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Sick Building Syndrome Costs Millions

PAGE 18

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ON THE COVER

18 SICK BUILDING SYNDROME COSTS MILLIONS

// DAVID ABLEMAN

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BEHIND THE COVER: You can't judge a building from its exterior — but wouldn't it be nice if it were possible to pick out the sick facility in a crowd? Buildings reveal very little about their health status from the outside, giving the false facade of a calm and normal environment, like the blue tones on our cover. However, from bad air quality to germs, sick building syndrome can strike a fever anywhere. Read our feature story on page 18 and make sure you protect your facility.



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ABOUT IFMA

IFMA is the world's largest and most widely recognized international association for facility management professionals, supporting more than 24,000 members in 94 countries. The association's members, represented in 130 chapters and 17 councils worldwide, manage more than 37 billion square feet of property and annually purchase more than US\$100 billion in products and services. Formed in 1980, IFMA certifies professionals in facility management, conducts research, provides educational programs and produces World Workplace, the world's largest facility management conference and exposition. To join and follow IFMA's social media outlets online, visit the association's LinkedIn, Facebook, YouTube and Twitter pages. For more information, visit the IFMA press room or www.ifma.org.

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*Check out the interactive version of FMJ, featuring **videos, online extras and more!** FMJ can also be viewed on mobile devices.*

THIS ISSUE

The online version of the publication includes interactive resources.

- **VIDEO:** "Sick Buildings" to accompany "Sick Building Syndrome Costs Millions" (p. 18)
- **WHITE PAPER:** "Sustainable Asset Management – Where Business Dynamics Meets Thermodynamics" to accompany "Five Ways to Successfully Incorporate Sustainable Asset Management" (p. 30)
- **VARIOUS RESOURCES:** "Emergency Preparedness Resources for Businesses" to accompany "Are You Ready?" (p. 36)
- **PODCAST:** "Prevent Catastrophes, Not Clean Them Up" to accompany "Best Practices for Risk Mitigation in Mission-critical Facilities" (p. 44)
- **ARTICLE:** "Addressing Total Worker Health" to accompany "Developing a Facility Safety Program? Consider Workplace Wellness" (p. 68)
- **DESIGN GUIDELINES:** "Los Angeles World Airports Public Restroom Design Guidelines and Specifications" to accompany "Six Key Considerations for a Restroom Redesign" (p. 79)

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SOCIAL MEDIA



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EDITOR'S COLUMN

ANDREA SANCHEZ
Editor-in-Chief
Facility Management Journal



AS I ENTER 2015 I don't set resolutions; rather I choose to remind myself of my goals.

The beauty of life is that each day offers a chance to start over. Success is not limited by yesterday; it is halted by not believing in tomorrow. Although a new year offers motivation to start the project you've been putting off, achieve a target weight or travel to the destination of your dreams, permission to do so lasts a lifetime.

We are all victims of the daily shuffle, trying to manage a healthy work-life balance. I have found that numerical celebrations, such as birthdays or a new year, have caused me to pause and reflect if my direction is still in alignment with my passions. We were each born to do our thing. Nobody does a better job at being you than yourself. Follow your instincts, live your dream and if necessary, look at today (not just the new year) as a fresh start.

Celebrating you

At IFMA we celebrate facility management daily. We take pride in representing a thriving profession that has a direct impact on making workplaces healthy, productive and cutting edge.

Did you know that in November 2014 your association welcomed the 5,000th successful Facility Management Professional credential holder? This certainly shows growing interest in the must-have designation among employers looking for credible FM professionals and industry suppliers. Refer to page 28-29 on how you too can enhance your professional worth through IFMA education.

In 2015, the association continues its emphasis on education and knowledge, heightening its focus on content. This was among the recent revisions made to the balanced scorecard strategic map in an

effort to remain valuable and relevant to the future growth of the profession. IFMA President and CEO Tony Keane gives an overview of the full changes in his column on page 12.

Celebrating value

In this issue we touch on the critical topics of risk management and environmental health and safety. As IFMA Chair Jim Whittaker states on page 10, "As FMs we need to promote workplace safety as a value rather than a priority." The following pages give a framework on processes, concepts and out-of-the box thinking that help build that mindset.

New to this issue, I would like to highlight the podcast with author and RLE Technologies Executive Vice President Jeremy Swanner. My interview with Swanner highlights the inspiration behind his risk mitigation story on page 44, as well as critical insights on monitoring technology and the surprising intangible costs related to catastrophes.

In closing, I would like to officially introduce the new IFMA Vice President of Corporate Services to the entire IFMA family (refer to page 56). Coming on board this past October, Clark is most looking forward to meeting everyone at the Facility Fusion conferences. To join him, go to page 35 for registration information.

Like Clark, I too am counting down the days to our spring events. Reconnecting with others re-energizes me. It is what gives me the motivation, the direction and the drive to sift through the daily shuffle and refocus on what's most important.

Thanks to each of you for being my light and reminding me what IFMA is all about.

Until next issue,

Andrea

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CHAIR'S COLUMN

JIM WHITTAKER, CFM, P.E.
Chair, Board of Directors



READ THE MISSION STATEMENT of just about any facilities organization and you will likely relate to some very common statements and concepts, such as — “Our mission is to create, operate and maintain facilities that provide a safe, secure, healthy and productive environment that enables the mission of the organization/institution.” It is indeed the facility manager’s job to not only deliver exceptional services, but to also implement policies and practices that achieve these missions. Health and safety are unquestionably paramount.

Unfortunately, some 2.2 million people globally die of work-related accidents and diseases each year, according to the International Labour Office. This number may even be vastly underestimated due to poor reporting in many developing countries and emerging markets. While the number of work-related illnesses and deaths has lessened somewhat in developed countries, the number of accidents appears to be increasing, particularly in some Asian countries, due to rapid development and strong competitive pressures of globalization.

In the United States alone, more than 4,500 workers are killed on the job annually. Every year in America nearly 4 million people suffer a workplace injury from which some may never recover. Put another way, every day in America 13 people go to work and never come home.

Workplace incidents around the world cause an enormous amount of physical, financial and emotional hardship for individuals and their families. The human and economic costs of these conditions are indisputably enormous. While facility managers cannot prevent all of these injuries and deaths, FMs do play an important role in managing risks and creating safer workplace environments.

Facility managers today must be able to assess workplace threats, vulnerabilities and risks, and develop preparedness plans and injury and illness prevention programs to protect our workforce and building occupants.

Canada, Australia and members of the European Union either require employers to adopt injury and illness prevention programs, or provide incentives or recognition to those who do so. For example, under the 1989 E.U. Framework

Directive (89/391), E.U. member countries must have national legislation in place requiring employers to maintain risk identification and prevention programs that are very similar in concept to the U.S. Occupational Safety and Health Administration's injury and illness prevention program.

In addition to workplace safety, it is now more important than ever to be prepared for emergencies and to recover quickly when they occur. Business continuity is the capability of an organization to continue the delivery of products and services at acceptable levels following a disruptive event. Today's FM professional should be prepared to help an organization upgrade its safety, emergency preparedness and business continuity programs to a higher standard. There are new international standards that can help.

Published in 2012, ISO 22301 Societal Security – Business Continuity Management Systems specifies requirements to plan, establish, implement, operate, monitor, review, maintain and continually improve a documented management system to prepare for, respond to and recover from disruptive incidents when they arise. ISO 22301 emphasizes the need for a well-defined incident response structure within which the FM plays an integral role. This ensures that when incidents occur, responses are escalated in a timely manner and people are empowered to take necessary actions. (For more on ISO 22301, see page 84.)

In this issue of FMJ you will have access to articles that can help you get your arms around not only environmental health and safety programs, but risk management, facility code and regulatory compliance, emergency preparedness, business continuity and more in the new year.

As FMs, we need to promote workplace safety as a value rather than a priority. This tells our customers that safety and security are built into our FM culture and not things that are simply done to comply with regulations.

Rather, it is simply all in a day's work for an FM to make the world a safer and more productive place!

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PRESIDENT'S COLUMN

TONY KEANE, CAE
President and Chief Executive Officer



HAPPY NEW YEAR! Most people I talk to always say they cannot believe how fast the years pass by, which I can also agree with as January marks my fifth anniversary serving as IFMA's CEO. It has been a busy five years with no shortage of activities and initiatives to accomplish. I also have several more white and grey hairs! Rather than reflecting on what has been achieved I would rather look at what we need to accomplish over the next five years.

Working with the board of directors through our strategic planning oversight task team (SPOT), IFMA board and staff collaborate to help IFMA advance the concepts and awareness of facility management worldwide. The tool we use is a popular planning method called the balanced scorecard (BSC).

Recently, SPOT and the board updated our BSC strategic map. Updates were made to our vision, mission and purpose statements, as well as our strategic themes. The new versions read as follows:

Vision: The globally recognized resource for facility management.

Mission: To advance and support the practice of facility management globally.

Purpose: IFMA exists to guide and develop the practice of facility management worldwide. IFMA advances the facility management profession through education, credentialing, government relations, professional development/leadership opportunities, research and standards development.

The new strategic themes are global community, membership, sustainability and knowledge/education.

These changes involved much thought and deliberation by the SPOT. What I like about the changes is that they reflect that IFMA recognizes the value of membership and is vested in creating a global community for practitioners of facility management. They continue to recognize the emphasis on sustainability in all that we do and highlight that our membership and global community will be enhanced through knowledge and education. Updating the BSC solidifies the foundation beneath our organizational initiatives.

What does this mean for the future?

1. **Continuing focus on the value and relevance of IFMA membership.** We see the knowledge strategy initiative leading the way to enhancing the membership value

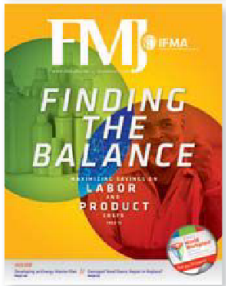
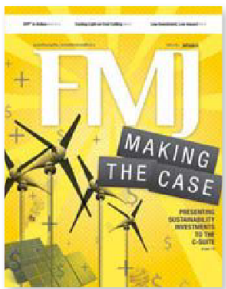
proposition. This includes how we highlight business and product solutions to the FM community.

2. **Building the global community for facility management through the board-approved global organization strategy.** This will guide the staff and board through various initiatives to better support IFMA's chapter, council and community networks. Continuing to increase the awareness of IFMA throughout the world includes our efforts in China, India and Europe. We will also continue to organize conferences around the world to create forums for FM professionals to come together.
3. **Building the infrastructure to support the strategy.** IFMA is investing in an updated flexible association management software solution. This is the customer relationship management software for IFMA. Additionally, we will be implementing a new content management system to support the knowledge strategy.
4. **Making sure that sustainability is an aspect of all that we do.** The sustainability area of IFMA's online community is currently open to all members free of charge. In addition, the Sustainability Advisory Group to the board continues to shape the development of our sustainability strategy.
5. **Enhancing research and benchmarking through joint IFMA Foundation and IFMA Research Committee efforts.**
6. **Further enhancing the relevancy of IFMA's FMP, SFP® and CFM® credentials around the world.** This will drive the delivery and the content associated with each credential.

There is much to do and not enough resources to make it all happen. We will continue to use the BSC to guide our decisions to implement initiatives and projects to carry out the direction of the association. The future is bright and the past is filled with accomplishment; let's continue to work together to fulfill the new vision, mission and purpose for IFMA!

I would like to say thank you to our Swedish Chapter for hosting a wonderful conference and for arranging a very worthwhile visit for IFMA Chair Jim Whittaker and myself in December.

Have you invited a colleague to join IFMA recently? If not, get to work and share the professional gift that keeps giving. Best wishes for a fantastic 2015!



WELCOME TO FACILITY MANAGEMENT JOURNAL!

FMJ, official magazine of the **International Facility Management Association**, is written six times a year by and for professionals who develop and maintain productive workplaces. FMJ is a trusted resource for global facility management trends and thought leadership.

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FACILITY MANAGEMENT NETHERLANDS PRESENTS SUSTAINABILITY RESEARCH

Facility managers and other end users responsible for structures have a key role in improving the sustainability performance of existing buildings. However, according to the field not enough parties know how to reach these end users or know their preferences. Therefore, Facility Management Netherlands (FMN), a partner of IFMA, Corporate Facility Partners (CFP) and the Dutch Green Building Council (DGBC), has conducted research in order to investigate the mindset of end users regarding the sustainability performance of their buildings in the Netherlands.

Who among end users belongs to the rich green cost cutters? The unchangeable green cheapskates? Or one of the other shades of green? The results are based on a scientific research among approximately 350 large organizations, responsible for more than 30 percent of all office buildings in the Netherlands. Through this research eight different sustainability segments were identified, along with the constraints that each segment faces. A website presenting the results of this research was launched during the IFMA conference in Stockholm, Sweden in December 2014. Visitors can navigate to <http://shadesofgreen.eu> to determine the segment in which they belong by answering three questions and read more about the mindset, dynamics and scale of each.

The research of FMN, CFP and DGBC shows that most (40 percent) of end users belong to the category "rich green cost cutters." These end users invest in sustainability, especially when the goal is to save money. They are actively looking for information and search for this information through various channels, such as attending conferences, reading work-related magazines and visiting websites.

Twenty-three percent of end users fall into the "persistent green frontrunner"

EIGHT SHADES OF GREEN



Research regarding segmentation eight shades of green and tips for improving sustainability performance. FMN, partner of IFMA, CFP and DGBC.

category. This group is eager to invest in sustainability, especially if the investment will create strategic value for the organization (for example, by fostering competitive advantage, innovation and image improvement). Only 9 percent comprise the "green dreamer" and "unchangeable green cheapskate" categories. These end users rarely see opportunities to invest in sustainability within their organization.

The way the world used the global natural resources in the past has now led to the situation in which our environment is polluted, the natural resources are depleted, climate change is occurring and global warming is one of the most important challenges of our time. More

than any other human undertaking, the built environment has a tremendous impact on our ecosystem. Studies show that buildings and construction are responsible for 40 percent of energy usage, 20 percent of water usage and 40 of percent carbon dioxide emissions. Luckily, the built environment has the greatest potential to significantly reduce greenhouse gas emissions compared to any other major emitting sector.

Bram Adema, director of CFP, finds the research of major importance for society: "For the first time in the Netherlands sustainable purchase behavior is mapped and described. All cheapskates, frontrunners and dreamers have the same sustainable goals within their segment, the same problems and can thereby be guided at the same time."

Maarten Dansen, operations manager of the Dutch Green Building Council, adds: "Everyone is an end user and is able to take action to make their housing more sustainable. Practical tips will help achieve this."

"This must-read research clearly charts how facility managers experience sustainability opportunities and obstacles. It gives end users important insights on how to take a leading position toward large-scale improvement of the performance of utility buildings," said Natalie Hofman, president of IFMA partner Facility Management Netherlands.

To learn more and find a number of tips to (further) green your organization, download the whitepaper of this research at <http://shadesofgreen.eu>. Or, contact Roel Masselink, association manager FMN, at +31(0)652454979; Bram Adema, director CFP, at +31(0)653378586; or Matthijs Timmers, press officer DGBC, at +31(0)103032777, for the full report.

NORTH AMERICAN SURVEY RESULTS REVEAL TOP DATA CENTER CONCERNS

Data center monitoring capabilities, availability and changes in technology are the leading top-of-mind issues for data center managers, according to a fall survey of data center users from Emerson Network Power, a business of Emerson (NYSE: EMR) and global leader in maximizing availability, capacity and efficiency of critical infrastructure.

The fall installment of the biannual survey polled members of the Data Center Users' Group® (DCUG), an association of influential data center, IT and facility managers captured input from more than 130 respondents across North America. The questions covered a variety of data center topics, including data center monitoring and management, capacity constraints, third-party colocation providers, energy efficiency and heat and power densities. A report of the results was released during the fall 2014 DCUG conference in Atlanta, Georgia.

The survey results show that, for the second time in 2014, technology change continues to be an increasing concern for data center professionals. In the spring 2014 survey, concerns over technology change rose from eight to number five; it continues to climb as it tied this fall for second place. When asked to identify their top three facility/network concerns, 35 percent of respondents cited adequate monitoring/data center management capabilities, followed by 34 percent for both availability/uptime and technology changes. Concerns over energy efficiency dropped from 44 percent in the fall of 2013 to 32 percent in this survey.

More than a third of survey respondents indicated that they are able to accommodate additional computing capacity without constraints, but available power, cooling and floor space were listed as restraining the growth capabilities of almost two thirds of the respondents.

Additional responses include the following:

- Seventy-eight percent indicated they have unplugged unused servers (i.e., ghost servers) in the past 12 months.
- Fifty-five percent of respondents have increased the temperature in their data center during the course of the year.
- Seventy-five percent of responses listed "resilient and highly available" as the greatest importance of data center capabilities.
- Thirty-two percent of respondents cited they were extremely likely to incorporate commissioning services in their next data center project.

Emerson Network Power uses the data from the DCUG survey to track market issues and inform programming at future DCUG and industry events.

ACCRUENT ACQUIRES VFA, INC.

Accruent, leader in real estate and facility management solutions, announced that it has acquired Boston-based VFA, Inc. (VFA), provider of end-to-end solutions for facility capital planning and asset management and a Corporate Sustaining Partner of the International Facility Management Association (IFMA).

According to IFMA, organizations worldwide invest more than US\$100 billion annually on renovating and maintaining their facilities and related assets. VFA's cloud software solutions and consulting services enable customers to assess their real estate portfolios, allocate capital and make better decisions to support their organizations' mission and strategy.

VFA serves government, education, health care and corporate customers

from its Boston, Massachusetts, USA headquarters. Founded in 2000, VFA has offices in the United States, Canada and the United Kingdom, and has current projects in 35 countries worldwide. VFA's solutions are used by more than 600 organizations worldwide across a variety of industries including federal, state and local government, higher education and K-12, health care and Fortune 500 corporations.

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Accruent helps real estate and facilities leaders deliver long-term, world-class

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Founded in 1995, Accruent is headquartered in Austin, Texas, with offices in Santa Monica, California; Evanston, Illinois; Columbus, Ohio; Pittsburgh, Pennsylvania; Boston, Massachusetts; Calgary, Alberta, Canada; and Hong Kong. For more information, visit www.accruent.com.

INDUSTRY NEWS



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March 10-11, 2015
Vancouver, British Columbia, Canada



IFMA'S FACILITY FUSION 2015 CONFERENCE AND EXPO

April 21-23, 2015
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June 1-3, 2015
Glasgow, Scotland, United Kingdom



IFMA'S WORLD WORKPLACE ASIA 2015 CONFERENCE AND EXPO

July 2015
Singapore, Republic of Singapore



IFMA'S WORLD WORKPLACE 2015 CONFERENCE AND EXPO

Oct. 7-9, 2015
Denver, Colorado, USA

WORKSOFT EXTENDS SUPPORT FOR MANHATTAN ASSET AND FACILITY MANAGEMENT SOFTWARE

Worksoft, an SAP partner and leading global provider of business process validation software for packaged enterprise applications, announced it has extended support for Manhattan property, asset and facility management software. Manhattan Software, a Corporate Sustaining Partner of IFMA, offers an advanced Web-based solution that readily integrates into an organization's existing IT infrastructure, which often includes SAP.

Worksoft's industry-leading platform for automating end-to-end business process validation across the system landscape is now able to better support Manhattan Software's integrated suite of products designed to improve clients' performance by enabling seamless management of all aspects of their real estate operations and portfolio. Manhattan offers strategic

software solutions for planning, managing and analyzing buildings, workspaces and facilities more efficiently and cost effectively.

Worksoft's platform helps organizations validate business process quality on a daily basis, shorten project timelines, improve agility and resolve system defects before they impact operations. Worksoft's flagship product, Worksoft Certify, brings speed and agility to enterprises by automating business process validation across all enterprise applications and interfaces – including all Web-based technologies, hybrid cloud environments, big data and mobile platforms. Worksoft Certify's architecture ensures that critical business processes continue to function properly as changes are made to underlying applications.

INTEGRATED SERVICES BUOY FACILITY MANAGEMENT MARKET IN AUSTRALIA

New analysis from Frost & Sullivan on FM in Australia finds that the market earned revenues of US\$32.01 billion in 2013 and estimates this to reach US\$42.15 billion in 2020. The study covers building, operation and maintenance, environmental management, IT and telecommunications, support services and property management.

The Australian facility management market is primarily driven by expanding construction activity which widens the asset base that must be maintained and managed. With owners looking to raise asset utilization rates, the need for maintenance and refurbishment services will further spur market revenues. Although the slowdown in the mining sector has dampened FM demand, the market is unlikely to be heavily impacted as most contracts are for the medium to long term.

"The resources sector boom prior to September 2011 and the strong trend toward outsourcing continue to open up significant opportunities for solution providers in the Australian FM market," said Frost & Sullivan Energy and Environmental Research Analyst Janice Wung. "The increased priority placed on energy efficiency and retrofits is also paving the way for market development. The increasing numbers of buildings undertaking environment-friendly upgrade works will eventually lead to the review of current FM practices of these buildings and the possibility of adopting energy-efficient approaches and leveraging appropriate technologies."

However, financial pressure as a result of uncertain economic and market conditions, along with the continued shortage of qualified FM professionals, is expected to temper this growth. Substantial reductions in budgets across a

number of public sector agencies will also affect FM adoption. In this cut-throat landscape, solution providers must leverage the rising popularity of integrated FM (IFM) and sustainable services to carve a niche for themselves. Tier I and II participants are likely to benefit the most from the rising popularity of IFM services.

"To cope with competitive and price pressures, FM vendors must also enhance internal efficiencies and improve their responsiveness to customers," advised Wung. "As market participants wrestle for market share, ownership or structural changes among key FM service providers will change competitive dynamics and positively impact the market in the coming years."

For complimentary access to more information on this research, please visit: http://corpcom.frost.com/forms/APAC_PR_DJeremiah_P83F-19_25Nov14.



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CLICK TO VIEW

Sick Buildings

SICK BUILDING SYNDROME COSTS MILLIONS



BY DAVID ABLEMAN

Who knew?

“The average desktop has 400 times more bacteria than a toilet seat,”¹ and chairs are often worse than desktops.

