailed space and service planning at Level 3 and the delivery and management of the 'right space' and services at Level 4. The review process which follows (Level 5) is an integral step in refining the overall space and services provision and improving its effectiveness and efficiency.

The review sequence is a two stage process which should involve the business operations managers and accommodation teams separately, and then co-operatively, analysing how the space and services are working from a business perspective and as necessary, proposing and implementing changes. Building this circularity of the review process into the operational and accommodation sequence will result in the provision of services that will steadily enhance organisational performance.

1.5 The route-map

To maximise corporate value from the process, the role of the facilities manager should involve the planning and management of services and accommodation to provide an optimum serviced environment for those who own, lease, occupy, or visit the facility. Corporate space may range from office, to retail, to hospital, educational or manufacture, but whatever its use, the space needs to be maintained and managed so that it remains operationally effective, safe, and contributes to the organisation's well-being and brand image. The organisation's service teams, or their contractors, provide this support in whole or in part, ideally overseen by an in-house facilities manager or a manager acting as the informed client.

This route-map shows the sequence from strategy formation to review and involves a number of important stages, represented in Figure 3. References give the paragraph numbers of the various stages of the process.

Figure 3: The route-map

2 Strategy

The start point for the development of a facilities strategy is an understanding of the business strategies flowing from the organisation's vision and mission statements. These will translate to business unit operational strategies in which buildings will be just one of the many corporate resources needed to deliver products and services to customers. The operational strategies will include statements about the overall approach to providing buildings and services, making it clear, in general terms, the type and quality of space and servicing required to meet corporate and operational objectives.

The resulting space and services strategy will be a statement of the purpose and performance levels expected from the portfolio. It will set out the type, location, cost, value and quality of the buildings portfolio and the 'brand image' this will promote in support of the corporate vision and mission. It will 'set the standard' for the quality of facilities services which the business expects and will enable the facilities team to assess the resources, structure and budget which the supply of these services will require.

The 'cascade' from high level, business focused strategy to accommodation and services strategy should be embedded in the business and financial planning processes of the organisation. The overarching policies and strategies will be reviewed, along with the accommodation strategy, each year (or more often as required) and adjusted as part of the regular business and financial planning cycle.

2.1 Preparatory action – the existing portfolio

Accurate data is the key to effective decision-making. Facilities managers must have a full understanding of the state of the present portfolio of real estate assets, the suitability for purpose, tenure, condition, cost of restoration to full repair, operating costs, market value, flexibility of use, utilisation levels, environmental performance, user and customer satisfaction, and remaining life. A factual view of the accommodation stock is needed, with an assessment of the expected contribution to service delivery and an estimate of the efficiency and effectiveness of each facility. This exercise should take into account both the real estate and facilities perspective so that a cost in use, asset value and business 'value' matrix can be produced for each location.

The importance of data accuracy cannot be over-emphasised – good corporate decision-making is reliant on quality data. However, the increasing volume and detail of information captured by organisations and the rise of multimedia and social media is fuelling exponential growth in available data and creating 'data overload' issues for many businesses. The 'Big Data' problem and its management is beyond the scope of this guidance but it emphasises the need to concentrate resources on collecting the key property/facilities data required to create a viable space and services plan for the business.

2.2 Corporate vision, mission and business plans

The real estate and facilities services strategy is a business planning and communication document providing operational, financial and quality 'readings' for the organisation. It is developed from the key strands of corporate policy and objectives which 'cascade' from the corporate vision (see Figure 4) and the mission statement providing detail about the purpose and aims of the organisation. With the latter in mind, corporate frameworks and policies are developed setting out the context within which the organisation is to operate, defining the scope, direction and the way it will allocate resources to achieve its stated objectives.

It is at this level where the outline of the space and services strategies will be set down so that delivery strategies can be supported by and matched to practical resourcing, whether this relates to real estate, to financial, IT or to people resources. To be optimally effective, real estate and facilities managers should be involved in this decision-making matrix to advise firstly on the appropriate space to 'fit' delivery requirements and, secondly about the 'match' of the present portfolio of space to the business aspirations. The objective should be to provide the right facility in the right location at the right cost and of the right quality.

2.3 Space and services policies and plans

The space strategy is a high level statement of the overall approach to providing accommodation to meet the organisation's needs. As the business plans become more granular, the space and facilities policies will be developed and designed to ensure that similar standards are reflected across the organisation. The policies should set down the 'rules of behaviour' for the organisation as far as real estate and services decision-making are concerned.

Figure 5 shows a representation of the process from the formation of the business stream strategies (Level 1) through the discussion of place and space strategies (Level 2) when the detailed input of real estate and facilities managers will be considered, based on their knowledge of the existing portfolio of space, its value and operating costs, and the market for new accommodation if demanded by the business strategies. The process will produce an optimum allocation of space for the business (Level 2) and in due course, the delivery and management of the space (Level 3) with a performance review sequence (Level 4) after operational experience. The real estate, services and operational plans will be reviewed regularly over time as the 1 – 4 sequence is regularly revisited.

Figure 4: The corporate strategy cascade

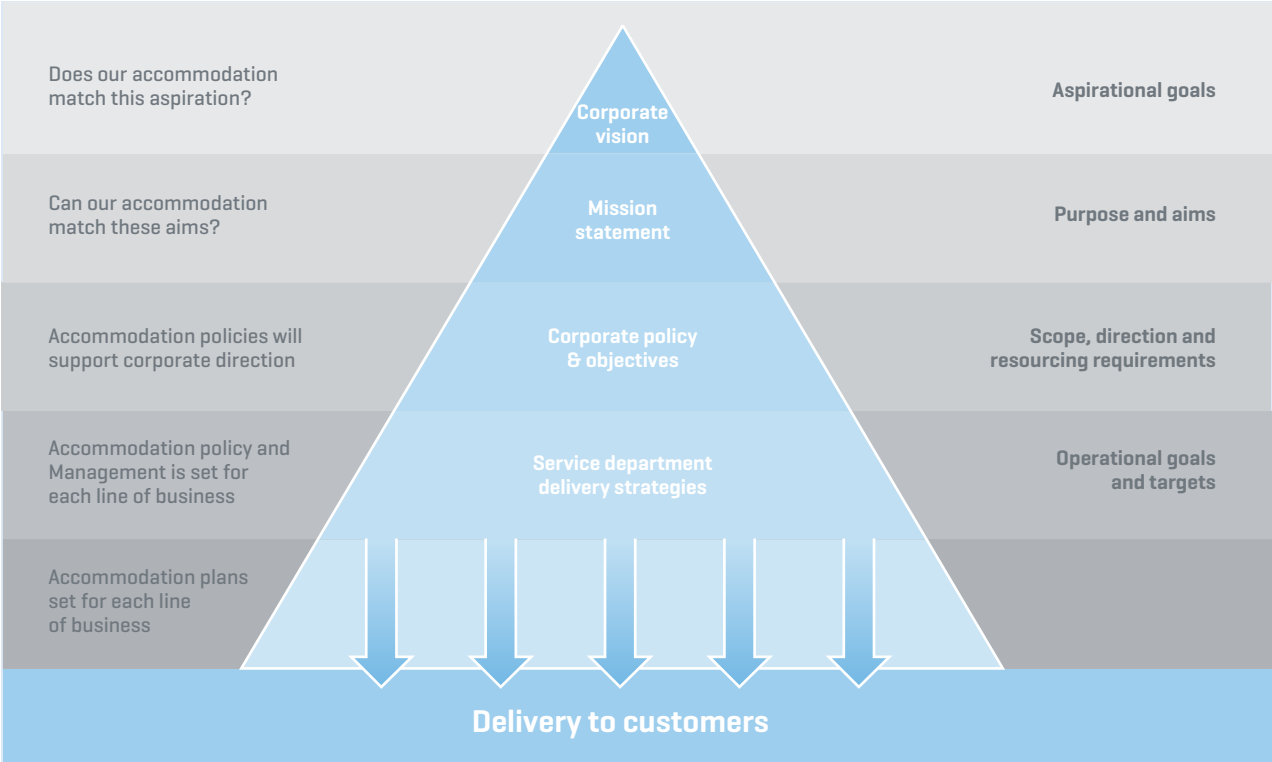
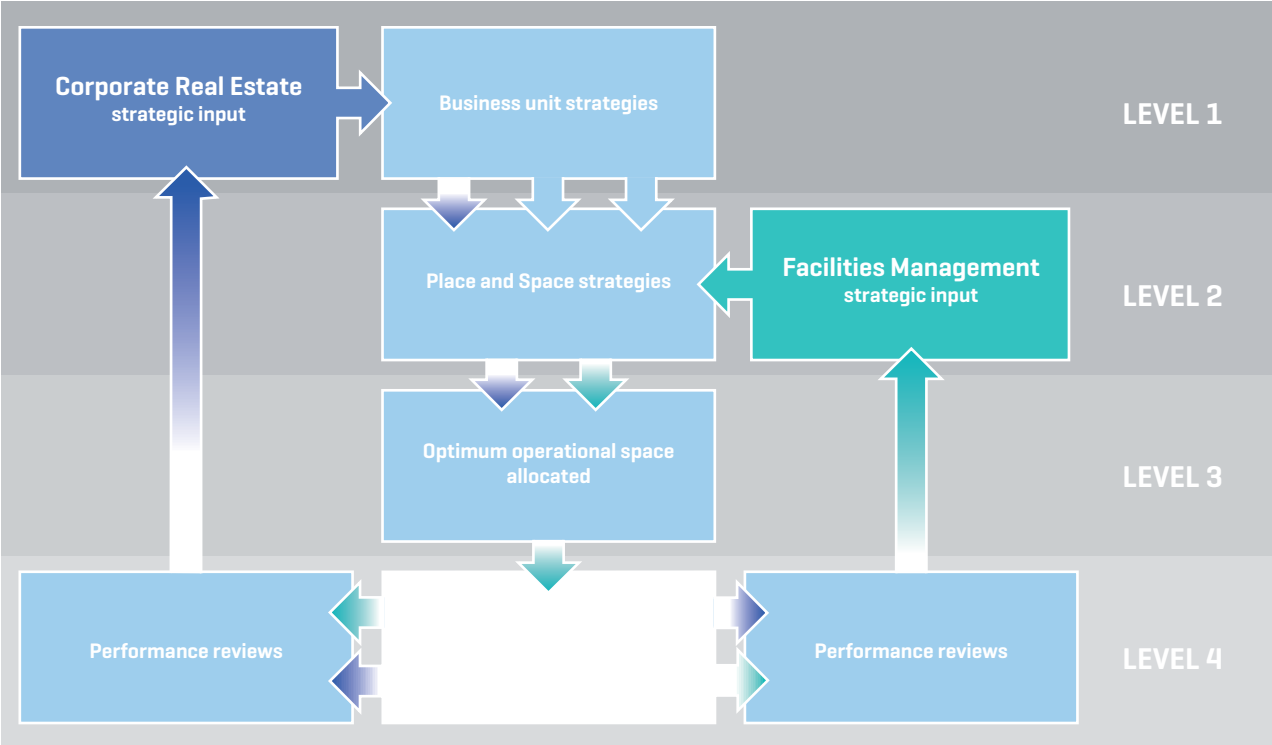


Figure 5: The strategic and operational linkage and performance review process



The benefits of establishing a space and facilities services policy include:

- the efficient allocation and management of space across the organisation
- optimum locations for service delivery
- increasingly sustainable delivery strategies; and
- the lowering of operating costs and efficient use of capital

With the benefit of this ‘overarching’ policy developed in conjunction with operational managers and a full understanding of the latter’s delivery strategies, work to develop the organisation’s space and facilities services plan will proceed.

3 Planning

The planning process becomes more detailed as managers begin considering the suitability of existing accommodation and the changes that may be required to bring the portfolio up to the standard desired by the organisation. This is shown in Figure 6. In this example of a local council plan, only four potential outcomes are considered at Level 1 – in fact there may be many more or perhaps just one option, dependent on the size of the organisation and the existing status of the accommodation portfolio.

As a result of discussion about the operational, financial and physical aspects of the accommodation, an agreed

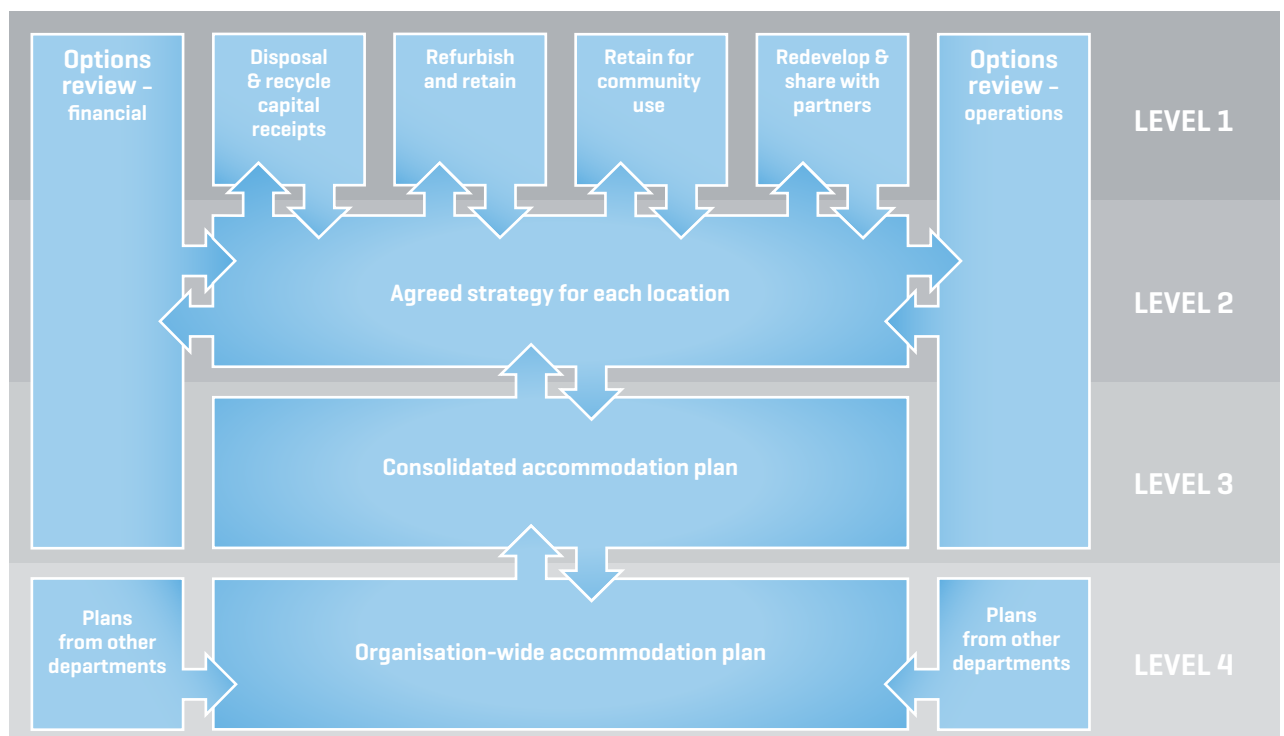
plan will be worked out at Level 2. This process should be carried out across the service/operational departments to provide a consolidated plan at Level 3 and across the organisation to produce the organisation-wide accommodation and services plan at Level 4. In larger organisations, these plans may need to be drawn up on a phased basis because they require a considerable amount of resource. For smaller organisations, there may only be a single plan although limited resources may delay completion. The facilities team should simultaneously consider the cost of servicing the space and the on-going maintenance and life cycle issues of fit-out and M&E plant.

3.1 User needs evaluation

It is important for the planning teams to understand how occupiers use accommodation and an assessment of user needs will be required, at least for the larger buildings in the portfolio.

‘Generic’ designs may meet some of the space planning, fit-out, furnishing and services requirements of a particular building user but the missed step in the process is often a more detailed user evaluation and a brief setting out of the exact needs of the occupier, both at corporate and at staff level. The absence of this evaluation may result in dissatisfied staff, perhaps less than optimum productivity, wasted resources and potential damage to the brand image of the business.

Figure 6: The formulation of accommodation plans



The discussion here relates to the planning and use of office buildings but the same principles apply to retail and industrial accommodation. Retailers plan store layouts to the last detail based upon complex shopper and marketing feedback on the design of their existing operating units. This is a very sophisticated planning process – getting a detail wrong might well have a significant effect on the bottom line financial performance of a store. Similarly, the planning of a manufacturing operation will require briefings from a wide variety of professionals and their involvement in the planning and placement of equipment throughout the building. In both cases, the facilities management team should be part of this planning process to ensure what is proposed can be maintained, serviced and cleaned in an efficient and effective manner and complies with health and safety and other relevant legislation.

3.2 Briefing for office accommodation³

The facilities team, or consultants reporting to them, should be the ‘mailbox’ for information from all parts of the occupying organisation about what is required from buildings. This will enable a prioritised and informed brief to be created to form a basis for decision-making about which buildings to acquire and which should be discarded. The facilities team should aim to produce considered feedback on the topics shown in Table 1, under such headings as Business, Building, Staff, Workplace, and Workstyle. In reality, much more information may be sought at this key stage.

This briefing information provides key input data to the design team to ensure, as far as possible from a physical and financial perspective, that user requirements are built into the final scheme. The facilities team should continue to be involved in the process as the scheme moves forward through development and/or fit-out, so that any essential changes which become necessary can be designed into the building.

This example is based on a new development but the same principles apply when an existing building is being assessed. The facilities manager should have the occupying organisation’s requirement schedule and oversight of the actual costs of running the building and should preferably be given access to the records of previous occupiers in relation to maintenance issues and costs, utility costs and service charges. The building will be rated from an energy efficiency perspective so that its compliance with the occupier’s sustainability policies can be assessed. This information matrix will provide an invaluable insight into how well the organisation will ‘fit’ into the building and the likely costs of occupation. It should also be possible to accurately assess the quality of the workplace environment and how efficiently the building’s infrastructure operates.

Table 1: Office accommodation briefing

Business
Corporate culture – image, operation, style, quality, sustainability. Will the design and use be a branding opportunity and if so what image is to be portrayed? The balance must be right – not too ostentatious, but not too ‘ordinary’. There is an opportunity to ‘score points’ on the competition through the office image and style.
Building
Quality and style, environmental standards, flexibility in use, condition and maintainability. How many people can be accommodated? What are the timescales and numbers of people in the business over the strategy period? How will the building be serviced, security maintained, and services provided, and are there design problems which need resolution? Are there security issues locally which affect design and access arrangements? Does the building comply with all present legislation? What is the BREEAM rating and what can be done [at what cost] to improve its ‘efficiency in use’.
Workspace
Numbers to be accommodated and type/quality/space/environmental requirements. Circulation space, furniture and equipment, IT services, space standards, flexibility of space and use, meeting room and quiet room space. Communal and networking spaces at group, departmental or corporate level. What work group adjacencies are required? Catering and welfare services – will child-care be required/provided?
Workstyle
Flexibility of work delivery, desk sharing/hot desking schemes, breakout space, video conferencing, ‘bring your own device’, paperless office, VOIP technologies, anytime, anyplace policies.
Staff
Do I want to work here – what is needed to get me to work here? Space, furniture, welfare facilities and standards, catering, location, parking, public transport, local shopping and other amenities. Is this location safe? Can I afford to work here – expense of travel, parking, shopping, etc.?

3.3 Plan testing

Planning information and detailed user requirements should enable a draft plan to be prepared which will be appraised financially as it develops. This should be a broad and generic process which will also assess the effects on other corporate resources, principally staffing and technology. The plan's estimated investment needs will be checked in the context of the organisation's overall requirement for project capital.

Real estate and facilities managers are advised to 'challenge' operational colleagues about their need for accommodation, the type, quality and amount of space, as well as its location and cost. The procurement options for the plan will be developed and tested financially and with operational managers, to assess viability and affordability.

The testing of the effect on staffing levels and on systems is a vital step in developing the plan. HR and IT specialists are key players in the final delivery and performance of the space and servicing plan. With all resources and costs factored in, the whole plan can be 'tested' and adjustments made as required.

