

FMJ



IFMATM
International Facility Management Association

WWW.IFMA.ORG/FMJ | JULY/AUGUST 2014

FINDING THE BALANCE

MAXIMIZING SAVINGS ON
**LABOR
AND
PRODUCT
COSTS**

PAGE 18



INSIDE

Developing an Energy Master Plan // Damaged Steel Doors: Repair or Replace?
PAGE 40 PAGE 82



IFMA's Facility Management Professional™ (FMP®) Credential



Assessment-based certificate program with no prerequisites.

For FM professionals and industry suppliers looking to increase their depth-of-knowledge in the foundational FM topics deemed critical by employers.

Updated and enhanced courses addressing the foundational elements of facility management:

- Operations and Maintenance
- Project Management
- Finance and Business
- Leadership and Strategy

**Earn a competitive
advantage —
earn the FMP!**

Earn the MUST HAVE Credential in FM!

www.ifma.org/FMJ-FMP



IFMA™
International Facility Management Association

See What's Working. Fix What Isn't.

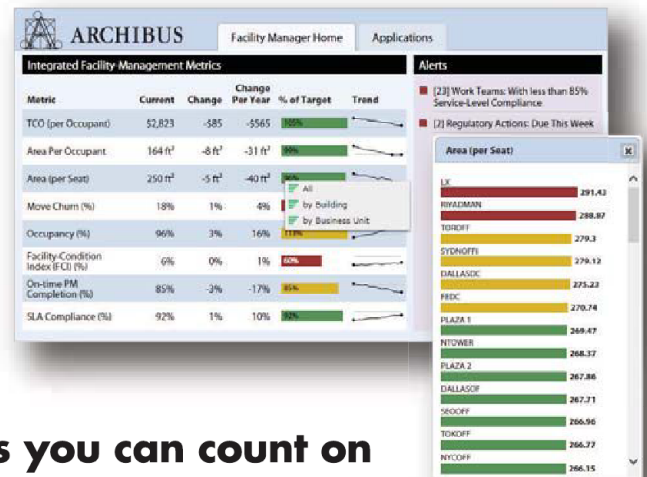


The ARCHIBUS Performance Metrics Framework delivers indicators, trend, and other actionable portfolio performance data

Tackle your real estate & facilities Big Data with ARCHIBUS Performance Metrics. Owners, tenants and outsourcing service providers can quantify real property portfolio performance from occupancy, operational and financial perspectives — **anytime and anywhere.**

Using key performance indicators (KPIs), trend summaries, alerts, drill-down capabilities and many other analytical tools, decision-makers can align their portfolio spend to organizational strategy.

Spotlight underperforming business units or assets. Benchmark organizational progress to achieve targeted goals. Do it all easily with role-based Home Page dashboards, at your desk or **on your mobile device.**



Leverage performance statistics you can count on ...with ARCHIBUS Performance Metrics



Visit: www.archibus.com/performance-metrics

The #1 Solution for Real Estate, Infrastructure & Facilities Management in the World
Over 7 million users prove it daily—saving their organizations over \$100 billion annually

ARCHIBUS, Inc. • Boston, MA • USA • Tel: 1 617-227-2508 • www.archibus.com





ON THE COVER

18 FINDING THE BALANCE

Maximizing savings on labor and product costs

// NEAL DUFFY

SECTIONS

- 8** Editor's Column
- 10** Chair's Column
- 12** President's Column
- 14** Industry News
- 34** IFMA Foundation
- 38** Corporate Sustaining Partners
- 76** Events Column
- 85** Credentials Recipients
- 87** New Products & Services
- 89** Resources
- 90** Advertiser Index

FEATURES

- 23** Reducing Real Estate
Flex work and hoteling in the corporate workplace
// STEVEN PONS
- 29** The Value of Workplace Research
// ISILAY CIVAN & LEIGH STRINGER
- 40** Developing an Energy Master Plan
// ASHLEY EDWARDS
- 48** No More Firefighting
Planning for success with a capital replacement program
// JOHN RIMER
- 60** Case Study: Impact of Big Data and Urban Analytics on FM
// ERIC TEICHOLZ
- 66** International Trends and Developments in FM
// LIONEL PRODGERS
- 71** Systems Thinking Supports Sustainability
// BILL CONLEY

- 78** If You Can't Measure, You Can't Manage
How to perform a benchmarking study of your facility assets
// RICHARD SIEVERT
- 82** Damaged Steel Doors: Repair or Replace?
// JEFF WHERRY

FM SPOTLIGHT

- 54** IFMA's Facility Fusions 2014: A Capital Time
// ERIN SEVITZ
- 59** IFMA Knowledge Strategy: Are You Ready for a Game Changer?
- 70** Local, Global Engagement on World FM Day
// ERIN SEVITZ

BEHIND THE COVER: *The many varied aspects of FM all retain one overlapping quality: taking a slice of the budget. This issue is about finding the balance to ensure you get the most out of your investments, products and workers.*



With the goal of minimizing our carbon footprint, FMJ is printed by an FSC-certified company.

PLEASE RECYCLE



IFMATM
International Facility Management Association
Empowering Facility Professionals Worldwide

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.

Vol. 24, No. 4. FMJ (ISSN 1059-3667) is published on a semi-monthly basis (January/February, March/April, May/June, July/August, September/October, November/December) by the International Facility Management Association, 800 Gessner Road, Ste. 900; Houston, TX 77024-4257 USA. Periodicals postage paid at Houston, TX and at additional mailing offices. One electronic copy of each issue is supplied to IFMA members. Printed copies are available to members at an additional US\$42 per year. Nonmembers can purchase a subscription for US\$75 per year. To receive a subscription, mail a check to FMJ, attn: Subscriptions; 800 Gessner Road, Ste. 900; Houston, TX 77024-4257 USA or visit www.ifma.org/publications/facility-management-journal/subscriptions. For advertising rates call +1-281-974-5674 or email diana.maldonado@ifma.org. FMJ is printed in the United States. FMJ reserves the right to edit any articles received or solicited for publication. This right includes the discretion to select titles, artwork and layout. Opinions expressed in articles are those of the authors, not necessarily those of FMJ staff. © 2014 International Facility Management Association.

POSTMASTER: Send address changes to: FMJ, 800 Gessner Road, Ste. 900; Houston, TX 77024-4257 USA.

WE DREAM. WE DO.

What if we could remove more harmful chemicals from cleaning solutions? What if we could create healthier lives by creating healthier environments? What if we could use virtual modeling to generate energy savings? What if we told you we already do? From daily operational ingenuity to superior facility management, innovative customer service is at the heart of what we do.



Find out more at www.aramarkfacilities.com
© 2014 Aramark. All rights reserved.





*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.

- **ARTICLE:** “Six Winning Strategies for Green Cleaning” to accompany “Finding the Balance” (p. 18)
- **ARTICLE:** “The Savings From Flexible Office Space” to accompany “Reducing Real Estate” (p. 23)
- **RESEARCH PAPER:** “Culture at Work: The value of intercultural skills in the workplace” to accompany “The Value of Workplace Research” (p. 29)
- **VIDEO:** “Commercial Energy Auditing Presentation” to accompany “Developing an Energy Master Plan” (p. 40)
- **VIDEO:** “IFMA Facility Fusion 2014 Washington, DC Video Highlights” to accompany “Facility Fusion 2014” (p. 54)
- **VIDEO:** “Building Smart Cities for the Future” to accompany “Impact of Big Data and Urban Analytics on FM” (p. 60)
- **VIDEO:** “Benchmarking your Building or Facilities” to accompany “If You Can’t Measure, You Can’t Manage” (p. 78)

FMJ EXTENDED

This exclusive online section focuses on expanded FM coverage.

- 94** Ask the Experts
// IFMA'S FACILITY MANAGEMENT CONSULTANTS COUNCIL
- 96** Increased Return through Integral Cooperation
// PETRA DEEN & LUC PIETERS
- 99** Offices Waste Space, Time
// ANDREW MAWSON
- 102** Vendor Profiles

SOCIAL MEDIA



To join and follow IFMA's social media outlets online, visit the association's LinkedIn, Facebook, Twitter, Flickr and YouTube pages.



DON'T FORGET – stay connected to all things FMJ!

Follow us on Twitter and like us on Facebook.



Facility Management Journal



TheFMJ

Be the hero

QtPro™ Sound Masking increases employee satisfaction, productivity, and comfort - while helping facility managers save millions.



Your new superpower is Sound Masking. In an era of modern open office design and collaborative workspaces, the patented QtPro Sound Masking solution is a cost-effective tool to reduce noise distractions and improve speech privacy. This means employees are happy and productive, and you save on expensive construction and real estate costs. Easily retrofitted into existing spaces, QtPro is deployed in millions of square feet throughout the world including open offices, hospitals, universities, innovation labs, call centers, and government agencies. QtPro is trusted by over 40% of the Fortune 100.

QtPro™ Sound Masking

Sign up for a free Sound Masking demonstration at your facility.
csmqt.com/hero

800.219.8199

info@csmqt.com



EDITOR'S COLUMN

ANDREA SANCHEZ
Editor-in-Chief
Facility Management Journal



A year ago I was packing to move to Baku, Azerbaijan with my husband, three children and three dogs — open and willing to leave family, friends and the comforts of a culture I grew up in. Little did I know that exactly one year later I would be facing a room full of suitcases again, this time moving back to where I was 12 months ago: Houston, Texas, USA.

While the past year has been the most emotionally and physically exhausting of my life, it has also been among the most fulfilling and priceless learning opportunities I've experienced.

Staying connected

Being a 100 percent remote worker in Baku has given me a greater appreciation of the times in which we work and live. It is truly amazing to have the capability to work seamlessly from anywhere in the world. Distance and lack of daylight hours no longer restrict communications. Video technology has evolved to give us the tools to maintain rich relationships with our colleagues — offering a close alternative when face-to-face interaction is not available. This is especially important in a time when more employees are given the option to work remotely.

While flexibility and work/life balance are essential for balancing productivity, it is still critical to keep employees engaged through collaboration and one-on-one relationship building. We must not forget that 80 percent of communication is visual, basically in what is not said.

While working overseas, I made the extra effort to work odd hours so I could keep in close contact with IFMA members and staff. Video has truly been my best friend — enabling me to do my job in communications effectively. Being able to interact with my colleagues in this manner made me feel like I was still present in their day, despite being more than 7,000 miles (11,400 kilometers) away. There is no doubt that face-to-face interaction adds an extra dimension of connection that enhances levels of credibility and trust. In fact, it has been proven that 60 percent of people prefer to communicate visually.

No matter your gender, race, culture, title, age or expertise, at the end of the day we are all people — individuals who have the shared need to feel connected. With connection comes a sense of community, which eventually builds confidence and overall satisfaction.

Communicating added value

I would like to welcome Jim Whittaker as the association's 2014-2015 chair of the board of directors. Jim starts his term this month with a new executive committee and first-time IFMA board members (2014-2015 board listing is to the right of this column). On page 10 he speaks about challenging the status quo and creating new messaging to help facility managers deliver and communicate added value.

The key to creating this added value is people. Regardless of top-notch products and services that a company can offer, they are not valuable if they are irrelevant to its customers. People are the secret to success. Whether they are your staff, members or fans, they are the pulse of your business.

Speaking of people...

My favorite part about working for IFMA is coming up in September, the chance to witness what makes IFMA unique from any other association out there: its members. If you haven't done so already, don't miss the opportunity to attend the World Workplace Conference and Expo in New Orleans to connect with the most talented, passionate (and I am pretty certain the friendliest) group of people in facility management (see page 35 for details).

Strengthening your connections is your path to success. View IFMA, your association, as the helping hand that provides you with the tools to do that. You are the heartbeat of IFMA and of FM. We'd love to hear from you.

Until next issue,

Andrea

STAFF

Editor-in-Chief
Andrea Sanchez
andrea.sanchez@ifma.org

Editorial Manager
Erin Sevitz
erin.sevitz@ifma.org

Advertising Account Specialist
Diana Maldonado
diana.maldonado@ifma.org

Designer
Michelle Doe

CONTACTS

President and Chief Executive Officer
Tony Keane, CAE
tony.keane@ifma.org

IFMA 2014-2015 BOARD OF DIRECTORS

Chair
James P. Whittaker, CFM, P.E., EFP, FRICS
President
Facility Engineering Associates, P.C.
Fairfax, Virginia, USA

First Vice Chair
Michael D. Feldman, FMP, CM
Seattle, Washington, USA

Second Vice Chair
Maureen Ehrenberg, FRICS, CRE
Global Director Facilities Management, Executive
Managing Director, Global Corporate Services
CBRE, Inc.
Chicago, Illinois, USA

Past Chair
Jon Seller
General Manager
Optegy Group
Central, Hong Kong

Lynn Baez, CFM, SFP, FMP
Regional Facility Manager,
South/Workplace Ambassador
T-Mobile
Frisco, Texas, USA

Stephen P. Ballesty, CFM
Director and Head of Advisory
Rider Levett Bucknall
Sydney, Australia

Jeffrey J. Budimulia, CFM, MBA
Director
JABEZ
Beijing, China

Larry Allen Morgan, CFM, SFP, FMP
Regional Operations and Sustainability Expert
SAP Global Facilities Management
San Francisco, California, USA

Collins Osayamwen, CFM, FMP
Managing Partner
Sheltercare FM Consult
Abuja, Nigeria

Cathrine Pauli, Dipl. Arch. ETH, MBA HEC Paris
Managing Director
Sodexo (Suisse) SA
Zurich, Switzerland

Ian H. van der Pool, MFM
Director
VisionFM
Breda, Netherlands

Pat Turnbull, IFMA Fellow, MA, LEED AP
President and COO
Kayhan International
Chicago, Illinois, USA

Geoff Williams
Facilities Director
Centre for Health & Safety Innovation
Mississauga, Ontario, Canada

DO A FEW MILS REALLY MAKE A DIFFERENCE?



CSP 
CORPORATE
SUSTAINING
PARTNER
SILVER



You bet they do. They can mean the difference between taking Center Court and never kissing the trophy. Or the difference between a long lasting roof and one that is less durable. So if you're looking for superior, reliable performance, you want the new Sarnafil Thickness Guarantee.

The roofing industry standard allows membranes to be manufactured up to 10% below the advertised thickness, which means your 60 Mil membrane could really be 54 mils thick! But with our Thickness Guarantee, you get every mil you pay for, guaranteed.

So don't take a chance on your next roof. **Visit www.thicknessguarantee.com or call 800-576-2358** for Sarnafil Thickness Guarantee program details and to see the difference a Sarnafil membrane can make. Because a few mils can mean the difference between failure and a performance that people will talk about for decades to come.

CHAIR'S COLUMN

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



The value of our IFMA membership can be measured in several ways. It may come in the form of increasing personal competence, career advancement or creating greater value for our organizations. Some members may consider IFMA's greatest value to be creating opportunities to connect with and learn from one another at events such as World Workplace and Facility Fusion. This added value doesn't come without effort.

In addition to an extraordinary group of professionals on the IFMA staff, there are many selfless volunteers who contribute a substantial amount of time to create a stronger association. Among the best of these professionals are IFMA's immediate and current past chairs Marc Liciardello and Jon Seller. I would like to extend my sincere appreciation for their dedication, commitment and passion to advance the FM profession.

I would also like to thank our departing board members Eric Teicholz, Kevin O'Toole, Bill O'Neill, Ken Burkhalter and Stephanie Fanger for their amazing contributions. As we bid farewell to these talented individuals we welcome our new board members: Stephen Ballesty (Australia), Larry Morgan (U.S.), Jeff Budimulia (China), Lynn Baez (U.S.), Ian van der Pool (Netherlands) and Pat Turnbull (U.S.).

Existing directors continuing to serve on the board include: Geoff Williams (Canada), Cathrine Pauli (Switzerland) and Collins Osayamwen (Nigeria).

Finally, I am truly excited to continue to work alongside the 2014-15 executive committee: Jon Seller (past chair), Michael Feldman (first vice chair) and Maureen Ehrenberg (second vice chair). Their collective knowledge and boundless energy will continue to propel IFMA to new and exciting heights.

In this edition of FMJ you will read articles about FM financial strategies that can help you control costs, introduce efficiencies and optimize financial performance. While these objectives are not new, the perspectives are. It is no longer simply about cutting costs, but about adding value to your organization. We

WE ARE CHALLENGING THE STATUS QUO AND CREATING NEW MESSAGING TO HELP FACILITY MANAGERS DELIVER AND COMMUNICATE ADDED VALUE.

are challenging the status quo and creating new messaging to help facility managers deliver and communicate added value.

How you can add value?

For decades facility management professionals have honed their skills in optimizing energy efficiency, extending the life of facility assets and providing services with minimal staff levels. Eventually, the savings from these operations and compliance-related initiatives reach a limit. The added value comes in the form of mission-related and stakeholder-driven outcomes, such as increased stakeholder productivity, better workspace utilization, enhanced public image and improved wellness and service/hospitality.


So, how does IFMA add value?

Most members understand the value of IFMA education, publications, workshops/webinars, credentials and networking opportunities. However, there are some strategic initiatives that may come as a surprise. You may not be familiar with our work in developing ISO FM standards, government advocacy, creating comprehensive knowledge management systems, BIM and sustainability communities, supporting STEM programs (e.g., the IFMA Foundation's Mars City initiative) and more.

All of these initiatives are laser focused on developing the FM workforce, advancing the profession and creating value for our members.

I look forward to connecting with you in the coming months as we continue to make great strides in providing more value to our organizations and the global community.

Regards,



With our lighting
controls, the
most productive
employees in
your office will
be the ones
installed in
the ceiling.



SmartCast™

Our new SmartCast™ Technology integrates smart controls and sensors right into our light fixtures. Lights are on when you need them and off when you don't. So your lights become one of your hardest working revenue generators.

Talk to an expert at **800-236-6800**. Or get more information at cree.com/lighting/smartcasttech

Making Success a Fixture in Your Business

CREE  | **LED LIGHTING**

PRESIDENT'S COLUMN

TONY KEANE, CAE
President and Chief Executive Officer



Each July brings in a new session of the IFMA Board of Directors. I look forward to working with Jim Whittaker, IFMA chair and our new directors and executive committee. The strength of IFMA's strategic planning helps create annual continuity as our leadership changes. This is important to the organization to prevent radical directional shifts each year.

As I write this column the World Cup is in full swing in Brazil. It is one of those sporting events that really brings everyone together from many countries around the world second only to the Olympics. IFMA does the same for FM — it brings facility management professionals from 97 different countries together through membership.

FM continues to prove itself as a professional discipline that plays a strategic position in organizations around the world. I just returned from attending our Workplace Summit in Reading, England. It was a joint effort between IFMA and the IFMA Foundation in collaboration with the British Institute of Facility Management and the University College London. This event of about 150 attendees had some fascinating topics and discussions. It included representatives from 14 different countries sharing perspectives on workplace strategies that FM embraces to yield productivity and satisfaction gains within organizations.

The prior week IFMA hosted the European Facility Management Conference in Berlin, Germany with equal partner EuroFM. EFMC had about 500 delegates and included an emphasis on strong research and business application programs that bridge the divide between theory and practice. At this year's event, IFMA launched the new EU FM Coalition to bring European FM organizations and European IFMA chapters and affiliates together to increase the awareness of FM within EU governing bodies.

Other areas of IFMA

Have you taken advantage yet of a new member benefit? The new online sustainability community was launched in April

FM CONTINUES TO PROVE ITSELF AS A PROFESSIONAL DISCIPLINE THAT PLAYS A STRATEGIC POSITION IN ANY ORGANIZATION AROUND THE WORLD.

2014 as part of our revamped community site and is free for all IFMA members. Check it out and participate in the discussion by logging in at community.ifma.org and navigating to Sustainability under Topics/Categories.

We will soon launch another new topic area within the online community focused on the workplace. You may have heard of the Workplace Evolutionaries (WE) group — they are workplace fanatics in a good way! Members of the WE subgroup of IFMA's Corporate Real Estate Council are helping us launch the new workplace subject area of the community, so be on the lookout if you see workplace as part of your responsibility.

For those of us in the northern hemisphere, summer is here and hopefully you have in your plans some relaxation and maybe even some travel. If you are looking for an excuse to travel to Washington, D.C., our annual Advocacy Day & Public Policy Forum will be offered July 23-24, 2014. Come and join us to learn more about how D.C. works and what IFMA is doing on Capitol Hill to advance FM in the U.S. We will host a similar event in Brussels, Belgium in October.

Also, don't forget to make your plans to attend the World Workplace Conference and Expo Sept. 17-19 in New Orleans. Hotels are filling up fast, so make your reservations early (and read more about the exciting features of this year's event on page 76).

Invite a colleague to join IFMA and have a great day!

You can be ruined or you can be **READY**.
Scan this code to download your Emergency Ready Profile.

American Red Cross
Ready Rating™



SERVPRO® is a proud supporter of
American Red Cross Ready Rating.



ERP 4G 9:00 AM 100%

Get Help Now

**50% OF BUSINESSES
MAY NEVER
RE-OPEN
AFTER A DISASTER**

Put help in the palm of your hand with the
Ready Plan App at SERVPRO.COM/READY.

SERVPRO®
Fire & Water - Cleanup & Restoration™
Like it never even happened.®

1-800-SERVPRO
SERVPRO.COM/READY

Franchises Are Independently Owned & Operated

IFMA Health Care Institute releases research report on future of medical facilities

The IFMA Health Care Institute has released a new research report on the future of medical facilities. The report was developed from interviews with more than 30 CEOs, strategic planners, facility managers, deputy administrators, financial analysts and chief medical officers.

The report was directed by IFMA HCI's Research Chair Constance Nestor, who is AVP Facilities and Support Services, Presence Health Mercy Medical in Aurora, Illinois, USA. The report can be downloaded at IFMA HCI's website, hci.ifma.org/resources/research-reports (select Health Care Leaders Survey).

Among the major trends identified in the interviews were:

1. **Survive!** The next three to five years will continue to be a time of dramatic change. The ability to adapt quickly is essential. The big lesson “nonprofits” can learn from investor-owned hospitals is to make decisions quickly, check performance often and adjust as necessary.
2. **Do better with less.** The downward pressure on reimbursement rates will continue to increase from both government and nongovernment payers. Also, look for expanded use of “claw-back” by payers for not meeting performance standards. Health care organizations that fail to provide and document excellent patient care will be seriously penalized.
3. **Know the difference between price and cost.** Simply telling the facilities department to buy cheaper products is not a path to success. Cheaper air filters and other supplies result in higher energy costs and worse indoor air quality. The finance department needs to work hand in hand with other departments to find better ways to be both operationally effective and cost efficient. Conversely, other departments must learn how to communicate with the senior



management in operational and financial terms they understand.

4. **Increase throughput.** Health care organizations need to figure out how to use existing capacity and assets more efficiently. This means utilization rates need to increase from the existing 60 percent range to the mid 80 percent range.
5. **Clicks — not bricks.** This term is popular inside Kaiser Permanente; it means using technology rather than real estate to meet the needs of members. Prescriptions are renewed and filled without members going to Kaiser facilities. Members can get many of their medical questions answered by health care professionals online or by telephone, reducing clinic visits. Those health care professionals may be working part-time from home, further reducing the FTE headcount and the demand for bricks and mortar.
6. **More but smaller facilities.** The growth in the hub-and-spoke delivery model will cause hospitals to build or lease additional but smaller facilities. However, managing multiple smaller facilities is not as cheap or easy as many assume.
7. **Expanding continuum of care.** Health care is being offered in many more settings and by a wider variety of care providers than ever before. The pressure to increase patient satisfaction and reduce costs will push patients toward the lowest cost provider and lowest cost facility suitable for that care (e.g., the use of convenience clinics for flu shots and collecting samples for lab work, or end-of-life care in a non-hospital setting).
8. **Regulations and standards.** Health care is second only to nuclear power in regulations and standards. As health care systems spread across the U.S., they are encountering different versions of the facility guidelines and National Fire Protection Association documents; this adds complexity and increases operating costs. Another challenge are regulations such as excessive air change rates that add costs yet offer little or no benefit in patient safety. There are many opportunities for engineering research to help improve facility operations, reduce costs and provide better patient care.
9. **Technology.** Hospitals will need to cope with an ever-increasing array of technology. However, state-of-the-art technology is being put into operating room configurations designed 30 years ago. The basic design has not changed to embrace these new technologies — this is a big error with respect to eliminating medical errors in operating rooms. Technology must reduce footsteps and speed the delivery of care.

IFMA co-launches EU FM Coalition for FM public policy advocacy in Europe

IFMA, in partnership with other leading European facility management organizations, has launched the EU FM Coalition to educate decision makers and stakeholder groups on the importance and impact of FM within the European Union. The official launch took place at the European Facility Management Conference in Berlin, Germany in conjunction with World FM Day on June 4, 2014. The EU FM Coalition promises to help shape public policy, provide industry perspective and highlight the connection between facility management and important public sector goals like energy efficiency.

As the number and influence of facility management professionals continue to grow throughout Europe, the EU FM Coalition is poised to become the preeminent public advocacy body for facility management within the Union. The complete list of FM organizations that participated in the launch includes: IFMA, EuroFM, the British Institute of Facilities Management, the Romanian Facility Management Association, the German Facility Management Association, the Bulgarian Facility Management Association, the IFMA Foundation, and IFMA chapters in Spain, Sweden and Switzerland.

The purpose of the EU FM advocacy program is twofold: to inform decision makers and to provide information to member organizations on public policy with the potential to impact the facility management profession.

