

# Technology Advances Are Changing the Facilities Management Role

## Foreword

Technology is disrupting entire industries via automation, acceleration and innovation. Many technological changes are welcome, others less so because they disrupt the status quo.

In facilities management (FM), the speed of technology transformation caught many practitioners off guard. The profession looks drastically different now than it did even a few years ago. The dizzying pace of innovation makes it difficult to step back and understand what rapid change means for the FM stakeholders involved.

This e-book and the job descriptions in it are not intended to help companies replace their existing FM teams. Facilities managers (FMs) have deep knowledge of their installations and assets. That's extremely valuable and often irreplaceable.

If you're an executive thinking of upgrading your FM program, use this e-book to understand the technologies required to do so. If you work in the field and want to add more value to your company, use this guide to better understand the technologies changing your industry. If you're hiring an FM team, the job descriptions inside will show you the skills required for today's tech-savvy FMs and assistant FMs. Lastly, if you're an FM stakeholder in any sense of the word, use this e-book to understand the challenging, ever-expanding nature of the FM job role.

Regards,  
Edward Wagoner  
Digital CIO, JLL Technologies

## Driving FM Performance with Technology

Global spending in the facilities management (FM) industry is expected to top \$3 trillion by 2027, a compound annual growth rate of 11.3 percent from 2021, according to Research and Markets. Technology innovations will contribute to the growth and simultaneously challenge the status quo by requiring facilities managers (FMs) and their teams to better understand the technologies changing their industry.

Building owners and corporate leaders increasingly ask their facilities teams to lead the way in addressing challenges like improving indoor air quality, reducing energy consumption, and leveraging data to address operational challenges. Before an organization invests in facilities systems and technologies, FMs are expected to present solid business cases explaining the benefits of the potential investments.

Technology will play a critical role in helping facilities organizations meet these challenges. More than 80 percent of the 336 facilities and real estate decision-makers responding to a commissioned study conducted by Forrester Consulting on behalf of JLL in April 2021 indicated that technology investments are either important or extremely important to meeting their priorities, including work order management, productivity, effective asset management, and energy efficiency.

“Technology is a game changer,” says Teena Shouse, principal with FM Transitions in Leawood, Kansas. Using a well-integrated computerized maintenance management system (CMMS) or enterprise management system (EAM) with strong analytics enables more accurate forecasting and preventive maintenance. With a wholistic solution, an FM knows at the outset the schedule and costs required to operate each piece of equipment.

“So, you’d know ahead of time when to make significant or even minor repairs or maintenance,” Shouse says.

One reason for the increased importance of technology is the demand placed on many organizations, extending to the facilities management team. More than 80 percent of respondents to the above-referenced Forrester study indicated it was either challenging or extremely challenging to accomplish their top priorities, including creating workspaces that drive productivity, tracking and managing assets, and improving energy efficiency.

The pandemic illuminated the role of facility managers as guardians of occupant safety through building cleanliness, sanitized surfaces, and optimal air quality. In one nursing home, it was a facilities engineer who figured out how to reconfigure the HVAC system to isolate parts of the building, reducing the spread of the disease.

“Now, that’s a hero,” Shouse says.

Implementing the right technologies ensures that facilities managers can be proactive and focus on their top priorities instead of time-consuming, recurring tasks.

For example, automating work order management is a frequent challenge. As many facilities managers know, work orders often include not-to-exceed (NTE) limits. Service providers can submit quotes up to the NTE limit without additional approval. While this streamlines the work order process, it can be difficult to determine reasonable NTEs. Instead, they’re often set in an arbitrary way and lack sound rationale, says David Rainton, head, FMPM product with JLL Technologies.

To address this challenge, JLLT’s Corrigo, the leading CMMS/EAM for the FM industry, offers Smart NTE technology. Corrigo’s algorithm leverages local market data to determine reasonable NTEs. It then allows facilities managers to determine the percentage of work orders that will be automatically approved and the percentage for which quotes will need to be submitted and reviewed. This automation not only saves facilities managers valuable time for higher priority work, but also maximizes budgets by setting appropriate NTE limits.

This is just one example of how new technology can assist facility management departments. While senior leaders may be the first to adopt the innovations, in order to be truly effective, everyone in the department must embrace these products.

“Using technology tools isn’t only for senior-level facilities executives, but also those in the trenches,” says Stormy Friday, president, The Friday Group, an FM consultancy.

If they’re not already doing so, facilities professionals need to become technology conversant if they hope to thrive within their organizations, she says.