The planning process is an iterative one. Plan reappraisal is a process that organisations are recommended to go through periodically and the result will improve each time the process is run as better data is used and more operational experience is gained. The testing and subsequent iterations will require progressively more accurate and complete data, particularly to support investment/divestment actions on specific real estate assets.

3.4 Communication

While the planning work proceeds, communication links to the rest of the organisation should be maintained so that there is visibility of the process. This applies through all levels of the organisation although the messages will be of different detail at the various levels.

At senior management level, the process may well take on a facilitation role to ensure all are 'pointing in the same direction' and are fully supportive. The benefits of time spent here include ensuring that real estate and facilities management operations are established in the minds of managers and kept on the corporate agenda, clarifying business drivers and corporate policy and persuading the senior team to become facilitators in promoting the space and services plan throughout the organisation.

3.5 The accommodation and facilities services plan

What does the accommodation plan contain? This will vary widely and from business to business but there are a number of templates in use and a typical plan will include some or all of the topics outlined in Table 2.

Real estate and facilities managers should remember that while the detail of their plans will be of interest to operational managers, senior board members will have time to read only summary sections relating to such topics as meeting delivery objectives and targets, the financial implications and the efficiency and effectiveness of service delivery. The layout of the plan document should, therefore, be carefully planned, so that it is clear to the wide range of readers which parts are particularly relevant to them, including summaries, as necessary, to provide an 'easy read' for other sections.

3.6 Benefits of accommodation planning

The planning process should result in an alignment of accommodation to support the organisation-wide objectives set out in the corporate strategy. The key point is that the plan lays the foundation for efficient and effective use of resources and provides a platform for structured and rigorous forward thinking and decision-making about both operational, space and servicing strategies. It also allows the organisation to be ready for change, perhaps as a result of acquisition, a change in strategic direction or 'shocks' caused by a downturn in business or competitor activity.

The plan should enable management to be clear about the extent, value, condition and suitability of the accommodation across the organisation and understand the quality of services to be provided by the facilities team. This will form the basis for the accommodation development and management programme and a clear baseline for measuring delivery performance.

3.7 Real estate options

The design of workspace is a key consideration for occupying businesses but of equal importance is whether buildings are owned or leased. A detailed analysis of real estate options is beyond the scope of this guidance, but it is important for the facilities manager, with the real estate team if one exists, to balance the options of owning and the additional business planning perspectives which need to be considered if a leasehold route is followed.

The leasehold option brings a series of differing timescale cycles which must be considered at the outset. The cycle of the lease expiring in a certain number of years, along with the maintenance cycle of the building and the fit-out life cycle, all need to be considered as part of this option. It is also important to consider the less obvious costs of leasehold occupation over and above the actual rents payable. There will be service charges in a multi-occupied building – what opportunity is there to control the quality, quantity and costs of these services and is there a possibility of being 'hit' by a contribution to an expensive common part repair or replacement such as a new lift or roof? There will be dilapidations liabilities at lease end and potentially, restrictions on alterations.

Furthermore, business expansion or contraction might mean that the accommodation will, at some time in the future, no longer be suitable, with the consequential difficulty and expense of surplus space until the lease end, unless the lease can be ended through surrender to the landlord or the outgoings limited by subletting. Great care needs to be taken when operating break options if these exist in the lease.

The planning stage should also take account of the property market – is this a good time to buy or lease? It may be possible to buy or lease cheaply in a market downturn but paying premium prices in a buoyant market may be unavoidable. The exit route should be considered before the accommodation is acquired. Will this space be saleable if no longer required? The implication of accounting changes on the treatment of leases in corporate accounts also needs to be considered.

It is imperative that the organisation plans appropriately for the various accommodation and real estate related events along with the likely business requirements. A misalignment of real estate and business cycles may prove to be very expensive in the future.

A possible occupational solution is to utilise serviced office accommodation for short to medium term office space requirements. This 'off the shelf' solution gives ultimate flexibility of space and time, which is ideal for fast expanding businesses. It requires a minimal amount of set-up cost and can be organised within days.

Table 2: A generic plan for accommodation and services planning and delivery

Plan topics	What is included
Purpose and benefits of the accommodation and services strategy and plan	<ul style="list-style-type: none"> The purpose of the accommodation and services strategy and plan and the benefits to the organisation. How the strategy has been developed, the alignment with business strategies. The plan timescale. There may be more than one end date where a number of change programmes are running simultaneously.
The organisation's corporate vision, mission and strategy	<ul style="list-style-type: none"> A statement of the organisation's goals and objectives and the implication for accommodation.
The financial context	<ul style="list-style-type: none"> The overall corporate financial position. The financial outlook and the implications for accommodation and services decision-making. An estimate of the budget for accommodation change and ultimate operating and servicing costs.
Accommodation and services – A statement of goals and objectives	<ul style="list-style-type: none"> Setting out at corporate level the policy, goals and objectives that will improve delivery. The corporate approach to the use of accommodation and the quality of facilities services. The vision of what accommodation will 'look like' through the programme and at the end of the plan period. A statement of the quality of space and the standard of services to be expected. The sustainability elements of the plan and the changes made to increase the 'sustainable focus'.
The accommodation and services plan for each business unit	<ul style="list-style-type: none"> A business unit analysis of the effect of the plan on the accommodation portfolio. The effect on key locations will be highlighted. This charts the change process to align with business requirements. In separate appendices, a location by location breakdown will show the detail of each asset and any proposed changes, as well as the type of services planned and the estimated capital and operating costs.
Asset upgrade analysis	<ul style="list-style-type: none"> At high level, the key changes required to deliver the plan and the facility service changes proposed. An estimate of the likely total costs of the plan's proposed capital requirement.

Plan topics	What is included
Definition of service levels to be expected	<ul style="list-style-type: none"> The quality, capacity, reliability, services and responsiveness of the accommodation is confirmed and priced. This will be a balance between affordability, practicality and service quality; the level is defined and becomes the baseline for performance measurement. Operating models and resultant changes in inputs and outputs.
Critical success factors	<ul style="list-style-type: none"> Business based outcomes and timescales are noted. This will form the basis for performance management.
Resource implications of the plan	<ul style="list-style-type: none"> The effect on accommodation and services as well as finance, IT and HR will be noted and this provides further input to the capital and operating plans. Revenue budget implications will be outlined. The broad investment and divestment plan will be outlined and capital spend and returns will be estimated. The overall approach to sourcing, outsourcing and procurement will be set out as a strategy to be investigated.
Performance measurement	<ul style="list-style-type: none"> The agreed performance measures to be used relating to the critical success factors and those of all business units across the organisation. The performance measurement system. Current performance as a base measure and the anticipated performance review steps as the plan proceeds.
Organisational structure	<ul style="list-style-type: none"> The senior corporate manager responsible for space and services is identified along with the real estate and facilities structure, roles and responsibilities. Process for overall space and services structure reviews. Governance and decision taking. Data management. Resourcing allocations and capacity management.
Action milestones	<ul style="list-style-type: none"> Actions which will be taken over the next 12 months and a timetable agreed for organisational, accommodation and delivery service changes.
Review	<ul style="list-style-type: none"> The success of the accommodation and services plan is measured by the reaction of customers to service delivery and the effect on operating costs. Reviews against pre-agreed performance metrics will take place regularly and recommendations made about changes to enhance delivery to customers, as well as improvements in facilities services.
Risk	<ul style="list-style-type: none"> An assessment of the risks associated with the accommodation and services plan. A risk assessment of other resource inputs including financial/budgetary cutbacks and shortage of real estate and/or facilities management expertise, along with the management of all shortfalls. Business continuity plans.
Assumptions and provisos	<ul style="list-style-type: none"> The plan will state the base assumptions and any provisos about data integrity, cost estimates, demand forecasts, real estate and services lifespan, and other variables.

4 The delivery of services⁴

Having agreed the precise space and service level requirements, the organisation should consider whether the required facilities management services are likely to be most efficiently provided by in-house resources or through any 'mix' of in-house and out-of-house provision up to a total outsourcing solution.

An objective assessment of the capabilities of the in-house team should be carried out as well as a financial analysis of the direct and indirect costs of the various delivery options, so that a decision can be taken on the best value option for the organisation. Reviews of the chosen process for delivering services should be made at regular intervals by market testing.

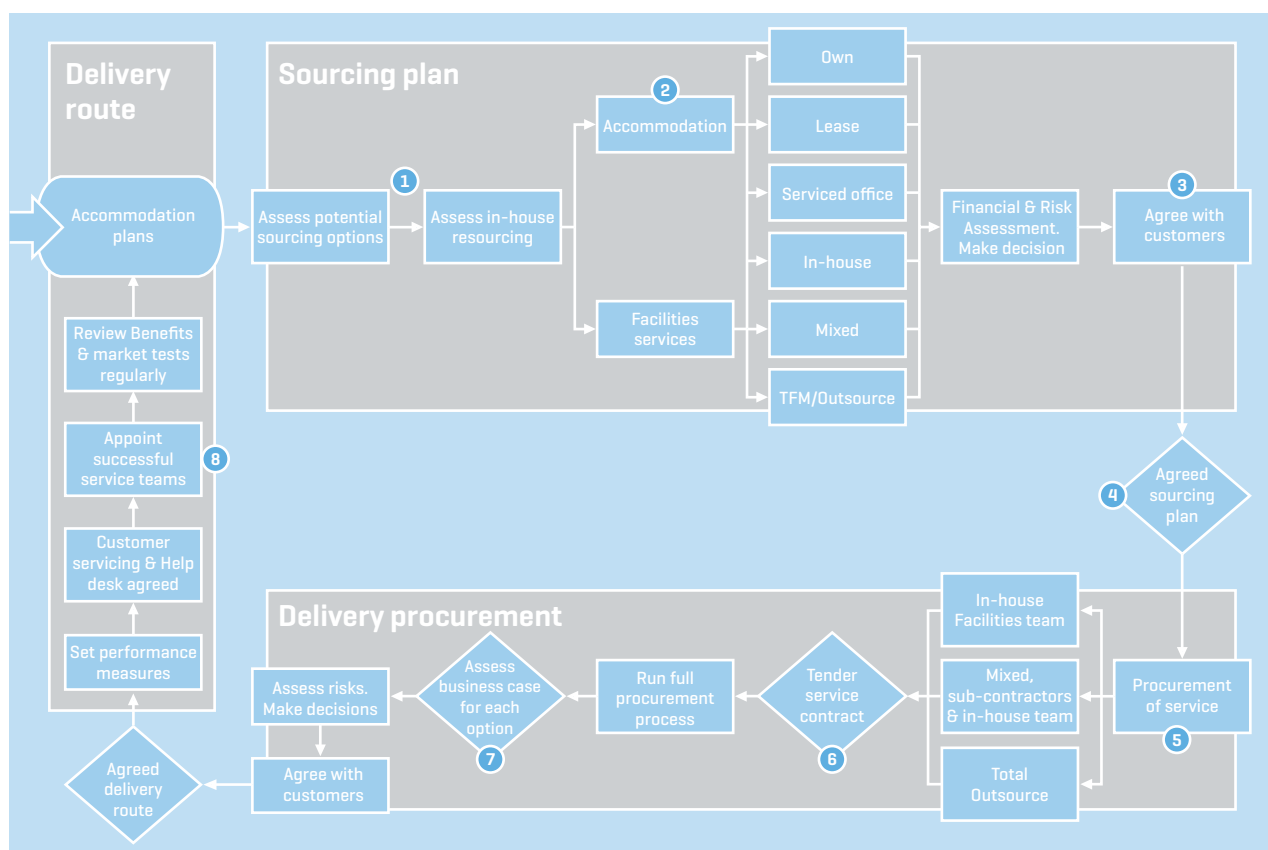
4.1 Outlining a plan for delivery

Figure 7 shows the essential three major steps from the accommodation and services plan through sourcing and procurement to delivery.

Sourcing options needs to be objectively considered, in particular, whether the in-house team could provide some or all of the services required by the business (point 1 on Figure 7). At point 2, consideration should be given both to the accommodation sourcing and how services could be provided. At point 3, following financial and risk assessments of the available options, a decision will be made which should be 'tested' with the in-house customers, resulting in an agreed sourcing plan, shown at point 4.

This plan should become the basis for the procurement sequence (point 5), with three or more sourcing options again being checked out, resulting in a tender for services being prepared at point 6. There may be alternative tender options if it is decided to market-test more than one option. The procurement process will result in tenders being received and these should be financially tested for commercial affordability and suitability to the business in terms of content, quality and risk. A decision will be made at point 7 and again customers should be consulted before the delivery route is finally agreed. At point 8, negotiations will take place with the preferred service supplier to set performance metrics, the standard of customer care and other service and quality details. Thereafter, the preferred supplier is appointed with an agreed start date for delivery. On-going regular performance reviews should take place as well as market testing, dependent upon the length of the delivery contract.

Figure 7: Accommodation and facilities services delivery process



4.2 Sourcing services⁵

The sourcing of facilities services delivery depends on a large number of circumstances. It may be based on the capabilities of the in-house team, uniqueness of the services required, a particular or unusual speed of response requirement, on the question of overall control or on the direct and indirect cost of service supply. A number of possible options are shown in Table 3.

The decision about which sourcing option is best for the organisation will be based on an objective assessment of service requirements, in-house expertise, specialist needs and cost. The decision should not be made on just one objective, for example, it is cheaper to outsource. This is a significant strategic decision for the organisation and it should be made only after careful consideration of all relevant criteria. Once made, the sourcing decision should stand for the contract period of say three or five years. It might be reviewed at these time intervals if the contract period is longer.

It is important that the delivery performance (as opposed to the sourcing decision) of the supplier providing the services is reviewed regularly, on a monthly, quarterly or yearly basis, dependent upon the ability to do so efficiently, and the performance should be benchmarked. All organisations will have a different view of their requirements so it is for each to determine what works best for their operations in terms of value and efficiency and this may take some practical 'experimentation' over a number of years. This is the advantage of an experienced in-house facilities manager who will be in a good position to advise on the most appropriate option without the need for potentially time-wasting and costly trials.

4.3 Outsourcing procedures

It is important for business managers to understand that the timetable for outsourcing will be prolonged, particularly for a total FM outsource.

The process may be divided into three main parts:

1. Assessing the scope of the outsource – the numbers of properties (an accurate asset register is an absolute imperative), the services to be provided, the present delivery arrangements and, if relevant, their merging with the outsource vehicle; the arrangement for oversight by the internal contract manager and if staff are to be transferred, the TUPE⁶ (staff transfer) arrangements. Careful consideration should be given to who the ultimate customers are and who within the client business will be giving instructions. Care is recommended to ensure all relevant procurement legislation and regulations are being followed, for example, OJEC⁷.
2. The tender documents will detail the specification of services and the timetable and frequency of service, the quality of service expected, service levels, reporting and performance metrics, the handling of customers, the provision of a help desk and the contract conditions.
3. The tender process – the timetable, briefing, interim stages, assessment formulae and scoring; award of contract and mobilisation expectations.

These processes should be followed meticulously in order to ensure that required services are not missed and that the prospective suppliers of services are fully aware of what is expected of them and are capable of delivering to the required performance levels.

Table 3: Sourcing options

In-house	The present facilities team, possibly augmented if necessary by agency or full-time staff, run the delivery of accommodation and facilities services.
In-house with sub-contracting specialists	The in-house facilities team, with limited resources, will run some services but will contract with external service providers to cover any skill or resourcing gaps.
Establishing a business unit	The present facilities team are re-constituted as a separate, free standing services organisation, providing services to their organisation and with the objective of gaining contracts from other clients.
Managing agent	In the absence of a sufficiently experienced or qualified facilities team/manager, the appointment of a specialist FM professional to act as the facilities advisor and informed client. This specialist will appoint and manage external suppliers.
Contractor/ manager	The appointment of an organisation to manage all services providers. The appointee is paid a management fee. In some circumstances the appointee is responsible for managing the facilities budget and the payment of all subcontractors.
Total FM	Total facilities management contracts with a single supplier, taking responsibility to provide all required services.

4.4 Managing in-house service provision

The decision to retain in-house facilities management services should firstly depend on the skill level and experience of the relevant teams and secondly, on an analysis of an objective business case for doing so. Again, it should be remembered that every organisation has a different view about how facilities services should be delivered and what services should be provided.

The procedure for establishing the in-house service provision should be no different to the outsource process in terms of setting the services to be provided, the timing, quality, performance measures and so on. The internal customers should expect to receive a service which compares with an external provider but should not receive additional or special treatment just because this is an in-house service. A price/cost for the services will be agreed and the in-house team will be expected to manage within that budget. However, this should be a budget established and set for a contract period, as would be the case with an external provider. The set-up should mirror the contract arrangement for an external provider so that performance can be monitored on a like-for-like basis.

The in-house team will be familiar with and understand the organisation's operational strategies and different business unit operating imperatives however an external supplier might bring innovation and efficiencies that are beyond the scope of the existing team. They will also be more familiar with procedures for help desk, customer relationship management and the handling of change requests.

In-house staff should be provided with a training budget to allow, for example, for training in account management, help desk and work-scheduling. As will be the case with an outsourced service, the in-house team will be subject to performance measurement and operational improvement targets.

The choice of in-house provision versus outsourcing depends, firstly, on the level of in-house expertise available, but secondly, on the existence of external service providers. In some countries there are no reliable specialist external service providers and organisations have no alternative to in-house provision. In such situations, it remains important to set the definitions of service, performance expectations and budgets so that the facilities team know what their operational targets are and the customer knows what to expect. Whatever the circumstances, in-house service provision will continue only if it achieves customer satisfaction and best business value to the organisation.

A recent i-FM survey^a provides some insight about services provision and reports a larger than expected proportion of respondents (26%) providing all FM services in-house. Just under a quarter (22%) were using individual external suppliers for each service, and 26% were using a bundled or integrated services approach, with two or more service lines delivered by a single supplier. Six per cent of respondents said they had a TFM solution in place, with 4% reporting a single solution for FM and property services.

4.5 Contract management

Irrespective of how the services are to be delivered, a process will be required to manage the service contract. This should be the responsibility of the in-house facilities manager, acting in the role of informed client, or, in the absence of a qualified professional, another manager will be required to fill the informed client function role. The latter may be the preferred option where services are supplied through an in-house team, in order to ensure objectivity.

It is good practice to establish a review board consisting of all corporate central services support managers, operational and services supply managers and internal customer and accommodation occupier representatives. All should be aware of the original objectives set when establishing the contract and the review board should objectively consider the performance measures on a regular basis, recommending changes as necessary from the client and supplier side.

In any event, the process of management will accord with the procedure laid down in the supply contract with the reviews, change control procedures, contract administration, cost and performance monitoring and payment, all as originally set down, or as the contract may have been varied subsequently by mutual agreement. Performance monitoring is a key feature, particularly where a performance related payment system is included in the contract. In this case, the pre-agreed KPIs will be monitored and any additional payments made to the supplier if performance targets are exceeded. However, due consideration should be given to any service failures, particularly where maintaining service continuity is a key contract condition and metric.

An overall concept review should be carried out occasionally to check that the original decision on facilities delivery is still valid and in line with the current accommodation and facilities strategy. Further reviews will look at actual costs compared to market, performance measures and possible changes to increase efficiencies in delivery and consequent alterations to service level agreements (SLAs).

Each contract for the supply of services is tailored to the client so no single approach to delivery, administration or review is possible. One principle is worthy of note, however, in relation to KPIs – only measure what is meaningful, useful and will add value to the business.

4.6 Legislative and regulatory framework

Facilities managers should be particularly aware of the legislation and regulatory regime which governs the operation of real estate and the employment of staff in each of their operational regions and remember that this will vary in every country. In particular, the health and safety of staff, visitors and customers is of paramount importance but awareness of and compliance with construction, employment, equality, waste disposal, anti-bribery and money laundering legislation and regulation are all essential.

5 Review

5.1 Measuring performance and review

The processes for the delivery of accommodation and services should be reviewed at regular intervals so that changes to improve efficiency and effectiveness can be introduced. Figure 2 (section 1.4) shows the performance reviews (at Level 5), which should take place to assess how well the business is being supported by the accommodation and services provided.

Business and facilities managers should discuss if the present portfolio of accommodation and services is adequate and what changes might be made to improve performance. These regular reviews will result in the refinement of the space and services delivery to better support occupiers and customers.

