

Guide on FM Procurement

An initiative from the FMIC (Facilities Management Implementation Committee)¹ Procurement Taskforce

¹ For more details on the FMIC, please visit <https://www1.bca.gov.sg/buildsg/facilities-management-fm>

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Preface

As part of the Real Estate Industry Transformation Map (ITM) launched on 8 February 2018 by Mr Desmond Lee, Minister-in-charge of Social Services Integration and Minister for National Development, the Building and Construction Authority (BCA) was tasked to coordinate the development of the Facilities Management (FM) sector. A tripartite Facilities Management Implementation Committee (FMIC) was formed in April 2018 to bring together major stakeholders, comprising both public and private building owners, FM service and solution providers, trade associations and chambers (TACs), and unions, to co-develop initiatives to create a healthy FM ecosystem. The key focus areas of the FMIC are to build capability among the FM service providers and forge integration among the FM sector.

Procurement is a key enabler to FM transformation and in creating lead demand in the public sector. The FMIC's Procurement Taskforce, set up to review and strengthen FM procurement practices, has consulted the Centre of Excellence for FM (JTC), various Government Procuring Entities (GPEs) and FM providers to prepare this Guide on FM Procurement. The Guide aims to provide service buyers with an overview of the tender process for FM procurement, key considerations in determining the procurement approach, adoption of outcome-based contracting, structured tender evaluation framework and performance management of the service providers. Outcome-based requirements are desirable as they allow the FM service providers to innovate and adopt more productive solutions rather than providing fixed headcounts or task-based requirements. This gives more value and better quality to the service buyers.

The Guide also includes examples of outcome-based specifications and performance management indicators to measure the outcomes and used for payments, which can be included in tender requirements. It will be continually updated to keep it relevant.

Acknowledgement

Aside from extensive consultations with the JTC Corporation (Centre of Excellence for FM) and key stakeholders, this **Guide on FM Procurement** was developed with inputs from the Procurement Taskforce. Special thanks to all the Taskforce members for their significant contribution and support.

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Applicability of Guide on Facilities Management Procurement

This Guide aims to provide guidelines to the FM sector and to set the standards for the procurement of facilities management (FM) services.

? Which FM services will this Guide be applicable to?



FM01 **Integrated FM (IFM) & Managing Agent (MA) Services**



ME01-ME12 **Mechanical & Electrical Maintenance Works**



CR01/CR09 **Building Maintenance & Repairs**



FM03 **Landscaping**



FM04 **Pest Control**

? Additional FM Procurement References



EPU/SER/43 **Security services**

Refer to MHA's Guide on Outcome-Based Security Contracts²



FM02 **Cleaning services**

Refer to NEA's Guide on Specifications for Outcome-Based Cleaning Contract³



Smart FM

Refer to BCA's Guide to Smart FM⁴ for adoption of smart solutions in FM

² For MHA's Guide on Outcome-Based Security contracts, pls refer to <https://www.mha.gov.sg/docs/default-source/default-document-library/guide-on-outcome-based-security-contracts.pdf>

³ For NEA's Guide on Specifications for Outcome-based Cleaning contract, pls refer to <https://www.nea.gov.sg/docs/default-source/default-document-library/guide-on-specifications-for-outcome-based-cleaning-contract---1st-edition89e97b332c74427486c435c18cd69708.pdf>

⁴ For BCA's Guide to Smart FM, pls refer to https://www1.bca.gov.sg/docs/default-source/docs-corp-buildsg/guide_to_smart_fm.pdf

FM Procurement Process

One of the key challenges identified by the FMIC is the fragmented FM sector. Firms provide services in silos, typically offering only a single service such as cleaning, security, landscaping or maintenance. Service buyers therefore call for separate service contracts, rather than a single integrated contract, which may not be efficient. In addition, contracts tend to be short term with option to renew yearly. It is also common for service buyers to specify fixed headcount or task-based requirements which are prescriptive. This discourages investment in training or technology.

FM operation tends to be heavily reliant on manpower and manual operations. At this age of digitalisation and with the workforce ageing, it is timely for FM companies (FMCs) to adopt FM management and digital platform to enable a fully digitalised property management model, reducing and replacing manual processes and paper-based workflows, thereby saving time, costs and reduce any possible disruption to the operations.

To tackle these issues, the sector should move towards Integrated Facilities Management (IFM) and Outcome-Based Contracting (OBC) as much as possible except for instances where prescriptive specifications are needed to meet regulatory requirements. The Procurement Taskforce under the FMIC has collated and organised the good practices and considerations into 4 stages in this Guide; covering pre-tender to post-tender stage as illustrated in Fig 1 below.