Dust mites are responsible for about 25 percent of all allergy diseases and a factor in 50 to 80 percent of asthmatic cases, as well as in countless cases of eczema, hay fever and other allergic ailments.² Moreover, “dust mites may be the most common cause of year-round allergy and asthma,”³ which “is one of [the U.S.] most common chronic health conditions.”⁴

Sick building syndrome

Poorly understood and most often unrecognized, sick building syndrome (SBS) costs companies millions every year through employee absenteeism, decreased productivity and even increased health care premiums. In addition, some costs are less apparent, at least initially, because they stem from the emotional impacts of SBS which often create exaggerated responses.

THE GOOD NEWS IS THAT MORE FACILITY MANAGERS ARE BECOMING AWARE OF SICK BUILDING SYNDROME

Whether or not the actual problem is severe, disclosure and perception may cause unjustified claims of serious and persistent health effects. Consider that the U.S. Environmental Protection Agency estimates that one of four new or renovated indoor buildings in the U.S. may be classified as “sick buildings.” Moreover, with the increasing trend toward collaborative environments, SBS is becoming a bigger concern because most cases of SBS occur in open-plan offices.

At a high level, the causes are frequently attributed to pathogens (e.g., viruses, bacteria or fungi) or ventilation-, humidity- and temperature-related issues. A bigger problem is that SBS is especially prevalent in newer, energy-efficient buildings in which windows are sealed shut and fresh air is scarce. Some research now suggests that SBS may even be caused by tiny amounts of chemicals escaping from paints, cleaning agents, carpets, photocopiers, office supplies and other sources that combine to make the air hazardous.

Symptoms may include:

- Eye, throat or skin irritation
- Headache, dizziness or nausea
- Irritated, blocked or runny nose
- Poor concentration or fatigue
- Respiratory illnesses including shortness of breath

In some cases, the symptoms are so severe that those affected can no longer work at the building in question. Most often, though, no single cause can be identified. Still, many facility managers are only focused on the obvious air-quality control solutions (although cleaning ductwork is frequently neglected for longer periods than recommended).

On the other hand, some of the real problems and potential root causes are overlooked, which should at least be tackled by leveraging some basic and cost-effective cleaning and preventative maintenance programs. For example, while many janitorial companies do a good job cleaning floors, bathrooms and kitchenettes, their processes don’t always sanitize. Worse, many workspace surfaces are overlooked, such as desks, conference room tables and chairs.

An ounce of prevention

Facility managers can follow a few simple steps to avoid or mitigate the development of SBS:

- **Ensure all ventilation, humidity and temperature controls are properly functioning and that system maintenance schedules are precisely followed and recorded.** In particular, check to ensure all vent grills are not blocked and that all ductwork, including humidifiers, dehumidifiers and cooling towers, is regularly cleaned. Furthermore, if your building doesn’t

already deploy automated software tools that track these environmental impacts and automatically trigger alerts as appropriate, consider acquiring some.

- **Establish routines that monitor the cleanliness of your building(s).** Be sure to spot-check the janitorial staff and their equipment to ensure their processes sanitize all the surfaces they clean. Evaluate whether or not cleaning supplies are properly used and stored. In addition, check that vacuum cleaners are up to code (vacuums with high-efficiency particulate air (HEPA) filters are best), regularly emptied and have clean filters.
- **Schedule preventative maintenance for all furnishings.** Unfortunately, furnishings are ideal breeding places for disease-carrying pathogens including bacteria, viruses and dust mites. Curiously, many facility managers don’t have standard procedures in place that regularly sanitize these commonly touched surfaces. Though often overlooked, furnishings (especially woods, leathers and upholstery) need to be deep cleaned, sanitized and preserved, not just wiped, dusted or vacuumed. Proven to improve the triple bottom line of profits, people and planet, onsite refurbishment is becoming recognized as a best practice.
- **Ensure that human resource (HR) policies and procedures include the requirement to notify the facility management team regarding any unusual employee symptoms or environmental concerns.** If there are credible reports of symptoms, a survey should be arranged immediately to avoid employee discussion, which can distort the findings. Also, though reactive, a final approach may be to simply monitor HR metrics regarding absenteeism. By comparing historical same-time-of-year data, especially if it can be monitored on a department-by-department basis (or better yet, floor-by-floor), the facility management team could head off a calamity.

Advice for employees

In addition, facility occupants should be encouraged to:

- **Comply with smoking policies.** Smokers should only smoke outside and far away from the fresh air intake ducts.
- **Maintain healthy plants.** Over-watered plants can develop mold, and dusty, dying plants don’t help air quality.
- **Keep eating areas clean.** Along with dust mites, pests such as cockroaches have been linked to respiratory problems because proteins in their droppings and saliva can cause allergic reactions or trigger asthma symptoms.

AND ARE MONITORING AND MAINTAINING SYSTEMS AND FACILITIES MORE PROACTIVELY.

Costs of sick building syndrome

The primary costs of sick building syndrome are initially identified and monetized by decreases in productivity, first caused first by absenteeism, and worsened by a loss of employee morale.

Consider that one landmark study of 6,000 office buildings throughout the United States during a five-year period showed that people costs outweighed facility costs by a ratio of 13:1 for owner-occupied buildings.⁵ More recently, salaries were shown to comprise 85 percent of the total costs, compared with only 8.5 percent for furnishing, maintaining and operating a facility. Therefore, senior management acknowledges that even small improvements in office worker productivity derived from facility management projects are clearly worthwhile.⁶

Additional costs are associated with identifying and mitigating the problems, along with lingering negative customer and stakeholder reactions.

Increase in productivity and revenues

Conversely, if treated as part of a preventative maintenance program, the potential bottom-line losses noted above can be alleviated, and demonstrable benefits are likely to impact the top line.

Studies have proven that appearances and “dressing for success” impact productivity.⁷ Similarly, “scientific research has firmly established that the office environment can influence people’s health, wellbeing and productivity,”⁸ with studies showing that keeping an office looking good increases employee productivity.⁹ The National Institute of Building Sciences recommends facility managers “assure a visually appealing environment.” Moreover, the appearance of an office workspace can be the difference between clinching deals and losing clients.

“Scientific research has indicated that improving the working environment results in a reduction in the number of complaints and absenteeism and an increase in productivity.” An obvious example is decreasing the spread of diseases (by decreasing bacterial growth), such as sick building syndrome, which could otherwise have a devastating impact.¹⁰

“When office workers are satisfied with their environmental conditions, when they can work in greater comfort and control, they will be more productive. Additionally, the cost of employment per worker will drop, and the cost of facility operations will decrease.”¹¹

The good news

The good news is that more facility managers are becoming aware of sick building syndrome and are monitoring and

maintaining systems and facilities more proactively. In addition, facility managers are taking more advantage of specialized onsite services that not only sanitize surfaces but can enhance environments by beautifying and preserving the lifetime value of furnishings (which also promotes sustainability).

By remaining diligent and proactive, facility managers can help improve the top line while decreasing losses to the bottom line by reducing absenteeism and the impacts of sick building syndrome. **FMJ**

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David Ableman is vice president of operations for PROTEK, a company specializing in onsite refurbishment, founded in 1963, and headquartered in Randolph, Massachusetts (www.protekcorporation.com). He oversees an experienced team which has completed thousands of projects throughout the U.S.

Northeast. Charged with managing quality control and customer expectations, Ableman is responsible for day-to-day operations, process improvement and onsite, overnight deliverables.

Ableman received a bachelor of science in chemical engineering from Carnegie Mellon University in 1982 and subsequently attended Babson College for an MBA. A member of IFMA with more than 30 years of professional experience, he is an award-winning and respected consultant, speaker, trainer and author.

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11 a.m. - 12 p.m.

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- **How to Persuasively Speak Up to Higher Ups**
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1:30 p.m. - 2:30 p.m.

- **They Cut My Budget Again! Now What?**
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- **Space Reservation Systems: Reduce Costs & Environmental Impact**
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- IFMA Leaders Training

Wednesday, March 11

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- **Smart Cities Challenging FM**
- **It's All About People: Building Communities in the Workplace**
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10:45 a.m. - 11:45 a.m.

- **The New Economy, Change & the Workplace**
- **Reducing the Environmental Footprint: A Tail of Perseverance & Continuous Improvement**
- **Understand the Cost of Fire Interruption in Your Church Facility & How to Limit These Costs**
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11:45 a.m. - 1:15 p.m.

- **General Session: Diving into the Deep Waters of Change: Focusing on the "How" of Change Management**

2 p.m. - 3 p.m.

- **Reporting FM Performance: The Right Balance of Metrics & Storytelling**
- **Deploying an Office Multi-stream Waste Management Program**
- **Real Estate & FM: New Players in the Urban Workplace**
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MANAGING RISK **THROUGHOUT THE FACILITY PORTFOLIO**



BY DAVID ISAACSON

Risk is inherent in any organizational effort, whether that organization is a commercial business, a hospital, a school or a government entity. While organizations invest tremendous time, energy and money in trying to manage many aspects of risk, they often underinvest in one major area: their facilities. Many organizations are now using a “risk-based” approach to infrastructure management to help them answer these questions:

Where is the greatest risk within the portfolio, both today and in the future?

What projects should be the highest priority to address the risk, given limited capital dollars?

How can these necessary expenditures be justified to management?

Identifying and managing the potential risks of facility condition

Why do otherwise well-run organizations fail to factor risk into a facility capital planning and management program? For one, there is usually no “standard” approach or method to quantify risk — no accepted metrics, processes or programs. They lack a method to combine risk analysis with other facility-related elements (condition, functional adequacy, etc.). And perhaps most significantly, they lack tools and training.

A wide variety of risks exist within most building portfolios, including life and safety issues; compliance with codes, mandates and regulations; environmental hazards; natural disasters; and the potential exposure of an organization’s image, brand and reputation. The financial impact of any of these risks can be severe, ranging from loss of business continuity,

to hefty fines for non-compliance and lawsuits, to the high cost of emergency repairs and unplanned projects. It’s important to identify these risks and quantify them in order to make intelligent decisions and develop capital plans that can protect organizations from unforeseen events and diminish risk overall.

It’s crucial to identify the specific risks the organization faces in terms of its facilities and the importance of each. Life and safety issues are always important to any organization, but they may be even more so in a facility that caters to the public. The type of facility affects the level of risk — for example, within a health care system, the failure of an emergency clinic is more crucial than the failure of an office building; for a university, the failure of classroom buildings most likely has a greater impact than the failure of administration buildings. Every organization has a unique definition of facility risk. Facility teams need to work with

IT'S IMPORTANT TO IDENTIFY RISKS AND QUANTIFY THEM IN ORDER TO MAKE INTELLIGENT DECISIONS.

departments across the organization to understand what facilities and systems are most critical in support of the organizational mission and its specific objectives. Knowledge is power, and identifying and quantifying risk will benefit any facility management team by providing the first defense against the worst or the unplanned. Emergencies will occur; organizations that plan appropriately will most quickly recover at lower cost.

The facility risk index – An actionable metric

Many organizations want to do more than identify their facility risk — they want to be able to measure the risk of failure so that it can be minimized by addressing deferred maintenance and conducting proactive maintenance. While the data from a facility

condition assessment can be used in a basic prioritization scenario, the risk index is an asset metric that can take into account multiple considerations, and combines system criticality and facility condition to present a more accurate measurement of risk. The risk index provides an objective view into facility risk and builds a solid case for funding capital projects.

The risk index process has three steps: create risk templates, calculate the risk index and demonstrate the potential impact of risk on the organization.

Step 1: Create risk template

The first step in the process is to create building models, known as templates, for all building types and then break them into major systems. Organizations can define various risk factors, such as criticality and impact on operation, and each system in a building should be rated on these risk factors. The model can be used to examine the risk today versus five and 10 years forward. The model can then be applied across the organization's facility portfolio. The risk profile of individual buildings can be tailored to the organization's unique situation while the model can be adjusted by the purpose of the building and other variables.

As part of the process, weightings need to be defined to understand the relative impact of each risk factor (e.g., applying a weighting factor to see the level of criticality for each building). You might rate a prime system that provides critical support and needs immediate renewal a 1.75; a system that provides functional non-critical support with renewal needs 10 years in the future, a .5.

Step 2: Calculate risk index

The risk index includes deferred maintenance requirements linked to the area of risk (generally identified during a facility condition assessment) and a system criticality/risk factor.

The cost of project requirements as defined during a facility condition assessment is multiplied by the risk factor and then divided by the estimated replacement value for that system or facility. The index is calculated for each system as well as the whole facility. Three risk indices are calculated for the current situation, as well as for five and ten years ahead.

Step 3: Demonstrate impact of risk

Once risk is identified, addressing critical issues prior to failure is vitally important. With projects prioritized and the risk index in place, facility managers can justify both short- and long-term budget requirements by demonstrating the impact of different funding levels on the risk of an individual facility or the entire portfolio. Using "what if" funding scenarios, organizations can pinpoint the risks and highlight the financial consequences if the work is not completed.

How can facility managers act on this data? With a prioritization and budget ranking tool, it's possible to rank capital projects against each other and determine which of the projects will most significantly bring down the level of risk. The key is to integrate this information into the overall capital plan.

Mitigating risk through prioritization

A Fortune 500 pharmaceutical manufacturer with more than 100 million square feet of infrastructure supporting its worldwide operations learned how important it is to factor risk into a facility capital planning and management program. The company's business continuity plans were essentially emergency response plans. A lack of investment in infrastructure and failure to identify and address systemic problems at its plants left the company vulnerable. When a facility failed, it had a significant negative impact on the brand's reputation and the bottom line. The disruption limited its ability to maintain an adequate stock of quality products in stores and pharmacies.

To avoid similar business disruptions, the company developed a "risk-based" approach to infrastructure management which helped to prioritize mission-critical systems. In this case, the highest priority was given to systems and equipment that affected production, whether directly or indirectly. Through

this approach, the company has minimized unnecessary expenditures in end-of-life systems and tied capital allocations to functional value.

In another example, a research laboratory with government funding needed to meet "mission readiness" mandates. The challenge was how to allocate limited capital funds to remediate aging infrastructure for mission-critical systems. In order to meet the mandate, the facility team needed to determine risk by analyzing three factors: time, the risk of failure and mission criticality. First, team members worked closely with the organization's leaders to define the mission importance of each facility and rank them accordingly. They then determined the criticality and risk of the major systems within each facility and calculated a system mission criticality index (SMCI) for each system based on timeframe (near term (one year), medium term (five years) and long term (10 years)). This information was then rolled up into an overall mission criticality index (MCI) for each facility. Based on the MCI, the team identified areas of high mission criticality that could pose an immediate impact on life safety, regulatory compliance or environmental risk.

Risk resolution

Risk management enables facility managers to take into account those factors that can have a major impact on the operations of not only individual buildings but also the organization itself. A risk index provides an objective view into facility risk and builds a solid case for funding. The flexible model enables facility managers to adjust variables based on systems and their importance for the company's operation.

With effective risk management, facility managers can pinpoint areas of risk within the organization's portfolio, today and in the future, and systematically prioritize projects to address that risk. A repeatable, consistent process for evaluating and addressing facility risk enables strategic decision-making and provides a level of confidence to an organization's facility staff and management. **FMJ**



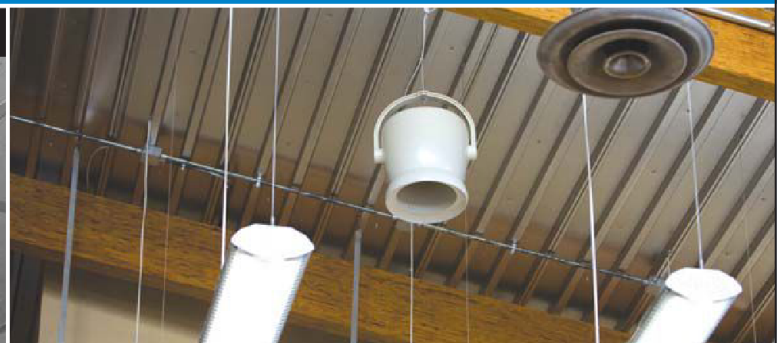
David Isaacson is director of product marketing at VFA, Inc., an Accruent company, the leading provider of end-to-end solutions for facility capital planning and management.

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Finance and Business: Facility managers manage/oversee high-value assets that represent significant financial investment in technology, buildings, structures, interiors, exteriors and grounds. Since facility managers are typically responsible for the oversight, operation and maintenance of the buildings and grounds, as well as oversight of various service contracts, understanding the basics of finance and business is critical.

Leadership and Strategy: To be effective, facility managers must develop strategies to successfully carry out major initiatives by influencing the decisions and attitudes of others. Effective strategies require that facility managers are able to integrate people, places, processes and technology. They must be able to align the facility portfolio with the entire organization's missions and available resources, and to be innovative in order to move forward with their staff and processes to respond to the ever-changing requirements.

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Sustainable Asset
Management –
Where Business
Dynamics Meets
Thermodynamics



WAYS

TO SUCCESSFULLY
INCORPORATE
SUSTAINABLE ASSET
MANAGEMENT

BY AARON L. DAVIS

Optimizing asset performance and minimizing cost and risk are fundamental objectives of asset management. Managers tasked with sustaining such assets are often faced with funding constraints, resource capacity limitations and environmental regulations.

The challenge with successfully incorporating sustainable asset management practices is often found within the organizational culture. Change is not easily accepted and “business as usual” seems to be the motto when new ideas or methods are introduced. However, in any organization, at any point in time, change is necessary and will more than likely require a gradual, result-driven integration.

Today, sustainable asset management is not the sole responsibility of one department; it must become a part of the organizational culture. At all levels within an organization, there are lessons to be shared with regard to the synergy between sustainability and asset management. This article offers ways to incorporate sustainable practices throughout an organization with short- and long-term goals that can aid in successfully moving toward effective asset management.

1. Get familiar with ISO 55000 asset management standards

The International Standards Organization (ISO) recently introduced its ISO 55000:

Asset Management Standard family, providing guidance and best practices focusing on a proactive, systematic approach to asset management. These standards can be used to establish an asset management benchmark for your organization. In the short term, determine your gap analysis highlighting areas for improvement. This is the first step in being able to make future capital improvement decisions based on actual metrics.

In managing assets, your ultimate goal is to increase reliability and lower the total cost of operating these assets. The ISO 55000 standard provides a framework for effectively and efficiently managing assets in an organized manner by utilizing information to report asset performance measures, project future capital expenditures and offer valuable process improvement. Being able to convey the benefits of the ISO 55000 standard provides support and justification for projects, initiatives and improvements needed within your organization.

Obtaining the ISO 55000 certification is the one of the highest recognitions with regard to leadership in asset management and may be a long-term goal for your organization. However, compliance with these standards will still improve reliability, reduce your total cost of ownership as well as elevate the understanding of the importance of sustainable asset management to personnel at all levels of your organization.

2. Understand total cost of ownership (TCO)

During an asset life cycle, there are necessary costs that are associated with maintaining desired levels of service. Whether fixed or variable, it is imperative to capture all costs related to owning any asset. Storing all asset costs in a central repository allows owners and managers to identify the present net value of an asset at any point in the life cycle. It is important to keep accurate record of these unavoidable expenses, as information derived from analyzing TCO can actually save you time and money in the long run.

Once you are able to identify and track all associated ownership costs, TCO becomes a primary key in decision making throughout the life cycle. Total cost of ownership allows for accurate measurement and calculation of condition indices, thus analyzing the overall performance of an asset in comparison to its intended useful life. Although it is not the only deciding factor for future capital investments, TCO can help FMs make a convincing case to decision makers through clear, concise, cost-related metrics.

3. Obtain buy-in from senior management

It may seem a bit out of place to recommend obtaining buy-in from senior management in the middle of this article, yet there is initial groundwork that needs to be done in order to paint the sustainable asset management picture you want to portray. Being able to present the current gap that exists within your organization after familiarizing yourself with “world-class” standards sets the tone for closing that gap.

It is also beneficial to be able to quantify the financial impact of assets requiring attention, primarily those reaching the end of their useful lives. Providing senior management with real-time net present value and sunk costs based on metrics derived from the total cost of ownership analysis can support renewal and replacement decisions. It is imperative to support any case for capital improvement funding with facts.

Contrary to the latter, senior management buy-in is often a prerequisite for actions or initiative requiring written approval or financial support. The recommendations that follow include developing policy and implementing sustainable asset management options that require approval and financial investment.

The main reason for obtaining senior management buy-in at any stage in the process is to obtain support. When you’ve presented the framework for improving asset management

SUSTAINABLE ASSET MANAGEMENT IS NOT THE SOLE RESPONSIBILITY OF ONE DEPARTMENT; IT MUST BECOME A PART OF THE ORGANIZATIONAL CULTURE.

practices and laid the groundwork for reaching certain goals, it gives senior management more confidence in your vision and mission. Through written approval and clear direction from the top, the practice of incorporating sustainable asset management becomes contagious at all levels and finds its way into the organizational culture.

4. Implement sustainable operations and maintenance procedures

Efficient operations and maintenance (O&M) within any facility is the lifeline for preserving and extending asset life expectancies. Yet, developing sustainable O&M standards that meet the intended levels of service as originally designed is the ultimate goal.

Taking a proactive approach to O&M offers an advantage in staying ahead of the “depreciation curve.” Signs of deferred maintenance will eventually reveal themselves and cost owners more money the longer the maintenance is postponed. Operations and maintenance standards should be used as a benchmark and frequently compared to actual asset performance metrics. Having a strategic plan to manage O&M procedures prior to procurement in addition to budgeting the necessary funds to maintain asset performance pays off in the end.

Following are six sustainable O&M

practices that can be implemented within your organization:

- Put your sustainable O&M practices in writing. Written policy sets a baseline for acceptable tolerances and sets standards for sustainable expectations.
- Foster a culture focused on continual commissioning to ensure optimal asset performance and energy efficiency.
- Develop predictive life cycle asset management programs and/or plans aimed at improving the reliability of assets at scheduled intervals.
- Be responsive to changes in the original intended use of the facility.
- Look for opportunities to reduce waste or recycle materials.
- Buy green. Procuring environmentally friendly products contributes positively to the indoor air quality.

