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Strategic FM Framework

RICS guidance note, Global
1st edition

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Strategic Facility Management Framework

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Foreword

The IFMA-RICS Collaboration represents a significant chapter in the history of facility management (FM), providing an unprecedented level of industry support to meet the growing demands of FM practitioners worldwide.

The collaboration aims to promote a deep understanding of the FM sector to ensure all practitioners and their clients benefit from consistent, world-leading professional standards and guidance. The collaboration will focus on training and equipping FM professionals with the knowledge and tools they need to deliver and use those standards.

This is a major advancement for a profession which is increasingly seen as crucial to any business's corporate strategy. It will improve consistency and transparency in the property information available and enhance the work of FM professionals by:

- **increasing consistency and transparency of practice across the global FM community**
- **integrating FM strategies throughout all stages of the building life cycle and**
- **promoting recognition of FM as an aspirational career choice**.

Ethics

- Real estate is integral to whole societies and economies; it shapes and influences the world we live in and represents a significant proportion of all global wealth. For this reason, professionals have a duty to uphold the highest standards throughout the world.
- IFMA and RICS are members of the International Ethics Standards coalition and members should follow the standards set out in this document: **https://ies-coalition.org/standards/**

International property measurement standards

IFMA and RICS are part of a global coalition developing an International Property Measurement Standard (IPMS).

IPMS will ensure that property assets are measured in a consistent way, creating a more transparent marketplace, greater public trust, stronger investor confidence, and increased market stability.

Where measurements are taken, they should be done so in accordance with IPMS: **https://ipmsc.org/standards/**

This guidance

In its entirety, the guidance is intended to set out current good practice in the strategic planning of FM. It aims to explain in outline the actions which facility managers should take when setting out to formulate the delivery of facilities services which achieve optimum value and maximise the contribution FM makes to the organization that it supports.

The guidance is a summary rather than a 'how to' guide for FM. It sets out the steps which should be taken and issues which should be considered by facility managers when establishing an FM operation or reconfiguring existing operations. Where appropriate, the guidance points to other more detailed sources of information and practice. It is not an academic overview of the field, nor does it provide illustrations or case studies.

This document brings together ideas and experience from a range of sources and is consistent with the existing ISO Standards for FM:

- **ISO41001** – Facility management – Management systems – Requirements with guidance for use
- **ISO41011** – Facility management – Vocabulary
- **ISO41012** – Facility management – Guidance on strategic sourcing and the development of agreements.

The guidance is intended to help professionals at all levels by setting out a coherent, consistent approach to planning the provision of FM. It reflects the competences required to pursue the qualifications and credentials required by both IFMA and RICS.

Consistent with the definitions in ISO 41000 Standards for FM, this document uses the term facility management to describe the 'organisational function which integrates people, place and process within the built environment, with the purpose of improving the quality of life of people and the productivity of the core business' (ISO 41011).

From this it should be clear that FM is not the same as outsourcing, which is simply one way of delivering the resource needed to achieve the aims of an FM service. Nor is FM merely about managing assets or property – rather, while FM can be key to achieving the maximum value from investment in assets and in protecting that investment, when applied effectively, FM delivers organizational benefits which go far beyond the physical and financial assets by creating a workplace and environment which improve productivity, protect employees, consumers, visitors and neighbours; provide a sound platform for an organization's primary activities, and create long term sustainable activity.

FM is the crucial link in built environment disciplines which enable physical assets to be used to create desired organizational outcomes.

The guidance has been structured to provide clarity for the reader, using a relatively simple linear approach through the process of configuring, developing and delivering FM services.

However, in practice FM is much more complex than this in its potential interactions, so this guidance shows how strategic planning and implementation can control the impacts of that complexity, reducing it where possible, and bringing clarity and focus to the management of the services.

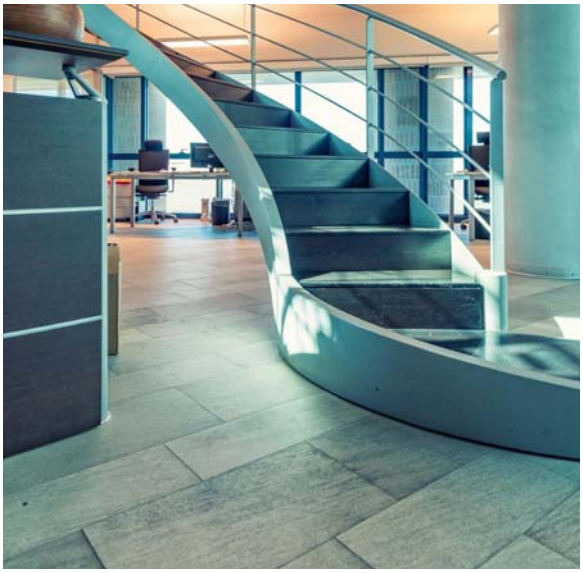
FM activities are broken down into four aspects

- strategic planning
- implementation
- development and
- projects.

While this guidance does not present a 'Plan, Do, Check, Act' structure in the way that ISO standards do, it is based on an iterative approach to show how planning and implementation are inextricably linked. It also uses the vocabulary and definitions set out in ISO41011, as being the globally applicable standard.

Finally, this guidance applies whether the reader is a user, buyer, internal or external provider, or an auditor of FM services. It is neutral as to the most appropriate means by which FM services are provided or procured because these depend on the demand organization, service requirements, risk profile, supply chain maturity, culture, regulation, and economic impacts.

Figure 1: Workplace management framework



1.0 Introduction

1.1 FM: A contributor to the corporate enterprise

Applied correctly, FM is about much more than the management of buildings and services – it is critical to the successful functioning of every organization which occupies property or manages infrastructure that supports our society.

As a support function FM has its own objectives but it should ensure that they coordinate with the objectives of the organization it serves and other interested parties or stakeholders. There is a very clear iterative relationship between corporate objectives and resource planning, asset management and facility management. An example of this is set out in the RICS guidance note, *Public sector property asset management guidelines*, 2nd edition, 2012, available from **rics.org**.

Strategies need to be realistic and robust and should recognise identifiable constraints and challenges to deliver the optimum outcomes at the best cost.

Strategic FM should also be aware of and apply solutions which can enhance productivity. It should move beyond merely managing buildings and assets, to leading on issues related to property search and disposal, the design of space, and the development and promotion of new working methods and technology, to create and deliver workplaces which enhance staff recruitment, retention, and overall success for the organization. It should also lead on issues including operational sustainability, energy usage, safety and wellbeing and other issues where facilities operations impact external stakeholders.

One view of the complexity of the role of FM is illustrated in Figure 1, adapted from the Workplace Management Framework (see Endnote 5). This shows how the various activities relate to produce outcomes which must have value for both the customer and the organization being supported.

1.2 Key relationships

Successful FM delivers in part through a complex set of relationships which is probably wider than that of any other organizational function.

1.2.1 The demand organization

The primary relationship in FM is between the 'Demand Organization' (DO) and the FM provider. The DO is defined in ISO41011 as an 'entity which has a need and the authority to incur costs to have requirements met'. This term is used in preference to 'client' because it does not imply any contractual or commercial relationship and can therefore be applied equally whether FM is provided through an in-house team, an outsourced supplier, or a combination.

For clarity, facility managers operate as a provider to the DO, even if they are employed by it, as the DO is implicitly defined as a function or 'entity' which does not deliver FM services. This distinct relationship between the DO and the FM provider, even if it appears artificial in some instances, is key to the ISO standards.

All decisions on which services to provide, to what quality, when, and at what cost, flow from this relationship. It is not a one-way relationship – while the DO usually controls funding and determines many of the operational constraints, the FM specialist possesses unique expertise on regulation, best practice, resource needs, scheduling, service measurement, and value, etc. The facility manager should understand and interpret the DO's needs, advise on what is realistically achievable, and gain consent to a plan which meets those agreed needs.

However, the DO may not be able to express its needs either technically or in sufficient detail to meet the planning requirements of the FM provider. There may be facilities related activities which should take place, for example around legal compliance, which the DO does not know about or understand and does not express as a specific need.

Therefore, planning for FM should consider and address implicit needs as well as explicit needs to develop a strategy that is comprehensible to those who are not experts in the field of FM and sufficiently clear to obtain their consent to the actions and expenditure required.

1.2.2 Stakeholders (interested parties)

Strategic FM should also consider the interests of other stakeholders using the services in various ways. ISO refers to these groups as 'interested parties', but this document uses the more commonly understood term 'stakeholder'. In general, stakeholders are any group or individual which has an interest in or is affected by any of the following organizational relationships or outputs:

- the outputs of the FM activity
- goods or services delivered to the DO
- employment or training opportunities
- environmental conditions within and around the facility
- goods or services received from the organization
- maintenance of records of activities, operating licenses, etc. demonstrating statutory and regulatory compliance
- financial costs and benefits of the services and
- goods and services delivered to the organization.

When considering the requirements of interested parties, facility managers should:

- undertake discussion and, where necessary, negotiation with the stakeholders
- document the results of those discussions
- communicate the results of this process to relevant stakeholders and
- incorporate any agreed requirements into the various policies and plans as appropriate.

2.0 Strategic planning

2.1 Service context

Successful FM has certain distinct features. It is:

- aligned with the aims and values of the DO
- flexible and responsive to internal and external change
- focused on meeting the needs of service users
- multi-functional and cross-functional
- working to meet long term as well as short term goals and
- constantly developing.

This requires an understanding of the significant external factors affecting support services, and an awareness of the possibilities of adopting or creating new solutions. It also requires continuous communication with stakeholders to ensure that services and processes meet their requirements, and a high degree of motivation in the search for constant improvement. To deliver services which are often seen by customers as mundane, but without which an organization will almost immediately cease to function, can only be achieved via a robust strategic plan.

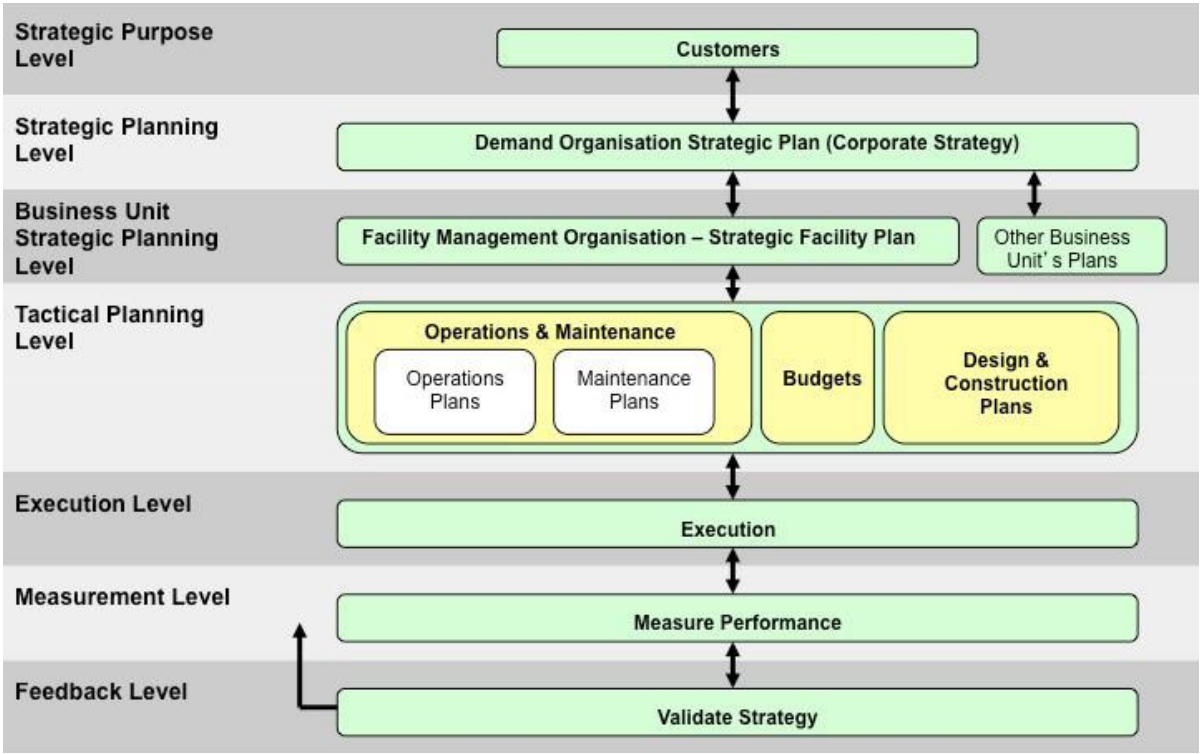
2.1.1 Process

At an organizational level ISO41001 sets out a robust process for creating a management system for FM. The strategic planning process has seven main phases, which the facility manager should undertake:

1. understand the DO goals and corporate strategy to achieve those goals
2. understand the 'primary activities' of the DO
3. understand how other components of the DO and support functions are planning to meet that challenge
4. align the FM strategy with the corporate strategy
5. set out the key deliverable outcomes from the FM service
6. create a service delivery plan (including funding needs), which meets the required outcomes and
7. measure the results of the service delivery and feed back into the next round of planning.