5.2 Commonly used performance measures

RICS research⁹ in 2012 looked into what measures organisations use to evaluate the performance of the facilities management team and also, what metrics teams use to track their own performance.

For office portfolios, the returns reveal that senior managers' attention is solely upon financial performance against budget, with little apparent attention being paid to the effect on the working environment, or on the efficiency or productivity of the workforce. So, the most common measure being used is the cost budget.

Other cost related metrics in common use are cost per sq.ft/metre of space, real estate cost and space occupied per employee, cost per workstation and a growing use of environment-related measures such as carbon tonne per employee. These measures generally concentrate on the cost/efficiency of the facilities rather than the effectiveness of the accommodation and services.

The second most popular performance measure looks at service levels achieved. This is a 'softer' measure which tracks response times, maintenance issues resolved, workplace environment and the like. Employee satisfaction is the third most popular; presumably sourced from occupying customers.

The research underlines the fact that facilities management continues to be regarded by too many managers as a cost centre and there is insufficient understanding of the effect on the overall business of relentlessly cutting FM budgets. While it is difficult to conclusively prove that the quality of facilities services affects occupier performance in the workplace, there is a growing body of research

evidence showing that poor lighting, poor cleaning, bad environmental conditions, poor heating, inefficient IT and poor quality furniture, particularly seating, has a negative effect on productivity.

It is interesting to compare this cost obsessive approach with the retail industry where in shopping centres and stores, large and small, customers and staff are 'treated' to a pleasantly maintained, well-lit, air-conditioned environment, conducive to browsing and buying and to providing a good service. Retailers are notoriously cost conscious but clearly understand the advantage of a facilities services spend which produces a customer friendly environment and is positively reflected in their trading performance.

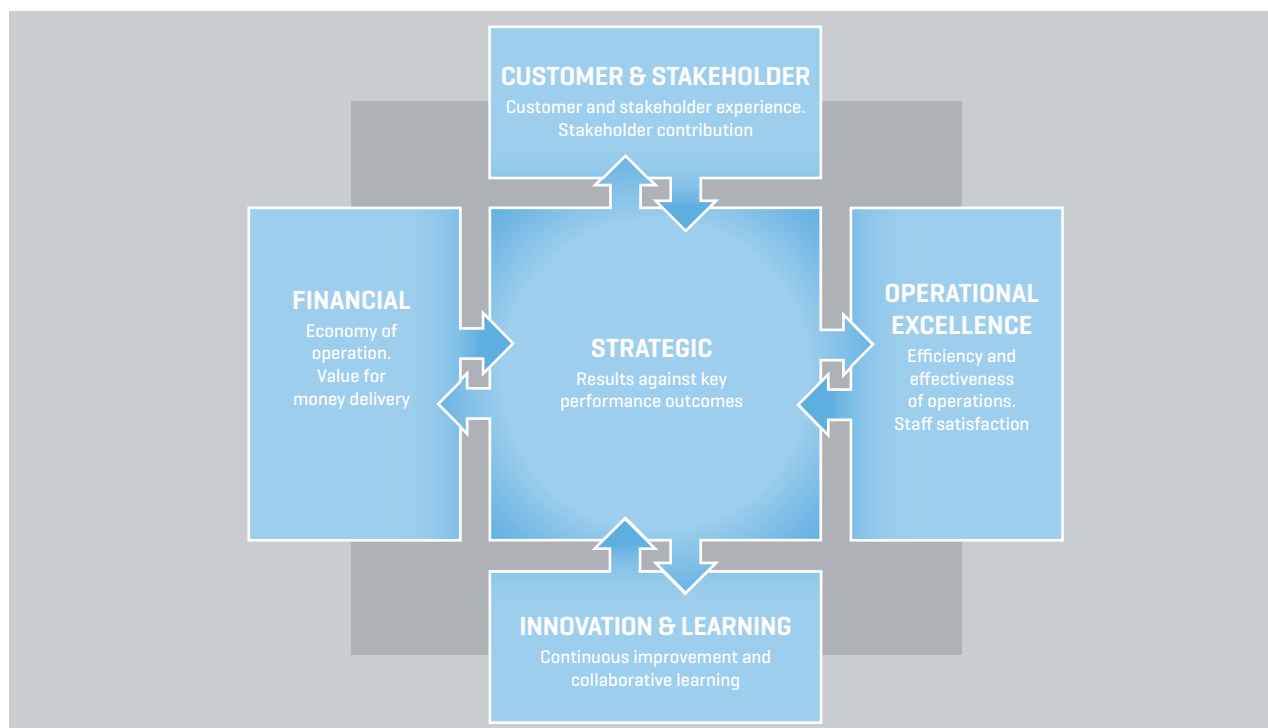
5.3 Scorecard approach to performance measurement

The performance reviews discussed concentrate on cost, space and utilisation metrics. However, the user satisfaction measures begin to 'stray' into the area of the effect which accommodation and services do have on organisational performance. Here a 'balanced scorecard' approach, as set out by Moulin in 2002, is helpful. In Figure 8, a form of scorecard structure is shown, which places performance under four broad headings against longer term strategic objectives at the centre.

The performance 'beacons' surrounding the strategic centre emphasise the mostly qualitative nature of the inputs and outputs, looking at measures such as customer experience, staff satisfaction, collaborative learning efficiency and effectiveness of operations.

A generic scorecard is developed from this outline structure and this is shown in Table 4. The measurement should follow the strategic objectives of the organisation and concentrate on a limited number of metrics which are identified as key drivers towards improved delivery to external customers. The influence of a quality accommodation portfolio and facilities management services on work delivery and service to external customers can be assessed through a well-constructed scorecard. The scorecard provides a methodology for looking at the inter-relation between space, servicing and staff performance, and different formats can be designed to monitor, for example, the reaction of staff to changes of process, workstyle or workplace technologies.

Having received the review results, facilities and operations managers should discuss what changes, if any, are required to space and services to develop improvements which will benefit all concerned.

Figure 8: The outline concept of a balanced scorecard

Source: Moullin 2002

Table 4: Generic scorecard

Objectives	Operational measurement areas for accommodation and services	Measurement methodology
Strategic		
Achieving/assisting in achieving the organisation's objectives	Improving quality of services and accommodation; increasing efficiency of space usage	Metrics associated with space efficiency and satisfaction with accommodation and services
Customer and Stakeholder		
Satisfied customers, staff and satisfied stakeholders	Talking to customers/staff at all levels about the accommodation and services 'experience'	Survey of customers; stakeholder surveys; stakeholder interviews
Operational Excellence		
Effective and efficient operations	Better space promotes improved 'quality of life' and increased productivity; flexible working; efficiency in space usage	Satisfaction with accommodation; location of building; space quality; servicing standards; occupational levels; availability of flexible working 'tools'
Financial		
Value for money; budget adherence	Financial metrics	Operating costs; capital budget
Innovation and Learning		
Best practice captured and new ideas continually trialled	Performance compared to other organisations; research about new ways of working/delivery of services	Benchmarking performance and learning groups; measurement of performance in research trials

5.4 Benchmarking

The results of the various reviews described will produce information which should be compared to past performance within the organisation and enable comparisons with similar operations elsewhere. This comparative benchmarking will give a valuable insight into performance trends and potentially a view of how operations might be re-engineered to further improve services.

Internal performance measurement gives a 'trend line of performance', hopefully improving over time. It will show where operational lapses in services have occurred and enable remedial action to be taken. External benchmarking offers the prospect of using the experiences of other organisations to leverage performance 'at home'. Again, this will highlight lapses of performance compared to other organisations but care is needed to ensure that the metrics being analysed are entirely comparable.

A limited number of benchmarking groups have been created over the years. The Investment Property Databank (IPD) oversees a number of schemes in both public and private sectors, in the UK and elsewhere, with equivalent data organisations also undertaking similar activities in Europe. There are further published metrics relating to total office occupancy and service charge costs in the UK, which provide useful information¹⁰.

The European Standards Facilities Management Committee published a standard in 2012, BS EN 15221-7: *Guidelines to Performance Benchmarking in Facilities Management*. This standard provides a framework applicable to the performance of benchmarking within a European-wide facilities management context.

For those taking part in benchmarking schemes, there are key essentials to bear in mind:

- mutual trust and honesty, openness and a complete willingness to share information
- fully agreed and clear operational rules from the outset, with an agreed operational programme; and
- agreement of key metrics and methodologies for collecting data and calculating performance.

The benefits of benchmarking schemes include the innovation which comes from organisations that may be trying out initiatives that have inter-organisation application, the attention which can be directed towards the big efficiency and effectiveness drivers and the focus on under-performing accommodation and service provision requiring particular management attention.

5.5 Workplace productivity

The focus of attention for the last 20 years has been on productivity. In the office, the performance of workspace was promoted in the early 1990s by emerging desktop computing and developing mobile computing and telephony technologies. This led to the notion that greater flexibility in work delivery and 'agile workplaces' would provide staff with an opportunity to balance work and lifestyle. In the telecommunications and computing sectors, new workstyle 'packages' were developed involving more flexible employment contracts and the allocation of equipment which would enable work from wherever a 'phone connection was available'. These agile working arrangements resulted in the development of desk sharing, hot desking and serviced office facilities.

Flexible working and changes in office design and convention have been enabled by further technological advances and wireless communication. But, unlike the manufacturing sector, where technological advance has increased productivity enormously, it is difficult to prove productivity improvement in the office environment. Employees say they greatly appreciate the increased workstyle flexibility but with continuing difficulty in measuring what this means for workplace productivity, some businesses are questioning the business advantages of such schemes.

There is such a complex interaction between jobs, workstyle, office design, technology availability and capability, personal outlook on work, organisational factors and culture that workplace productivity measures will always be subject to questioning. Despite this, facilities managers should have a clear focus and priority on looking for and developing innovative solutions that return operational efficiencies to organisations, whether this is through providing improved workplace facilities or using less workspace.

However, most thoughtful organisations and facilities managers take the view that a comfortable working environment, with technology which is understandable and works, workstations which can be pre-booked, and a selection of working places – social, quiet, confidential, video-conferencing – will provide staff with a productive environment. Add to this a quality building which is well serviced, maintained and with good facilities and the accommodation and facilities teams will almost certainly have produced an efficient and effective environment conducive to improved staff productivity.

5.6 Process review

The performance of the accommodation and the delivery of services should be reviewed continually and controlled changes made as the metrics dictate. The methodology of delivery and the effectiveness of contractors and/or in-house teams should be reviewed periodically in accordance with actual or assumed contractual periods. These reviews should be on an objective basis and be subject to stringent business case analysis so that there are visible business-led reasons for making any changes. Regular forum meetings should enable the FM team, suppliers and customers (occupiers) to decide if new outsourcing arrangements should be tested and/or whether the supply contracts should be re-tendered. In this way, the client will be assured that best value is being obtained and business value enhanced.

5.7 Conclusion

This guidance establishes a process and standard for planning and managing facilities to enhance efficiency and effectiveness. A strategically driven approach to facilities management will provide maximum corporate benefit, with outputs and returns measured on service quality and value for money rather than cost. In this way, the facilities operation will provide optimum support in achieving corporate objectives, eliminating risk and enhancing organisational performance.

Endnotes

- Note 1 www.i-fm.net A subscription web site for up-to-the-minute news and research on all facilities management related issues.
- Note 2 RICS Research paper: *Raising the Bar: enhancing the Strategic Role of Facilities Management*. A report for RICS by Occupiers' Journal Ltd, November 2012.
- Note 3 See BS8536. 2010. Facility management briefing code of practice.
- Note 4 See BS EN 15221-2. 2006. Guidance on how to prepare facilities management agreements.
- Note 5 See BS8572.2011. Guide to the procurement of facilities-related services.
- Note 6 TUPE: this is the colloquial abbreviation of the Transfer of Undertakings (Protection of Employment) Regulations 2006 (SI 2006/246), which is the United Kingdom's implementation of the European Union Business Transfers Directive. It is an important part of UK labour law, protecting employees whose business/employment is being transferred to another service provider through outsourcing or a business take-over.
- Note 7 OJEC: the abbreviation stands for the Official Journal of the European Community (OJEC is now recognised as OJEU – the Official Journal of the European Union). This is the publication in which all tenders from the public sector which are valued above a certain financial threshold, according to EU legislation, must be published. They appear in Schedule S of the Journal along with other EU Procurement Directives. The legislation covers public sector organisations including Local Authorities, NHS Trusts, MOD, Central Government Departments and Educational Establishments.
- Note 8 FM Market Survey 2012 data from i-fm website.
- Note 9 RICS research paper: *Raising the Bar – Enhancing the strategic role of facilities management*, 2012.
- Note 10 The UK Total Office Occupancy Costs 2012: https://www.realestate.bnpparibas.co.uk/upload/docs/application/pdf/2012-01/jan_2012_occupancy_costs_map.pdf

SCOR for Office 2012 and SCOR for Retail 2012; research into service charges for principal office buildings in the UK and through UK retail shopping centres: <http://www.property-solutions.co.uk/research-and-benchmarking/benchmarking/>

Part 2. Managing facilities

1 Operational management

Overview

This section considers the management of the supply of facilities services. The operational facilities organisation, procurement, delivery, performance management and customer care are highlighted along with health and safety requirements and business continuity planning. Sustainable management of buildings and the orderly management of property assets are discussed.

1.1 Introduction

The FM strategic and delivery team should be linked within the organisational structure to the business they support, with a capability, either directly or through their outsourcing contracts, to supply services of a quality to meet operational needs at a competitive cost. Best practice calls for quality driven delivery at a competitive cost – not the lowest cost. The facilities team should be looking ‘over the horizon’ to see what sector and operational changes may require the adjustment of their services, workplace or locations and be planning strategies to meet changes in operational direction.

1.2 Organisation

The structure of the FM department depends on the size of the organisation it supports and the business sector involved. These will determine what services are demanded, the number of locations to be serviced and the corporate policy about outsourcing versus in-house service provision. The availability of suitably qualified and experienced staff will play a part in determining the structure and organisation of the team and the delivery methodology.

The key determinant of structure is the proportion of services to be provided in-house. It is suggested by some that day to day operational services should be subcontracted to external suppliers. This frees up the FM team to manage strategic and organisation-critical services and focus on customer service. A FM Customer Relationship Manager (CRM) or Account Manager (AM) should interface with each business unit, establishing a communication link and building a relationship that will facilitate valuable conversations in future planning rounds about service provision changes. These customer support functions may also be outsourced, which would be the case if a Total Facilities Management (TFM) contract was put in place.

1.3 Managing delivery

An example of a possible delivery structure to provide FM services to an organisation is shown in Figure P2 (1). In this example, the FM organisation delivers operational FM services through external providers and the performance is overseen by the in-house FM CRM/AM who meet regularly with the business unit managers. Service provision will be adjusted to meet changing day to day circumstances and the ‘internal customer’ may do this through the FM Help Desk. Delivery quality is measured by the ultimate customer through surveys and interviews by the FM CRM/AM.

Both the in-house FM team and external suppliers will jointly benchmark performance, and feedback from the internal customer will provide qualitative views to inform the procurement team about adjustments to the delivery quality and any changes needed to the supplier contracts.

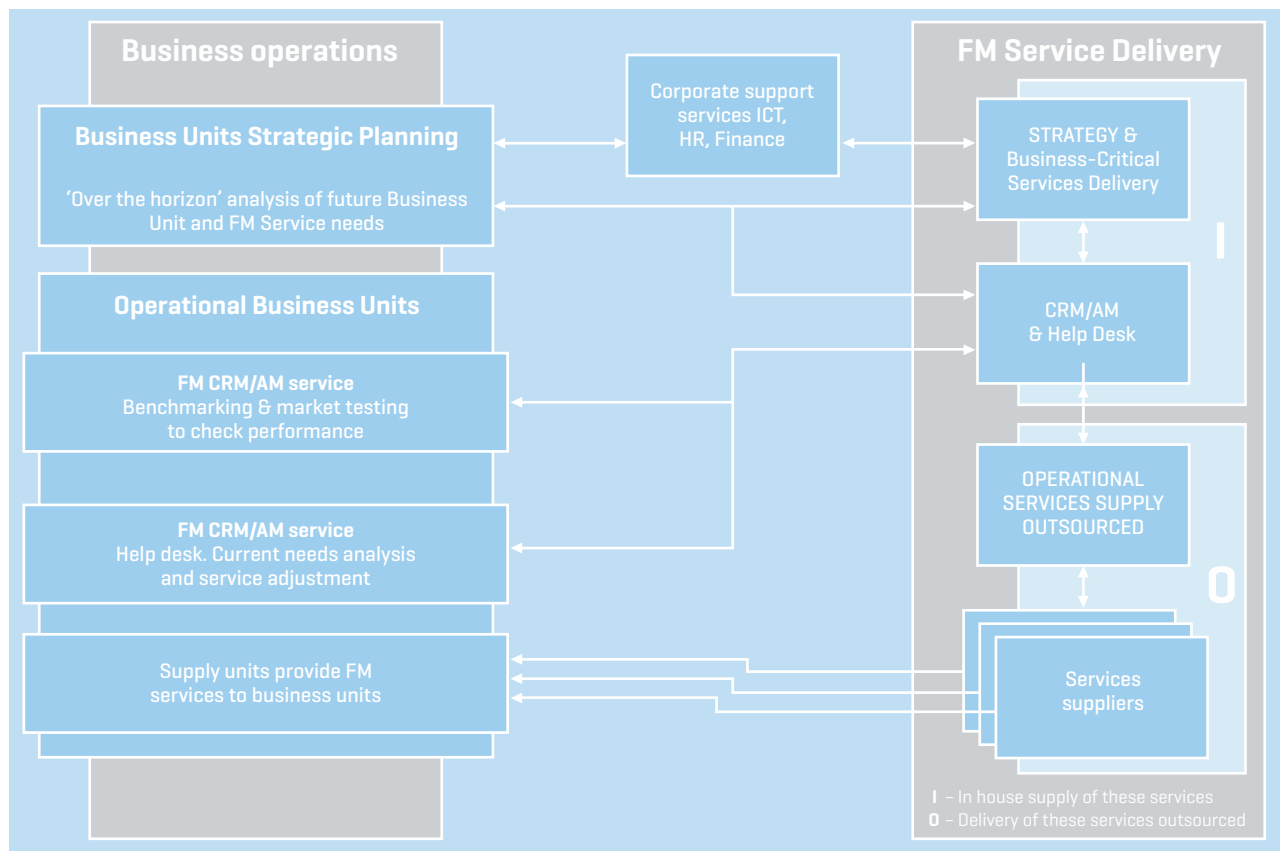
The services identified as critical to the business units may well continue to be provided directly by the in-house FM team. For example, these could be security or specialist services to secure areas over which the organisation wishes to retain full control for strategic reasons. Such services will be subject to performance measurement and qualitative assessment so that the organisation has an on-going awareness of the cost and quality comparables from both external and internal suppliers.

At a strategic level, the FM team is tasked with maintaining and improving communication links across the organisation, as well as supplying some services directly. The ability to ‘see over the horizon’ in conjunction with the business; anticipating business-led change as well as new regulation, advances in technology or new legislation, is important in keeping one step ahead of the competition and ensuring the accommodation portfolio responds quickly to change. This corporate agility could provide valuable weeks of advantage in getting products and services to the market ahead of competitors.

1.4 Improving performance

Quality in the supply of services is difficult to measure, with the impression of service being based on a balance between customer expectation and perceived delivery quality. However, delivery improvement can really only be achieved if reliable performance metrics are available to the FM team and organisation.

The accepted methodology for measuring performance beyond the purely financial is the Balanced Scorecard¹. Many organisations, however, measure FM delivery only on financial metrics, often just on cost alone but financial measures give no indication of the effectiveness of accommodation on the workforce or on business performance.

Figure P2 [1]: The delivery of facilities services and corporate connections

It is good practice to concentrate on a limited range of metrics, being a mix of financial and quality indicators to provide measures of performance over time and to provide operational targets for the different FM teams, whether operational, customer relations or strategic specialists. These will be reviewed regularly within the FM group and reported periodically to the senior management team. Trend lines will establish a performance graph, which will show financial and non-financial performance. In this way, regularly collected metrics will assist the FM team to improve their performance and highlight to senior managers that facilities management has an effect on the bottom line.