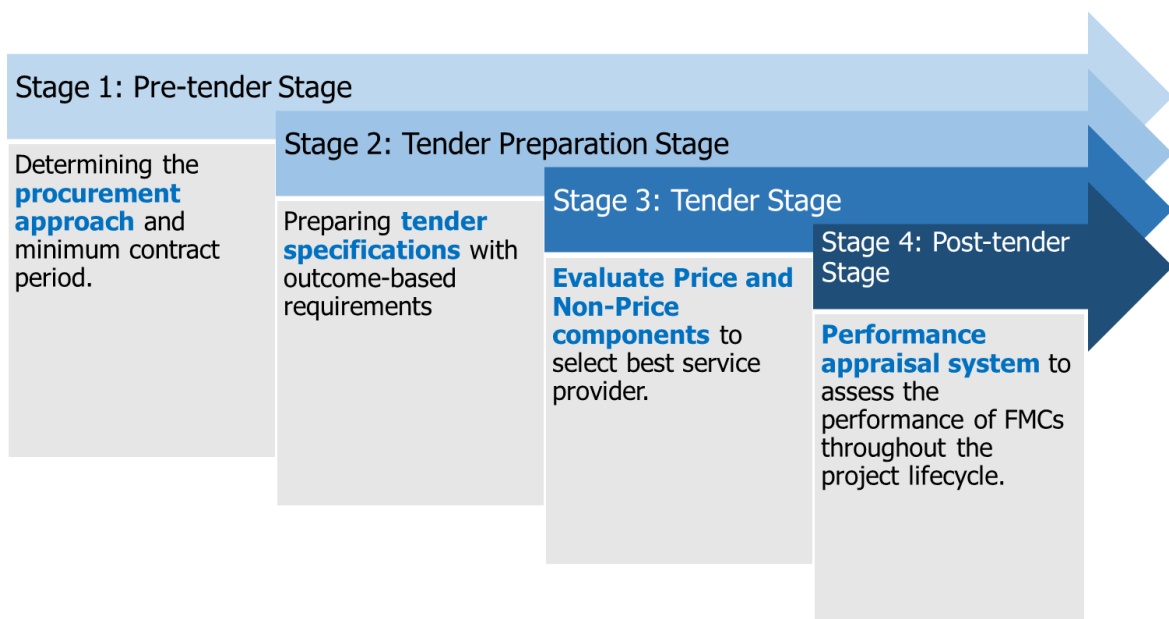


Figure 1. Stages of FM procurement

Stage 1: Pre-Tender Stage

1.1 Determining the Procurement Approach

- 1.1.1 Service buyers should consider their requirements carefully before selecting the most suitable procurement approach. Currently, it is common to call multiple separate tenders for each single FM service within a building and contract with each FM service provider separately. Service buyers would engage a Managing Agent (MA) to manage the various single service term contracts. This is commonly known as the Managing Agent-Term Contract (MA/TC) procurement model. However, this approach is resource intensive and lacks integration across the building services since each term contract covers a specific scope only.
- 1.1.2 **Where possible, service buyers should consider calling integrated FM (IFM) contracts to provide overall visibility and integrated control of the building FM services (see definition of IFM below).** A longer contract period and outcome-based specifications should also be adopted so that there would be scale and scope for the service providers to implement smart FM and other innovative solutions.



What is Integrated FM (IFM)?

Definition of Integrated FM (IFM)

Integrated FM⁵ refers to the provision of at least two distinct FM services by the same company. The service provider may either deliver the service or outsource and manage subcontractors.

Areas of distinct maintenance services

- Building maintenance services (BMS)
- Mechanical and electrical (M&E) maintenance services (integrated M&E maintenance is considered as 1 distinct maintenance service)
- Security services
- Cleaning services
- Landscaping works
- Pest control
- Waste management system
- Others

BCA Contractors Registration System (CRS)

Government agencies procuring IFM or MA services are required to specify the FM01 Workhead under BCA Contractors Registration System (CRS) with effect from 1 April 2020.

Workhead	Description
FM01 – Facilities Management⁶	Provision of integrated facilities management (IFM) and/or managing agent (MA) services by facilities management companies

⁵ Reference from FM Global market report 2018

⁶ For tendering limits under FM01, pls refer to <https://www1.bca.gov.sg/procurement/pre-tender-stage/contractors-registration-system-crs/crs-tendering-limits>



Why choose IFM?

Benefits of IFM

Integrated FM approach allows service buyers to achieve the following:

Service Buyers

- ✓ Reduce resources on service buyers in contract supervision and management with single point of responsibility instead of managing multiple FM service contracts.
- ✓ Reduce possibility of operational disputes between the different service providers which are involved in maintaining the same building.
- ✓ Improve responsiveness by having the IFM service provider to provide one-stop service to coordinate and manage multiple FM services in the building or facility.
- ✓ Achieve greater economies of scale through aggregation of demand for common or similar services within the building or facility which could lead to lower costs in the longer term.
- ✓ Ability to leverage off the service provider's sub-contract network to obtain better pricing.

Service Providers

- ✓ Increase productivity as flexibility and autonomy is provided to Facilities Management Companies (FMCs), which provide IFM services, to streamline its processes and adopt technology or smart FM⁷ solutions (e.g. IoT, integrated command centre, multi-functional FM robots) for resource and operational optimisation to achieve the desired outcomes.
- ✓ Optimise FM service delivery which could lead to better service quality

1.1.3 Service buyers should explore bundling more distinct FM services to achieve greater economies of scale and provide the scale for service providers to implement smart FM and other innovative solutions across the FM services. For building owners with a portfolio of buildings, an aggregation of FM (AFM) services across the multiple properties is possible.

⁷ Refer to BCA's Guide to Smart FM



Tips

Considerations for integrated and aggregated FM	Tips
Higher contract value and could result in more complex tender evaluation	More resources and time could be factored in during the tender evaluation process.
Responsibilities fall on single provider of FM services, need for contingency measure	Service buyer to have contingency measures (i.e. activation of term contractors from other projects or specify higher security deposit) to manage risks and ensure continuity of services.
Lack of in-house capabilities to administer FM contracts	FMCs are also providing managing agent services under IFM contracts. This enables the service buyers to reduce their resources in managing multiple service providers.
Varying requirements and specifications for different building typology	Service buyers can vary the KPIs and Service Level Agreement accordingly to the building type in the tender document.

1.2 Contract Duration

1.2.1 Short contract durations would mean more resources spent to conduct frequent tenders and service buyers may not get the best value for money without economies of scale. Conversely, a longer contract duration would provide a longer cost recovery period for investment in technology/training and retain workers on the job. This encourages service providers to invest in staff training, technology and innovative solutions, which could translate into better quality FM services.