Facility management is a large and growing global industry with stakes in a huge variety of public policy issues including energy and water use, environmental stewardship, tax policy, disaster preparation and recovery, emergency response, workplace safety, education and training, smart buildings and worker mobility. In this



environment it is critically important that the FM professionals, who in many cases will ultimately be tasked with implementing these policies, be part of their development. Many of these subjects were addressed during the three-hour launch.

Launch attendees included:

- Mr. Erik Ahrsjo, IFMA Sweden
- Mr. Jeff Johnson, Director of Government Affairs, IFMA
- Mr. Tony Keane, President & CEO, IFMA
- Ms. Beatriz Soria-León, German Facility Management Association (GEFMA)
- Mr. Goran Milanov, President, Bulgarian Facility Management Association (BGFMA)
- Mr. Chris Moriarty, British Institute of Facility Management (BIFM)
- Mr. Emmanouil Patavos, INTEREL Brussels
- Mrs. Cathrine Pauli, Board of Directors, IFMA
- Mr. Jamie Pire, IFMA Spain
- Mr. Jon Seller, Chair of the Board of Directors, IFMA
- Mr. Ondrej Strup, IFMA Czech Republic
- Mr. Ian van der Pool, President, Facility Management Netherlands (FMN)
- Mr. Jim Whittaker, First Vice-Chair of the Board, IFMA
- Mr. Jim Wise, PACE LLP
- Mr. Tudor Trita, President, Romanian Facility Management Association (ROFMA)
- Mr. R.M.D. (Ron) van der Weerd (EuroFM)
- Mr. Jeff Tafel, CAE, Executive Director, IFMA Foundation

More information about the exciting new EU Coalition can be found online at www.eufm.org.

Report: Facility management market worth US\$43.69 billion by 2019

MarketsandMarkets expects the facility management market to grow from US\$24.65 billion in 2014 to US\$43.69 billion by 2019. This represents a compound annual growth rate of 12.1 percent from 2014 to 2019. The research firm expects North America to hold the largest market for this industry in terms of geographical regions and over the next five years. It is expected to continue at this pace but Asia Pacific and Middle East and Africa will be the regions with higher growth rates.

The report “Facility Management Market by Solutions (CAFM, IWMS, CMMS, BIM, IWMS) & Services – Worldwide Market Forecasts and Analysis (2014-2019),” defines and segments the facility management market into various segments and provides an in-depth analysis and forecasting of revenues. This research report helps to identify the factors driving this market, various restraints, challenges and opportunities impacting it along with the future roadmaps.

The IT-based facility management solutions are classified by several industry players and SMEs. These solutions are classified as integrated workplace management systems (IWMS), computer aided facility management (CAFM) solutions, computerized maintenance management systems (CMMS), building information modeling (BIM), enterprise asset management, facility management information systems (FMIS), computer integrated facility management (CIFM) and integrated project delivery (IPD) solutions.

U.S.-based global market research and consulting company MarketsandMarkets broadly segments the facility management market in this report by solutions: asset management and space management, capital project management, real estate portfolio management and lease administration, energy management and environment sustainability management, maintenance management and others; by services: design and integration, deployment and maintenance, consulting

and managed services; and by verticals: banking, financial services and insurance, public sector, utilities, aerospace and defense, telecommunication and ITES, manufacturing/supply chain/logistics, real estate/infrastructure, health care, retail and others; and by regions: North America, Europe, Asia Pacific, Middle East and Africa and Latin America.

Infrastructural development and technological advancements are the primary factors driving the growth for this market. IT-based facility management solutions and services help facility managers to look carefully in the support functions as well. These solutions ensure the optimized utilization of resources and assets which ultimately leads to reduced operational costs and enhanced profitability. There are several vendors in this market offering various solutions and services. Demand for customized solutions is anticipated to be higher than standardized solutions. In this market generally the demand from customers varies and hence customization is very important.

UGL to sell DTZ for AU\$1.215 billion

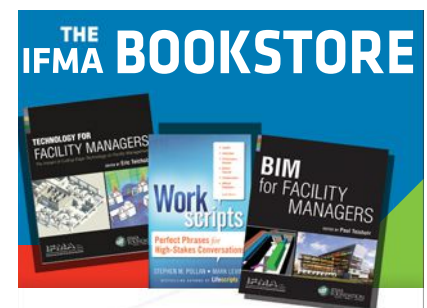
UGL Limited has entered into an agreement to sell DTZ, a global property services firm headquartered in Chicago, Illinois, USA to a private equity consortium for AU\$1.215 billion. Officials from the Sydney-based firm say they will complete the deal with TPG Capital, PAG Asia Capital and Ontario Teachers’ Pension Plan by September of 2014.

As reported in GlobeSt.com, UGL, known as an engineering firm in its home country, took ownership of the then-troubled DTZ in early December 2011. Soon after, investors regained confidence in DTZ and the firm began to recover. In less than a year, its annual statement revealed a firm that boasted AU\$2 billion in revenue. However, UGL officials say that to continue growing, the company requires a different structure.

“Over the past 18 months, the board has carefully evaluated various options

to determine the optimal corporate structure for UGL, recognizing that UGL is comprised of two distinct and sizeable businesses which operate in different markets, with different geographic focuses and strategic requirements,” said UGL chairman Trevor C. Rowe in a prepared statement. “The board continues to believe a structural separation of DTZ and engineering is in the best interests of shareholders, and will be beneficial for both our clients and our people.”

Board members looked into several options to bring about that separation, but eventually concluded that a private equity owner would give DTZ the best opportunity for growth. After UGL and the consortium finalize the agreement, UGL will concentrate on providing engineering, construction and maintenance services in Australia, New Zealand and South East Asia.



The online IFMA Bookstore has been updated and improved! With new e-commerce features, purchasing essential FM merchandise has never been easier. Now, customers can log in and view order history, re-download previously purchased e-files and use enhanced search options to access products more easily. Browse hundreds of books and guides, along with exclusive IFMA research and products.

As always, IFMA members receive discounted pricing.

Visit www.ifma.org/marketplace/store today!



QUALITY OF LIFE MEANS MAKING IT WORK

From systems assets to
your work environment.



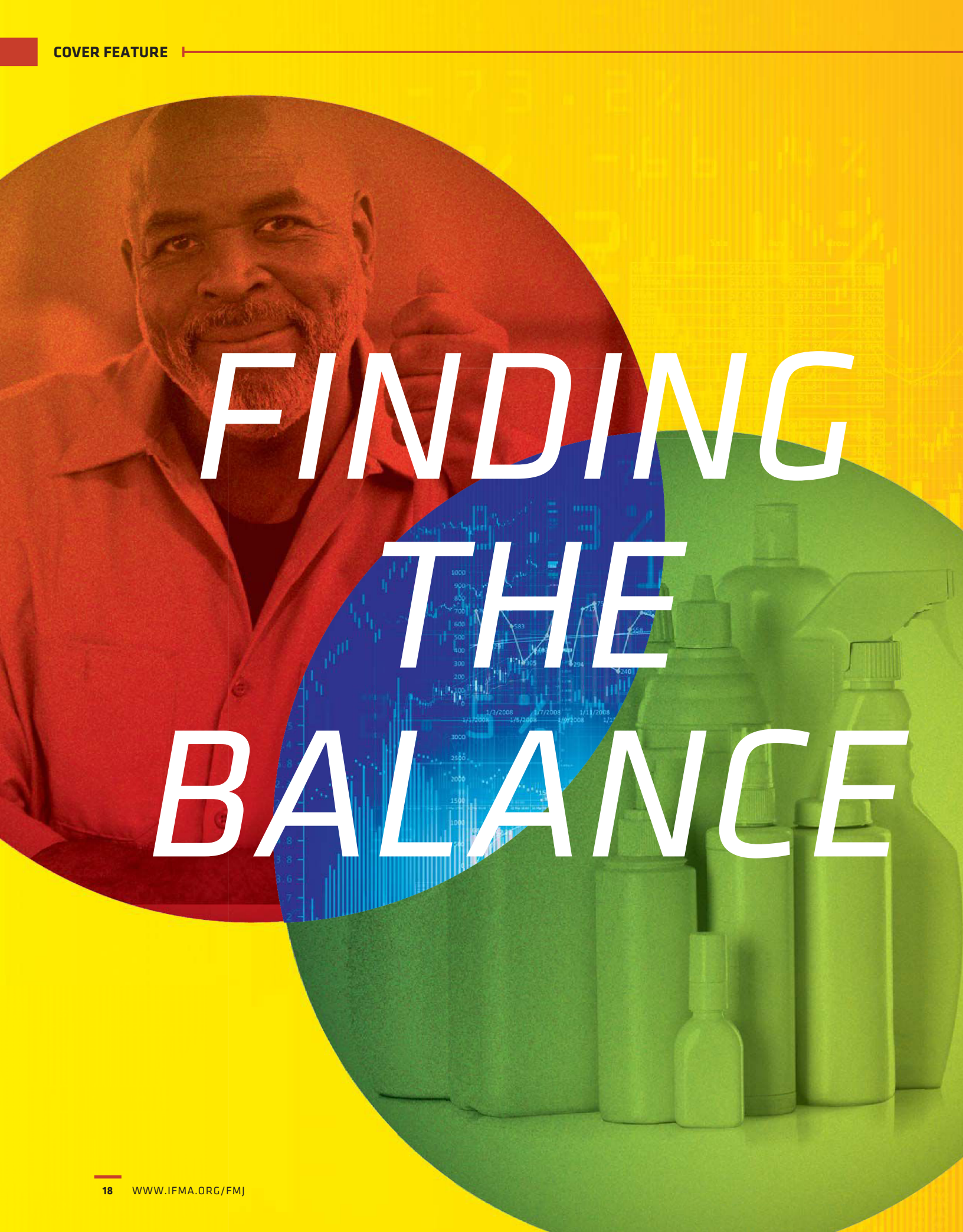
It means knowing the difference between a passable environment and an outstanding environment. It means more than valves, lights, maintenance, and energy savings. It means detecting problems in real time, optimizing your assets and prolonging their lifecycle. It means coordinating increasingly complicated systems and upgrading without additional costs. Because when your facilities perform at their best, your people can perform at their best. **That's what we do.**

www.sodexoUSA.com

http://bit.ly/sdxfm_more | solutions@sodexo.com | 888 SODEX07

sodexo

QUALITY OF LIFE SERVICES



FINDING THE BALANCE



Six Winning Strategies
for Green Cleaning

MAXIMIZING SAVINGS ON LABOR AND PRODUCT COSTS

BY NEAL DUFFY

It's common industry knowledge that maintenance costs are largely tied to labor. And, while labor is a large expense, many organizations continue to focus their attention on lowering costs within that small percentage of their budget dedicated to custodial products.

While it is important to shop the best price on the lowest total cost product choices, lower product pricing alone will not solve a facility's biggest challenge today: driving increased efficiency and productivity in the people charged with cleaning their facilities. With limited resources and reduced budgets to

fund labor, facility managers need to explore strategies focusing on both sides of the cost equation — products and worker productivity.

Purchasing the cheapest products may offer short-term, seemingly immediate savings. But what is often misunderstood is that those decisions can directly impact facility maintenance processes (and create unwanted results) that may actually increase labor activity drains and decrease worker productivity. Often tied to cheaper products are increased costs in the extra time and attention those cut-rate products may require.

| | | | |
|----------------|-----------|------------|--------|
| Gold | | | |
| Platinum | | | |
| Silver | \$774.00 | \$1,061.93 | 37.20% |
| Copper | \$3.16.00 | \$3.76 | 34.00% |
| Steel | \$49.00 | \$537.90 | 19.80% |
| Beryllium | \$28.00 | \$754.89 | 1.60% |
| Manganese | \$58.00 | \$795.34 | 33.00% |
| Iron | \$30.00 | \$354.61 | 18.60% |
| Nickel | \$401.00 | \$727.27 | 9.20% |
| Alumina | \$50.00 | \$457.84 | 7.80% |
| Bauxite | \$50.00 | \$791.32 | 8.40% |
| Aluminum | \$1.00 | \$1.00 | |
| Cotton | \$1.00 | \$1.00 | 23.00% |
| Flax | \$172.00 | \$192 | 16.00% |
| Textiles | \$543.00 | \$60.48 | 36.00% |
| Wool | \$5.00 | \$5.00 | 37.00% |
| Fur | \$10.00 | \$11.15 | 2.10% |
| Carbon | \$10.00 | \$24.13 | 22.00% |
| Graphite | \$17.00 | \$17.00 | 4.00% |
| Coal | \$10.00 | \$8.00 | 13.00% |
| Oil | \$10.00 | \$10.00 | 17.00% |
| Electric power | \$576.00 | \$576.00 | 15.00% |

IT'S IMPORTANT TO CONDUCT A **COMPREHENSIVE EVALUATION OF A FACILITY AND CLEANING PROGRAM** TO GET A CLEAR, TOTAL PICTURE OF THE REQUIRED LABOR INVOLVED.

100
95
85
75
65
55
45
35
25

To maximize productivity with available labor in a facility, the focus should be on implementing the right products and processes to increase efficiency. It may seem challenging to visualize how to approach a total evaluation of a building's current operations, so here's a step-by-step process to walk you through reducing overall costs and improving appearance levels by optimizing facility cleaning operations.

Understand your space

Knowing how many hours it should take to clean and maintain a building can be tricky and often underestimated in importance. However, if you haven't taken the time to analyze true cleaning times, it's difficult to know what numbers of full-time equivalents (FTEs) are appropriate and where time and money are potentially being wasted.

To begin the process of truly identifying labor costs, it's important to conduct a comprehensive evaluation of a facility and cleaning program to get a clear, total picture of the required labor involved. The evaluation should include the following:

- **Priority areas.** There are many different areas within a facility. Some areas encounter more traffic and soil than others, and some areas may have a different level of cleanliness expectation, so it's important to identify the requirements of each area and categorize accordingly. Entryways are usually not afforded the respect they should be given. Keeping soils out of the building is critical — it's important to stop the dirt at the door in order to keep it off your floors.

- **Evaluate cleanable square space.** Cleanable square space is usually about 10 to 15 percent less than gross square footage. This rule of thumb should be used in accurately calculating and assigning FTEs.
- **Create a scope of work.** Create a list of cleaning tasks to be performed, as well as a target level of cleanliness for each area, while defining what constitutes "clean" for each area.
- **Frequency minimums.** Develop a risk assessment of the areas needing to be cleaned. Some areas, such as entryways, breakrooms or restrooms carry a high risk, whereas other areas, such as office cubicles, carry a lower risk and may allow for reduced frequency depending on the desired level of cleanliness, or are available for cleaning during a time when there are fewer workers than allocated.
- **Apply production rates.** Industry production rate standards are available to establish acceptable cleaning rates for achieving a desired result, so use them to determine the necessary FTEs to effectively clean every area in your facility.

Improve procedures

There are ways to reduce the time cleaning tasks require with process and procedure improvements. By analyzing and altering a few common practices that many facilities currently implement, it is possible to dramatically reduce consumption and costs associated with everyday money wasters. While you may think that lower-cost product options are saving you money, it's important to consider the

overall labor costs associated with dealing with those particular products.

Here are a few examples of common issues facilities face that significantly impact the hours spent cleaning and maintaining a building, along with overall appearance and wellness, with products that may initially seem like money savers:

- Folded towels may seem less expensive than other towel systems, but "controlled" roll towel systems reduce outages and complaints, as well as refill times. More time spent on reacting to outage complaints and refills means added work and increased labor costs. With a controlled roll towel system, you can have more hand dries in an efficient dispenser with a stub roll transfer system, eliminating product waste and reducing complaints.
- Jumbo roll toilet tissue is often used in an effort to increase capacity, reduce outages and lower costs. However, these jumbo products are not user-friendly and result in tremendous waste and user dissatisfaction, which means more occupant complaints. The extra waste in the stalls created by the jumbo roll tissue requires more hours cleaning and replacing the rolls, and therefore higher labor costs. There are several coreless systems available that not only allow for a more user-friendly experience, but reduce mess and waste.
- Seemingly inexpensive, low-priced trash liners are often well below your staff's desired specifications and inappropriate for the

LOWER PRODUCT PRICING ALONE WILL NOT SOLVE A FACILITY'S BIGGEST CHALLENGE TODAY: **DRIVING INCREASED EFFICIENCY AND PRODUCTIVITY** IN THE PEOPLE CHARGED WITH CLEANING THEIR FACILITIES.

application. The workers then compensate for poor performance by using a larger, more costly bag — or the dreaded double bagging approach. Both result in more consumption and waste.

Consolidate products

Did you know that most facilities can be effectively cleaned daily with as few as two to four cleaning products? Consolidating your products reduces the need to acquire, manage, train, distribute and store duplicate cleaners and provides the opportunity to eliminate potentially unsafe, unsustainable and unnecessary products.

Replacing duplicates with more efficient, multi-purpose products can also reduce the amount of time spent training workers, costs associated with supplying required personal protective equipment, ordering and receiving shipments, and the need for multiple vendors.

Utilize innovative products and tools

With the cost of labor accounting for such a large part of an operation's budget, it's important to pay careful attention to areas that can lessen your staff's workload. As mentioned earlier, organizations that try to cut corners with lower-priced products can often end up seeing increased labor costs. In addition to cleaning products, this also means choosing the right equipment and cleaning tools.

For example, consider backpack vacuums — they can allow workers to effectively clean more than twice the area while minimizing the long-term negative health effects caused by often inefficient

“cheap” uprights and the repetitive motions of traditional vacuums.

Other seemingly simple but effective innovations include quality microfiber cleaning tools, high-productivity stripping pads and bucketless mop systems that dramatically increase efficiencies and allow managers to accomplish more cleaning with fewer workers.

Implement training programs

Once you've decided to implement new processes, procedures and products, you need to educate your staff. An efficient and effective cleaning program cannot be achieved without a properly trained workforce. A comprehensive training program helps staff achieve their productivity potential.

Through one-on-one meetings, supervisor training, videos, manuals and wall charts, workers will better understand the products, tools, cleaning sequences and correct procedures resulting in improved quality of work and results. Training is an important and an ongoing process that will help improve the chances that workers don't just revert to old ways of completing their tasks and wasting your budget.

We all know that keeping a facility clean, safe and healthy on an ever-decreasing budget is a difficult challenge to overcome, but it's time to stop focusing on the wrong areas by wasting time and money on lower-quality products and inefficient cleaning procedures. By analyzing and improving current practices, organizations can achieve

long-term savings above and beyond product price, while also helping to make a building cleaner and safer and enhancing productivity.

Focus on your biggest time consumers and find ways to better allocate those minutes and hours, as well as reallocate your labor to the tasks that will keep your facility operating more efficiently and make the best of the labor hours with which you have to work. While it may seem like a daunting task, just break it down into a few easy steps and you'll see that it is possible to effectively clean more with fewer people and find the balance between labor and product costs. **FMJ**



Neal Duffy, senior manager technical training for Staples Facility Solutions, is a 35-year-plus veteran of the janitorial and sanitary maintenance industry with

a background in consulting with facility managers on development, training and implementation of custodial practices, including healthy, high-performance, sustainable and high-productivity cleaning.

Duffy has practiced as a registered environmental health specialist and sanitarian, as well as an ISSA certified expert in Cleaning Industry Management Standards – Green Buildings. He is an advisory member of the board of directors for the U.S. Green Building Council Upstate New York Chapter and has completed the Ashkin Group's Green Cleaning University. Duffy's team of Staples Facility Solutions trainers supports a national network of experienced specialists in their work to help meet customer goals of improving cleanliness while reducing operating costs.

Come be an FM Advocate

IFMA's Advocacy Day & Public Policy Forum July 23 - 24, 2014 | Washington, D.C.

Do you know who your member of Congress is? More importantly, do they know who you are? Do they understand your role in facility management? Well they should! Decisions made in Washington impact FM, including:

- Energy policy
- Sustainability
- Tax policy
- Disaster preparation and recovery
- Work safety policy

Join us at IFMA's Annual Advocacy Day and be a voice for your profession.

Sign up today.
REGISTRATION
IS FREE!

Why attend?

Get a first-hand look at how Congress creates and implements the laws that affect your business, and learn about pending legislations that may directly impact your job.

Participate in the legislative process in practice.

Get policy updates from the source - including IFMA's legislative team, administration officials and members of Congress.

Meet with your representatives offices in the U.S. House and Senate.

Help influence decision-makers

ifma.org/events



IFMATM

International Facility Management Association



The Savings From
Flexible Office Space



REDUCING REAL ESTATE

FLEX WORK AND HOTELING IN THE CORPORATE WORKPLACE

BY STEVEN PONS

Times are changing, and so is the typical workplace and work schedule. For the past couple of decades, the age of working nine to five has dissipated as more employees work remotely and require more flexible work hours to maintain a healthy work-life balance, among other things.

Flex work is one of many major changes that facility managers are facing, but if it is a good fit for an organization and implemented properly can be a cost-saving measure. The basic premise for flex work and hoteling is that it is a business solution, not a real estate solution. That is easier said than done, especially with the hike in corporate real estate prices. Followed by compensation, real estate is a company's biggest expense.¹

Defining flex work and hoteling

Flex work allows employees to work from home and/or to work outside of the typical nine-to-five parameters. Hoteling is another recent corporate trend for workplaces at which there are fewer offices or workspaces than staff. With hoteling,

employees must reserve unassigned office space for a specified period of time, much like making a hotel reservation.

An effective hoteling program provides seats depending on the number of people in the program and the number of days per week. The more people in the program and the greater the number of days they work remotely, the more flexibility in raising the ratio of people to seats. Small meeting rooms accommodating one to four people are critical to gather thoughts, provide space for uninterrupted work, to have private conversations or meetings with managers, etc. It's important to figure out what hoteling seats need access to — printers, colleagues, monitors, easy plug-in capabilities, storage, etc.

This flexibility isn't for all businesses, and there are many aspects to consider such as corporate and employee benefits and challenges, upfront technology costs and more. Questions that need to be asked may include: Is the workplace culture conducive to allowing flexible



work alternatives? How well does the organization tolerate change? Is there an infrastructure in place suited to deal with effectively connecting remote workers? The list of considerations is lengthy.

Corporate benefits and challenges

There are many benefits to allowing flex work/hoteling, such as:

- Employee satisfaction
- Increased productivity
- Real estate reduction
- More carbon credits
- Disaster recovery and business continuity

In relation to real estate reduction, current standards for workspace size can range from 150 to 225 square feet per worker when workers take advantage of alternative work strategies.¹ However,

workers can enjoy a spacious, well-designed environment with fewer than 100 square feet per employee because with alternatives such as hoteling and flex work, people are not all in the same space at the same time. This can result in reduced real estate, which has the potential to curtail operating costs.

In an attempt to mitigate environmental impact, businesses can buy carbon credits to reduce or offset greenhouse gas emissions. One credit is usually equivalent to one ton of carbon dioxide. Basically, the credits put a monetary value to the cost of polluting the air. Typical office operations consume significant resources related to heating, cooling, lighting, power and general infrastructure support. The reduction or

avoidance of real estate square footage equates to using less of these resources to support the business operations. Therefore, less square footage equals less resources used, and ultimately, a smaller carbon footprint.

Another benefit to a flexible work environment is that the culture becomes accustomed to video conferencing. While a business does not have to have a flexible program to benefit from the savings of video conferencing, the inherent culture that develops supports the increased use of this meeting method. The more video conferencing, the less people travel, leading to less carbon emissions.

The other element to reducing carbon emissions is the ability for the staff to reduce



FLEX WORK AND HOTELING IS A BUSINESS SOLUTION, NOT A REAL ESTATE SOLUTION. REDUCED REAL ESTATE HAS THE POTENTIAL TO CURTAIL OPERATING COSTS.

or eliminate commute time. Companies that support such programs can have a significant impact on the environment.

However, there are also challenges that corporations may face, such as:

- Perceived loss of culture
- Training needed for management and leadership
- Change of policies and procedures
- Investment in technological equipment and software

Potential upfront costs

The financial aspect of flex work and hoteling can be daunting. All team members need to contribute to the development of the cost list. One suggestion is separating one-time costs from annual costs.

Companies need to make multiple decisions about tools, technology, training, furniture, policies and procedures, and much more. Some key items to keep in mind include seamless connectivity via phones and mobile phones, meeting bandwidth requirements for home offices, a list of equipment and software that needs to be purchased and provided, space and equipment at the corporate office, furniture for home offices and training for managers and employees. While short-term costs for IT will increase, typically the reduction in real estate costs will more than cover the upfront costs in the long term.

IT/technology: As a facility professional, you will need to work

with the business to determine basic technological needs including but not limited to: laptops, scanners, software, phone solutions, fax machines, printers, copiers and Internet/network connectivity. Some software needs required for constant communications may include a company's instant messaging system, meeting support, video conferencing, etc. One phone solution may be forwarding all calls to an individual's corporate number to his/her computer, cell phone or home phone. Although technology can be helpful with instant messaging and video conferencing, occasional staff meetings in the office are important too.

Real estate/facilities: An evaluation of potential cost savings is needed.

Although real estate costs should not be the focus of transitioning to flex work and/or hoteling programs, they are still a part of the checklist. Real estate issues may create a need for solutions that create shared hotel spaces and a reservation system for hoteling needs to be put in place. This can be as simple as a making reservations via a shared work calendar or can involve more elaborate systems. The goal of a successful reservation system is to be able to reserve space by the hour.

For example, if a flex worker only comes into the office for meetings, he or she will most likely be spending most of the time in conference rooms and therefore may not need a workstation for the time between meetings. So, why reserve a workstation for this individual for an entire day? Companies can create what are known as “touchdown” stations: small workstations for use between meetings that enable the staff to plug in, make a phone call or prepare for the next meeting.