To make this undertaking more manageable, the Corrigo solution encompasses a range of online training materials, including courses, videos, and webinars, among others. The training is geared to a range of audiences, including facilities managers and their teams, third-party service providers, and customers of the facility management team, Rainton says.

As the U.S. emerges from the pandemic, numerous companies are trying to figure out what they’ll do with their real estate holdings, given that a hybrid work environment will reduce the need for extensive brick-and-mortar real estate holdings, Friday says.

“Facility managers are going to be asked to step up and help with some of that decision-making,” including decisions around scheduling and hoteling and even alternative uses, such as converting a shopping center to a senior-living facility.

“Analytical tools that help you determine the best use for some of your real estate are going to be important,” Friday says.

However, even as they gain a greater mastery of technical solutions, facilities managers must also remain skilled in numerous other functions. Steve Smith, CFM and director of the physical IT network with Arvest Bank Operations in Lowell, Arkansas, says that he used to have a picture of a door with the sign, “Facilities Manager: HR, risk management, custodial, security.” Over the years, he added several more functions to the picture, including accounting, purchasing, and procurement.

“While we all like to snicker about the many roles we ultimately get tapped to fulfill, you really do have to be adept in all of these to be successful in facilities management,” he says.

### Today’s Essential Facilities Management Skills

Responding to another survey, this one by FM PRO, more than 90 percent of facility management employers claimed there was a gap between the knowledge and skills their teams possessed and the ones needed to excel.

One skill critical for FMs is the ability to conduct online research for information on suppliers, says Alex Kogan, associate vice president of plant operations and housing departments with Rockefeller University in New York.

“Back in the day, we’d have to rely on Kelly blue book or vendors,” he says, adding that facility managers today need to know how to use the Internet to their advantage. “Online research is the starting point to finding solutions for many FM problems.”

Along with leveraging information found online, facilities managers need to be able to work with operational data. This includes data from a CMMS as well as feedback from surveys, equipment sensors, work orders, alarms, and other sources, Shouse says. By using this information, facilities managers can more effectively operate their property by addressing potential problems before they shut down a system, for example.

An ability to communicate, both verbally and in writing, particularly with tenants, remains key, Kogan says. While some maintain “the fewer phone calls we get, the better we’re doing,” consistent communication with tenants tends to be more effective, he says, adding that “facilities managers have to be almost part of the hotel industry. If someone is having a problem with their thermostat, you can’t just say, ‘I’ll get to it next week.’”

As part of their communication skills, facilities managers need to build and present solid business cases for proposed investments, Shouse says. “They have to sell the investments.” That means showing how an investment can help facilities managers do their job more effectively, and how that investment will benefit the organization overall. For instance, will a system allow a facility



manager to more proactively maintain equipment, reducing downtime and associated costs?

Strategic thinking and the ability to gain an understanding of the financial implications of buying or retiring equipment are increasingly important, Friday says. At many organizations, real estate has functioned apart from the facilities function, leaving many facilities professionals out of much decision-making for investments and capital expenditures.

“I think that’s one area that will change,” she says. Facilities managers will need to be able to think through the return on potential investments and the financial implications of different decisions. Technology will play a role in helping to report on and analyze the relevant information.

In recent years, sustainability and energy reduction have become more important to many organizations’ boards, as well as consumers and other groups, Kogan says. This will impact the facilities management role. For instance, rather than maintaining a constant building temperature of 70 degrees, allowing the temperature to fluctuate, at least during periods of low occupancy, can cut energy consumption and costs.

In fact, even as the need for these additional skills increases, the basic operational skills remain key.

“Facilities managers have to be jacks of all trades,” Kogan says. They still need to understand how the electrical, plumbing, ventilation and other systems work and how to operate them.

To aid in this, many CMMS providers, such as Corrigo, have expanded deeper into EAM functionality. Asset-tracking capabilities can document the maintenance history of each asset within a facility, relieving facilities managers of manually recording this data. In addition, predictive analytics can help facilities managers estimate future maintenance needs as well as the remaining useful life for tracked equipment. Strategies for extending asset life will result in longer performance with less maintenance costs overall and higher ROI.

## The Expanding Role of Today's Facilities Manager

Over the course of the last decade, the facilities manager's role has changed significantly. Ten years ago, the focus was technical and operational with customer service also playing an important role, Friday says.

"There was a big emphasis on call centers and processing work orders as well as operational efficiency," she says.

A job description from 10 years ago states that the facilities manager is "responsible for the administration of a comprehensive maintenance program, including overall maintenance, planning, and scheduling of both long- and short-range construction and maintenance projects."