Figure 2 (below) illustrates the iterative process of deriving the FM strategy from the DO strategy.

Figure 2: Leadership and Strategy Course, Facility Management Professional (FMP®), Edition 2015, Version 3.1



2.1.2 Alignment

The alignment of support services with the DO is critical to success. It is not only about setting goals but also about configuring appropriate and effective working methods, matching organisational culture, setting management style, establishing relevant policies, and managing risk.

Successful alignment of FM results in a match with the key aspects of the DO's corporate behaviours while retaining a professional FM approach which delivers compliance, reliability, cost effectiveness, and independent advice to the DO.

The facility manager should understand both the values and culture of the DO:

- **Organizational values** are collective judgments regarding the relative worth or goodness of behaviour, decisions, priorities or actions of members of the organization.
- **Organizational culture** is an expression of the character of an organization as the sum of its organizational values. It indicates how things get done at the organization. Organizational culture tends to remain in place even as group membership changes because culture is automatically transmitted to new staff. (source: IFMA)

2.1.3 Primary processes

It is impossible to deliver the optimum balance of service quality, cost and responsiveness without understanding the mechanics of the DO: how does it utilise its unique strengths to meet its aims and maximise its competitive advantage?

These activities at the core of the DO are its primary processes. As a support function FM sits outside this core business, but without a detailed understanding of how things are done within the core, the optimum FM solution cannot be identified.

2.1.4 Managing costs

Facility managers should be aware of three main features of cost measurement: economy, efficiency and effectiveness. For the purposes of this guidance, the following usage of the terms is applied:

- **economy** – the procurement of goods and services at the best available price per unit
- **efficiency** – the use of the least quantity of resources to achieve the required output and
- **effectiveness** – the achievement of the required outcome at the lowest total cost.

Often, facility managers and their support teams, including procurement and finance functions, focus on economic buying and efficient resource usage without reference to the related outcomes. Such an approach presents FM as a cost centre rather than a contributor to organizational success. Facility managers should avoid this perception by adopting a focus on effectiveness of the service.

2.1.5 Analysing the context

The facility manager should consider[2] the following factors to create effective facilities operations.

- What gives the DO its competitive advantage – is it cost, innovation or customer focus?
- What is its competitive environment and who are its direct competitors? How susceptible to alternative (substitute) goods/services is it? Could its supply chain supplant its services? Could its customers provide its services or produce its material directly? Does it rely extensively on a small number of customers or suppliers? Could its business model be substantially disrupted by technology or other innovation? How much is it subject to governmental oversight and regulation?
- What are its value drivers – how does it create added value in its goods and services?
- What is its organizational culture and management style – is it centralised or does it devolve decision making? What is its appetite for business risk? Is it a learning culture? Does failure attract blame or support?
- What are its corporate targets – does it focus on growth, activity volume, profit, customer satisfaction, for example?
- What are the operational interdependencies within the DO – not only linear production process linkages, but how do product development, marketing, sales, design and the other key internal support processes relate?
- How critical are specific FM activities to the core business mission and primary activities –how does FM support each of the organizational components?
- How reliable is the DO supply chain, regarding the risk of over-reliance on single suppliers? How do FM services impact on the flow of goods and access to them?
- What are the DO corporate policies (for example, environmental and corporate responsibility) and the related compliance requirements and anticipated developments in this area? Where does FM either have direct responsibility for compliance or contribute to compliance or record keeping?

- What are the DO's reporting requirements and management information systems? What information should FM provide to the DO systems, and what information can FM take from those systems? How reliable, timely and accurate is that data?
- What is the DO's real estate and FM strategy – do corporate real estate and FM work closely together? If not, why not? Do operating units have autonomy of property decision making? What scope for improvements in design are there?
- What is the property portfolio – is it predominantly leased or owned? How flexible can DO units be on location, property scale and departmental adjacencies?
- How does the current value and usage of property impact on potential long-term investment? Are maintenance plans appropriate for the anticipated remaining life of the assets?
- What are the requirements for resource flexibility? Does the DO have a need for available resources of each type (property, staffing, finance, materials and so on) to change over time? Are those timescales predictable, and are there short-term flexibility requirements to be met?

2.1.6 FM Strategy

The resulting FM service strategy should achieve an appropriate mix of:

- reliability (timeliness) and consistency (quality) of service delivery
- overall cost effectiveness within budget cycles and over the life of the assets being managed
- flexibility to meet changing needs in the short and longer term and
- application of innovation and industry best practice to the services.

An understanding of the organizational context should result in a strategic context for the FM service. Once that is understood, the formulation of FM services to meet the requirements of the DO can be undertaken. The key focus of the facility manager should be 'how can we continually enable [the DO] to achieve its strategic purpose in the most effective manner?'[13] This may involve improving productivity but is unlikely to be solely focused on that aspect of output.

'The principle outcomes of this process are:

- The effective alignment between the organisation's core purpose, business strategy, drivers and external environment with the acquisition, design and day to day delivery of the workplace and services.
- The effective strategic management of supply and demand of the workplace to enable the business's purpose to be achieved in the most economical fashion.
- An understanding of the … business demand for the workplace services that supports the business strategies.
- Securing the required investment (both capital and revenue funding) to undertake the services to the required standard.
- The acquisition of resources (people, space, services, technologies and information) to enable the organisation to achieve its strategic purpose along with plans to exit/transition.
- The creation of an atmosphere and supporting processes that foster continual improvement and innovation in all aspects of the workplace provision.
- The recognition of those responsible for the workplace as professional contributors to the strategic success of the organisation.'[14]

2.1.7 Objective setting

'Strategic objectives are long term targets which … set the direction and priorities for all other activities taking place within the FM organisation.' [5]

When establishing these objectives, the facility manager should:

- set out the method and criteria for decision making
- prioritise activities and resources to achieve the objectives
- understand and document the processes to be used in managing facilities over their full life cycle
- understand the key critical outcomes for the interested parties
- be clear about when they need to be achieved and
- ensure that outcomes are measurable and how they will be evaluated and reported.

Planning to achieve the resulting objectives requires the facility manager to determine and document:

- how this planning integrates with other planning activities, including other support functions
- the method and criteria for:
  - decision making
  - prioritising of the activities and resources required
- the processes to be used in managing facilities over their entire life cycles:
  - what will be done
  - what resources will be required
  - who will be responsible
  - at what frequencies they will take place
  - when they will be completed
  - how the results will be evaluated
- the financial and non-financial implications of the FM plan(s).

2.1.8 FM policy

From this analysis, a more detailed FM policy should be set out to allow management to apply the strategy to the service formulation. It is essential that this FM policy is formulated to set out a series of statements which set the objectives and overall methodology for the services. A successful FM policy should provide a long-term statement which:

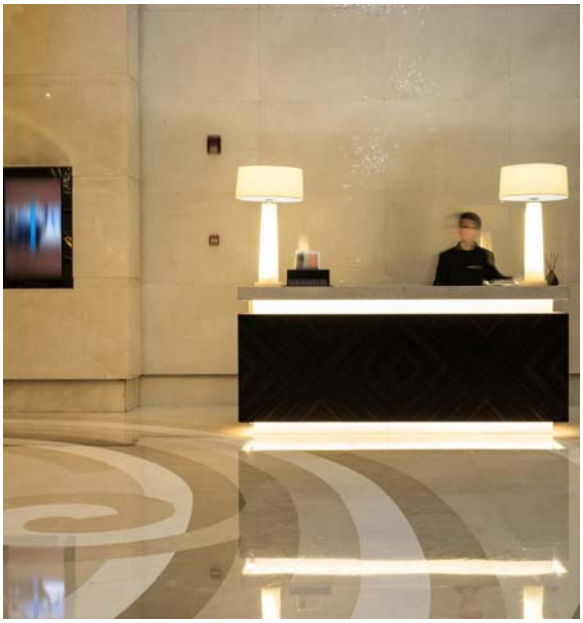
- provides clarity on priorities
- establishes the relationship between the FM organization and the DO for both parties and any other parties required to fulfil elements of the plan
- establishes what areas objectives should be set for (but not to set specific objectives, which may vary from time to time) and
- applies to all facilities covered by the scope of services and sets the parameters within which service delivery planning and operations can be undertaken at each individual facility.[6]

Therefore, the contents of the FM policy should include:

- a summary of the organizational context analysis carried out
- a summary of the DO's FM objectives
- the key outcomes of the FM service, including how and when they will be assessed
- the scope of services in brief
- reference to other key policies, both internally and from the DO, which impact the service
- an explanation of the strategy for outsourcing services, where appropriate
- key risks and mitigations, including statutory compliance and business risks
- processes and responsibilities for reviewing and improving operational performance
- a statement of who 'owns' the policy and what the governance arrangements are and
- a set date for review of the policy.

The facility manager should ensure that FM policy documents:

- are published in formats which are accessible in each location
- are accessible (where appropriate) to interested parties
- are regularly updated
- have any changes communicated to staff and service providers to ensure there is a clear understanding of policy requirements and
- do not conflict with any other policies within the organization (for example: human resources or procurement policy).



3.0 Planning for implementation: Service design

A successful FM strategy should be supported by effective service delivery of the required outcomes. This section outlines the ways in which facility managers should plan the implementation of service delivery.

3.1 Customer expectations

All FM activity has an impact on customers as well as organizations. Customers may have personal needs and expectations which are not directly reflected in the DO's requirements or strategy but will nonetheless define how the FM service is perceived. To implement a successful strategy, it is important to understand and manage customer expectations.

Even where a formal specification or statement of requirement has been issued by the DO, this is rarely communicated to customers, therefore a key task for facility managers is to ensure that staff and suppliers undertake communication with customers. Communication should be two-way, and mechanisms should be established to receive feedback on services as well as to explain their implementation.

Effective feedback is essential to service development. It can allow the FM operation to review how, when and where services are delivered; to discuss possible changes to the service with the DO, and to consider more efficient and effective means of delivery.

There are multiple options for establishing good customer relations, such as:

- formal customer relationship management (CRM) techniques
- focus groups
- surveys
- helpdesk feedback and
- simply walking around asking customers how they perceive the service.

3.2 Constraints

Facilities services are delivered under significant constraints. Apart from the obvious issue of budget availability, planning for the delivery of FM services should also consider:

- physical constraints of the property – location, logistics, access times, access capacity (for example, lifts and delivery bays), service preparation space, goods and materials storage
- regulation and legal compliance requirements – operating licences, hazardous items storage, waste management, health, safety and environment law
- operational issues – the nature and timing of primary activities of the DO; local road and transport systems; energy consumption and supply capacity limits; planned downtime
- cultural impacts – local holidays, working week patterns, meal times, festivals
- staff capacity – both internal and third party supplier
- staff skills, experience and training
- security requirements and risk management
- corporate social responsibility (CSR) and
- sustainability of operations.

3.3 Image and culture

The importance of FM delivery to the DO's image should not be underestimated.

Facility managers are often responsible for a range of key contacts with the DO's own stakeholders including local and national government and other authorities. These contact points include:

- the external appearance of the property, including grounds, car parks, flags, fencing and signage as well as the condition of the main buildings
- the way security staff and systems operate
- the appearance of the reception service and the welcome experience on entering the property
- waste and exhaust discharges into the environment around the property
- the management of vehicle movements into and from the site, especially at peak travel times and
- the collation, storage and retrieval of operating records, licences, consents, applications and other regulatory documentation.

All this affects stakeholders' perceptions of both the DO and the FM service provider, where it is a contractor. Ensuring that the image portrayed reflects the requirements of the DO is often delegated to FM without sufficient recognition by either party. Assessing the risk of reputational damage through poorly designed or funded FM services is therefore a key element in service planning.

Facility managers should ensure they follow brand guidelines, and where appropriate, use standardised service process manuals to establish a consistency of presentation and output which supports the 'brand' of the FM team within the DO.

3.4 The service delivery plan

The outcome from this strategic planning and communication will inform service delivery. Good practice is to summarise this in a service delivery plan, although under some contractual situations this may take the form of a costed proposal.

A service delivery plan should set out:[7]

- who has the authority to initiate and approve a service request
- the planned lead time from the service request being received (not issued), to the service being delivered
- processes for mobilisation
- processes for risk assessment and management
- what organization will deliver the service
- what resources are required to be available to deliver the service on schedule
- when and where delivery will take place
- whether there are any additional costs for routine delivery, and if so who is charged
- whether changes to quantity, speed or quality of response are possible, and if so how changes can be made and at what cost and
- the processes for demobilisation.