Recommended minimum contract duration

At least 3 years with an option to extend for another 3 years (i.e. 3+ 3 years contract) provided the terms and conditions are met.

Note: With overall good performance, service buyers can exercise the option to extend the contract duration whilst bearing in mind factors such as any changes in the scope of work or changes in contract cost if the contract were to be extended.

! Tip

It is recommended to include a “mobilisation period” in addition to the contract period. This is to allow the awarded contractor to familiarise with the site issues, take over from incumbent and set up documentation/ reporting processes for better handover of services.

Examples of current IFM contracts

Areas of maintenance services	Contract Duration
Cleaning, Waste management, Pest control, Landscaping, Mechanical & Electrical, Sanitary and Plumbing Services for industrial buildings (JTC)	3 + 3 Years
Cleaning, Pest Control, Security and Landscaping Services for BCA Academy (BCA)	3+ 3 Years
ACMV, Chiller, Electrical, Pump works, BMS, Fire protection, Security Systems, Swimming pool, Vertical Transportation System, Building Tradesman Maintenance for Singapore Polytechnic (SP)	5 Years

1.3 Outcome-Based Contract (OBC)

1.3.1 In OBCs, the service specifications are based on desired outcomes or outputs for the FM services, rather than basing on headcount to be provided or prescriptive task-based requirements.

1.3.2 The benefits of OBC are summarised below:

- ✓ Provides the flexibility to propose efficient and innovative solutions by integrating manpower, technology and operational processes to meet the desired outcomes.
- ✓ Taps on service provider's experience which may reduce operational costs, maintenance costs and resources.
- ✓ Improves control and enforcement of quality standards instead of focusing on the headcounts and/or prescriptive methods and processes.

Tip

- Clearly specify the desired outcomes in OBCs and avoid being subjective to minimise contention.
- Merely removing the headcount numbers from a tender, while retaining all the prescriptive requirements or tasks, does not qualify as an OBC. Refer to Stage 2 on drafting an OBC.

In some cases where outcomes are difficult to define or measure, a hybrid approach can be adopted. i.e. the specifications are largely based on desired outcomes but include some minimum headcount or frequency requirements.

Stage 2: Tender Preparation Stage

2.1 Drafting Outcome-Based Contracts

2.1.1 The key features of an outcome-based contract (OBC) are (1) outcome-based specifications and (2) performance appraisal and reward system.

2.1.2 When drafting an OBC, service buyers should first decide on the desired outcomes and describe how to achieve the outcomes in the outcome-based statements. A performance appraisal and reward system can be developed for effective contract management. Key performance indicators (KPIs) are used to measure the achievement of outcomes. To monitor and encourage good performance, the KPIs can be tied to the service provider's payments where payments and reward are based on the FM service provider's performance.

2.1.3 Figure 2 below shows the flowchart for drafting an OBC. The considerations for drafting an OBC are further explained in this section.



Figure 2 Drafting outcome-based contracts

2.2 Desired Outcomes and Outcome-Based Statements

2.2.1 The desired outcomes spell out the end results which service buyers expect from the service providers and it should be aligned with the organisation's business objectives. The outcome-based statements set out the scope of services, what is to be achieved, the desired performance standard and the service quality that are required.

2.2.1 To ensure that the stipulated outcomes are achievable, the service buyer should include outcome-based statements and priorities as a guide for service providers. Outcome-based statements should leave room for service providers to propose alternative solutions to meet the required desired outcome using varying inputs such as integrating manpower, technology and/or operational processes.



Avoid

- **Avoid specifying task-based requirements** e.g. deploying 1 cleaner at each level to mop the office floor on a daily basis. Such tasking should be kept minimal to allow service providers to focus on achieving desired outcomes with optimal resource deployment and use of innovative methods or technologies.
- **Avoid over-specifying requirements** which could drive up costs unnecessarily.
- **Avoid under-specifying requirements** so that service providers have a clear understanding of the scope of work to prevent any mismatch in expectations which could lead to tense relationships between the service buyer and the service provider.



Tip

- When specifying the maintenance schedule, service buyers should adjust the frequency of maintenance according to the priority / importance and should not set too onerous requirements.

Examples of desired outcomes and outcome-based statements

Desired outcome	Outcome-based statement
Customer satisfaction	Ensure time taken to respond to complaints is within the specified timeframe.
	Ensure that customer satisfaction, measured by customer satisfaction assessments and surveys, is at a satisfactory level.
Minimum disruption, disturbance and inconvenience to building operations	Ensure that routine maintenance is carried out in a timely manner to minimise downtime, breakdown or failure
	Ensure that building occupants are well informed of planned maintenance works

2.3 Key Performance Indicators (KPIs)

2.3.1 The Key Performance Indicators (KPIs) are used to measure the achievement of the desired outcomes and the performance measurement shall be clearly specified in the documents. A maximum score is set for each KPI and the service provider is scored accordingly to its achievement. The total KPI scores (i.e. performance scores) will be computed at a regular fixed period as agreed in the contract, say monthly, and used to measure the performance of the service providers against the Performance Targets (PT) (Refer to 2.3.2) set by the service buyers.



Tip

- **Service level agreements such as specified timeframes for service providers to respond or attend to system failure can be detailed in the specifications.**

- **KPIs and measurements should be:**
 - ✓ **Clear** – Use simple language to avoid ambiguities.
 - ✓ **Measurable**
 - Use objective indicators to enable enforcement and translation to payment. A clear and transparent methodology on how the service buyer and providers will measure the achievement of KPI is useful to ensure fair evaluation.
 - Where possible, objective data collected by the service buyers or procurers' facilities management system and other statistical information shall be used to measure the performance of each KPI.
 - ✓ **Achievable** – Over-specifying could drive up costs unnecessarily. Service buyers to assess the viability of the KPI set using the current contract performance as benchmark.