1.5 Customer care and service

Customer care is a continuous process, commencing with assessing the customer's needs and designing a solution which is deliverable and within budget. The facilities manager needs to remember that what the immediate customer wants above all else is the provision of services and an environment which enables comfortable and productive activity.

However, the facilities team will have some difficulty in satisfying different 'levels' of customer. Is their customer the occupant of the work station they see before them (the individual), the manager around the corner (the

department) or the occupants of prime offices on the top floor (the corporation)? Each has different expectations and it is down to the diplomatic skills of the facilities manager to give an appropriate message to each, and as far as possible, to meet the expectations of all three customer levels. For facilities service suppliers to organisations directly serving retailers, it is the external customer who is paramount.

The question of exactly who is the customer is most important where a procurement group is involved with an outsourcing programme. It is rarely the procurers who will be the ultimate customer and it is essential that they have an early and detailed specification-setting dialogue with the main customer group. The supplier's CRM or AM will need to engage with these ultimate customers to establish a working relationship as well as with the procurement group.

It is very important to provide a consistent level of service to customers so that they know what to expect, and to train staff in the delivery policies and processes which will ensure the required consistency. One of the key contact points is the Help Desk or Customer Service website where customers can register their requests for service or register a complaint. This should be managed meticulously, with careful and accurate feedback about the actions being taken and when results are likely to be seen. It is an added advantage where large staff numbers are involved in service delivery, to have a 'help facility' for delivery staff to check how they should respond to or deal with particular situations.

The follow-up after a complaint or customer comment is equally as important as the 'fix'. Even where the requests cannot be met, the customer needs to know and an appropriate response invariably meets the need for customer satisfaction.

Measuring customer satisfaction is crucial to making decisions and implementing change in organisations. It is essential to use survey methodologies in order to capture relevant and accurate results. The survey, which will be online, should be easy to answer and administer and have the backing of the senior management team. A good response rate will provide reliable management information, which might point to further service delivery changes to increase customer satisfaction. It is also possible to use social media, with limited access facilities, to directly poll staff about the working environment and workplace services, with potentially immediate results.

It is absolutely essential to communicate results to the whole organisation, together with a considered plan to deal with the main issues arising from the survey. This sets expectations and the perception that time taken to complete the surveys is worthwhile. The communications should be tailored to the audience – there will be a different style of message to survey participants compared to the report to senior managers. However, in each case the good and the bad must be reported with the plan for change where this is necessary.

1.6 Procuring services

The success of the facilities management operation depends on the quality and reliability of suppliers whose staff will be customer-facing and so will be representing the FM in-house team. The choice of supplier and the scale of the contract is critical so a decision-making process should be followed which ensures a balance between cost, quality, risk sharing, experience, capability and culture. The latter is of great importance; depending on the extent of the contract, suppliers will be partners with the organisation, taking the place of employees, so the 'cultural fit' must be exact or very close.

The facilities manager should produce a detailed definition of what services are required and, ideally, invite suppliers to workshops to discuss process, pricing and capabilities. If an in-house procurement team is involved in the choice of external contractor, their often price-driven approach must be tempered to ensure that the cultural fit, quality of services and the need to establish a partnership relationship are weighted and scored into the decision-making process, along with price.

Partnering on an 'open book' basis may produce a service most aligned with the organisation's operational needs, and accountability can be assured if there is initially a full competition on the choice of partner and periodic price benchmarking, as well as a defined contract period and agreed performance measure audits as the contract proceeds.

Such a solution should mean a minimum of oversight by the facilities team and a flexibility of supply of services to deal with peaks of demand, with the result that the in-house facilities manager should have time to devote to customer relationship building.

1.7 Service levels – specifications and SLAs

Service specifications and service level agreements [SLAs] are essential documents in the management of facilities. They set down the output-driven guidelines for customers and service providers in terms of the quality, methodology and timeliness of supply and are used whether the services are supplied in-house or by external service providers. These formal documents establish:

- the essential customer service requirements and minimum acceptable standards
- the service quality and performance (the outputs) expected by the customer
- performance measures for the services; and
- the agreement for the supply and acceptance of the services.

It is recommended best practice to prepare accurate service specifications and SLAs so that contracts will be better managed and not subject to misunderstanding and misinterpretation. A mark of quality by the supplier [ISO 9000/9001:2008] should be considered essential by the client and be achieved by the in-house facilities team. This will ensure that a quality service level is in place against which agreed performance and improvement targets can be set.

1.8 Finance and facilities

The facilities manager will be involved, at the very least, with the preparation of budgets, an operational income and expenditure account for the portfolio, a system to pay suppliers and the benchmarking of immediate-term and whole-life costs. Taxation plays an important role in the finances of the facilities team, whether VAT on supplies and services, capital allowances on plant and machinery or the depreciation of capital assets.

These are specialist areas with considerable amounts of cash involved and in most businesses the accounting team will look after such financial responsibilities. In smaller organisations, best practice dictates that the financial administration should be outsourced to an external accounting practice.

1.9 Health and safety

The accommodation owned or occupied by all organisations used by employees, customers or visitors must comply with all relevant health and safety legislation and other regulations. The principal legislation in the UK

is the *Health and Safety at Work Act 1974* but specific legislation covers industrial buildings and all construction work in the UK is controlled by the *Construction (Design and Management) Regulations 2007* (CDM). The legislation and regulation applies to the client organisation and is not 'subcontracted' by outsourcing to a facilities management supplier.

All UK organisations with a staff of five or more must have a health and safety policy, which is regularly reviewed, and designate a nominated person to be responsible for implementation. The nominee must be given authority to cover administrative procedures to deal with all aspects of health and safety within the workplace and carry out risk assessments as necessary. The facilities team, whether in-house or external, will be key players in this health and safety planning regime and must be involved with risk assessment exercises to help the organisation test their compliance with legislation and regulation.

It is essential for the facilities team to be aware of and be fully conversant with all current health and safety regulations. Most jurisdictions will have an array of regulations which mirror this listing and it is essential for the facilities manager to be aware of local requirements, where necessary using indigenous facilities suppliers and consultants to ensure all requirements are being met.

The principal UK legislation and regulations are as follows:

- *Chemicals (Hazard Information and Packaging for Supply) Regulations 2002*: require suppliers to classify, label and package dangerous chemicals and provide safety data sheets for them.
- *Construction (Design and Management) Regulations 2007*: cover safe systems of work on construction sites.
- *Control of Major Accident Hazards Regulations 1999*: require those who manufacture, store or transport dangerous chemicals or explosives in certain quantities to notify the relevant authority.
- *Control of Noise at Work Regulations 2005*: require employers to take action to protect employees from hearing damage.
- *Control of Substances Hazardous to Health Regulations 2002* (COSHH): require employers to assess the risks from hazardous substances and take appropriate precautions.
- *Dangerous Substances and Explosive Atmospheres Regulations 2002*: require employers to control the risks to safety from fire and explosions.
- *Disability Discrimination Act 2005*: requiring action to be taken to ensure disability equality.
- *Electricity at Work Regulations 1989*: require people in control of electrical systems to ensure they are safe to use and maintained in a safe condition.
- *Employers' Liability (Compulsory Insurance) Act 1969*: requires employers to take out insurance against accidents and ill health to their employees.
- *Equality Act 2010*: codifies the complicated Acts and Regulations which formed the basis of anti-discrimination law. These were, primarily, the *Equal Pay Act 1970*, the *Sex Discrimination Act 1975*, the *Race Relations Act 1976*, the *Disability Discrimination Act 1995* and three major statutory instruments protecting discrimination in employment on grounds of religion or belief, sexual orientation and age.
- *Fire Precautions (Workplace) Regulations 1997/1999*: covering risk assessments, emergency lighting and equipment.
- *Gas Safety (Installation and Use) Regulations 1994*: cover safe installation, maintenance and use of gas systems and appliances in domestic and commercial premises.
- *Health and Safety (Display Screen Equipment) Regulations 1992*: set out requirements for work with Visual Display Units (VDUs).
- *Health and Safety (First Aid) Regulations 1981*: cover requirements for first aid.
- *Health and Safety (Safety Signs and Signals) Regulations 1996*: give directions about workplace safety signage.
- *Management of Health and Safety at Work Regulations 1999*: require employers to carry out risk assessments, make arrangements to implement necessary measures, appoint competent people and arrange for relevant information and training.
- *Manual Handling Operations Regulations 1992*: cover the moving of objects by hand or bodily force.
- *Personal Protective Equipment at Work Regulations 1992*: require employers to provide appropriate protective clothing and equipment for their employees.
- *Provision and Use of Work Equipment Regulations 1998*: require that equipment provided for use at work, including machinery, is safe.
- *Regulatory Reform (Fire Safety) Order 2005*: placing a duty on individuals within an organisation to carry out risk assessments to identify, manage and reduce the risk of fire.
- *Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995* (RIDDOR): require employers to notify certain occupational injuries, diseases and dangerous events.
- *The Health and Safety Information for Employees Regulations 1989*: require employers to display a poster telling employees what they need to know about health and safety.
- *The Working Time (Amendment) Regulations 2003*: establishing working time limits to all non-mobile workers in road, rail, air, sea, inland waterways and to workers in the healthcare sector.
- *Work at Height Regulations 2005/2007*: applying to all who work at height where there is a risk of a fall liable to cause personal injury.
- *Workplace (Health, Safety and Welfare) Regulations 1992*: cover a wide range of basic health, safety and welfare issues such as ventilation, heating, lighting, workstations, seating and welfare facilities.

Facilities teams will be aware, in particular, of the hazardous nature of materials such as asbestos and the care needed to deal with airborne bacteria (*Legionella*), as well as the potentially hazardous dust created during building, fit-out works or through many industrial processes. Industry-standard procedures for dealing with these and any other hazardous activities and materials must be ‘visibly’ and operationally established.

Fire safety, risk assessments, means of escape and evacuation plans, emergency exits, emergency lighting and fire fighting equipment are all key subjects for the facilities team.

Facilities managers should be aware of the corporate and, potentially, the personal legal consequences of deficiencies in process or personal performance with many of these health and safety-related processes². In all these cases, there must be procedures in place to protect the organisation, its staff, visitors and customers as well as the operational facilities teams whether in-house or external suppliers.

1.10 Business continuity planning

Business Continuity Management (BCM) is the process by which an organisation plans to deal with emergency incidents which might otherwise prevent it from achieving its operational objectives. The purpose of the BCM process is the identification of potentially disruptive incidents and the planning of measures to reduce the likely impact. BCM should be implemented in all organisations as a management system, hence the term Business Continuity Management System (BCMS).

The principal task is to prepare a Business Continuity Plan (BCP) as outlined in Table P2 (1).

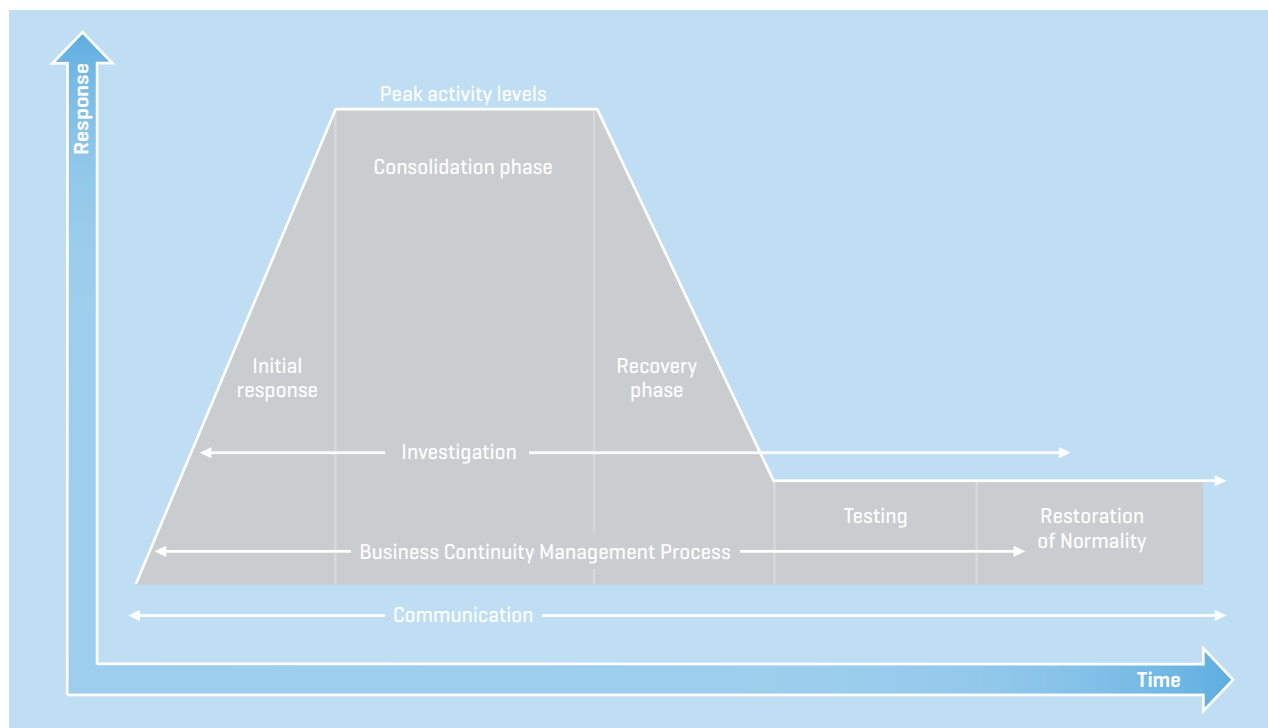
A key step in the planning is the preparation of the Business Impact Analysis (BIA), which determines recovery priorities based on an assessment of the effect on the organisation of the cessation of one or more of its operations. The activities include:

- identification of operations which support key products and services
- assessing the impact over time of stopping any one operation
- an estimate of the maximum allowable period of disruption – this is the period after which the organisation’s viability is threatened because of the damage caused to the organisation by the interruption to operations
- the maximum period within which ceased activities must be resumed
- the time required to resume all normal operational levels
- the prioritising of recovery plans to focus on critical activities and services; and
- identifying imperatives to enable recovery of priorities, in particular, required external resources.

The information for the BIA will be sourced from around the organisation by interview and through staff questionnaires. The analysis of this information will enable the BIA to be prepared, identifying those operations which are critical to the continued well-being of the organisation and the time required to re-establish their normal operational status.

Table P2 [1] : Business Continuity Plan template

Process	Content and actions
Preparation of an Incident Response Schedule	Consisting of notification and escalation arrangements, outline procedures for dealing with the most common incidents, contact and check lists.
Business Impact Analysis (BIA)	The BIA will determine priorities for recovery and recovery objectives based on likely impacts of a cessation of all or some operations over varying timescales.
BCM strategies	Analysis of a range of recovery strategies taking account of pre-existing resilience and the importance of different products and services in priority for restoration.
Recovery procedures	The plan made up of the emergency response, incident management and recovery processes.
Continuing processes	Plan testing, maintenance, audit and reviews on a regular sequence to ensure the plan remains relevant and up to date.
BCM becomes a normal business process	Education of all staff and senior management team as well as suppliers, and as necessary, customers.

Figure P2 [2] – the BCM process through an emergency incident

These critical operations should be subject to a risk assessment carried out by operational managers, the facilities and IT teams, to identify what actions would reduce disruptive impacts and/or the time to return operations to normality. This analysis completes the BIA.

The planned response has four components – the initial response, consolidation and recovery phases and a communication plan – see Figure P2 (2). The initial response or emergency phase deals with the immediate actions taken to limit damage and/or safeguard life. The consolidation or incident management phase is concerned with limiting organisational damage, managing business impact and planning for recovery. The business recovery phase plans the capability to recover by allocating resources and restoring an acceptable level of service.

The communications plan is of great importance to ensure all staff and, particularly, customers and suppliers are aware of the emergency and the plans to return to normality. Announcements should be made as soon as the emergency occurs, to be followed by regular updates as the Business Continuity Plan is put in place. The plan will rely on the initial incident response schedule of key contacts and the contact ‘tree’ which will run through the BCP. The messages should be communicated by senior managers to principal customers and down the management line to other customers and suppliers as well as to staff.

The Business Continuity Plan should be tested throughout the organisation, if necessary via a complete ‘dress rehearsal’ of an emergency. Any required adjustments should be made following these tests and a system of regular audits and updates established so that as circumstances or the operations change, the BCP is adjusted accordingly.

The plans and processes make up the Business Continuity Management System (BCMS), which should be integrated into the normal business planning processes and become an organisational ‘way of life’. The FM team is a key member of the BCMS process in drawing up the plans, particularly for the BIA and the recovery plans. Its role will be substantially greater if tasked with drawing up the whole BCMS. In whichever role the facilities team finds itself, it will be required to prepare strategies to deal with an array of practical issues, ranging from replacement accommodation, ICT set up, replacement furniture, stock, equipment, and temporary catering, as well as, perhaps, plans to transport staff to replacement locations.

As a subset of the corporate BCMS, the FM team should prepare plans in great detail to ensure that they know exactly what is expected of each facilities team member in emergencies ranging from loss of power to the loss of a building, or the failure of the whole business ICT system. Such planning may seem extreme but it could make the difference between organisational failure and recovery should a catastrophe occur.

The quicker normality is restored, the less risk there is to the organisation and lasting damage is avoided. This process is potentially a huge contribution to organisational performance.

It should be remembered in BCM strategy preparation that events such as pandemics might have a dramatic effect on the capability of an organisation or their suppliers to provide services, thereby potentially endangering business continuity.

For additional information, see the RICS paper, *Business Continuity Management, Planning for Business Resilience*.

1.11 Sustainable property

Sustainability and environmental management are important operational criteria for all organisations and directly affect the corporate social responsibility (CSR) measures which most businesses report on to investors. It is not the function of this guidance to look at this topic in any detail. References will be found in the Further Reading section in Part 3, Appendix 4.

The main issues relating to buildings and impacting on facilities managers are:

- **energy sources** – buying from renewable sources
- **energy usage reduction** through more efficient heating, lighting and insulation, and building control mechanisms
- **construction materials** – buying materials from renewable sources and evaluating materials on the basis of their embodied energy characteristics – see RICS ‘Ska’ rating data³ for environmental scoring of fit-out works
- **water** – recycling and rain water capture
- **waste management** – separation and recycling; and
- **pollution** – more efficient boilers and vehicles.

The most effective way to improve environmental performance is to reduce the amount of space occupied. A distributed workplace and flexible workstyle strategy will bring reductions in the amount of office floor-space required and at the same time cut the amount of travel by staff to and from office centres. This mixture of real estate, fit-out, workplace and workstyle strategies will reduce accommodation and facilities costs and assist with the sustainability targets set in the organisation’s CSR strategy.

1.12 Property management

Many facilities managers become involved with property management issues or have an overall responsibility for managing an organisation’s property portfolio. Unless there are in-house personnel with property experience and/or qualifications, it is advisable to outsource this activity to appropriate specialists.

Property management expertise is particularly important in the management of leasehold properties, to deal with such matters as lease renewals, sub-lettings, compliance with repairing obligations and the operation of break clauses, assignments, alterations, dilapidations, rent reviews and the minutia of occupying leased premises. Agency advice is required for the acquisition and disposal of property, particularly to ensure that no onerous liabilities are acquired or retained in such transactions. The preparatory work for transactions associated with EPCs, condition surveys and other physical details will probably be carried out by the facilities team.

Facilities managers looking for more information on commercial property management may wish to consult the RICS guidance *Real estate management* (GN99/2013)⁴.

1.13 Specialist services

There are many operations carried out in the public and private sectors which require specialised servicing, for example, health care, IT, utility or transport. Services such as maintaining the environment and utility supply security in a data centre or acute medical wards require critical environment management (CEM), calling for specialist staff (and training) whether the organisation chooses to carry out this work in-house or through a specialist outsource. It is often the case that such facilities service management is retained in-house because it is crucial to the business.