According to a survey conducted by the International Facility Management Association, out of the 10 identified on-site unassigned workspace categories, touchdown space is the most common at the respondents’ facilities with 57 percent using the space in this manner, followed by huddle rooms (43 percent) and war rooms (43 percent).² Huddle rooms are smaller rooms generally reserved for smaller, quick meetings. War rooms are larger conference spaces, which can be booked for weeks or months for a specific team project. These all equate to reduced real estate needed.

Employee benefits and challenges

- Flex work/hoteling can provide benefits to employees:
- Flexibility
- Increased productivity
- Reduced commuting time and stress
- Improved work-life balance
- Reduced expenses for clothing, food, parking, etc.

However, employees may also face challenges:

- Isolation
- Fear of being left out
- Concern about not getting good assignments or losing promotion opportunities
- May not have appropriate space or home situation
- Personality may not be suited to working alone

Measuring economic, social and environmental impact

Typically, a pilot should last at least three months, but six months is better for evaluation purposes. It is ideal to recruit pilot volunteers at all levels of employment, but at least through middle management. A goal to shoot for is to have 10 to 15 percent of the targeted number of participants desired. Volunteers will have to respond to many surveys in order for effective evaluation to take place and must be willing to be flexible and patient — things are not going to run smoothly immediately. There is an adjustment period on both sides of the spectrum — for the employee and the business.

When evaluating, measure the benefits in economic terms and the social and environmental impact on the company and its employees via observation, employee surveys and interviews.

Economic evaluation may include:

- Was there a reduction in square footage used for employees, thus reducing the square-foot space per employee?
- Did the pilot help reduce operating expenses associated with real estate portfolio?
- Did the pilot better position the company to quickly embrace staffing changes?

Social evaluation may include:

- Did the pilot encourage social interactions in informal spaces?
- Was the pilot seen as a sign of respect to employees as you catered to their work styles?
- Did it cause workers outside of the physical location to feel more a part of the department (this can be done

via video conferencing, an instant messaging system, and other ways to keep all employees connected)?

Environmental evaluation may include:

- Did you save on printing, paper and other resources by supporting digital storage supported by the IT department?
- Were carbon emissions and energy use reduced by promoting videoconferencing versus physical travel?
- Did the pilot extend the life of office furniture and work tools by reducing use?

Flex work and hoteling programs are not for all corporations and it does take a certain work culture to embrace programs like these. Before spending money on shrinking workstations via hoteling and flex work that may or may not succeed, it is worth spending time thinking through the organization’s short- and long-term goals. **FMJ**

REFERENCES

1. “How Emerging Work Strategies are Changing the Workplace,” white paper by Steelcase, June 2009.
2. “Distributed Work Research Report #31,” study by the International Facility Management Association, 2000.



Steven R. Pons, CFM has more than 30 years’ experience in all areas of facility management including construction, project management, real estate, operations and security. Currently, he is the regional manager of real estate and facilities services, North America for Direct Energy. He has been consistently successful in developing systems, implementing processes and methodologies to upgrade practice operations, reducing expenses and improving customer satisfaction.

Pons has been a member of IFMA since 1988 and has served in several capacities including as a founding member of both the Corporate Facilities Council and the California Central Coast Chapter, and most recently as president of the Pittsburgh Chapter. Pons earned his CFM® from IFMA in 2002.

The RSMMeans Facilities Managers Package

An all-in-one electronic cost projection and modeling tool that will help you control costs.

- Swap assemblies
- Build custom models
- Create enhanced reports
- Predict building life cycle costs

Available in CD format and for RSMMeans Online.

From RSMMeans, the most quoted name in construction.

To purchase, call 1-800-334-3509,
or visit www.rsmeans.com. Use
promotional code CPBZ-IFMA at
checkout.





IFMA™

International Facility Management Association

Empowering Facility Professionals Worldwide

The world's largest and most widely recognized international association for facility management professionals.

Collaborate without borders... on the updated

IFMA Community!

Exchange information and benefit from the collective knowledge and expertise of fellow FM professionals as a member of the IFMA Community.

Through the IFMA Community, members will have access to real-time discussion and information exchange related to facility management and building operations and management.

The IFMA Community provides a place for users to post and generate discussion on either a general or specific topic and to learn from the collective wisdom of peers.

Community volunteer opportunities:

- Volunteer manager
- Regular contributor
- Volunteer moderator
- Subject matter expert
- Share ideas, expertise, best practices



Have your say or follow a discussion on topical issues and matters that affect you professionally. Join the conversation at www.Community.IFMA.org.

Questions? Contact us at: components@ifma.org

CLICK TO VIEW



Culture at Work: The value of intercultural skills in the workplace

The Value of Workplace Research

BY ISILAY CIVAN & LEIGH STRINGER

As part of our daily reading and efforts to keep clients informed, we continually watch and research workplace trends. One of the most frequently asked questions we receive is, “What are the latest workplace trends?” We love this question, as the trends are always changing. Here are our top 10 recent favorites.

ONE: Top talent is shrinking.

Many large countries – including the U.S., China, Japan, Germany and Italy – will soon face talent shortages as their workforces age and experience declining growth rates.

Though the total size of the U.S. workforce continues to grow, the growth rate is expected to decline from 12 percent last decade to just 4 percent between 2010 and 2020. Growth estimates drop to 3 percent between 2020 and 2030.¹ Skills predicted to be in demand include management, legal, sales/marketing, operations and technical computer proficiency.²

This talent shortage will challenge organizations to find and keep the best people. They will need to engage employees with workplaces that support their wants and needs.



TWO: Employee engagement matters.

Engaged employees can boost a company’s bottom line by up to 20 percent.³ We define engaged employees as those who are emotionally invested in and focused on creating value for their organizations.

Yet in a survey across 142 countries, only 13 percent of employees reported feeling engaged in their jobs.

Disengaged workers – those who are negative or even hostile toward their organizations – outnumber engaged employees by nearly two to one.⁴ Companies with disengaged employees experience 30 to 50 percent more turnover.

THREE: More people are working remotely and not at their desks.

At any given time, about one-third of all knowledge workers in private and public sectors are working remotely. Only 30 to 40 percent of employees with assigned spaces are actually using them.⁵



FOUR: Flexible work environments boost engagement and satisfaction.

Thirty percent of employees with easy access to flexible work environments report feeling very engaged in their jobs. Compare this to the 19 percent engagement among those with moderate flexibility and the 10 percent engagement among those with little access to flexibility. Sixty percent of employees with high access to flexibility are very satisfied with their jobs, compared with 44 percent of those with moderate access and only 22 percent of those with low access.⁶



FIVE: Activity-based work settings are on the rise.

A single, all-purpose workstation doesn't cut it for most of today's knowledge workers.⁷ Workplace designers need to provide activity settings that make up for the shortcomings of cellular and open-plan environments by offering a variety of spaces.

SIX: Buildings can help or hinder productivity.

Buildings can improve overall productivity and performance by as much 12.5 percent or reduce them by 17 percent. That's a 30 percent swing between employee performance in the best and worst buildings.⁸



SEVEN: Lighting matters.

Better workplace lighting (both natural daylight and artificial light) has been linked to a 15 percent reduction in absenteeism in office environments.⁹ Other studies have reported productivity increases ranging from 2.8 to 20 percent attributed to optimum lighting levels.¹⁰ The presence of ample daylight and windows, as well as opportunities for active and passive contact with nature, sensory change and variability, all have a positive impact on people's well-being.¹¹



EIGHT: Sound matters.

Office acoustics contribute to performance and well-being in the workplace. To support complex knowledge work, many people seek out quiet places. The ability to have planned or spontaneous interactions without disturbing others is a requirement for teamwork and relationship development.¹²

In environments with white noise, or sound masking, employees report improvements of up to 38 percent for the performance of simple tasks and 27 percent for complex tasks.¹³

Sound masking is not the only way to reduce unwanted noise. Office layout, flooring materials, walls, ceilings and behavioral protocols all make a difference.



TEN: Change management can dramatically improve the success of a new workplace project.

Benchmarking studies by research company Prosci have found that workplace projects with an effective change management component are six times more likely to meet their objectives and succeed.¹⁶

NINE: People are the most important metric.

A 2 to 5 percent increase in staff performance can cover the total cost of providing for their workplace accommodation.¹⁴

More than 90 percent of a company's operating costs are linked to human resources. Financial losses due to absenteeism and "presenteeism," a loss of workplace productivity from employee health problems or personal issues, account for 4 percent of operating costs.¹⁵



Research is more than trendwatching

Though those 10 workplace research findings are interesting, we need to go further to bring more value to clients. True workplace research requires rigor and a long-term focus on the changing nature of work to measure culture, behavior and space and technology use.

Many workplace experts and designers struggle to produce concrete evidence on the most effective workplace design techniques. We all want indisputable proof showing how workplace design strategies can help organizations attract and retain talent, drive productivity and innovation, and improve health and well-being. Yet much of the available workplace research is suspect. It's time for real estate and design professionals to acknowledge the significant gaps in true workplace research, especially in the corporate sector.

Here's where we see gaps:

1. Workplace case studies often focus on success stories and are anecdotal.

Most published workplace research case studies celebrate the success of a particular project or program. The workplace programs that fail, however, get very little publicity. Though no workplace professionals want to promote a failed effort, the lessons we can learn from failures could help us all produce better projects. We also need to move away from approaches based on anecdotal information.

2. Design professionals are not doing a good job leveraging the impact of buildings on people.

While there is a growing body of research and empirical evidence linking building design attributes to employee performance, health and well-being, designers are struggling to integrate these findings into the workplace. Though it is relatively easy to rely on data that organizations can collect and analyze, such as reduced square footage per person, we may neglect behavior and aspects of performance that aren't as easily quantified.¹⁷

True workplace research requires rigor and a long-term focus on the changing nature of work.

As we begin to incorporate this research into workplace design, the next challenge is to link human outcomes to financial metrics. While evidence may exist, designers need to establish a consistent method for collecting and analyzing performance data. Until then, skeptical client organizations will continue to under-invest in the occupant experience, potentially missing out on their greatest return on investment.¹⁸

3. Productivity is much more complex than the way in which we attempt to measure it today.

Historically, most research has focused on productivity as a measure of whether a workplace is successful. Most productivity measures focus on quantity, or how efficiently work is performed and delivered as goods and services (inputs and outputs). Quality of work can also affect productivity through easily tracked outcomes such as number of

errors or work completed on time. That said, the value of most knowledge work today is in performance — our ability to synthesize information or pull together people or ideas in new ways. In many types of knowledge work, however, the workplace's productivity impacts are difficult to quantify.

4. Occupant satisfaction studies are inconclusive.

Though occupant satisfaction may offer an idea of the quality of a work environment, it is not a practical measure for workplace research.

Occupants can provide reports with information about their workplace preferences and needs. The problem is that these studies generate little information about the workplace features that support task completion or add value to the organization. They typically don't offer any motivation

Engaged employees can boost a company's bottom line by up to 20 percent.

for owners or managers to invest in workplace improvements.¹⁹

5. There is lack of true workplace research and peer-reviewed literature.

Most studies do not triangulate the information or revisit findings after an acceptable period of time to test their validity. Without a peer review or third-party validation, it's difficult to argue that research is not biased. This challenges workplace strategists to make conclusive arguments.

Renewed focus on research-based design

In the absence of defensible evidence for the effectiveness of specific workplace strategies, designers often base planning and design decisions on experience, subjective studies or anecdotes, benchmarking and quick, limited-scope research efforts.

To maximize the significant investments our clients are making on new and existing buildings, we need better workplace research tools and partners. HOK has renewed its focus on credible research-based design. In addition to committing to rigorous research efforts that inform our work, we're advancing design research across the profession. As a collaborating partner of the Environmental Design Research Association, we have been developing a program to evaluate and recognize the quality of design research being used for all building types.

We continue to work with the International Facility Management Association (IFMA), the U.S. Green

Building Council, CoreNet Global, the buildingSMART alliance and other organizations to pursue better, more valid research. In this regard, we are happy to announce our upcoming collaborative effort with IFMA on conducting a 2014 update to the Distributed Workplace Report. This, the second of the series, will take a renewed look at the current trends and provide insight as to how much change has happened over the years and where we stand now in terms of distributed workplaces. The study is expected to be finalized by October/November of 2014.

As a profession, we all can do better. We owe it to our clients, our credibility and the people who occupy our spaces every day to integrate the results of this true research to create the best workplace environments. **FMJ**



Isilay Civan, MSc, PhDs, LEED AP O+M, GPP, is a research and strategic innovation specialist for HOK's consulting group, located in Chicago, Illinois,

USA where she is responsible for strategic consulting, real estate development and repositioning strategies, facility management and life cycle and sustainability consulting.



Leigh Stringer, LEED AP ID+C, is director of research and innovation for HOK's consulting practice. Based in Washington, D.C., USA she is responsible for shaping HOK's

innovation, research and benchmarking efforts related to workplace, change management, master planning, technology and on-site services.

REFERENCES

1. Harvard Business School Press, "Workforce Crises: How to Beat the Coming Shortage of Skills and Talent," 2006.
2. The Sloan Center on Aging and Work at Boston College, "Talent Management Study," 2009.
3. Towers Perrin, "European Talent Survey: Reconnecting with Employees: Attracting, Retaining and Engaging," 2004.
4. Gallup, "State of the Global Workplace," 2013.
5. GSA Building Services, "The New Federal Workplace," June 2009.
6. Galinsky, Ellen, et. al., "Workplace Flexibility: From Research to Action," 2011; "National Study of the Changing Workforce," 2008; "Workplace Flexibility in the US: A Status Report," WWW, 2010.
7. Davenport, Thomas H. "Rethinking Knowledge Work: A Strategic Approach," McKinsey Quarterly, February 2011.
8. Carnegie Mellon/CBPD Building Investment Decision Support (BIDS), "High Performance Buildings," 2004 and 2012.
9. CABE, "The Impact of Office Design on Business Performance," 2011.
10. "The Business Case for Green Building: A Review of the Costs and Benefits for Developers, Investors and Occupants," WGBC, 2013; Thayer, B. (1995), Romm, J. & William, D. (1994); Oseland, N. (2001).
11. Heerwagen, Judith H., Ph.D., "Design, Productivity and Well Being: What Are the Links?" March 12-14, 1998.
12. U.S. General Services Administration, GSA Public Buildings Service, "Sound Matters: How to Achieve Acoustic Comfort in the Contemporary Office," December 2011.
13. CABE, "The Impact of Office Design on Business Performance," 2011; Loewen, L. & Suedfeld, P. (1992) p. 381-395.
14. CABE, "The Impact of Office Design on Business Performance," 2011.
15. WGBC, "The Business Case for Green Building: A Review of the Costs and Benefits for Developers, Investors and Occupants," 2013; Carnegie Mellon/CBPD, "Building Investment Decision Support (BIDS), High Performance Buildings," 2004 and 2012.
16. Prosci, "Change Management: The People Side of Change," 2012.
17. Johnson, Richard D., "Executives Ignore Valuable Employee Actions that They Can't Measure," HBR Blog Network, December 2013.
18. WGBC, "The Business Case for Green Building: A Review of the Costs and Benefits for Developers, Investors and Occupants," 2013.
19. Vischer, Jacqueline C., "Toward an Environmental Psychology of Workspace: How People Are Affected by Environments for Work," Architectural Science Review, 51/2, June 2008.

Owners, managers, and tenants can agree on this much:
Nothing beats a solid roof over your head.



Common ground can be elusive when it comes to owners, managers, and tenants. Ironically, it's often found right above: we all need a roof we can rely on. From portfolio management, to timely responses when there's a repair needed, to a RoofGuard agreement designed to extend your roof's life, North American Roofing is on the job.

800.551.5602 | naroofing.com



The Most Trusted & Respected Roofing Company in the U.S.



The Mars City Project: Exciting High School Students about a Career in FM through Intergalactic Gamification

Right now only **8 percent of IFMA members are under age 35**. The IFMA Foundation is working to change this, not just for IFMA membership, but also to ensure that there are educated professionals entering the FM workforce in the years ahead.

We are working to make FM a career of choice by connecting, educating, engaging and investing in:

- High schools
- Community colleges
- Undeclared college students

For a long time, the IFMA Foundation has been focused on the FM Accredited Degree Program. The students graduating through our accredited degree programs typically enjoy a nearly 100 percent graduation rate, excellent salaries and multiple job offers; however now we need to focus on younger constituents to help make FM a career of choice and fill student seats in our accredited degree programs worldwide.

One of our exciting new projects is called the Global Workplace Workforce Initiative. This initiative involves connecting and engaging with high school students, teachers, guidance counselors and parents. To do this, we are part of a team (along with NASA, the National Institute for Building Science and Total Learning Institute) to bring an innovative, virtual FM program to secondary schools that will allow **students to manage a facility on Planet Mars**. It's called **the Mars City Project** and aims to **bring gamification to schools to excite students about the field of FM**.

Students will work in teams, assume actual FM positions and manage daily operations and projects in the Mars facility. They will face similar issues to those that most FMs handle on a regular basis except that the Mars facility will be intergalactic. This makes learning fun and more relevant to real-world FM experiences which will ultimately pique student interest in the profession.

We will work with high schools that have STEM (Science, Technology, Engineering & Math), STEAM (Science, Technology, Engineering, Arts & Math), ACE (Architecture, Construction, Engineering), P-Tech (Pathways in Technology Early College High School) and other similar programs.

These schools are primed to feed the wide-ranging, diverse career pathways in our field, not to mention the FM accredited degree program pipeline. Because FM has so many career pathways, along with high numbers of jobs coming available in every business sector (jobs that cannot be offshored), it's time to be proactive, tell our story and develop our future FMs.

With the Global Workplace Workforce Initiative, we will act as a connector between business, government, high schools, colleges, universities, economic development and IFMA chapters/councils to grow the future FM workforce and fill the sizeable gap in FM jobs coming available as the baby boom generation retires.

Workforce development is the key to the future of our profession and the IFMA Foundation is working to provide high-quality work-based learning opportunities through internships, externships, mentorships, scholarships and job fairs. We will offer IFMA educational content to existing STEM-focused programs and train teachers and guidance counselors on FM.

These new initiatives will require more volunteers and financial resources. If you are interested in helping our youth get excited about FM, we ask that you join our 15-500 club. Help us connect, educate, engage and invest in our future.



Learn more at
www.ifmafoundation.org
or email me at
dcoles@scanhealthplan.com

FM + Strategy X Innovation = Your Formula for Success

Finding the perfect equation for improving facility performance, profitability and efficiency can be a brainteaser. IFMA's World Workplace Conference & Expo can help you decipher the pieces of your facility puzzle so you can successfully achieve desired results.



Strengthen your FM know-how.

Benefit from concrete information relevant to your work. Learn how to balance practical FM strategies with creative workplace solutions.



Expand your FM know-who.

Meet professionals who speak your language. Discuss FM with FM's—gain best practices specific to your industry or facility type.



Increase your FM know-what.

See solutions to real-world facility challenges in action. Build your network of quality, dependable suppliers who are committed to your profession.



IFMA's **World Workplace**

The Facility Conference & Expo

Sept 17-19, 2014 | New Orleans

Attend the FM learning and networking event for facility professionals who want **the best**. Start planning your World Workplace experience at www.worldworkplace.org



IFMATM

International Facility Management Association
Empowering Facility Professionals Worldwide

The SFP® ensures sustainability knowledge is retained so organizations reap long-term savings.

Read a first-hand account of SFP success!



The Situation

William Broome and his colleagues strive to operate The Westminster Schools as responsibly as possible and set a good example for the students in terms of sustainability and reducing carbon footprint. In addition to some of the sustainability initiatives that were already in place to reduce water and energy use, Broome decided that earning the Sustainability Facility Professional® would be a worthwhile investment.

The Approach

After learning about the SFP through the IFMA newsletter and at local chapter meetings, Broome realized that—unlike the LEED Green Associate—the SFP was truly designed for facility managers. He felt that the content was specific to everyday FM operations, in contrast to the LEED program, which leans itself to architecture and engineering positions.

As a LEED Green Associate, Broome assumed that he could take the SFP pretest and come out with passing scores on the first try; but he was shocked to discover how different the two programs really were. It wasn't until he read all chapters thoroughly and utilized the study materials that he actually passed the tests.

*“The LEED Green Associate test required mainly memorization, whereas the SFP really engaged you to dive in and **learn**, using real-world situations. This isn't material that you're going to forget once you complete the test—the SFP program is designed to ensure that.”*

The Results

Having a Sustainability Facility Professional on staff has actually served as a marketing tool for The Westminster Schools—it's proof that the school engages in responsible and smart facility operations. On a personal level, Broome believes that earning the SFP was a huge step in the right direction for the future of his career.

“Given the way the sustainability movement has taken over in the industry, the SFP is going to make an employee that much more indispensable to their company. I would recommend this program to any facility manager.”

“As both an SFP and a LEED Green Associate, I can tell you that I've found the SFP Credential Program® to be far more beneficial. There are companies that want to reap sustainability savings, but don't necessarily want to deal with the paper work, points and records that come along with LEED—that's where the SFP comes in.”

William Broome, CFM, SFP, LEED Green Associate
Director of Facilities
The Westminster Schools
Atlanta, Ga.

The IFMA SFP Credential Program® provides you with practical instruction to enhance your sustainable FM skills and the tools to earn the SFP credential in one complete program. This convenient system combines learning modules available in print or electronic formats, interactive online study tools and final SFP assessments.



Visit www.ifma.org/sfp for a free demo and to learn more.



IFMA™

International Facility Management Association



FM



Strategy



Innovation



IFMA's

World Workplace

The Facility Conference & Expo

Sept 17-19, 2014 | New Orleans

Attend the FM learning and networking event for facility professionals who want **the best**. Start planning your World Workplace experience at www.worldworkplace.org



IFMATM

International Facility Management Association
Empowering Facility Professionals Worldwide



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



Contact **April Tone** to learn more about how you can benefit from IFMA's corporate programs.

+1-281-617-1338 | april.tone@ifma.org

Platinum



Gold



Silver



FM DEALS & DISCOUNTS PARTICIPANTS

ACOUSTICAL/SOUND MASKING

Cambridge Sound Management | www.csmqt.com
 Lencore Sound Masking & Acoustics | www.lencore.com
 LogiSon Acoustic Network | www.logison.com

AUDIO/VISUAL

AVI-SPL | www.aviinc.com

BUILDING MAINTENANCE/SUPPLIES

JLG Industries Inc. | www.jlg.com
 Lowe's Companies Inc. | www.lowes.com

BUSINESS SERVICES

Reed Construction Data | www.reedconstructiondata.com

CARPET/FLOORING/TEXTILES

INVISTA/ANTRON® Carpet Fiber | www.antron.net
Mannington Commercial | www.mannington.com
MilliCare Commercial Carpet Care | www.millicare.com
Milliken Contract | www.millikencarpet.com
Patcraft | www.patcraft.com
The Mohawk Group | www.themohawkgroup.com

CEILING/CEILING CARE

Armstrong World Industries | www.armstrong.com

DISASTER RECOVERY/EMERGENCY RESPONSE

BELFOR USA Group Inc. | www.belforusa.com

ELECTRICAL/WIRE MANAGEMENT

NETA International Electrical Testing Association | www.netaworld.org 

ELEVATOR/ESCALATOR

KONE | www.kone.com


ENERGY SOLUTIONS/MANAGEMENT

Intermatic Inc | www.intermatic.net

FIRE PROTECTION SYSTEMS

Performance Systems Integration | www.psintegrated.com


FLOORING INSTALLATION/MAINTENANCE

Corporate Care | www.corporatecare.com 
INSTALL Floorcovering Professionals | www.installfloors.org
Johnsonite | www.johnsonite.com

FM CONSULTANTS/SERVICES/PROVIDERS

ABM | www.abm.com
Al Shirawi Facilities Management, LLC | www.alshirawifm.com
ALPHA Facilities Solutions LLC | www.alphafacilities.com
ARAMARK | www.aramarkfacilities.com
BCF Solutions | www.bcf-solutions.com
CH2M Hill Facility Services | www.idcfs-ch2m.com
DTZ, a UGL Company | www.dtz-ugl.com
EMCOR | www.EMCORGroup.com
Engineering Maintenance Company, EMCO-Qatar | www.emcoqatar.net
Eurest Services | www.eurestservices.us
Facility Engineering Associates, PC | www.feapc.com
FBG Service Corp. | www.fbg-services.com
HD Supply Facilities Maintenance | www.hdsupply.com
Honeywell | www.honeywell.com
ISES | www.isescorp.com
ISMER Facility Management | www.ismer.com.tr
ISS Facility Services | www.us.issworld.com
Johnson Controls Inc. | www.johnsoncontrols.com
PCN Technology, Inc. | www.pcntechnology.com
Prestige Maintenance USA | www.prestigeusa.net
Qatar Foundation | www.qf.com.qa
S.A: Temco Services Industry, Inc. | www.temcoservices.com
SG Services LDA | www.sgs.com
Sodexo | www.sodexousa.com
TDGI - Tecnologia de Gestao de Imoveis | www.tdgiworld.com/en/
Terranum Administracion | www.terranum.com
URS | www.urscorp.com
xpedx | www.xpedx.com

FM SOFTWARE

ARCHIBUS Inc. | www.archibus.com
FM:Systems Inc. | www.fmsystems.com
iOffice. | www.iofficecorp.com 
Manhattan Software | www.manhattansoftware.com

Planon Inc. | www.planonsoftware.com
TMA Systems LLC | www.tmasystems.com
VFA Inc. | www.vfa.com

FURNITURE

CORT Furniture Rental | www.cort.com
Davies Office Refurbishing | www.daviesoffice.com
Herman Miller Inc. | www.hermanmiller.com
Keilhauer | www.keilhauer.com
KI | www.ki.com
Steelcase Inc. | www.steelcase.com
Versteel | www.versteel.com

HAND DRYERS

Excel Dryer | www.exceldryer.com

HVAC/INDOOR ENVIRONMENTAL QUALITY SOLUTIONS

Controlled Release Technologies Inc. | www.cleanac.com
Halton Group Americas | www.halton.com

JANITORIAL SERVICES/CLEANING PRODUCTS

Cleaning Services Group, Inc. | www.cleaningservicesgroup.com
GCA Services Group Inc. | www.gcaservices.com
PRIDE Industries | www.prideindustries.com
Redlee/SCS Inc. | www.redleescs.com
ServiceMaster Clean | www.servicemasterclean.com

LANDSCAPE/MAINTENANCE/PLANTS /SERVICES/SUPPLIES

Ambius | www.ambius.com
Smart Rain Systems | www.smartrain.net

OFFICE SUPPLIES/PRINTING

Miller's Office Products | www.millersop.com
Staples | www.staples.com

RESTORATION/MAINTENANCE

BehrPro: BEHR & KILZ Paints & Primers | <http://www.behrpro.com>

ROOFING

Sika Sarnafil Inc. | www.sikacorp.com

SECURITY

AlliedBarton Security Services | www.alliedbarton.com
Allegion PLC Security Technologies | www.securitytechnologies.ingersollrand.com
Securitas Security Services USA | www.securitasinc.com

SIGNAGE

APCO Sign Systems | www.apcosigns.com 

STORAGE/SHELVING/FILING

REB Storage Systems International | www.rebsteel.com

TECHNOLOGY SOFTWARE TOOLS

The Blue Book Building and Construction Network | www.thebluebook.com

WATER & FIRE RESTORATION

Coit Cleaning & Restoration Services | www.coit.com

WATER TECHNOLOGY

Association of Water Technologies | www.awt.org
RLE Technologies | www.rletech.com

Learn more at www.ifma.org/marketplace

FM|VIDEO|EXTRA

CLICK TO VIEW



Commercial Energy
Auditing Presentation

DEVELOPING AN **ENERGY** MASTER PLAN



BY ASHLEY EDWARDS

When we think of a master plan, we typically associate the term with large-scale new construction projects, renovations, demolition, building placement and vehicular and pedestrian movement around a site. Strategic facility managers often devise infrastructure master plans for their facilities, whether they consist of one building or multiple buildings in a campus setting. FMs plan for and around the physical shells and specific process areas of the facilities that manufacture goods and provide secure areas for research.