5. Take advantage of available technologies

New asset management technologies have evolved over the years and have had a major impact on the way we capture information, analyze data, track performance and closely monitor and control assets. These technologies are designed to more easily control or adapt to varying environments.

Below are several new technologies that lend a helping hand to sustainable asset management:

- **Enterprise asset management systems**
The main objective of an enterprise asset management system is to have a holistic approach to managing physical assets.

There are several types of enterprise asset management systems ranging from simplistic spreadsheets and/or database tracking to complex systems with

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an integrated methodology offering life cycle modeling, asset analytics, maintenance scheduling, real-time dashboard reporting and geospatial information system integration. Technology has even provided these capabilities in the form of mobile devices allowing access to asset information on the go.

Whether simple or complex, be sure to select an enterprise asset management system that best fits your organizational needs.

- **Building management systems**
Building management systems can serve as a beneficial tools for facility managers. With the proper controls in place, building management systems provide a real-time look at the vital signs of a facility.

This technology allows managers to improve energy efficiency by providing energy usage information and even making automatic adjustments for systems that are out of acceptable operating parameters. A building management system automatically provides alerts that help personnel respond quickly to urgent issues. Although building management systems aid in monitoring asset performance, there still remains the human aspect of decision making that should be not omitted but supported by the use of such new technology.

- **Geospatial information systems**
Whether you are managing one asset or many, implementing geospatial information systems offers many benefits that

IT IS IMPERATIVE TO SUPPORT ANY CASE FOR CAPITAL IMPROVEMENT FUNDING WITH FACTS.

compliment sustainable asset management. This technology has transformed over the years into more than just a mapping capability of correlated data points. This advanced technology has the ability to combine various attributes of an asset from a very high level (such as GPS coordinates) down to the small details (including layered space allocation) for any room in a facility.

Using geospatial information systems provides consistent and readily available asset information by visually depicting resources such as utilities, roadways, storm water infrastructure, structures and buildings. Geospatial information systems provide great benefits when integrated with enterprise asset management systems.

A progressive approach

The recommendations presented in this article are aimed at providing gainful insight to various sustainable asset management options. There is no one way to go about approaching this topic. However, this is theme may reach all industries where fixed assets exist. No matter the industry, no matter the

discipline, managing assets in a more efficient and sustainable manner is a goal we should all be striving to achieve. It's the progressive approach to learning, shared best practices, lessons learned and action-driven solutions to issues and challenges that drive continual improvement within sustainable asset management.

To further this discussion, IFMA's Airport Facilities Council has partnered with Hartsfield-Jackson Atlanta International Airport, the world's busiest and most efficient airport, to host an International Sustainable Asset Management Conference, June 23-23, 2015 in Atlanta, Georgia, USA. For more details on how to get involved or to attend, visit www.isamconference.com. **FMJ**



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Emergency
Preparedness
Resources for
Businesses

ARE YOU READY?



BY MICHELLE KARPMAN

As a facility manager, do you know what to do in case of a natural disaster or human-caused hazard? Will your facility's occupants, clients, customers and employees know what they must or can do in a hazardous situation?

In today's world a multitude of hazards, including natural disasters (such as floods, hurricanes, tornadoes, earthquakes and tsunamis), as well as human-caused calamities (such as accidents, acts of violence and terrorism), can impact you as a facility manager. Other examples include technology-related incidents and widespread serious illnesses such as the H1N1 flu virus. As a facility manager, you are at the forefront of ensuring your facility and organization are prepared for a variety of threats.

In order to be at the ready, facility managers should develop preparedness plans and programs that will address many of the hazards that have the potential to impact the business or businesses in their facilities.

The U.S. government's Federal Emergency Management Agency (FEMA) has a free program (Ready Business) which is based on their successful "ready" advertising campaign.¹ The ready campaign was designed to educate citizens and prepare them to respond to emergencies including potential natural disasters and terrorist attacks. Ready Business helps businesses develop tools that utilize an "all-hazards approach" and is based on the program elements of the

National Fire Protection Association 1600 Standard on Disaster/Emergency Management and Business Continuity Programs.² The Ready Business campaign is comprised of five core areas, including program management, planning, implementation, testing and exercises and program improvement.

Program management

Why should management develop a preparedness program? According to the Insurance Information Institute,³ up to 40 percent of businesses that are affected by natural or human-caused disasters do not reopen. Customers still expect the delivery of their products or services on time and will go to competitors if there are significant delays. In addition, insurance does not cover all losses and will not replace customers or clients.

Program management begins with the leadership, commitment of management and financial support to develop and administer a preparedness program. Although regulations (e.g., building, life safety and fire codes; U.S. Occupational Health and Safety Administration standards; and environmental laws) establish minimum requirements, each business or facility must determine how much risk it can accept, as many risks cannot be insured.

Often a preparedness program may be the only means of managing those risks. The preparedness program should be consistent with the mission and values of the business or facility and define the roles and responsibilities of all parties, including both management and employees. Typical goals of preparedness programs include:

- Protecting the safety of employees, visitors and contractors from potential hazards at the facility, including planning for persons with disabilities;
- Minimizing disruptions to business operations to maintain customer and client services;
- Protecting physical assets, electronic information and business facilities;
- Preventing environmental contamination; and
- Shielding the organization's brand, image and reputation.

In any preparedness program, elected employees will play key roles. These vital employees will serve on the committee that develops, implements and maintains the preparedness program.

If possible, the committee should include employees with knowledge of all aspects of the business and include members from management, legal, human resources, insurance and risk management, facility and property management, environmental health and safety, as well as engineering and security personnel.

A coordinator should be appointed to lead the committee and guide the development of the program. The program coordinator should also be responsible for communicating essential aspects of the plan to all building occupants and employees in order to ensure their active participation in the preparedness effort.

Additionally, performance objectives are vital for the development of a successful preparedness program. These objectives are the steps that need to be taken to achieve the response goals and should be developed for all aspects of the program, including hazard prevention/deterrence, risk mitigation, emergency response and business continuity.

Once administered, preparedness programs should be reviewed periodically to make certain they meet the current needs of the business and, if applicable, that pertinent laws or regulations have not changed. Good program administration includes keeping records on file for easy access.

Planning

Because it is hard to determine the probability that a specific hazard will impact a business or facility, it is important to adopt an “all-hazards

approach” to the planning process. The planning process involves gathering information in relation to potential hazards and their associated risks through a comprehensive assessment. The risk assessment should recognize possible hazards and loss scenarios that may disrupt businesses in the facility, as well as deterrence methods and risk mitigation. Figure 1 identifies hazards, assets at risk and the associated impacts. Due to the potential for significant impacts, mitigation should always be a top priority.

Natural or human-caused disasters clearly have the capacity to disrupt businesses and facilities. Common business disruption scenarios include: physical damage to buildings; damage or breakdown of machinery, systems or equipment; restricted access to buildings; as well as loss and corruption of information technology.

Unlike a risk assessment, a business impact analysis evaluates the consequences of the disruption of services and gathers information for recovery strategies. The business impact analysis should identify operational and financial impacts while considering lost sales and income; delayed sales or income; increased expenses; regulatory fines; contractual penalties; customer or

client dissatisfaction and delay of new business plans. The information in this analysis is useful for making informed decisions with regard to investments that will offset risks and help avoid business disruptions.

Implementation

When implementing the preparedness plan, facility managers will need to identify and assess resources, write the plan, develop systems to manage incidents, and train building occupants and employees so they can execute the program. Table 1 includes the top implementation tools for a preparedness plan.

Testing and exercise

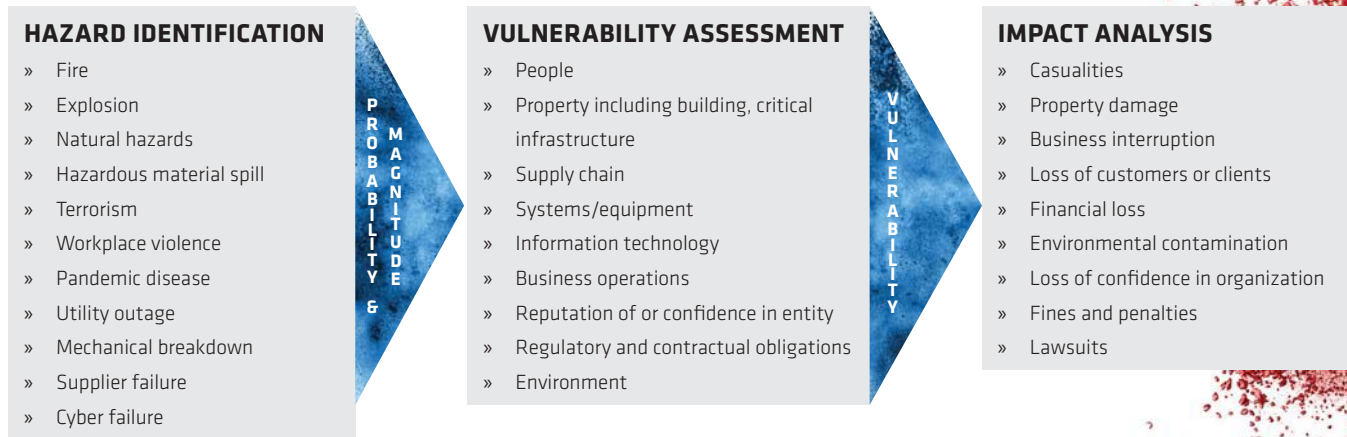
To ensure the preparedness plan is effective, it is necessary to test and evaluate the measures it outlines. Conducting testing and exercises will ensure building occupants and employees will know what to do in hazardous situations. It also helps clarify the roles and responsibilities of personnel while reinforcing their knowledge of procedures, facilities, equipment and systems.

Testing and training exercises may also reveal weaknesses and resource gaps in the plan itself and are necessary when determining

TABLE 1. Top implementation tools for a preparedness plan

RESOURCE MANAGEMENT	Identify the resources needed to respond to emergencies and continue business operations during and after an incident.
EMERGENCY RESPONSE PLAN	Develop a plan to protect people, property and the environment. Plans should include evacuation, sheltering in place and lockdown strategies.
CRISIS COMMUNICATION PLAN	Establish a plan to communicate with building occupants, employees, customers, clients, other stakeholders and the media
BUSINESS CONTINUITY PLAN	Include a plan of recovery strategies that will mitigate the disruption of business services.
INFORMATION TECHNOLOGY PLAN	Develop a plan to recover computer hardware, connectivity and electronic data.
EMPLOYEE ASSISTANCE AND SUPPORT	Encourage employees and building occupants to create their own personal family preparedness plans.
INCIDENT MANAGEMENT	Maintain an incident management system that defines the roles and responsibilities and coordinated activities before, during and following an incident.
TRAINING	Train all persons with defined roles in the preparedness program for their assigned tasks. All building occupants and employees should be trained to ensure they can take appropriate protective action during an emergency.

FIGURE 1. Risk assessment process diagram



Source: www.ready.gov/risk-assessment

whether or not various parts of the preparedness plan are viable during times of crisis. Exercising the preparedness plan will similarly help the facility manager evaluate the program and its capability to protect building occupants, employees, facilities, business operations and the surrounding environment.


Program improvement


Opportunities for program improvement occur following an incident and facility managers should carefully critique the implementation of a crisis response. Lessons learned from other incidents that occur within the community, within a given industry or outside of the region can help


identify areas for program changes in the preparedness plan. Furthermore, sound program improvement involves identifying when the preparedness program needs to be reviewed. Gaps and deficiencies identified during a review should be recorded and addressed through a corrective action program that documents the information.


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TABLE 2. Plan and protect your facility and business

Comprehensive preparedness plan				Ready.gov	www.ready.gov/business
NATURAL HAZARDS					
	Flood service	FEMA			msc.fema.gov/portal
	Earthquakes	USGS			earthquake.usgs.gov/
	Hurricanes	Ready.gov			www.ready.gov/hurricanes
	Volcanoes	USGS			volcanoes.usgs.gov/
	Heat stress	OSHA			www.osha.gov/sltc/heatillness/edresources.html
HUMAN-CAUSED HAZARDS					
	Workplace	OSHA			www.osha.gov/dcsp/compliance_assistance/quickstarts/general_industry/gi_step3.html
	Attacks against buildings	FEMA			www.fema.gov/what-mitigation/fema-452-risk-assessment-how-guide-mitigate-potential-terrorist-attacks-against
	Workplace violence	FBI			www.fbi.gov/stats-services/publications/workplace-violence
	Chemical or biological	EPA			www.epa.gov/risk/
TECHNOLOGICAL HAZARDS					
	Technological security	NIST			csrc.nist.gov/publications/pubssps.html
	Cyber security	NICCS			niccs.us-cert.gov/
OTHER RESOURCES					
	Disaster sites	NIOSH			www.cdc.gov/niosh/topics/emres/sitemgt.html
	Risk assessment table	FEMA			www.fema.gov/media-library/assets/documents/89542
	BIA questionnaire	FEMA			www.fema.gov/media-library/assets/documents/89526

Importance of preparedness

Compared to previous decades, the number of declared major disasters doubled in the 1990s. These, combined with the human toll from terrorist attacks such as the Oklahoma City bombing in 1995 and the Sept. 11, 2001 terrorist attacks show how important it is for every facility or organization to be prepared.

Although each situation is unique, any organization can be prepared if it develops a preparedness plan, puts emergency procedures in place and practices for all kinds of scenarios. Morgan Stanley is one such company that

showed practice pays (see case study).

Table 2 provides more information to help U.S.-based facility managers and businesses create a preparedness plan that addresses the impacts of today's many hazards. **FMJ**

REFERENCES

1. www.ready.gov/business
2. www.nfpa.org/codes-and-standards
3. www.iii.org

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CASE STUDY: MORGAN STANLEY

In 1993, when terrorists attacked the World Trade Center in New York City for the first time, financial services company Morgan Stanley learned a life-saving lesson. It took the company four hours that day to evacuate its employees, some of whom had to walk down 60 or more flights of stairs to safety. While none of Morgan Stanley's employees were killed in the attack, the company's management decided its disaster plan wasn't good enough.

Morgan Stanley took a close look at its operations, analyzed the potential disaster risk and developed a multi-faceted disaster plan. Perhaps just as importantly, it practiced the plan frequently to provide employees safety in the event of another disaster.

On Sept. 11, 2001, the planning and practice paid off. Immediately after the first hijacked plane struck

One World Trade Center, Morgan Stanley security executives ordered the company's 3,800 employees to evacuate from World Trade Center buildings Two and Five. This time, it took them just 45 minutes to get to safety.

The crisis management did not stop at that point, however. Morgan Stanley offered grief counseling to workers and increased its security presence. It also used effective communications strategies to provide timely, appropriate information to management and employees, investors and clients, and regulators and media.

SOURCE

www.fema.gov/media-library-data/1387572158481-3561e0b74b8da0f6deb4424c9a29bbf6/business_morganstanley.pdf



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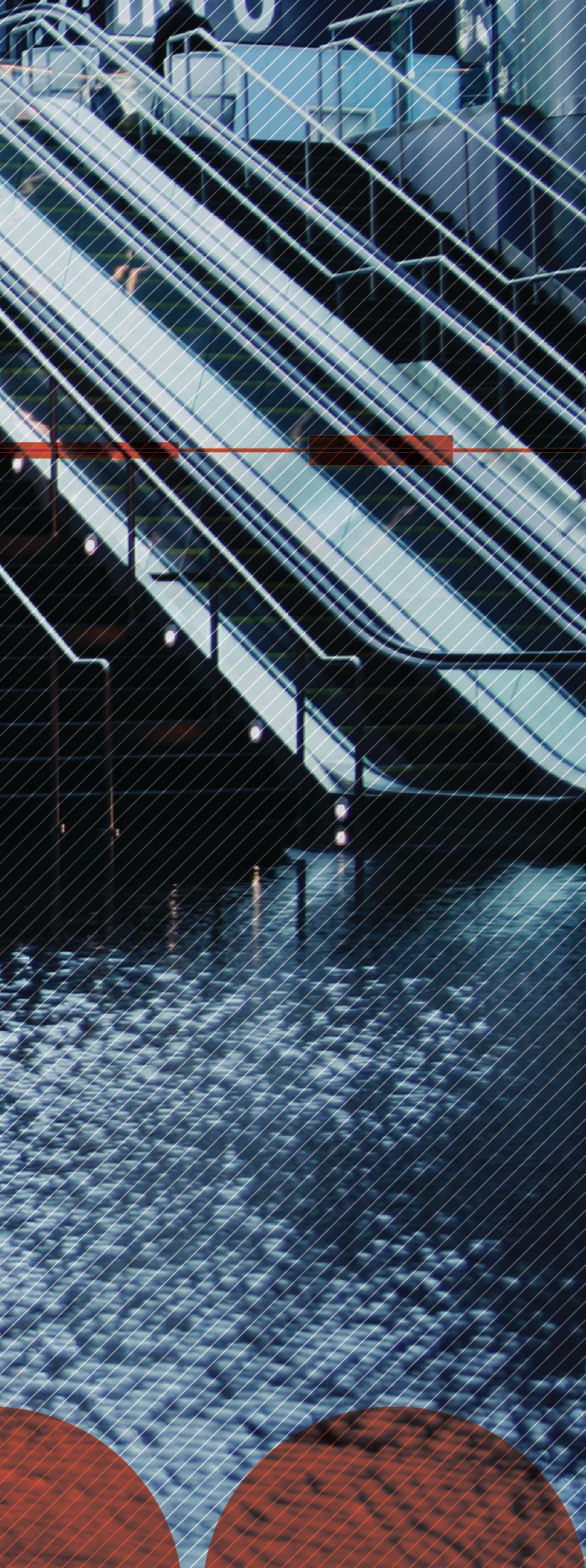
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BEST PRACTICES FOR

RISK MITIGATION

IN MISSION-CRITICAL FACILITIES



BY JEREMY SWANNER

Reducing downtime is always top of mind for facility managers and mitigating risk in mission-critical facilities is one of the highest priorities. There are several best practices that should be implemented to help ensure that facilities will operate smoothly and efficiently. Taken in combination, these techniques allow facility managers to preemptively address threats before they happen as well as eliminate the cause of downtime as quickly as possible.

Invest up front

The most important way to mitigate risk in a mission-critical facility is to make the investment in qualified staff and a monitoring system. The latter is of particular importance, as spending a relatively small amount of capital up front can minimize the cost of downtime later. Whether the mission-critical facility is at risk of rapid temperature changes, damage from humidity, fluid leaks, lack of airflow, fire, smoke, etc., facility monitoring will allow you to eliminate a small threat before it becomes a large one.

By making a relatively small investment up front, FMs can avoid:

- Damage to mission-critical data
- Interrupted organizational productivity
- Replacement costs of equipment and other assets

There are also intangible costs to consider, such as lowered employee morale after a major downtime incident, decreased



A FACILITY IS ONLY AS GOOD AS THE PEOPLE WHO MONITOR AND MAINTAIN IT.

customer loyalty and damage to your company's reputation.

When making the case to invest in a new critical facility monitoring system, it is important to remember that there's is more to worry about than threats that will result in immediate catastrophic failure, such as natural disasters (hurricanes, tornadoes, etc.), although they are an important consideration.

Sometimes, it's the small, persistent problems that can cause the costliest issues over time:

- Water leaks
- Chemical leaks
- Overheating
- Power surges
- Changes in air quality (pressure, composition, etc.)
- Excessive humidity
- Vermin

These lead to another important point regarding critical facility risk mitigation: It's never too late to retrofit.

Never too late

While it is ideal to equip mission-critical facilities with monitoring systems before construction begins, there are many options available for established facilities. When retrofitting a monitoring system into an existing facility, it is important to ask a few important questions:

What type of facility is being protected and what are the most likely scenarios for a significant downtime event? The broadest questions can sometimes yield the most important answers. For example, water leak detection is much more important to a facility in a hurricane zone while temperature monitoring is critical to a large data center with a history of airflow management issues. FMs should begin the process of retrofitting a facility by thinking about the big picture of the most probable causes of downtime due to location and layout.

How sensitive is the facility to various threats? Unfortunately, the list of

threats to a mission critical-facility is almost endless:

- Fluid leaks
- Sensitive, small server room environments
- Equipment that can't communicate with BMS or NMS systems
- Use of caustic chemicals
- Large facilities that routinely encounter a broad range of environmental threats
- Fire and/or smoke damage
- Humidity
- Temperature

However, the good news is that there are a variety of monitoring technologies on the market that can address these issues with little effort and low cost. The key is to prioritize the most likely threats that need to be addressed immediately and identify those that can wait.

What would the cost be if an issue were to arise? When making the case to management on whether it is feasible to retrofit a facility with a new or upgraded monitoring system, the numbers speak for themselves. Given industry average figures of US\$7,900 per minute cost of downtime and an average of 86 minutes per incident, a typical downtime incident costs businesses more than US\$675,000.¹

Also, given that some sources put the probability of an environmentally caused downtime incident at as high as 20 percent, it's not a matter of if you will experience an incident, it's a matter of when one will occur.

Document everything

Experienced facility managers know that those who fail to learn from history are doomed to repeat it. All mission-critical facilities should be operating with a considerable volume of documentation, but effectively maintaining those operations for the long term is dependent on implementing the right type of documentation.

Unfortunately, detailed procedures

needed to perform important routine functions are sometimes missing or incomplete at mission-critical facilities. While a robust monitoring system will report on what is happening in a facility at any given moment, it is also vital to have written directives in place so that staff know the procedures for daily facility operations as well as disasters. Written directives should include topics such as:

- Administrative procedures
- Standard operating procedures
- Emergency operating procedures
- Incident reports
- Failure analysis
- Lessons learned

This allows facility managers to make improvements, analyze and correct errors, and avoid making the same mistakes going forward. Most facility managers have a reporting and documentation system in place, but it is important to evaluate whether the procedures in a critical facility are giving the necessary level of information that is needed to make informed decisions for the future. If a critical facility is in need of a more expansive system, the cost of modern documentation programs varies widely based on system complexity, the level of automation in the facility and the degree of change needed to reach the uptime goals of the facility.