1.14 Conclusion

The variety of operational issues discussed in this section emphasises the wide and diverse role which the facilities manager is asked to perform. Such is the scope of the role that subcontracting, at the very least, some of the day-to-day activities of the facilities team should be regarded as a desirable strategy. This will allow the facilities manager and members of the team to devote time to the more strategic and critical elements of service planning and delivery for their organisation.

Endnotes

- Note 1 Balanced Scorecard – see Part 1, paras 5- 5.4
- Note 2 See the *Corporate Manslaughter and Corporate Homicide Act 2007*. Companies and organisations can be found guilty of corporate manslaughter as a result of serious management failures resulting in a gross breach of a duty of care.
- Note 3 See www.rics.org/uk/knowledge/more-services/professional-services/ska-rating/about-ska-rating/
- Note 4 RICS GN99/2013 – *Real estate management*. This can be accessed at: www.rics.org

2 Maintenance management

Overview

The maintenance of facilities and plant is an important aspect of the job for many facilities managers because breakdowns and outages can be very costly to an organisation. An established regime for maintenance and workplace safety is a recommendation for all facilities teams to follow.

2.1 Introduction

The maintenance and repair of buildings and plant, as well as fixtures, fittings and other working equipment is a major responsibility for facilities managers. It is their role to ensure that the portfolio is statutorily compliant. It is important for senior managers to understand this and to realise that regular planned maintenance reduces the risk of breakdown and potentially damaging failures of facilities. Furthermore, the testing and maintenance of equipment and plant at the prescribed frequencies, and the recording of the results, are important steps in the health and safety regime. It is also important for the facilities team to be aware of the health and safety, employment and training standards of all contractors, ensuring that the disciplines and processes are regarded by all as 'business as usual' and to ensure that sub-contractors are similarly compliant.

2.2 Types of maintenance

Maintenance is a combination of the technical and associated administrative actions needed to keep a facility in a condition enabling it to perform effectively in support of the occupying organisation's operations.

Maintenance may be planned or unplanned. Planned maintenance is organised and carried out in accordance with a predetermined programme. It may take the form of an inspection when no physical work is required or works may be carried out to prevent later failure or deterioration. Unplanned or reactive maintenance is a responsive reaction to a failure of the facility often involving a repair which will return the building, plant or system to an acceptable operational status.

Preventative maintenance, rather like car servicing, is carried out to ensure, as far as possible, that no breakdown will occur. Such programmes may be a basic check of essential plant through to a comprehensive investigation and testing to manufacture's recommendations. For critical plant, a regular full service with parts replacement as required should prevent emergency breakdowns occurring.

2.3 Condition assessments

It is recognised good property management practice to carry out regular condition surveys of all buildings within a portfolio, or at least those facilities which have a key operational role and where failure would have substantial corporate implications. The results of such inspections will provide information to enable accurate operational planning and financial budgeting as schedules of future maintenance works are built up across a portfolio. The inspection analysis will also form part of the strategic review process for the whole operational portfolio, so that buildings which perhaps have a limited organisational life do not, for example, have large sums expended on refurbishments with paybacks beyond their expected 'portfolio life'.

2.4 Managing delivery

Planned maintenance programmes are best controlled using software which links to the asset register for each facility and highlights the operational importance and servicing requirement for each piece of plant. This will ensure an efficient use of time by visiting operatives and the completion of records enabling the performance of the facility to be tracked.

The remote sensing of the performance of plant and machinery within large buildings is an important element in improving the efficiency of the facilities team and in servicing the building as upcoming problems are identified. Whether these technologies should enable the replacement of planned visits by inspectors/surveyors is a matter for discussion. However, it is likely that the frequency of visits to check on some plant items can be reduced where buildings are remotely monitored.

The execution of maintenance works, whether planned or unplanned, deserves detailed consideration since it has the potential to cause expense and delay if not managed efficiently. While the facilities team may manage a number of contractors, a preferred solution might be to outsource the servicing and maintenance roles to a 'total support contractor' to whom maintenance requirements are directed and who will organise the appropriate unplanned incident response or planned maintenance service as required by the organisation. These arrangements ensure that the appropriate contractor or engineer is commissioned to visit each building and the facilities team will receive reports of condition and/or required repairs as inspections and maintenance works proceed. They will also be in a position to assess performance against their maintenance budgets and adjust the works required dependent upon the occupation strategy for each facility.

Table P2 [2] Operating and Maintenance Manual template

Part 1 Introduction	Contents, use of the manual, emergency information, contacts listing, contractual and service information, utilities suppliers and contacts.
Part 2 Health and safety	Confirmation of the legislation applicable. Risk assessments. Waste disposal information.
Part 3 Building description	Overall description of the building with outline design and construction parameters.
Part 4 Operating procedures	Overview of procedures for operating the building with BMS explanation and set down procedures. Routine inspections. Fault finding and remedial actions. Emergency procedures.
Part 5 Manufacturer's full listing	Full asset register including a complete plant listing, with plant serial numbers linked to supplier information 'addresses', including contact listings. Spares listings.
Part 6 Maintenance regime	Maintenance procedures for the building and M&E equipment and other mechanical plant. Links to manufacturers' handbooks/information and to supplier care contacts. Regular maintenance task programme listing.
Part 7	Full commissioning and certification data.
Part 8	Full sets of as built drawings.

2.5 Risk assessments, safety and maintenance

Risk assessment practices do have the effect of reducing workplace injuries. As well as highlighting risks resulting from poor practice or fit-out, they highlight outstanding maintenance and repair. Again, software driven check assessments may be carried out which track conditions such as office environment, cleaning quality, trailing leads, noise and the control of hazardous substances. The facilities team may rank the risks on a prioritised basis and work through the listing as time and resources allow.

Effective maintenance programmes will help to ensure a safe working environment. Facilities managers have a legal duty, on behalf of the senior team, to ensure safe working conditions and compliance with legislation and regulation must be included in contracts and service level agreements (SLAs). Regular reports on health and safety performance should be provided by contractors and by the facilities team to senior management.

2.6 Building operating and maintenance manual¹

The increasing complexity of buildings and sophistication of plant, machinery and controls means that operation and maintenance manuals for all but the smallest of buildings are essential information for the facilities management team. For new buildings, the developer's architect should provide this manual to the owner. In most cases, occupiers of parts of buildings will not require the whole manual but the facilities manager will require a section dealing with the operation of the occupied areas.

These manuals define the procedures to efficiently operate and maintain buildings and will include detail about the structural specification, mechanical and electrical systems, air conditioning and heating and all other plant and control items, as well as the utility supply capacities and locations. A typical template for this information manual is shown above. The document should be available both electronically for multiple and remote access and in 'hard copy' at the building.

2.7 Conclusion

Property maintenance budgets, rather like the principal facilities management budget, are subject to 'raids' by the internal financial community when the organisation's overall performance is poor. However, the potential corporate cost of facility failure or of a health and safety incident resulting from a downgrade of maintenance is impossible to predict or measure. The facilities team should ensure that the maintenance budget is preserved to protect the image, reputation, operational integrity and legal status of the organisation. Maintenance is not an activity to be shelved; the consequences of doing so can be catastrophic or at least business damaging.

Endnotes

Note 1 *Facilities Management Manuals – a best practice guide.*
CIRIA, 2002

3 Managing office workspace

Overview

The very important role of providing and managing an effective and productive workplace is discussed along with the problems associated with measuring productivity and keeping occupiers and the organisation secure.

3.1 Introduction

It is recognised that optimum workplace management aims to create the right balance of environmental ambience and working technology to suit the requirements of the occupiers. However, there is much more to the facilities management role than providing space and managing ICT to the building. The accommodation must support various work modes and the differing working environment needs of individuals and working groups. The facilities team are called upon to manage the 'working experience' of occupiers rather than just providing functioning workstations and workspace.

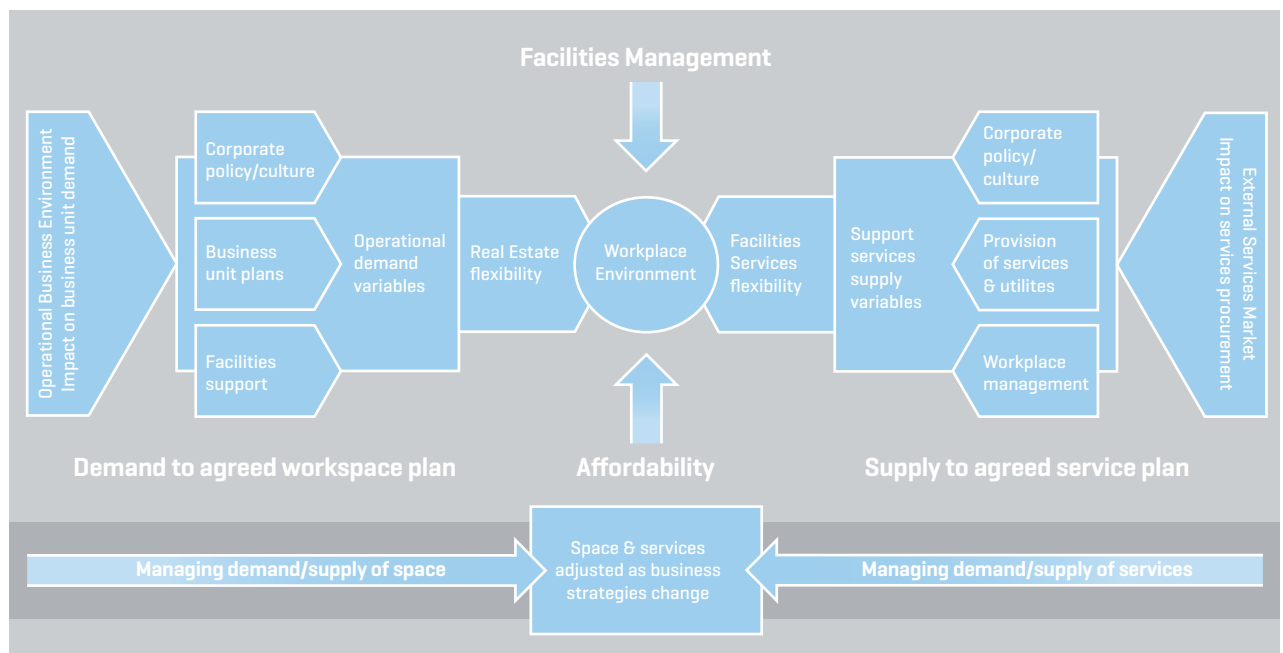
3.2 Space and service management

The management and allocation of space is of prime importance in creating effective workspace and managing the accommodation budget. The facilities team are the managers of the 'tension' between the demand for and supply of space and services in the office and for reconciling these forces to create the right workplace environment. This is illustrated in Figure P2 (3).

On the left, the illustration shows market conditions, corporate vision and mission, business performance and pricing affecting the operational requirements for space and services. This 'demand' will be within the price/cost parameters set in the budget for the year and the organisation's longer term strategy for accommodation and services. The 'flexing' of space and service needs should not be a surprise to the facilities team who should have an understanding of the organisation's operational strategies from regular meetings with managers.

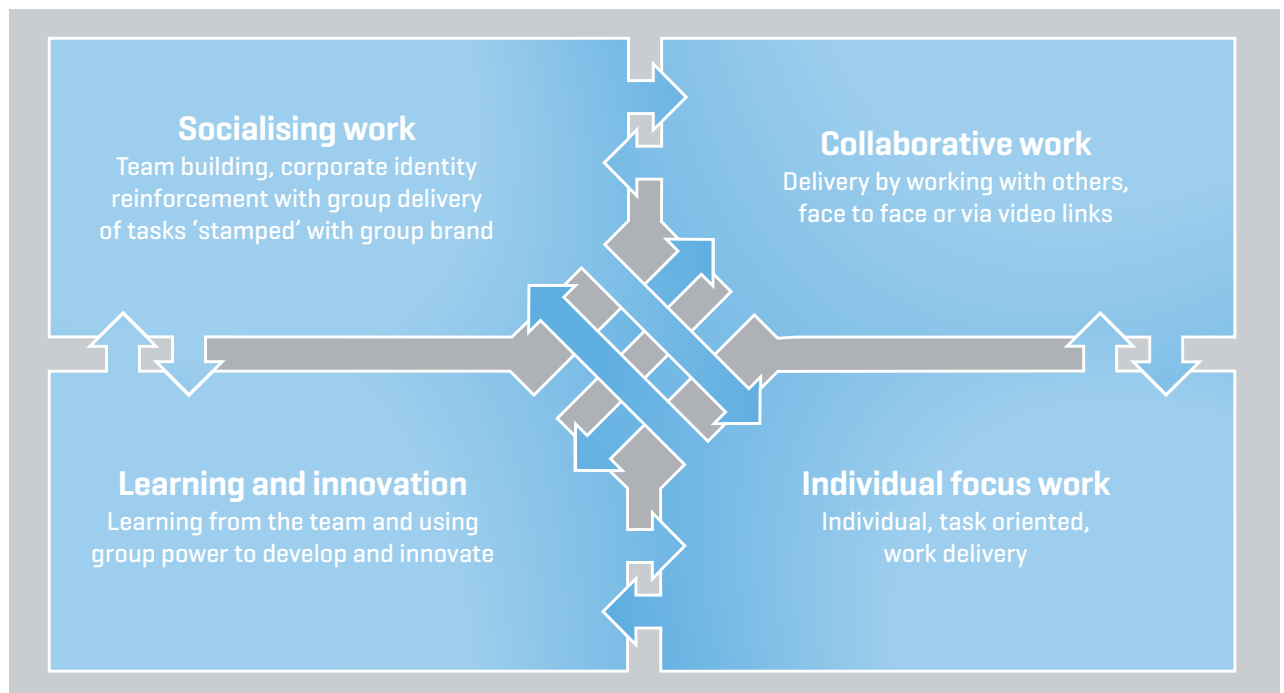
On the right, the facilities team are procuring services in the external marketplace. This example assumes levels of outsourcing of service provision. Again the supply of services should be in accordance with the strategies and plans previously agreed for the supply of services.

Figure P2 [3] – Managing demand/supply of space and services



Source: Then 1996¹

Figure P2 [4] – A variety of work settings



The final workplace environment, in terms of space allocated and services provided, will be delivered in accordance with the plans and processes laid down in the delivery strategies and plans (see Part 1 of this guidance).

It is important to reiterate that the facilities team should have early visibility of operational plan changes so that it can respond to workspace demand needs. It is also assumed that the fit-out adopted will provide a degree of flexibility so that physical workspace changes can be achieved without delay. The agility required in most organisations to bring new products and services to market makes a swift response to workspace changes of great importance and an opportunity to gain competitive advantage.

3.3 Design of the workplace

Research output from Gensler² shows that the adoption of generic open plan office layouts, with even the best workstations and with state of the art technology will not suit every peripatetic worker who turns up to use the space. Indeed, such arrangements, whatever their quality, may please very few.

The Gensler output shows that knowledge workers require a number of different working modes (settings) in order to achieve optimum productivity. These are identified as: individual focus, collaborative, learning and innovation, and socialising modes. An indication of exactly what these four activities mean is shown in Fig P2 (4).

Further research through 2010 until 2012 across a large number of workspace occupiers has shown that the importance of the 'individual focus mode' has often been overlooked in the drive for open plan workspace, so while some individual 'thought' spaces are designed into new layouts, there is often a considerable under-provision of such accommodation. The conclusion reached is that workplace strategies which omit adequate provision of individual focus space, with possibly too much collaborative space, will result in decreased effectiveness for both. This is because the frustration built up by the inability to work without interruption in individual spaces reflects into other work areas, producing poor productivity throughout.

3.4 Workspace remodelling to optimise performance

It seems, therefore, that much of the space that is laid out in open plan offices suits a 'generic occupier', giving every impression of being effective and, indeed the space packs in the workstations and appears to offer an optimum workplace, but actually suits very few.

As discussed, the focus mode worker, seeking a space for quiet uninterrupted working often finds an under provision of such space. There are many and continuing complaints that too many interruptions from noise, colleagues and communication equipment occur in standard layouts. This is not difficult to fix and some organisations are providing individual working cells which users can modify to suit their needs. Are we moving back to the individual office with the space and usage inefficiencies this implies? While there may be a slight possibility of this, focus spaces are not permanently allocated and the occupants are invariably mobile individuals whose occupation will be transient.

Generic, one-size-fits-all workspaces tend to choke-off thought workers, stifling innovation and invention by forcing people to work in pre-determined workspaces, which for some are 'uncomfortable' and lack the inspirational atmosphere which creates the productive activity that organisations are seeking. Alternatively, they may seek to work elsewhere and lose the benefits of collaboration, learning and socialising, which are also important workplace activities.

The requirements for the collaboration, learning and socialising modes are recognised in standard open plan layouts. However, there are changes needed here too, with a steadily growing requirement for the virtualisation of these three working modes, so that specialised facilities with quiet areas/rooms are required to enable longer conference calls to be taken without interruption. The creation of a collaborative environment for focused thought during a 'virtual gathering' requires the 'right' space to enable effective interaction.

The key lesson is that facilities managers should listen to the users of workspaces, hear their views on what is good, what is needed and what can be omitted. The facilities manager should see how other organisations are designing office space and track the global office fit-out trends for businesses in similar sectors. Through on-going collaboration with the users of the workspace, a design to suit a number of different modes will be devised which should support the majority of the occupying population.

It should be possible to achieve the most efficient and effective layout for each organisation without too much business-specific designing of the workspace or excessive fit-out costs. It is as well to remember that corporate waste of valuable working time by valuable staff far outweighs the marginal increased cost in achieving a favourable working environment for the majority.

3.5 Workplace effectiveness

The elusiveness of an office effectiveness and productivity measure has been a problem for organisations for 20 years. Studies have shown on a macro scale that temperature, ventilation, air quality, humidity, acoustics and lighting levels do have a direct and measurable effect on the performance of office occupiers. Building management system and sensor technologies enable environmental conditions to be controlled and balanced by the facilities team and while the cost of doing so may be significant, the cost of an unproductive office environment will be very much higher on the 'significance scale'.

The facilities team should also pay particular attention to ergonomics to ensure occupiers are not working in a way which might endanger their health through muscular-skeletal disorder. The Health and Safety Executive and the Institute of Ergonomics provide detailed information on this subject³. The value of a safe working environment cannot be over-emphasised both in terms of the organisation's legal responsibilities but also from an overall welfare and productivity perspective.

The key question remains: is the productivity of an office worth measuring given the difficulty? As mentioned earlier, the cost of staff and the building means that any indicator which throws light on the payback for this level of investment must be worthwhile. The facilities team, through their performance measurement surveys and the balanced scorecard approach to qualitative measures, will provide valuable feedback. In recent surveys, in answer to the question: 'The design of my workplace is important to me', 90.1% of respondents answered 'yes', indicating a strong interest in the workplace environment. Of more significance is this question: 'The design of my workplace enables me to work productively' to which 53.7% agreed. These results come from Leesman⁴ which specialises in measuring workplace effectiveness. Their surveys focus on the occupant's response to the physical office environment and the facilities services provided. The survey continues with questions probing the impact of workplace design on corporate image and culture and the enjoyment, community activity and productivity of the workplace.

Whether facilities managers use the results of their own occupier surveys or those from external consultants to gauge office effectiveness and productivity, it is time to make this topic a worthwhile part of on-going facilities management strategies.

3.6 Workplace security

This is a big subject and it is not the purpose of this section to provide anything more than an overview of the considerations which facilities managers should give to security.

Overall organisational security should be considered when occupiers are in the process of assessing the suitability of a building for their operations. Adjacencies, neighbouring or sharing occupiers, stand-off areas, the district and its communications, utility supply diversity and other vulnerabilities should be scored when decisions on location are being made. The specification, quality and durability of the structure are also of great importance when considering the suitability of a building from security and occupational protection perspectives.

At building level, personal and corporate security considerations will include access controls (physical, manned and electronic), intruder detection, CCTV and duress alarms, bio recognition and other technological means of asset and personal protection, which will track the location of people and physical objects within the building and its precincts.

The key balance is to ensure that security to the required level exists and to provide occupants with the knowledge that their well-being is top priority and that all reasonable steps have been taken to keep them safe. The facilities team, in partnership with senior managers, should liaise with staff to assess what level of security will be provided and the degree of 'intrusion' which will be tolerated to keep the organisation, its assets and staff in a secure condition.