Note that a service delivery plan does not set out:

- service levels or quality targets
- measurable outcomes or
- contractual obligations.

These issues are normally documented in a service level agreement or within a contract, but to ensure consistency, elements of the service delivery plan can be reflected or repeated in service level agreements or in performance targets.

3.5 Service level agreements

Facility managers should document the obligations of the FM service, whether it is provided internally or externally.

Such documents may take the form of legal contracts with an external service provider, or an internal Service Level Agreement (SLA). Some contract mechanisms use Service Level statements as part of the specification of services or service target setting, but these are not technically SLA's as they are part of a wider package of contract terms.

SLAs set out details of the services which are to be provided. They are generally aimed at informing service users about the FM service and should not be technical, except where the intended audience is technically knowledgeable. SLA's are covered in further detail at section 4.2.7 Service levels.

3.6 Strategic sourcing decision: Internal or external resources?

As noted, FM is not synonymous with outsourcing. Whether to provide services directly through internal resources or from an external supplier, and if the latter, what model of outsourcing to use, is one of the most fundamental and complex decisions facility managers take, with far-reaching consequences. A variety of factors should be considered, including:

- DO policy and culture
- suppliers' capabilities
- property locations
- local laws relating to contracting and employment
- the criticality of support services to the core organizational functions and primary activities
- security and intellectual property control needs and
- the proportion of total DO costs which are committed to support services, and thus the real potential savings available.

Outsourcing, which relies on cost savings created by driving down staff numbers or wage rates, tends to create a high level of risk, since there is likely to be an immediate impact on staff expertise, motivation, numbers and resilience.

Generally, outsourcing will deliver benefits where some or most of the following apply:

- the DO is operating a cost-based competitive strategy
- the boundary between support services and the core business primary activity is defined and understood, and thus the risk to the DO is understandable
- potential suppliers:
  - offer cost savings through bulk purchasing power which the DO does not have
  - employ technical expertise which the DO requires but cannot afford to maintain in its core cost base
  - offer resource resilience which the DO requires but cannot provide internally
  - offer bundling of service delivery capabilities which the DO cannot achieve
  - have a geographical capability which allows them to deploy management resources to supervise support services in a more cost-effective way
  - fully understand the core business of the DO
  - can provide back-office functions (procurement, helpdesk, IT systems, financial processing and reporting, performance measurement) which are more specialist and/or more cost effective
- service users are unconcerned by who provides the services.

Although some organizations use outsourcing to implement changes to staffing, service quality or volumes and/or management structures, more reliable results and more predictable cost outcomes follow when such changes have been dealt with internally prior to outsourcing. This is because change control then resides with the DO which:

- benefits directly
- understands the risks and constraints and
- has an established baseline of quality and cost.

If change is delegated to an external supplier, there are significant risks:

- the FM supplier will rightly expect to be incentivised for cost reductions, thereby transferring some of the benefit of the actions to them rather than the whole being for the benefit of the DO
- the FM supplier's incentivisation is likely to be linked to speed of change, creating more scope for crude cost cutting
- there is a risk of contract incentives continuing beyond the year savings are made, eroding the net cost benefit to the DO and
- service quality will be impacted by additional factors relating to, for example, changes to the supply chain and the contractor's own learning curve, and thus impacts are harder to measure and manage.

Such risks may be acceptable, but should be considered when deciding whether and how to outsource.

There are four primary options for service outsourcing:

- single service (e.g. building cleaning)
- multi-service (e.g. catering and reception, or maintenance and security, and so on)
- integrated FM (all main services delivered directly by a single contractor under their management, with minor services sub-contracted) and
- management contracting (all services are managed and supervised by one contractor, but provided by sub-contractors).

In addition, there is a range of options for geographical bundling:

- locally, by site or sites
- nationally, by a country
- regionally, by continent or large region and
- globally.

Most large facilities services companies can offer services in most, if not all, combinations. Management contracting tends to be used where the property portfolio is more widespread or the service requirement more bespoke, allowing the buyer to access a range of different service delivery partners across the portfolio while maintaining a common supervisory and management platform.

Decisions on how to outsource are not simple and should be organization specific. Experience suggests that the relative success of a specific contract model for an organization can be traced to seven main factors, as shown in Figure 3, with the increasing commonality in these factors across the portfolio supporting more complex contractual models.

Figure 3: Factors affecting the extent and suitability of outsourcing models

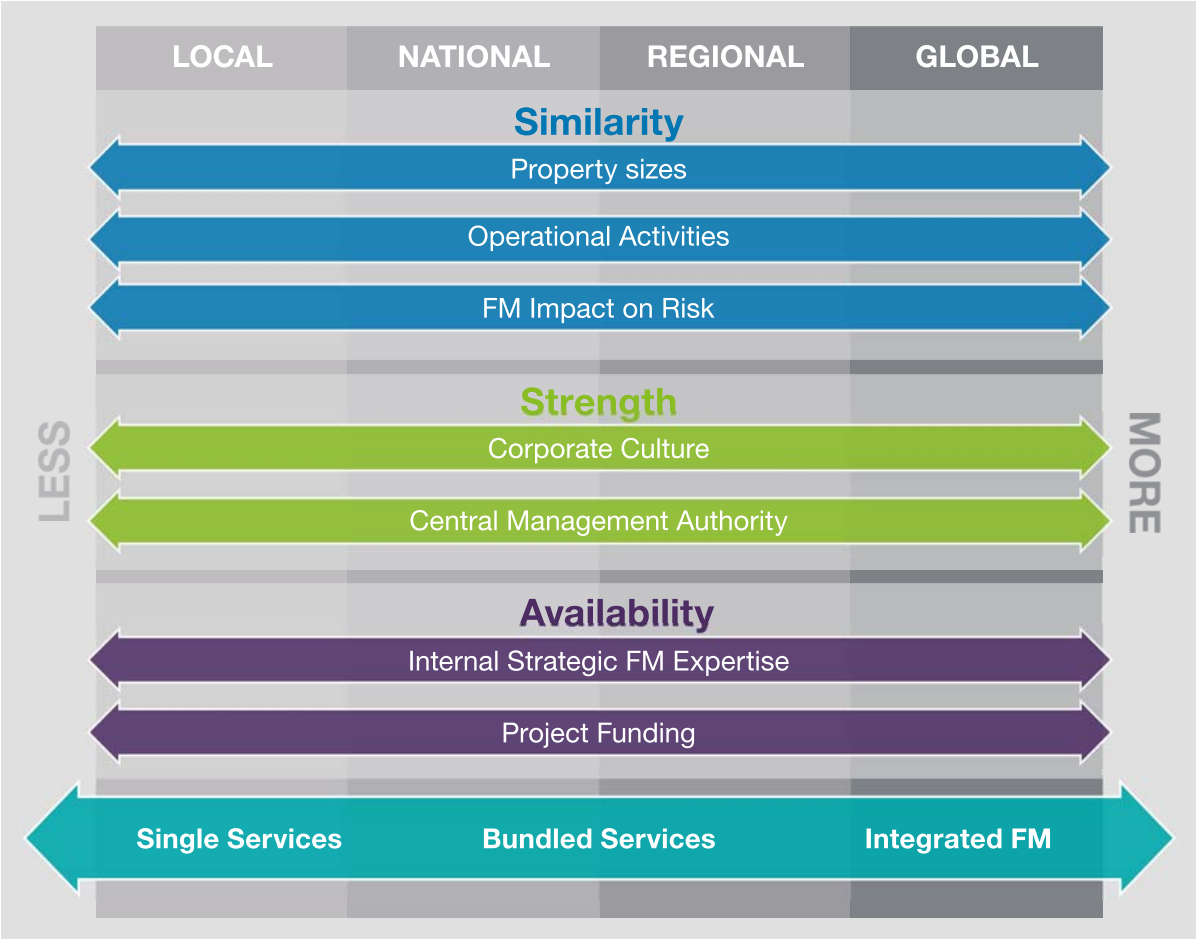


Figure source: © Effective Facilities Limited, 2014

3.7 Risk management

The management of risk is one of the key aspects for facility managers to be involved in. ISO31000 relates to management of risk in detail, but in general facility managers are advised to consider the following types of risk as paramount:

- technical
- financial
- environmental
- social
- political
- commercial
- reputational and
- organizational.

When assessing risk in general, facility managers should:[8]

- consider the organizational context, aims and objectives
- understand that risks are often expressed in terms of a combination of:
  - likelihood of occurrence
  - consequences of an event
  - the impact on operations and people
- identify all possible risks prior to making judgments about whether they are likely, material, or of high impact, to avoid failing to adequately assess risk. Risks which are of very low likelihood, but which could have a major impact, are often missed because they are dismissed prior to assessment.
- review the types and level of risk whenever there is a material change in circumstances.[9]

When planning actions to respond to identified risks, facility managers should establish a Risk Register. In this they should assess and document:

- the likelihood of an occurrence of an identified risk
- the likely impact of an occurrence
- options for actions to prevent or reduce the likelihood of an occurrence
- options to reduce the impact of an occurrence (i.e. mitigation) and
- the degree of acceptability of any residual risk.

Facility managers should then, in liaison with the DO management:

- prepare plans to implement identified prevention and risk reduction actions
- prepare plans to initiate and implement risk responses (e.g. emergency preparedness plans)
- prepare plans to provide temporary operational capability following occurrence of a risk event (e.g. business continuity plan)[10]
- prepare plans to restore the services to full operation as quickly as possible (e.g. recovery plans)
- integrate all plans into the FM processes
- communicate plans to relevant staff, management and other stakeholders
- train staff and suppliers in risk response processes
- plan and undertake practice invocations of risk response periodically, involving the DO management teams where appropriate and
- ensure that there is a process to evaluate if the risk responses have been effective after invocation (whether practice or live events), and learn from those events to improve future risk management.

It is critical to successful risk management that facility managers should be able to achieve the outcomes intended from the risk response. To do this everyone involved needs to:

- understand what criteria should trigger a specific risk response
- ensure that appropriate resources are available to respond within the desired timescale
- ensure that staff and supplier resources are adequately trained and
- integrate and implement these actions within the FM service delivery plan.

Continual improvement is a key part of risk management. Facility managers should ensure that everyone involved:

- learns from the experience of other facilities and organizations in the DO's business sectors
- constantly evaluates and improves the identification of opportunities and threats
- holds post-event reviews to identify lessons learned
- liaises with governmental security and emergency services on current and emerging risks and
- liaises with the DO's internal risk planning functions.

4.0 Operations

4.1 Leadership

The foundation of successful service delivery is the facility management leadership team. RICS defines leaders as professionals who are 'operating at a senior level within an organisation, exercising extensive leadership and management skills'.[11]

IFMA note that 'Facility managers serve in two leadership roles:

- they lead the facility organization by providing guidance to staff and service providers
- they should influence the decisions and attitudes of the [demand] organization's leaders as well as that of occupants, government officials, suppliers, community leaders and business partners.[12]

'To be effective in both roles requires facility managers to … successfully carry out major initiatives and influence the decisions and attitudes of others. Effective strategies require facility managers to be able to integrate people, place, processes and technology. They must be able to align the facility portfolio and functionality with the organization's missions and available resources, and they must be innovative to move forward with their staff and processes to respond to the ever-changing requirements.'

Any service plan should therefore begin by ensuring the leadership team is in place, possessing a combination of management skills, which include:

- general management
- strategic planning
- financial management
- human resources
- risk management
- procurement and supply chain management
- health, safety and environmental management and
- technical elements of each facilities service.

4.2 Service planning

4.2.1 Multi-skilling staff

After the leadership team has been established, the next fundamental decision concerns service configuration – whether, and to what extent, to integrate services to achieve the optimum outcomes. Facility managers should consider:

- undertaking a task breakdown analysis to determine the approximate working time required for each task, and the skills required to carry it out safely and effectively
- whether this illustrates any opportunities to utilise otherwise unproductive staff time on associated tasks, or on other tasks and
- if staff time is free, what training and skills are required to carry out those tasks, and whether they can be effectively allocated to staff with 'free' time.

Such analysis forms the basis for decisions on whether and how to apply multi-tasking to allow staff resources to be used effectively. This is not simply a question of allocating every working hour – some staff in some cultures will not accept less skilled tasks as part of their work because of the status implied, or for other cultural reasons. But an initial analysis will at least show the potential for better use of staff time.

As well as resource usage, a key factor is customer impact. Facility managers should consider whether it enhances customer service if staff members can deliver a range of services, rather than only one? Does such an approach speed up the delivery of services to customers, or does it result in a reduced standard of service if the highest level of skills is not deployed?