Examples of KPI and Measurement for M&E services (for illustration only)

Outcome-based Statements	KPI	KPI Target	KPI scores
Ensure that routine maintenance is carried out timely to minimise downtime, breakdown or failure	No. of failures to restore systems within stipulated response time.	Not more than 2 failures per month	0 to 2 failure - 5 points 3 to 4 failures – 3 points > 4 failures – 0 points
Ensure that building occupants are well informed of planned maintenance works	No. of complaints due to failure to inform building occupants of maintenance works.	Not more than 2 complaints per maintenance work	0 to 2 failure - 5 points 3 to 4 failures – 3 points > 4 failures – 0 points
Attend to system failures timely	Time taken to respond and rectify system failures within stipulated timeframe	95% of cases attended within stipulated timeframe	95% and above - 10 points 90% -< 95% - 5 points Below 90% - 0 points

Performance score = total KPI scores achieved

Note: Service buyers to rationalise and set the KPIs, KPI targets and scoring according to the desired outcomes set and organisation's business objectives.

2.3.2 Performance Targets

The service buyers will set a monthly and/or annual Performance Target, pegged to the total KPI scores, to be met by the service providers. The Performance Target can be the same throughout the duration of the contract or vary yearly according to service buyers' expectations but must be clearly stated upfront in the tender documents. Similarly, the frequency and methodology of performance evaluation should be clearly specified upfront to prevent disputes.

Example of Monthly Performance Target

Year of Service	Monthly Performance Target
1 st Year	80%
2 nd Year	83%
3 rd Year	86%
4 th and Subsequent Year	88%

Note: The Performance Target can be the same throughout the duration of the contract or vary yearly according to service buyers' expectations.

2.3.2.1 To derive the overall KPI scores for IFM contracts, service buyers could evaluate the KPI scores for each FM service and average or sum up the scores on a weighted basis.

2.4 Performance-Based Payments

2.4.1 To encourage service providers to meet or perform beyond the Performance Targets, performance-based payments can be adopted, i.e. if the total KPI score achieved is above the Performance Target, a bonus amount on top of the monthly base fees can be paid to the service provider. Conversely, any under-achievement of Performance Target can result in amount being deducted from the monthly base fees. **The bonus and deduction of monthly fee should be capped at 10% of the monthly fee maximum.**

Example of Performance-Based Payment model

KPI score achieved by service provider	Bonus/Deduction Payment to be received by service provider
Performance Target + 10% or more	Monthly Base Fee* + 10%
Performance Target + x% (up to 10%)	Monthly Base Fee + x% (up to 10%)
Performance Target	Monthly Base Fee
Performance Target – x% (up to -10%)	Monthly Base Fee – x% (up to -10%)
Performance Target - 10% or more	Monthly Base Fee - 10%

* The Monthly Base Fee is the Base Fees stipulated in the Breakdown Costs of Tender and accepted in the Contract.

If the monthly based fee is \$150,000 per month and service provider obtains a KPI score of 75% for the month where the Performance Target is set at 80%, the service provider shall be paid based on monthly base fee less 5%, i.e. \$142,500 for that month.

2.5 Other Optional Performance Management Practices

2.5.1 Building owners can consider exploring other performance management practices to encourage service providers to perform beyond the required standard.

Tip

- ✓ It is more effective to encourage good performance through incentives than penalties.
- ✓ Close contract monitoring and transparent feedback of service provider's performance ensures better service delivery and achievement of desired outcomes.

2.5.2 *Monetary incentives*

Service buyer can consider providing a monthly or yearly percentage of bonus payment to service provider for exceeding performance for certain key outcomes. This is to motivate them to play a proactive role, work towards meeting the performance target and achieving continuous improvement through their service of work. Service buyers can set their own criteria and requirements for service provider to meet to be eligible for the bonus payments.

For example:

- Service provider's average KPI score of a year meets the respective yearly target
- Annual reduction in energy/ water consumption by 5%. Service buyers to include mechanism of measuring and verifying the savings in energy/ water consumption.
- Annual Customer Satisfaction survey to meet the respective yearly target.
- Achieve zero lift breakdown/ complain/ defect service request
- No breach of the terms and conditions in the contract.

Service providers can share a certain percentage of the bonuses to operational staff as a form of reward to their staff and even extend the incentives to the relevant sub-contractors (e.g. cleaning, landscape or security companies)

Example of monthly and yearly incentives (reference from JTC)

Monthly Performance Target	Monthly Bonus
Achieve zero (0) lift breakdown/ complaint / defect service requests (within a stipulated timeframe)	1% of Management Fee
Achieve zero (0) conservancy, refuse removal and pest control complaints / service requests	1% of Management Fee
Annual Performance Target	Annual Bonus
92% Customer Satisfaction based on Survey	0.5% of Annual Management Fee
4% reduction in energy / water consumption	0.25% of Annual Management Fee
Consistent achievement of targets throughout the year	0.5% of Annual Management Fee

Stage 3: Tender Evaluation Stage

3.1 Value-For-Money

- 3.1.1 To ensure the best value, service buyers will evaluate tenders based on both price and quality (non-price) components. The term “best value” does not refer to the cheapest option, but rather the option that provides an optimal balance of benefits and costs based on total cost of ownership.
- 3.1.2 A structured tender evaluation framework to assess tenderers on their price and quality proposals submitted should be adopted. In line with the Government’s efforts to transform the FM sector, a higher emphasis is placed on the assessment of quality component. For public sector procurement involving cleaning and security services, the weightage for the quality component is required to be equal or greater than the price component. This would apply to integrated FM tenders involving cleaning and/or security services.

$$\text{Total Score} = \text{Price Score} + \text{Quality Score}$$

3.2 Tender Submissions

- 3.2.1 Service Buyers can adopt one-envelope or two-envelope system.
- (a) One-envelope System. Tenderers submit the Price and Quality together in one envelope. The Price and Quality scores shall be computed at the same time. The one-envelope system can be adopted for projects whereby the scoring of the specified quality attributes is based on quantified templates with no subjective judgment.
- (b) Two-envelope System. Tenderers submit the Quality envelope separately from the Price envelope. Service buyers would open and compute the Quality score first, before opening the Price envelope to compute the combined score. This ensures that the Quality score is not influenced by the Price.