Proper documentation of a mission-critical facility requires:

- Site walk-through procedures
- Processes for operations and maintenance activities
- Facility work rules
- Report templates
- Change management processes and procedures
- Current facility drawings and schedules

Train

No matter how comprehensive the monitoring system is in a mission-critical facility or how thoroughly documented the processes are, a facility is only as good as the people who monitor and maintain it.

Investing in ongoing vocational training and continued education for facility managers is essential to minimizing risk in a mission critical facility. This should include systematic and methodical training of staff in administering an emergency-preparedness plan, periodic training exercises, unannounced inspections and exercises related to the greatest risks faced by the facility, evaluation of these efforts and a process for improving identified deficiencies.

Department heads should perform annual evaluations to analyze the gap between the minimum skill level at which staff should be operating and the level at which they are actually performing. Implementing a qualification and certification program designed to appraise skill levels through written exams as well as practical skills demonstration will provide valuable feedback on the positive and negatives of current training efforts.

Depending on the circumstances of the facility, it can be difficult to institute a comprehensive training program for staff. Both the investment of time and capital can be enough to deter senior staff from developing training and evaluation programs. Myopic decision makers resist at their own risk, however, as the outlay for staff training and evaluation are more than compensated for by the corresponding increase in uptime, reduced cost of upkeep and decline in employee turnover.

Even once a documentation and training program has been operating successfully over the short term, training should not end once a staff member has reached his or her benchmarks and become credentialed at a predetermined level. It is essential to enhance that knowledge with the lessons learned from new resources on an ongoing basis (including the firsthand experience of the seasoned staff at your critical facility). Any new information gleaned from these

interactions can be adopted into a current training curriculum and implemented for future recertification.

Best practices

Trying to minimize risk in a mission-critical facility will always be an evolving paradigm. Natural disasters, threats to security and unseen problems like fluid leaks will always be a threat to the goal of uninterrupted operations. However, by employing a few best practices you can stop a small hazard before it becomes a large problem as well as address major threats as efficiently as possible.

- Recognizing the danger of small threats and investing in a monitoring solution before they have a chance to cause downtime
- Assessing a facility's current capabilities and retrofitting new technology to fill the gaps
- Thoroughly documenting all systems and procedures to better handle issues as they arise
- Implementing a training program to keep the facility management staff as informed and educated as possible. **FMJ**

REFERENCE

1. IT Performance Engineering and Measurement Strategies.



Jeremy Swanner, based in Fort Collins, Colorado, USA, is currently the executive vice president of RLE Technologies, a leading provider of leak detection

systems and Web-based monitoring solutions for mission-critical facilities. He has more than 25 years of in-the-trenches experience in the critical facilities space, with a focus on how to better protect sensitive facilities from threats.

Thanks to his diverse background, Swanner has been at the forefront in developing threat detection technology and other controls to help ensure uptime.

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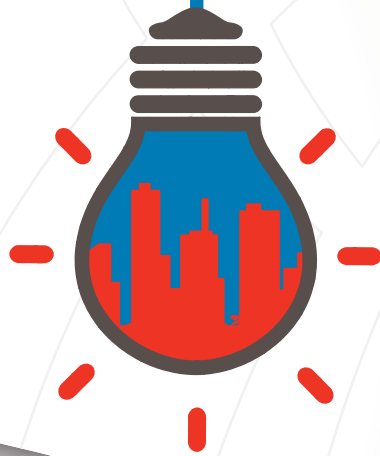
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an fm symphony

BY BILL CONLEY

SYMPHONIC MUSIC CAN BE DESCRIBED as art with structure. It can be innovative and creative while adhering to standards; swelling or soothing, while sensuously pleasing.

Yet, for all its artfulness, music still must conform to established confines. In fact, music has been defined as the science and art of arranging tones or sounds to produce a composition having unity and continuity.

It is said by some that facility management is a combination of science and art. Such a perspective could invariably lead to a correlation between the creation and performance of music and the fulfillment by facility managers of their responsibilities. FMs need to know the technical aspects of their job while artfully satisfying their customers; musicians must be fully aware of the capabilities of their instruments and must know their audience.

According to the British poet William Congreve, "Music hath charms to soothe a savage breast, to soften rocks or bend a knotted oak." According to the American writer William Conley,

"facilities hath the ways to soothe irate users, soften workplace stress and unravel knotted challenges." It just takes a certain willingness to appreciate such parallels.

This can be further evidenced by witnessing the efforts of facility professionals from around the world and their involvement as part of an ISO task force. ISO TC 267 has been assembled to make facility management a recognized and understood discipline throughout all industries; it plans to use the ISO standards format to promote international recognition and consensus of the role and value of facility management. It is the task force's intent to arrange a standard that will define the field of facility management, the role and responsibilities of facility managers and evoke awareness of how facility managers and their craft provide value to their organizations.

Because of differing fundamental concepts of music, many languages do not contain a word that can be accurately translated as "music" in

the way the word is generally understood in Western cultures. Structure varies, as well. For instance, the octave is a basic interval in music. Yet, depending on the culture, the octave is treated in diverse ways.

Just as music is not congruent throughout the world, neither is facility management. Area measurement standards change from country to country, as do official systems of weights and measures. Definitions hold connotations on different scales, as do concepts, approaches, expectations and end results.

ISO TC 267 has accepted the challenge of melding professional differences into a standard that resonates throughout the world. Facility management has a direct impact on everyone involved with organizations and their productivity. There is a need for standards that will allow the profession to grow in a globally

unified manner. The goal of the task group is to contribute input and achieve consensus among all players, much as instrumentalists in a symphony orchestra work in concert to deliver satisfaction to both themselves and a mixed audience.

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ISO role in facility management

The question may arise as to why standards are needed in the FM profession. The answer is the same if this was asked of music. It improves quality of life. It adds value to everything that is done,

cutting across cultural and behavioral borders. Music is viewed as a universal language. FM standards are being designed to perform that same role; facilitating the fulfillment of responsibilities that are required of those who serve as stewards of the workplace, regardless of geographic location.

IFMA is involved because it understands the importance of this action, and the organization wants to maintain and solidify its position as the global leader for facility management. The ISO process will help define facility management as a global profession while identifying the key characteristics of the discipline. It will provide a clear understanding of what data FMs will need to succeed. It will deliver a consistency and alignment that will be dedicated to a constancy of terms and definitions so that these standards can enable the growth and continued

maturation of the profession. These standards will be composed to help fulfill the promise of quality performance for both the practitioners and the beneficiaries of facility management.

In the musical arena, “arranging” is composition that utilizes previous material to amend and extend it, such as in “mash-ups.” A mash-up is a contrivance made popular by musique concrète in 1940s Paris, where appropriate and congruent pieces from both established music and environmental sounds were melded together to create a new, yet familiar, composition. It is a process that requires analysis of existing work, accompanied by rewriting to fulfill newly established parameters and involves new supporting material injected by the arranger.

This system can be replicated in a number of disciplines to good effect. One approach of ISO TC 267 would be to capture themes and determinations from other ISO standards that are related to facility management. As these terms are already accepted globally as part of ISO, it makes sense to utilize them. Some of these would be:

- **ISO 9001:** Quality Management
- **ISO 14001:** Global Green Standards
- **ISO 22301:** Societal Security/Business Continuity
- **ISO 22411:** Ergonomics
- **ISO 26000:** Social Responsibility
- **ISO 29481:** Building Information Modeling
- **ISO 50001:** Energy Management
- **ISO 55000:** Asset Management

These published procedures, coupled with European standards (EN) maintained by the European Committee for Standardization (CEN) provide a solid baseline of arrangements from which to create a singular mash-up related specifically to facility management — familiar, yet new. IFMA wants to set the tone of these proceedings. The plan is to take a holistic approach in creating a perspective of the profession and deliver a stand-alone document that integrates the efforts of past standards committees.

ISO standards

A standard is a published document. It is a set of rules to be used consistently as good principles, practices or guidelines. A standard controls how people develop and manage materials, products, services, technologies, processes and systems. Much like a sheet of music, it is created to keep all performers playing to the same tune. An ISO document is developed as an international standard. It is intended to have worldwide usage. It is written under strict protocols with participation from delegates from all over the world. Once released, it is presented to the world at large.

ISO (INTERNATIONAL ORGANIZATION FOR STANDARDIZATION)

is an independent, non-governmental membership organization and the world's largest developer of voluntary international standards. The organization is comprised of 165 member countries who are the national standards bodies around the world, with a central secretariat based in Geneva, Switzerland. ISO was founded after World War II in Geneva with the mission to gather insights from multiple nations to coordinate industrial standards and integrate them into guidelines that would work at a global level. To date, ISO has published more than 19,500 international standards.

International standards make things work. They give world-class specifications for products, services and systems to ensure quality, safety and efficiency. They are instrumental in facilitating international trade. The role of ISO standards is to ensure that products and services are consistently safe, reliable and of good quality. International standards give state-of-the-art specifications for products, services and good practice, helping to make industry more efficient and effective. For business, they are strategic tools that reduce costs by minimizing waste and errors and increasing productivity. They are developed through global consensus to help organizations access new markets. They serve to level the playing field for developing countries and facilitate free and fair global trade by helping to break down barriers to international trade.

A strong case can be made that ISO standards have helped facility management practices develop into what they are today, and that they can be utilized to prepare the industry for continual improvement of processes and systems into the future. To that end, and with those goals in mind, a technical committee (TC 267) has been formed, under the leadership of the secretariat, Stan Mitchell (U.K.), to create standards exclusively for facility management.

Harmony is to music what perspective is to facility management. An often-cited definition of music is that it is organized sound; facility management can be viewed as organized chaos. ISO standards for FM will assist in the global harmonization of terms and concepts that will better publicize the positive contribution of facility management to the world.

These standards will facilitate trade, spread knowledge, disseminate innovative advances in technology, and share good management and conformity assessment to all practitioners. Music is the science or art of ordering tones or sounds in succession, in combination and in temporal relationships to produce a composition having unity and continuity. Like ISO, it is an ordered arrangement whose meaning is presentative.

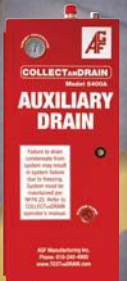
ISO standards currently provide solutions and achieve

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benefits for almost all sectors of activity, including agriculture, construction, mechanical engineering, manufacturing, distribution, transport, medical devices, information and communication technologies, the environment, energy, quality management, conformity assessment and services. It is time to add facility management to the songbook.

The ISO process

ISO only develops standards for which there is a clear market requirement. The work is carried out by experts in the subject drawn directly from the industrial, technical and business sectors that have identified the need for the standard, and which subsequently will put the standard to use.

Each ISO standard goes through a six-stage process before being published. Much like a musical composition, the process is stacked to provide integration

view, based on a single platform. It progresses to a polyphonic state; i.e., the point/counterpoint part of a discourse. It then graduates to a homophonic texture that absorbs the polyphonic input to create orchestration, leading to comprehensive completion.

As in any effort, the first place to start is at an uncluttered beginning. In the ISO process, that entails determining and establishing a need for the standard. Impresarios from the 165 member countries of the organization are identified and enlisted to orchestrate the work. Each member body that has an interest in the work of the committee is entitled to join. ISO TC 267 currently boasts 24 members.

Once the standard has been defined and proposed, the preparatory stage ensues, where a working draft of the standard is developed. Everyone hums a few bars until they can all play along. In musical terms, this would be the exposition. The work then goes to committee and invites critical review, leading to consideration and consensus. The development stage would ensure that the piece has a good beat and is easy to dance to.

This output then becomes a draft international standard (DIS), which serves as a dress rehearsal. The DIS is presented to all member bodies for their vote. If 75 percent of the vote is not achieved, then it goes back to the sound stage for further refinement. If the DIS does pass muster, it then goes into the approval stage where the audience is given another chance to critique the work. If the 75 percent or more approval rating still stands, it proceeds to publication. This would be analogous to the recapitulation (restatement) section of a musical movement.

The IFMA Standards Committee

Within IFMA itself, a Standards Committee has been formed to provide direction and long-term strategy related to the development and delivery of FM standards. It aims to promote the awareness and understanding of codes along with education and resources for IFMA members.

Although this committee has no active role in the American National Standards Institute (ANSI) or ISO, it will help refine IFMA's role by supplying a rhyme and reason to the process. It will maintain the sense of relatedness to the central tone to which ISO TC 267 needs to adhere and strive to ensure the proper strategic alignment of standards activities with IFMA's vision and mission. The committee is tasked with ensuring that the interests of facility management are realized in the updating of standards, codes and regulations, while exploring potential collaborations

with other organizations for standards development. Serving as the "house band" to the main orchestra, it will provide support and tonality to the overall arrangement of the composition.

International FM Standards

ANSI is the official U.S. member of ISO and serves as coordinator of U.S. input to the organization. The U.S. Technical Advisory Group (TAG) has been assigned by ANSI to IFMA as the U.S. administrator of ISO TC 267. Since 2012 the current ISO TC 267 international FM standards initiative has attracted the attention of 32 countries including the U.S. and the associations that comprise EuroFM.

The development of ISO 18840 Facilities Management is currently being overseen by two active working groups:

- **Work Group 1** is focusing on facility management terms and definitions
- **Work Group 2** is working on facility management guidance on strategic sourcing and the development of agreements.

The pace of this type of an endeavor is slow and deliberate. Quality and comprehensiveness cannot be rushed. A movement is a complete and comparatively independent part of a larger (musical) work and it takes time to develop. This particular movement will carry the FM profession to new heights as the standards will accurately represent its role in the overall scheme of ISO.

If music be the food of life, play on. Just as symphonies are composed to broaden the horizons of the audience and reach across boundaries and cultures to add quality to lives, so too are the contributors and composers of ISO TC 267 trying to create a work that will resonate globally. It will be a universal symphony submitted by impresarios from all around the globe. Upon completion and publication, everybody in the profession will be able to play along, to the appreciation and satisfaction of a global constituency. **FMJ**



Bill Conley, IFMA Fellow, CFM, SFP, FMP, LEED AP is owner/CSO of CFM2, a facility management and sustainability consulting company based in Orange County, California, USA. Conley has more than 35 years of experience in the facility management

profession and has been a proponent of sustainable operations for more than 20 years.

Conley has served on the IFMA board of directors, is a recipient of IFMA's distinguished member of the year award and has twice received the association's distinguished author award.

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ON OCT. 27, 2014, IFMA WELCOMED AARON CLARK as vice president of corporate services. Clark joined the executive management team and has oversight of the association's finance and administration, Web services, information technology and project management.

Clark brings more than 16 years of business expertise in the areas of operations, IT, strategy and finance. He served as chief financial officer of Si Environmental based in Houston, Texas, USA, where he was responsible for accounting, finance, human resources, capital structure and strategic planning. He also served as financial

director and director of organizational change management at Southwest Companies (a utilities company) where he worked for five years.

Clark holds a leadership certification from Rice University, a Master's of Business Administration in finance from Texas A&M University and a Bachelor of Arts in general studies from the University of Michigan.

FMJ Editor-in-Chief Andrea Sanchez had a chance to chat with Clark about his background and his thoughts on IFMA.



FMJ: What was your first impression of the association?

CLARK: I was incredibly impressed by the passion of the employees and their desire to serve our members and customers. They truly understand IFMA's purpose and work hard daily to take care of our members in multiple ways, such as professional development and credentialing, events, knowledge sharing and more. I also noticed how much internal change is occurring such as investing in new technologies and programs to be more innovative, effective and efficient, therefore serving our constituents better.

FMJ: How is IFMA different than other places you've worked in the past?

CLARK: The fact that IFMA is a not-for-profit association is the obvious response, as previously I have worked exclusively for-profit companies.

I have served on non-profit boards before for charities and a chamber of commerce as a volunteer; however, I have never worked for one in a full-time capacity. While IFMA obviously needs a profit to allow us to pay our bills, to invest in innovation for our stakeholders, to take care of our workforce, etc., it is not the primary goal of our organization. Our purpose is much larger than just maximizing shareholder value.

The other main differentiator in my short-term observation is, as I mentioned earlier, the focus on our members and customers. At prior employers, not everyone was keenly aware of the value proposition we wanted to offer and who our stakeholders were. I have been impressed by how everyone at IFMA is very focused, aligned and rowing in the same direction.

I think a primary reason IFMA's workforce is on the same page with regard to our focus is due to the balanced scorecard with known objectives, which is part of our vocabulary and serves as a tool for guidance. As the phrase goes, "What gets measured gets managed," and we manage the components of our strategic objectives to ensure we are delivering on our mission and vision.

FMJ: What strengths do you bring to the IFMA team?

CLARK: I have a genuine passion for people and teams and believe I'm strong at both leading and managing. In fact, IFMA just invested in change

management training for our leadership team and we started with a strengths-finder diagnostic test. My top two strengths were communication and winning others over, which I share just to demonstrate that I am truly programmed to enjoy human interaction and communication.

I am so committed to the art and science of leadership that I obtained a certificate in leadership from Rice University during 2007 and 2008. I have found that I apply daily what I learned during those 18 months.

Another strength would be my analytical and quantitative skills which I honed during my MBA program at Texas A&M immediately following my undergraduate studies at the University of Michigan. My MBA concentration was in finance and the skills I learned there have been applied in various arenas since graduate school. I spent a lot of my career doing analysis and "number-crunching" and am very comfortable with reporting and data, which I believe is paramount to success.

Finally, I'm a hard worker who is grateful to be at IFMA, as I strive to self-motivate to deliver the best I can for the association.

FMJ: What do you most look forward to in your journey with IFMA?

CLARK: I most anticipate attending my first event like Facility Fusion or World Workplace to meet in person those we support and who support us in return. I am super excited to meet and interact with professionals who embrace facility management. I also think experiencing an IFMA conference in person will bring home to me what all of our employees talk about in terms of helping our members and customers.

FMJ: If you could ask a member anything, what would it be and why?

CLARK: The first question would be "How can IFMA serve you better?" Obviously all members have issues, needs and wants that matter to them personally; however, I believe there is potential for trends to develop that will factor into how IFMA prioritizes future opportunities to become an even better association and serve our customers and members in a greater capacity. I then would thank them for their membership and for supporting IFMA. **FMJ**



2015 IFMA Foundation FM Student Programs

The IFMA Foundation is proud to announce our FM student programs for 2015. We encourage you to get involved and impact the future of the FM profession by supporting FM students.

FM Student Scholarships

Every year, the Foundation's scholarship sponsors make it possible to award about 40 FM students with a total of US\$150,000 in scholarship funds along with fully paid travel to and participation in IFMA's World Workplace Conference and Expo. Scholarship sponsors come from around the world and include IFMA chapters, IFMA councils, FM solution providers and other FM organizations.

Complete details for sponsoring a scholarship are available on the Foundation's website at www.ifmafoundation.org. The Foundation's scholarship program is specifically designed to make it easy to find qualified students while eliminating the administrative and logistical tasks of offering scholarships.

Foundation FM scholarships:

- Offer sponsors the opportunity to set the award criteria (e.g., priority to local colleges and university students, students from the local area or region, students with specific interest in certain industries, etc.),
- Are a terrific opportunity to name a scholarship honoring long-time members or volunteers, leaders or employees and
- Demonstrate support of the future of the FM profession on a global level at World Workplace.

2015 ePoster Competition at World Workplace

In addition to offering scholarships and recognizing top scholars of the profession, students are invited to compete in a virtual academic poster competition each year. The competition culminates at World Workplace with the ePoster finalists presenting at the conference. The competition was revamped and reformatted in 2014 in an effort to be more inclusive of FM students from around the world, regardless of their ability to travel to the conference.

ePosters representing work in the field of facility management and the built environment are accepted in voice-over Microsoft PowerPoint format. Students can present recent FM projects,

International Student of the Year Competition

In an effort to recognize, honor and encourage excellence among FM students from around the world, the IFMA Foundation proudly presents the annual International Student of the Year competition. Students must be nominated for the award and the application submitted by the nominating/sponsoring entity.

Students are judged on merit, not need, in these areas:

- Academic performance
- Achievements and accomplishments in FM activities, projects, work experience, exchange programs, internships, involvement with professional organizations, demonstrated leadership skills, etc.
- Understanding of FM
- Aspirations as a future FM professional
- International perspective and experience
- Letters of recommendation
- Nomination forms and complete program guidelines are available on the IFMA Foundation's website at www.ifmafoundation.org.

internship or cooperative projects (approval from sponsor organization required) or FM-related research work.

The ePoster competition, as with all of our student programs, needs volunteer assistance to reach out to local institutions with FM-related degree programs and communicate the opportunities to students with the support and encouragement of local IFMA members.

To learn more about the Foundation's student programs, contact any of the IFMA Foundation staff. You can find full contact info on the Foundation's website at www.ifmafoundation.org.



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FM CONGRESS 2014:

REGIONAL PERSPECTIVES ON FACILITY MANAGEMENT

BY ANDREA SANCHEZ

ON SEPT. 18, 2014, in conjunction with IFMA's World Workplace Conference & Expo in New Orleans, Louisiana, USA, key representatives from the major facility management associations worldwide reconvened to discuss FM trends, challenges and opportunities. Now in its third year, the panel was facilitated by Jim Whittaker, chair of the IFMA board of directors.

The gathering began with presentations from seven facility management associations/networks from around the globe. At the conclusion of the presentations, the audience participated in a general discussion about student engagement (refer to the group discussion topics section at the end of this article). As in previous years, each association will socialize the ideas presented, sharing their results at the next gathering. A summary of each presentation follows.

British Institute of Facilities Management (BIFM) Gareth Tancred

In the United Kingdom, FM professionals continue to develop relationships in order to elevate the status of facility management to the boardroom. BIFM in particular has assisted in this effort by collaborating with the Energy Managers' Association, ICAEW Chartered Accountants and the Chartered Institute of Personnel and Development.

In addition, the association has placed great emphasis on professional standards. To reinforce this effort, the FM Professional Standards Handbook was published. The report defines the purpose of the standards, introduces a framework and gives guidance on how to apply the information.

In addition to the above initiatives, BIFM continues to transform its annual Th!nk FM conference and educate its members on the specific career paths of FM through its development pathways. In closing, Tancred ended his presentation with a tribute to and notes of remembrance of late BIFM Chair Ismena Clout.