The security of the organisation's systems is a specialist area which is normally managed by the ICT team. However, the facilities team may be called upon to deal with this additional responsibility and should consider the security standards set down in ISO 27001:2005⁵. This specifies the selection of appropriate processes and controls to protect the information assets of an organisation.

Other areas to be checked include network and system resilience, cyber espionage and server security, business continuity and disaster recovery testing, power security and an overall system risk analysis.

3.7 Power security

The majority of businesses run 24 x 7 systems which themselves rely on power supplies being available at all times. Before buildings are acquired, organisations should check the availability and adequacy of utility supplies and power diversity. Where operations are corporate-critical, fall-back arrangements should be made by the facilities team to ensure standby power is available through an uninterrupted power supply system (UPS), providing short-term back-up from batteries, or from their own generation plant.

These systems are expensive to run and maintain but compared to the losses which might result from, for example, a banking trading floor power outage, the costs are insignificant.

3.8 Conclusion

This section has considered some of the important issues for the facilities manager in the management of office workplaces. Office design, performance measurement, security and space effectiveness issues demonstrate again the varied role of this discipline. These critical issues will rise up the corporate agenda and the facilities manager needs to be sure that senior managers understand who keeps the business infrastructure 'ticking over'.

Endnotes

- Note 1 Diagram adapted from one appearing in *A study of organisational response to the management of operational property assets and facilities and support services as a business resource – real estate asset management*. (From an unpublished thesis by DSS Then, Herriot University, Edinburgh 1996)
- Note 2 Gensler: *What we've learned about focus in the workplace*. www.gensler.com/uploads/documents/Focus_in_the_Workplace_10_01_2012.pdf
- Note3 *Ergonomics and human factors at work*, at: <http://www.hse.gov.uk/pubns/indg90.pdf> and www.ergonomics.org.uk
- Note4 Leesman Index and Benchmarking Analytics: www.leesmanindex.com
- Note5 ISO 27001:2005: www.27000.org/iso-27001.htm

4 People and organisational capability

Overview

People are the key resource for facilities delivery. Service quality will depend upon the experience and training of the team and this section looks at the education and training of the right candidates for the sector. Assessing the capability and capacity of the facilities team is considered together with the ability of facilities staff to lead cross-organisation projects and deliver corporate change projects.

4.1 Introduction

The various definitions of facilities management discussed in Appendix 1 (see page 48) may give the impression that the facilities manager should be a 'jack of all trades and (perhaps) master of none', but nothing could be further from the truth. However, the problem for busy facilities managers is the prioritisation of the many calls upon their time.

A key part of the job is building relationships with operational managers with the intention of gaining information about their accommodation and services requirements. It is really important for the facilities manager to have an understanding of the business of the occupiers whether they are colleagues in the same organisation or customers of the service provider employing the facilities manager.

While being service-centric is of prime importance, the facilities manager will also have a practical interest in the buildings being managed – what makes them 'tick' – as well as the ICT and utilities infrastructure that keeps them 'alive'.

So, facilities managers need to have excellent management and communications skills, combined with specialist know-how. The role is one which on the one hand is strategic and on the other operational. The facilities manager needs a wide variety of skills to efficiently run a building or a portfolio of buildings, finding ways to make things work for everyone so that quality, sustainable services are provided at a competitive cost. This is an unusually wide role and a range of education and training products has become established to suit the range of jobs in facilities management, from the very technical to the senior facilities management roles in supplier businesses.

4.2 Education and training

There are a number of professional bodies¹ providing education and training in the facilities management discipline at levels ranging from Facilities Services (Level 2) to an MSc or Post Graduate Diploma in Facilities Management (Level 7) – see Table P2 (3).

Asset Skills, the Sector Skills Council (SSC) for facilities management, housing, property, cleaning and parking, role is to develop national occupational standards for employees, which reflect the needs of employers in its footprint. These standards are adopted to create qualifications. It also provides a brokerage service of available training.

Asset Skills is an employer-led organisation, licensed by government and working with business, public and professional bodies, and education and training providers, to ensure that required training needs are met and that courses are easily accessible.

4.3 Core competencies in facilities management training

Analysis of the facilities management role suggests the following principal competencies are relevant to the job:

- **building and workplace management** – building maintenance and performance, environmental services, workspace design and management, technology and communications (ICT)
- **financial management** – accounting, purchasing and supply, budgets, business cases
- **service delivery** – account/customer relationship management, delivery process and systems, contracts, performance metrics
- **compliance** – legal and regulatory requirements, in particular for the health and safety of users of buildings and staff; and
- **general management** – communication, leadership, strategy, change management, procurement and risk management.

These competencies are covered by the various available courses and in addition, Continuous Professional Development courses (CPD) supply the necessary knowledge updates, particularly in the legal and regulatory area, which are essential to the orderly and legal management of a facilities operation.

Figure P2 [3] – Asset Skills Education and Training Matrix for Facilities Management

STANDARD NATIONAL QUALIFICATION LEVEL	Vocationally Related/ Professional Qualifications		Professional bodies	
	L7	MSc or MBA in Facilities Management BIFM Postgraduate Certificate & Diploma in Facilities Management <i>[Job titles include Director of Services, Head of Global Facilities, Deputy Director]</i>	British Institute of Facilities Management (BIFM) Affiliate, Associate, Member, Certified and Fellow levels of membership are available. www.bifm.org.uk	
	L6	Bachelor's Degree in Facilities Management Other relevant degrees such as Surveying, Planning, Management etc. BIFM Level 6 Qualifications in Facilities Management <i>[Job titles include Regional Director, Head of Department]</i>	Royal Institution of Chartered Surveyors (RICS) As a surveyor with membership to RICS you can use the title Chartered Facilities Management Surveyor provided you meet the RICS criteria and there is an FM pathway into AssocRICS www.rics.org	
	L5	Foundation degree in Facilities Management BIFM Level 5 Qualifications in Facilities Management Higher Level Apprenticeship in Facilities Management <i>[Job titles include Facilities Manager, Area Facilities Manager]</i>	Chartered Institute of Building (CIOB) Student, Associate, Incorporated, Member and Fellow levels of membership are available www.ciob.org.uk	
	L4	BIFM Level 4 Qualifications in Facilities Management Higher Level Apprenticeships in Facilities Management <i>[Job titles include Assistant Facilities Manager, Team Leader]</i>	Chartered Institute of Building Services Engineers (CIBSE) has FM specialist interest groups. www.cibse.org	
	L3	BIFM Level 3 Qualifications in Facilities Management Advanced Apprenticeship in Facilities Management <i>[Job titles include Facilities Administrator]</i>	Opportunities You could find work with a wide range of organisations as an in-house facilities manager. This could be in any area of business including public sector and non-profit making companies, or other large businesses such as law firms and banking. Alternatively, you could be employed by specialist contractors, or by large multi-service companies that provide a full range of design, build, finance and management services. If you have strong administrative skills and experience, you may be able to work your way up to a facilities management position. For example, some people take on wider responsibilities after working in a management job in areas such as building maintenance, cleaning, catering or security.	
	L2	BIFM Level 2 Qualifications in Facilities Services Apprenticeship in Facilities Services <i>[Job titles include Facilities co-ordinator]</i>		
Personal Qualities and Skills			Suitable previous careers include:	
Technical knowledge of building service The ability to manage a complex workload Customer Management Skills Legal and Health & Safety knowledge			Hospitality Cleaning/Caretaking Engineering Business Services Asset Management Trades – Electrical, Plumbing, Heating & Ventilation etc.	Block Management Surveying Business or Finance Security Catering Land Management Property Development

4.4 Reaching the right candidates

It is important for the sector to become more visible as a career opportunity across the age range from school leavers upwards. The messages to potential candidates are unclear, not helped by the confusing multiplicity of definitions of facilities management. A joint approach by the professional bodies to publicise material which will inform those at all levels about the many opportunities offered in facilities management up to degree level candidates, would go some way to promoting the facilities manager within corporate operations, and provide a better understanding of the roles available within the profession.

4.5 Reaching the wider business community

The message about the strategic importance of facilities management in driving value needs to be broadcast to the wider business community through whatever means available. Facilities professionals speaking at business conferences could do much to increase visibility and understanding, while case study material in the business press would create interest and understanding to a generally 'disinterested' general management community.

In these communications, the facilities management profession needs to dispel the impression that facilities contracts are all about minimum price, delivering minimally acceptable quality services and missing delivery targets. While it is difficult in this highly competitive sector to 'retrench from this cost driven rut', particularly in harsh economic times, the future for the sector depends upon a shift of focus to quality, fair price and a core business-enhancing service to its customers.

4.6 Leadership

The facilities manager is well placed to take the lead of the organisation's Core Services Support Group². Leading the agenda in projects involving this group requires an ability to formulate and promote the project and the roles of the various supporting teams as well as what is required from the organisation's operational managers. The leader must have the persuasive power to influence and guide the decisions and strategies others will take in relation to the organisation's resources and services. The ability to 'lead upwards' in terms of influencing senior management is another requisite skill. If this can be perfected, the facilities manager stands a very good chance of promoting the advantages not only of the project, but also of the value of facilities management to the organisation as a whole.

For the facilities manager, taking the time to provide leadership of the group for issues that require the combined efforts of the core support services will add value, in particular, to the profile and status of the facilities team.

4.7 Change management

Some of the projects which require the facilities manager to take on a leadership role will involve organisational change. Change may be taking place, for example, to concentrate the organisation on its key objectives, to 'de-clutter' non-core activities, to flatten the structure or to redesign processes. Whatever the reason, structural change will require a redesign of the delivery units and a change of accommodation and service delivery. These organisation-wide projects will involve the whole of the core support teams and again there is a role for the facilities manager in leading the change management drive. This will certainly be the case if the change project is a prospective outsource of facilities service delivery, with the need to prepare detailed project specifications to assess the business cases for the various options under consideration.

Structural change of this type creates organisation-wide concern for staff and so it is imperative that the change team takes the time to plan the project meticulously and to design into the process detailed communication events so that everyone is clear about what is planned. Change management is a strategically important operation, refocusing the organisation and enabling it to respond to external competition. Whatever organisational change is contemplated will mean a change in services delivered by the facilities team to workplaces and perhaps to new locations. Outsourcing the facilities function will mean a very fundamental change and a possible transfer of staff to an external supplier.

Such change projects require the skills of a good project manager, with an understanding of the objectives of the organisation to manage the prospective changes. The senior facilities manager, with the ability to efficiently plan the change steps and the consequential organisational and core support service changes, will provide the ideal leader for the project. However, a manager outside the facilities function would be required to objectively oversee the management of the outsourcing of that service.

The efficient delivery of change management projects enables an organisation to compete effectively in a dynamic market and the speed of response will provide advantage over less agile competitors.

4.8 Organisational culture, structure and capability

The culture and attitude of an organisation towards facilities management is a significant factor in the delivery of a successful facilities service. To be optimally effective, the facilities function should be recognised and supported by management as a service which will enhance organisational performance. Only then will fully aligned facilities and business plans be produced and the necessary dialogue take place about upcoming operational changes which will need the support of the facilities team.

In order to enhance organisational performance, the facilities team needs:

- to have good links with, or be a member of, the strategy forming group to understand fully the aims and objectives of the whole organisation including those of the individual business units and to be involved with corporate decision-taking
- to be led by a respected facilities manager who has access to all operational business units
- a clear reporting line to a senior board level member
- a mechanism to 'unload' day to day activity to a service provider, so that strategic, corporate focused activities can continue unhindered
- a link to financial planning so that project business cases can be 'tested' and performance metrics and benchmarking objectively carried through
- a good dialogue with the core support teams and, ideally, an agreement that the facilities manager will take a lead role in organisation-wide projects; and
- the support of the finance and operational teams when the annual planning and budget discussions take place, to ensure mutually supportive strategies and operational plans are developed.

The organisation needs to be 'driven' by a senior manager to ensure these structural imperatives are established for the benefit of the whole organisation. However, the organisation should be sure that the facilities management infrastructure has the capability to carry through these responsibilities.

4.9 Delivery profile matrix

Table P2 (4) illustrates a Delivery Profile Matrix, which aims to measure facilities management practice and identify the capacity and capability of the operation. Each assessment area, shown by darker blue tinting, is broken down into a number of sub-sets and scored individually so that a picture is established of the strengths and shortfalls of the facilities operation. Action plans can then be drawn up to 'plug the gaps' and show where additional training and support may be needed.

Taking the first assessment area of strategy, a selection of the questions leading to the ultimate score of 'competence' might look like this:

1. Are accommodation and facilities management services considered as part of the strategic planning discussions for the organisation and its operating units?
2. Does this extend to detailed discussions about right place, right space, right services, and right cost for each operation?
3. Has the organisation considered a number of solutions to the supply of facilities services – outsourcing in part or in total, for example.
4. Have all options been systematically and objectively analysed?

5. Is there a system for regular reviews of the services supply strategy, to ensure that changes in operations are reflected in accommodation and service supply changes?

In the same way, examples of questions under the assessment area of 'performance management' and leading to the 'competent' score might be:

1. What arrangements are in place to measure the performance of the facilities team?
2. What management process exists for reacting to these performance assessments?
3. In relation to service delivery, what methods are used to check the quality of services delivered to customers?
4. How objectively are these results analysed and what process is adopted to address shortfalls in performance?
5. How does the facilities operation assess its performance compared to other similar operations in the sector and against the performance of external service providers?
6. Is this achieved by benchmarking with other sector organisations, using information that comes from services provided by both in-house and external facilities teams?

This analytical method aims to assess the capacity and capability of in-house facilities management teams as a means of improving their operations or as part of an exercise to consider alternative delivery strategies for the organisation. It is not, of course, appropriate for the analysis of the capability of external suppliers.

This technique is an adaption of the matrix developed by OGC (now the Cabinet Office), to test property asset management proficiency in the public sector. This is the 'output end' of a very detailed questionnaire developed to test the level of in-house capability to provide excellence throughout the range of facilities services. It is designed to be used to 'test' the abilities of the facilities team from a number of different perspectives.

In the Table P2 (4), the score of 'competent' indicates that there is an appreciation of the need for an alignment of facilities with business strategies and that the facilities group has been involved with the creation of such strategies. This is underlined by the 'excellence' scores for delivery plans and operations management, where it is evident that discussions with the internal customer have produced a set of delivery specifications and operational plans to suit the requirements of the business units. This in turn shows a capacity and capability competence within the team who are operating within a set of policies and standards and with a data and a management information system which supports their operations. There is only an 'awareness' of the possibility of delivering change with a present lack of capability but there is in place a 'competence' in performance management and measurement. The review and audit system is scored 'average' and needs some attention. The overall score of 26, against a potential 36, shows that there is room for improvement.

Table P2 (4) : Facilities Management Delivery Profile Matrix

Delivery Profile	Score	Strategy	Delivery plans	Operations management	Capacity & capability	Policies & standards	Data & MIS	Deliver change	Performance management	Review & audit	Score totals
Excellence	4		X	X							8
Competent	3	X			X	X	X		X		15
Average	2									X	2
Aware	1							X			1
Unaware	0										
		A	B	C	D	E	F	G	H	I	26

4.10 Conclusion

The quality of service experienced by customers depends largely on the capabilities and training of the people delivering the service, no matter how good the process and management behind the scenes. So, it is vitally important to source the right people and to train them in a service culture. Training and education opportunities are provided by the professional bodies and higher education establishments and investment by service suppliers in their staff will be quickly paid back.

The requirement for education and training is not confined to the point of delivery. Good quality management must be developed and there are a number of higher education and university level courses available to upgrade management, leadership and change management skills.

One of the problems the sector has is attracting the right candidates and focusing general managers on the importance of facilities management to overall operations. Ensuring that the facilities management message is 'broadcast' in the right arenas is very important and is a topic for all the sector professional bodies to consider.

Endnotes

Note 1 Professional bodies providing facilities-related education and training:

BIFM – www.bifm.org.uk

CIBSE – www.cibse.org

CIOB – www.cio.org.uk

IFMA – www.ifmafoundation.org

RICS – www.rics.org

Courses available at UK universities:

See the websites of the Universities of Brighton, Herriot Watt, Napier, Reading, Liverpool John Moores, Leeds Metropolitan, Salford, Westminster, Central Lancashire, Greenwich, Glasgow Caledonian, Swansea Metropolitan, Sheffield Hallam, the Open University (OU) and University College London.

Courses are also available from the College of Estate Management (CEM).

Note 2 Core Services Support Group: the finance, human resources, procurement, real estate and facilities management teams which support an organisation's operational units.

5 Technology, information and data management

Overview

Facilities management information and data handling systems are discussed together with new technologies which are changing – and will change much further – the way in which buildings and accommodation are designed and managed.

5.1 Introduction

The success of a facilities management operation is absolutely dependent upon a robust and well- designed Management Information System (MIS). This should supply data to the FM team about the operation of individual facilities as well as providing information to highlight the contribution being made by facilities management policies to corporate objectives.

5.2 Operational reviews and reporting

The facilities management information system provides the FM team with two main information flows. The first relates to the day to day management of the accommodation and associated assets, which enable the ‘in the field’ teams to carry out their tasks. The second is analytical information needed to regularly report progress on the management of the accommodation portfolio. These information flows are needed whether the facilities team are in-house providers, sub-contractors or a team dealing with all services through a totally outsourced facilities management contract.

Focusing on the second information stream, the management information system should generate reports on at least two levels:

1. A high level report for senior managers demonstrating the added value to the business of the facilities management operation. This may be reported in a Scorecard format relating to the objectives of the organisation and highlighting where FM has added value, perhaps, for example, in space efficiency through good workplace planning or improvements in sustainability targets through reductions in energy used.
2. Operational reports comparing performance against agreed metrics and for ease of presentation and understanding, showing these in a dashboard format. The reports should be backed up by location specific reports on the performance at each facility against budget, performance targets and showing occupier feedback relating to satisfaction with services delivery.

All reporting should provide performance trends over time or in the case of external providers of services, during the life of their contract. This will give the client and occupier a view of supplier performance against all set targets over a given timeline.

5.3 Technology for facilities managers

Facilities managers are tasked with ensuring that the accommodation portfolio effectively supports people and activities by providing appropriate, quality serviced space in line with the objectives of the organisation. Over the years, facilities managers have used various means to assist them in the task of managing mechanical services in buildings and more recently, developments in digital technology have provided new and exciting opportunities to extend the range of control both within buildings and the control of buildings remote from the managing team.

Increasingly, through the design stage of buildings, the prospective accommodation is modelled to assess its effectiveness to occupy, its efficiency to heat, cool and light and to gauge whether the resultant environment will stimulate innovation and productivity for its prospective occupants.

These technologies benefit the facilities manager by providing a predictive tool against which to measure the building in operation, enabling the infrastructure to be benchmarked against its virtual model, as servicing, maintenance and refits are carried out.

5.4 Technology trends

(A glossary of terms is included in section 5.7)

FM teams are used to CAFM¹ and IWMS² systems, which are useful in facilitating the delivery of services which support operations. The trend is for the interoperability of these pre-existing systems with GIS³, RFID⁴, building control, security and other systems which enable the facilities manager to remotely manage a facility.

In the workplace, the impact of gestural interfaces such as Kinect⁵ will change the way occupiers operate. Cloud computing⁶ enables access to corporate information from anyplace, particularly applications like web-based CAD⁷. Digital camera technology assists with, for example, remote security and remote maintenance inspections. RFID⁴ will track assets, enabling immediate inventory updates, asset valuations and improved asset security. BIM⁸ will lead to improved design, servicing capability, more efficient workspaces and energy savings through pre-delivery modelling and it is predicted that Nanotechnology⁹ will eventually have a profound effect on materials, servicing products, energy consumption and much more. Motes¹⁰ provide the technology for remote sensing of, among other things, workplace environments while 5DBIM¹¹ technologies offer the interoperability

of CAFM and BIM systems with time and cost data, to produce the prospect of real time or predictive management of space, equipment, utilities and working environments.