3.3 Weightage for Price and Quality Components

3.3.1 The commonly adopted price-quality weightages for FM tenders is as shown below. Where possible, service buyers should place higher emphasis on quality by specifying higher weightage for quality during tender evaluation.

Component	Weightage
Price	40% - 60%
Quality	60% - 40% correspondingly

3.4 Price Component

3.4.1 The tender price refers to the total bid including base and optional years. The lowest tender price will be given the maximum Price score. The Price scores of the other tenderers will be inversely proportional to the lowest tender price as shown in the formula below.

$$\text{Price Score} = \frac{\text{Lowest tender price}}{\text{Tenderer's price}} \times \text{Price weightage}$$

3.4.2 When computing the P-score, the tenderer's price should not include provisional sums and/or prime costs.

3.4.3 To deter price diving, service buyers can include either one of the following "Abnormally-low-bid Curbing Mechanism" (ACM):

- (a) Impose a price-score cap where tenderers with prices that are more than 20% below the average of tenderers' price will not be given further advantage⁸; **or**
- (b) Investigate and consider disqualifying tenderers with prices that are more than 20% below the average of tenderers' price; **or**
- (c) Other similar ACM.

⁸ Refer to Quality Fee Method framework on similar fee-diving mechanism.

Example of price-diving scenario

When the lowest qualifying tender price is **lower** than $0.8 P_{\text{average}}$

$$\text{Price Score} = \frac{0.8 P_{\text{average}}}{\text{Tenderer's Price}} \times \text{Price Weightage}$$

$$\text{Where, } P_{\text{average}} = \frac{\sum \text{Tender Price of all Qualifying Bids}}{\text{No. of Qualifying Bids}}$$

Any price quoted lower than $0.8P_{\text{average}}$ will get the maximum Price-score.

3.5 Quality Component

3.5.1 The tenderer with the highest total raw quality points will be given the maximum Quality score. The Quality score of the other tenderers will be calculated proportionally to the highest total Quality points. The formula below shall be used to compute the Quality score.

$$\text{Quality Score} = \frac{\text{Tenderer's total raw quality points}}{\text{Highest total raw quality points}} \times \text{Quality weightage}$$

3.5.2 Under the quality component, service buyers have the flexibility to decide which quality attributes are relevant for their project, assign the maximum points for each quality attribute and set out the scoring method accordingly in the tender documents. Attributes under the quality component could include:

- (a) Relevant track records of tenderer and past performance⁹ to demonstrate firm's competencies or capabilities;
- (b) Organisation structure and quality of proposed Operations Team on site;
- (c) Proposed operational strategy in terms of manpower and resource deployment plan, technology adoption, subcontractor management plan and quality of proposed subcontractors, etc to meet the KPIs set out.;
- (d) Innovation and smart FM solutions¹⁰ which add value to the project;

⁹ Development of a standard performance appraisal system is in progress.

¹⁰ Refer to BCA's Guide to Smart FM

- (e) Firm's commitment to environmental sustainability based on proposals for upcycling, recycling or waste reduction solutions, etc.;
- (f) Firm's past safety performance and proposed safety proposals or audit system;
- (g) FM recognised certification scheme by FM trade associations to better discern the quality of FMCs; and
- (h) Other attributes such as current workload if any. For example, assign less points if the service provider is undertaking too many ongoing service contracts.

! Tip

The smart FM solutions proposed should demonstrate that it will add value and meet the needs of the service buyer's desired outcomes. For e.g. a proposal to use drones in a "no fly zone" does not add value to the project and should not be considered.

3.6 Information required in tender documents

3.6.1 The following items should be clearly made known at tender stage:

- (a) Weightage for Price and Quality;
- (b) Quality attributes applicable and their assigned maximum points;
- (c) Scoring method for each attribute e.g. benchmark performance method or ranking method¹¹, etc. Benchmarks used in the benchmark performance method must be made known, together with how tenderers which perform better or worse than the benchmark will be scored;
- (d) Any minimum qualifying criterion for a specific quality attribute, which, if not met, would disqualify the tenderer (optional); and
- (e) Any minimum total quality points below which tenderers will not be further considered (optional).

¹¹ Please refer to the Price-Quality Method Framework on the Benchmark performance and ranking methods.

Stage 4: Post-Tender Stage (FM Performance Appraisal Framework)

4.1 General

4.1.1 The performance of the FMCs should be assessed regularly throughout the contract lifecycle, on a yearly basis and upon completion of the contract. This can be done by assigning performance scores based on achievement of the KPIs set by service buyers in the contract. The performance appraisal will provide a quality feedback loop on FMCs' performance and allow those which had performed well in past contracts to be recognised during tender evaluation.