Trends and challenges:

- *How can facility management be seen as relevant, thus adding more value to the world?*
- *What does the workplace of the future look like?*
- *Who owns the workplace?*
- *Hotdesking trend becoming more prominent in the workplace.*

Colombian Facility Management Association

Alejandra Velez

It wasn't until the early 2000s that Latin America started talking about facility management, with Argentina being the first country to have a local IFMA chapter in 1999. In 2002, the group transitioned to the Latin American Society of Facility Management (Sociedad Latinoamericana de Facility Management). In 2004 ABRAFAC (Associação Brasileira de Facilities), the FM association in Brazil, was created. It wasn't until 10 years later that similar organizations were created in other Latin American countries. In fact, the Colombian Facility Management Association is only the third organization of its type in the whole region.

Brazil and Argentina lead the FM market in Latin America due to their economic strength and the size of their building market. However, Colombia, Panama, Mexico and Peru are the strongest Latin American markets in terms of building space. Some of these countries are starting to show a growing interest in FM education. The largest office markets in Latin America continue to be Mexico City, São Paulo and Santiago, consistent with their reputation as primary business hubs in the region. The fastest-growing markets over the past two years have been Bogota, Lima and Panama City, due to a large demand and favorable investment climate.

Since 2012, AGEM (Asociación de Gestores de Edificios Modernos) has focused on continual training and networking for the Colombian FM market. In June 2014 the association decided to refocus on three main issues: education alternatives for its members, additional networking activities and greater emphasis on the visibility of the profession (through its annual TecnoEdificios conference, etc.). As a result, its name changed from Modern Buildings Managers Association to the Colombian Facility Management Association (Asociación Colombiana de Facility Management).

Compared to other countries, Colombia is at the early stages of educating others about facility management. Few companies in the region have an established FM model. Facility management is for the most part unknown in name, although all companies are aware that they need the function to improve the way they manage their assets. There is a growing interest for education.

Trends and challenges:

- Latin America saw record construction in 2013, surpassing 2 million square meters of new office space. The region will see another 5 million square meters of new construction by the end of 2015.
- The term facility management is not easily recognized and its meaning is not consistently shared among professionals in Colombia.

- FM has yet to earn its position and recognition within the Colombian market in general.

European Facility Management Network

Ron van der Weerd

EuroFM doesn't tell members to think a certain way; it works together with its members to understand what facility management is. Van der Weerd explained that as chair of the group, he cannot speak on behalf of other FM association members. Rather, he communicated developments in certain countries and progress in bringing together the different perspectives of facility management.

At the university level, accredited degree programs in facility management (such as the one provided by IFMA) are key to raising the profile of the profession. Locally, conferences, such as EFMC, look to adapt standard facility management practices and standards into the flavor of each region. To do this effectively, it is important for all FM associations to share their perspectives in order to advance the definitions and skillsets related to the profession.

Trends and challenges:

- When FM is defined, one cannot forget about sustainability. The five Ps in the definition of facility management include people, process, place, planet and profit.
- Emphasis on socializing the importance of facility management in the workplace is critical for the development of the profession.

Global FM

Duncan Waddell

Global FM is an association of facility management associations, serving as a platform to find alternate ways to promote the profession. In order to be most sustainable, the association has dissolved its Belgium operations and is now headquartered from a member's country. In 2014 FMA Australia graciously accepted the headquarters position with Waddell as chair.

Global FM's two deliverables include organizing the annual World FM Day global celebration and producing a research report that discusses the economic impact of facility management around the world.

Trends and challenges:

- The association is looking to focus on one task and do it well.
- Finding additional alternative communication opportunities for members to collaborate with each other and help magnify the importance of the profession.

Facility Management Association of Australia

Nicholas Burt

Contributing more than US\$30 billion to Australia's GDP annually and employing in excess of 200,000 people, facility

management ensures the health, wellbeing and productivity of Australia's workforce.

For the first time in 25 years the association has reimaged itself and will debut a complete rebrand over the coming year that complements its new strategic direction. FMA Australia's revised emphasis is on building the industry's capability and recognition, influencing public policy, standards and legislation, and refining its governance — leading to recognition as the leading industry advocate for facility management. It is doing this through its diplomas, educational facilities, professional development, awards programs, research, accreditation and member engagement, among other measures.

The association's impact continues to grow yearly, currently at 51 events, 10 professional development sessions, several structured groups with FMA representation and 62,000 contact points. From this it recognizes people as the core of its success, as the profession needs to be driven by its end users and what they are trying to achieve.

Trends and challenges:

- *Growing interest in how to further professionalize the industry.*
- *Continued efforts toward engaging clients and end users — connecting all voices of the industry so everyone is receiving consistent and well-rounded messages.*
- *Sixty to 70 percent of stakeholders are looking to increase the use of technical tools within their FM services. The more technically complex a building becomes, the more strategic people you will need to oversee its operations.*
- *The need for FM education continues to grow at a rapid pace. Keeping up with demand within budget is challenging.*
- *With increased demand, it is critical to keep quality as priority — giving research that will help define the profession adequate time to solidify.*

Facilities Management Association of New Zealand Val Moraes

Incorporated in 2008, FMANZ is a rapidly growing, collaborative network representing New Zealand's community of facility management professionals. Implementing FM best practices, the association has three core functions: education, networking and advocacy. From the Green Building Council of New Zealand to FMA Australia, FMANZ has formed several strategic alliances. In addition, the association provides an abundance of local networking and professional support through its annual FM Summit, master classes, etc.

The first priority for FMANZ is the development of a strong educational offering for its members, focusing on a clear pathway of progression. Other priorities include enhancing communication (through a website redesign, social media

emphasis and magazine redesign), networking, membership growth, advocacy and continuing its fiscal responsibility.

Trends and challenges:

- *Greater focus on social media, tapping further into its additional opportunities to reach members.*
- *Continued demand on business certifications and diploma-level programs.*
- *Improving the value proposition via a strong educational platform is key.*
- *Advocacy is a yet-to-be explored priority. Developing a national voice can only come once a credible education offering and pathway is solidified.*

Facility Management Nederland

Roel Masselink (presenter) and Maybrit Admiraal

With approximately 2,000 members, FMN is the Dutch association for facility professionals. Currently the majority of its members are representative of middle and senior management. The association's international goals include strengthening its international focus, offering Dutch FMs access to international knowledge and creating connections between facility professionals worldwide.

Masselink discussed how external trends are influencing FMN and its membership. Outsourcing of the profession continues to dominate, as potential FMN members are most often found as suppliers. There is a need to enhance the value of FM so investment is made on both individuals and organizations. Among the trend to reduce costs, other areas of focus include sustainability, hospitality, technology and communications.

The association has responded to the identified trends by strategically repositioning its association management, updating its website using a new customer relationship management system, revamping its corporate identity, initiating an independent European FM Leader Conference and enhancing its knowledge-sharing opportunities.

Trends and challenges:

- *FM continues to be seen as a business interest rather than a professional interest.*
- *There is a continued need to collaboratively develop instruments to enhance sustainability in organizations.*
- *Opportunities exist to further strengthen FM's position within organizations.*
- *Social media is seen as both a threat and an opportunity. With so much information in existence, how does one manage it all?*

International Facility Management Association

Tony Keane and Jeff Johnson

IFMA's strategic map focuses on long-term stakeholder value. Its themes of global influence, community,

sustainability and operational excellence permeate through each of its four perspectives (stakeholder, internal, learning and growth, and financial) — serving to fulfill its vision to serve as the resource and representative for facility management. The association's balanced scorecard further breaks down the perspectives into strategic objectives and initiatives which serve to align priorities and assure that funding is allocated appropriately through the operational side.

One area of growth over the past year revolved around the formation of the EU FM Coalition. With the need for facility management to be more visible within government circles, the purpose of this growing group is to educate policymakers, serving as an FM resource under a unified voice.

Other key initiatives the association has been working on include the Essentials of FM program and an enhanced knowledge strategy. The Essentials is a low-cost program available worldwide in different languages aiming to convey some of the basic skills needed to become a supervisor or unit leader in the FM field. The knowledge strategy initiative is a revamp of IFMA's online knowledge library and structures revolving around information sharing among members. Such efforts have been reflected in the revamp of IFMA's online community, particularly in the most recent relaunch of the sustainability and Workplace Evolutionaries pages. In the years to come the online system will become more personalized and interactive.

Trends and challenges:

- *With 28 percent of IFMA members living outside the U.S., what additional added value can the association provide to international members?*
- *The numerous FM associations around the globe continue to provide immense potential for future collaborations and knowledge sharing.*
- *Localization of global content is key, as relevancy will be dictated by individual countries.*

Workforce development (IFMA Foundation)

Jeff Tafel

The IFMA Foundation continues its accreditation of colleges and universities through its accredited degree program, energizing its efforts in making facility management a career of choice among students. At IFMA's World Workplace 2014 Conference & Expo the foundation acknowledged Texas A&M University as its 31st accredited degree program. In addition to growing its ADP program, the foundation has also rewritten its ADP standards with the student perspective in mind.

In 2014 the foundation awarded US\$140,000 in scholarships and conference travel grants to more than 37 students, with

increasing international participation. Besides its programs and awards, the foundation's principal focus is its Global Workplace Workforce initiative, a plan underway that will aid in positioning FM as a career of choice.

Group discussion topics

Student engagement was the theme that resonated among all congress participants as the focus with the most immediate potential. The following ideas were presented:

- Place greater effort in promoting research done by students.
- Apply gamification when teaching students about facility management.
- Produce FM videos targeted toward emerging FMs and/or young professionals. These could be similar to TED talks.
- For easier searchability, develop a central knowledge repository for FM content.
- When educating students, use real-world examples that are prevalent in their regions. This will show them how they can be a part of the story, perhaps engaged in the building boom in their city, etc. The key is showing real opportunities that are applicable to them.
- Students learn best by seeing and doing. Teach through scenarios: "If you were the principal of this school, how would you run this building?"
- Find an example of a well-known project and show how FM is part of the picture. Example: Mars City project introduced the concept of BIM technology into high schools, showing students a different side of FM.
- Have companies and organizations connect with students one-on-one to learn about their challenges and motivations.
- Bring together a group of students of different cultures and nationalities for an extended period. Have them interact and brainstorm solutions for FM outreach. They will most likely come up with unique solutions. **FMJ**



Andrea Sanchez is editor-in-chief of Facility Management Journal as well as IFMA's senior director of strategic communications. She can be reached at andrea.sanchez@ifma.org or via Twitter @asanchez16.

BEHIND THE BRAND

INSIGHT ON IFMA'S CORPORATE SUSTAINING PARTNERS

Behind every successful FM are a host of product and service providers that offer solutions to make the hectic task of ensuring seamless facility operations a little smoother. This showcase goes behind the brand to reveal the culture that makes these powerhouse businesses the best in class.



COMPANY NAME Sodexo
EXPERTISE FM Consultants/Services/Providers
CSP LEVEL Silver **CSP SINCE** 2002
WEBSITE sodexousa.com

FMJ: EXPLAIN WHAT IT MEANS TO OFFER “QUALITY OF LIFE SERVICES” AND HOW SODEXO ACCOMPLISHES THIS.

SODEXO: Sodexo brings unique value to clients, employees and guests by designing, managing and delivering customized, comprehensive facility and workplace solutions adapted to addressing the business and operational challenges of each – at one location or hundreds globally.

Our services keep people healthy, safe and productive. Together they play a vital role in the health and wellness, safety, environmental quality and nutrition for all of those we serve. By improving the quality of life for organizations and people, we help our clients, their customers and their communities grow and succeed.

FMJ: WHAT ARE SOME WAYS FACILITY MANAGERS CAN IMPACT WORKER PRODUCTIVITY?

SODEXO: A 2012 McKinsey Global Institute report found that one of the greatest opportunities for increasing productivity was through the use of social technologies. MGI estimates that productivity can be raised by 20-25 percent if a company commits to becoming a fully networked enterprise. While understanding evolving technology is key, there are a few simple things you can do to increase productivity in your workplace:

- 1. Be willing to embrace change.** Understand that although a process may be in place, there may still be opportunities for tweaks to improve productivity. Willingness to explore new technologies and make changes ensures that employees aren't stuck doing busy work, which can reduce resentment and increase productivity.
- 2. Keep your door open.** An open-door policy ensures that your employees believe they not only have a voice in your organization but that they can also be a source of positive change. Make time to listen to what employees have to say, and when they have great ideas, give them credit.
- 3. Fuel employees' growth.** Ensure you know where your hardest-working employees want to be in five years and help them get there. Productivity increases when employees understand that you've got a stake in supporting their growth and development. They will be more likely to support daily operations and stay with the company.



COMPANY NAME Vertiv
EXPERTISE Distribution
CSP LEVEL Silver **CSP SINCE** 2012
WEBSITE vertivcorp.com

VERITIV: Veritiv Corporation (NYSE: VRTV) is a North American leader in business-to-business distribution solutions. Veritiv provides print, packaging and facility solutions that help shape the success of our customer's brands and business. Our educated and certified facility advisors, through a powerful infrastructure and technology, help customers more efficiently manage their supply spending and offer product service options to provide a program that's uniquely theirs.

Established in 2014, following the merger of International Paper Company's xpedx division and Unisource Worldwide, Veritiv employs approximately 9,500 team members across more than 170 distribution centers throughout North America.

FMJ: HOW HAS THE MERGER THAT CREATED VERITIV STRENGTHENED THE SERVICES OFFERED?

VERITIV: The merger created a unique opportunity to bring together two industry leaders in the distribution space, creating the foundation for unrivaled print, packaging and facility solutions for customers across North America.

Our supplier relationships may be global and our geographic reach expansive, but we pride ourselves on localized, personal and value-driven service. We are able to offer next-day delivery to 95 percent of our North American customers, which is made possible through our more than 170 strategically located distribution centers. What's more, Veritiv has assembled the most elite minds in the business, armed with creative ideas and solutions that will ensure more efficient sourcing strategies and supply chain capabilities.

FMJ: WHAT SHOULD FACILITY MANAGERS KEEP IN MIND WHEN THEY LOOK FOR EXTERNAL DISTRIBUTION SOLUTIONS?

VERITIV: External distribution solutions should not come in silos, so flexibility is key. Veritiv understands that every facility manager's needs are different and ever-changing, and we can lend a helping hand wherever necessary. Offering much more than products, our knowledgeable and certified facility solutions professionals work closely with facility managers to help them make fully informed decisions regarding the cleanliness, budget, productivity and wellness of their specific facilities.

IFMA's Corporate Sustaining Partners (CSPs) are trusted vendors that support the operational excellence of facility management teams. By partnering with IFMA, this elite group demonstrates the highest commitment to creating a more comfortable and efficient built environment.

Mohawk Group

COMPANY NAME Mohawk Group
EXPERTISE Carpet/Flooring/Textiles
CSP LEVEL Silver **CSP SINCE** 1999
WEBSITE www.mohawkgroup.com

FMJ: HOW DOES MOHAWK CARRY OUT ITS COMMITMENT TO SUSTAINABILITY?

MOHAWK: For Mohawk Group and its four brands – Karastan, Lees, Bigelow and Durkan – sustainability is an ecological imperative, and transparency is the keystone of the company's initiatives. Mohawk Group is leading the entire flooring industry with the largest and most varied selection of products that have associated environmental product declarations, health product declarations and declare labels.

Mohawk believes that product transparency is crucial to increasing the availability of healthy products in the marketplace. Along with world-class performance and cutting-edge style, Mohawk's commitment to sustainable innovation is the driving force behind the company's partnership with the International Living Future Institute. The company has an extensive list of products that will help its customers create the healthiest indoor spaces.

FMJ: WHAT MAINTENANCE PRACTICES SHOULD FACILITY MANAGERS USE TO ENSURE THE LONGEVITY OF THEIR FLOORING?

MOHAWK: The first step to effective maintenance is prevention. Keeping dirt off the carpet is easier and less expensive than removing it. The best way to prevent soil from being deposited into the carpet is to place a proper walk-off system at all entrances and other sources of soil. Mohawk Group offers walk-off tiles to fit any type of entrance situation.

Proper vacuuming is the single most important part of any maintenance program. Occupancy and traffic of the area will determine how often it needs to be vacuumed.

Spots are inevitable, but they don't have to be permanent. Remove a spill quickly and there is less chance it will become a stain.

Schedule interim cleaning to help the carpet retain appearance and improve performance.

Finally, periodic deep cleaning, using hot water extraction, is the most effective at removing any embedded abrasive soil.



COMPANY NAME FM:Systems
EXPERTISE FM Software
CSP LEVEL Standard **CSP SINCE** 1998
WEBSITE www.fmsystems.com

FMJ: WHAT ADVANTAGES CAN THE USE OF A CLOUD-BASED IWMS OFFER FMS?

FM:SYSTEMS: The FM:Interact Workplace Management Suite is an integrated suite of powerful cloud-based workplace management products that lets you share information and manage processes that impact the entire organization. It runs on your organization's intranet or can be hosted by FM:Systems and can be accessed by all employees using standard Web browsers or mobile devices.

FM:Interact features an intuitive interface to provide quick and easy access to key facilities information such as floorplans, reports, employee information and critical documents.

Our cloud-based solution means that our customers can access critical facilities data anytime and anywhere in today's highly dynamic work environments.

FMJ: WHAT IS FM:SYSTEMS' APPROACH TO INTEGRATING NEW SOFTWARE WITH EXISTING SYSTEMS?

FM:SYSTEMS: A crucial component of FM:Systems' Integrated Workplace Management System is the ability to integrate critical enterprise data such as human resources, accounting and scheduling information, notifications and more.

The FM:Interact Integration Component provides the backbone of an integration hub with other critical enterprise systems throughout your organization.

The highly configurable nature of FM:Interact and its scalable open architecture combined with the FM:Interact Data Integration component simplifies the data integration process and eliminates the need for complicated middleware.



IFMA's **Corporate Sustaining Partners (CSPs)** are an elite group of companies that have made a powerful statement in support of facility management by partnering with IFMA. It goes beyond just selling a product or service - these companies believe in the FM profession and believe in supporting its future.

These outstanding providers can enable you to:

- Easily find the top FM products and providers
- Make informed buying decisions
- Take part in increasing the role of your profession
- Help your association offer exceptional services, products, resources and opportunities



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RSMMeans | rsmeans.reedconstructiondata.com 

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Mannington Commercial | www.mannington.com
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Milliken Contract | www.millikencarpet.com
Patcraft | www.patcraft.com
The Mohawk Group | www.themohawkgroup.com

CEILINGS/CEILING CARE

Armstrong World Industries | www.armstrong.com

DISASTER RECOVERY/EMERGENCY RESPONSE

BELFOR USA Group Inc. | www.belforusa.com

ELEVATOR/ESCALATOR

KONE | www.kone.com

ENERGY SOLUTIONS/MANAGEMENT

GRUNDFOS | us.grundfos.com
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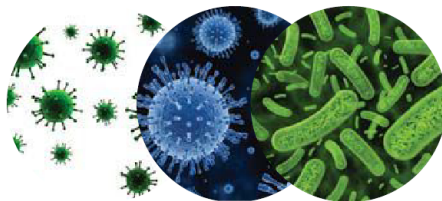
DEVELOPING A FACILITY SAFETY PROGRAM?

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Addressing Total
Worker Health



BY NEAL S. DUFFY

While facility managers spend a considerable amount of time developing emergency preparedness strategies to deal with unforeseen circumstances, they often overlook the significance of incorporating workplace wellness into their strategies. Recent outbreaks show that the spread of germs can be just as dangerous to a workplace as a natural disaster.

Illness impacts office productivity

Illness in the workplace, such as the flu, can become a major issue for businesses and seriously impact productivity. According to the Centers for Disease Control and Prevention, the flu costs the United States more than US\$87 billion each year and close to 17 million missed workdays each flu season. Maintaining a healthy work environment has clear bottom-line benefits, in addition to keeping employees happy and productive.

It's important for facility managers to understand the significance of preventing the spread of germs, especially when sick employees show up at work. According to a recent Staples survey of 1,500 U.S. office workers, 60 percent show up at work in spite of having the flu. While the vast majority of managers encourage employees to stay home to treat their illness, employees still come in for a variety of reasons, whether it's high volume of work (40 percent), pleasing the boss (31 percent) or feeling pressure to tough it out (48 percent). The problem is that when people come to work sick, it makes an FM's job even more difficult, especially during the peak of flu season.

Based on the survey results, it's clear that employees are coming to work sick, despite being encouraged to stay home. This leads to the problem of "presenteeism," which essentially

refers to people going into the office while sick and not fully functioning. According to the survey, employees work at less than 50 percent of their usual productivity level when they come to work with the flu.

Absenteeism (when people don't show up at work) presents its own challenges — transitioning work unexpectedly is difficult and can result in missed deadlines, lost opportunities, customer dissatisfaction and loss of revenue. Therefore, it's important to contain the spread of germs in the first place.

Educating building occupants on the significance of flu prevention

While FMs can't force people to stay home when they're sick, they can encourage them to take precautions to prevent spreading germs to other employees.

Building occupants need to know how germs spread and what steps they can take to break the chain. A good starting point would be a training session on the process of germ transmission — how a simple sneeze or cough can contaminate hands and nearby surfaces. For example, a common culprit for spreading germs is face touching, which adults do as often as 16 times per hour; doing so with contaminated hands enables germs to enter the body. Addressing how

germs spread can lead to increased awareness, while also making occupants feel that facility managers have their best interests in mind.

Encouraging frequent hand washing is essential. Not only should hand washing be encouraged, compliance can be increased by providing quality foam soap in sealed, sanitary cartridges that don't allow for possible contamination.

Simple techniques such as placing posters in restrooms and kitchens to provide a friendly reminder to occupants that washing their hands is the number one precaution against germs are easy to implement. The use of signage should not end there — FMs should consider installing posters around the building that incorporate flu education, such as how long flu victims are contagious for, symptoms to be aware of and knowing when to stay home. (Note: Posters are available to download from the Centers for Disease Control and Prevention website).

For any safety and wellness program to achieve its greatest success, the active engagement of participants is critical. It's worthwhile for facility managers to designate leaders and advocates who can actively support and promote wellness programs and get other employees excited and involved in disease prevention.