Overall, the job description focuses more on maintenance tasks with priorities on physical demands and supervisory skills. The only mention of technology was one sentence about the "management of work orders, inventory, and information tracking and/or tools to assist with the prioritization of maintenance needs and resource planning." This description downplays technology and is common for its time.

Five years later, facilities managers were becoming more business-oriented, Friday says. They often were part of senior decision-making teams and tasked with ensuring the FM organization was contributing to the business's bottom line. The focus on energy efficiency and sustainability increased, and key performance measures were introduced.

A job posting from 2016 reads "facility managers are responsible for the day-to-day operation and administration of their designated building ... and will at times take part in wider operations and activities associated with the administration" of the facilities. Again, it's more about keeping the facility running with other departments to maintain consistency. There is no mention of technological skills for the profession.

Today's facility management function has become more mature, Shouse says. Finance and business knowledge are core competencies. FMs need to understand investments and depreciation and their impact on budgets and balance sheets. This requires the FM to consider FM technology from the perspective of finance, accounting, insurance, and real estate.

"It's a much more multifaceted profession than it ever has been," she says.

Managing human resources has also become a critical skill. Friday says that the FM workforce is both shrinking and aging, with an average age of 50 years old. Facilities managers need to be able to identify the knowledge, skills, and abilities needed for the future, and then identify the steps they'll take to remedy any labor and knowledge gaps, she says.



For instance, will the organization need to hire new people? If so, where can they find them? Or can it rely on in-house training or rotational assignments?

Several of the features incorporated within a modern CMMS system, such as dispatch boards (for facilities with internal techs), timecards, and scheduling tools, enable facilities managers to more efficiently monitor and communicate with their employees and vendors, Rainton says. "They gain visibility into how work time is spent," he adds.

As the facilities management profession becomes more complex, FMs are charged not only with ensuring equipment uptime, but also leading the facilities staff and its financial and operational performance. To accomplish this, facilities managers increasingly need to understand technology, Friday says. They'll need to know how to use technical solutions to manage building systems, inform decisions, leverage their staff, and present solid business cases to leadership.

While spreadsheets and presentation software have their role, "they alone cannot get you to that next level of operational excellence," Shouse says. Instead, reaching the next level is only possible with data that allows you to make "data-driven decisions," she adds. Facilities managers need solid operational data, metrics, and the ability to measure performance.

FMs today need to be strategic thinkers and leaders, as well as managers, Friday says. They need to know how to move their departments forward and contribute to the larger organization.

## Skills for Future FM Leaders

The skills and knowledge required for tomorrow's FM leaders are going to be centered around technology. They can and should start learning those skills today. Facilities professionals need to know how to leverage software that allows them to review financial performance, manage space and occupancy, estimate asset failure, present capital budgets to leadership, and analyze the efficiency of software automation, Friday says.

Fortunately, many facilities managers can begin working with facilities management software, like Corrigo, without advanced software skills.

Moreover, given the likelihood that a hybrid of on-site and remote workers will be the norm for the foreseeable future, understanding tools that help manage remote employees will also be key, Friday says. This includes knowing how to maximize the value of a virtual meeting, as well as understanding webcast technology and presentation strategies. It also means choosing vendors with wide and varied networks so that you can increase scope of service at a moment's notice and select technologies that work for on- and off-site employees alike.

### Job Description for the Facilities Management Role

The changes required of today's facilities professional extend to all levels of the organizational chart.

"Years ago, we were more concerned with the overall mechanical or electrical aptitude of a candidate, and if they knew to apply wood stain or sand with the grain or across it," Smith says.

While those skills are still relevant, facilities employees today need to understand the business risks of facilities operations, Smith says. That requires ensuring, among other things, that facilities management data is secure, accurate, and up-to-date. Data hygiene is essential for informed decision making.

Employees in facilities management need stellar interpersonal skills and should know how to be both a team player and a leader, Friday says. They should be informed about best practices and understand how to apply them in the areas in which they work. While they may not be leading presentations before other customer organizations, they should be involved in strategic decision-making exercises and in preparing and conducting presentations. The ability to discuss and justify funding requests for needed equipment to executive management is a critical skill.

These employees also should gain an understanding of their strengths and weaknesses and the direction in which they'd like their career to move. For instance, if they prefer to take a more technically oriented route, they'll need to work on gaining an understanding of building automation systems and how to utilize data in analyzing asset performance, Friday says. They should also understand the significance of metrics and their role in performance evaluation and not just for the FM team but for stakeholders like executive management.

Ongoing training is also critical, Kogan says.

"Whether a supervisor or field manager, they should take as much training and go to as many seminars as they can," he says. The return on investment from advanced learning from others, including peers, is "tremendous."