Such decisions are dependent on local context, culture of staff, customers and the supply chain, training, and the predictability or otherwise of demand levels.

4.2.2 Scope of services and service integration

A similar approach applies to the procurement of services. Since there are obvious administrative benefits to reducing the number of suppliers being used to support the FM operation, facility managers need to balance the pressure to reduce supplier numbers with obtaining the most reliable and cost effective overall service.

In configuring the way services are combined, facility managers should consider:

- interdependencies in systems and processes, seeking where possible to ensure that interdependent systems are managed and supported by a single supplier
- highly specialist service needs (such as elevators, fire systems, AC/DC power conversion)
- to what extent there is a competitive market in those services, and whether a managed sub-contract might be better than a direct contract
- the need to avoid paying 'margin-on-margin' for subcontracted services
- security, safety and insurance implications
- information management implications, including responsibility for collating, validating and holding data which is needed by the facility manager and/or the DO
- opportunities for suppliers to multi-skill their staff, and opportunities to improve utilisation of site based staff, thus driving down cost
- the risk of becoming over-reliant on a few suppliers and
- the competitiveness of the market for potential bundles of services.

4.2.3 'Hard' and 'soft' FM concept

It has become commonplace in the FM sector to procure services in 'hard' or 'soft' packages of work. However, the distinction is artificial and serves only to confuse and to create the risk of preventing good practice in the integration of services and of a customer focused FM delivery team. Not least of the problems with this distinction is that both 'hard' and 'soft' services are required for effective asset management outcomes.

Services typically considered to be within the 'hard' FM remit include:

- heating, ventilation and air-conditioning systems (HVAC)
- electrical power supply, including local generation systems (solar, diesel, etc.)
- energy management
- water supply and sewage disposal
- building structures and partitioning
- building fabric, including ceilings, doors, carpeting, flooring, and decorative finishes
- fixtures and fittings, including desks, chairs, signage, lighting and other equipment and
- data and voice cabling.

'Soft' FM covers elements of services that directly affect customers and other service users. This scope is considerable, and among other activities often includes:

- building cleaning
- catering
- guarding and security
- mail room and logistics
- front of house reception
- conference services
- switchboard
- facilities helpdesk/service desk
- reprographics
- retail services
- uniforms and laundering
- vehicle fleet management and
- internal horticulture.

However, there are other aspects of FM which do not fit into this distinction between 'hard' and 'soft' FM services, including:

- environmental management
- health and safety
- document archiving
- moves and relocation
- workplace design
- small works project management
- grounds maintenance
- pest control and
- waste management and recycling.

Facility managers should decide how best to integrate work packages based on the individual circumstances they face rather than the 'hard'/'soft' split. The ability to combine skilled roles, to improve staff and equipment utilisation, and to reduce management overhead costs should be the key considerations.

4.2.4 Maintenance

The ISO Standard for Asset Management (ISO55000 series) defines asset management as 'the coordinated activities of an organization to realize value from assets.' In the ISO Standard, assets are defined very broadly and include people, information, and financial assets. For FM purposes this wide range of defined asset types is unhelpful, as the FM discipline is primarily concerned with the application of built assets to achieve organisational and social outcomes.

Nonetheless, the concept that asset management 'enables realization of value from assets in the delivery of organizational objectives' does align with what FM seeks to achieve. It is probably most helpful to consider FM as the way in which the aspirations of asset management can be realised for physical assets and, in terms of the workplace, human assets (see also 4.4.1).

Therefore, for FM purposes, it is useful to consider the built and installed assets of an organization as falling within our scope of work, with the aim of delivering value from those assets to the DO.

This aligns neatly with the concept of maintenance in the broadest sense, that of maintaining the value of built or installed assets.

BS8210:2012 sets out the key issues and processes for facility managers in planning and carrying out maintenance of their facilities. CIBSE Guide M Chapter 3 and BSRIA guide 3/2016 both provide further useful guidance.

Facility assets need to be maintained to ensure that:

a) they are suitable for their intended purpose

b) they continue to perform their function throughout their useful life in a safe and efficient way and

c) their value is protected.[13]

When planning maintenance regimes facility managers should:

- audit, understand and document the assets under their control
- set out their required performance parameters (including any permitted downtime)
- identify the scope of maintenance activity required
- select the maintenance strategies
- assess the skills, staff levels, equipment, materials and other resources required
- prepare appropriate maintenance plans
- set out the delivery plan, including ensuring required resources are available
- implement the maintenance plan and
- monitor and review the performance and costs of maintenance activity.

As a minimum, facility managers should ensure that:

- an up-to-date asset register is maintained – normally this will be through a CAFM, IWMS or CMMS system
- ensure that working safety protocols are assessed, documented and enforced
- ensure that manuals for all equipment are available and easily accessible and
- apply appropriate maintenance scheduling.

Options for maintenance scheduling include:

- **planned preventative maintenance (PPM)** – routinely periodically scheduled activity intended to prevent breakdowns and failures by replacing components and materials before the end of their expected usable life
- **planned shutdown maintenance** – carrying out maintenance when core business activity permits a shutdown of systems (with a schedule driven by the DO activity rather than by the life cycle of the asset)
- **condition based maintenance** – based on the assessed condition of components, or known run-times. Assessment may be through visual assessment, output metrics, BMS reports, or other monitoring of the asset
- **reliability centred maintenance** – using historical maintenance records to predict the time to the next required service intervention
- **reactive maintenance**, including:
  - corrective maintenance: implementing repairs 'as a result of the observed or measured condition of plant, equipment, systems, elements, before or after a functional failure'[14]
  - breakdown maintenance: restoring the asset after a breakdown
- **run-to-fail strategy** – allowing the asset to run until it fails and then replacing, rather than repairing the entire asset.

There are many BS, EN and ISO standards relating to specific system or asset types. Many countries also have industry standard maintenance specifications which are widely applied or adapted, such as SFG20+ (standard for planned maintenance) in the UK.

Facility managers should ensure that they have identified the appropriate specifications and methods for their maintenance operations. This will often require the application of a risk management regime, consultation with the DO, and the use of specialist consultant engineers.

Facility managers are not expected to possess a full understanding of all the options for all the infrastructure services, but should be aware of the totality of the assets under their control and ensure that adequate and appropriate maintenance regimes are in place.

4.2.5 'Soft' FM: Customer services

Customer services are less susceptible to the kind of forward planning which is routine for maintenance activities, but they nonetheless do need to be planned, resourced, controlled and measured if they are to be effective. This, with its wide potential scope, is one of the major challenges of FM.

It is in customer services that the impact of FM is most readily seen. The DOs 'brand' image[15] is embodied by the physical presence of its properties and the way services are delivered to or affect a range of stakeholders.

Employees, for example, can be motivated or demotivated by their workplace. Primarily, that is a function of the FM services delivered. Similarly, visitors form an immediate impression of the DO based on their experience approaching and entering the building – how well signposted is it, how clean is it – and on their treatment at reception.

While the buildings and infrastructure may constitute a high value component of the DO's asset base, for most organizations the added value of FM operations lies in the ability to support and enhance the corporate image to stakeholders.

4.2.6 Services: Good practice

Although there are relevant BS and ISO standards for some aspects of these service lines, their nature does not generally lend itself to standardisation. There are a range of good practice guides available from IFMA, BIFM and many national FM bodies, as well as from relevant trades associations around the world (the British Institute of Cleaning Science, for example).

4.2.7 Service levels (Service Level Agreements (SLAs))

SLAs are statements about quality, quantity, and timing relevant to end users. Whether services are provided internally or externally, these issues should be stated in a way which is both meaningful to the buyer and to service users, and service providers. Such statements form the basis for decisions on staffing levels, resource provision, staff training, and ultimately the cost of the service.

SLAs should have been agreed by the facility manager and the internal senior management or with the buyer. Not all service level statements are SLA's and the term should only be used to describe agreements between two parties, whether internal or external to the DO.

These statements of service levels should be published so that users understand what services they can expect to receive, when, to what standard, and how to obtain them.

SLAs should not contain target measures, although such may be derived from a combination of the contract (if there is one), service specification and SLAs. Service level statements and service level agreements should be:

- concise
- comprehensible to non-specialist end users
- objective statements of service obligations from the organization to the end user and
- reviewed at planned intervals to ensure their continued relevance and suitability.[16]

In general, SLA's will state information on each part of the service in terms consistent with the DO's culture and management style. They should set out:

- what will be done
- the quantity or other measure of service volume to be provided, and any constraints on quantity available
- who will be responsible for delivery
- when or at what frequencies delivery will take place
- who is funding the service
- how to obtain the service if it is on demand and
- how to obtain variations in quality, quantity or time of delivery, and how to pay for that variation if payment is required.

In this way, SLAs provide relevant information on the critical aspects of the service. Facility managers should ensure that such statements are aligned with the DO's objectives, culture and service requirements and neither over-state the quantity and quality of service nor understate the costs.

4.3 Resource planning

One function of the service delivery plan is to allow planning of resources required to undertake routine services, projects, and emergency response. Resources to be managed are primarily staff and materials, but there may also be property impacts for business continuity, storage, power generation and so on, and contracting impacts for supporting services like architecture, emergency technical support, and emergency cleaning, etc.

When considering how to source the resources needed for the service, the facility manager should:

- refer to the FM policy and service delivery plan
- ideally, apply the processes set out in ISO41012 and
- understand the organization's planning horizons.

4.3.1 Skills and capabilities

Facility managers should ensure that their service teams contain the correct mix of skills and competences to deliver the planned service.

Deciding on the competences required involves:

- identifying the activities and processes which require skilled or certified personnel to meet the needs of the service activity
- reviewing the compliance requirements (for example: certified training in skills) and
- identifying staff who meet the identified specification of skills for the services.

Ensuring that staff deployed are competent involves:

- ensuring person specifications for each role are appropriate for the task
- ensuring staff match the required standards and undertake relevant continuing professional development
- validating the education, training, and/or experience of staff from time to time
- reviewing the identified task competences from time to time
- reviewing training and education requirements at planned intervals or when compliance requires it
- maintaining education and training data records for staff, and clear expiration dates for skills (if any)
- maintaining means to notify staff of expiring certifications and licences to practice and
- creating and implementing individual competence development plans for all staff.

4.3.2 Capacity planning

'Once the required skills have been assessed, the facility manager should decide the appropriate levels of [staffing] capacity to be provided.

'The facility manager should then assess and document the requirements for physical workplace, services and technologies needed to achieve the [DO's] strategic purpose in the most economical manner to:

- maintain a precise understanding of the true capacity of the workplace, services and technologies to support the DO along with the constraints and factors that influence that capacity
- continually measure the level of consumption, to be able to compare planned capacity with actual usage
- use knowledge of consumption of capacity to improve the effectiveness and resilience of services and the workplace
- maintain an appropriate balance of the workplace 'supply' in relation to short and long terms business needs and the levels of volatility of the business and
- enable effective decisions about commitments to future workplace capacity to be informed by an understanding of existing potential capacity accounting for innovation in ways of working and space use.'[17]

4.3.3 Resource management

The success of the facility management service is almost entirely dependent on the effective application of the resources which have been assembled to meet the DO's needs.

Resources include:

- people
- service providers (the supply chain)
- materials
- funding and
- tools and equipment.[18]

Resource management covers physical assets but also the human resources and utilities that are consumed.[19] The aim of this activity is to:

- ensure that the organization responsible for managing the workplace has the right number of suitably trained and motivated people to deliver the workplace and services
- ensure that the most effective management techniques are deployed so that the facilities service provision team responsible for the workplace are inspired to deliver excellence in customer service
- make resource allocation decisions based on evidence of actual consumption of goods, services, space, systems, and other products
- enable short and medium-term changes in demand to be balanced against available capacity in the most cost effective and productive manner and
- enable the effective and sustainable use of the facilities.

To manage such resources the facility manager should:

- ensure the right number of suitably trained and motivated people are available at the right time and in the right place to deliver the services
- assess demand levels in terms of quantity and quality and
- understand the logistics of moving personnel and materials to the point of delivery.

The facility manager should therefore assess:

- the number of people required to provide the services based on the maximum potential volume contribution of each member of personnel
- the distribution of those people around the facility
- the special skills and competences required
- selection, management and training of the right people
- what certifications and operating licences are required
- how people will be supervised
- what funding will be required for the requested services, in terms of the cost of each unit component of the service delivered
- what funding is available
- if the funding is adequate to address both the operating and long-term needs of the facility and/or address the FM service plan
- what the distribution of funding is, i.e. salaries to materials and other non-salary expenses
- what equipment will be required to deliver the services
- the source of special equipment that is not normally on hand and
- any special training and/or safety precautions required for equipment or tools.[20]

A significant element of FM is the supervision of these resources and services to ensure that the services delivered comply in terms of timing, cost and quality with the intended results. An effective supervisory regime requires that the facility manager should:

- understand the effective span of control of supervisory personnel, considering:
  - location of the activities
  - timing of delivery
  - nature of the work
  - nature of the end users
  - the skills and experience required to provide meaningful control over skilled delivery personnel

- establish clear reporting lines
- communicate expectations of service quality and timing clearly to all involved
- delegate authority for control and data reporting to supervisors
- delegate as much problem solving authority as is practical (given their training and personal skills) to the staff delivering the services, in order to speed the resolution of any service issues.