However, in the world of energy efficiency and sustainability, an energy master plan (EMP) is a key element of planning that is often overlooked.

◀ LEED® Gold manufacturing facility, Suzhou, China

AN EFFECTIVE
EMP IDENTIFIES
INEFFICIENCIES
AND PROVIDES
CONSERVATION
SOLUTIONS
TO HELP FMS
ACHIEVE
GREATER
VALUE.

Fundamentals of developing an energy master plan

An EMP provides a holistic, comprehensive methodology of planning for a facility's current and future energy needs, instead of a one-off approach to fixing inefficient or broken systems. An effective EMP identifies and evaluates a facility's current energy uses, consumption and actual needs. It identifies inefficiencies and provides conservation solutions to help FMs achieve greater value based on a feasible and realistic return on investment for identified projects.

Benchmarking is a process of analyzing how and when a facility uses energy to understand key drivers for energy use and provides a reference point for a facility's energy performance.

An energy baseline provides a basis for comparing energy performance during a set period of time. Energy baselines can be normalized based on variables such as weather or production levels. With that information, a facility can develop its benchmark(s) to measure itself against industry standards or against its own achievements.

Once data is accurately managed for a facility and the facility is operating at more efficient levels, an EMP then provides a path for taking the facility to the next level. That next level may, for example, involve installing more sophisticated utility-monitoring technologies (e.g., smart meters) to capture and monitor even more data. As another example, it could involve the evaluation and construction of a right-sized combined heat and power plant, instead of one that could have been oversized (and overpriced) based on previous inefficient operations.

With an effective EMP, facility staff can forgo the typical fragmentary approach of trying to fix equipment as it breaks down or finding out about wasteful operations months down the line after set-points have gone awry. Using measured, accurate energy data and actively monitoring that data, FMs can save time and money that can then be reinvested to implement additional energy conservation measures (ECMs), many of which could address deferred maintenance and improve the safety and comfort of FM personnel.

What is a strategic approach to developing an effective EMP? An integrated architectural/energy engineering team (A/EE) will conduct data reviews, conduct site visits and work with FM personnel and facility stakeholders to evaluate existing conditions and future needs of a facility. Understanding the actual energy needs of the facility versus what the facility is using is key — especially since the odds are that opportunities for energy efficiency exist in the first place.

Data gathering and identification of ECMs are two of the main steps taken when developing an EMP. To prepare for the development of an EMP, some of the typical requests from the A/EE team include:

- Historical utility data for the site. An energy engineer will assess utility usage, gain an understanding of trends, reference the data during facility inspections and use that data to inform the EMP.
- Original design and building construction drawings. For aged structures and those that have undergone extensive retrofits, original drawings are not always retained or obtainable. However, any building design/construction information available will help inform A/EE team members before they come to the facility for the site visit(s).
- Copy of capital the improvement plan. When appropriate, providing information about future planning, especially where capital dollars and construction are already planned, will inform the A/EE team about certain ECMs that can be planned to have the least impact on operations.
- Equipment lists. During an energy assessment, the assessor usually generates or revises an existing equipment list. Like the request for drawings, these lists are not always up to date, but they can help inform the A/EE team before coming to the site.
- Energy assessments previously performed at the facility. Although the A/EE team should not rely solely on the work of others, past assessments can facilitate bringing the A/EE up to speed and inform some of the whys behind previous input, approaches and decisions made relating to energy management at the facility.

The more data and information the FM can provide to the A/EE team prior to the site visit, the better informed the A/EE will be and the more efficient the site visit. In addition, the FM team that gathers the data will have a better understanding of what the A/EE will be investigating and asking about in follow-up questions.

Depending on the number of facilities, the size of the campus, etc., the A/EE team will conduct site visits in order to visually inspect the existing building construction and operation. This generally involves non-destructive investigation of multiple types of systems, including but not limited to heating, ventilation and air conditioning systems, lighting systems, boilers, metering and building automation systems (BAS).

The A/EE team also will interview the FM and staff, including maintenance personnel, to identify problems or challenges with existing systems and their operation. Meetings with personnel can assist A/EEs with identifying potential improvements to operations and maintenance procedures. Depending on the facility type and needs, and if a more detailed analysis is needed, the A/EE team could perform even more detailed building assessments, an electrical load study, a structural load study and a code/fire/life safety analysis.

Choosing energy conservation measures for implementation

After the data/information gathering process, the A/EE team will perform a detailed energy analysis of the facilities. One of the main goals of the EMP is to identify opportunities for reducing energy consumption and implementing the

ECMs identified. The A/EE team may identify a range of ECMs — from incorporating new energy design and construction standards for projects to installing and repairing utility metering and implementing lighting retrofits. Other ECMs can include upgrading a BAS and replacing insulation and windows.

When evaluating ECMs, first costs and return on investment are obvious values to consider. Choosing to quickly implement the more impactful ECMs, such as those based on immediate cost savings, can show the importance of the EMP, and sometimes more importantly, strengthen the perception of the importance of an EMP. Implementation of ECMs that show good ROI provides further momentum, and money, for implementing additional ECMs.

ECMs are often chosen based on the facility's threshold for first costs and payback timeframes. For the manufacturing sector, ROI usually must be 18-24 months or less to be acceptable for top management to approve implementation.

ECMs relating to design and construction usually do not entail implementation costs. For example, the



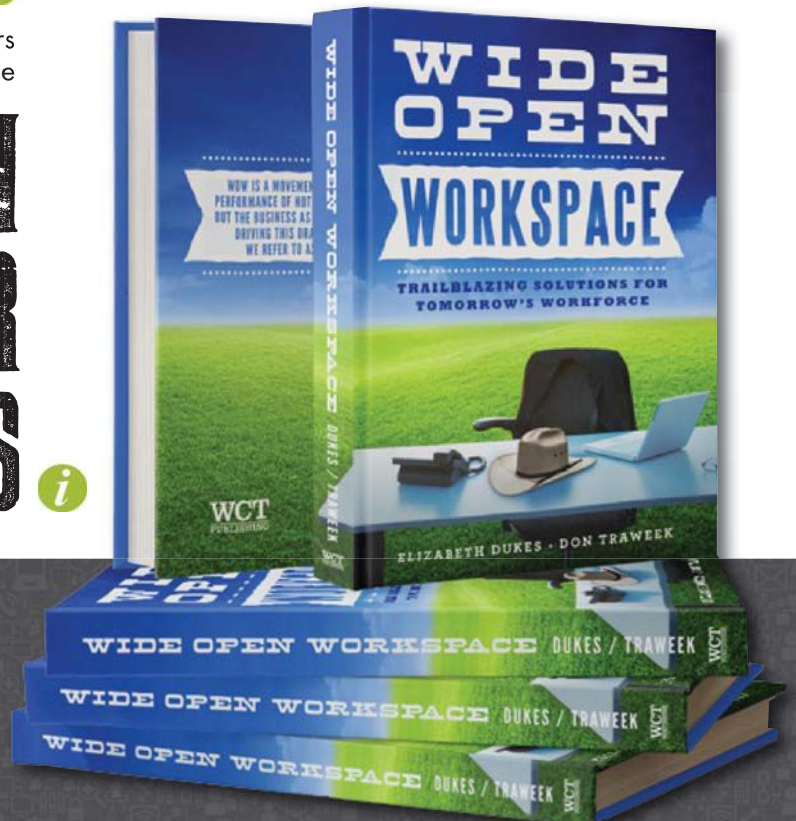
helping facility managers
lead the herd for tomorrow's workforce

A WIDE OPEN FRONTIER OF SOLUTIONS



Blaze new trails and embrace new ways of working to get ahead of the herd! Get the trailblazing new book by iOffice www.iofficecorp.com/wide-open-workspace or

Buy on amazon.com >





FROM TOP: Wind turbine, Melbourne, Australia;
Wood furniture manufacturing plant, Grand Rapids, Michigan, USA

facility could incorporate energy standards that require a capital improvement project that exceeds a certain construction cost to decrease energy use intensity or other criteria by a certain percentage. Energy standards can include targets for energy consumption on a per-building basis, along with an overall campus goal, if applicable, for an energy reduction percentage. As one example, Cummins, Inc. is working to achieve a 25 percent energy reduction (per dollar revenue) by 2016 based on its 2005 baseline. Cummins' approach encompasses 73 facilities, 19 of which are manufacturing plants.¹

The facility could also choose to develop and implement an International Organization for Standardization (ISO) 50001 Energy Management System, which is a comprehensive energy management system that can be applied to any type of facility. The U.S. Department of Energy and the U.S. Council for Energy-Efficient Manufacturing are collaborating on the Superior Energy Performance (SEP) program, which is an energy management system based on ISO 50001 and geared toward industrial facilities. According to figures based on 40 facilities participating in the SEP program since December 2013, the average cost of implementing ISO 50001 and being certified to SEP came to US\$319,000 per facility, with fully loaded costs ranging from US\$207,000 to US\$498,000.² According to the statistics for the nine facilities that implemented ISO 50001 and received SEP certification, they saw cost effective payback periods of 1.7 years, on average.

Implementing a metering plan is another ECM necessary to measure and monitor a facility's energy consumption. Submetering can be even more impactful in operations where equipment or processes are known to dominate a facility's energy uses. In addition to metering installation, the accuracy of metered data also needs to be verified to assess whether correct data is informing a facility's decision-making processes. Lighting retrofits often result in some of the fastest ROIs. As with any analysis, lighting ECMs should outline first costs and ROI of replacing lamps and ballasts with high efficiency upgrades that will result in energy savings, including savings associated with O&M.

While FMs can choose various ECMs related to increasing energy efficiency, they also can choose alternative and/or renewable energy projects for consideration within the EMP. As mentioned previously, before developing a new CHP and steam-generation system, for example, the A/EE team should study electrical power demand, natural gas demand, chilled water demand, steam demand, heating hot water demand and domestic hot water demand at the

facility in order to assist in examining energy balances for combined heating and power concepts.

The facility's future growth and how it will impact future utility demands should be considered as well in order to right-size the project. Key considerations in the EMP should include energy purchasing strategies for electricity, natural gas, oil and other energy sources used at a facility, along with opportunities for incentives to help fund energy-related projects (e.g., grants, utility-based incentives, etc.).

Knowing which ECMs to choose going forward involves a combination of facility management feedback related to first costs and payback analysis and understanding the threshold for ROI and risk. In addition to material cost savings with various ECMs, other considerations should include maintenance staff being "freed up" to address other deferred maintenance items, which in turn will reduce the amount of maintenance work that needs to be performed, to marketing/branding aspects that enhance the public's opinion of the carbon emissions that could be offset by the implementation of ECMs.

In contrast, in instances where certain manufacturing processes are mission critical at a facility, the EMP can carve out areas of operation that should not be subject to certain standards of the EMP (e.g., air exchanges based on health/safety codes). The purpose of such carve-outs is not to ignore large energy consumption areas, but to be realistic in drawing boundaries and goal setting within the EMP that fit with the company's business model.

Implementation of an EMP

An EMP is more than a study — it is a plan. Like an infrastructure master plan, EMPs are meant to be implemented to avoid piecemeal, duplicative efforts in order to better plan for, monitor and continually improve the energy strategy for a facility.

As the strategies for ECMs and energy procurement, as examples, are adopted by the facility during the development phase, each project that meets energy efficiency and conservation guidelines should be evaluated through a project assessment report and a life cycle cost analysis. If it has been determined that a facility's energy performance will be measured based on certain metrics (e.g., mmBtu per gross square foot), the FM team should report energy efficiency and conservation using consistent metrics. The EMP also should continue to outline the steps for continual improvement of the energy performance of a facility, including steps for monitoring energy use. Commissioning, retro-commissioning, measurement

USING MEASURED, ACCURATE ENERGY DATA AND ACTIVELY MONITORING THAT DATA, FMS CAN **SAVE** **TIME AND MONEY.**

and verification should be performed regularly and as needed, according to established protocols outlined in the EMP.

Capital improvement plans should be taken into consideration with any EMP opportunity that correlates with improvement projects. For example, if a facility is undergoing planned renovations during which boilers will be replaced, ensure boiler replacement and retrofits are taken into account with any related ECMs to avoid duplicative efforts and provide consistency in infrastructure and energy master planning. In addition, instead of requesting funding pursuant to an EMP, the FM can take advantage of capital dollars that have already been allocated for a project.

As with any plan, it is what the FM team makes of it. A feasible EMP that is developed with realistic, sustainable growth in mind for a facility is a worthy investment, especially when it is implemented. **FMJ**

REFERENCES

1. www4.eere.energy.gov/challenge/energy-performance/cummins
2. Peter Therkelsen, Ridah Sabouni, Aimee McKane and Paul Scheihing. Assessing the Costs and Benefits of the Superior Energy Performance Program, 2013 ACEEE Summer Study on Energy Efficiency in Industry, Niagara Falls, New York, USA.



Ashley Edwards is a group leader for Energy Management/Sustainability at URS. She manages projects nationally and internationally, focusing on energy management, including ISO 50001 energy management systems, renewable/alternative energy, sustainable building design and green infrastructure.

Previously a land architect/planner, Edwards rejoined URS after practicing law as a real estate and land use attorney. She is a licensed attorney in the State of Ohio, is ISO 50001 Lead Auditor Trained and can be reached at ashley.edwards@urs.com.



Which IFMA credentials are right for you?

Expand your skill set, earn instant credibility, distinguish yourself from your peers and demonstrate your knowledge and commitment to excellence to current and prospective employers.

Open doors to new possibilities



The first and **only** global certification for the profession



Build your FM career on a **solid** foundation



The only sustainability credential created **for** FMs, **by** FMs

Certified Facility Manager® (CFM®)

Recommended for FM professionals who meet a higher level of education and work experience requirements.

Certification is granted to those who are able to pass a comprehensive exam covering all FM core domain areas, including:

As a result of the most recent IFMA global job task analysis, the CFM Exam has been updated to include 11 competencies!

- Communication
- Emergency Preparedness and Business Continuity
- Environmental Stewardship and Sustainability
- Finance and Business
- Human Factors
- Leadership and Strategy
- Operations and Maintenance
- Project Management
- Quality
- Real Estate and Property Management
- Technology

Although no coursework is required, CFM candidates have a variety of preparation resources available to them, including IFMA's new FM Learning System and CFM Exam Prep Workshop.

Earn the most prestigious certification in your profession—earn the CFM!

► www.ifma.org/cfm 

Facility Management Professional™ (FMP®)

Assessment-based certificate program with no prerequisites. Recommended for new and transitioning FM professionals and industry suppliers.

Updated and enhanced courses addressing the foundational elements of facility management:

- Operations and Maintenance
- Project Management
- Finance and Business
- Leadership and Strategy

Comprehensive print materials, interactive online study tools and online final assessments.

The IFMA FMP Credential Program is the only tool you need to earn your FMP. The program will help you gain a solid understanding of the facility management profession and develop the knowledge and skills demanded by employers.

Earn a competitive advantage—earn the FMP!

► www.ifma.org/fmp 

IFMA's assessment-based **Sustainability Facility Professional Program** delivers a specialty certificate in sustainability.

Sustainability Facility Professional® (SFP®)

Recommended for all facility management and like-minded professionals who have an interest in sustainable workplace practices.

The SFP training and assessment program teaches professionals about sustainability across the entire FM spectrum, through three comprehensive focus areas:

- Strategy and Alignment for Sustainable Facility Management
- Managing Sustainable Facilities
- Operating Sustainable Facilities

Taken together, these focus areas provide a complete picture of how SFPs can improve the sustainability of their facilities in all eight major categories of sustainable facility management as defined by IFMA:

- Energy
- Water
- Materials and Resources
- Workplace Management
- Indoor Environmental Quality
- Quality of Services
- Waste
- Site Impact

SFP candidates must pass the online final assessment at the end of each focus area, with a score of 75% or higher.

The convenient self-study program combines electronic or printed reading materials, interactive online study tools and SFP final assessments.

The SFP program equips facility professionals with the knowledge and skills to:

- Integrate sustainability efforts with the organization's values and strategies;
- Present a business case for sustainability initiatives;
- Evaluate initiatives from a financial point of view; and
- Track and report accomplishments.

SFPs have the ability to implement sustainability strategies that will significantly reduce costs and positively impact their organizations' bottom lines.

Optimize FM performance for a better tomorrow—earn the SFP!

► www.ifma.org/sfp 



“The SFP program presents information that is vital to the future of the facility management profession. The curriculum is structured logically and flows down a path that is easy to follow. Anyone interested in developing a career in facility management must become knowledgeable of these topics and proficient in the techniques presented in the SFP program.”

- Jay Drew, SFP,
Connecticut
State Legislature

Learn more at www.ifma.org/credentials



IFMA™
International Facility Management Association
Empowering Facility Professionals Worldwide



NO MORE FIREFIGHTING

PLANNING FOR SUCCESS WITH A
CAPITAL REPLACEMENT PROGRAM

BY JOHN RIMER

Most facility organizations operate in a reactionary “firefighting” mode, tending to the largest “fires” or failures occurring that day. This approach is very costly; for example, a U.S. Department of Transportation study found that reactive maintenance costs five to eight times more than the corresponding preventive maintenance and replacement — never mind the impact these failures have on productivity and revenue generation. Additionally, this scrambling of resources is inefficient and contributes to the statistic reported by a North American agency that found most facility organizations operate at an efficiency of only 20 percent to 40 percent.

One of the primary culprits in creating this reactive environment is deferred maintenance. In other words, facility equipment and systems are not refreshed or replaced at the end of their useful lives, causing the facility organization to perpetuate the aforementioned firefighting, nursing failing systems with “Band-Aid” fixes and temporary work-arounds until catastrophic failure necessitates an unplanned, unbudgeted, emergency replacement.

Investing in facilities and replacing aging equipment is a business decision. Given that the facility management team is responsible for what is typically an organization’s second largest expense and asset, the buildings, and has a direct impact on the largest expense and asset, the people, it is incumbent upon the facility manager to think, operate and communicate as a business manager.

A key firefighting tool for moving a facility organization out of a reactionary mode and into a more business-centric mindset is a capital replacement program (CRP). A CRP, coupled with robust operations and maintenance, will help the facility manager prepare and manage a consistent capital expenditure budget year over year, providing upper management with the necessary information to make well-reasoned and informed business decisions.

A capital replacement program tracks the facility asset condition and forecasts capital replacement costs by year. Typically, one-, three-, five- and 10-year forecasts are provided. Below is a list of five simple steps that can be followed to implement an effective CRP.

Assemble facility information

Assemble a complete facility register if it does not currently exist. The register should identify the assets and components for each facility and document their respective information, such as name/ID, location, criticality, installation date, size/capacity, hierarchy, etc. Ideally this information resides in the facility organization’s computerized maintenance management system (CMMS). Additionally, the average life expectancy for each equipment/system type should be documented.

Assess facilities

Each facility should be assessed annually in preparation for that year’s budget development cycle. A facility condition assessment form should be created, which evaluates a building’s major systems such as building envelope, roof, interior finishes, mechanical, electrical, plumbing, etc. Make sure to include parking lots, kitchen equipment and landscaping as applicable. In assessing the equipment, its current condition is compared to its actual age and anticipated replacement date.


A task of this proportion can be rather daunting especially if there is an extensive amount of square footage and/or geography to cover with limited facility staff. In such cases, third-party experts specifically trained in conducting assessments could be hired. If a third party is hired, encourage your staff to shadow the experts so that the in-house team will be able to perform the assessments in the subsequent years. Should the hiring of a third party be cost-prohibitive, the facility manager could leverage the expertise of his/her service partners and contractors, as they will typically provide capital planning data for little to no cost for their clients.

Additionally, resources for such an assessment could be reduced if only those systems anticipated for replacement in the next three to five years are evaluated with a cursory inspection conducted on the remaining systems/equipment.

Evaluate data

The assessment data should be assembled and evaluated in the CRP software. If the facility organization does not have a CRP application or cannot afford one, a CMMS can be used as a simplified CRP software with three basic fields — installation date, installation cost or cost to replace and average life expectancy; ideally, a placeholder for current condition is available. Granted, a CMMS will likely lack some of the great features and analytical tools of a CRP application, but in lieu of a CRP application, a CMMS can be a good alternative.

Using the software’s reporting features, group equipment by anticipated replacement year. Doing such may require



Reactive maintenance costs five to eight times more than the corresponding preventive maintenance and replacement.

exporting data to an Excel-type software for further manipulation. For example, if given installation cost, a replacement cost will need to be calculated that accounts for inflation since the installation date. Additionally, a mathematical equation may be necessary to determine replacement year (e.g., installation date plus average life expectancy).

The replacement cost numbers should progress from rough order of magnitude, such as US\$100,000, for the five and 10-year forecasts to firmer cost estimates (typically provided by a contractor), such as US\$93,400, for items planned for replacement in the next year.

Benchmarking and trending

Facility condition index (FCI) is a great metric for benchmarking and trending facility conditions. FCI is defined as the sum of deferred maintenance divided by the replacement cost of the facility. For example, an FCI of 0.7 would give cause for concern, while an FCI of 0.12 would be considered fair to good. FCI provides a clear way to communicate the overall health of facilities to upper management. Additionally, FCI coupled with a facility's criticality and strategy plan can be used to direct to which buildings funding should go first.

As an example of the benefit of a CRP and the use of FCI, the facility manager of a regional utility provider recently implemented a capital replacement program. After

performing a facility condition assessment on each facility and calculating the respective FCI, the facility manager presented the somber news of the aging infrastructure and deferred maintenance backlog to upper management. Once the sobering information sunk in, management responded in a rather shocking way: they said "Thank you, no one has ever provided us with this type of information before." The facility manager had given them data and a plan that they could manage. This example reiterates that there must be a plan under which the facility team and executives manage capital expenditures to ensure successful operations and stewardship of their facilities.

Present and sell the plan

The most critical step to a capital replacement program is selling the data and capital expenditure plan to upper management. Having a firm understanding of the organization's financial state, business drivers and overall vision and mission is imperative. The facility manager should not only communicate costs, but the associated risks to safety, production and employee/customer satisfaction; all efforts should be made to quantify such data in terms of dollars and impact to the triple bottom line. The use of graphs and pictures of defects will aid in communicating facility needs. Present the data as a business manager to business managers in terms and context that matters to them.

The end goal is to develop a rapport with management by delivering consistent, reliable capital expenditure data. As

FINISH BUILDING PROJECTS FASTER

Bluebeam Revu® simplifies the way you manage construction and facilities documents. Review PDFs with project partners around the world in real time using Revu's integrated collaboration solution, Bluebeam Studio™, and comment on those PDFs with customizable markup tools. Apply stamps that include dynamic date and time, and sign electronic invoices and change orders. Access essential project documents like drawings, as-builts, maintenance manuals and warranties using electronic O&M manuals that include hyperlinks.