**Facilities Manager**

*Insert a statement here about why your company is a great place to work.*

**Job Summary**

The facilities manager is the single point of contact responsible for facilities management, assisting the corporate real estate team with the delivery of quality facility management services. This role will mentor and guide the facilities team in executing flawless, integrated facilities management, including financial management, facility maintenance, procurement, and supplier management. They will develop relationships with key representatives in supporting corporate real estate goals and objectives. Plus, they will actively drive an environment of teamwork, cooperation, performance excellence, and personal success.

**Responsibilities**

**Site Management:**

- Manage the sites in accordance with health and safety, environment, risk management, and other policies and procedures
- Assist with the development and implementation of the annual management plan for the buildings
- Identify opportunities for improved operation to drive efficiencies (process and cost) and make recommendations to the area manager for consideration
- Manage repairs and maintenance, minor works, and other requests, tracking to completion
- Source, procure, and oversee the performance of janitorial, mechanical, electrical, plumbing, carpentry, critical systems, HVAC, and other vendors; ensure services are delivered in accordance with the contract, applicable codes, if any, and to agreed standards
- Enforce compliance with all health and safety, environment, and risk-management policies and procedures in conjunction with the facilities manager
- Coordinate internally with other teams, which may include fitness, food services, transportation, security, capital projects, events, reception, and mail services
- Lead projects for small-scale construction activities
- Any other activities to support site operations, including, but not limited to, moves, reconfigurations, adds and changes
- Deliver monthly portfolio-management reports

**Finance Management, Cost Control, and Profitability:**

- Achieve or exceed financial targets and ensure effective and efficient operation of assigned responsibilities
- Ensure that operational expenditure for the sites is managed within agreed budgets, and identify efficiencies where possible
- Manage the annual budgeting and quarterly forecasting processes for the site(s) under your management
- Prepare current financial year budget spend reports (actual vs. budget, variance, etc.)

**Handwritten Annotations:**

- Corporate real estate business intelligence program (points to Site Management item 3)
- CMMS (points to Site Management item 5)
- employee experience app (points to Site Management item 6)
- video meetings, a collaboration tool, etc. (points to Site Management item 7)
- dynamic space optimization software (points to Site Management item 8)
- Corporate real estate business intelligence program (points to Finance Management item 1)

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### Technology Solutions for FM Teams

Among the technology solutions that promise to be key to facilities operations in the future are building management systems (BMS), the Internet of Things (IoT), CMMS, and EAM. This is in addition to traditional building systems, like HVAC systems and lighting controls.

BMS dashboards have become a critical tool, Kogan says. With them, facilities managers can address problems in close to real time and often remotely.

Conversely, just a few decades ago, resolving a problem in a building often meant calling in a service technician—a process that often was time-consuming and expensive.

Internet of Things (IoT) technologies are probably one of the bigger areas with which facility managers need to engage, Smith says. FMs have long had various forms of monitoring that alerted them when a system failed or some condition, like temperature, was outside the normal range. Now, advancements in technology—especially handheld devices—combined with sensors and communications capabilities make it very practical to remotely monitor and manage operations.



In addition, space management and occupancy-capacity planning become much more dynamic and accurate with IoT.

Post-pandemic, rather than a “new normal,” Friday foresees a “new frontier” that encompasses a hybrid approach to working, accommodating scheduling and hoteling, new uses of common spaces, and different approaches to space utilization and maximization.

“Analytical tools that help facilities managers and owners identify the best uses for their real estate will be important,” she says.

FM software with CMMS and EAM functionality will be critical, and facilities management professionals must know how to leverage these technologies, define FM goals, and measure them.

“It’s having the right technology and the right data,” Shouse says.

The pandemic highlighted the importance of effective filtration and air-quality management systems. For instance, will the HVAC design allow the staff to isolate someone who’s sick? Kogan asks. While these tools may be most relevant to design engineers, facilities management personnel need to understand them and know when they’re operating properly.

While technology is critical to the role of today’s facilities management professionals, several factors have often held back investments. To start, cost is always a concern.

“Many times, there is a lack of information about the benefits an investment will offer,” Shouse says. However, with a facilities management platform, such as Corrigo, facility managers average a 238 percent return on investment, according to the 2021 commissioned [Forrester Consulting study](#), “The Total Economic Impact™ of Corrigo.”

In addition, some employees may not fully trust technology.

“These are seasoned technicians who have always operated with a pen and paper,” she says. Now, they’re being asked to learn how to run a computer app, which also may track how they spend their time on different projects. “In many instances, there is a real resistance to the actual implementation of technical solutions.”

