

Annex D

Facilities Management Implementation Committee

The tripartite Facilities Management Implementation Committee (FMIC) was formed in April 2018. It comprises representatives from building developers and owners of both public and private sectors, FM service providers, trade associations & chambers (TACs) and unions. Besides formulating detailed action plans, the FMIC will also oversee the implementation of these plans (see [Annex D\(i\)](#) for Terms of Reference of the FMIC). The goal is to advance the FM industry from a labour-intensive industry to a productive one leveraging on data analytics, predictive maintenance and smart solutions.

The FMIC has been engaging the FM companies to gain insight on the challenges they face. The key findings identified are summarised in Table 1 below.

FM Industry	Key Challenges
Industry-level	<ul style="list-style-type: none">• Lack of authoritative standards to guide FM service delivery• No industry champion to guide the sector's development• Building owners rely on headcount-based procurement practices and offer short contracts that do not reward innovation and quality FM service
Firm-level	<ul style="list-style-type: none">• Firms in FM sector do not enjoy professional recognition• Despite being responsible for the long-tail operation and maintenance (O&M) of a building, FM firms often have no influence in initial planning and design.• Building owners view FM as a cost-centre and hence, the FM industry has resorted to fee-diving strategies, which compromises on service quality.
Manpower-level	<ul style="list-style-type: none">• The industry is facing an aging workforce• The sector is labour-intensive and has low productivity• This leads to unattractive pay for the workforce, resulting in FM being portrayed as an unattractive career option

Table 1: Current Key Challenges Faced by the FM Industry

The FMIC has hence proposed recommendations in four key areas - **(a) Design for Maintainability (DfM), (b) Smart FM, (c) Procurement, and (d) Manpower and Industry Development**. The FMIC will oversee the implementation of the recommendations. The detailed timeline for implementing the recommendations will be worked out later.

S/N	Key Proposed Recommendations
1	<p>Design for Maintainability (DfM) <i>(i.e. include FM considerations in upstream design)</i></p> <ul style="list-style-type: none"> • Enhance DfM Guide with Smart FM content, and streamline it according to different building types to facilitate ease of adoption by industry practitioners • Develop a DfM appraisal scheme to assess building designs' degree of maintainability based on labour efficiency and cost-effectiveness of downstream maintenance regimes
2	<p>Smart FM <i>(i.e. enhance maintenance capabilities through Smart FM to improve productivity and maintenance quality and reduce FM man-hours)</i></p> <ul style="list-style-type: none"> • Develop a Smart FM Framework which conceptualises the various tiers of Smart FM sophistication that FM companies can aspire to achieve, and the different levels of Smart FM deployment for buildings (see Annex D(ii)) • Develop a Smart FM Technology Roadmap to guide the adoption of technologies in FM applications • Pilot precinct-level Smart FM solutions in upcoming projects such as Punggol Digital District (PDD) and Jurong Lake District (JLD)
3	<p>Procurement <i>(i.e. establish standard guidelines for FM procurement and promote the adoption of outcome-based contracting)</i></p> <ul style="list-style-type: none"> • Streamline registration requirements for FMCs bidding for government FM job tenders • Develop a structured FM tender evaluation framework and standard set of Conditions of Contract (CoC), which will be outcome-based rather than headcount-based
4	<p>Manpower and Industry Development <i>(i.e. ensure the FM workforce is adequately trained and firms are credible in service delivery through accreditation)</i></p> <ul style="list-style-type: none"> • Develop a skills framework for the FM workforce that will provide better guidance on career progression and training opportunities • Develop an accreditation framework for FM firms to recognise the better performing firms

Table 2: Key Proposed Recommendations by the FMIC

BCA will also partner stakeholders, including TACs such as the International Facilities Management Association (IFMA) and Association for Property and Facilities Management (APFM) to transform the FM sector.

Annex D(i)

Facilities Management Implementation Committee Terms of Reference

- a) To conduct stock-take on the challenges and to identify current and emerging best practices in the FM sector
- b) To formulate detailed implementation plan
- c) To oversee the implementation of action plan to develop the FM industry
- d) To review and provide post-implementation feedback on the ITM

Annex D(ii)

	Level 1 Workflow Automation	Level 2 Optimisation within Systems	Level 3 Integration across Systems
	When triggered, by human/sensor, automatically initiates a process that tracks and logs an incident up to closing state	Use of data analytics to optimise systems, quantify operations efficiency and perform predictive maintenance	Optimisation of resource deployment and utilisation across various building systems
Single Building/ Facility	Example:  CCTV to trigger intrusion alert  Toilet sensors to trigger on-demand cleaning	Example:  Software making sense out of data collected to optimise chiller system performance  Software making sense out of data collected to predict maintenance needs of lift systems	Example:  Centralised management and command & control of building systems on the streamlined platform(s)
Aggregation across Buildings/ Facilities	Example:  Mobile deployment of central security/ cleaning team within a precinct upon trigger/ on-demand	Example:  Connected services with big data analytics to improve system efficiency and performance	Example:  Centralised management and command and control of building systems across multiple facilities

Table 3: Examples of different levels of Smart FM Deployment (for buildings)

Tier 1	Use of basic technologies to provide digital FM services for improved productivity and efficiency
Tier 2	Use of advanced technologies to provide integrated and data-driven predictive FM services
Tier 3	Research and development of innovative technologies and solutions to revamp conventional way of FM operations and stay ahead of competition

Table 4: Different tiers of Smart FM Sophistication (for FM Companies)