Anything is possible.


www.bluebeam.com/fasteraccess



bluebeam®
NO LIMITS®



Check part
availability



It is incumbent upon the facility manager to think, operate and communicate as a business manager.

an example, a presentation given by a higher education institution relayed the success it had enjoyed in the 30-plus years of its capital replacement program. In that time, staff had been able to keep their capital expenditures level allowing for inflation. Given that their financial data each year was consistent and reliable, their requests were essentially rubber-stamped. They had developed the rapport with management and eliminated the up-and-down rollercoaster budgeting surprises that quite often come with reactive programs.

Challenges

- **“Digging out”** – Keep in mind that it has taken considerable time to dig the proverbial deferred maintenance backlog hole; thus it will take time to dig out. The first step is to stop digging deeper and assemble a plan to get out.
- **Lack of resources** – As mentioned above, a simple program can be started with minimal resources by leveraging the existing CMMS (or a spreadsheet) and the expertise of service partners/contractors.
- **Peaks and valleys** – Once the first assessment and plan are completed, a capital expenditure resembling a drive across the Rocky Mountains of North America will likely result. Budgets of such dynamics are not manageable; thus the facility manager will need to weigh the risks of the varying needs to pull and push replacement dates so that steady spending is realized.
- **Failure happens** – Of course, failures cannot be predicted; however, once a CRP is established the consistent capital expenditure allocation will allow some flexibility in pulling forward those items that fail or are degrading faster than anticipated and consequently pushing out the replacement of equipment that is faring better than anticipated without affecting the overall year-to-year budget.

Start somewhere

Implementing a CRP can seem intimidating or unrealistic. If that is the case, start small by picking one facility or the most critical systems. Once the value of such efforts are realized, support and hopefully resources for the program will grow. The sooner a CRP is implemented, the sooner risks are reduced, operations and maintenance costs are decreased and the less time the facility team spends needlessly firefighting. **FMJ**



John Rimer is a Certified Facility Manager® and IFMA qualified instructor. He is founder and president of Facility University (facilityuniversity.com) and president of FM360 Consulting (fm360consulting.com).

He is director and past president of the Northern Rockies Chapter of IFMA and marketing committee chair for IFMA's Facility Management Consultants Council (FMCC).

Rimer has worked in the facility management profession since 1997 in a variety of capacities and a wide breadth of industries. His primary focus has been on assessing, developing and improving facility management programs, including the implementation and optimization of CMMS.



IFMA'S BENCHMARKS EXCHANGE

Facility benchmarking has never been easier!

Compare building data anytime, anywhere.

Through IFMA's enhanced benchmarking portal, you have the power to filter building information by industry, facility type, geographic region and more. The BEX platform provides quick, convenient access to reports that target customized data unique to your facility.

The power is yours. Get started today!

www.ifma.org/bex

- Sign in with your IFMA username and password
- To enter your facility data: Create your portfolio (use the "Quick Start" as a guide)
- To access data: Click "Query Database"



IFMA™
International Facility Management Association

Empowering Facility Professionals Worldwide

IFMA'S FACILITY FUSIONS 2014: A CAPITAL TIME

BY ERIN SEVITZ

This year, for the first time, IFMA's Facility Fusion Conference and Expo crossed international boundaries. Sister events held in Ottawa, Canada and Washington, D.C., USA offered focused networking and facility management education. Both events fostered valuable business connections while addressing the unique challenges and opportunities posed by the respective audiences' built environments. Facility Fusion remains IFMA's more intimate and leadership-focused FM conference, as contrasted by the larger World Workplace event.

FM|VIDEO|EXTRA

CLICK TO VIEW



IFMA Facility Fusion
2014 Washington, D.C.
Video Highlights

IFMA FACILITY FUSION
Conference & Expo

OTTAWA CANADA 2014

March 18 - 19 | Province of Ontario

Facility Fusion Ottawa

On March 18-19, 2014, facility leaders from throughout Canada gathered at The Westin Ottawa Hotel for the inaugural Canadian Facility Fusion event to engage in in-depth FM education and best practice sharing.

The event began with an opening panel discussion led by young Canadian FMs on leadership, training and the next generation of facility management professionals. The discussion highlighted that FMs are in an ideal position to drive positive change in the organizations they support. A key takeaway from the panel which helped shaped the remainder of the conference was the emphasis that emerging FM leaders are increasingly important to the future of the profession as the workforce ages and generational demands shift.

In addition to educational sessions on everything from case studies on sustainable retrofits to digital operations and maintenance, the Tuesday lunch general session covered how the Canadian workplace is transforming by balancing focus and collaboration spaces.

Day two gave ample opportunity for attendees to contribute to the conversation through two general session roundtables. Participants shared their FM stories and discussed how to put facility management concepts into action.

The conference rounded out with facility tours of some of the leading attractions in the capital area: the Diefenbunker Cold War Museum, the Ottawa Convention Centre and the Centre Block at the Parliament of Canada.





IFMA FACILITY FUSION
Conference & Expo
WASHINGTON | D.C.
April 15-17 | National Harbor Maryland

Facility Fusion D.C.

This year's U.S. Facility Fusion Conference and Expo was held April 15-17 at the Gaylord National Resort and Convention Center in National Harbor, Maryland, largest combined hotel and convention center on the U.S. Eastern Seaboard. The venue allowed attendees proximity to the hustle and bustle of Washington, D.C. from a tranquil location along the scenic shoreline of the Potomac River.

BIM Conference

The day before Facility Fusion D.C. moved into full swing, attendees gathered for a day of learning related to building information modeling. Industry leaders shared their strategies for leveraging BIM to advance the practice of FM, including integration into the facility life cycle and managing the transition away from CAD. An additional panel discussed how open standards and data definition provide the structure for high quality facility support.

The afternoon sessions shifted to BIM-related processes and project delivery, including change management and understanding of organizational methodologies. As a follow up, attendees learned through a case study on Penn State how to achieve lower life cycle costs and how to include stakeholders throughout the scoping and implementation process to maximize value. The event wrapped up with a networking reception which allowed participants to share their insights on the day's learning.

A strong start

On Tuesday, April 15, Facility Fusion kicked off with an icebreaking activity

that captured the dynamic networking spirit for which the conference has come to be known. IFMA's Capital Chapter led interactive games, and IFMA partners Multiview and the Leonardo Academy joined in with their own games and giveaways.

Opening power speaker Jason Roberts kept the momentum going with his positive energy and "anything is possible" attitude. Roberts, originator of the Better Block Project, showed attendees what can be achieved when you commit to taking action. Roberts' work in converting blighted blocks with vacant properties in Dallas, Texas into community-friendly districts encouraged FMs to stop waiting around and to inspire and lead change within their organizations.

Learning in sessions and beyond

The conference included educational workshops, leadership training and discussions on best practices in various disciplines related to facility management including workplace strategy, sustainability and trends. Workshops, round tables, case studies, presentations and panel discussions were divided into topic tracks and experience levels to meet the needs of FMs at all career stages. Themes addressed ranged from standard FM practices such as operations and maintenance to honing leadership and change management skills.

Scheduled networking breaks allowed attendees to grab a snack, relax and get to know one another in a casual setting. The conversations continued outside of the formal education settings as attendees took advantage of breaks to make connections and discuss concepts presented by the speakers.



Finding solutions

The expo hall opened with a procession led by larger-than-life U.S. presidential caricatures. Attendees had the opportunity to learn about the cutting-edge product innovations and mingle during the welcome reception on the exhibit floor. The expo area also included the IFMA Foundation Silent Auction, which offered celebrity- and athlete-signed items for bid to benefit foundation research, education and scholarships.

During the course of the expo, attendees were able to explore new ways to design, manage and maintain world-class facilities. The expo floor was lively with activity as thought leaders covering all aspects of the FM industry showcased resources to help FMs most efficiently manage the built environment.

Wrapping up

Closing power speaker Ken Schmidt, former director of communications for Harley-Davidson Motor Company, got the audience revved up to differentiate themselves to gain competitive advantage in the marketplace. Through his work in helping Harley-Davidson move beyond a brand name to become an experience, he learned to harness the basic drivers of human behavior to develop inspirational leaders. Schmidt challenged the audience to consider doing things differently to help ensure the adaptability of current and future facility management professionals to the environments in which they operate.

The conference closed on Thursday afternoon with tours of D.C.-area landmarks. Participants received a backstage look at the GSA Headquarters, the National Gallery of Art, the U.S. Capitol and Capitol Visitor Center, the

Library of Congress, Union Station and the part of the conference venue itself, the Gaylord National Physical Engineering Plant.

Special thanks to the Capital and Chesapeake Chapters of IFMA for welcoming attendees to their region and to all sponsors and exhibitors for supporting the networking and knowledge sharing offered by the event.

Plan ahead to attend in 2015

If you enjoyed networking with your peers and reigniting your passion for your career at the Ottawa and/or D.C. events, make your plans to attend again in 2015.

Facility Fusion Canada will be held at the Sheraton Wall Centre in Vancouver, British Columbia March 9-11, 2015. The U.S. event will head to Orlando, Florida from April 21-23 at the Rosen Shingle Creek Resort. The locations will allow you to take advantage of the vibrancy and diversity of Vancouver or the sun and family attractions offered by Orlando before, during or after the show. Both events promise the latest innovative resources and ideas to help you enhance your facility operations. For more information, go to <http://facilityfusion.ifma.org>. **FMJ**



Erin Sevitz is editorial manager for IFMA. She is responsible for internal communications, leads the copy editing, art direction and production of FMJ, and

contributes to the development of IFMA's social media strategy. She is a University of Florida graduate with bachelor's degrees in English and French and tweets on leadership, branding and the workspace @ESevitz.

CONGRATULATIONS TO THE 2014 SUSTAINABLE EXHIBITORS PROGRAM WINNERS

Sustainability is a core competency of facility management and is part of IFMA's overall conference sustainability strategy. IFMA's Sustainable Exhibitor Award is a voluntary program that recognizes those who demonstrate a commitment to sustainability through environmentally conscious exhibit practices.

Exhibitors participating in this year's Facility Fusion Conference and Expo in Washington, D.C. were invited to complete and submit the IFMA Exhibitor Sustainability Scorecard, which was developed in partnership with and scored by the Leonardo Academy, a third-party nonprofit organization specializing in sustainability solutions.

Submissions were evaluated on the following six categories:

- The exhibiting organization's sustainability policies
- Exhibit materials
- Travel, packing, shipping and freight
- Printed materials and giveaways
- Recycling and reuse of exhibit materials
- Sustainable products and services

IFMA is pleased to recognize the top three sustainable exhibitors from Facility Fusion D.C.:

FACILITY ENGINEERING ASSOCIATES



CONCERT TECHNOLOGIES



ZIA FOR BUILDINGS



Also at Facility Fusion, the U.S. Department of Energy joined Lighting Energy Efficiency in Parking (LEEP) campaign co-organizers (including IFMA) in recognizing 12 organizations for efficient lighting in parking spaces. The awards were given as part of the energy department's LEEP campaign, which is credited for commitments to install efficient lighting across more than 270 million square feet of parking space, cutting energy use by up to 90 percent.

IMPACT YOUR TRIPLE BOTTOM LINE

I AM a facility professional looking to stay current in my profession and gain a long-lasting competitive edge.

I AM not a facility professional, but would still like to distinguish myself by mastering sustainability topics.



I AM a LEED accredited professional looking to further expand my knowledge and professional network.

I AM an employer who would like to enhance the image of my company and employees while impacting the triple bottom line.

Earn IFMA's Sustainability Facility Professional[®] (SFP[®]) Credential



IFMATM

International Facility Management Association

Empowering Facility Professionals Worldwide

ifma.org/sfp

IFMA KNOWLEDGE STRATEGY: ARE YOU READY FOR A GAME CHANGER?

At IFMA we are continually looking for ways to give you a high-quality member experience.

Finding worthwhile FM knowledge in a sea of information can be a daunting task. IFMA wants to further understand what you need to make your jobs more efficient and effective – facilitating your understanding and wisdom in FM best practices.

From networking to knowledge sharing opportunities, our goal is to provide you with the tools you need for career growth and to help magnify the value of the facility management profession.

IT'S ALL ABOUT YOU

IFMA is collecting information to better understand what facility management resources you find of value and to provide a better experience for you. For those who have already taken the time to give feedback via our surveys, focus groups and/or interviews, thank you!

So far, face-to-face interactions have been ranked among the top items that give you value. It is no surprise since people are the heart of any product, initiative or business.

Additional initial research results and next steps will be communicated in the fall issue of FMJ.

Can't wait that long? Contact andrea.sanchez@ifma.org for opportunities to get involved.

FMJVIDEOEXTRA

CLICK TO VIEW



Building Smart Cities
for the Future

IMPACT OF
BIG DATA
AND
URBAN
ANALYTICS
ON FM



BY ERIC TEICHOLZ

Facility managers can better manage buildings taking into account big data (databases too large and complex to manipulate or query using standard methods or tools) and urban analytics (data-driven analysis of urban activity such as human and asset behavior, resource consumption, etc.). The era of managing the built environment without such considerations is increasingly neither viable nor sustainable.

Consider first the rapid global urbanization taking place. The world's urban population will at least double to 6.4 billion by 2050, representing more than 70 percent of the world's total population. This means that 70 percent of the Earth's population will occupy less than 3 percent of its land mass and consume more than 75 percent of the earth's resources within this timeframe.

Studies have indicated that urban living increases worker productivity and creativity and creates lower carbon footprints than suburban living. Rapid urbanization also means that cities must cope with the impact of this urban expansion on its transportation, infrastructure, water and waste systems, security, energy, greenhouse gas emissions — to name a few, by becoming smarter in their data collection and analytics.

Cities are indeed collecting vast amounts of data to turn themselves into smart cities (the investment of human and social capital within an information communications technology network to enable sustainable economic development). In 2012, some US\$9 billion

was spent by urban stakeholders in the U.S. to develop smart city applications.

The amount of data being generated to enable the implementation of smart cities for improvement of urban services is startling — 2.3 trillion gigabytes daily. The data is derived from traditionally structured public sources (e.g., the government) or private sources (e.g., corporate or third-party systems). It also comes from sensors and, increasingly, from social media.

Technology enables the connectedness between people and systems to allow forms of collaboration to take place that have hitherto not been available. It is now possible to integrate disparate data formats using standard protocols such as those provided by the Internet. Roads and street furniture (e.g., street lights/signals, parking meters, etc.) are being retrofitted with sensors at a cost of less than US\$1 per sensor. Each sensor has a unique Internet Protocol address with the ability to transmit/receive data and make decisions without human intervention.

Within the U.S., there are already more than 9 billion sensors installed to provide data related to factors such as:

- Power monitoring
- Temperature and humidity
- Audio and video
- Emissions (CO₂, methane)
- Asset fault detection
- Radiation
- Real-time location systems
- Motion



Such real-time sensor data, especially when combined with structured and social media data and urban analytics and modeling, becomes a powerful tool not only for the city but for the businesses and populations that inhabit the cities. Technology is getting faster and cheaper and, by dint of mobile devices and cloud computing, everyone and everything is increasingly connected at all times. In this manner, we can think of the emerging digital smart city as consisting of integrated networks that impact one another — networks of buildings, of people, of assets, of energy systems or waste, water, transportation and infrastructure systems — all of which can communicate and interact with each other.

We are beginning to see smart city FM applications that impact our buildings as well as the productivity and security of the inhabitants of our buildings. For example:

- Rio de Janeiro is working with a service provider to, among other things, model weather patterns to predict, with 48-hour notice, the impact that floods will have on the built environment.
- General Electric, among others, is using weather models, labor cost data and real-time asset performance information for maintenance planning, fault detection, asset performance and maintenance software (CMMS) integration.
- The city of Antwerp, Belgium's second city and largest port, has established a real-time network of more than 1,000 available conference spaces in public and private buildings that can be made available in case of emergency (security and resiliency) or for simple meeting space flexibility.
- The U.S. Government Services Administration (GSA) has several initiatives involving big data and/or urban analytics:
 - The GSA has modeled its headquarter facility and employee behavior to accommodate more workers within the same building footprint. It does this by having a set number of workstation types derived from work patterns, by modeling which workers can work remotely, by knowing the impact of weather on employee attendance, by having employees co-work and by having dynamic assignment of workspaces as employees arrive in the building.
 - The GSA spends more than US\$400 million a year in the U.S. on energy. More than 450 facilities, which account for 85 percent of its total electricity consumption, are equipped with advanced meters (devices that record electricity consumption at regular intervals of 15 minutes or more and communicate data back to a central GSA server for historical storage and real-time trending).

In this manner, the GSA anticipates it will be possible to better than double the number of employees who can work at the headquarters facility as well as result in significant energy savings since entire wings of the building can be shut down when not occupied.

First Fuel, a contractor to the GSA, extracts this data from servers and performs remote building audits which disaggregate total building consumption into major end-use categories, benchmarking the building's performance to other properties and monitoring performance against modeled consumption to track successful implementation of energy savings recommendations. Energy savings thus far are running at more than US\$84,500/month.

- Phillips has developed smartphone apps for personal control of light, wayfinding (finding empty meeting rooms using sensor data) and determining occupancy data using sensors in lighting fixtures for energy efficiency controls (called smart assets).

Two case studies

Microsoft Corporation

BACKGROUND

Building systems (power monitoring, air conditioning, lighting control, etc.) are often installed in silos, thereby creating significant labor inefficiencies and higher operating costs for building owners and property managers. Traditional base building systems and hardware also are not well designed to enable energy efficiency.

Since most BAS systems are now smart assets (i.e., sensors generating data are embedded), Microsoft realized that there is a huge opportunity to reduce energy consumption and waste in buildings (it is estimated that between 10 and 25 percent of building energy is wasted) via advanced building information and control systems. Microsoft initiated an energy smart building program (ESBP) to reduce this wasted energy.

BIG DATA AT THE PUGET SOUND (REDMOND) CAMPUS

Microsoft's Puget campus consists of 15 million square feet, 125 buildings and 58,000 housed personnel. The campus currently generates more than 2 million data "points" from the smart assets embedded in its BAS equipment (35,000 building assets). Microsoft converts these data



points to a common protocol format (BACNET) so the data can be integrated.

Over a 24-hour period, Microsoft collects 500 million data transactions. Historically, Microsoft has not had the ability to leverage this data to optimize energy consumption primarily because of the changing use of its building portfolio over time. This is no longer the case since the data is collected in real time and energy generation can be immediately reconfigured based on the desired building use.

KEY BENEFITS

The energy smart building program is changing how Microsoft manages its campus. Having access to this real-time asset data is allowing the ability to commission (or “tune”) the buildings in real time. This allows the company to save energy immediately and focus its FM labor force more effectively.

Before ESBP was initiated (2011), the maintenance process consisted of retro-commissioning each building once every five years. This was a manual process covering 20 percent of the campus and assessed only 200 assets each year. This resulted in US\$250 thousand of energy reduction each year.

Now, because the company has immediate access to the asset’s energy performance, Microsoft can automate the retro-commissioning process and commission the entire campus in one year, and instead of touching 200 assets, Microsoft can query the energy efficiency of 35,000 assets. Once a building is commissioned, the company has graphic feedback in real time (see Figure 1). If the building’s assets (mechanical systems) start to perform non-optimally, Microsoft gets real-time performance feedback as it occurs.

RESULTS TO DATE

The first 12 months of operation after deployment resulted in energy savings of US\$2 million — equivalent to about 3 percent of Microsoft’s energy bill. This ROI was achieved in Washington State which has the third-lowest energy cost per kilowatt hour (5.5 cents) in the U.S. In other geographic areas where the cost of energy is higher, the ROI period would be even shorter.

Con Edison BACKGROUND

Thousands of commercial buildings across New York City rely on Con Edison to provide power. Certain



The solution for quality and value
in facility supplies.



Every application. Every time.

Touch Free Restroom Technology | Pro Restroom Cleaning Kit
Cleaning Chemicals | Odor Control | Hand Hygiene | Dispensers
Towels & Tissues | Floor & Hand Pads | Can Liners

reliablebrand.com

©2014. All rights reserved.





FIGURE 1: The Redmond Operation Dashboard used to monitor Microsoft's headquarter campus consisting of 125 buildings and 58,000 housed personnel.

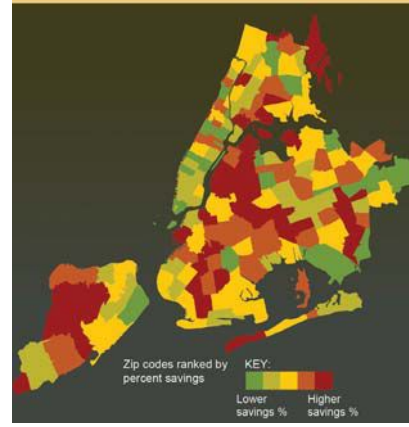


FIGURE 2: Knowledge of energy usage during peak periods enables Con Edison to identify which buildings within these areas can realize the greatest benefits from specific energy retrofits.

areas of the electric grid within Con Edison's network have become constrained due to rapid increases in demand, which puts the utility's ability to deliver power reliability at risk. Building more coal-fired power plants is not an option. Even expansions of its traditional infrastructure also can be difficult to execute in the congested areas of New York City where construction is often not feasible.

Therefore, the most promising option for avoiding brownouts or blackouts is to reduce energy consumption. Con Edison has numerous programs in place to accomplish this including:

1. Rebates and incentives for installing energy-efficient equipment (e.g., lighting fixtures, chillers, HVAC systems, etc.);
2. Demand response incentives to use less energy (e.g., customer payments to those who can temporarily reduce electric usage) and;
3. Demand management incentives (e.g., incentives that contribute to reducing peak demand loads such as the use of thermal or battery storage and fuel switching to non-electric sources).

Another vehicle for reducing consumption is by employing urban analytics. The first step in this process is to benchmark consumption data by location. In Con Edison's case, data was initially collected at the block level in order to target high-usage blocks. This process, called geographic targeting or geo-targeting, is useful in identifying areas of high energy usage but not necessarily areas where the greatest savings in energy can be realized.

To accomplish the latter, Con Edison had to change the granularity of the data from a block to a building level and apply more advanced analytics to tailor efficiency solutions in the constrained load areas. Only then could Con Edison accomplish

its goals of energy reduction during peak periods in high-usage areas, defer transmission and distribution system upgrades and save customers money on their energy bills.

GEO-TARGETING EFFICIENCY WITH ADVANCED ANALYTICS AT A BUILDING LEVEL

To accomplish the above objectives, Con Edison is deploying a virtual energy assessment. This software involves three steps:

1. It gathers data about a building by pulling current energy utilization data at regular intervals (e.g., 15-minute, hourly, weekly, monthly, etc.) from Con Edison. When it has gathered enough data about the building (usually a year's worth), it models the current energy consumption data based on variables such as building type, when operations start up, types of systems being used for lighting, heating and cooling, when the building flips from heating to cooling and so forth;
2. The software then models how the building could optimize energy consumption based on current usage and modeling where the greatest opportunities lie for reducing energy consumption by using more efficient systems;
3. The final step compares the as-is and optimal consumption patterns, in terms of operations and systems, to determine savings (e.g., in kilowatt-hours or dollars) at any point in time.

Given the use of such a tool, Con Edison can provide feedback to customers as to how best to reduce energy consumption and is able to prioritize the building's efficiency measures within the constrained peak usage areas to help reduce demand during network and system peak periods. In the future, Con Edison, should it desire, will be able to implement real-time energy pricing whereby it could penalize heavy users during peak times and reward companies that reduce energy during constrained peak times. **FMJ**



Eric Teicholz, IFMA Fellow is president of Graphic Systems, Inc., an FM technology consulting company. Within IFMA, he chairs the FM in the City task force, is a member of the sustainability and research committees and various task forces and is a former member of IFMA's board of directors. He can be reached at teicholz@graphicsystems.biz.

FM in Asia:

Facilities Management Beyond Boundaries

A valuable platform for dialogue on current and future facility management issues and trends in Asia.



World Workplace // ASIA

Conference & Exhibition

2014 // Hong Kong

October 30 - 31

worldworkplace.ifma.org/asia



IFMATM

International Facility Management Association

Empowering Facility Professionals Worldwide

INTERNATIONAL TRENDS AND DEVELOPMENTS IN FM



BY LIONEL PRODGERS

Facility management is a global discipline, and a sizeable one. Research from Global Industry Analysts estimates that the market will reach almost US\$400 billion by 2017. While Europe and the United States account for the major share of this figure, and with Australasia continuing to have a healthy demand for FM services, the key for future growth is in Asian countries including China, India and the Middle East, as well as South Africa. Yet despite these varied geographies and the inherently different challenges associated with managing facilities in differing economic and topographical environments, facility management has many similarities, and challenges, wherever it is practiced around the world.

Self-image

Facility management means something different in different parts of the globe and this is a major challenge for its acceptance as a global profession. In the Middle East, for example, it's used

to describe property management in residential blocks, which is not what the U.S. and U.K. markets would understand as true FM. And although the U.S. and Europe have broadly similar definitions — focusing on a profession that encompasses multiple disciplines to ensure functionality of the built environment and the primary activity of the organization by integrating people, place, process and technology — there are differences in the way it is practiced. In the U.S., for example, there is less outsourcing of FM than in Europe.

Worldwide there is a general erroneous perception that FM means outsourcing, rather than a discipline which can be applied internally or externally based on which is the most efficient combination for the core business. Across the world there is an element of outsourcing in almost every geography. Few organizations directly employ their cleaning staff, for example.



The extent of outsourcing varies from territory to territory, with countries such as the U.S. preferring to keep more in house, compared to Europe where there is a steady trend toward integrated or total facility management (TFM) outsourcing. The full TFM approach remains rare, although there are some high-profile examples of it such as HSBC and Barclays which have outsourced their entire global FM activity. Cultural and legal differences together with geographical spread make even pan-European outsourcing deals a challenge.