4.3.4 Service resilience

All services are prone to fluctuations in demand levels, in addition to the risk of emergency events of various types. The general rule for resourcing is to provide a core capacity sufficient to meet routine predicted demand and to call in additional resources at short notice if demand rises. However, such an approach fails to take account of customer requirements and ignores the need to assess risk scenarios which might affect a specific situation.

FM service capacity therefore needs to involve a more structured approach to routine capacity planning and to emergency response. The key solutions are:

- undertake a rigorous risk analysis for each service
- ensuring that the mobilisation times for the provision of additional resources and the means of procuring such resources are understood and
- ensure that the DO and any other relevant stakeholders understand and accept these mobilisation times and methods.

Creating resilience has cost impacts which range from short term to long term:

- multi-skilling staff to create additional capabilities
- carrying stocks of spares and consumables on site
- call-off contracts with third party suppliers for staff, materials, services or premises
- investing in electricity generators on site with specified redundancy capacity and
- establishing fully functional, fitted out, office space off-site as emergency back-up.

4.4 Technology

Information technology is a fast-moving aspect of FM, with extensive improvements in the integration of systems and cross-functionality. It has a huge impact on customers, and that is probably more important than looking inwards on the technology tools used within FM. As the ways in which customers' work changes – in terms of time, place, support needs and expectations – FM should not only respond to, but predict how opportunities will develop. Facility managers should be leading in understanding these impacts and developing appropriate options for customers to be more productive in their work.

4.4.1 Asset management

Among its other functions, FM provides the mechanism by which the longer term aims of an organization's asset management and property life-cycle plans are delivered for built assets. Such plans may have 25–30 year horizons and FM needs to match these with its own planning and reporting. Facility managers should ensure that the FM function has in place systems to maintain the accurate and up to date property data and life cycle cost data which are required to support business case development, investment and divestment decision-making, funding agreements, strategy development and corporate resource planning.

Life cycle planning is discussed in depth in the RICS guidance note Life cycle costing, 1st edition, available from **rics.org**.

Asset data storage systems now store not only basic numeric data – floor areas, locations, lease dates, valuations and so on – but interact with other systems to maintain real-time information. CAFM, IWMS and CMMS systems are increasingly integrated through the Internet of Things (IoT) to create not only data storage but real-time management capabilities through interaction with BMS and locally enabled systems.

At a sub-building asset level, data on installed plant and equipment, fixtures and fittings, systems and infrastructure can be stored and maintained down to components. This enables facility managers to have more foresight of maintenance needs, predict the impact of design changes, assess costs, and thereby contribute to the option modelling and planning of workplaces and facilities of all kinds.

4.4.2 Computer Aided Facility Management (CAFM)

CAFM is an umbrella term for systems which take detailed asset information relating to space, fabric and installed infrastructure as a basis for planning and controlling FM activity. Most CAFM systems are modular and generally include:

- **asset information** – item type, location, make, model, serial number, installation date, maintenance history, expected lifecycle, technical specifications and (usually), which system they form part of
- **maintenance management** – safety information, suppliers' maintenance instructions, permits to work, method statements, safety procedures, site access protocols
- **helpdesk/service desk** – for handling fault reports, issuing work orders, predicting repair costs, reporting completion or delays
- **inventory control** – for parts, spares and consumables
- **financial controls** – comparing invoices with work orders, preparing and issuing invoices to customers and checking and approving supplier invoices for payment, often linking into corporate finance systems
- **CAD drawings, usually imported from a separate CAD system** – space and infrastructure, including reflected ceiling plans, desk and floor layouts, ducting and so on and
- **mobile logistics management** – for mobile staff, issuing work orders to smart phones or PDA's, ensuring skills, tools and materials required are all available; tracking engineer movement and arrival on site, completion times, etc., and linking back to charging and estimating modules.

4.4.3 Building automation/Internet of Things

Building Management Systems (BMS) have provided monitoring and control of infrastructure systems (heating, power, air handling, etc.) for many years, allowing for programmed and real-time management, compilation of usage data and fault or exception reporting. 'Smart' energy metering has also been commonplace.

As BMS have become almost exclusively digital, this has allowed other sensors to be monitored: fire and smoke alarms, intruder alarms and CCTV, for example. Many organizations can now use security access cards to track staff movement, and the rapid spread of fibre optic data cabling has allowed almost all these systems to be monitored and controlled away from the location, providing a step change in security, maintenance, usage management and safety.

New capabilities are now emerging with a range of very small and relatively cheap sensors which can be applied to non-mechanical and non-technical monitoring. Examples include CO_2 monitors, heat and movement detectors, pressure sensors and so on. Such sensors can be used not only to provide data on how customers occupy and use the space, but to radically change the ways in which services are delivered to customers through activity triggered service supply, rather than relying on time-based scheduling.

4.4.4 Building Information Modelling (BIM)

Building information modelling is intended to get people and information working together effectively and efficiently through defined processes and technology.[21]

BIM was brought to wide industry attention in the UK Government Construction Strategy, published in 2011. Since then the RICS BIM Task Group has been developing standards and requirements to enable BIM adoption.

4.4.4.1 Defining BIM

Adopting a BIM approach can bring predictability to a project, not just around capital delivery but operation too. BIM can also save both money and carbon by cutting out wasteful processes/activities and making more informed decisions at the right time.

The principles of Level 2 BIM are set out in PAS 1192-2:2013 (Specification for information management for the capital/delivery phase of construction projects using building information modelling).

As well as providing project information in familiar document formats (schedules, emails, drawings, certificates, etc.), Level 2 BIM identifies that some information will be expressed in digital object based models. Where models are developed, the information within them needs to be logical, visible and available for analysis and use by the project team.

Level 2 BIM effectively promotes sharing, analysis and reuse of information. The models offer a better visual representation of design/construction and can therefore be used to help inform decision making. Software can be used to lay multiple models on top of one another to see how they fit together; a process that allows object clashes to be identified and managed.

An important principle of Level 2 BIM is that as a project progresses and information grows, it moves from information fit for design, to information fit for construction and then to information that represents what has been constructed. It is at this point that BIM begins to have potential relevance for facility managers.

An output of Level 2 BIM is therefore an accurate record of project information, which can be used to support the built asset in operation.

4.4.4.2 Managing BIM

Models are essentially another information source. Level 2 BIM therefore needs governance and direction via a few primary documents, namely:

- The Employer's Information Requirements (produced by/on behalf of the employer).
- The BIM Execution Plan (produced by the project team).

BIM requirements can be contractually captured via the BIM protocol.

4.4.4.3 Thinking about technology

In construction, a lot of data and information is generated in design. Object based design models will hold certain data about objects (e.g. the dimensions of a door) plus information (the door manufacturer and door model).

As well as being visible in the software used to create a model, the data and information (collectively called 'information') can be viewed by opening a model using other software. There are several 'viewers' which are free to use and will offer some functionality. Equally, there are programs developed to support specific activities which may have a cost attached to them.

4.4.4.4 The benefits of technology

BIM technology comes in various forms. Collectively it offers several benefits by:

- enabling managed access to information
- providing the platform to create virtual models
- allowing manoeuvrability around models to better understand the environment
- the ability to test the models and manage risk around proposals and
- creating the means to analyse, extract and interrogate information.

Technology supports the transition of information, which opens the doors for automation. However, the robustness and usefulness of automated information is entirely dependent upon the quality and accuracy of information at the point of origin, plus the originators understanding of what the information will be used for. This is one of the reasons why BIM needs to be managed.

Information will also be transferred by other means (not just models); it will grow in detail and accuracy during the design/construction process. While some information may be automated, it is unlikely that facility managers will get all the information they need via automation.

Ultimately software will support and enable but it will not completely 'do' – facility managers need to look at the value they offer in service delivery to see how they can be both efficient and effective.

Before committing to any specific software, it is important to understand what it is intended to do and how it needs to integrate with other software that might already be running.

4.4.4.5 BIM for small and medium-sized businesses

Thinking about people, information, processes and technology, BIM is for everyone – it is not biased towards organization size or function.

In looking at how BIM might be adopted within an organization, facility managers should consider the information they receive, what they do with it, plus the information they generate; its purpose and the format it is delivered in. Think about reducing duplication, effort and risk in these processes, not just within the organization but within the project team environment.

Consider also how to articulate these processes, since on the supply/service side this will become the BIM execution plan (BEP). Having a comprehensive BEP is important in demonstrating BIM awareness, capability and capacity. The BEP will be an essential ingredient for winning work; it should not be overcomplicated, it should be clear, concise and simple.

4.5 Cost planning and budgets

4.5.1 Cost management and reporting

Facility managers are responsible for controlling and reporting on costs as well as for predicting them. Managing within budget is essential for a support service, so plans for control and review of costs over the budget period should be in place and the related procedures followed.

The frequency of budget review is determined by:

- the criticality of the service and the value of the budget
- its scale relative to other costs
- its susceptibility to variability and control
- the amount of detail required by the DO
- FM organizational practice and
- personal preference.

Most organizations report at least monthly. Some services with a highly variable consumption and cost profile, like energy and catering, are reviewed weekly, with detailed data on usage kept for planning purposes. Regardless of scheduling, each period review provides the facility manager with important data. Periodically monitoring the budget helps to determine if allocated funds have been spent as specified.

Two routine comparisons should be used – actual expenditure against planned year-to-date spending and actual against previous year actual. For some goods and services, seasonal variations in expenditure patterns should be traced and an annual profile created which reflects those seasonal variations.

Minor deviations between the planned budget and actual expenditure are usual, since so much of the demand for services is triggered by customer requests. Nonetheless, facility managers should ensure that variations are analysed and, if warranted, appropriate adjustments made in forward spending, or changes to the budget requested from the DO.

4.5.2 Cost components of FM services

In management accounting terms, FM involves four types of cost:

- **Fixed** costs are those which cannot normally be changed in the short or medium term, such as cooling for data rooms, basic property security. Usually some significant change in the portfolio is required to have any impact on fixed costs.
- **Semi-variable** costs are those which relate to routine activities which are necessary for effective operations but which can be scaled down or deferred in the medium term under some circumstances. Planned maintenance, cleaning activity and utility usage are all examples of cost items which might be simplified but which have an impact on operational activity and service quality. Equally, semi-variable costs can rise incrementally as demand rises.
- **Variable** costs are those which are wholly driven by demand – for example, food and washroom consumables.
- **Capital** costs relate to expenditure on assets of significant cost which have an expected lifecycle of more than one accounting period (usually a year), so that the operational cost of the asset is in effect spread over the expected life-cycle through planned depreciation of its value.

There are several proprietary costing models, but there is no accepted FM industry standard cost structure, and most DOs do not provide the level of detail required for effective analysis or control of FM costs.

4.5.3 Estimating

4.5.3.1 Incremental budgeting[22]

Incremental budgeting extrapolates from historical data. Next year's budget is constructed by starting with the current year's budget as a baseline and then adjusting each line item for expected changes. These changes can include forecast inflation, planned changes in the property portfolio, changes in policy, expected changes in supply market costs, and so on.

4.5.3.2 Zero-based budgeting

In zero-based budgeting the continued existence of items needs to be justified both financially and operationally before they are included in the new budget.

4.5.3.3 Activity-based budgeting

An activity-based budget (ABB) includes the use of activity-based costs to make a clear connection between resource consumption and output. This allows managers to better understand how resource demands are affected by changes in activity.

4.5.4 Service charge budgeting

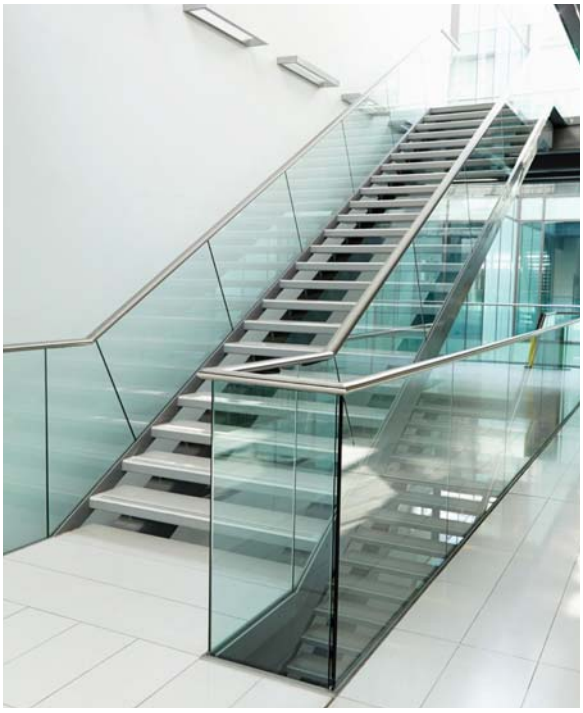
Facility managers should understand the fundamentals of service charge budgets, whether they represent a landlord, owner or occupier of property, since most organizations will either sub-let or rent some parts of their property portfolio at some point in time.