4.2 Key principle and features of the FM performance appraisal framework

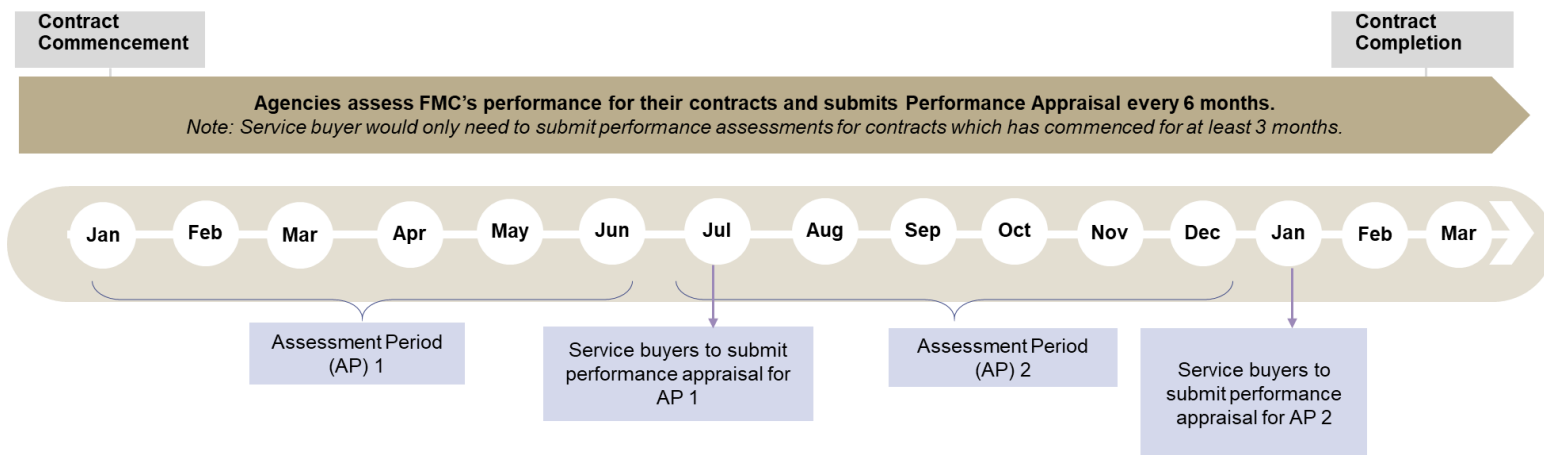
Key principle	Features of FM performance appraisal framework
Distinguish and encourage good performance of firms	Firm-level scoring of FMC to reflect its overall performance of FM contracts ¹² handled
	6-monthly performance assessment throughout contract duration for collect more regular data and to encourage good performance by FMC
	Evaluation Framework <ul style="list-style-type: none"> a) Fixed criteria as a common yardstick for performance among different contracts b) Flexibility for service buyers to decide the Key Performance Indicators (KPIs) to meet the desired outcome under each contract

¹² IFM refers to the provision of at least two distinct maintenance services by the same company. Contracts for integrated Mechanical and Electrical (M&E) maintenance services (i.e. amalgamation of few M&E services) will also be required to submit the performance appraisal.

4.3 Process flow of FM Performance appraisal framework

4.3.1 Service buyers would need to assess and submit the performance appraisal on a half-yearly basis. This allows regular monitoring of FMC to encourage better performance. The information collected from the performance appraisals will help form a database of FMCs' performance which will be used for future tender evaluation.

FM Performance Appraisal Process



FM Performance Appraisal Timeline

4.4 Overview of FM Performance appraisal

4.4.1 ***Firm level rating- FMC overall performance rating***

4.4.1.1 Firm's overall performance rating will be based on the average of the cumulative performance ratings of applicable projects. The FM performance appraisal will allow service buyers to apply filter fields for more accurate comparison between different contracts of similar fields when sufficient data are collated. (i.e. comparing performance of different firms with contracts of similar type of FM service, building type). Refer to Annex A for examples of deriving FMC overall performance rating and applying filter functions.

$$\begin{aligned}
 &\textbf{Firm's Overall Performance Rating =} \\
 &\frac{\text{Sum of all applicable projects' performance ratings}}{\text{Total no. of applicable projects}}
 \end{aligned}$$

4.4.2 **Project level rating**

4.4.2.1 The performance grade of the FMC will be determined by benchmarking the total performance scores against the performance target set by service buyers under the contract. There will be 6 performance grades (Excellent, Very Good, Good, Satisfactory, Poor, Very Poor), to be assigned according to how well the FMCs have performed against the performance target.

Project Performance Appraisal Grade (table below as seen in guide on FM procurement)	Project Performance Rating
--	-----------------------------------