Some countries have taken a different approach to outsourcing. The U.K., Canada and Australia have embraced public-private partnerships to fund the design, build, finance and operation (DBFO) of public-sector facilities. In many cases, this has resulted in a more long-term approach to facility management with the whole building life cycle being taken into account. The Middle East and Southeast Asia are also looking at DBFO models to develop their public infrastructure.

Perhaps because of that lack of clarity and consistency, and despite the work of professional bodies such as IFMA, EuroFM, MEFMA, ARSEG, SAFMA, ABRAFAC and BIFM, there is a general lack of awareness around the world of what FM actually is, and what it contributes to business and the community. The Cinderella profession gets on with its work without recognition from wider business. FMA Australia has done some sterling work to engage government, and increasingly IFMA and BIFM are doing the same. But it is also up to individual FMs to raise the profile of the industry within their own organizations and sectors and to demonstrate its value. As an industry we don't talk to the outside world enough — we are too much of an internal market.

Maturity

According to the report by Global Industry Analysts, the European and U.S. markets account for the major share of the global facility management industry revenues. FM demand and growth will remain modest in these markets in the short term, thanks in part to the continued weakness in the building sector and a competitive and saturated market.

But demand for facility management in the rest of the world will remain healthy thanks in part to the emerging markets, which will maintain their own dynamism. China and India, the Middle East and South Africa hold the key to future growth.

Many facility management providers, already successful in Europe and the U.S., are moving into these emerging markets. In May for example, U.K.-headquartered OCS launched a joint venture with United Technical Services, also a family-owned business, in the United Arab Emirates. This is its second foray into the Gulf following the opening of OCS Qatar in 2012. Later this year, the organization is hoping to start a similar operation in Saudi Arabia. In the past few years it has set up operations in Vietnam, Cambodia, Malaysia and India, adding to its considerable and long-standing operations in Thailand.

Technology

Advances in technology are the most significant global change in the facilities management sector over the past few years. This is enabling facility professionals across the globe to reconsider the way in which they manage and operate facilities. The sheer pervasiveness of available information and the way that data can now be captured, transmitted and shared in much more granular detail than ever before, and without the need for personal input, is revolutionizing the industry.

From weather forecasts being used to schedule exterior planned preventative maintenance to traffic data extrapolated to plot a mobile maintenance engineer's optimum route, this type of information is now capable of being captured and monitored and trend analysis produced informing the level of service which is delivered. For example, data about footfall in a washroom allows the FM provider to accurately predict the peaks and troughs in washroom visits and lean engineer the service provision accordingly to ensure KPIs are met and the contract remains economical.

It also allows facilities to be managed on a cost-in-use basis and is the ultimate recharging mechanism. Rather than facilities and real estate overheads being roughly apportioned to teams or departments, they can be accurately recharged on a real-time and actual-use basis.

This is increasingly meaning that the management part of FM can be delivered remotely. While cleaning, security, catering and maintenance staff will always need to be on the ground, the information that is gathered at source can be analyzed, managed, reviewed and new facilities strategies created elsewhere. We hear constantly that the world is getting smaller, and this is especially true of FM. The management of services can now be delivered anywhere, which not only speeds up delivery, but also encourages the sharing of best practice from territory to territory.

Thanks to technological advances, and the prevalence of information as a result, the FM sector is facing a major opportunity to promulgate best practices throughout the world wherever there are facilities to be managed. This allows organizations with major property portfolios around the world to manage their buildings to the same standard. Even those managing single buildings, such as a school, hospital, shopping center or office, can benchmark their performance against available data, optimize that performance and ensure their facility is managed to a certain standard or order. By measuring in finite detail the use of the assets and the accompanying use of resources, the facility can be truly optimized.

Training and development

Technology is also helping to professionalize the FM sector around the world. There are skills shortages in FM in almost every sector and country, with a particular need for technical and vocational training. And while it can be expensive and time-consuming to bring in external trainers, through e-learning,

experts in mature FM markets can share best practice with developing FM markets.

FM is a people business, and the approach to managing people is different throughout the world. In the Middle East and China, for example, where labor is cheap, the dynamics are different from Europe where unions ensure reasonable wages and conditions. There is a reluctance to invest in capital equipment in the Middle East, because a cheaper option is to throw labor at the problem.

This means that the service or infrastructure is not always as efficient as it might be. There will eventually be a labor shortage in the Middle East — a shortage of management and consultancy skills is already evident — and then investment in technology will be a natural result. In China, meanwhile, the workforce is very transient, with workers happy to move jobs for an extra few cents an hour, which makes creating a loyal, trained workforce difficult.

Labor laws are naturally different throughout the world — whether it be the existence or levels of a minimum wage or quotas of national employees, and this causes challenges for service providers operating across borders. In some countries in the Middle East, for example, there are strict ratios of the number of nationals that service providers must employ compared to non-nationals and, in countries such as Saudi Arabia, these ratios are increasing. This brings additional challenges as the national workforce may not be as experienced or highly trained as professionals or technicians from mature FM markets; or conversely, may be reluctant to complete the menial tasks undertaken by nationals from Southeast Asia who support the Middle Eastern economy.

Some still question in the west if facility management will survive as a lasting profession. Whether FM is described as a profession or as a management discipline, there can be no doubt that FM is gaining recognition in the emerging economies and it could just be that this is where FM will make its indelible mark. **FMJ**



Based in Dubai, **Lionel Proegers** is managing director of Agents4RM International, a global professional services business for the facilities management and built environment sector, part-owned by FM services provider OCS Group. He specializes in strategic management, organizational planning and service standards in facilities and property management, incorporating customer care, sustainable best practices, business processes, systems and performance measurement and improvement and is currently advising on projects in Europe, Middle East and Asia.

Proegers has served as chairman of the British Institute of Facilities Management in the U.K., chairman of the European Facilities Management Network in the Netherlands and as a board member of the International Facility Management Association in the U.S. He was honored with the PFM journal Lifetime Achievement Award in the U.K. in 2013 and received the BIFM Award for Overall Industry Impact in 2011.



- ▲ RFID or Keypad
- ▲ Clutched or Rigid
- ▲ Mortise or Cylindrical
- ▲ SFIC or LFIC

2000 SERIES DIGITAL LOCK FAMILY



XME-2000



FME-2000



XCE-2000



FCE-2000



17901 Railroad Street, City of Industry, CA 91748
Toll Free: 877-858-0888 Tel: 626-965-8917
Fax: 626-965-8919
sales@townsteel.com



LOCAL, GLOBAL ENGAGEMENT ON WORLD FM DAY



BY ERIN SEVITZ

Each year, the international FM community comes together to celebrate the achievements of the industry and the accomplishments of the individuals who have shaped it.

World FM Day, held this year on June 4, recognizes the contributions of facility management professionals to the built environment and lives around the world. Initiated in 2008 by Global FM, the celebration aims to increase awareness of and appreciation for the facility management profession among the general public across the globe. This year's World FM Day theme was "Connected FM, Connected World – Global Knowledge Sharing."

IFMA's participation in the international event included a World FM Day luncheon in conjunction with a facility tour at the Julia Ideson Library, home of the Houston Metropolitan Research Center in downtown Houston, Texas, USA. The event was co-hosted by IFMA and the IFMA Houston Chapter and gave attendees insight into one of the Houston area's first libraries and its beautiful restoration. Speakers included IFMA COO Mike Moss, IFMA President

and CEO Tony Keane (via video message) and Scott Minnix, director of the City of Houston General Services Department.

The festivities continued online with an all-day Twitter chat co-hosted by @IFMA and @TheFMJ. Questions posed every half hour generated discussion on FM hot topics among industry thought leaders around the world, more than doubling participation from 2013.

IFMA also offered a special discount on its professional credentials, which provide a means of tapping into the collected knowledge of the international FM community. Individuals who purchased the FMP or SFP® credential program by June 15 were eligible to receive a US\$100 rate reduction.

In conjunction with World FM Day 2014, Global FM announced the winners of its 2014 Awards of Excellence, a high-level international competition recognizing the best within facility management.

The recipient of the 2014 Global FM Gold Award of Excellence in FM was IFMA member Greg Wood, who was recognized for the Washington County Sustainable

Cleaning Program. Additional winners included Platinum Award of Excellence in FM recipient Deborah Rowland (BIFM) and Silver Award of Excellence in FM recipient AXA France (ARSEG).

Of World FM Day, Keane said "The FM industry is in the midst of a powerful renaissance of ideas and technology that is driven by a growing sense of community within the profession. IFMA is proud of our ongoing work facilitating the gathering and sharing of knowledge and connecting individual FM practitioners to the benefits of this vibrant community. On World FM Day, we all have a chance to thank FM professionals, not only for making the built environment around us work, but for making it work for us." **FMJ**



Erin Sevitz is editorial manager for IFMA. She is responsible for internal communications, leads the copy editing, art direction and production of FMJ, and contributes to the development of IFMA's social media strategy. She is a University of Florida graduate with bachelor's degrees in English and French and tweets on leadership, branding and the workspace @ESevitz.



SYSTEMS THINKING SUPPORTS SUSTAINABILITY

BY BILL CONLEY

Sustainability isn't just a buzz in the business world today. It is a steady, deep thrum that permeates every profession and every industry. It has had a most pronounced effect in the facility management world. In order for a sustainable program at the facility level to have viability and ultimate value, the precepts of the program must be extended beyond the department to take hold throughout the organization that it serves. A comprehensive system needs to be put into place and a business case needs to be made to illustrate how doing good can make money.

Let's, for the moment, forget about climate change, drought conditions and the depletion of natural resources and focus on the most pertinent benefit of sustainable actions to professionals trying to succeed in business. For shareholders, sustainability means a long-term (sustained), profitable company in which to invest. For corporate executives, it means contributions to the bottom line, innovation, competitive advantage and a positive image. For facility managers, it means streamlined operations, increased efficiency, customer satisfaction and cost savings.

So let's temporarily set aside the people and planet aspects of the triple bottom line and focus on the big hook: profit.

To make money, a system is needed. In the movies, the heroes always have a system. To win in Vegas, a person has to have a system. Or, conversely, if someone wants to win big, he/she has to beat the system. It seems when profits are mentioned, the key common denominator tends to be a system.

What's to say this concept is different in business or real-life responsibilities? Having a good system and adhering to it, working within it and through it, offers a number of benefits. The better it is devised and followed, the more proportionate the rewards.

Common sense dictates that any objective haphazardly approached has a minimal chance of being reached. And, although Ralph Waldo Emerson once said, "Society is always taken by surprise at any new example of common sense," in the facility management world common sense is conspicuous in its presence. FMs typically have both feet on the ground and their heads on swivels; they don't miss much and they know how to act. For facilities professionals, putting a system together makes perfect (common) sense.

Sustainability can create value by maximizing the positive social, environmental and economic effects of activities, while minimizing adverse impacts throughout the entire closed-loop cycle of an organization's value system. The critical state of the current environmental, economic and social system is further reinforced by increasing complexity, velocity and uncertainty. Despite the popularity and trendiness of sustainability, there are yet few good models of successful sustainable development. These interconnected, complex sustainability challenges need to be captured in a practical and solution-based approach.

Systems

A system is a set of rules, an arrangement of things or a group of related items that

work toward a common goal. Facility managers are used to looking at the big picture; of viewing organizational operations and departmental functions holistically. The magic is to take this a step forward; beyond treating those specific needs derived from an overall view and actually making everything work together.

Systems thinking is a trans-disciplinary ability to see interrelationships rather than processes, for seeing patterns rather than individual snapshots. It is a way of thinking about, and a language for describing and understanding, the forces and dynamics that shape the behavior of systems. This discipline provides the ability to change systems more effectively, and to act more in tune with the natural processes of the environment and the economic world.

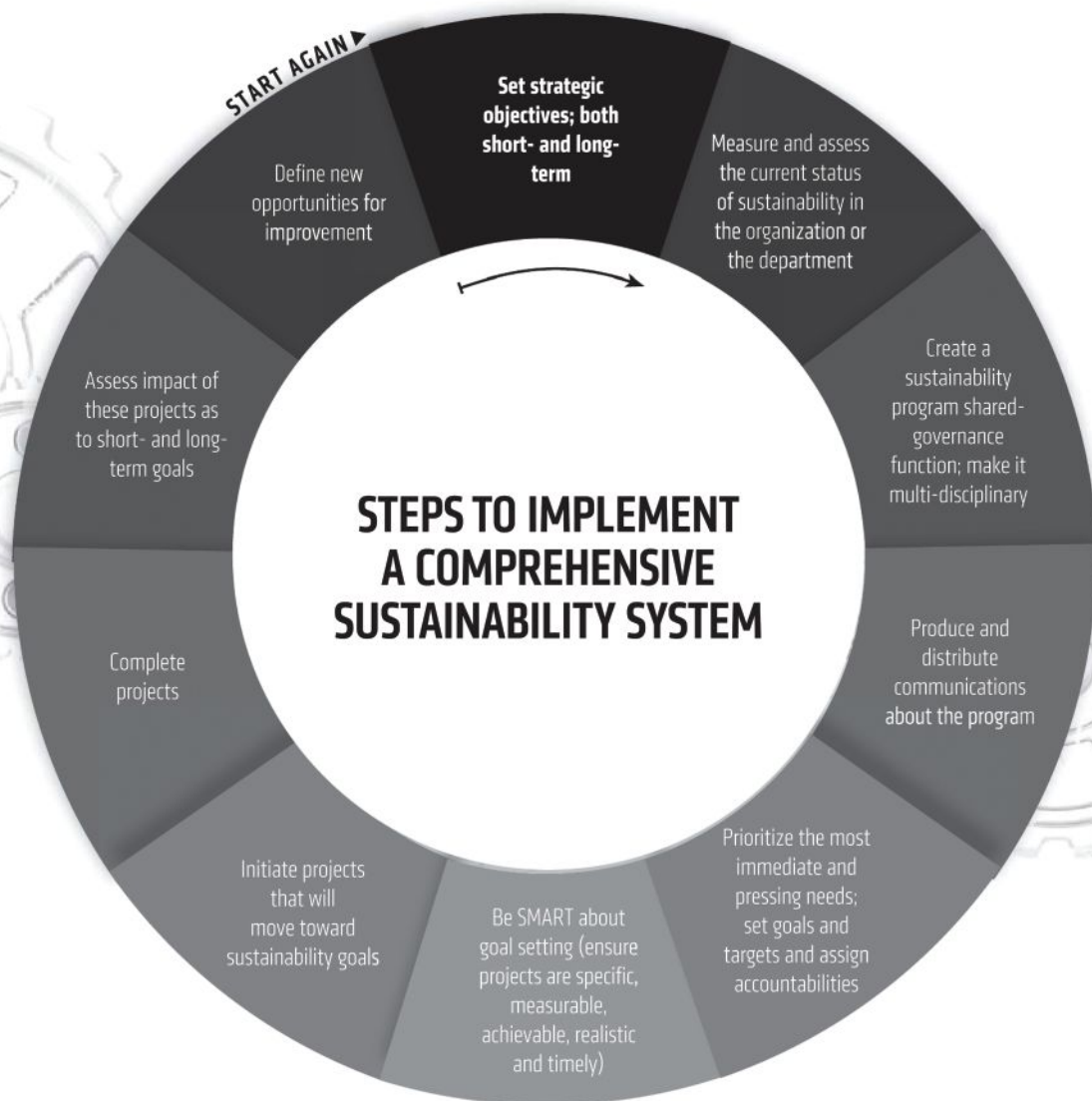
Systems thinkers frame problems in terms of behavior over time, instead of focusing on particular events. Instead of microscopic, they strive for macroscopic, seeing beyond details to the context of relationships in which they are embedded. This concept can be effectively used by facility managers to address sustainability challenges.

In any system, no matter how tightly constructed, there will be variables. When the path of a variable is followed, causal loops will be found in the system. Causal loops are an important learning tool in systems thinking and show how some variables can continuously reinforce or balance one another. For instance, if energy efficiency increases, resource use decreases. Unhindered by resource availability, business activity grows and more investments are made in efficiency; thus these variables beget a reinforcing loop.

Since efficiency is often touted as the most basic, low-cost or no-cost solution of sustainability strategy, understanding the concept and recognizing its appearance can lead to further beneficial developments.

Through systems thinking, an FM has the capacity to build initiatives that accomplish triple bottom line benefits, especially sustainable economic

**THE KEY TO
THE SUCCESS
OF MULTI-
STAKEHOLDER
ENDEAVORS
IS A SENSE OF
TRUST.**



activities. Based on the Plan, Do, Study, Act model, the following sequence of steps can be taken to implement such a comprehensive sustainability system:

- Set strategic objectives; both short- and long-term
- Measure and assess the current status of sustainability in the organization or the department
- Create a sustainability program shared-governance function; make it multi-disciplinary
- Produce and distribute communications about the program
- Prioritize the most immediate and pressing needs; set goals and

targets and assign accountabilities

- Be SMART about goal setting (ensure projects are specific, measurable, achievable, realistic and timely)
- Initiate projects that will move toward sustainability goals
- Complete projects
- Assess impact of these projects as to short- and long-term goals
- Define new opportunities for improvement
- Start again

Incorporating the journalistic formula of “who, what, when, where, why and how,” the process can be further defined and refined.

- Who will be responsible for the successful completion of the work?
- What goals will these projects accomplish and are they important to the overall scheme of things?
- When will they start and when will they finish?
- Where will the necessary resources be acquired?
- How will the work be done and assessed?

There are steps of sustainable development which FMAs can lead directly and which will show cost benefits. By engaging and educating management

SYSTEMS THINKING IS A TRANS-DISCIPLINARY ABILITY TO SEE INTERRELATIONSHIPS RATHER THAN PROCESSES.

and staff at all levels, they can set up volunteer programs, up to and including an in-house sustainability committee, within the facility to help with reducing, reusing, recycling and rethinking of material use and to serve as ambassadors of sustainability.

Life cycle-focused operating standards, targets, benchmarking and performance measurements can be implemented to increase efficiency. Environmental and sustainability goals can be created and implemented based on the operations that are controlled within the department. Energy management, water conservation and direct/indirect greenhouse gas management conserve natural resources, which saves money.

Life cycle assessments of products and services to which they ascribe can be performed by ensuring that vendors and providers understand the importance of supplying and verifying green products and services, managing those resources and cutting costs. Waste management policies mitigate landfill effects and protect those natural resources while minimizing dollars spent on waste transport and disposal.

Tangentially, these practices help with compliance issues, saving fees and penalties. All of these cost-saving techniques lead to the positive internal and external transparency measures that can be optimized through continual communication, education and stakeholder involvement, which leads to more business.

Bottom line

Sustainability is a grassroots-level initiative. Even though senior management in the C-suite may be getting a clue that this is important for their organization, many times they are at a loss as to how such a system can be implemented and managed. It does help to have the program mandated and approved by senior management,

identifying the FM as the champion of the cause. However, sometimes the FM needs to act as an insurgent, disrupting the status quo in the effort to affect positive change.

Through facility operations, programs can be instituted that can serve as a model for the rest of the organization as well as bring about cost savings, both short- and long-term, that will provide money to further the mission. FMs can achieve the desired objectives as they pertain to profits throughout the entire closed-loop life cycles of services with least cost, effort and risk. It can't be done overnight, but it can be done.

Every system is perfectly designed to get the results it achieves. Having an FM at the helm is almost a requisite for success. Utilizing proven leadership skills to enhance and improve processes, maximize existing infrastructure and empower personnel to take action on behalf of their company and their quality of life, an FM can not only contribute to the bottom line, but help increase it exponentially. And, though the focus may seem to be all about the money, a sustainability system will still benefit the people and planet components of the environmental triumvirate; making for a fairly solid business case. **FMJ**



Bill Conley, CFM, SFP, FMP, IFMA Fellow, 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.

EVENTS COLUMN

CHERYL WHITE
Director, Corporate Programs



When the editors of FMJ approached me to write this issue's staff column, I admit I was hesitant. However, the more I've thought about it, the more excited I am to have the opportunity to share one of the great goings-on at IFMA which is sure to be the event of the year: the World Workplace 2014 Conference and Expo, Sept. 17-19 in New Orleans, Louisiana, USA.

IFMA is pleased to be returning to New Orleans once again, and since our headquarters hotel is already completely sold out, it looks like our members and nonmember attendees are looking forward to the location as well! Our goal this year is to break all previous records of attendance, and numbers of registered attendees are already tracking ahead of last year.

If jazz and a packed event aren't enough to get you geared up, here are some highlights that will be taking place this year:

- **Jam-packed educational program.** This year we're introducing four new learning labs: Leading and Bleeding Edge, Performance, Management Skills and Leadership. There will also be two Solutions Arenas located on the expo floor offering informational sessions so you can extend your learning experience into the expo hall.
- **Dynamic keynotes.** Peter Sheahan, founder & CEO of ChangeLabs, will inspire you to transcend "business as usual" conventions and find your competitive advantage. For this year's closing keynote, we're trying something a little different: multiple speakers will help shape participants professionally and personally in the style of the popular TED talks.
- **An authentic Mardi Gras experience.** The Welcome Reception will allow you to see floats up close, as well as a juggler and an alligator handler. There will also be plenty of Louisiana food and drinks to get you into the New Orleans spirit.
- **Chance to dive deeper into the areas that keep FMs up at night.** Three master class options led by topic experts will give new insight into emergency preparedness, leadership and strategy and cutting-edge concepts in the evolution of the workplace.
- **Unique behind-the-scenes facility tours.** This year, get a back-of-house look at the operations of major building landmarks in a city with a rich architectural history still recovering from the ravages of a 2005 hurricane. Among the tours will be the New Orleans BioInnovation Center &

Louisiana Cancer Research Center, Federal City, the New Orleans Mercedes-Benz Superdome and many more.

- **Targeted networking to advance your career, whether you're new to FM or a seasoned veteran.** As a compliment to our first virtual career fair in held in June, this in-person event will give you the opportunity to directly connect with the hiring managers who can help you take the next step in your career.
- **An elegant affair honoring credentialed attendees.** If you hold a professional designation, you know how much work goes into the process. Our credentials recognition reception is an exclusive appreciation and networking event honoring current CFMs, RCFMs, FMPs and SFPs.
- **Make the event schedule work for you.** From the online Attendee Service Center, you can customize your conference schedule and request appointments to meet with exhibitors so you can make the most of your time. This will link directly with the mobile conference app (launching in August) so that you can access information on the go.
- **Most competitive Awards of Excellence program to date, showcasing the best in FM.** This year's awards of excellence received submissions in 19 categories, more than ever before. The awards presentation will recognize outstanding contributions in the field of facility management and will be emceed by improv group Brave New Workshop.
- **Panel of experts will address the biggest challenges facing FM today.** Hosted by FMJ, the FM Expert Panel will allow you to get insights into the direction of facility management from some of the leaders in the industry.
- **Resources to help first-timers and solo attendees get the most out of their time.** Back by popular demand, we will hold orientation to give those new to World Workplace the tools to make the event their own. There will also be opportunities geared toward helping solo attendees break the networking ice and make valuable connections that can last a lifetime.

As you can see, this year we've really pumped up the volume. There's not enough space on this page to list all of the features in store for you at World Workplace. Suffice it to say, you'll have to attend to truly get the IFMA experience. See you in September! **FMJ**


THANK YOU TO THE FOLLOWING WORLD WORKPLACE PREMIER SPONSORS FOR THEIR GENEROUS SUPPORT:
ABM | Caterpillar | iOffice | ISS Facility Services | Rentokil/Ambius | Staples Facility Solutions

Getting the Right Bids Shouldn't be a Tall Order. Just Start With *the Right Team.*

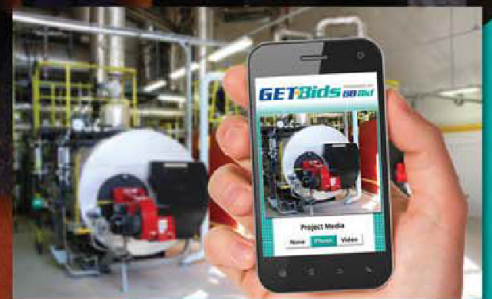
Every day, The Blue Book Network's **Project Communication Group** is ready to help you find the qualified contractors and suppliers you need for your building, maintenance or renovation projects, quickly and effectively – **and at no charge!**

Your personal "Project Concierge" will message your project needs to vendors from your private list, from The Blue Book Network – or both. They'll even set up a secure, private online plan room to host your plans and specs, making your job even easier!

Get the bids you need –
when you need them.
One team. One call. *Done.*

 (855) 805-2560

*Get connected to the people
and products you need now!*



THE BLUE BOOK Building & Construction
NETWORK[®]
Project Communication Group



thebluebook.com/4bids

Just snap, click, send – *done.*

GETBids

Go to BB-Bid.com/getbids from your mobile device
to get started now – and be sure to visit our team at:
IFMA's World Workplace Conference & Expo 2014
Sept. 17-19 | New Orleans | Booth 1219





Benchmarking your Building or Facilities

If You Can't Measure *You Can't* Manage



BY RICHARD SIEVERT

An important but often neglected responsibility of people who own or manage facilities and real estate assets is to establish performance metrics and evaluate the condition of their properties on a routine basis against those metrics. According to building codes and government regulations (such as those outlined by the Occupational Safety and Health Administration in the U.S.), owners and operators of facilities are responsible for the safe and sanitary operation of their facilities at all times.

Besides health, comfort and safety, buildings and properties play an important role in productivity, energy conservation, sustainability and cost management. Sometimes it takes a crisis (e.g., steep fines or criminal indictments for code violations, roof collapses, indoor air quality problems, power outages, unexpected downtime, security breaches, etc.) to communicate to management that improvements are necessary.