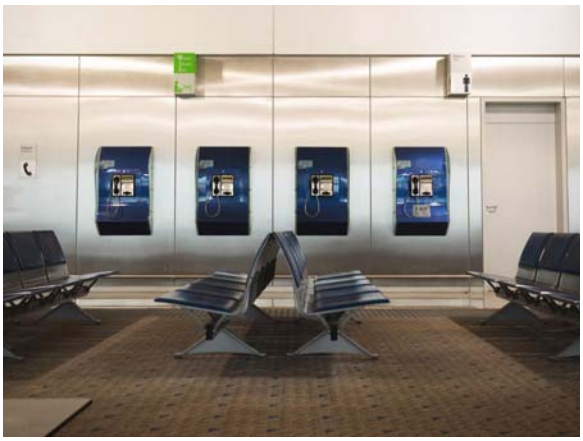
RICS provides detailed information on service charge management, including a Service charge code of practice for commercial property[23]. The principles are applicable in many jurisdictions, although the specific practice will vary from place to place. Facility managers should ensure they are familiar with local practice before entering any arrangement that involves the recovery or payment of costs through a service charge.

4.5.5 Cost benchmarking

Benchmarking costs against external or third party properties and operations can be very difficult. The European Standard (BS EN 15221-7) not only establishes a standard procedure for benchmarking financial and other operational data for facilities, but sets down some of the issues which confuse efforts to find suitable comparators. There are a multitude of variable factors which make the creation of meaningful benchmarks extremely difficult to achieve[24], and facility managers should be aware of these to avoid misunderstanding the validity of potential comparator data.

The simplest benchmarks to establish are against internal performance, whether against prior time periods or across a property portfolio. It is also arguable that internal benchmarks are more reliable, more appropriate to the activity under management and more useful when it comes to planning and making changes which might impact on costs and performance.





4.6 Supply chain contracting

Even where most service delivery is not outsourced, facility managers should deploy best practice in the selection of suppliers, the governance of supply chain relationships, the management of contracts and the performance management of supplied services.

RICS has produced a professional statement on the procurement of facilities management, which includes the following mandatory requirements for procurement practice carried out by members of RICS:

1. You **must** have a clearly defined, detailed scope of the services, defining what is and is not included
2. You **must** state clear objectives for the procurement project
3. You **must** develop evaluation criteria which reflect your objectives
4. You **must** have a clear pricing structure stating what services and costs are included and what is excluded
5. You **must** have clear timescales for the procurement process
6. You **must** provide a clear payment mechanism
7. You **must** comply with relevant data protection rules.

Even for regions and facility managers not governed by these professional requirements, it is recommended that the principles set out in the professional statement and guidance note on FM Procurement should be followed.

In addition, all procurement activity should comply with applicable laws and regulations relevant in the jurisdiction, as well as with International Ethics Standards. All prospective suppliers and their representatives should be treated fairly and impartially.

In undertaking any sourcing processes, the facility manager should seek to achieve:

- the development of open and honest relationships with all suppliers of services
- the alignment of services with the requirements of the organization and
- the encouragement of rapid responses to change and innovation in supply[25].

4.6.1 Contract documentation overview[26]

Any supply relationship which is repeated, regular, long term or valuable should be the subject of a formal legal contract. In some jurisdictions, this will be mandatory and there may be a standard contract format legally imposed by the government or state authorities. Where that is not the case, facility managers should ensure that issues triggering a requirement for a contract are agreed with the DO or their own purchasing organization; committed in writing, and communicated to all staff with purchasing authority.

These triggers may include:

- an agreement for supply which exceeds a specified duration
- an agreement for supply which is for more than a stated value (often this is an annualised value) and
- an agreement for regular but unspecified supply over an unspecified period.

4.6.2 Structure of a contract

It is good practice for a contract to contain the following elements.

4.6.2.1 Legal terms: General clauses

- Names, addresses and legal entity details (for corporations) of the parties to the contract.
- Date of the contract.
- Key dates:
  - start date of the service
  - full mobilisation completion date; and
  - end date of the contract.
- Preamble setting out the intentions of the parties under the contract.
- Definition of terms used within the contract.
- Listing of all related documents, for example:
  - conditions of agreement – general clauses
  - conditions of agreement – SLA specific clauses
  - technical documentation
  - employment agreements
  - inventory lists
  - bidding documents
  - guarantees and warranties
  - referenced technical standards and
  - pricing and variation pricing lists.
- Description of goods or services to be provided or a reference to an attached Annex containing a service specification.
- Details of the posts carrying out the key contract management roles of each party.
- Statement of the jurisdiction under which the contract is to be legally binding. This does not have to be the location where the supplier or the buyer is located. This may also include a reference to the language in which the binding document is written.
- Responsibility for taxation payments.
- Sub-contracting permissions or approval processes.
- Confidentiality provisions.
- Provisions in the event of unforeseen circumstances, including temporary suspension of services and payments, or contract termination.

- Dispute resolution.
- Communication and Information requirements (for example, financial reporting periods).
- Intellectual property, copyright, data ownership.
- Rights of access to premises and related licences for access.
- Insurance responsibilities of each party.
- Site equipment, facilities and support to be provided by the buyer to the provider.
- Asset replacement responsibilities.
- Interactions with third party organizations (for example, other contractors or subsidiaries of the buyer).
- Audit provisions.
- Incentive and penalty payment mechanisms.
- Responsibility for health, safety and environmental management and other corporate social responsibility activities.
- Variation mechanisms.
- Termination provisions, which might include:
  - contract expiry
  - extension options
  - termination for fault, bankruptcy, or sale of the provider
  - mutual termination.
- Mobilisation programme, milestones and costs.
- Demobilisation programme, responsibilities and costs.

4.6.2.2 Annexes

Service specifications: can be input, output or outcome based.

Service levels: The measurable service features which apply to each key element of the service specification, including any target key performance measures:

- pricing tables
- mobilisation and transition plan and
- bid documentation.

4.6.3 Procurement processes

'Procurement is the systematic process by which an organization reaches formal agreements for the purchase of the supply of goods and/or services. When dealing with members of a supply chain, the procurement process may be called supply management. The terms procurement and purchasing are sometimes erroneously interchanged. Purchasing is different; it refers to the specific buying activity or the placing of orders under the umbrella of a procured goods or service contract.' [27]

Facility managers should follow these general procurement principles:

- aim to achieve the best value for money on all procured goods and services
- reduce procurement process costs and ensure continuous improvement
- ensure that all procurement activity adheres to DO and FM organizational policies (such as sustainability, diversity, equality and employment issues)
- ensure that procurement is undertaken in accordance with high professional standards and ethics
- ensure that procurement activity is organised in an effective, structured way throughout the FM organization and
- develop management information and the use of performance measures to check the effectiveness of the process.

Each DO and FM provider will have their own specific processes, but in general facility managers undertaking procurement through a formal process should follow the models suggested in the guidance note on procurement, dependent on the value and duration of the contract and the importance of the service to the DO.

4.6.4 Supplier relationships and management

Supply chain management covers the whole life cycle of the supplier relationship. It includes:

- interpreting the FM strategy plan to decide whether to source goods and supplies internally or externally
- selection of suppliers (discussed previously)
- negotiation of contracts
- mobilisation of new suppliers
- management of the services and goods supplied under the contract
- monitoring of performance and
- where appropriate, the termination of contract.[29]

The aim is to align the suppliers' activities with the DO's objectives and customer experiences. This should recognise the volatility of the DO's business situation and the probability of the need for change in volume or nature of services.

Effective supply chain management aims for the development of open, mature and honest relationships with all suppliers to achieve that alignment, facilitate innovation and ensure the avoidance of a 'silo' mentality.

Facility managers should ensure that the FM policy and related procedures cover all aspects of the services needed, requiring that:

- policies are agreed with teams responsible for corporate real estate, procurement, human resource and finance
- all relevant internal stakeholders are engaged in supplier selection and
- suppliers are aware of the DO's core principles and business operating processes (commercial confidentiality allowing) and fully understand their role in ensuring the achievement of the DO's objectives.

4.6.5 Supplier delivery supervision and monitoring[32]

To assess compliance with contract performance provisions, common criteria include the monitoring of items such as:

- actual progress against work schedules
- fulfilment of time frames and adherence to milestones
- fulfilment of quality and quantity objectives
- conformance to specifications
- conformance to baseline operational performance metrics
- conformance to service/quality levels outlined within the contract and
- conformance to standards.

Ways to obtain vendor performance information vary but may include any combination of:

- inspections
- observations
- solicited feedback (e.g., customer satisfaction surveys)
- unsolicited feedback from end users (e.g., complaints or suggestions)
- work management centre call reports (if services provided have call centre support)
- vendor reports
- tests
- audits and
- regularly scheduled vendor meetings.

Cost monitoring should be an integral element of performance monitoring. Monitoring of contract expenditures includes activities such as:

- ensuring that there are sufficient funds to pay for all services rendered as required by contract
- ensuring that invoices are paid consistent with the most favourable contract payment terms
- identifying low spending levels and reassignment of funds, if appropriate
- ensuring that vendor payments are commensurate with the level of goods and services received and
- reviewing vendor invoices and following the organizational and departmental standard procedures for processing vendor payments.

4.7 Customer relationships

4.7.1 Purpose

Customer relationship management (CRM) entails ensuring, as far as possible, that facility managers provide the most effective services for customers by seeking feedback on those services and on customers' plans. It is therefore 'concerned with the development and maintenance of effective relationships with internal … consumers to gain an intimate knowledge of future plans, demand for the workplace and the proactive evolution of the workplace experience to deliver greater value at an economic cost.'[33]

CRM aims to:

- create and maintain trust and effective relationships with customers
- gain an intimate understanding of organizational operational units and their likely demand for support services
- assess and predict organizational and operational changes and plan for their impact
- develop a deep understanding of the specific needs of each operational activity and work group, to be able to undertake the design and implementation of changes in the facilities which improve the user experience and, where appropriate, the productivity of individuals and workgroups
- understand and assess short and medium-term pressures which affect the requirement for support services, materials and resources and
- ensure effective communication on all these issues.

4.7.2 Communication

Effective communication with stakeholders is key to the success of FM. It allows facility managers to demonstrate the contribution made to the organizational objectives, ensures that the FM function receives feedback on its successes and failures, and enables assessment of the future needs, trends, activities and plans of the DO and its work teams.

Communication is made more difficult by the wide scope of services, variety of locations and range of interested parties to be engaged, therefore facility managers are advised to plan their communications with great care.

4.7.3 Communicating to stakeholders

For outbound communication with stakeholders, a communication plan should focus on explaining how the services delivered are aligned with the DO's objectives, and how successful that has been. Facility managers should ensure that information communicated is accurate, timely, complete and comprehensible to non-specialists.

The type and frequency of information which is appropriate to communicate varies due to several factors, as discussed in ISO41001:[34]

- the purpose of the communication
- the urgency of the message content
- who the communication is from
- who is delivering the communication
- who is receiving the communication (including their ability to understand technical detail and/or to act on the communication)
- actions expected from the recipients once they have received the message
- technical information needs and competences of the recipients and
- the ability of recipients to access more in-depth information in addition to that contained in the communication.

4.7.4 Customer and stakeholder feedback

Feedback from customers and other stakeholders is equally important, since in one way or another their needs are all dependent on FM services. It is commonly accepted that feedback on poor performance tends to be made spontaneously, but such feedback is from self-selecting sources and does not provide a rounded overview of performance, nor guarantee that all dissatisfied parties have had a chance to contribute.

Facility managers should create a more structured approach to stakeholder feedback which involves actively seeking views. The following aspects are key:

- promoting channels for positive as well as negative feedback
- ensuring all stakeholder groups and individuals can provide feedback
- planning for scheduled periodic reviews to provide a meaningful comparison of performance and
- comparing customer views with performance measurement from the FM team and with the service specifications or agreed service levels.