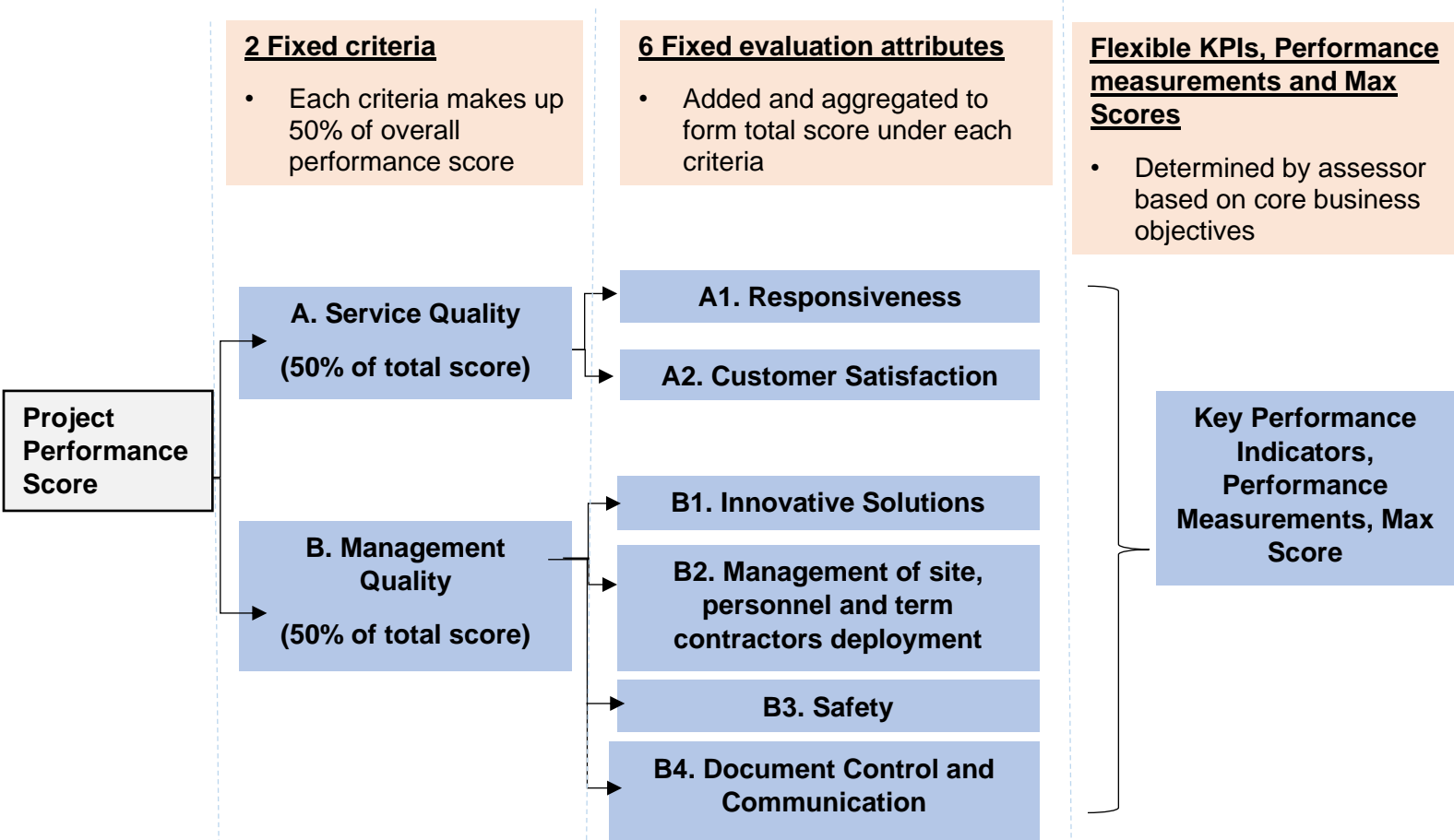
Project Performance score attained by FMC	Project Performance Grade	Performance Rating
PT + (>5 points)	Excellent	6
PT + (>3 points to 5 points)	Very Good	5
PT + (up to 3 points)	Good	4
PT - (up to 2 points)	Satisfactory	3
PT - (>2 points to 10 points)	Poor	2
PT - (>10points)	Very Poor	1

Illustration	
PT set by service buyer	80 pts
Performance score attained by FMC	88 pts which is 8 pts higher than the PT of 80pts, (i.e. PT + 10%)
Performance grade	Excellent
Performance Rating	6

PT refers to Performance Target

4.4.3 **Determining project performance score**

4.4.3.1 The performance scores are calculated based on the achievement of the key performance indicators (KPIs) set by service buyers under the contract. To provide a common yardstick for performance measurement among different contracts, service buyers will be required to set their specific KPIs against 2 common evaluation criteria (i.e. service quality and management quality) and 6 corresponding fixed evaluation attributes under the performance appraisal framework.



4.5 Evaluation Framework

For Illustration

Fixed (a)	Fixed (b)	To be determined by service buyers under contract			
Criteria	Evaluation attributes	Key Performance Indicators (KPI)	Measurement of KPI	Max. score	FMC Performance Score
Service Quality (50%)	Responsiveness	% of feedback responded/ closed within stipulated time	>95% = 20 pts 90%-95% =10 pts <90% =0 pt	20 pts	20 pts
	Customer Satisfaction	Number of compliments received per year	1 point per compliment	20 pts	18 pts
		Number of cases of complaints	0 complaints = 10 pts 1-2 complaints = 7 pts 3-4 complaints = 4 pts > 4 complaints = 0 pt	10 pts	7 pts
Management Quality (50%)	Management of site, personnel and term contractors deployment	No. of lapses resulting in significant impact on operations	5 pts deduction per case	15 pts	43 pts
	Safety	No. of major accidents	15 pts deduction per case	20 pts	
	Document Control & Communications	Audit on data system to ensure data Integrity (e.g. no. of data breaches, misuse, missing data, etc.)	5 pts deduction per non-compliance	10 pts	
	Innovative solutions	Improvement initiatives or enhancement work to resolve FM issues	Quality of solutions and implementation (assessment metric determined by service buyers)	5 pts	
Total performance scores					88 pts

- (a) **Criteria- 2 fixed criteria (Service Quality and Management Quality)**, to standardise evaluation of firms' performances across all contracts. Both criteria are equally weighted, with each forming 50% of the FMCs total performance score. This is to provide a basis of comparison across different projects and service buyers.
- (b) **Evaluation attributes- 6 Fixed evaluation attributes** to provide common areas of evaluation for all projects. The scores of each evaluation attribute under each criteria will be added together and aggregated to form the 50%. E.g. Service Quality Score = (Responsiveness Score + Customer Satisfaction Score) will have a maximum of 50 points.

- (c) **KPIs- The KPIs and Performance Measurements**, which are determined by service buyers, give flexibility to service buyers in assessing areas critical to their core business objectives. Scores of the KPIs under each evaluation attribute will be totalled to form the evaluation attribute's score.
- (d) **Scoring of KPIs- The Maximum Achievable Score and FMC's Performance Score** are determined by service buyers to give flexibility in meeting their needs. Allocating higher maximum achievable score for individual critical KPIs would increase their weightage to total score. Service buyers will assess the FMC's performance and enter the score achieved.