Re-evaluating the cleaning program

In order to create a strategy for preventing the spread of germs, FMs need to take time to research and examine their facilities. This will help determine the areas with the highest levels of contamination and germ hot spots of which many people might be unaware. High-traffic areas including breakrooms, restrooms, employee desks and door handles should be cleaned thoroughly multiple times during the flu season. Increased cleaning frequency with a quality microfiber cloth and disinfection with a hospital-grade disinfectant will help keep these touch surfaces as germ-free as possible.

Additionally, some people use their elbows to avoid touching anything in the restroom with their hands. Features including automated, hands-free towels, soap, sanitizer dispensers and touch-free fixtures such as automatic flushers can help. Similarly, touchless restrooms can help minimize labor costs and germ transmission in common high-traffic zones.

The touchless restroom is not a new concept, but it's one that many facility managers shy away from in an age of doing more with less. Switching to touchless technology in the restroom can actually minimize labor hours, increasing overall staff productivity and decreasing labor costs.

Viruses and bacteria such as staphylococcus, E. coli, hepatitis A, the flu and the common cold lurk on bathroom surfaces like door knobs, counter tops, soap pumps and toilet seats, which is why touchless fixtures are so beneficial — especially during flu season. These fixtures also control the amount of product used, which reduces waste.

Empowering employees with the necessary tools to stay healthy

It's important for facility managers to consider a wide array of products that custodial staff can use when cleaning the office. Industrial-sized hand sanitizers in hallways, paper towels near door handles and tissues in common areas help employees stay healthy. Soap dispensers must always be filled, and hand sanitizers and tissues should be at every desk. Essentially, the more high-traffic the area, the better equipped it should be against the spread of germs.

The good news is that employees today are taking charge of their own health and wellness; the Staples survey shows that even as flu vaccinations are more readily available in the workplace, employees take more responsibility for their personal health during flu season. In fact, 70 percent of respondents are directly involved in cleaning their workspaces. This affords facility

managers the opportunity to promote workplace wellness in simple ways, such as providing cleaning supplies so employees can keep their personal workspaces clean.

Recent virus outbreaks are also positively affecting reactive behavior, as the majority of employees (53 percent) said they will take extra precautions to protect themselves against the flu and other illness this winter.

Because people want to be especially prepared to avoid illness, it's important for FMs to provide them with the means to do so. Facility managers should continue to play an active role in supporting the wellness program by sending out emails periodically to building occupants to reinforce taking extra caution during flu season. The small investment in time and cleaning supplies will pay off in more employees at work and increased productivity.

There are many different components for facility managers to prepare their facilities for flu season, but if they take the right precautions, they'll be able to ensure a more productive, healthy and happy staff during peak flu season. **FMJ**



Neal S. Duffy is senior manager of facilities solutions technical training with Staples, Inc. He is a more than 35-year veteran of the janitorial/sanitary maintenance

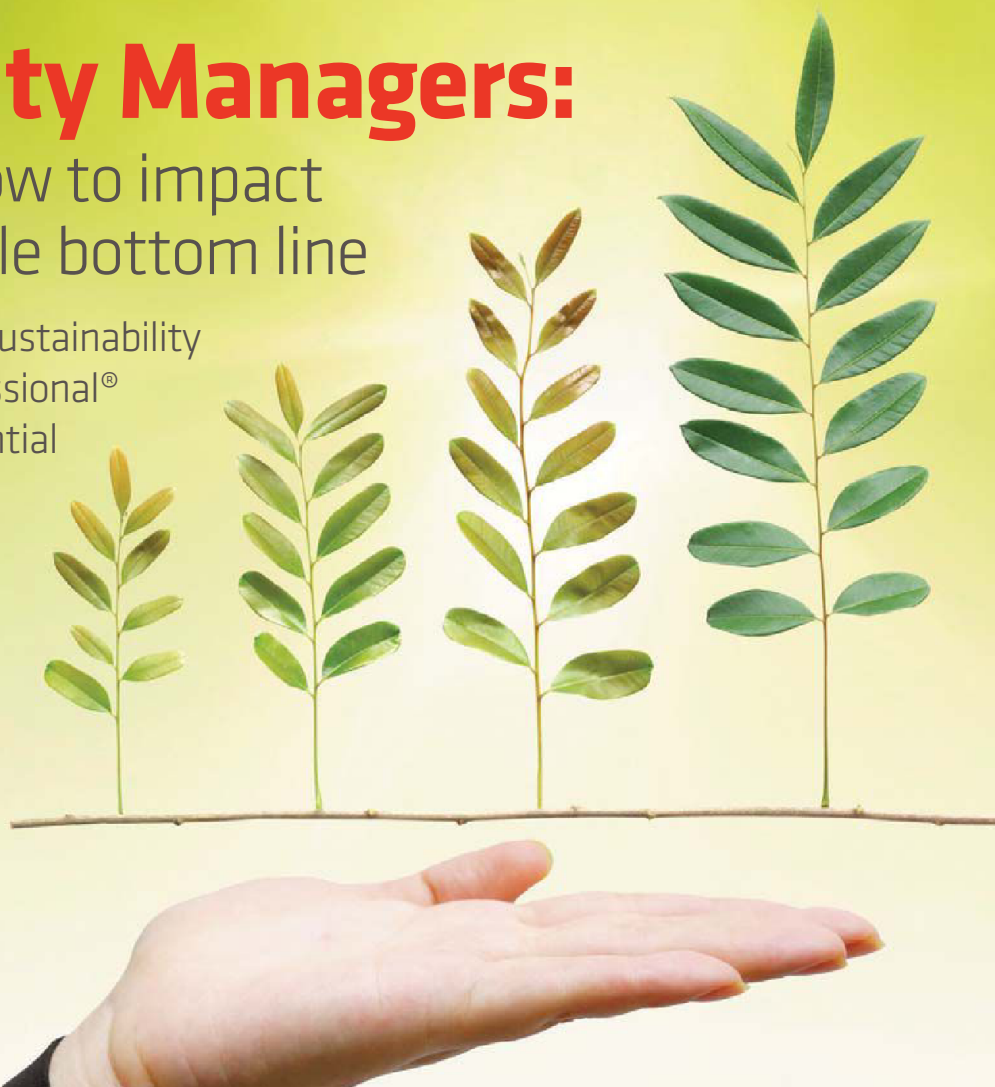
industry with extensive industry experience on both the manufacturing and distribution sides of the business. His background includes consulting with facility managers on custodial best practices as well as healthy, sustainable and high-performance cleaning techniques and concepts.

Duffy has practiced as a registered Environmental Health Specialist, Registered Sanitarian and is an ISSA Certified Expert in Cleaning Industry Management Standards – Green Buildings. He is a past board member of and is currently on the advisory panel for the U.S. Green Building Council Upstate New York Chapter, and has completed the Ashkin Group's Green Cleaning University.

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The background is a dense, hand-drawn collage of financial and statistical charts and graphs. It includes bar charts, line graphs with various trends, pie charts, and scatter plots. Some charts are labeled with numbers like '155,950', '68,43', and '93,684'. There are also handwritten notes and arrows scattered throughout. The entire background is overlaid with a dark red color.

FIVE BIGGEST RISK MANAGEMENT ISSUES FOR FACILITY MANAGERS

BY DAVID MARKOWITZ

Risk management is not just for risk managers anymore. For multi-site retail, restaurant and convenience store brands, facility management impacts all facets of an organization. With hundreds of locations, thousands of commercial contractors and millions of customers, there are all kinds of formal and informal touchpoints outsiders have with a company. And there is potential risk inherent virtually everywhere.

What makes this a challenging issue for the FM professional is the diverse array of risks that the facility manager could — or should — be responsible for, regardless of stated job definitions.

Evidenced by recent data security breaches at leading retailers, technology is certainly a risk facing organizations, though not the only one. But what areas of risk impact facility management?

IT security risk

The first, though not always most obvious, source of risk from a facility

perspective is IT/security-related. Most facility managers by now understand the benefits of moving to some type of FM software or system (e.g., CAFM, CMMS, IWMS). Running an FM program of any size and complexity manually or using a spreadsheet-based approach is not only virtually impossible, but likely a recipe for near-term failure.

Adding a level of sophistication to facility operations with an FM technology platform can bring newfound visibility, cost savings and

service improvements. But depending on the system's approach to security and its underlying technology deployment, with these gains can come unforeseen corporate-level ("front page") risk factors.

Over the past months, major retailers, among others, have experienced significant data security breaches. The impact has gone far beyond the companies themselves and their proprietary data. The latest hacks have directly hit consumers as personally identifiable information as well as credit



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and debit card data have been stolen and sold on the black market. However, in most of these cases, hackers have gained access by leveraging valid third-party users.

How? To facilitate collaboration and increase efficiencies, companies often provide direct access through their secure barriers to partners (e.g., for efficient invoicing or payment processing).

The problem arises when these third parties have credentials stolen (e.g., via online phishing scams), allowing hackers direct access into a retailer's hosted system. But the problem doesn't stop at the billing system. Once inside a hosted system for vendors on the retailer's network, hackers can then gain unfettered access to all of a retailer's systems across its entire geographic footprint. Thus, a facility team could put the entire organization and its reputation at risk through its FM system.

However, with the segregation of customer data from contractor access and the deployment of cloud-based technologies, third parties and external (to the company) users can still exchange key data but not serve as conduits to illegal digital access.

By utilizing cloud-based deployment for such collaborative systems, contractors and vendors can still access key operating data, submit invoices and proposals, and perform other necessary online tasks. But only the cloud-based system has access into the retailer's system, through an encrypted and secure single point of communication. Through such a "cloud-based isolation" approach, contractors and vendors never directly access a retailer's system, and compromised external accounts can't gain entry to sensitive customer data.

In addition, with modern FM systems, companies can actually perform financial transactions on the platform. Related materials and supplies can be ordered directly from some systems, thus necessitating controls over who can order what, spending and purchasing authority, budget limits, etc.

Actually making service payments to third-party contractors directly from an FM system is a powerful tool for companies to gain efficiencies and save money when done properly. However, it's important to manage this process properly to not bring undue risk into the picture.

With lax controls around payment functionality, there is a risk of fund misappropriation. Companies need to monitor access, both from internal sources as well as external parties, to watch for abuse of invoicing capabilities or more blatant hacking. Through cloud-based approaches and careful controls, security risks via FM technology can be minimized.

Contractor management risk

FM groups are responsible for hiring a range of commercial contractors to address their ongoing repair and maintenance issues. But are these on-site contractors in compliance with corporate policies? Are they currently insured and properly credentialed? And is this being monitored on a monthly basis?

It's quite costly and difficult to maintain all of this information on all of a firm's contractors all of the time. Service providers' insurance may have been up to date when they were first contracted, but how do you ensure it remains current? If not managed properly, a Pandora's Box of potential risk issues relating to uninsured or uncredentialed



**KEEPING FACILITY
LOCATIONS CLEAN,
CONDITIONS SAFE
AND EQUIPMENT
IN GOOD WORKING
ORDER IS
PARAMOUNT TO
BRAND UPTIME.**

HOW WELL FACILITIES ARE MAINTAINED —

contractors accessing a company's locations can arise.

Companies often find that their contractors were on site without valid insurance or current certification only after the incident. There's also risk from unqualified or poorly performing contractors, or simply contractors sourced locally without adherence to corporate standards. Firms relying on contractors also run into operational or performance risk without an objective method to compare contractors against key performance indicators.

There are a number of ways to reduce such contractor risk. Some FM platforms provide the ability to monitor a company's own private network of contractors. This approach ensures that all relevant information is documented, contracts are signed and insurance/credentials are in place. The most advanced systems track credentials in real-time and provide alerts and notifications to all parties before an insurance expiration so renewals can occur or improperly insured contractors can be substituted.

Many retail and restaurant chains have also embraced the concept of rating or scorecarding their contractors. Using objective measures allows a company to be confident that standards are being met consistently across the enterprise, regardless of geography, store, trade, etc.

In addition, by gaining visibility into contractor performance, more work can be directed to those delivering the best service, and review of those underperforming can also be based on hard data, rather than subjective opinions and anecdotal evidence.

Financial risk

Another contractor-related issue is the level of financial health, not only of a company's current network of contractors but of the ongoing array of prospective contractor partners. There can be any number of potential financial liabilities in dealing with contractors big and small.

Why is this important? Retail and restaurant chains can find themselves managing hundreds to thousands of third-party contractors. Some may be large, publicly held firms with nationwide service coverage; others can be regional or hyper-local businesses that may only support a small number of locations or even a single store. Regardless of contractor size, however, it's important to be cognizant of business partners' financial health and strength.

Avoid a situation in which a contractor involved in a long-term project and on whom you are dependent for specific repair and maintenance services suddenly goes out of business and is no longer able to provide the quality of service (or even the service itself) on which you're relying. There have been cases in which contractors providing regularly scheduled maintenance services have ceased operations suddenly without notice, leaving the client without delivery of the service and making payments for months. This can open up risk issues with non-serviced equipment or unperformed maintenance in addition to the potential difficulty in payment recovery.

Financial risk also comes into play with prospective partners. During the RFP process, the FM group needs to not only consider service capabilities, experience, references, etc., but also whether a firm is financially sound enough to earn

the business. While previously under the purview of a company's finance function, managing the financial risk from all these contractors can very well end up under the FM group's umbrella.

Today there are a number of tools that a facility team can use to monitor the financial condition of its contractors. Credit risk management providers can assess overall financial, payment and going concern risk associated with a specific contractor's business. This can provide decision-impacting information not only on prospective partners but on an existing network of contractors as well. By addressing this risk factor early and often, a facility team can ensure there are no surprises emanating from its operations.

Brand risk

Leading organizations know that their physical, customer-facing sites leave the biggest brand impression on the consumer. Branding is typically thought of as solely a marketing or other corporate function — certainly not one within the domain of facility management. But maintaining a company's brand image in the mind of its customer can in fact be one of the most crucial responsibilities of an FM organization.

A company's physical sites (stores, restaurants, kiosks, carts, etc.) are the most direct touch point with its customers. Keeping facility locations clean, conditions safe and equipment in good working order is paramount to a store or restaurant's brand uptime, much like a website's uptime.

Alternatively, a store (or other physical location) with an inconsistent and neglected appearance leaves the same impression on a consumer as a website

OR NOT — CAN PUT A BRAND AT RISK.

that has not changed for long periods of time, is damaged or simply “down.”

However, a store being out of commission impacts more than simply that store. Customers may form negative opinions of a store due to ceiling leaks, faulty air conditioning, broken lights, parking lot potholes, etc., but the negative experience doesn't end there. These opinions will likely help form a more general perception of the company, its other locations and even its seemingly unrelated products and services, harming the brand itself. Thus, a company's store uptime is directly related to its brand uptime.

Brand uptime is a new way to think about physical infrastructure and the positive or negative impact it has on overall company performance. Infrastructure and how it is perceived, whether or not the perception is accurate, leads directly to how a customer experiences a brand. Customers see a store or restaurant being down as equivalent to the brand being down. And that experience correspondingly has a direct and quantifiable impact on corporate results. Bottom line: How well facilities are maintained — or not — can put a brand at risk.

This potential revenue impact from failing to maintain an exemplary level of brand uptime is making facility management increasingly crucial, not only as a needed line item to monitor, but as a core component of an overall brand strategy.

But how can facility teams guarantee brand uptime? Most important, visibility is paramount. As is said, you can't improve what you can't measure. It's critical to have insight as to the state of all physical assets, active service orders, level of contractor compliance,

problem resolution metrics, outlier locations, etc. Facility managers need this to respond effectively to issues as they arise and proactively maintain equipment on schedule as necessary. Only by being in a position to maintain a smooth running physical infrastructure can one ensure uptime and minimize brand risk.

Emergency preparedness/health and safety risk

A company's facilities and related equipment and supplies can prove to be a critical way to respond to dangerous safety issues as well as the unforeseen emergencies that can arise. However, with responsibilities for employee, contractor and customer safety across its locations, the FM team needs to manage and prepare for any and all potential risks that could arise, no matter how unlikely.

When considering health and safety risk, facility managers need to make sure not only that any potential hazard is addressed but that it's done on a timely basis and by qualified tradesmen. Having specified procedures in place and systematically recording all actions taken can help mitigate risk should incidents occur resulting in legal action.

Ensuring safety inspections occur across all locations is another important FM task. This can be challenging to perform on a consistent basis; however but if not done properly can also lead to increased risk. Using a mobile-based site auditing tool can make sure that whoever is conducting the review covers every item on the checklist, records every problem and in some cases even creates a work order on the spot to facilitate its timely remediation.

Today, being prepared for on-site emergencies, whether man-made or not, is another role that falls under the FM umbrella. With contractors working at a company's behest (and often in not readily visible locations) there's potential danger in an emergency situation. Again, facility managers can take advantage of the latest technology to minimize risks. There are GPS-based tools that track contractors' presence. Such mobile apps can provide contractors who are unfamiliar with a facility with emergency procedures and location maps with exit locations and evacuation routes.

Making sure repairs can be made quickly, comprehensive site audits are completed consistently, exit routes and emergency procedures are made readily available and contractors' on-site status can be monitored are just some of the ways facility staff can manage this risk.

There are various risk factors inherent in virtually any company, and they impact organizations and their facility management teams. By understanding potential threats and implementing the strategies and actions discussed, facility professionals can reduce, minimize or eliminate risk. **FMJ**



David Markowitz is on the corporate communications team at ServiceChannel, a facility services automation platform that provides companies with the

technology to source, procure, manage and pay for repair and maintenance services from commercial contractors of their choosing.

Markowitz writes and blogs about various topics on facility management business and related technology. He has held marketing and product leadership roles in a number of successful technology firms.

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FMJ EXTRA

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Los Angeles World
Airports Public
Restroom Design
Guidelines and
Specifications



Six Key Considerations for a Restroom Redesign

BY DAN STORTO

CERTAINLY, THE APPEARANCE of a public restroom is an important indicator of its cleanliness and an area of a facility the public will notice and respond to, either positively or negatively. In fact, the state of the restroom might even determine if visitors to your facility will ever return.

However, the actual hygienic cleanliness of restrooms goes beyond what may be visible on the surface. Because water can encourage the life and growth of bacteria and other undesirable microorganisms, even the tidiest restroom is subject to contamination. Ideally, a truly hygienic restroom requires forethought in physical design and in the installation of the most appropriate fixtures, followed by stringent and regular maintenance.



The hygienic cleanliness of restrooms goes beyond what may be visible on the surface.

A study in restroom redesign

Fairplex, located approximately 30 miles east of downtown Los Angeles, has been the home of the Los Angeles County Fair since 1922. With a footprint of nearly 500 acres, the venue includes the Sheraton Fairplex Hotel and Conference Center, The Millard Sheets Art Center, a KOA recreational vehicle park, a grandstand and infield with seating for 10,000 people, the Finish Line Sports Grill, 12 acres of fairgrounds and parking

for 30,000 vehicles. In addition to the month-long Los Angeles County Fair, held annually in September, Fairplex is the site for approximately 500 sports and entertainment events every year.

On average, more than 1.5 million visitors attend the L.A. County Fair each year. Accordingly, the venue has 300 to 400 year-round employees, but the number skyrockets to close to 2,000 during the fair. Jim DeMonaco, director of facilities, joined Fairplex in 2012. One of his first goals was to renovate the public restrooms, which had seen their last major renovation more than 50 years ago.

DeMonaco launched an extensive redesign program for the Fairplex restrooms. Among the new installations were waterless urinals that would save the facility more than 10 million gallons of water a year; one-piece flooring with a central floor drain for quick clean up; motion-sensor lighting that switches off when the restroom is not in use; multiple sinks formed of a single piece of counter material; hands-free faucets; high-pressure toilets; and the replacement of paper towel dispensers with high-speed hand dryers to save on costs.

Finding a hand dryer that met multiple criteria

DeMonaco discussed his criteria in selecting a hand

dryer model. "My first priority was enabling hands-free operation. In public restrooms, the paper towels tend to fill up the trash very quickly and people tend to throw them on the floor. The immediate impression to guests is that the restroom is not clean. So one of my objectives was to do away with the paper towels and go with hand dryers. Part of this decision was also the money we would save because we wouldn't have to spend US\$100,000 a year for paper towels."

DeMonaco took a methodical approach to find the hand dryer that would fit perfectly in the renovated restrooms. "I was concerned about drying time, so the hand dryer of choice had to be in the top 10 percent of hand drying speed," he said. "I was also concerned about noise and wanted the dryers to be relatively quiet. I was looking for something that was durable, that would stand up to the constant use, but also had an attractive design. Additionally, the dryer unit needed to be small so that I could put multiple dryers in a convenient place. Our plan was to mount them above the sinks so guests didn't have to move from the sink to use them."

Another key factor in choosing a hand dryer was the heating element. DeMonaco wanted a hand dryer that would work with or without a heating element to save electricity and hand drying time.

In terms of cost savings and efficiency, Fairplex has been able to cut its paper towel budget in half, but there's much more. "Labor is another important savings," said DeMonaco. "We're not cleaning the restrooms as often or as long. We're not emptying trash as much, so that reduces the entire waste disposal chain. I went from one attendant per restroom to one attendant per two restrooms. Obviously, the more important and tangible benefit was that our guest satisfaction ratios rose overall for the fair experience. I can't attribute all of it to the restrooms, but I think that's a large part of it."

Planning the redesign

Following are six key issues to take into consideration when designing or renovating a restroom — small or large.

Physical design. In order to make your restroom as functional as possible, the countertops, toilets and urinals should be at the proper height and distance from the wall for the age of people who will be using them. For instance, for adult users countertops should be 34 inches high, toilet seats 17-19 inches high and urinals 17 inches high. Make sure hand dryers, soap dispensers, toilet paper dispensers and trash receptacles are placed where movement and logical flow dictate their optimal usage.

Fixtures. Are your faucets, soap dispensers, hand dryers and toilets hands-free to reduce cross-contamination? This may require the replacement of earlier equipment models and brands, but fixtures or devices equipped with motion sensors have the added benefit of offering energy efficiency and the ability to reduce costs by only turning on when someone is using them.

Extend service life. Some hand dryer manufacturers incorporate antimicrobial technology to inhibit the growth of bacteria, mold and fungus, extending service life. The use of antimicrobial technology can be incorporated into wall paint and flooring as well.