Before any solution can gain acceptance—so that it’s used widely enough to improve performance—this resistance needs to be addressed, Shouse says.

“The facility manager has to help ease that transition and make the process inclusive with the entire team,” she says. The role of the facilities manager to manage the change, including overcoming resistance and technology anxiety, can be a job itself, at least for a period of time.

**Assistant Manager, Facilities**

*Insert a statement here about why your company is a great place to work.*

**Job Summary**

Assist the facilities manager in the delivery of services to operate and maintain the property, including financial management, general office administration, facility maintenance, procurement, and supplier management. Develop relationships with key representatives in supporting corporate real estate goals and objectives. Actively support an environment of teamwork, cooperation, performance excellence, and personal success.

**Responsibilities**

**Site and Vendor Management:**

- Manage the sites in accordance with policies and procedures
- Maintain vendor-management system to accurately reflect compliance, contract, and insurance requirements for janitorial, mechanical, electrical, plumbing, carpentry, critical systems, HVAC, and other vendors
- Enforce compliance with all health and safety, environment, and risk-management policies and procedures in conjunction with the facilities manager
- Coordinate internally with other teams, which may include fitness, food services, security and capital projects
- Support the implementation of short- and long-term projects
- Enforce compliance with all health and safety, environment, and risk-management policies and procedures in conjunction with the facilities manager
- Any other activities to support site operations, including, but not limited to, events, safety, reception, mail services and moves/reconfigurations

**Quality Control:**

- Ensure that expected service levels are achieved; set up alerts to ensure the service levels are maintained
- Deliver an exceptional quality of service, as reflected by employee feedback
- Support the implementation of innovative programs and processes that reduce short- and long-term operating costs and increase productivity, leverage data and insights when applicable

**Finance Management:**

- Support team to achieve or exceed financial targets
- Assist with the annual budgeting and quarterly forecasting processes for the sites and prepare monthly spend reports (actual vs. budget, variance, etc.)
- Verify vendor purchase orders, invoices, and payments
- Help to develop and approve the annual capital plan for each building
- Proactively manage the site operations team

**Leadership/Staff Management:**

- Lead, manage, develop, and supervise a professional, friendly and energetic team

*Handwritten annotations in red:*

- CMMS (pointing to Site and Vendor Management)
- employee experience app (pointing to Site and Vendor Management)
- video meetings, a collaboration tool, etc. (pointing to Site and Vendor Management)
- dynamic space optimization software (pointing to Site and Vendor Management)
- corporate real estate business intelligence program (pointing to Quality Control)
- corporate real estate business intelligence program (pointing to Quality Control)
- CMMS (pointing to Finance Management)

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## Measuring Performance

Given the changes in the facilities management role, how can performance be measured? It starts with identifying the key performance indicators (KPIs) at the senior leadership level, Friday says. Facilities managers need to identify these goals and then use them to drive their own organizations.

In some enterprises, senior leadership may focus on how the FM organization supports the business units and helps them control their bottom lines. Or, they may expect the FM organization to apply best practices and policies that streamline and enhance the way it works. In some organizations, customer satisfaction and continual improvement may be key. In a growing number of organizations, sustainability has become a critical goal.

Whatever the goals identified by senior leadership, they should inform the goals of all levels of the facilities management organization and then develop relevant performance measures. For instance, measuring a goal of mitigating risks in a manufacturing environment may require tracking the percentage of run time. For an organization focused on sustainability, the measures may look at reductions in energy consumption.

The organizational structure can also play a role in measuring performance, Friday says. For example, in a global organization, the facilities team likely will be measured on its plan for managing facilities around the globe.

“The key is to make sure you’ve set goals and performance measures and that they’re relevant,” Friday says.

Facilities management organizations that don’t engage in these conversations and, instead allow others to establish the performance criteria by which they’ll be measured, are setting themselves up for failure.

“That’s why it’s important for the facility executives to maintain communication with senior leaders of the company,” Friday says.

Products, software and other tools have evolved faster than facilities managers have adopted them. It’s time for managers and their staffs to catch up to today’s innovations to effectively operate the buildings of tomorrow.



### Next steps:

Corrigo is the most powerful and trusted FM software in the world. Its CMMS and EAM functionalities enable FMs to deliver vendor-, asset-, and work-order management at scale. Corrigo helps FM teams transition from reactive to proactive while automating manual maintenance tasks for greater operational performance. The FM job role becomes far less daunting when technology permits FM teams to “manage by exception” and focus on the highest priority work.

To learn more about Corrigo, [contact an expert today](#).

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