Interoperability, as seen in the BIMStorm¹² process system, MS SharePoint¹³ and the Newforma¹⁴ suite of products, points the way forward to systems which integrate and operate together and can be adapted by users to sit alongside their pre-existing systems.

More recent developments have seen a further advance of BIM: 6DBIM¹⁵ which adds the Operating and Maintenance Phase (that is facilities management) to the BIM process. In the UK, the government sponsored HMG BIM Task Group is working towards the universal adoption of 3DBIM processes on all government building contracts from 2016.

Currently, the traditional property management programmes and accounting systems do not link seamlessly with the facilities-focused systems, but it is to be hoped that the move to interoperability across systems generally will be a development in the short term.

5.5 Technology in the workplace

Where is the workplace? For facilities managers the focus is on both the built and virtual workplace but the balance is ever-changing and supporting the increasingly mobile workforce means an essential partnership must exist at management level between FM, IT and HR managers in order to support staff as, when and where they work.

The key to the mobility and productivity for staff is network connectivity for any device and bandwidth availability to support, for example, a video conference or the viewing of data-rich design drawings. The adoption of wireless networks in and around physical workplaces adds greatly to employee mobility and connectivity.

For the facilities manager, the variability of numbers in the workplace and the unpredictability of when staff will be occupying desking space is a particular problem which makes the sizing of office space a difficult task. The use of sensing devices to register occupation enables the tracking of occupation densities and BAS¹⁶ will enable energy savings when defined sections of an office building are unoccupied. Experience over time may allow floor space to be released, thereby saving on overall accommodation costs.

5.6 BIM for facilities managers

The speed with which BIM is developing suggests that it will soon become a vital part of the facilities management portfolio of aids – see 6DBIM¹⁶ at section 5.7 below. BIM will facilitate the better management of life-cycle building and space management requirements, which will include:

- Project delivery. The use of BIM templates can greatly simplify project delivery, for example, where buildings are refitted with similarly specified finishes on all floors or a retailer is refitting a portfolio of stores in a similar manner. The availability of project information on line with the tracking of design changes and delivery will increase the efficiency of project management, improving completion times and reducing delays.
- Space management. The 3D BIM formats make the planning and subsequent management of space much more efficient.
- Visualisation. The powerful 3D capabilities of BIM and its capability to display potential and actual changes over time (4DBIM) will facilitate work scheduling, the tracing of design 'clashes', change tracking and the training of facilities and engineering personnel.
- The management of security and emergencies. BIM will assist with the analysing and planning for emergency management, escape routes and capacities, blast zones and setbacks and the management of CCTV zones, scope and viewing.
- Collection, analysis and display of data. BIM can be used to collect, analyse and manage static and real time data about how a building is operating, what parts are occupied and enable the better management of space, energy and facilities team resources.

As previously mentioned, interoperability with pre-existing FM systems is an imperative requirement for BIM and once this is successfully delivered, the acceptance of BIM by facilities teams should improve.

5.7 Glossary of technology terms

Ref 1

CAFM Computer Aided Facilities Management. Software aiding the facilities manager in the maintenance and management of accommodation and buildings. This includes the capability to manage, plan and budget, project manage, record condition inspections, maintenance, utility usage and real estate management data.

Ref 2

IWMS The Integrated Workplace Management System is software that integrates five key components, operated from a single platform and database – real estate management, project management, facilities and space management, maintenance management, and environmental sustainability.

Ref 3

GIS Geographic (geospatial) Information Systems are designed to capture, store, manipulate, analyse, manage, and present all types of geographical based data. GIS is the merging of cartography, statistical analysis and database technology. This enables the tracking and tracing, for example, of assets around sites and buildings and the tracking of staff and vehicles in the course of their work.

Ref 4

RFID Radio Frequency Identification is a data collection and tracking technology that uses electronic tags for storing data. The chip tag with an antenna is attached to equipment or infrastructure and transmits data to a reader or to remote sensors.

Ref 5

Kinect This is a motion sensing input device by Microsoft based on a webcam-style device. It enables users to control and interact with hardware without the need to touch screen or keyboard, through an interface using gestures and spoken commands.

Ref 6

Cloud computing Cloud computing is the use of computing resources (mainly software) that are delivered as a service over the Internet. Cloud computing entrusts remote services with the user's data, software and computation. However, it means that the user does not need to be involved with software maintenance and upgrades. Access to corporate resources stored 'in the cloud' is available globally to authorised users from anyplace.

Ref 7

CAD The well-known Computer Aided Design system creates, modifies, analyses, or optimises a design. CAD software is used to increase the productivity of the designer, improve the quality of design and communications through digitising documentation and to create a database for manufacturing building components. CAD output is usually in the form of electronic files for print or machining operations.

Ref 8

BIM Building Information Modelling is a process involving the generation and management of digital representations of physical and functional characteristics of a facility in 3D format. The resulting building information models become shared knowledge resources to support decision-making about a facility from the earliest conceptual stages, through design and construction and through its operational life – hence the application to facilities management. BIM is used extensively in design and construction but is equally useful in refurbishment and refits. Its application to FM situations will develop as interoperability with existing FM systems is better understood and accommodated.

Ref 9

Nano technology Nano technology is the engineering of functional systems at the molecular scale. Constructing or reconstructing building materials opens up the prospect of new materials with longer maintenance free lifecycles.

Ref 10

Motes Motes form an integral part of wireless sensor networks (WSN), which are wireless networks consisting of spatially distributed autonomous devices which use sensors to co-operatively monitor physical and/or environmental conditions – temperature, sound, vibration, pressure, motion or pollutants, at different locations so providing remote information retrieval for the facilities manager who may then respond by adjusting building management systems to save energy or improve working environments.

Ref 11

5DBIM 5D BIM is an acronym for 5D Building Information Modelling, which refers to the intelligent linking of individual 3D CAD components or assemblies with time and cost-related information. The use of the term 5D is intended to refer to the addition of fourth dimension – time and fifth dimension – cost, to the 3D model. The construction of the 5D models enables the various participants of a construction project – designers, contractors, investors, FM managers – to visualise the progression of construction activities and their related costs over time and the subsequent management of the completed building. BIM-centric project management is intended to improve the management and delivery of a construction project of any size or complexity. It assists with the design and execution of the fit-out process and the subsequent management and maintenance of the building. Over time, it will have a considerable effect on facilities management operations.

Ref 12

BIM Storm BIMStorm is a Cloud computing collaborative process that leverages web-based BIM capabilities to enable data sharing among multiple software programs including BIM software, GIS systems, Google Earth, Excel and other sources, and even hand drawings. These online 'data swaps' allow large amounts of business processes to be substantially reduced in duration while improving accuracy by not recreating data at each step of a project. This is another technology with implications for the facilities management sector.

Ref 13

MS Sharepoint Sharepoint uses the 'cloud' to easily store, synchronise and share important content with teams. This may vary from FM building/service information to team management/HR information. The system will gather information from various locations and prioritise work tasks intuitively.

Ref 14

Newforma Newforma Project Centre software is the building and infrastructure industry's most integrated and comprehensive solution for managing all forms of project information, whether at the office, from the cloud, or on the move. It has easy web access and seamless connectivity with other companies using Newforma software.

Ref 15

6DBIM See BIM and 5DBIM above. 6DBIM includes the 'as built' information about a project along with building component, plant and fit-out information as well as the operations and maintenance manuals (the FM information), with warranty data, manufacturer's information and manuals. This database can be globally accessible through a customised proprietary secure web-based environment. The accuracy of 6DBIM aids facilities managers in the operation and maintenance of the facility throughout its life cycle.

Ref 16

BAS Building Automation System. A computerised control system and intelligent network of electronic sensors which monitor and control the mechanical and lighting systems throughout a building, by zone.

5.8 Conclusion

The existing and new additions to the technology portfolio will enable building and facilities managers to oversee portfolios of buildings remotely and to keep track of items of equipment and other assets with relative ease. The same technology has the power to facilitate more flexible working arrangements for many of the customers of the facilities team. Their agile working patterns are very difficult to predict and so present particular challenges to facilities managers tasked to provide the right amount of workspace at a competitive cost. The facilities sector will need to decide how these technologies can be used to enable the more efficient management of buildings and thereby add value to the organisations they are supporting.

Endnotes

- Note 1: See HM Government Website re the BIM Task Force: The Building Information Modelling (BIM) Task Group are supporting and helping deliver the objectives of the Government Construction Strategy and the requirement to strengthen the public sector's capability in BIM implementation, with the aim that all central government departments will be adopting, as a minimum, collaborative Level 2 BIM by 2016. <http://www.bimtaskgroup.org>
- Note 2: See also the RICS Facilities Management Data and Information Paper www.rics.org/global/facilities_management_information_and_data_management_dwl.pdf

Part 3. Appendices

Appendix 1 Facilities Management: origins, definitions, competencies, standards

Overview

The origins of facility/facilities management in the 1970s and 1980s are traced together with the formation of the national and global FM groupings and professional bodies. The various definitions of facilities management and the competencies required by facilities managers are analysed.

1.1 Introduction

The management of facilities is an increasingly complex operation and requires technical expertise and experience which most facilities managers will be in a position to handle. What is further required of facilities managers is much more than technical skills – it is to understand the productivity effects of working environments on occupiers, workstyle flexibility, computing and mobile technologies, strategic business planning and, sometimes, the value and marketability of the facilities being managed.

It is instructive to look at how facilities management has developed over the last 40 years and it is not surprising to discover that the origins have much to do with the inferior placement found in corporate structures today. The difficulty of defining what facilities management means has added to the confusion both within and outside the sector and poor ‘marketing’ and communication in the early years have probably held back the development of the whole FM profession.

However, despite this inauspicious start, the profession of facilities management now occupies a prominent position in the real estate sector. This has much to do with the excellent work of the FM organisations, particularly BIFM, FMA, FMA Australia, Global FM¹ and IFMA, as well as that of the RICS Facilities Management Group.

1.2 The origins of FM

The origins of facility and facilities management date back to the US in the 1970s when out of the ‘maintenance, servicing and cleaning’ role, which was the building caretaker’s domain, emerged managers to oversee these roles as well as managing leasing and workplace design for the fast growing accommodation portfolios of businesses in the telecomms, banking and media sectors. This ‘facility manager’ role contrasted with the ‘facilities management’ operation, which at this time was a collective term for an external company managing the outsourced non-core administrative operations of a larger organisation.

The 1980s was a decade of rapid growth. IFMA was formed in the US and later in the UK, AFM and IFM were formed, subsequently merging to become BIFM in 1993. In 1988, FMA Australia was formed and similarly a European network of academics, users and associations – Euro FM was formed.

In the UK in the late 1980s, Frank Duffy promoted many of the US office design principles proposing that ‘facilities management is an essential part of the development of a new vision in the design of a new kind of architecture’. At about the same time in the US, Franklin Becker was developing concepts of organisational structures and calling for the embryo FM sector to understand the patterns of organisations described as ‘shared patterns of thought, belief, feelings and values that result from shared experiences and common learning’. While this advanced thinking may have been a step too far for the FM and real estate industries at the time, in retrospect much of the theories of that time have appeared in FM-related research in more recent years.

FM associations and groups have been formed across most European countries and in Japan, Singapore, South Africa, UAE and Brazil, so that the FM ‘movement’ is now truly global. As a result, there is a widening understanding of the contribution FM makes to occupational efficiency and productivity in different regions, with the profession at different stages of development in each country.

The expansion of FM-related associations has been accompanied by a proliferation of training and qualifications at all levels, to meet the growing demand for well qualified facilities management professionals. Across the world, there are a number of university-related courses which offer FM degree/master status qualifications and alongside those are the variety of courses and qualifications run by the FM bodies, which provide focused technical and professional qualifications.

1.3 Definitions of facilities management

It may seem surprising that there is little unanimity about the definition of facilities management. While this is frustrating for some in the sector, a brief analysis of the definitions used by the professional groups and others provides an opportunity to investigate the different perspectives from which facilities management is viewed.

But first, is it facility or facilities management? In the US, Australia and some European countries, the profession is known as facility management – which suggests the management of a facility being perhaps a hospital or office estate. Elsewhere, the term is facilities management which includes a wider range of activities, described in this guidance, as a whole infrastructure or business support management service.

At the time of its establishment in 1983, the International Facility Management Association (IFMA) definition was:

Facility management is the practice of coordinating the physical workplace with the people and the work of the organisation. It integrates the principles of business administration, architecture, and the behavioural and engineering sciences.

In 2003 IFMA adopted a revised definition of facility management as follows:

Facility management is a profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place, process and technology.

The Facility Management Association of Australia adopted what appears to be a community focused definition:

Facilities management involves the management, operation and maintenance of buildings, precincts and community infrastructure. In all cities and regional areas facilities management provides safe, healthy, productive environments, protecting the wellbeing of the Australian community.

The British Institute of Facilities Management (BIFM) defines facilities management in organisational terms following the wording of the European Committee for Standardisation and ratified by British Standards (BSI), as follows:

Facilities management is the integration of processes within an organisation to maintain and develop the agreed services which support and improve the effectiveness of its primary activities.

The Institute also uses an alternative version:

Facilities management is the integration of multi-disciplinary activities within the built environment and the management of their impact upon people and the workplace.

The National Standards bodies under the auspices of the CEN Organisation (the European Committee for Standardisation), to which almost all European states belong, initiated the European Standard series: EN15221 Facility Management, in which facility management is defined as:

The integration of processes within an organisation to maintain and develop the agreed services which support and improve the effectiveness of its primary activities.

FM is further explained as:

The basic concept of Facility Management is to provide integrated management on a strategic and tactical level to coordinate the provision of the agreed support services (facility services). This requires specific competencies and distinguishes Facility Management from the isolated provision of one or more services. (EN 15221-1, paragraph 3).

In this RICS guidance, the definition used for facilities management is:

The effective management of place and space, integrating an organisation's support infrastructure to deliver services to staff and customers at best value whilst enhancing overall organisational performance.

In summary, facility or facilities management creates an environment that supports corporate operations, integrating the organisation's service infrastructure to deliver satisfaction to staff and customers at best value and optimising productivity to the organisation. So facilities management operations will:

- provide flexible, well maintained and serviced accommodation and supportive technology
- enhance customer experience and enable the efficient delivery of products and services; and
- enhance the organisation's brands, image and financial performance.

The number of definitions or explanations of facilities management highlights the diversity across the sector. The reality is that what is involved in facilities management varies from organisation to organisation, supplier to supplier and country to country. The definitions will change over time as conventions change, additional responsibilities are added and others are subtracted from the role of the facilities manager. The dynamism and variety of facilities management is one of its attractions as a career.

1.4 What facilities managers do and the essential competencies

In 2011, the CEN Organisation published facilities management standard BS EN 15221-4 Taxonomy, as part of a series of seven FM related published standards, which offers a definition of 'Facilities Products' under the two categories of 'Space and Infrastructure' and 'People and Organisation' and together contains 121 headings and sub headings that attempt to define the activities and services that are delivered through a facilities management regime.

A much simplified schedule highlighting the principal responsibilities of facilities managers is shown at Fig A1

(1), approximately divided into Services and Management categories. The roles apply equally to private and public sector facilities managers, although the responsibilities will vary dependant on position, in the client side or supply side role.

Note: The real estate role will be carried out by a specialist in-house team where one exists.

In 2009, IFMA carried out a global survey of facilities managers across 62 countries, which resulted in the creation of a global task analysis of the facilities function. This generated the following 11 competencies, which greatly assist the understanding of the scope of the facilities manager's role. An important omission here is that of Legislative and Regulatory awareness and compliance.

Fig A1 [1] : What facilities managers do

Services	Management	Real estate
Catering , Hospitality, Cafe	Administration , Asset registers, records, archives	Occupational and Financial Strategy
Cleaning , Internal and external, Pest control	Business continuity , Disaster recovery, Crisis management	Asset Strategy and Management
Documents , Copying, Archiving, Printing, Scanning, Shredding	Compliance , Accreditation, Legislation, Policy, Regulation	Transactions
Front of House , Concierge, Conferencing, Help desk, Reception, Switchboard	Contract Management , Specification, Tenders, Project management	Capital Projects
Logistics , Vehicles, Consumable supplies	Corporate Social Responsibility , Energy, Carbon, Waste, Work-life balance, Sustainability	Business Agility
Maintenance , Fabric, Landscaping	Customers , Relationship management, Complaint handling	Leasehold Management
M&E , Air con., Fire alarms, Lifts, Lighting, UPS systems	Finance , Accounts, Budgets, Business cases	Operating Cost Management
Security , Access control, Alarms, CCTV, Asset tagging, Information security, Security sweeps	FM Team , Management, Training, Recruitment	
Staff welfare , Crèche, Gym, Medical Centre, Sports facilities, Staff shop	ICT , BMS, Cable management, CAD, CAFM	
Telecomms , Mobiles	Networking , linkage with internal & external customers	
Utility supplies , Water treatment	Performance management , Staff surveys, Benchmarking	
Waste management	Procurement , Services, Utilities, Supplies	
Workplace , Space allocation, Churn, Hot desking	Risk , Business continuity, Environmental, Health and Safety, Insurance	
	Strategy , Business plan, FM vision, Mission & Objectives	
	Workplace , Design, Workstyle, Flexible working, Furniture	

1.4.1 Real estate management and strategy

This competence falls to the facilities manager where there is no real estate function in the organisation. Where the function does exist, it is essential that the facilities and real estate teams work in partnership to deliver the accommodation strategy and maintained and serviced workspace.

The task involves the alignment of accommodation and business strategies and the allocation of appropriate accommodation assets to meet operational business plans. The management of projects, preparation of business cases, real estate asset management, leasing and transactional management are all part of this overall competency.

1.4.2 Accommodation operations and maintenance

This is essentially the 'hard' and 'soft FM' operation involving the planned and managed preventative maintenance of the accommodation portfolio, maintaining building services and systems, landscaping and upgrading, designing and redesigning workplaces. This will include linkage with IT specialists to create optimum working environments. The cleaning and catering services, along with many others, are also included (see references in 'Key terms' at Appendix 3).

1.4.3 Project management

Many of the operations previously described will involve projects of various sizes and so will require design and programming, procurement and management as works proceed, as well as move management and relocations. This competence is important in the delivery of quality services to the organisation.

1.4.4 Finance and business

The facilities manager is called upon to manage operating costs and capital budgets and control the bottom line finances for the accommodation portfolio. It is also an imperative to understand how FM decisions will impact both financially and operationally across the organisation. The ability to construct business cases, and to analyse and audit costs to avoid waste and reduce overheads, without compromising quality, is part of the key competence.

To reiterate, the activities under the control of the facilities manager often represent the second highest overhead of an organisation. Good financial skills and budget management are, therefore, a pre-requisite to success in the role.

1.4.5 Quality

The quality of facilities services is vital to the delivery of a fully supportive operation. The ability to deliver and maintain standards at an affordable cost will depend on establishing quality assurance and performance measurement systems. The benchmarking of the facilities function, together with the regular assessment of customer experience, are essential features of facilities delivery improvement.

1.4.6 Technology (ICT)

An understanding of, and interest in, ICT and related issues is essential for the facilities manager. ICT is a vital tool in the management of the facilities function and is a key to the success of the organisation as a whole. The integration of ICT, workspace design, flexible workstyles and flexible work delivery styles (in conjunction with HR specialists) are operational imperatives for the organisation and, therefore, for the facilities manager.

1.4.7 Human resources (HR)

It is fundamental for the facilities manager to understand the issues of productive workspace and layouts from an occupier/user perspective, along with the ergonomics of workstations, health and safety, security of staff and visitors and the HR, contract, workstyle, workplace implications of flexible employment contracts. Understanding and accommodating the requirements of a modern flexible workplace, including the organisation, health and safety, regulatory and legislative environment are equally as important as delivering technical and process related services.

1.4.8 Business continuity and risk

The need to identify, document, plan and execute a continuity plan based on a cross-organisation risk assessment is a long standing requirement for the facilities manager. This competence includes having an FM continuity plan and the processes, resources and back up in place to manage service loss and restoration in any circumstances. In some sectors, this competence includes the establishment and management of accommodation which can be 'fired-up' and occupied should principal locations become unusable.