Accessibility in compliance with the Americans with Disabilities Act or equivalent applicable laws.

Do your accessible restroom stalls provide enough space for a wheelchair to properly turn and adjust so all patrons are able to use the facilities in the cleanest manner possible? Leave a clear floor space 60 inches in diameter in the stall, or create a T-shaped space 36 inches wide. Additionally, consider that parents with children often use accessible restroom stalls because they need to assist their young children and require extra space. Remember to position in-stall trash receptacles so they don't interfere with wheelchair or multi-person maneuverability.

Trash receptacles. Used paper towels can contribute to trash receptacle overflow and then likely will end up scattered onto the floor. This not only provides the potential for serious bacterial growth, it also gives the appearance of an untidy, unclean restroom. Automatic hand dryers keep a restroom appearing cleaner and eliminate the frustration of trying to use a jammed-full dispenser or searching for paper towels when dispensers are empty. Additionally, they also reduce the need for maintenance. The motor life of some

hand dryers is now two to three times longer than ever before, and which can mean 10 to 15 years of worry-free service and a cleaner-looking restroom.

Soap dispensers. Similar to the paper towel mess, soap mess on the countertop can offer a negative perception of the cleanliness of your restroom and discourage people from washing their hands. Consider using foam dispensers which drop soap drip-free into the hand from an automatic dispenser rather than liquid dispensers, which can leave a soap string that may pool onto the countertop or in the sink as well as clog the drains. Faced with such a mess, many users will avoid using soap at all.

Regular maintenance made easier

Few people look forward to cleaning restrooms, but this unavoidable task is easier and more efficient when the space is well designed and the installed fixtures support easy and clean usage as seen by Fairplex in its redesign.

When soiled paper towels are left scattered in restrooms, your maintenance crew faces the undesirable chore of gathering them up and, in the process, exposing themselves to the bacteria and viruses the towels may carry. The same is true when soap drips onto countertops and into the sinks. Public restrooms with these issues will need to be cleaned often, adding to the cost of labor as well as increasing the risk of infection for your employees.

Whether your facility is a restaurant, recreational/entertainment center, school, office or retail location, the cleanliness of the publicly accessible restrooms is a concern for users, particularly in high-traffic areas. Where there is water, bacteria, viruses and parasites tend to thrive — often unseen, but still a potential danger to the wellbeing of patrons and employees. By utilizing basic design principles and taking advantage of the new technologies available in restroom fixtures, these concerns can be dramatically reduced for those who use the restroom, as well as for those who maintain it. **FMI**

The
cleanliness of
the publicly
accessible
restrooms is
a concern
for users.



Dan Storto is president for World Dryer, a leading global manufacturer of hand dryers for more than 50 years. He can be reached at dstorto@worlddryer.com.



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ISO 22301: YOUR UPGRADE TO FIRST-CLASS RESILIENCE

BY GEORGE HUFF

“Your upgrade to first-class resilience” does not appear in

ISO 22301, the international standard for business continuity management. However, this phrase provides a theme to discuss the need to upgrade current-state business continuity (BC) programs to business continuity management systems (BCMS), and the benefits of managing them effectively. ISO 22301 involved input from more than 60 countries over a number of years, so it's safe to say that the standard summarizes the best practices applicable to organizations, regardless of location, purpose or size.

In mid-2014, the United States Department of Homeland Security's Federal Emergency Management Agency (FEMA) adopted ISO 22301 for the Voluntary Private Sector Preparedness Accreditation and Certification Program, the PS-Prep™.¹ More recently, the International Standardization Organization (ISO) approved a justification study for development of an auditable management system standard for facilities.² As an FM professional, you should expect that your organization will soon upgrade its safety, emergency preparedness and BC programs to a higher standard.

ISO 22301 CERTIFICATION HELPS TO ENSURE SUSTAINED BUSINESS PERFORMANCE THROUGH INEVITABLE COMPANY CHANGES.

What is business continuity?

Business continuity is the capability of an organization to continue delivery of products and services at acceptable predetermined levels following a disruptive event.³

In other words, in the event of an emergency, BC helps ensure that everyone — regardless of job title, from response personnel through the general employee population — can answer these three questions:

- Where do I go?
- What should I do?
- When should I do it?

ISO 22301 at a glance

Using straightforward language, ISO 22301 summarizes the minimum requirements for effective BC and can enable coordinated preparedness among diverse organizations around the world. ISO 22301 provides a means of implementing preparedness, and also drives improved BC performance into the future.

Because ISO 22301 was written to enable higher levels of BC performance, the majority of FM organizations should align to its spirit and intent. Global organizations have chosen ISO 22301 for their preparedness programs, and

a growing number of organizations in the United States are opting to achieve ISO 22301 certification and upgrade current-state projects and programs.

Why a management system?

A management system is defined as the framework of processes and procedures used to ensure that an organization can fulfill all tasks required to achieve a set of related business objectives.

The management system approach includes the “Plan, Do, Check, Act” (PDCA) cycle and exists to continually improve essential processes and outcomes to meet core business objectives in a specific discipline. The PDCA cycle is an iterative four-step management method used in business for the control and ongoing improvement of processes and products.

When it comes to BC planning, mature organizations have a top management representative, often called a “program sponsor,” as well as a steering committee to drive alignment with strategy and continual improvement. However, what happens when organizations decide to upgrade to first-class resilience and executive management assigns a new program sponsor, or when program sponsorship changes? FM professionals

should position themselves as knowledgeable, value-adding sponsor or management representatives and get started on the right track.

Scope of ISO 22301

ISO Technical Committee 223 – Societal Security scoped the standard to enable organizations to “...protect against, reduce the likelihood of occurrence, prepare for, respond to and recover from disruptive events when they arise” through the operation of a BCMS. ISO 22301 BCMS requirements is only 24 pages and is an auditable (“shall” and “will”) specification. It offers high-level content and describes “what,” not “how.”

TC 223 also developed a companion guidance standard, ISO 22313 BCMS guidance, which is 48 pages and aligns with the clauses and content of requirements. The guidance offers recommendations, strategy options and permissions (“should” and “may”) that organizations can take to implement ISO 22301 BCMS requirements.

As with other management system standards, some organizations will seek to be among the first to obtain certification and maximize the associated benefits, but for others, external factors/perceived benefits will influence the decision of whether to seek alignment and formal certification.

That said, a number of organizations have taken the initiative and now benefit from a BCMS that stands up to the scrutiny of an independent audit and, more importantly, offers assurance that should the worst happen, the business (or the part covered by BC arrangements) will continue delivering products and services.

ISO 22301's structure and content

ISO 22301 includes 10 clauses or sections. The first three provide background. Clauses 4 through 10 define the BCMS requirements in a manner consistent with the PDCA cycle of the management systems approach. The Check and Act phases of the

system are reinforced by auditing and continual improvement.

Audience

ISO 22301 is designed for ease of use. It's written for everyone with a role in mitigating risk associated with disruptive events. It's not intended just for those new to BC, nor only for more experienced BC professionals. The standard can be used by anyone in any organization to plan for, implement and improve a BCMS.

Value, applicability and benefits

Benefits of an effective management system include:

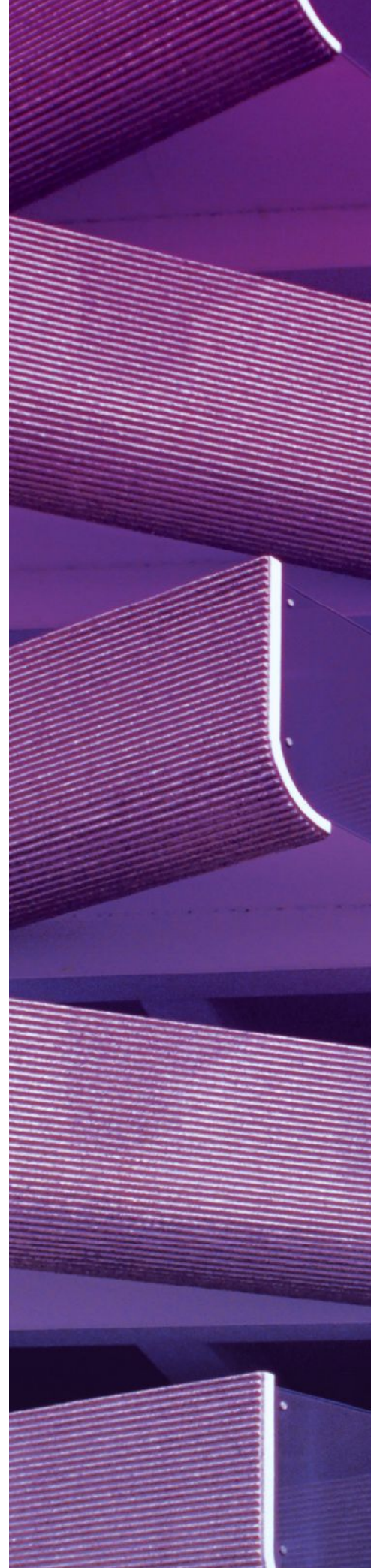
- More efficient use of resources;
- Improved risk management; and
- Increased customer satisfaction as services and products consistently deliver what they promise.

Conclusions about management system standards from recent business school studies include:

- Management system standards return bottom-line financial value larger than any investment or time incurred;
- Adopters of management system standards have higher rates of corporate survival than non-adopters;
- Adopters of management system standards have higher sales than non-adopters; and
- Small businesses receive proportionately more benefits than larger organizations.

Implementing a business continuity management approach:

- Is evidence of good corporate governance;
- Provides access to irreplaceable documents and creates a more secure environment;
- Can translate into an improved company image;





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- Reflects a high sense of responsibility and a high degree of professionalism;
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- Is a sign of strength and superiority reflecting a sophisticated business strategy;
- Upgrades the organization to the level of first-class businesses, lifting the company above the competition;
- Shows management is not just capable of solving easy issues; and
- Can reduce probability of large losses and insurance premiums.

In addition, a prepared FM team adds value to the resilient community.

Relationship of ISO 22301 BCMS to the PDCA cycle

The introduction and first three clauses of ISO 22301 set the tone by describing the standard as a management system focusing on alignment of the organization with BC activities and solutions, as well as with continual improvement.

ISO 22301 does not rely on normative references, documents or content to which users must have access. ISO 22313 BCMS guidance helps ISO 22301 users understand how to implement a BCMS, but it's not a mandatory document.

Clause 3 of ISO 22301 outlines 55 terms and definitions, many of which are also found in other societal security or risk management standards. The actual requirements are contained in Clauses 4 to 10, which only amount to 14 pages of content and relate to the PDCA cycle.

The following sequence is a chronology from the planning clauses through the operation clause to performance evaluation and improvement. Most of what is considered traditional BC

resides in Clause 8, Operation – Do.

You will see the relationship of Clauses 4 to 10 of ISO 22301 BCMS Requirements (and ISO 22313 BCMS guidance) to the PDCA model for the BCMS. Clauses 4 through 7 address BC planning activities. Clause 8, the most extensive clause of the standard, addresses BC operations. Clause 9, Performance Evaluation, and Clause 10, Improvement, combine to complete the Check and Act parts of the PDCA cycle.

Clause #4: Context of the Organization – Plan

Clause 4 of ISO 22301 involves understanding the context of the organization. This step enables those responsible for BC planning to define the obligations that should influence the identification of BCMS objectives.

When establishing an effective BCMS, the organization's executive team and BC sponsors should consider:

- Legal, regulatory and contractual requirements;
- All internal and external parties that have an interest in the organization's business continuity efforts; and
- The organization's strategic objectives, policies, priorities and risk appetite.

The FM team should establish the scope of its BCMS after assessing the context of the organization to ensure the scope properly considers the requirements and identifies its most important products and services. This is the value of Clause 4 — ensuring that the foundation exists to set an appropriate scope and a set of objectives.

Clause #5: Leadership – Plan

Clause 5 establishes the leadership of the BCMS, including the key activities that top management must perform to guide the alignment of BC efforts with the broader organizational strategy, as well as ensuring the management system has the support to be successful.

Top management is responsible for

establishing a BC policy, assigning roles and responsibilities, and promoting continual improvement.

- **Business continuity policy.** A BC policy statement demonstrates commitment to the BCMS, documenting performance objectives and enabling the active communication of expectations throughout the organization.
- **Organizational roles, responsibilities and authorities.** Leadership will assign roles to implement and improve the BCMS, including providing the authority to perform those roles. In addition, leadership will assign responsibility for reporting to top management on the performance of the BCMS.

Clause #6: Planning – Plan

Clause 6 implements the BCMS based on organization-wide requirements and the scope identified in Clause 4 (context). The planning in Clause 6 results in the creation of a BCMS structure and approach that aligns to the strategy and culture. The requirements here also define BCMS objectives (as opposed to recovery time and point objectives), which enable expectations to be met and allow performance measurement.

Clause 6 helps organizations flexibly implement BC and ensure that tactical planning efforts (such as the business impact analysis) have the appropriate guidance to be successful and align to management expectations.

Clause #7: Support – Plan

Support is the final ISO 22301 clause in the "Plan" phase of the PDCA cycle. Clauses 4 through 6 establish what the BCMS is to accomplish while Clause 7 assigns resources to implement, maintain and continually improve the BCMS. This planning also includes:

- **Personnel competency.** Determining the knowledge and experience needed to plan for, respond to and recover from disruptive events.

THE MANAGEMENT SYSTEM EXISTS TO CONTINUALLY IMPROVE ESSENTIAL PROCESSES AND OUTCOMES TO MEET CORE BUSINESS OBJECTIVES.

- **Awareness.** Promoting awareness of BC policy for all personnel, as well as how each person contributes to the success of the BCMS.
- **Communications.** Creating a communications plan for the BCMS during pre-incident efforts, as well as following the onset of a disruptive event. The plan should consider internal and external interested parties and identify appropriate messaging and methods.
- **Documentation.** Ensuring proper documentation of BCMS activities, including document management, access, retention and protection.

Clause #8: Operation – Do

Clause 8 is the “Do” phase of the PDCA model, and everything before it addresses the design and setup the management system.

Clause 8 is what BC professionals consider the BC life cycle — it is all about implementing the BC planning process for each element of the

organization within the scope of the planning effort.

Clause 8 describes the activities that should be performed to meet management expectations. Key activities are:

- Conducting a business impact analysis and risk assessment;
- Developing a BC strategy;
- Establishing and implementing BC procedures; and
- Exercising and testing BC procedures.

Clause 8 is where those involved in preparedness work to minimize the likelihood and impact associated with downtime, thus protecting the organization and interested parties.

Clause #9: Performance evaluation – Check

Performance evaluation serves as the “Check” phase of the PDCA model. It assesses the alignment of the BCMS (the operations of the BCMS, as well as the planning process described in Clause 8) to requirements.


Clause 9 includes three important requirements:

- Establish, monitor, analyze, evaluate and update metrics to assess performance of the BCMS at regular intervals;
- Establish and maintain an internal audit process to ensure that BCMS aligns to management expectations and ISO 22301; and
- Communicate the performance of the BCMS and its solutions to program sponsors and other top management through the review process, with the objective of prioritizing continual improvement opportunities.

High-performing management review keeps management interested and engaged, which is a success factor for long-term performance.

Clause #10: Improvement – Act

Clause 10 is the BCMS’ improvement process, and the “Act” phase of the PDCA model. The objective is to enable the program to close gaps to more closely align to management requirements and organizational objectives. ISO 22301 requires



that the organization identify nonconformities, determine the causes so as to avoid recurring poor performance and implement corrective actions as necessary.

Clause 10 delivers value by getting organized and enabling the prioritized closure tracking of continual improvement activities by focusing limited resources on the feedback that drives performance.

Methods of certification under ISO 22301

The scope of ISO 23301 describes that the BCMS standard is applicable to all types and sizes of organizations that wish to:

- Seek certification of its BCMS by an accredited third-party certification body, or
- Make a self-determination and self-declaration of conformity.

Management systems benefit performance and bottom line. When implemented, applied and certified, management systems improve profitability, quality, service, client loyalty, brand reputation and more. Certification helps to ensure sustained

business performance through inevitable company changes.

ISO 23301 is the first international standard focused on BC and supports certification. When the business plan justifies certification to the ISO 23301 standard, your organization will be able to demonstrate alignment and certification to this standard. Now is the time to upgrade to first-class resilience, and make your BCMS your own. **FMJ**

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[htm?commid=652901](http://www.iso.org/iso/home/standards_development/list_of_iso_technical_committees/iso_technical_committee.htm?commid=652901)., the forthcoming facility management requirements standard will be written for FM organizations of all types and sizes, and also enable FM organizations to align with ISO 22301 BCMS Requirements.

4. Source: Terms and Definitions, ISO 22301.



George Huff, Esquire, CBCP, MBCI, ISO 22301 Lead Auditor, is the founder and director of consulting of The Continuity Project, LLC, offering business continuity

and IT disaster recovery programs to public and private sector organizations of all sizes.

Huff is a published author, has conducted numerous continuity exercises and webinars and teaches BC in continuing legal education programs. He serves as an ANSI-approved delegate to the U.S. TAG to ISO TC 267 – Facilities Management and ISO TC 223 – Societal Security, as well as on project teams responsible for ISO 22301, ISO 22313, ISO 22398 and ISO 22317.

Huff has served as Attorney-Advisor for the U.S. Courts Administrative Office Space and Facilities Division, is a five-term member of the American Bar Association's Standing Committee on Disaster Response and Preparedness, sits on the ANSI-ASQ National Accreditation Board.

NEW PRODUCTS & SERVICES

VIDEO SURVEILLANCE SOLUTION MAKES RECORDING, STORAGE EASY

In response to the rising demand for advanced safety and security protection solutions worldwide, Grandstream Networks announced a new innovative network video recorder (NVR) with large recording capacity and highly competitive pricing to its arsenal of video surveillance solutions. Ideal for small- to medium-sized businesses, retail stores, apartment buildings and hospitality markets, the new GVR3550 NVR supports quick and easy installation thanks to its auto-discovery of IP cameras and a comprehensive suite of advanced video/audio recording, monitoring, search, retrieval and centralized camera control features.

Grandstream's onvif compliant GVR3550 offers concurrent video recording and storage management for up to 24 720-pixel high-definition cameras with a large storage capacity of up to 16 terabytes and up to four hard drives using either raid 0 or raid 1 setting (hard drives not included in the base system package). The GVR3550 NVR can automatically discover, control, capture, record and play back high-resolution streaming video from Grandstream's entire family of megapixel IP video cameras and ip video encoders/decoders, as well as other third-party onvif-compliant ip cameras.

Key feature highlights

- Large storage capacity: Up to 16 terabytes and four hard drives
- Video recording capability: Up to 24 (raid 0) or 16 (raid 1) 720-pixel high-definition camera recording
- Fully customizable recording control (manual, event triggered,



scheduled or continuous)

- Auto discovery, display, control and recording of onvif-compliant ip cameras such as Grandstream's GXV36XX series
- Simultaneous live video feed viewing of up to 16 cameras at vga resolution
- hdmi and vga outputs for viewing on a connected tv or computer monitor
- Built-in usb ports for connection of third-party usb mouse and keyboard
- Advanced alerts and notifications from cameras to GVR3550 interface
- Notifications via video calls to ip video phone or smartphone, voice call alerts or email screenshot

The GVR3550 Network Video Recorder is available for purchase through Grandstream's worldwide distribution channels at a list price of US\$299.

Visit www.grandstream.com for more information.

STYLISH SOFTWARE FOR DIGITAL MEETING ROOM SIGNAGE

Swedish company Goget has released an all-new generation of its popular software for digital meeting room signage – Room Display 4. The software runs on Android OS tablets and synchronizes with existing Exchange or Google Calendar resources, enabling meeting room bookings from Outlook/Gmail or directly from the tablet located outside each meeting room. A wide range of customized information including availability, organizer, title and upcoming events is presented on the display.

The new version incorporates full remote management of devices through a Web-

based administration console. This enables configuration and maintenance of multiple device environments from one location, which is especially useful for medium- to large-sized organizations.

To facilitate a professional-looking office space, the design has been reworked with a new intuitive flat interface. Additionally, there are built-in options to change the background image individually for each device and the option to add a company logo.

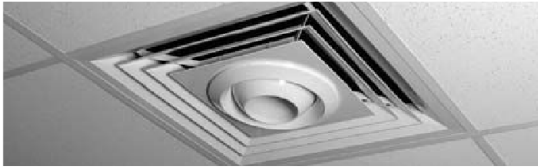
Key features:

- **New intuitive flat design user interface.** The most beautiful and user-friendly meeting room signage system on the market.



- **Central administration.** Manage all your devices (full remote management) from one location via the Web-based administration console – Room Display Center.
- **Browse calendar.** With the all-new Quick Book, users can make on-screen bookings for any day and time. Ongoing meetings can also be edited to extend, end early or delete.

For further information, visit www.gogetcorp.com.



ENERGY-EFFICIENT, ALL-IN-ONE FAN FOR DROP CEILINGS

With payback periods frequently in the range of one to three years, building managers are finding that small, quiet and efficient destratification fans from ZOO Fans are an excellent way to make their buildings more comfortable in hot and cold weather while saving both money and energy. Now ZOO Fans has extended their product line to include an all-in-one fan for suspended ceilings that is quick and easy to install and incorporates a highly efficient, energystar®-rated motor.

The ic20 Drop-In fan is designed specifically for drop ceiling (T-bar) spaces with ceiling heights from 8 to 20 feet. The patent-pending diffuser has an integrated jet ball exhaust that is easy to adjust to direct the airflow. Variable speed controls make it simple to dial-in comfort – one-to-one, in zones, manually or automatically. This innovative fan system also includes a low-profile isolation plenum so it will not compromise above-ceiling air or hvac return plenums. The entire unit easily replaces a 2-by-2-foot ceiling tile and installs with less than 18-inch clearance top to bottom.

ZOO fans operate independently of other hvac systems and gently mix the air to eliminate hot and cold spots in the zone of occupancy near the floor. By delivering hot and cold conditioned air to the floor and improving overall circulation, thermostats are satisfied more quickly and hvac systems run less. Building managers can actually turn the thermostat down in the winter and up 4 to 5 degrees in the summer and still deliver noticeable improvements in comfort. By eliminating wasteful overheating and overcooling, ZOO fans also deliver significant savings.