FMC Project Performance Score:

$$\begin{aligned}
 \text{Overall Score (max 100 points)} &= 50 \text{ points for Service Quality} + 50 \text{ points for Management Quality} \\
 &= \\
 &\quad 50 \text{ points for (Responsiveness Score + Customer Satisfaction Score)} + \\
 &\quad 50 \text{ points for (Management of site personnel and term contractors deployment + Safety + Document} \\
 &\quad \text{Control \& Solutions + Innovation Solutions)}
 \end{aligned}$$

4.6 **FM Performance Dashboard**

- 4.6.1 The data submitted from the performance appraisal will form a database of the FMC's performance which can be used for future tender evaluation. Subsequently when sufficient data are collated, service buyers can apply filters in deriving the performance ratings of FMCs. The list of applicable filters include:
- a) Firm's overall performance rating
 - b) Type of FM services (e.g. cleaning, security, M&E)
 - c) Type of building
 - d) Project status (ongoing or completed) Projects' Duration (Commencement and Completion Date)
 - e) Annualised contract sum (range)
 - f) Awarded contract sum
 - g) Agency

4.7 Annex- Deriving FMC Overall Performance rating using filters

Example 1- Calculating FMC overall performance rating (based on all projects):

Projects	Building Type	FM Services Provided	Cumulative Performance Grade	Project Performance Rating
Project 1	Office Building	M&E Maintenance, Cleaning, Security, Building Maintenance	Excellent	6
Project 2	School	Integrated M&E Maintenance	Good	4
Project 3	Shopping Complex	Cleaning, Security	Very Good	5
Project 4	Industrial Complex	M&E Maintenance, Building Maintenance	Satisfactory	3
Overall Performance Rating = $\frac{6+4+5+3}{4} = \frac{18}{4} = 4.5$				

Example 2- Calculating FMC overall performance rating (based on building typology):

If service buyers choose to view overall performance rating of an FMC for contracts dealing with office buildings, the filter will select the applicable projects in deriving the FMC overall performance ratings.

Projects	Building Type	FM Services Provided	Cumulative Performance Grade	Project Performance Rating
Project 1	<u>Office Building</u>	M&E Maintenance, Cleaning, Security, Building Maintenance	Excellent	6
Project 2	School	Integrated M&E Maintenance	Good	4
Project 3	Shopping Complex	Cleaning, Security	Very Good	5
Project 4	Shopping Complex	M&E Maintenance, Building Maintenance	Satisfactory	3
Overall Performance Rating = 6				

Example 3- Calculating FMC overall performance rating (based on type of FM services)

If service buyers choose to view overall performance rating of an FMC for contracts dealing with cleaning services, the filter will select the applicable projects in deriving the FMC overall performance ratings.

Projects	Building Type	FM Services Provided	Cumulative Performance Grade	Project Performance Rating
Project 1	Office Building	M&E Maintenance, Cleaning , Security, Building Maintenance	Excellent	6
Project 2	School	M&E Maintenance	Good	4
Project 3	Shopping Complex	Cleaning , Security	Very Good	5
Project 4	Shopping Complex	M&E Maintenance, Building Maintenance	Satisfactory	3
Overall performance rating = $\frac{6+5}{2}$ = 5.50				

Conclusion

We seek the active participation of all our stakeholders – the firms, industry associations, and the unions, in the implementation of this Guide together with the support of the Government. We hope that with the application of outcome-based contracting and IFM, the existing FM processes can be streamlined, giving rise to a more efficient operation and improved service delivery, that we envisioned. We welcome any new suggestions and ideas that can further enhance the operations and execution to meet the evolving needs of this industry as we embark on this journey to transform the FM sector.

For suggestions and clarifications, please send them through <https://www.bca.gov.sg/feedbackform/>.

What early adopters for IFM and OBC say?

“ An integrated FM approach has proven to enable businesses **to remove traditional operational silos, synergise operations and create the best in-house experience for their customers.** Especially after COVID-19, an integrated FM approach backed by best-fit technology and propelled by ops-tech processes is crucial for businesses to adapt to the new normal, to be at the forefront of the competition.

Certis IFM has evolved into a one-stop solution provider of the full suite of FM services. We develop and implement tech systems that allow us to **orchestrate and synergise FM operations in mega-FM projects across multiple sites.** Monitoring and surveillance data is consolidated and analysed in real-time, **enabling us to implement predictive and preventive maintenance, optimise resources, and increase cost-savings for customers.**

Mr Lee Hock Heng
Head, Certis Integrated Services

“ The outcome-based approach allowed CBRE to **re-engineer the work process through higher utilisation of specialised skills and future-proofing the workforce.** We are also highly motivated to support Singapore IFM transformation agenda by serving clients above and beyond the contract through innovation and productivity improvements. **CBRE is inspired by the flexibility afforded by IFM as this empowered us to create and effect innovative solutions that result in a win-win solution** for our clients. The outcome-based and IFM approaches have enabled CBRE-JTC team to be recognised as the Facilities Management Team of the Year in 2020. ”

Mr Loh Wei Loon
Senior Managing Director, Singapore and South East Asia
CBRE | Global Workplace Solutions

“ As our assets grow into larger portfolios, we can leverage **IFM as a force multiplier to procure and manage more strategically.** The amalgamation of FM works has enabled us to manage our products at a portfolio level thus, **opening new possibilities** to conduct big-data analytics to **enable financially and fundamentally sound FM contracting decisions.** ”

Mr Jason Foo
Director, Facilities Planning & Advisory Division
JTC Corporation