1.4.9 Sustainability

The facilities manager should have regard to the regulatory and legislative backdrop regarding sustainability when advising on the acquisition of buildings and in the setting of servicing plans along with the organisation's in-house strategy on environmental and sustainability issues. The facilities team will be expected to mitigate, as far as possible, the negative environmental impacts of the organisation's portfolio of accommodation using technical solutions and management techniques, which will improve the working environment of occupiers and minimise the environmental impact of the accommodation.

1.4.10 Leadership and change management

Much more than technical skill is needed to deliver the organisation-wide accommodation and servicing strategies demanded by large organisations. The facilities professional should be prepared to lead, influence, motivate and manage people throughout the organisation at all levels. In addition, the change management that is required to move the organisation forward may well be workstyle or accommodation led, so the facilities manager needs these skills to gain agreement and cooperation from others.

1.4.11 Communication

The facilities manager must be a good communicator, successfully putting the strategy and business case message across, persuading, negotiating and influencing everyone throughout the organisation as well as external suppliers and consultants. Successfully 'selling' the benefits of the occupational and service offering will be a large part of the delivery of supportive business space.

1.4.12 RICS competencies

RICS publishes a *Facilities Management Core Competency Guide* as part of the documentation for the test of Professional Competence in Facilities Management¹. These are in the process of being updated but the present document set offers direction and insight into what is expected of facilities management professionals.

RICS produces guidance and information papers and details of these appear in the Further Reading section. It is for individual members to check the nature of these guidance publications, which may be mandatory or advisory, and become familiar with the Institution's requirements as to the exact meaning of each document classification.

Facilities managers are recommended to study these publications and the plethora of information available on the subject of professional and practice standards. While much may be irrelevant to their particular operations or present role, the principles described will provide a good baseline from which to plan their on-going facilities service operations.

1.5 The development of standards for facilities management

The development of standards in facilities management began in 2004 when a European initiative was launched to develop facilities management as a professional discipline. BIFM has been at the forefront of this initiative through their involvement within the BSI Facilities Management Committee and representation at European level with the Technical Committee. In 2006, the first two standards were published and, subsequently, further standards have been accepted so that the current listing is as follows:

BS EN 15221-1 Facilities Management: terms and definitions

BS EN 15221-2 Guidance on How to Prepare Facility Management Agreements

BS EN 15221-3 Guidance on Quality in Facilities Management

BS EN 15221-4 Taxonomy, Classification and Structures in Facilities Management

BS EN 15221-5 Guidance on Facilities Management Processes

BS EN 15221-6 Area and Space Measurement in Facilities Management

BS EN 15221-7 Guidelines for Performance Benchmarking in Facilities Management.

These standards have pan European application and while not having global 'reach', are certainly used as the basis for producing standards elsewhere. While standards are in the main voluntary in terms of compliance, they do form the basis of governmental and legal assessments in appropriate circumstances. They also form part of the considerable amount of information which is available to facilities managers to assist with the wide variety of duties they are called upon to perform.

Endnotes

Note 1 A copy of this document *Facilities Management – Assessment of Competence*, can be viewed at: http://www.rics.org/Global/pathway_guide_facilities_management_dwl_pt.pdf

Appendix 2 Abbreviations

AACS	Automated access control systems	DDA	<i>Disability Discrimination Act now replaced by the Equality Act 2010</i>
AEC	Architecture, engineering and construction	EuroFM	A Europe-wide alliance of FM organisations
AM	Account manager (See also CRM)	FM	Facilities Management (Manager(s))
B2B	Business to business	FMA	Facility Management Association of Australia
B2C	Business to customer	FMA	Facilities Management Association – the trade association representing FM
BCMS	Business continuity management system	GlobalFM	A worldwide alliance of member-centred facility management organisations
BCP	Business continuity plan	GIS	Geographic information system
BIA	Business impact analysis	GPS	Global positioning system
BIFM	British Institute of Facilities Management	Hefma	The Health Estates Facilities Management Association representing estates and facilities professionals operating within the NHS
BIM	Building information modelling; see also 5DBIM, 6DBIM and BIMStorm at Part 2, Para 5.7, page 45 onwards.	HOSDB	Home Office Scientific Development Branch
BREEAM	Building Research Establishment Environmental Assessment Method	HR	Human Resources (department)
CAD	Computer aided design	HSE	Health and Safety Executive
CAFM	Computer aided facilities management	HVAC	Heating, ventilation and air conditioning
CEM	Critical environment management	ICF/ICU	Informed (or intelligent) client function or unit
CIBSE	Chartered Institution of Building Services Engineers	ICT (IT)	Information and communication technology
CSSA	Cleaning & Support Services Association	IDS	Intruder detection system
CDM	<i>Construction (Design and Management) Regulations 2007</i>	IFMA	International Facility Management Association
CIOB	Chartered Institute of Building	IFRS	International financial reporting standard
CIPFA	Chartered Institute of Public Finance and Accountancy	ISO	International Organisation for Standardisation
CIPS	Chartered Institute of Purchasing and Supply	ISO 9001	International Organisation for Standardisation, Standard 9001 (Quality Management)
CLG	Department for Communities and Local Government	ISO 14001	Standard for Environmental Management
COPROP	Association of Chief Corporate Property Officers	IWMS	Integrated workplace management system
COSHH	<i>Control of Substances Hazardous to Health Regulations 2002</i>	KPIs	Key performance indicators
CPAMG	Corporate Property Asset Management Group	M&E	Mechanical and electrical
CPD	Continuing professional development	MIS	Management Information System
CPNI	Centre for the Protection of National Infrastructure	NAO	National Audit Office
CRE (M)	Corporate real estate (management)	NEBOSH	National Examinations Board in Occupational Safety and Health
CRM	Customer relationship manager (see also AM)	OGC	Office of Government Commerce – now part of HMG Cabinet Office
CSR	Corporate social responsibility	OJEC	Official Journal of the European Union
CTM	Counter terrorism measures	PAM	Property asset management (also real estate asset management)
DCFM	Data centre facilities management	PIDS	Perimeter intruder detection system
DCLG	Department for Communities and Local Government (now CLG)	PFI/PPP	Private finance initiative/public private partnership
		PPM	Planned preventative maintenance

QA	Quality assurance
RICS	Royal Institution of Chartered Surveyors
RFID	Radio frequency identification
RIDDOR	<i>Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995</i>
SLA(s)	Service level agreement(s)
SSC	Sector Skills Council
TFM	Total facilities management
TUPE	<i>Transfer of Undertakings (Protection of Employment) Regulations 2006</i>
UPS	Uninterrupted power supply system

Appendix 3 Key terms

Asset management

The process for maintaining, upgrading and operating assets (both real estate and other assets required to operate/occupy buildings), combining engineering principles with sound business practice. A close relation to facilities management (see also property asset management).

Asset register

A listing of an organisation's assets (real estate and all other assets) owned or leased, with full information on each asset – sometimes called an asset inventory.

Audit [internal]

The verification of practices, processes, plans and decision-making procedures, with the aim of improving efficiency and effectiveness.

Balanced scorecard

A methodology for holistically measuring performance originally developed by Kaplan and Norton and since developed further by Kaplan and Norton and others.

Benchmark

A comparison of relative performance (generally between similar organisations), by the use of recognised performance indicators, or a set of performance indicators.

Big data

A collection of data sets so large and complex that it becomes difficult to process using database management tools and traditional data processing applications. Effective and efficient management of the 'data mountain' will provide enterprises with competitive advantage.

BREEAM

The Building Research Establishment Environmental Assessment Method – in the UK, the most widely accepted methodology for the appraisal of the environmental impact of building design. In other countries LEED – Leadership in Energy and Environmental Design – provides building owners and operators with a framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions.

Building services

Mechanical and electrical installations including air conditioning and heating, electrical and ventilation, power, elevators, lighting, security systems and communications. These are the services which 'bring a building to life'.

Business

In this guidance the term is used to describe the organisation and/or its operational activities, be it a retailer or a health centre, a call centre or a factory. It includes private, public and third sector organisations.

Business case

A business case is a systematic analysis of the benefits and dis-benefits (financial and non-financial) of a project, compared with continuing with the current situation.

Business continuity plan

The process by which an organisation plans to deal with emergency incidents which threaten the continuance of operations.

Business drivers

The major business imperatives that drive a business – they are all likely to be articulated in an organisation's mission, vision and values, and in its goals, objectives and plans.

Business lines

See 'Operating unit'

Business operations

See 'Operational'

Business planning

The process by which an organisation puts its mission, vision, values, goals and objectives into effect, resulting in implementation and delivery plans.

Business process

Any formal process used by an organisation to run its affairs.

Business strategy

The medium and longer term aspirations of the organisation, articulated in a written document. It will form an integral part of business planning and will be accompanied by short term tactical plans, for example, annual business plans.

Capability

The availability of all the skills needed to run an organisation.

Capacity

The resources needed (often human resources) to run an organisation.

Capital expenditure and income

One-off expenditure on major items (e.g. land and property), often, but not always, funded by borrowing, with recurring expenditure implications. Capital income is generally known as a capital receipt, often resulting from the disposal of real estate.

Capital planning

The overall capital requirements of an organisation, normally arranged over a series of forthcoming years, which includes as a major part of the capital strategy, the capital requirements of accommodation and workplace projects and the funding sources to meet those requirements.

Change management

The management of all types of change within an organisation.

Client side

In the provision of any services, there will be a need for the organisation to articulate its requirements as the 'client' for the provision of services. A 'client-side' facilities manager is usually a member of staff or sometimes a consultant acting in this capacity.

Contract management

The organised management of the contractual provision of a service or function, which is the subject of a contractual arrangement.

Core service support team

These are the central organisation support services, being facilities management, finance, human resources, information and communication technology, procurement, and real estate – sometimes referred to as 'non-core' activities but key to the efficient operation of the organisation.

Corporate

An organisation acting as a whole, rather than in its constituent parts.

Data management

The organised management of numeric and other data and information (see 'Big data').

Delivery department

A department that delivers a service – this term is associated with the terms delivery performance, delivery level, delivery experience, delivery metrics.

Facility

An environment built, installed or established to serve an organisation in the delivery of its operational objective. This is also a generic term to describe a specific building, a group of buildings on the same site and/or a site itself, which is used to provide an overall function; for example, a school, a research establishment, a hospital complex, a training complex, a university campus.

Facility management

A term used interchangeably (in some geographies), with facilities management.

Financial modelling

The holistic analysis of the financial consequences of a course of action.

Flexible working

A generic term used to describe the ways in which staff work when they are not all in one place of work at all times. It normally involves remote (i.e. outside of the normal workplace) access to information and communication technology. It may include home working, peripatetic working, desk sharing, 'hot desking', and open plan workplace layouts. It is generally used to improve productivity, staff motivation and retention and is normally associated with accommodation cost savings.

Framework agreements

Agreements for the provision of services with a limited group of suppliers; almost always selected on a competitive basis initially. When services are required by the client, they are sourced from one of these suppliers on a basis already prescribed in the framework agreement.

Hard FM Services

Facilities services which focus on managing the maintenance of the building fabric, heating, ventilation and lighting maintenance, ICT infrastructure, fit-out and often waste management.

Helpdesk

A point of contact, usually with a service supplier, to report faults or seek alterations to supplied services. This may be a call centre, an on-line service, or both.

Information management

The organised management of data and information within an organisation.

In-house

The provision of services by an organisation utilising its own staff.

Input specification

A specification for the provision of services, which expresses its requirement in terms of the inputs the supplier must make. It is normally associated with the process that the supplier is expected to adopt in delivering the service. See also 'Output based'.

Informed /intelligent client

This describes the ability of the organisation to clearly and succinctly articulate its requirements in terms of the provision of services. It is an essential concept to provide in-house expertise to oversee the procurement of contracted-out services and the informed oversight of the performance of the resulting service delivery. This function can also be outsourced if the service is to be provided by a consultant who knows the client's business and requirements very well.

Interoperability

The seamless inter-working of different software applications.

Key decision makers

These are the senior managers in an organisation. Typically, they would be board members and top management team members.

Maintenance backlog

The cost of works necessary to bring all accommodation in a portfolio up to good condition.

Mechanical and electrical engineering services (M&E)

The air conditioning, heating, ventilation, lighting and allied services in a building.

Metrics

Parameters or measures of assessment used for measurement, comparison, or to track performance – in this guidance, the performance of service providers or of buildings. A performance metric is a measure of an organisation's activities and performance. See also 'Performance indicators'.

Mission

This is the overall purpose of an organisation – the reason why it exists.

Net present costs and values

The sum of a series of future costs and/or values discounted to reflect the future dates at which they occur. This will give the net present cost/value.

Occupational strategies

The organisation's approach to providing accommodation that it wishes to occupy.

Open Book

The transparent exchange of information – usually financial (costs) between the client and the supplier of services.

Operating costs

The total costs of operating a building or portfolio. Inter alia, it would include maintenance, energy, rates, service charges and the facilities management provision.

Operating unit

The various parts of an organisation which deliver elements of its goods or services, or which enable those goods or services to be delivered. It might also be referred to as a business unit.

Operational

Those aspects of the organisation which are directly related to the provision of its services. They are sometimes referred to as 'front line' operations or 'business lines'. Thus any accommodation assets that are directly connected would be operational assets.

Operational areas

Those areas or parts of the organisation that are directly involved in 'operational' activities.

Operational objectives

The objectives of 'operational areas', which while within the overall ambit of the organisation's 'corporate' objectives, will be more specific and narrow, generally solely related to the provision of the service concerned.

Organisation

A corporate grouping which operates for a collective goal.

Organisational

A term used to indicate an 'organisation' acting corporately or to describe cross-organisation features (e.g. organisational change, organisational culture, and organisational databases).

Organisational objectives

The objectives of the 'organisation' as a whole.

Organisational performance

The performance of the organisation measured in terms of its 'organisational objectives'.

Outcomes

The actual result of a course of action rather than the intended results – these are normally associated with the results that the 'organisation' achieves in delivering its services. In the public sector they are referred to as public service outcomes.

Output based

A focus on the outputs that are to be expected (from a contract for services), or have already been achieved. Outputs describe the physical manifestations of the service to be supplied. It should not be confused with 'Outcomes'. See also 'Input specification'.

Outsourced

Using a supplier outside the organisation to undertake a service on behalf of the organisation.

Partnership

Working together with another organisation to achieve an agreed goal.

Performance indicators

Measures that are used to judge performance. There may be a wide range of measures over many subject areas or there may be a number of different measures for one subject area. The critical ones are called key performance measures/indicators. See also 'Metrics'.

Performance management

The organised management of performance, including measures, performance data, measurement, reporting and improvement.

Planned and reactive maintenance

There are two types of property maintenance – planned, which is undertaken as part of an on-going plan (e.g. regular redecoration), and reactive, which is a reaction to a maintenance problem that has arisen (e.g. a burst pipe). It should be noted that there is clearly a relationship between the two – the less planned maintenance that is undertaken, the more reactive maintenance will arise.

Power security

A measure of the reliability of the power (or other utility) supplies to a facility.

Project and programme management

The organised management of projects and programmes of projects.

Property asset management

The process which aligns business and property asset strategies, ensuring the optimisation of an organisation's property assets in a way which best supports its key business goals and objectives.

Property asset management plan

A business planning and communication document providing operational, financial and quality 'readings' for all those associated with the organisation. It considers property as just one of the many corporate resources which are needed to deliver services to customers.

Property management

This is the activity that ensures that land and buildings matters are dealt with so that they operate efficiently and effectively. It is the undertaking of professional/technical work necessary to ensure that property is in the condition desired, in the form, layout and location desired, and supplied with the services required. Related activities include the disposal of surplus property, the construction or acquisition of new property, the valuation of property, and dealing with landlord and tenant and rating matters, all at an optimum and affordable cost.

Quality management system

A quality management system (QMS) is the organisational structure, procedures, processes and resources needed to implement quality management. It is closely associated with the ISO quality standard and the quality management system standards.

Remote working

See 'Flexible working' of which 'Remote working' is a part.

Risk management

The organised management of the consequences of risks identified by an organisation.

Risk management plan

The plan for risk management. The minimisation, as far as possible, of risks and the preparedness for risks.

Risk register

A document that lists identified risks, their magnitude and likelihood of occurrence, and the measures to be taken to manage and minimise them, together with the responsibility for those measures.

Risk transfer

The organised and explicit transfer of the risks of an organisation to another party, normally as part of a contract to provide outsourced services. It should be noted that not all risks can be transferred and that any organisation will always bear some risk. Therefore, the real transfer of risk is difficult to achieve and sometimes can be illusory.

Sensitivity analysis

The adjustment of variables (normally in a business case) to judge the effect if incorrect assumptions have been made about the values of those variables. Hence, adjusting the discount rate to see the comparative effect on the selected options will expose how 'sensitive' the results of the option appraisal may be to incorrect assumptions about the discount rate to be used.

Service delivery

The delivery of a service (e.g. higher education), or the delivery of an internal service within an organisation (e.g. ICT support).

Service level agreement (SLA)

A document specifying the method, timing and quality of delivery of services, and the methodology for measuring performance.

Service provider

An organisation providing (real estate or facilities) services, usually under the terms of a supply or consultancy agreement.

Service specification

A document describing what a specified service will be; see 'input' and 'output' based.

Soft FM

Soft facilities management are services that ensure staff work in a safe, clean and productive environment. Services may include cleaning, ground maintenance, restaurant, security and sometimes waste management. These services are often outsourced.

Sourcing

The process by which the provision of the work involved in providing services or goods is sourced. This may be in-house, outsourced, in partnership or shared with a similar organisation.

Stakeholder

All those that have a direct or indirect legitimate interest in the use of the organisation's land or buildings.

Strategic

A generic term generally used to describe a purposeful way in which high level aims and objectives are pursued.

Supply side

A term applied to the external service providers, supplying the outsourced needs of organisations for facilities services.

Third sector

The third sector is formed by all those organisations that are not-for-profit and non-government, together with the activities of volunteering and giving which sustain them. These organisations are a major component of the provision of services to the public.

Total facilities management (TFM)

A single supplier taking responsibility for the delivery of all facilities services. In practice, this may be a supplier managing services being delivered by a number of subcontractors.

TUPE – Transfer of Undertakings (Protection of Employment) Regulations

The *Transfer of Undertakings (Protection of Employment) Regulations* protect employees' terms and conditions of employment when a business is transferred from one owner to another.

Users

Those who are in any way users of accommodation or facilities services.

Vision

Here the word is used in the context of business or organisational vision. It is where the organisation aspires to be (e.g. 'to be the most effective in the sector').

Whole life costing

The identification of whole life costs – the cost of acquisition, of operations, and of maintaining the property over its whole life through to its disposal – that is, the total ownership costs.

Workplace productivity (effectiveness)

The extent to which the working environment (usually in the office), contributes to the productivity of the occupiers. A measure of this will indicate the effectiveness of the workplace.

Appendix 4 Further reading

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- partnering
- the development of long-term relationships
- reduction of financial and decision-making approval chains
- improved skills development and empowerment
- the adoption of performance measurement indicators; and
- the use of tools for value and risk management and whole life costing.

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Better Management Practice, a series of government-sponsored papers and case studies on topics including:

- PProjects IN Controlled Environments (PRINCE2®) – for project management
- Managing Successful Programmes (MSP®) – for programme management
- Management of Risk (M_o_R®) – for risk management (www.mor-officialsite.com)
- IT Service Management (ITIL®) – for IT service management
- Management of Portfolios (MoP™) – for portfolio management
- Management of Value (MoV™) – for value management
- Portfolio, Programme and Project Offices (P3O®)
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- policy development and implementation
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- acquisition programmes and projects
- property/construction developments
- IT enabled business change; and
- procurement, using or establishing framework arrangements.

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ISO 28000:2007 specifies the requirements for a security management system, including those aspects critical to security assurance of the supply chain.

NS 3454 *Life cycle costs for building and civil engineering work — Principles and classification*

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BS EN 15221-1 *Facilities Management: terms and definitions*

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BS EN 15221-5 *Guidance on Facilities Management Processes*

BS EN 15221-6 *Area and Space Measurement in Facilities Management*

BS EN 15221-7 *Guidelines for Performance Benchmarking in Facilities Management*

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