5.0 Information management

5.1 Documentation and records management

There are countless requirements for records and documents to be maintained relating to the operation of facilities. These include statutory and regulatory documents, operating licences, financial and contractual records, safety records, employment and safeguarding, and so on. There is no definitive list or guide, and for many organizations there are documentation requirements which pertain specifically to their industrial sector.

However, because FM deals with so many aspects of property operations and services, facility managers should:

- maintain a schedule of documentation requirements specific to each facility under their control
- maintain a record of where all such documentation is kept, who else requires it, and how often it should be reviewed or renewed
- create a system to ensure that records are stored, up-to-date and accessible to any stakeholder as required and
- manage the system to ensure compliance with the relevant requirements.

5.2 Performance measurement

The aim of performance measurement is to 'enable the delivery of effective workplaces at an economical cost. It is also associated with setting up processes and mechanisms to ensure improvements in service.'[35]

A focused approach to the design of performance measurement systems is required so that clear, relevant performance measures can be set for FM. Unless this is done, much effort can be wasted in data collection, analysis and reporting of non-essential measures that do not address the needs of either the DO or the FM organization.

The most important element is the use of data to enable the engagement of all parties (the business, suppliers, staff, occupants and customers) in innovating to achieve desired outcomes. This includes the communication of performance measures and their results, which become a major tool to aligning all stakeholders' interests.[36]

As with financial coding and benchmarks, there are no industry standard performance measures. Therefore, facility managers should ensure that they create means of assessing performance which are:

- related to the strategic objectives
- practical regarding data gathering and comparison
- cost effective to measure
- meaningful for customers, stakeholders and/or technical specialists and
- usable for corrective action or to undertake improvement planning.

Performance metrics should be shared openly across the FM organization, the supply chain and the DO for reporting on progress, analysing weaknesses and agreeing remedial actions. Facility managers should ensure that all parties treat performance data as a source of feedback which will 'enable continuous improvement in services and … workplace design.'[37]

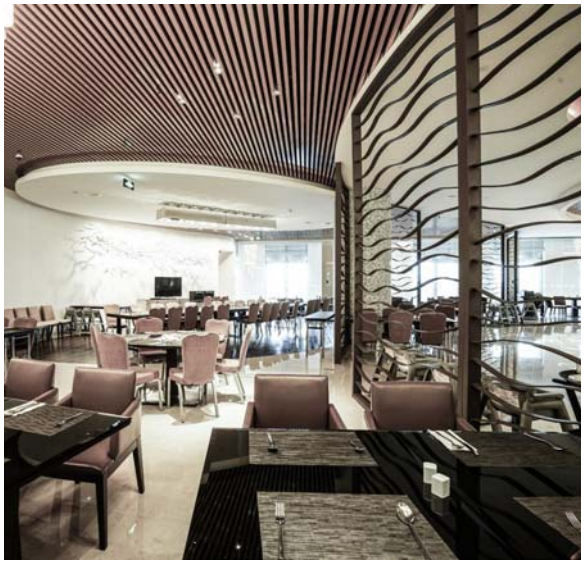
To establish manageable and meaningful reporting on performance of the services, facility managers should carefully select which data they will routinely monitor and report on, and which will be kept for possible future use, for example in project planning or change management review.

To do this, facility managers should ask:

- What are the performance measures in general terms?
- How will overall FM service performance be assessed?
- What are the specific measures to be monitored for each service?
- What data will be gathered?
- How will the data be gathered?
- How will the data be stored and recovered for analysis?
- Who will analyse the data?
- Who will use the resulting reports?[38]

Once these issues are understood, the facility manager should select means of data gathering which are relevant, timely and cost effective. Here they should ask:

- What data is needed to assess the services?
- What is the scale of the facility (for example, this may be stated in terms of area, height, or other quantitative size information, or description of the uses of the facilities)?
- Whether there are specific components or services in the facility that should be monitored?
- What are the reporting requirements to customers, the DO, or other interested parties?
- Is there any information that should remain confidential internally?



6.0 Development

6.1 Change management

Because facilities services should be responsive and agile over time, an understanding of management of change is key to long term success for FM. Facility managers should adopt good practice in identifying opportunities for change, and in promoting, managing and reviewing the impact of changes in the services and support provided to the DO and its customers.

Facility managers should lead change within their area of responsibility (as they should with introducing innovation).

Facility managers should be able to:

- 'formulate strategies and processes needed to make effective changes to locations, space, technologies, systems, processes, behaviours or services to improve the effectiveness of the organisation
- manage technically, behaviourally and politically complex change programmes
- put in place arrangements that will ensure the changes implemented are maintained and evolve.'[39]

6.2 Innovation: Improving and developing good practice

Innovation can involve either creating a wholly new solution or adapting and adopting solutions which have been created elsewhere to another situation. Facility managers are responsible for innovation in their properties, and should be aware of developments within their sector, in the industry at large, and in associated disciplines like surveying, architecture, design, finance and general management, to be able to apply new solutions to the properties and services under their control.

It is important to:

- maintain forms of continual professional development appropriate to their industry sector
- keep up-to-date with development across FM and related professions and
- attend networking events, conferences and seminars to hear about developing practice.

The aim of such activity is to develop improved services which are increasingly aligned with customer needs, and to create within the whole FM team, including the supply chain, a culture of innovation which is relevant to improving the effectiveness of services in the short and longer term.

Innovation does not usually happen spontaneously. It requires processes in place to identify and resolve failures in services.

'The aim of innovation and improvement is:

- To ensure failures in workplace environments and services … are dealt with swiftly and economically.
- To create processes that … systematically engage all people involved in the delivery of services to capture, develop and implement innovations….
- To make sure that lessons are learned and remedial actions taken to eliminate the root causes of failure.

To ensure that learning [is] captured and lessons used in subsequent design, specification, training or delivery of the workplace.'[40]

6.3 Business continuity/ risk management/disaster recovery

Maintaining a functioning facility at all times is a key requirement of FM, therefore the effective management of risk and of risk events should be incorporated in any FM strategic plan. It is essential to achieving operational continuity for the DO.

There is a substantial body of knowledge relating to risk management, business continuity and disaster recovery, including ISO 31000, as well as significant detail contained within ISO 41001. This section provides an overall summary of good practice and how it applies specifically to FM.

6.3.1 Risk management

Risk management is concerned with the best practices in assessing and managing risks. These can include disaster, but also the risks inherent in routine operational FM – physical security, data security, health and safety, and environment management, for example. The aims of risk management are:

- to assess the risk of operational failure in relation to the strategic success of the business and to agree the appetite for risk
- to reduce the likelihood of security incidents, failures in projects, services and the workplace and
- to reduce the impact of any of these aspects upon the business, its reputation and its people.

This last point is covered more fully in 6.3.2 Business continuity and 6.3.3 Disaster recovery.

Risks may include issues which are:

- technical
- financial
- environmental
- social
- political
- commercial
- reputational or
- organizational.

The precise evaluation of risk is specific to each organization and location and requires a collaborative effort and (often) the contribution of experts in relevant aspects of the activity, including from the DO and the supply chain. Although generic risk management plans may be useful as a starting point for analysis, facility managers should ensure that risks are re-evaluated for each site and, at the very least, the generic assumptions are validated.

Facility managers should have a planned response to any eventuality which is proportionate to the impact of an event and the total cost implications, accounting for both the cost of responding and the cost of any damage. 'Damage' in this context can also include reputational damage to the DO and to the FM operator.

In overview, facility managers should ensure that the risk management process is a regular undertaking, dependent on the DO policy and any significant changes to operations or external circumstances which might affect the risk profile. The process is usually as follows:

- determine what risk exists
- assess the likelihood of that risk event occurring
- assess the potential impact (consequences) of that risk
- identify and undertake actions to reduce the likelihood
- identify and take actions to reduce the impact
- assess the acceptability to the DO of any residual risk
- assess any possible early warning criteria that might trigger a pre-emptive response and
- plan for action in the event of the risk occurring.

These actions cover the main aspects of prevention, mitigation and recovery.

6.3.2 Business continuity

Business continuity refers to the operational phase after a disaster plan has been invoked, during which the business should continue its core functions but prior to re-instatement of 'business as usual' activities. This aspect of planning shows how important it is for facility managers to understand fully the nature of the DO's primary activities, its support functions and its interdependencies.

As with risk evaluation, the unique nature of each location and of differing business activities, as well as the differing financial resources of DOs, means that plans to ensure the continuing functions of the DO's core business cannot be generic. The key principles of managing business continuity are:

- having in place a thorough and well understood business continuity plan (BCP)
- understanding which criteria should trigger which aspects of the BCP
- understanding (and agreeing with the DO) which functions of the DO operations can be suspended during an invocation and which should continue; what the priorities and timescales for recovery are, how long the DO can operate before its non-core functions are available, and when those will be required
- ensuring that appropriate resources, including staff trained in implementing the BCP and the supply chain, are available to respond within the planned timescales
- putting in place contracts for facilities staff and for supply of goods and services which allow staff and suppliers to be stood down without either incurring unnecessary cost or resulting in those resources not being available when business as usual resumes
- documenting the BCP and communicating it to everyone affected by it and
- holding practice invocations, which may be desk-top or full scale, to test the robustness of the plans and learn from them.

6.3.3 Disaster recovery

As the impact from risk can range from the inconvenient to the catastrophic, disaster recovery planning is one of the elements least suitable for generic planning. Although there may be contingency plans and options available, knowing which is the most appropriate is likely to be dependent on the severity and duration of the risk event.

In general, the key features of disaster recovery also depend on the DO being able to fund recovery. This will often involve insurance assessments and can be time consuming and long-term. Facility managers should ensure that they have:

- prepared plans to restore services to full operation quickly where property can be reoccupied
- identified or engaged relevant building trades and infrastructure suppliers who can reinstall damaged property and services
- understood the sequence in which DO operations need to be recovered and reinstated and
- communicated everything to all parties involved in the recovery process.

6.3.4 Learning from risk events

Because risk events with severe impacts are relatively unusual, facility managers should take every opportunity to learn from them.

Since risk management does not, in most sectors, constitute a competitive advantage, sharing experience with facility managers in competitor organizations can significantly improve risk management practice. Of course, this should always be done in liaison with the DO's internal risk planning functions.

Learning opportunities also arise from practice invocations and from experience in other sectors, and good practice tends to be shared and disseminated through specialist risk management forums. Government bodies also offer learning opportunities, particularly through liaison with the security and emergency services on current and emerging risks.

Finally, facility managers should always hold post-event reviews with their staff, suppliers and customers to identify lessons learned.

6.4 Health, safety and environmental management

Facility managers are responsible for many of the practical controls which impact on the health and safety and environment (HS&E) of buildings' users, suppliers' staff, visitors and adjacent occupiers. They control dangerous activities, access to physically dangerous areas, chemicals and operational machinery as well as less obvious risk areas, with long term effects including air quality, lighting and ergonomic design, hygiene risks in food and drink supply, toilet cleaning and so on. They also control or have a strong influence on many activities which affect the environmental impact of the overall premises' operation, including energy usage, waste disposal, horticulture, water usage and sewage, and pest control, etc.

The diversity of these risks and the prevalence of out-sourced specialisms in, for example, elevator maintenance and water hygiene, provides a considerable challenge to facility managers. Facility managers should strive to ensure not only legal compliance but the achievement of a low (or zero) incidence of breaches. To manage these risks, they should:

- maintain an awareness of all current regulation, statute and codes of practice, through a combination of CPD and subscription to specialist H&S digests
- liaise regularly with the DO's HS&E team to ensure that current risks in the core business activities are considered, and that any changes to legislation or good practice in the DO sector are incorporated into FM practice and plans
- ensure that there are formal HS&E policies and procedures in place, and that these are monitored
- ensure that all staff and suppliers are fully trained in the relevant H&S aspects of their work before starting to carry out work on site and
- maintain and make readily accessible a thorough record of all H&SE activity, including licences, audits, maintenance work, testing, risk assessments, method statements, access permits, etc.

6.5 Quality management

Facility managers are advised to develop the structured approach from the FM strategy into a delivery plan. To this end, the application of either the ISO9001 Quality Management standard or, more pertinently, the ISO41001 Facility Management systems standard would be valuable to facility managers.

While the costs of fully implementing this approach may only be justified for larger operations, the underlying principles of ISO41001 and the guidance set out in the Annex to that standard are likely to be helpful to practising facility managers in formulating operational plans. Although ISO41001 is a standard aimed at facility management organizations not individual facility managers, it would be good practice for facility managers to be familiar with it and utilise those elements of it which are appropriate to their operation.