ZOO fans are installed in leading retail stores, automotive showrooms, offices, and grocery stores throughout the U.S., Canada, Europe and Australia. And they are the only small destratification fans with third-party testing in an amca-certified lab where test results prove their claim of “best value.”

ZOO Fans Inc. is headquartered in Boulder, Colorado, and provides destratification fans for buildings with high ceilings and drop ceilings coast to coast.



ELECTRIC SUBMERSIBLE PUMP RANGE INTRODUCED IN AMERICAN MARKET

Atlas Copco's weda electric submersible pumps have debuted on the American market with a new range for professional users. The new additions to the range are 1 hp and under, C-UL-US approved, 60 Hz single-phase drainage, sludge and residual pumps. They come in two voltage variants, 115 v and 230 v, and join the 50 Hz range that is already popular in Europe and in the rest of the world.

Each of the WEDA electric submersible pumps is now available in a 50 Hz and a 60 Hz version. The range consists of the WEDA 04 and WEDA 08 drainage pumps, the WEDA 04b residual pump and the WEDA 04s and 08s sludge/trash pumps.

The WEDA 04 and WEDA 08 are single-phase electric submersible dewatering pumps with maximum flow rate capacities of 66 to 86 gallons per minute and maximum heads of 37 to 50 feet. Easy to move and install, they can be quickly put to work in a wide range of dewatering situations. The drainage pumps have polyurethane semi-vortex impellers, designed to handle

water with a very low risk of clogging.

The WEDA 04B residual pump draws water down to 1 millimeter. With the built-in non-return valve, the pump can be moved without spilling or losing suction. A rubber-coated bottom avoids damage to tanks and pools.

Finally, the WEDA 04s and WEDA 08s sludge/trash pumps are sand and mud-resistant. Designed with a vortex cast iron impeller, particles and debris with a 1-inch diameter can go through the pump housing with minimal wear.

The WEDA pump range was designed to improve durability and simplify maintenance. The pumps feature a small, lightweight and high efficiency motor and their triple shaft seal design ensures reliability. Each model is equipped with a motor protection that automatically stops the pump in case of either overheating or overload/over-current. The pump automatically restarts after cooling down. To ensure easy service, the pumps can be disassembled by removing only three bolts.

NEW PRODUCTS & SERVICES



AUTOMATICALLY OPERATED BRINE MAKER FOR SNOW AND ICE MANAGEMENT

To address the increased need for liquid solutions in snow and ice management, SnowEx has introduced the Brine Pro 2000 brine maker. With its unique, patent-pending design, the Brine Pro provides simple installation and automated operation, empowering end users to confidently produce their own brine.

Engineered for use with low-flow water input and standard 220VAC power sources, the Brine Pro is highly compatible for a variety of operations. It features intuitive touch-screen controls with separate modes for automatic and batch production, as well as a special cleaning mode. Its automatic salinity control helps ensure proper salt/water proportions with minimal effort from the operator.

The Brine Pro includes a dry hopper system for no-splash salt refills and easy visual salt level indication. The hopper has a 1-cubic-yard capacity with a vibrator and a sloped design for easy clean-out. Material is precisely transferred from the hopper to the 265-gallon mixing chamber through a unique flow control system and hammer mill salt grinder, which grinds the salt to a consistent particle size, accelerating the dissolve rate and expediting the clean-out process. In the mixing chamber, a high-volume circulation pump ensures consistent brine production at rates up to 1,050 gallons per hour.

To minimize corrosion, the hopper, mixing chamber and reservoir are constructed of polyethylene with powder-coated and stainless steel components. The system is covered by a two-year warranty.

In addition to the Brine Pro 2000, SnowEx also offers 3,000- and 5,000-gallon brine storage tanks, transfer pumps and transfer hoses for filling sprayer systems, making SnowEx a one-stop-shop for all brine-making needs.

For more information, visit www.snowexproducts.com.



SMART IRRIGATION SYSTEM IMPROVES ASSET TRACKING

HydroPoint Data Systems, a 360-degree smart water management company, has announced the release of its WeatherTRAK® Smart Irrigation system, which builds on its existing conservation apps and advanced flow management products. The new features focus on helping property managers, water managers and site maintainers address larger sites, better manage irrigation assets, share important documents and notes, and streamline controller configurations and reporting.

Coming off the company's recent appointment by the U.S. Environmental Protection Agency as their WaterSense® Manufacturer Partner of the Year, HydroPoint is proud to announce the following new WeatherTRAK features:

- 72 and 96-station models of WeatherTRAK's commercial-grade et Pro3 controllers, available in both two-wire and conventional configurations.
- Advanced WeatherTRAK flow sensors and solutions including the new WeatherTRAK Flow3 integrated flow sensor, sub-meter and master valve for even the tightest installations, and the new

- WeatherTRAK FlowHD high-definition flow sensor and sub-meter providing unparalleled accuracy and visibility for sites with main lines 2 inches and bigger.
- Enhanced cloud-based apps including site asset manager's advanced tracking and mapping of irrigation inventory per site and a new document manager for easy, secure central storage of documents and folders associated with sites, WeatherTRAK smart controllers and other assets.
 - Time-saving WeatherTRAK Central enhancements including the ability to save, name and recall complete WeatherTRAK controller configurations, copy and paste station settings to one or more other stations, change multiple stations across multiple controllers and sites with just a few clicks, and streamline reporting and automate report generation and delivery to one or more email addresses.

For more information on the latest additions to HydroPoint's industry-leading WeatherTRAK smart irrigation management system, please visit www.hydpoint.com.

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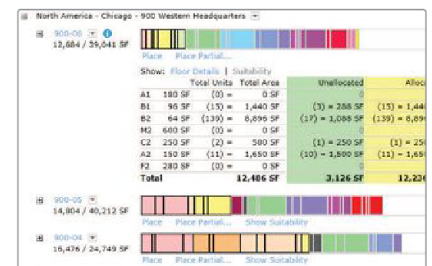
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SUSTAINABILITY:

Town Hall Meeting Results AND THE Global Reporting Initiative

BY BILL CONLEY, CHRISTOPHER LAUGHMAN AND KIT TUVESON

IFMA'S ENVIRONMENTAL STEWARDSHIP AND SUSTAINABILITY

Strategic Advisory Group (ESS SAG) has responsibility for writing a column related to sustainability and the built environment for each issue of FMJ Extended. The current article consists of three components:

- **Results of a sustainability town hall meeting held at IFMA's World Workplace 2014 Conference and Expo;**
- **How IFMA uses the Global Reporting Initiative (GRI) as its sustainability reporting tool and**
- **Strategy for the creation of a GRI report.**

The SAG welcomes your input for each of these topics. Related to the town hall meeting, we would like to know your reactions to the strategic direction for IFMA's sustainability efforts as defined by the meeting participants. With respect to the GRI, the SAG is planning to update the existing report and is interested in whether you agree with its primary foci. The current draft GRI report can be found in the sustainability area of IFMA's online community portal (<https://community.ifma.org/topics/sustainability/default.aspx>).

We encourage you to use the online community to provide such feedback on these or other issues related to sustainability. The portal allows users to pose questions, post blogs and multi-media documents, have threaded discussions and create polls and surveys. You will be able to retrieve content by simply using the "tags" associated with the document. A recent posting ("Community Portal Helpful Hints," posted in Questions & Answers, Oct. 21, 2014) consists of FAQs to help you navigate and use the site.

IFMA HOSTS TOWN HALL MEETING ON SUSTAINABILITY AT WORLD WORKPLACE

BY CHRISTOPHER LAUGHMAN

As more companies announce corporate social responsibility plans, the role of facility managers becomes even more critical to organizations' strategic initiatives.

With buildings representing 36 percent of total U.S. energy use, 65 percent of U.S. electrical consumption, 30 percent of U.S. greenhouse gas emissions and 30 percent of U.S. waste output (per the U.S. Environmental Protection Agency), facility managers are in the spotlight and under pressure to ensure that organizations accomplish their sustainability goals.

With this challenging task in mind, sustainable facility leaders from across the globe met at IFMA's World Workplace 2014 to discuss trends and strategies at the sustainability town hall meeting. The results of that discussion have helped IFMA's ESS SAG establish priorities and identify trends.

The impact of the facility on the health and welfare of building occupants rose as one of the five primary areas of discussion. How we operate our facilities, from procedures to sourcing, has wide impacts on our facilities' occupants and may be reflected in production rates, absenteeism and employee job satisfaction.

The importance of defining the role of the FM within the community was discussed, along with the importance of identifying those organizations that have an impact on our profession and securing their active participation.

As a profession we are always impacted by standards, and sustainability shares this trait. Discussions included understanding the implications of present and future standards and identifying gaps. Both net zero and resiliency rounded out the primary areas of discussion. Both concepts hold potential to have major impacts on our profession in the future.

If you missed the sustainability town hall, you can still participate in the conversation. The sustainability area of IFMA's online community provides members with the opportunity to virtually network and expand the conversation on what the future may hold for the built environment. I hope to see you there.



Christopher Laughman, CFM, SFP, LEED AP O&M is corporate facility manager at Graybar Electric, Inc., a

Fortune 500 distributor of electrical and communication/data products. He oversees facility operations and manages interior space use and environment, the exterior site, facility contract services, tenant relations and leases, operational and capital budgets, energy usage and sustainable operations.

In addition, Laughman serves on Graybar's corporate green team, leading projects that impact the triple bottom line and providing assistance in sustainability planning at the strategic and tactical level. He is a Green Globes Professional and a trained climate educator for the Climate Reality Project.

Laughman currently serves on the board of directors for the St. Louis Chapter of IFMA.

IFMA SUSTAINABILITY REPORTING

BY BILL CONLEY

It has been said that sustainability is a journey. The pursuit of perfection in high-performance facilities is a long and winding road. It may not have an end in sight, but given the right direction, it can be paved with incremental successes.

As in every journey, there are roadmaps and milestones needed to point the way. A demonstration of IFMA's understanding that sustainability is a major factor in managing the built environment is the utilization of the Global Reporting Initiative (GRI) analysis for future reporting structures. A GRI report provides information and statistics on where the organization is, and how it can proceed, in its quest for sustainable actions and resources to support the initiative. This message can then be transferred to IFMA members as a step toward best practices.

The GRI is a voluntary, multi-stakeholder approach to develop a corporate reporting system based on sustainability. The guidelines are designed for organizational-level reporting and utilizes key indicators that relate to societal, economic and environmental progress and benefits. Its intent is to report the status of sustainable practices as well as how an organization plans to improve on their stance. In 2013, IFMA went through the process of drafting a GRI report with the help of a third-party provider. In this way, the association established a baseline from which to work in developing a sustainability report.

THE GRI IS A VOLUNTARY, MULTI-STAKEHOLDER APPROACH TO DEVELOP A CORPORATE REPORTING SYSTEM BASED ON SUSTAINABILITY.

IFMA is driving to become a high-performance organization while providing its members with the most complete understanding of and knowledge relating to the built environment. Using the GRI report as a guide, the ESS SAG has assumed the role of navigator for the association's efforts in sustainability reporting.

Due to a comprehensive effort to ensure stakeholder inclusiveness and an assessment of internal operations, it was determined that this reporting will focus on three specific areas:

- IFMA Service Center of Excellence
- IFMA conferences and events
- IFMA members

Of the three aspects of focus that have been defined, the most effective impact the SAG will have is in the realm of stakeholders and, more specifically, members of IFMA. An ever-improving outreach program as well as continuing relevant education, guidance and resources are all goals of the SAG.

Transitioned from IFMA's Sustainability Committee, the Strategic Advisory Group will carry on the efforts of its predecessors and aspire to build on their past success. It will expand upon the 14 "how to" sustainability guides already available, updating the older ones while developing new ones. It will continue with the development and growth of the sustainability liaisons who have been established at the chapter and council level, creating a dialogue with IFMA members regarding sustainability and the impact it has on the profession. Currently more than 30 chapters and councils represented by more than 60 members are active in this program.

Another outreach effort consists of the implementation of the sustainability area of IFMA's online community, a composite

of blogs, materials and discussions revolving around sustainability that is available to all members. The role of this community is to become a repository of information, resources and conversations on high-performance activities and best practices in facility management. Such content and conversations can lead to innovative, proactive and effective practices related to sustainability. IFMA sustainability leaders are serving as community champions to facilitate growth of this community and to assist members with familiarity and utilization of the site.

IFMA currently reports 560 SFPs, having seen a significant increase of 223 Sustainability Facility Professional® (SFP®) credential holders since January 2013. Thirteen SFPs have recently renewed their terms of validation. Communication of the benefits and efficacy of the SFP credential will continue to be delivered so that all IFMA members are aware of its importance and relevancy in today's (and tomorrow's) world of facility management.

The SAG will facilitate the continuation and reinforcement of IFMA's energy reduction challenge through programs like ENERGY STAR and in adherence to legislation such as the Energy Independence and Security Act (EISA) of 2007. This is consistent with what is happening around the world, as Asia, Europe and Australia/New Zealand have similar programs.

All of these initiatives are intended to facilitate the ongoing efforts and means to conserve resources and decrease greenhouse gas emissions. Their purpose is to increase the efficiency of buildings, promote research and mitigation of greenhouse gas emissions and improve energy performance. The SAG believes that supplying education and resources regarding conservation practices and the

utilization of benchmarking tools will aid members around the world in achieving these goals.

Also, as other legislation surfaces on the horizon, the SAG will work with the IFMA Government Affairs Committee monitoring national laws globally and through public policy advocacy to help guide legislation regarding the built environment. As part of the education and resources provided to members, these activities and their results will be made available, especially on the sustainability area of the online community portal.

A sustainability report such as the GRI serves two purposes. It highlights those areas in which IFMA is leading professionals to a more sustainable world while pointing the way toward improving their environmental practices. Like sustainability itself, the report is an ongoing process that will need refinement and adjustments over time. The SAG committee has assumed the responsibility of ensuring that the report is structured, recognizable and able to be replicated so that progress is tracked and transparent while providing a framework for universal benefit.



Bill Conley, IFMA Fellow, CFM, SFP, FMP, LEED AP is owner/CSO of CFM2, a facility management and sustainability consulting company based in Orange

County, California, USA. Conley has more than 35 years of experience in the facility management profession and has been a proponent of sustainable operations for more than 20 years.

Conley has served on the IFMA board of directors, is a recipient of IFMA's distinguished member of the year award and has twice received the association's distinguished author award.

A STRATEGY FOR CREATING A GRI REPORT

KIT TUVESON

Reporting on your sustainability efforts is an important way to engage employees on issues critical to the success of their organization. Sharing these reports with external audiences demonstrates your commitment to understanding and reducing the environmental impacts of your organization on society in general.

Determining what goes into such a report, and deciding on the format for preparing your report is challenging. Using the Global Reporting Initiative (GRI) methodology is a recommended standard. It is like taking a green CAT scan of your sustainability program and then describing the results.

Benefits to using the GRI standard for reporting:

- Shows alignment of chosen sustainability initiatives with what is deemed important to business success
- Prioritizes your efforts — no ocean boiling (which is good for the ocean too!)
- Validation of the “I say this” and “I do that” consistency in messaging
- Comparison with competition — we are copying them; we are leaders — both legitimate reasons to prepare a report
- Attracts sustainability-minded customers and employees to your organization
- Informs customers about your impact on the environment and the people who live on the planet
- Informs public interests (communities, shareholders, investors) about your commitments and results

- Helps create the “right” perception of who you are, what you are doing and how it matters
- Reduces the potential rumor mill impact

One way to choose what to include is to ask and answer key questions about your initiatives and results. The overall objective is to be consistent with your company’s culture, business objectives and reporting methodologies. Since your sustainability program is constantly evolving, so will be your results, and therefore the reporting activities.

Here are some strategy questions and options to consider when designing your GRI report:

- What are the boundary conditions for analysis and reporting? What is critical to meeting expectations of stakeholders?
- What messages do we want recipients to receive?
- What is our delivery methodology for getting the report “out there”?
- Why would they care about our impacts and results? Can we answer their questions?

Here are two examples of how large and small organizations have scoped their reports. The first is my prior employer — Hewlett-Packard Company. Their 2013 GRI report is 174 pages long and covers dozens of aspects of HP’s global enterprise. HP has many business lines, many customers, many communities and many stakeholders of all types.

The other example is IFMA’s initial draft GRI report. It covers three critical aspects of the organization and is 23 pages long. Both are appropriate

responses to each organization’s needs; both organizations utilized GRI consultants to help scope and write their reports — both utilized best practices!

When you have answered your questions, made the determination of content and prepared your report, find “neutral observers” to review it and make suggestions for edits and changes. Sometimes your team can be too close to the report to maintain objectivity, which is why utilizing consultants and subject matter experts should be an element of your strategy.

Developing a strategic approach to sustainability reporting will help advance your good work that is already in place and will guide future efforts. Although the process is rigorous, you will likely find that that rigor supports the similar rigor required when designing and implementing your sustainability program. “Green harmony” is a good thing! **FMJ**



Kit Tuveson, IFMA Fellow, CFM, SFP is the vice president for business development of a new technology startup company, Visual Mobile Technologies.

He has been working with and leading others in the FM world for more than 40 years.

Tuveson worked for Hewlett-Packard for 37 years, ending as global director for FM and environmental health and safety. He has since spent 12 more years managing his consulting business, where he has been engaged in consulting, teaching, presentations, mentoring and support of various IFMA strategic initiatives.

He is an engineering graduate from Stanford, is a frequent volunteer for non-profits and served as IFMA’s chairman in 1997-98. He has written articles for several FM-related publications, been a panelist at major conferences and in 2014 received IFMA’s Chairman’s Citation recognizing his many contributions to the association and its members.

Great Gains for FM Industry



THE IFMA FOUNDATION, a non-profit that promotes FM research and education, consistently leverages volunteer and private contributions for the advancement of the facility management industry. In 2014 the foundation made significant gains in a number of key areas, including bringing FM into high schools, furthering FM education in universities worldwide, involvement of students in IFMA's World Workplace Conference and Expo, producing how-to guides and hosting an international Workplace Strategy Summit. In addition, the foundation sharpened its tools, offering a new quarterly e-newsletter and website (<http://foundation.ifma.org>).

The "IFMA Foundation 2014 Annual Progress Report" provides a detailed account of the foundation's progress over the past year. A few of the many highlights are included below.

Taking FM to high school students

Last year, the IFMA Foundation conceived and started what is likely the most important and largest initiative in the foundation's 25-year history: the FM Global Workforce Initiative (GWI).

With the increasing retirement rate of today's FM practitioners and the ongoing expansion of the required skillset for FMs, a near-term succession crisis is looming large for the profession. The GWI is all about making FM a career of choice and introducing FM to high school students and beyond.

In the fall of 2014, the foundation partnered with IFMA chapters and other organizations in three U.S. markets to pilot the program.

In the Bay Area of California, foundation volunteers worked with the Bay Area Chapter of NFTE (Network for Teaching Entrepreneurship) to take the message of FM as career of choice into high schools. Together, they provided a snapshot of who FMs are and the multitude of career paths available within facility management.

In November, foundation and NFTE representatives presented the FM profession in simple and fundamental terms to NFTE students at Hayward High School in Hayward, California, USA. The presentation served the FM industry by:

1. Exposing students to the world of FM using "wow" factor presentation techniques.

2. Stimulating conversations on choosing FM as a career path early in students' professional development.
3. Laying strategic foundations for the profession through a tactical program in a local community.

In 2015, the IFMA Foundation will continue to run high school pilots and develop training materials for students, volunteers, parents, teachers and community representatives as we prepare to deploy the Global Workforce Initiative in more cities.

Publication of academic papers on FM

The IFMA Foundation has published papers presented at the IFMA World Workplace 2014 Conference and Expo Academic and Research Track via IJFM, an independent online academic journal.

The Academic and Research Track at World Workplace was developed to meet the strict academic requirements of most higher education institutions. Each submitted paper is double-blind reviewed, corrected, formally resubmitted and re-reviewed before being approved for presentation and publication.

Topics addressed in 2014 include BIM/COBie, green building performance, tenant satisfaction, external service providers, food waste and more.

Abstracts and full PDFs of the 2014 papers can be accessed at www.ijfm.net/index.php/ijfm/issue/view/12.

The foundation's goal is to have more than 25 successful submissions each year. Additionally, the foundation is developing a separate track for graduate students pursuing research and academic careers, availability of which is targeted for World Workplace 2015, Oct. 7-9 in Denver, Colorado, USA.

A call for papers notice for the 2015 Academic and Research Track will be published in early 2015. Details will be made available via IFMA and IFMA Foundation communication vehicles, and at foundation.ifma.org.

For more on the foundation's 2014 triumphs and what to expect in the coming year, view the annual report at <http://bit.ly/1ApiOrq> or the November 2014 edition of the foundation quarterly newsletter at <http://bit.ly/1KR6WH3>.

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The Salone del Mobile is the global benchmark for the home furnishing sector — an invaluable tool for the industry as well as an ongoing, quite extraordinary promotional vehicle. The Salone made its first appearance in 1961, designed to promote Italian furniture and furnishing accessories on the export market, and it has continued to do so impeccably, ensuring that the quality of Italian furniture is known to all four corners of the Earth, and continues so to do, with half of all its visitors coming from around the world.

www.cosmit.it/en/salone_internazionale_del_mobile

LIGHTING**Graybar**

Graybar is a leading nationwide distributor of electrical, communications, data networking and security products. Our Graybar PowerSmart® program helps facility managers identify, design and implement energy-efficient and intelligent building solutions. We can help you plan and install a building system, including lighting, communications, HVAC and security, that saves money and is easy to manage and maintain. Find out more at graybar.com/powersmart.

www.graybar.com | +1-800-472-9227

ROOFING**Sika Sarnafil, Inc.**

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usa.sarnafil.sika.com | +1-800-576-2358

SECURITY**TownSteel, Inc.**

TownSteel is a manufacturer of high quality commercial grade builder's hardware, including locks, door closers, exit devices, hinges and general hardware.

www.townsteel.com | +1-877-858-0888