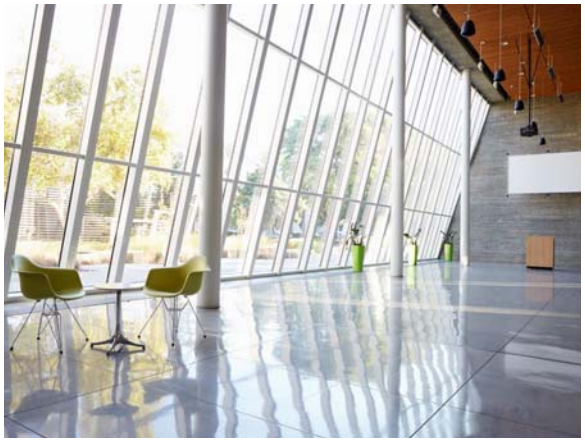
6.6 Behavioural management

One aspect of the workplace which is often overlooked is behavioural management. Facility managers tend to focus on the built environment and on support services, but in terms of producing high performing workplaces, the disciplines of organizational psychology, workplace psychology, and design all play a part in how productive building users are. Bringing together these skills in support of the workplace is a key role of the facility manager. The overall responsibility for design of services and workspaces that support all organizational activities ought to be the facility manager's.

Evidence for the impact of design on productivity can be found through the Leesman Index (**leesmanindex.com**) and is the subject of the Stoddart review (**stoddartreview.com**). Retail design in shopping malls and supermarkets probably leads the way in the use of design to influence occupier behaviour, but the underlying principles can be applied to more traditional workplaces as well.

For many organizations, success requires high performance from all their staff and supporting contractors and providing great facilities and workplace experiences is critical to this.

Facility managers should be familiar with these issues, and seek to influence design whenever the opportunity arises. They should stimulate such initiatives and lead on them, but at the very least facility managers should be engaged in the design process, providing informed insight into the practicality and impact of designs.



7.0 Projects

In this instance, 'projects' is intended to include any activity which is non-routine but still falls within the regular FM scope of activities. Although 'projects' are normally considered to be confined to construction related activity, facility managers will engage with a range of activities which are outside the scope of routine business as usual and meet the definition of a project:

'a temporary endeavour undertaken to create a unique product, service or result' [41]

The key features of a project which make it distinct from routine management are that it is:

- a planned set of interrelated tasks
- to be executed over a fixed period and
- within certain cost and other limitations.

7.1 Project management principles

Facility managers participating in or leading a project team need to understand the essential principles of the project management discipline.

Before it can begin work, a project requires justification through an approved business case, an effective governance structure, a financial control and reporting capability, and a change management plan, including stakeholder communication.

It is not enough to undertake the project: it should also be completed on time and within budget, and reported on to the key stakeholders. It is also good practice to undertake a post project review.

Facility managers who act as project managers should therefore be able to:

- ensure processes and tools are in place to ensure the effective capture of programme needs and requirements,
- ensure the appropriate processes, data flows and resources are in place to enable effective delivery of projects and
- ensure suitably skilled resources are maintained to ensure the effective management of projects.[42]

It should be noted that construction projects usually require compliance with the Construction Design and Management Regulations 2015.

7.2 Good practice

Facility managers should be aware of the various sources of advice on how to undertake an effective project.

ISO 41001[43] states that project management involves:

- 'treatment as a distinct skill set and discipline where personnel are trained and developed specifically to manage complex projects
- documented procedures to be used throughout the project lifecycle
- planning and managing and the use of software, processes and systems …
- routine [planned] risk assessments … during the project
- scheduled and regular routine reporting against plan
- an effective change control procedure
- a project/program governance structure … to agree changes …
- a selection process for the supply chain which … engages identified interested parties
- up-to-date service delivery plans for the supply of services to the workplace
- compliance with documented supplier selection processes …
- … a culture that encourages innovation and the flexibility to respond to business change
- scheduled review of … performance … with … independent audit
- development of appropriate styles of relationship with suppliers …
- use of vendor management ICT/IT systems …
- anticipated event forecasts (e.g. weather events, flooding)
- incorporating the outcome of service improvement reviews.'

Undertaking the role of project manager[44] is not something that should be taken on without careful consideration and some prior training and experience. Larger projects generally benefit from the leadership of an experienced specialist project manager, often someone with Prince2® certification.

Guidance can also be obtained from the RICS guidance note, *Appointing a project manager*, 1st edition, 2013, available from **rics.org**.

7.3 Design involvement

7.3.1 Property construction and handover

To create and maintain effective facilities, facility managers should be involved fully in the design, construction and handover of buildings. The UK public sector's implementation of the 'Soft Landings' approach to handover is helping other professional disciplines to engage with FM from the earliest stages of design and construction. This provides a structured process around FM input to concept design, monitoring design changes, undertaking design reviews, planning, commissioning and handover of premises and ensuring a smooth transition from construction to operational occupancy.

7.3.2 Workplace design

Facility managers are not designers, but the facility they provide needs to do more than simply provide a workspace for each building user. Most office based workers carry out a range of activities, which implies that they require more than one type of workspace to be effective. Changes in technology and working styles mean that staff do not require their own personal workstation or even general location as in the past, and may carry out some types of work in locations away from their nominal workplace.

Facility managers have several roles in the provision of suitable workplaces:

- understanding the evolving ways in which people prefer to work, which may include using 'big data', IoT and other techniques to asses real-time working patterns
- understanding the impact of technology on work styles, times and locations
- providing the right balance of different workspaces within the premises they control
- providing advice and support on the impacts of working from home and on mobile working outside the office and home environments and
- liaising with the DO to ensure that corporate HR and security policies are aligned with developing new ways of working.

Facility managers should be able to:

- liaise with designers to create suitable workplace solutions which are flexible, usable and robust
- understand and interpret data on workplace use
- understand technology solutions and how staff use them or could use them and
- develop and support new solutions which enhance the productivity of the organization.

7.4 Internal moves/external relocation projects

The Workplace Management Framework provides a good overview of moves and relocation projects, and facility managers are advised to refer to this before considering the first stages in project planning:

'Workplace projects range from small moves and changes involving little risk to the business to large relocations, new builds across multiple geographic domains. In these latter cases a high degree of individual project management skill and experience is needed as well as organisational capability to support and provide governance across the many stakeholders involved. For large organisations, the role of the project management may involve a high degree of programme management and being able to cope with cultural differences as well as the political sensitivities.' [45]

7.5 CRE and property reviews

Corporate real estate (CRE) management is an activity with a strong strategic relationship with FM and Asset Management, dealing primarily with property acquisition and disposal on behalf of organizations.

Facility managers should work to ensure that their ability to contribute to CRE decision-making is valuable, professional, positive and understood by the executive management of the DO. This is a significant area where FM can add value to an organization through insight and understanding, and it is important that facility managers make sure that this is appreciated by the executive team and their CRE advisers, whether they are internal or external to the organization.

Facility managers should be able to:

- 'Articulate and interpret the role of CRE and FM in the overall competitive strategy of the organisation in the context of when, where, what type and on what terms real estate services will be demanded.
- Critically consider the aims of the corporate real estate and facilities manager in managing the property of an organisation.
- Recognise and analyse the various factors that influence the choice of a property for the business to occupy and the nature of the tenure.
- Critically evaluate the issues in acquiring and disposing of operational property.
- Use whole life economics as the basis for informed decision-making in the property lifecycle.
- Demonstrate a critical understanding of the vital role that management of facilities has for improved sustainability performance.
- Recognise the impact of the workplace on organisational productivity.
- Critically evaluate the effectiveness of alternative workplace strategies in meeting the requirements of the changing world of work.[46]

RICS offers a certificate in corporate Real Estate and Facilities Management: **rics.org/uk/training-events/e-learning/distance-learning/certificate-in-corporate-real-estate-and-facility-management/online/**

8.0 Appendices

Appendix A: Endnotes

1 © IFMA: Strategy and Leadership module, Facility Management Professional (FMP) course, 2010

2 Derived from ISO41001 Annex A 4.1

3 Workplace Management Framework (WMF), Advance Workplace Associates 2017, p12

4 WMF pp12-13

5 Derived from ISO41001 Annex A 4.2.1

6 Derived from ISO41001 Annex A 5.2

7 See ISO41001 Annex A 4.2.4

8 Derived from ISO41001 Annex A 6.1

9 See also ISO 31000

10 See ISO 22

11 RICS Senior Professional Assessment Guidance for Applicants August 2015

12 IFMA, Strategy and Leadership, FMP. Ibid

13 BS8210:2012 Clause 4.3

14 BS8210:2012 s A4.1

15 Not to be confused with the brands of its products.

16 From ISO41001 Annex A 8.1

17 WMF, p35

18 Derived from ISO41001 Annex A 7.1

19 WMF s12, p37

20 Derived from ISO41001 Annex A 7.1

21 Adapted from http://www.rics.org/uk/knowledge/glossary/bim-intro/

22 IFMA FMP Finance and Leadership module (2010)

23 Service charges in commercial property, 3rd edition, 2014. The updated, 4th edition, is due to be published in 2018.

24 See BS EN 15221-7 Facility Management: Guidelines for Performance Benchmarking: Annex H

25 WMF, p14

26 See ISO41012 Annex C

27 IFMA 'Finance and Business' module, FMP, Chapter 3

28 IFMA Finance and Business ibid.

29 Adapted from WMF, Chapter 10

30 Adapted from IFMA Finance and Business module, ibid, p198

31 http://www.rics.org/uk/knowledge/professional-guidance/guidance-notes/mediation-1st-edition/

32 IFMA FMP Finance and Business module

33 WMF, p13

34 ISO41001, ibid, Annex A7.4

35 WMF, p13

36 WMF, p29

37 WMF, p14

38 ISO41001, Annex A 7.1

39 WMF, p39

40 WMF p15

41 Project Management Institute: https://www.pmi.org/about/learn-about-pmi/what-is-project-management

42 WMF, p48

43 ISO41001, Annex A 8.1

44 See also: ISO21500:2012 which provides guidance on project management

45 WMF, p48

46 These are the stated outcomes of the RICS certificate in CRE and FM.

Appendix B: Sources of further information

ISO 41001: management system standard for Facility Management

This standard, published in April 2018, provides a quality framework for organizations working in the FM discipline.

ISO 41011: Vocabulary

This standard was published in April 2017. It provides a common vocabulary for facility management, with a wide range of definitions which should be commonly understood globally.

ISO 41012: Guidance on strategic sourcing and agreements

This standard was published in April 2017. It provides a framework within which facility managers can understand the needs of a DO, express those needs as requirements and service outcomes, and select the most appropriate means of providing those outcomes. It also therefore includes indicative guidance on outsourcing decisions and the content of internal and external service agreements, but not on the procurement process.

Workplace Management Framework

This document was published in 2015. It is freely available for download from **wmframework.com**

While the content of the Framework is not endorsed by RICS, it does contain some very helpful concepts, many of which have been adapted for use in this guidance.

IFMA Credentials Body of Knowledge

This content is not publicly available. However, it results from a Global Job Task Analysis carried out by IFMA during 2016 which has resulted in the identification of the key component activities commonly carried out by facility managers. These activities form the core for the content developed into a 'body of knowledge' which comprises the IFMA suite of credentials – Facility Management Professional®, Sustainability Facility Professional® and Certified Facility Manager®.

ISO 55000 series: Asset Management

Originally published in 2014, ISO55000 is a series of standards which deals with the management of assets in general – it is not only about built assets, but covers intellectual property, portable physical assets and human capital among others. Its focus is primarily on maintaining or increasing asset value and on reporting value. Therefore, while there is some overlap with FM in terms of maintaining the value of built assets, ISO5500 does not deal with any practical operational aspects of asset use nor any aspect of how assets impact on productivity.

ISO 44001: Collaborative Working

ISO44001 Collaborative Working was released in late 2016. This approach to integrating different organizations into a working project team without the need for formal special purpose companies is used extensively for major construction and infrastructure projects, but offers another option in working to combine the supply chain to support facilities services operations. The scheme is administered and certified by the Institute of Collaborative Working, and details can be found at: **instituteforcollaborativeworking.com**

IFMA core competences

IFMA has identified 11 core competences for a senior facility manager:

The 11 competency areas are:

1. Leadership and strategy
2. Operations and maintenance
3. Finance and business
4. Sustainability
5. Project management
6. Occupancy and human factors
7. Real estate
8. Information and technology management
9. Risk management
10. Communication
11. Performance and quality.

The IFMA-RICS Collaboration represents a very significant chapter in the history of facility management (FM), providing an unprecedented level of industry support to meet the growing demands of the 25 million FM practitioners around the world. The two organizations are aligning standards and professional development for the industry, uniting the global FM community to increase consistency and unification of strategy across the life cycle of the built environment.

The collaboration jointly supports the market with opportunities for professional recognition in facility management, providing global stature for FMs of all educational backgrounds, skills, work experiences and career goals. These efforts serve to raise the profile of FM, giving a greater voice and increased status to the profession to shape the future of the built environment and enable business success.

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