Managers of facilities and properties must conduct periodic condition assessments to determine the status of their invested capital. Information is required to compare existing performance with mandated conditions and for budgeting financial reserves necessary to restore, preserve, rebuild or adjust capacity.

Many facilities have been acquired through mergers and acquisitions. It is not uncommon to find overstressed building systems, underutilized spaces and infrastructure that is functionally obsolete or in various states of disrepair. Too often systems and space utilization are not in conformance with the original design intent and there are serious violations of codes and standards. Some important areas to assess include physical condition of building systems and components, energy conservation, indoor environmental quality, waste minimization, space utilization and layout, ergonomic factors and maintenance.

Making informed decisions

As a facility or property manager, you have sufficient knowledge in areas that impact the performance

of the buildings that you presently use or plan to purchase, improve, lease, construct, renovate or remodel. In order to perform your job well you need certain information about buildings and properties as they impact the people, processes and technologies that they support.

It is imperative to establish facility performance requirements and standards, and to conduct systematic performance evaluations of facilities and properties. The basic purpose for conducting evaluations is to obtain information needed to make informed decisions and identify any improvements to the building or property that may be necessary. The quality of decisions that facility managers make is directly related to the quality of information available to them.

What is benchmarking?

It is only through constant evaluation that things can be improved. Benchmarking is a continual process that involves measuring current business operations and comparing them with codes and regulations, internal standards, performance levels of your toughest competitors or leaders in any industry performing similar functions. Managers also need information about the total performance of their facilities to determine whether they are in conformance with requirements of owners, users and outside regulatory bodies.

The data points collected from the benchmarking process are invaluable in identifying company strengths and weaknesses and uncovering alternative practices and processes which could

lead to a competitive advantage. Those interested in using a property, whether leased or owned, to plan projects, improve occupant health, comfort and safety, better serve customers and increase productivity and bottom-line profitability must conduct ongoing evaluations of their facilities and real estate assets.

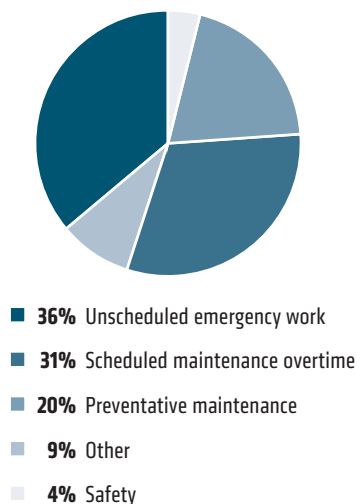
You must first know your facility requirements in order to meet them. There are about as many different types of facility evaluations as there are facility-related items to manage. Think about the key areas of facility management that are your responsibility. Responsibilities may include real estate acquisition and disposal, space management, budget management, maintenance and operations, worker comfort and productivity, environmental control, energy conservation and sustainability, code compliance and life safety, waste disposal, security and project management.

Standards must be developed for each key facility management area against which performance can be measured. It is strongly recommended that facility managers systematically and routinely compare observed performance and measured performance with criteria and standards. Development of standards will enable you to evaluate alternatives, decide whether improvements are needed and measure progress toward meeting the objectives.

If you can't measure, you can't manage

If you are to improve something you must first be able to measure or count it. You must first determine what performance criteria (output) to measure and then establish what variables to measure that impact performance. The output might be air or water flow rates, temperature, humidity, dust or contaminant count, space or equipment usage or repairs (machine downtime hours and costs). For example, measuring the effect of temperature and humidity adherence on performance might lead to acceptance of less stringent temperature and humidity criteria or identify the importance of improved

Maintenance costs as a percentage of replacement costs



heating, ventilation, air conditioning and humidity controls. Instruments may be used to record temperature, humidity, static pressure, fan speeds, air quantities and power usage.

Benchmarks must also be established for operating cost and environmental performance standards. The benchmarking process helps identify facility problems that require a design solution. Benchmarks define owner objectives, priorities and design criteria for facility development projects. Competitive success mandates that businesses continually benchmark the performance of their facility assets and strategically invest in them to maximize return on investment. Today's resource-constrained, highly competitive business environment, combined with increasing government regulations, business transparency, rapidly emerging technologies and new management methods, forces owners and managers of facilities and properties to continually improve the return on assets or run the risk of becoming irrelevant and functionally obsolete.

Evaluations can be broad or narrow

Building evaluations can be broad, such as a comprehensive pre-acquisition survey or post-occupancy evaluation of total building performance. Some audits can be narrow in scope and may

focus on specific performance attributes such as code compliance, indoor air quality, energy efficiency, operating cost reduction, user satisfaction, comfort and productivity, space utilization and workflow. Studies often are required to establish the condition and life expectancy of existing building systems to determine the financial reserves necessary to maintain the systems properly and to meet planned needs. Code compliance issues and performance standards must be considered.

Building code regulations make owners and operators responsible for the safe and sanitary maintenance of their facilities at all times. If a building inspector approved or overlooked a building defect or code violation, it does not mean that you are off the hook. As a result, some lawyers recommend periodic performance evaluations of occupied buildings to determine code compliance and guard against potential claims from people who may blame building mismanagement for their physical or psychological health problems. Owners and operators are being asked if they did everything reasonably possible to prevent alleged occurrences.

Building codes and government regulations mandate the minimum requirements and standards for public health and safety. An emerging code compliance issue today is meeting energy conservation codes, measuring usage and disclosing actual energy consumed in buildings to the public. Besides complying with the local municipal energy code, consider voluntary energy standards developed by industry organizations which may exceed the mandatory requirements identified in building codes and government regulations.

In addition to indoor air quality issues, consideration should be given to thermal comfort, illumination, acoustics, architectural and interior design, and ergonomic issues as they relate to occupant and public health, safety, morale and productivity. There are numerous legal and quasi-legal organizations devoted to

developing standards for building system performance. IFMA researches critical performance qualities and publishes the results of benchmarking surveys of buildings serving a variety of market sectors. You must decide which standards you will establish to compare and measure the performance of your facilities before you fund a building project.

Value engineering studies to develop new performance standards

The term evaluation contains a form of the word value. Value engineering analysis can be employed as a tool for facility cost reduction and development of building performance standards. Value engineering studies are necessary to assure that facilities are designed, constructed and operated in the most economical way, taking into consideration life cycle costs. The approach is to examine the systems and components with the greatest expenditures, to challenge the costs and functions and compare them with alternatives on a cost/benefit basis. Systematic evaluation of buildings and properties, development of performance criteria or standards will lead directly to significant improvements.

Before you plan the requirements for a new facility project you need to be

aware of problems, bottlenecks and inefficiencies with respect to your current facilities and operations so they are not repeated. Collect data and develop facility management metrics to identify gaps between current and desirable conditions:

- Identify what is to be benchmarked
- Identify standards to be adopted
- Determine data collection method and collect data
- Determine current performance variance
- Develop action plan for future

Let your specific objectives drive the benchmarking study. Is your objective to:

- Reduce costs?
- Move products in and out of the plant more quickly?
- Comply with codes?
- Improve occupant morale, comfort and productivity?
- Justify or determine departmental budgets?
- Increase the efficiency and effectiveness of FM?
- Determine if you are spending money intelligently?
- Reinforce capital expenditure needs and scheduling?
- Attract customers and improve overall customer satisfaction?

Facility management is a balancing act. As organizations audit their facility costs, they may find a sizeable amount of money spent with little management control. Ongoing evaluation of your facility operations and its contribution to your business objectives is a management function that you cannot afford to overlook. **FMJ**




Richard W. Sievert, Ph.D. is a professor at Drexel University in Philadelphia, Pennsylvania, USA. He teaches classes in facilities and property management,

value engineering, project management, design as a competitive edge, building systems and contracts and specifications.

As president of The Sievert Group, Inc., Sievert has spent approximately 30 years helping commercial and industrial businesses plan, design, build and maintain facilities. He has a doctorate in engineering specializing in project management from Northwestern University and is author of Total Productive Facilities Management published by RSMans.

Sievert's certifications include Certified Facility Manager®, Project Management Professional, Certified Value Specialist and Certified Cost Professional. He may be reached at rsievert@sievertgroup.com.



CERTIFIED ROOFING SPECIALISTS, INC

DURO-LAST® WILL PUT AN END TO LEAKS

The Duro-Last roofing system is:

- A roofing industry leader since 1978
- A complete, prefabricated roofing system
- Ideal for any flat or low-sloped application
- Energy-efficient
- Installed safely and cleanly
- Protected by the best warranties in the roofing industry



© Duro-Last Roofing, Inc.

"Duro-Last" and "The World's Best Roof" are registered marks owned by Duro-Last Roofing, Inc.





ROOFING SPECIALISTS, INC.

3440 NW 25th Avenue
Pompano Beach, FL 33069
certifiedcontractinggroup.com

D A M A G E D S T E E L D O O R S :

REPAIR OR REPLACE?

BY JEFF WHERRY

At this very moment, hospital doors are being assaulted by fast-moving gurneys; backpack-wielding kids are jump-kicking an exit device in their haste to leave campus and cleaning crews are wedging a broom handle between the door and its frame to prop it open.

Buying new doors can really put a dent in a facility manager's limited budget. Fortunately, steel doors can often be repaired rather than replaced. But not all repairs make financial sense — if your maintenance person would have to spend four hours on a repair, it may be better to just purchase a new door.

The following are a few guidelines to help you determine whether doors should be repaired or replaced in your facilities.

Diagnosis: Replace

A properly set steel frame undergoing normal use will stand the test of time. However, there are certain circumstances you should look for in regard to the opening.

Door frame no longer square

When you have an older building and the frame is no longer plumb, level and square, you are better off replacing the door and frame. If you were to just replace the door and keep the existing frame you could leave yourself open to issues such as undue stress on hinges (called “hinge bind”), improper clearances for fire-rated openings and improperly fitting and operating hardware.

Compromised core

Back to the hospital example: if a gurney or crash cart repeatedly slams into a steel door, it can damage the door enough to harm the core. No matter the cause, once the core is compromised it jeopardizes the integrity of the door and the door must be replaced.

Delamination

Another situation in which you’ll need to replace the door is if it is showing signs of delamination — perhaps due to water damage or harsh environments. Once a door is flimsy and has lost its rigidity it should be replaced.

You can test this by trying to twist the door vertically by setting your foot at the base of the door on the lock stile side and attempting to pull the top of the door toward you. If it moves more than a quarter to three-eighths of an inch, there is a good chance your core is delaminated.

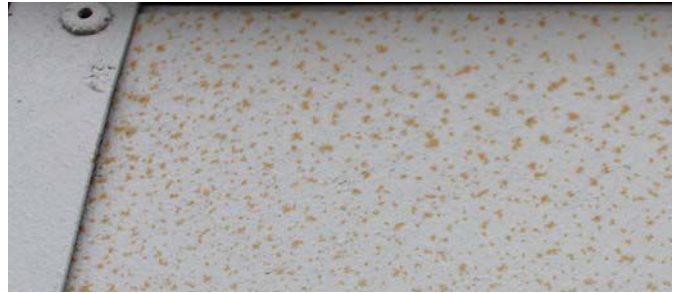
Rust damage

Rust generally starts inside the door. Once you see rust on the exterior of the door, the core has been compromised — it’s too late; the door will need to be replaced.

If your door’s demise is due to rust, you should consider replacing it with a galvanized coated door. This iron-zinc coating prevents corrosion by acting as a barrier between the steel and moisture. The galvanized coating in today’s doors are on the outside and inside of the door, greatly increasing the life cycle of the door in regard to rust intrusion.

Vandalism

Doors subjected to vandalism or forced entry typically need to be replaced; that kind of force often leads to a compromised core, damaged edges and more. It very well may also affect the door frame, given the amount of pressure required to force open a locked steel door. When repairing due to vandalism or forced entry, be careful to review all areas of the opening, not just the area of compromise.



^ Rust generally forms on a door from the inside out. Once you see rust on the outside of a door then the core has been compromised.



^ Dented doors, like the one pictured, can simply be bondoed, sanded and painted to look like new again.



^ Institute a “no brooms as door stops” policy and your hinges will last much longer.

A PROPERLY SET STEEL FRAME UNDERGOING NORMAL USE WILL STAND THE TEST OF TIME.

Can the opening be improved?

Remember the expression, insanity is doing the same thing over and over again and expecting different results? Rather than replacing your doors with the exact same product, consider if another door would be better suited for that opening. In instances of vandalism or abuse, perhaps a heavier-gauge steel door should be purchased instead. While the upfront cost may be higher, the return on investment of the door may be better because it will last so much longer.

Since you are reading Facility Management Journal, you likely keep your facilities up-to-date in an effective and cost-efficient manner. Replacing doors gives you an opportunity to do just that. You'll want to ask yourself, "Is this the optimum door assembly for this opening?"

For example, openings in hospitals and businesses frequently require badges to move throughout the building. Due to the expense of electronic locks, they are often only added to select doors at first while the remainder stay with their existing manual locks. This is inconvenient to those who must carry badges and a set of keys. If doors and hardware with manual locks have to be replaced, it presents a great opportunity to upgrade to electronic locks.

Diagnosis: Repair

A major benefit of steel doors is their reworkability — they can be welded, ground and patched. This means that repairs can often be made relatively inexpensively and usually in the field. Here are a few instances in which you can save money by repairing the door instead of replacing it.

Hinge damage

Earlier we referenced cleaning crews jamming broomstick or mop handles into the doors to prop them open. That places a lot of stress on the top hinge and can eventually compromise or even break the weld points of the hinge reinforcements. This results in a sagging, improperly gapped door, or worse yet, an inoperable opening.

The first thing you should do is let the cleaners know you have a "no broom sticks as door stops" rule. Then with the help of some basic welding skills, the door can be repaired in about an hour by doing the following*:

- Remove the door and the hinge attached to the reinforcement
- Drill welding holes in the area where the hinge reinforcement sits
- Clamp or hold the hinge reinforcement in the original place and plug weld
- Grind smooth, prime, paint and rehang

**Be sure to check with the local authority with jurisdiction when repairing or reworking fire labeled openings to ensure that the repairs will not jeopardize the underwriting.*

Patching holes

One of the nicest things about steel — besides its sturdiness and longevity — is that if the door is impacted in a way that causes a hole to develop, because steel is so pliable, you may easily weld a patch over the hole in the door.

Be sure to pay attention to any fire-rated concerns and procedures when considering patching or filling holes and always defer to the local authority with jurisdiction or the

National Fire Protection Association if you are based in the United States.

Dents

When the damage is just a dent and hasn't penetrated through the outer layer of the door, you can apply bondo, sand and paint the door. More often than not, no one will be able to tell that it has been repaired.

Other types of doors

The repair options listed above are largely unavailable with wood, aluminum and fiberglass doors. When subject to extreme force, fiberglass will shatter rather than dent. Aluminum has a higher tensile surface strength so that it's very difficult to repair in the workshop, let alone out in the field. On a wood door, if the veneer is damaged down to the substrate it too cannot be repaired.

Fortunately, most steel door repairs can be performed in the field with basic equipment and expertise. Keep that in mind the next time you see a kid jump kick your door — you may just cringe a little less. **FMJ**



Jeff Wherry has held the position of managing director of the Steel Door Institute (SDI) for more than two decades.

An expert on all aspects of the steel door industry, Wherry has overseen the development of SDI's steel door and frames standards that are used for millions of buildings in the United States. He also oversees the audit that confirms SDI member manufacturers abide by these standards, ensuring facility managers receive a product that is consistent and well-constructed.



Credentials

The following people were awarded the Certified Facility Manager® (CFM®) certification in **MARCH 2014:**

Lee Wright, CFM
SLCDA
West Jordan, Utah

Heather Otero, CFM
Jones Lang LaSalle
Worcester, Mass.

Brett Crozier, CFM
Parsons Corp.
Alexandria, Va.

Samantha James, CFM
USIS
Leesburg, Va.

Richard Houghton, CFM
U.S. Air Force
Barksdale AFB, La.

Steven Ford, CFM
Air National Guard
Churchton, Md.

Dennis Hunt, CFM
CBRE
Woonsocket, R.I.

Robyn French, CFM
Lillibridge Healthcare Services Inc.
Westfield, Ind.

Gerry Tyler, CFM
Santa Fe, N.M.

Adam Smith, CFM
Los Alamos National Laboratory
Santa Fe, N.M.

Russell Narkie, CFM, FMP
City of Charlottesville
Palmyra, Va.

Amy Distefano, CFM
CBRE
Groveland, Fla.

Nicolas Acay, CFM
HDR EOC
Austin, Texas

Bradford Buckman, CFM
U.S. Air Force
Minot AFB, N.D.

The following people were awarded the Sustainability Facility Professional™ (SFP™) designation:

Troy Schlichting, FMP, SFP
Arapahoe Douglas Mental Health Network
Aurora, Colo.

Adam Nasr, CFM, SFP
Matawan-Aberdeen Regional School District
Barnegat, N.J.

Jacque Martinez, FMP, SFP
HOK Inc.
Toronto, ON, Canada

Cristian Fuente, SFP
Alliance Bernstein L.P.
River Edge, N.J.

Joshua Argast, FMP, SFP
Ameren Missouri
St. Louis, Mo.

Bret Reinthaler, CFM, SFP
State Farm Insurance Companies
Heyworth, Ill.

Muhammad Tuskheer Sohail Abid, FMP, SFP
EMCOR Saudi Arabia
Karachi, Pakistan

The following people were awarded the Facility Management Professional® (FMP®) designation:

Jason Renaud, FMP
Carillion Canada Inc.
Ottawa, ON, Canada

Loic Boyer, FMP
Vanier College
Sainte-Marthe-sur-le-Lac, QC, Canada

Ghulam Ismail, FMP
Gate Gourmet Canada
Surrey, BC, Canada

Emil Kiriakos, FMP
Credit Valley Hospital
Oakville, ON, Canada

Segun Akinyemi, FMP
International Facilities Services Ltd.
Lagos, Nigeria

Patricia Craven, FMP
Philadelphia Federal Credit Union
Cherry Hill, N.J.

Doug Kenwood, FMP
County of Berks, Pa.
Collegeville, Pa.

Byron Mau, FMP
Oracle
San Mateo, Calif.

Paul Porteous, FMP
Sodexo Canada
Mt. Hope, ON, Canada

Lisa Ranger, FMP
Sodexo
Saint-Hippolyte, QC, Canada

Christine Deschenes, FMP
Commercial Cleaning Services
Etobicoke, ON, Canada

Martin Stevens, FMP
EFS Facilities Services
Dubai, United Arab Emirates

Joe Stover, FMP
City of Thornton
Hudson, Colo.

Daniel Nichols, FMP
American Society for Quality
Franklin, Wis.

Xiaoshan Wang, FMP
Biochain Institute Inc.
Newark, Calif.

Anwar Almaghribi, FMP
Glendale, Ariz.

Roger Evans, FMP
Littleton, Colo.

Kira Mass, FMP
Federal Realty Investment Trust
Rockville, Md.

Patrick Dermeyer, FMP
Summit Pointe
Marshall, Mich.

Jack Ballatore, FMP
Foursite Consulting LLC
Chandler, Ariz.

Shawn Thompson, FMP
Lutheran Social Ministries of N.J.
Lawnside, N.J.

Brian Crume, FMP
Oracle
Redwood Shores, Calif.

Brian Tupper, FMP
San Mateo Community College District
Redwood City, Calif.

Eddie Huckaby, FMP
Bard Medical
Covington, Ga.

Satinder Singh, FMP
EFS Facilities Services
Dubai, United Arab Emirates

Lawrence Bray, FMP
Oracle
Redwood City, Calif.

Paul Prangikos, FMP
Region of Peel
Aurora, ON, Canada

Mark Jordan, FMP
Shoreline Community Church
Shoreline, Wash.

Scott Tyner, FMP
Durham Regional Police Service
Brooklin, ON, Canada

Pam McQuillen, FMP
Penn West
Calgary, AB, Canada

Cyril E. Bonia, FMP
Johnson Inc.
St. John's, NL, Canada

Anne Lau, FMP
CB Richard Ellis
Singapore

Mahmoud Mawed, FMP
EMCOR
Dubai, United Arab Emirates

Lorna Anschuetz, FMP
WellPoint Inc.
Dousman, Wis.

Christian Kane, FMP
Lockheed Martin Corp.
Havertown, Pa.

Jeromy Houser, FMP
HCPCI Holdings LLC
Trinity, Fla.

Mark Pietrone, FMP
Pittsburgh, Pa.

Brian Raddenbach, FMP
Ifb
Bloomington, Ill.

Nick Kennedy, FMP
Ifb
Bloomington, Ill.

Eric Brown, FMP
Washington Metropolitan Area Transit Authority
Washington, D.C.

Dhaval Gajjar, FMP
ASU - PBSRG
Mesa, Ariz.

Brian Degrafenread, FMP
PRIDE Industries
Leesville, La.

Russell Harper, FMP
Arizona State University
Tempe, Ariz.

Andrew Paul, FMP
Cimarex Energy Co.
Broken Arrow, Okla.

Mark LeCorno, FMP
CBRE
Sewickley, Pa.

Jimison Clark, FMP
OCC
Fort Worth, Texas

Rich Oster, FMP
Ohio Department of Transportation
Cambridge, Ohio

Sally Aitana, FMP
Johnson Controls
Littleborough, Greater Manchester, England

Want to see your name here?

Visit <http://www.ifma.org/professional-development> to find out how.

Credentials



IFMATM
International Facility Management Association
Empowering Facility Professionals Worldwide

The following people were awarded the Certified Facility Manager® (CFM®) certification in **APRIL 2014:**

- | | | | | | |
|--|---|---|---|---|---|
| Todd Greenfield, CFM Sudbury, Mass. | Steven Early, FMP, CFM National Hospice & Palliative Care Organization Arlington, Va. | Joyce Strait, CFM Strait Design Studio Baltimore, Ohio | Dana Marro, CFM Atria Senior Living Inc. Buxton, Maine | Ray Robichaud, CFM University of Calgary Cochrane, AB, Canada | David Schleiff, CFM Caledonia, Ill. |
| Michael Sherman, CFM Wheatridge, Colo. | Darrell Reynard, CFM Simi Valley, Calif. | Chuck Johnson, CFM Eden Prairie, Minn. | Kyle Ensley, CFM USCG Warwick, R.I. | James Eaton, FMP, CFM HDR Environmental, Operations & Construction Inc. Niceville, Fla. | Michael Cara, CFM Dan Sims Concrete Construction Ennismore, ON, Canada |

The following people were awarded the Sustainability Facility Professional™ (SFP™) designation:

- | | | | | | |
|--|--|--|--|---|---|
| Edward Schroeder, FMP, SFP University of Colorado Arvada, Colo. | Lance Marbut, SFP Bureau of Reclamation Henderson, Nev. | Henry Anderson, FMP, SFP University of Houston Friendswood, Texas | Najwa Makhoul, SFP EFS Facilities Services Thuwal, Saudi Arabia | John Gedvilas, SFP NREL Golden, Colo. | Ghulam Ismail, FMP, SFP Tax Appeal Tribunal Surrey, BC, Canada |
| Dale Kenney, SFP CBRE Seattle, Wash. | Pat Sanchez, SFP University of Houston Spring, Texas | Paul Doughty, CFM, SFP Pinnacle Assurance Brighton, Colo. | Lorraine Ungano, CFM, SFP Sodexo New Jersey, N.J. | Joseph Williams, SFP Express Scripts Mason, Ohio | Thomas Budd, FMP, SFP CBRE Frederick, Md. |
| Kamarica Humphrey, FMP, SFP U.S. Dept. of Agriculture Laurel, Md. | Kathy Krautsieder, SFP Ethicon Inc. Bergenfield, N.J. | | Mark Adam, CFM, SFP RB Bridgewater, N.J. | Amjad Alata, SFP Farnek Services LLC Dubai, United Arab Emirates | |

The following people were awarded the Facility Management Professional® (FMP®) designation:

- | | | | | |
|---|---|---|--|---|
| Carl Bousquet, FMP Sodexo Montréal, QC, Canada | Darren O'Connor, FMP City of Ottawa Stittsville, ON, Canada | Ola Muniak, FMP Hines Industrial Site Services Group Surrey, BC, Canada | William Goodrich, FMP Four Winds Casino Resort Buchanan, Mich. | Ahmed Talaat, FMP Maf Contracting & Integrated Business Cairo, Egypt |
| Bryan Glatfelter, FMP Fulton Financial Corp. Lancaster, Pa. | Chun Pan "Justin" Poon, FMP Hong Kong Housing Society Yuen Long, Hong Kong, China | Horia Petrusan, FMP Newmarket, ON, Canada | Eugene Foval, FMP City of South Jordan Riverton, Utah | Awwal Abubakar, FMP Corporate Affairs Commission Abuja, Nigeria |
| Keino Williams, FMP ACE Bermuda Hamilton, Bermuda | Stanley Ndabai, FMP Ndabai Stanley & Co. Lagos, Nigeria | Adam Wilkes, FMP Conestoga College Newmarket, ON, Canada | Danny Ripinger, FMP Summit Pointe Battle Creek, Mich. | Sanni Oseni Zuwedu, FMP SPDC Ltd. Abuja, Nigeria |
| Sharfraz Shah, FMP University of Science & Technology Pune, India | Julianah Deinkoru, FMP Shell Petroleum Development Co. of Nigeria Port Harcourt, Nigeria | Khalid Bahjatt, FMP Thunderbird School of Global Management Jeddah, Saudi Arabia | Timothy Beougher, FMP Mast Global Logistics Pataskala, Ohio | Bala Musa, FMP Tax Appeal Tribunal Abuja, Nigeria |
| Alexandra Walker, FMP Johnson Controls Edinburgh, Scotland | Steve Becker, FMP Vadnais Heights, Minn. | Phillips Tharakan, FMP Johnson Controls Dubai, United Arab Emirates | Lesley Turner, FMP Oracle America Inc. Grand Prairie, Texas | Timothy Minner, FMP Architect of the Capitol Woodford, Va. |
| Anneliesa Frankenstein, FMP Seattle Goodwill Seattle, Wash. | Nicholas Stalter, FMP City of Casa Grande Casa Grande, Ariz. | John Groh, FMP Baltimore Country Club Lutherville, Md. | Bryan Maniff, FMP Benchmark Senior Living Nashua, N.H. | Robert Shafer, FMP KMB Facility Management Vista, Calif. |
| Adam Whiting, FMP Sodexo Troy, Ala. | David Goudebeck, FMP Total Comfort Solutions Spartanburg, S.C. | Stanley Sanders, FMP Cushman & Wakefield Clinton, Miss. | Matt Shelton, FMP Citrix Systems Raleigh, N.C. | Todd Miller, FMP University School of Milwaukee River Hills, Wis. |
| Thomas Wertalik, FMP Virginia Tech Blacksburg, Va. | Walton Mew, FMP Time Warner Cable Honolulu, Hawaii | Christine Putman, FMP Kaiser Permanente Brentwood, Calif. | J. Ward Martaindale, FMP University of Houston, Clear Lake Houston, Texas | Christopher Del Carlo, FMP PRIDE Industries Roseville, Calif. |
| Brett Seibel, FMP Denver Broncos Thornton, Colo. | Brian Dudley, FMP United Network of Organ Sharing Sandston, Va. | Rafael Gonzalez, FMP TRC Environmental Anaheim, Calif. | David Vinciguerra, FMP Sodexo Langhorne, Pa. | Charles Haas, Jr., FMP Sallie Mae Inc. Blanchester, Ohio |
| Gary Griffin, FMP JLL Anderson, Ind. | Ian Trumbore, FMP Fairfax County Public Schools Dumfries, Va. | Debra Bentulan, FMP Mitsubishi International Corp. Bronx, N.Y. | Patrick Hill, FMP Bingham Academy Blacksburg, Va. | Craig Strasen, FMP Jones Lang LaSalle Americas Inc. Baton Rouge, La. |
| Julio Castillo, FMP Oracle Sunnyvale, Calif. | Mark Falter, Jr., FMP Muhlenberg Township Reading, Pa. | Mark Pollock, FMP GEICO Virginia Beach, Va. | Tim Desotelle, FMP Goodwill SEW Milwaukee, Wis. | Anthony Bullock, FMP Marshfield, Mass. |
| James Garza, FMP Pearson Grove City, Ohio | Daniel Lee, FMP PRIDE Industries Leesville, La. | Randy Nero, FMP Los Angeles World Airports Compton, Calif. | Michael Tkac, FMP EXELIS Morganton, N.C. | Kevin Kamzelski, FMP Colorcon Inc. Boyetown, Pa. |
| Keith Roberts, FMP Ellis County Building Maintenance Italy, Texas | Chad McKee, FMP PRIDE Industries Pitkin, La. | Leo Dixon, FMP Duke Realty Aqasco, Md. | Michael Manzanera, FMP Palmetto Dunes POA Bluffton, S.C. | Sean Horton, FMP The Santaluz Club San Diego, Calif. |
| Pamela Hamilton, FMP Fairfax County Jefferson, Va. | Kristen Neher, FMP Pearson San Tan Valley, Ariz. | Brian Wood, FMP Brandywine Creek Dorr, Mich. | Mark Faria, FMP Allied Properties Reit Mississauga, ON, Canada | Soloman Guerrero, FMP Dickinson, Texas |
| Joseph Catillo, FMP Leapfrog Hotels Chester Springs, Pa. | Joel Wilhelm, FMP Fairfax County Government Midland, Va. | Sergei Mandrykin, FMP Baltimore Country Club Reisterstown, Md. | Luke Braaten, FMP United Heartland West Allis, Wis. | Mark Sowers, FMP CBRE Apollo, Pa. |
| Gregory Kompelen, FMP San Jose, Calif. | Jim Bratcher, FMP Los Angeles Golf & Country Club Los Alamitos, Calif. | Brad Barncord, FMP The Villages Golf & Country Club Morgan Hill, Calif. | Nathalie Razzouk, FMP New York, N.Y. | Andrew Baxter, FMP Pasco County Holiday, Fla. |
| Lionel Tetreault, FMP Time Warner Cable Kailua, Hawaii | Levi Tabaniera, FMP EMCOR Facilities Services Cabanatuan, Philippines | Michael Mitchell, FMP Forsyth School St. Louis, Mo. | Patti Ghuman, FMP Canadian Blood Services Georgetown, ON, Canada | |
| Rabija Hadzuvukovic, FMP Ontario Power Authority Mississauga, ON, Canada | John Oosterwal, FMP London Hunt & Country Club Ailsa Craig, ON, Canada | Daniel Germond, FMP Sypris Electronics Zephyrhills, Fla. | Stephanie Schweimnitz, FMP Gsn Property Services Hangzhou, China | |
| Patty Daggett, FMP Apache Canada Calgary, AB, Canada | | Page Engle, FMP Vanguard Pottstown, Pa. | | |



AIR CURTAIN OPTIONS OFFER FLEXIBILITY

A leading manufacturer and innovator of air curtains has added single-length seven-, eight-, nine- and 10-foot-long models to its ANSI/NSF 37-certified air curtains designed for energy savings and flying insect control.

The EZN and KZN Series are now available in nine widths ranging from three to 10 feet, which eliminates the inconvenience and mismatches of combining smaller sizes to create a longer air curtain. Each new model uses the same aesthetic cabinet design with the industry's smallest profile.

The additional lengths now make the series the most competitively priced, unheated, single-speed models in the foodservice, dock-and-door and HVAC/R industries and are suitable for walk-in coolers, pass-through windows, concession windows, patio openings, service/customer entry doors and other doorways that need environmental control.

Each model is a single one-piece design with blower and nozzle coverage that extends the entire length of the unit without the need for intermediate support, thus reducing installation time and costs.

Multiple air directional vanes constructed of strong heavy-gauge aluminum assure proper deflection and airflow to the outdoor threshold. A universal mounting system offers simple installation with flexible choices using a wall mounting plate for horizontal or vertical mounting, or integrated threaded inserts for vertical rod suspension. The series also offers custom colors in durable power-coat finishes with optional corrosion-resistant stainless steel construction.

Navigate to www.berner.com for more information on air curtain products.

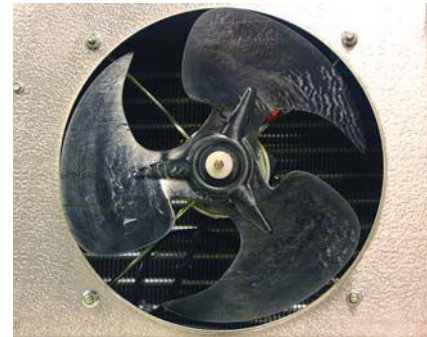
EVAPORATOR MOTOR FAN BLADES COMBINE TENSILE STRENGTH WITH LIGHTWEIGHT DESIGN

A leading provider of energy-efficient commercial refrigeration solutions has launched new evaporator motor fan blades which will enable enterprise clients with refrigeration units to save money on their utility bills.

A dramatic improvement from aluminum and plastic blades commonly used in refrigeration systems, the carbon fiber Q12 and Q10 evaporator motor fan blades are engineered to significantly reduce energy consumption. When installed in conjunction with the FridgeWize EC evaporator fan motor, the combination sets new industry standards in energy efficiency worldwide.

In third-party testing and pilot programs with leading fast-food chains and large-scale liquor stores, these fan blades reduced EC motor energy consumption by up to 50 percent, resulting in 15 percent additional savings to the refrigeration component of a utility bill.

Q12 and Q10 evaporator motor fan blade characteristics:



- 935 percent stronger than aluminum blades (aluminum evaporator motor fan blades have tensile strength of approximately 20,000 PSI, compared to FridgeWize fan blades' 207,000 PSI)
- Teardrop shape and thin, lightweight design maximizes efficiency
- Made from carbon fiber composite to always maintain shape
- Cannot rust to motor shaft, preserving equipment
- Payback period of less than two years
- Include 10-year warranty

For more on evaporator motor fan blades, navigate to www.fridgewize.com.

READY, SET...ZEGO!

With high-end quality and design, the versatile Zego flip/nest chair offers best-in-class design, comfort and quality at an attractive price.

The simple, timeless aesthetic complements a wide range of interior designs. The breathable, premium mesh back provides a responsive flexing action to enhance comfort, especially during long meetings or training sessions. Light and mobile, this chair zips into place when needed, then nests snugly when not in use for compact, space-saving storage.

Attention to detail is evident in the beautiful fit and finish, and in touches like the seat's smooth

underside that maintains the clean, sleek look of the chair when nested for storage. The chair comes standard with nylon casters, full armrests and a fully upholstered seat. It is offered in a selection of upholstery options and two frame colors and embodies superior style, comfort and versatility which set it apart from other models. Zego offers the best price for value available in a multi-use chair designed for a wide array of applications.

For more information on Trendway, visit www.trendway.com.



NEW HEATLESS TECHNOLOGY DRIES HANDS USING ONLY 500 WATTS



There's a new high-powered hand dryer on the market, and it's gentle on the environment as well as your budget. The XLERATOReco® uses "no heat" technology to dry hands in 15 seconds using only 500 watts, making a highly energy-efficient and environmentally friendly hand dryer. This cost-effective option has the same proven performance, reliability and durability as other products in Excel Dryer's range.

The eco dryer sets another new industry standard in green innovation and sustainability. Drawing four and a half amps or less, multiple units can be installed on one circuit, which significantly reduces installation time and costs. This dryer represents more than 95 percent in cost savings versus paper towels and eliminates their labor, maintenance and waste while creating a more hygienic restroom environment. Additionally, it significantly reduces a facility's carbon footprint, helping facilities qualify for several LEED® v4 credits and Green Globes to achieve corporate or government sustainability goals.

It has the option to be ordered with a noise reduction nozzle or a HEPA filtration system that removes 99.97 percent of bacteria and particles at 0.3 microns from the air stream and is the only one with a washable metal mesh pre-filter for reliable performance and extended filter life. It is also available with a complete line of optional accessories including an adjustable speed and sound control for sound-sensitive areas, an Americans with Disabilities Act-compliant recess kit and paper towel dispenser retrofit kit, anti-microbial wall guards and custom digital image covers.

You can find this and other Excel Dryer products online at exceldryer.com.

POWER MONITORING MADE EASY

The new APN-R Series Power Monitor measures the power usage of a single piece of equipment, an extensive machine system, an area of a plant or an entire facility. It is equally suited for large-scale plant energy management applications, as well as specific equipment monitoring tasks, such as detecting conveyor jams and overloads, or identifying dry-running pumps caused by clogged intake or discharge lines, impeller cavitation or bearing wear.

The APN-R is factory configured with flexible coils to measure the load current. The line voltage (up to 600 VAC) connects directly to the transducer; no potential transformer is needed unless the line voltage exceeds 600 volts. Easy installation over multiple conductors or bus assemblies speeds installation and produces an accurate set of data that will identify areas of excessive energy consumption and allow intervention to reduce demand.



The APN-R measures three phases of current and voltage and computes values necessary to track power usage. The monitor's digital format provides information on the system voltage, current and power factor in addition to wattage. The monitor fits seamlessly into industrial communications networks, both hard-wired and wireless. The output reduces the cost involved with proprietary data logging software and is compatible with most automation systems. There is also a pulse contact which opens and closes as watt hours are accumulated.

Learn more at the NK Technologies website: www.nktechnologies.com.

PREFABRICATED BCHS PLATES ALLOW SAFER INSTALLATIONS OF HANGING BOXES

Prefabricated box and conduit hanger support (BCHS) plates allow safer installation of hanging boxes and are more time-efficient.

Orbit's popular Pre-Fab Plates are based on a contractor's idea and permit the installer to pre-assemble the plate, box and conduit before hanging. This reduces time spent on a ladder and allows the installer to complete the job in less time. No cutting is required, and pin holes and slots allow for the use of conduit straps.

The newly expanded line includes configurations for larger boxes and horizontal and vertical mountings. All plates have stamped markings that provide installation guidelines.

Model 6S can be installed with one-hole straps, rather than costly pipe hangers. The support brackets require only one rod and are self-reinforcing as more conduit is added. Orbit's pre-fab plate models include:

- BCHS-6, which fits up to 6" x 6" boxes and has bent tabs for vertical mounting;
- BCHS-6S, with flanges for use with one-hole straps. Fits up to 6" x 6" boxes and has bent tabs for vertical mounting;
- BCHS-10, a cost-effective solution that fits up to 6" x 6" boxes;
- BCHS-12, which fits up to 12" x 12" boxes and has bent tabs for vertical mounting.

Among the company's recent introductions are adjustable and pop-up floor boxes, easy access lighting boxes, multi-box hangers, ultimate support bracket systems, adjustable rings and more.

More information about Orbit pre-fab plates can be seen at www.orbitelectric.com.



FM-nomics —
economic stimulus
through Deals & Discounts

Connect
to **FM Deals**
& **Discounts!**

Available exclusively
to IFMA members!

Special offers, discounts and incentives on top products and services from IFMA's Corporate Sustaining Partners. Connect directly to participating CSPs through the FM Deals & Discounts link on www.ifma.org under "Marketplace/Deals & Discounts."




**THERMAL
REMEDICATION**
FROM TEMP-AIR

**BED BUG HEAT
TREATMENT EQUIPMENT
MADE IN THE USA**



(800) 836-7432
www.Thermal-Remediation.com

**#1 Solution for
Real Estate, Infrastructure,
and Facilities Management
in the World**



- Mobile Framework
- Performance Metrics
 - BIM 4.0
- Geospatial Extensions
- Workplace Services
- Home Page Navigation
- Quick Start Methodology
- Environmental & Risk Management
 - Space & Occupancy
 - On Demand/PM
 - Lease Administration
 - ...and much more.




ARCHIBUS, Inc.
Boston, MA USA
Tel: 1 617-227-2508
www.archibus.com

Looking for a job in
facility management?

Looking for qualified
facility managers?


IFMA's
JOBnet
is the go-to
resource
for your
FM career!
Go online
today to post
resumes and/or
job openings.

jobnet.ifma.org



TEMP-COOL
PORTABLE COOLING SYSTEMS

**INDUSTRIAL PORTABLE
AIR CONDITIONERS
MADE IN THE USA**



(800) 836-7432
www.Temp-Cool.com

**IFMA's FM
BUYER'S
GUIDE
ONLINE**

IFMA's 24/7 Web database will narrow your online search, connecting you to the facility solutions you need *FASTER*.

WHEN SEARCHING
FOR FM PRODUCTS,
SERVICES, AND
LOCAL IFMA
MEMBERS
TURN YOUR
SEARCH into FIND.



www.onlinefmguide.com

ADVERTISER INDEX

Companies in **BOLD ITALIC** are IFMA Corporate Sustaining Partners.



| | | | |
|--|--------------|-----------------------|---|
| ACOUSTICAL/SOUND MASKING | | | |
| <i>Cambridge Sound Management</i> | 7 | 1-800-219-8199 | <i>www.csmqt.com/hero</i> |
| BUILDING MAINTENANCE/SUPPLIES | | | |
| <i>Lowe's Companies, Inc.</i> | 91 | | <i>www.lowesforpros.com</i> |
| FM CONSULTANTS/SERVICES/PROVIDERS | | | |
| ARAMARK | 5 | 1-800-901-7373 | <i>www.aramarkfacilities.com</i> |
| <i>Sodexo</i> | 17 | 1-888-SODEX07 | <i>www.sodexousa.com</i> |
| FM SOFTWARE | | | |
| ARCHIBUS, Inc. | 3, 89 | 1-617-227-2508 | <i>www.archibus.com/performance-metrics</i> |
| <i>FM:Systems, Inc.</i> | BC | 1-800-648-8030 | <i>http://go.fmsystems.com/fmj</i> |
| <i>iOffice</i> | 43 | 1-713-526-1029 | <i>www.iofficecorp.com/wide-open-workspace</i> |
| <i>RSMeans</i> | 27 | 1-800-334-3509 | <i>www.rsmeans.com</i> |
| HVAC/INDOOR ENVIRONMENTAL QUALITY SOLUTIONS | | | |
| <i>Temp-Air</i> | 89 | 1-800-836-7432 | <i>www.temp-cool.com</i> |
| JANITORIAL SERVICES/CLEANING PRODUCTS | | | |
| <i>xpedx</i> | 63 | 1-888-973-3976 | <i>www.reliablebrand.com</i> |
| LIGHTING | | | |
| <i>CREE Lighting</i> | 11 | 1-800-236-6800 | <i>www.cree.com/lighting/smartcasttech</i> |
| PEST CONTROL | | | |
| <i>Thermal Remediation</i> | 89 | 1-800-836-7432 | <i>www.thermal-remediation.com</i> |
| ROOFING | | | |
| <i>Certified Roofing Specialist</i> | 81 | 1-877-690-ROOF | <i>www.certifiedcontractinggroup.com</i> |
| <i>North American Roofing</i> | 33 | 1-800-551-5602 | <i>www.naroofting.com</i> |
| <i>Sika Sarnafil, Inc.</i> | 9 | 1-800-576-2358 | <i>www.thicknessguarantee.com</i> |
| SECURITY | | | |
| <i>TownSteel, Inc.</i> | 69 | 1-877-858-0888 | <i>www.townsteel.com</i> |
| TECHNOLOGY SOFTWARE TOOLS | | | |
| <i>Bluebeam Software, Inc.</i> | 51 | 1-626-788-4203 | <i>www.bluebeam.com/fasteraccess</i> |
| <i>The Blue Book Building & Construction Network</i> | 77 | 1-855-805-2560 | <i>www.thebluebook.com/4bids</i> |
| WATER & FIRE RESTORATION | | | |
| <i>SERVPRO</i> | 13 | 1-800-SERVPRO | <i>www.servpro.com/ready</i> |

POSITION YOUR COMPANY AS AN FM THOUGHT LEADER



FMJ is the only magazine of its kind backed by the strength of IFMA's global network of facility management decision makers, who collectively represent **more than US\$100 billion** in buying power.

Visit http://bit.ly/IFMA_MediaKit to download IFMA's media kit, or contact Diana Maldonado at **+1-281-974-5674** or **diana.maldonado@ifma.org** to customize a marketing plan for your business.



LOWE'S® ProServices



**Attention IFMA Members! Lowe's now provides
5% Off Every Day when you use Lowe's Business Credit***



Business Replenishment Program

For a \$150 minimum purchase + a penny, we'll provide a metal supply rack for things like cleaning products, safety equipment or maintenance supplies.

When we deliver the rack, we'll label the shelves, provide order forms and set up a schedule to replenish the shelves for you.

Delivery

Get your supplies delivered when your business needs them and where you need them at a reduced delivery rate available to our commercial customers.

**Visit Lowe'sForPros.com
to find your nearest store.**

© 2014 by Lowe's. All rights reserved. Lowe's and the gable design are registered trademarks of LF, LLC.

*Ask for 5% Off offer. Offer is not automatic. Must request at time of purchase. If applicable, 5% discount will be applied after all other discounts. Subject to credit approval. Some exclusions apply. See store associate or credit promotion disclosures for details. Lowe's Business Account and Lowe's Accounts Receivable are issued by GE Capital Retail Bank.

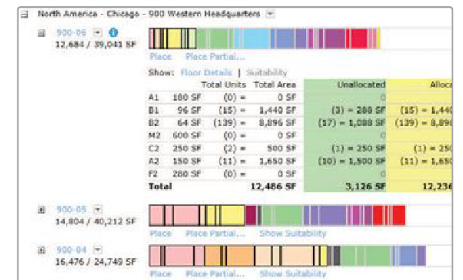
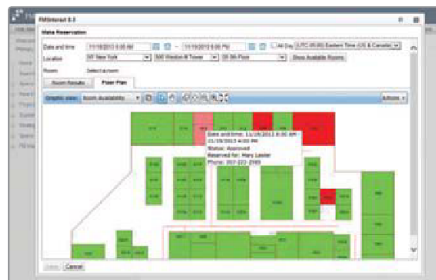
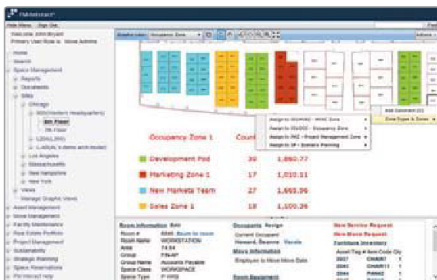
TOOLS FOR MANAGING THE DYNAMIC WORKPLACE

Rapidly changing workplaces are requiring facilities teams to plan, optimize and manage their portfolios in new ways.

Modern organizations are adopting new approaches to workplace planning and operations that have been enabled by mobile technologies and a highly dynamic workforce. These new approaches include

flexible workspace, support for cross functional teams, ad-hoc and collaborative areas, and flexible workspaces that break away from the practice of assigning one workstation per employee.

FM:Systems® has a powerful set of tools that are part of the FM:Interact® Integrated Workplace Management System that help organizations plan and manage alternative workplace strategies. Learn more at <http://go.fmsystems.com/fmj>



FMJ EXTENDED

JULY/AUGUST 2014

THIS EXCLUSIVE ONLINE SECTION FOCUSES
ON EXPANDED FM COVERAGE.

94 Ask the Experts

IFMA'S FACILITY MANAGEMENT CONSULTANTS COUNCIL

96 Increased Return through Integral Cooperation

PETRA DEEN & LUC PIETERS

99 Offices Waste Space, Time

ANDREW MAWSON

102 Vendor Profiles

ASK THE EXPERTS

BY FACILITY MANAGEMENT CONSULTANTS COUNCIL



In each issue of FMJ, IFMA's Facility Management Consultants Council shares some commonly asked FM-related questions accompanied by advice from top FM consultants. The questions and answers presented in this section align with IFMA's core competencies following the themes outlined for the given edition of the magazine.

While the following answers are intended to be helpful, these responses should not be deemed complete and are limited in context by the space allocated. Please contact the individual consultants directly for further explanation of the opinions expressed.

The theme of this edition of FMJ is **"FM Finance."**

The Facility Management Consultants Council (FMCC) represents more than 300 FM consultants from various countries around the globe. Its mission states, "The FMCC is the resource and voice for facility management consultants worldwide to leverage our collective expertise to benefit IFMA members, and the facility management profession."

Questions regarding the Ask the Experts section of FMJ can be directed to John Ringness, SFP, MRICS, CBIFM, president and CEO of NEXT Facility Management Solutions and FM Consultants Council president, at john.ringness@nextfms.com.

Visit FMCC online at fmcc.ifma.org or join the conversation on the council's LinkedIn group at <http://linkd.in/1gAa8ae>.

QUESTION 1

HOW CAN I BUILD A STRONG BUSINESS CASE WHEN FINANCES ARE REQUIRED?

ANSWER: I promised myself early in my career: “I will never be out-argued by a bean counter.” I learned my finance and business basics, using them to my advantage in facility management. How?

Demand that your company has complete and accurate real estate asset value information; not just historical book values, but also current market values and calculated replacement values. Once top management has financial reporting information showing these, real estate and facility management will be more appreciated (pun intended).

Demand clear policies and guidelines regarding calculated interest on real estate and workplace assets based on calculated replacement values.

Each owned asset, from office desks to a headquarters campus, ties up capital. Capital employed and its cost (i.e., calculated interest) has top management’s attention, and so do the managers responsible for them. Write the draft for those guidelines yourself.

Demand that the head of real estate and facility management is responsible

for all real estate and workplace assets and for the capital employed in them.

Think and act as if you are responsible, managing these assets with the capital employed in mind at all times, and argue every move you make accordingly.

Implement in your company’s reporting system the international total occupancy cost code. It shows real costs for the total company, for each building and each cost center. It will include depreciation and interest on owned real estate as well as rent, which is needed to give a real picture.

If your company jumps through all these hoops for you, what will it get in return? That’s simple: Real, complete financial data to make decisions which are right, and not just cheap.



ANSWERED BY:
Peter Prischl (Germany)
Managing Director
Reality Consult GmbH
peter.prischl@realityconsult.com
+49 160 9099 7587
www.realityconsult.com

Peter Prischl is the managing director of Reality Consult GmbH, an international management consultancy for real estate and facility management with 20 consultants and offices in Frankfurt and Vienna. Reality Consult works for more than 150 clients in more than 20 countries worldwide, with core competencies in strategy, organization, controlling and IT. Prischl is also a co-author of “The Facility Manager’s Guide to Information Technology” published by IFMA.

QUESTION 2

HOW IMPORTANT IS A KNOWLEDGE OF FINANCE FOR THE PROFESSIONAL DEVELOPMENT AND CAREER ENHANCEMENT OF FACILITY MANAGERS?

ANSWER: Many facility managers are terrified of finance. Simply speaking, finance is the language of business. Like any language, if you cannot speak it or understand it well enough, you will struggle with communication and most of what you are trying to say could be lost in translation.

Across the globe, the subject of finance has been a huge weakness within the facility management profession. This weakness in the area of finance could potentially be a limiting factor for your own personal or professional development as well as potentially become a barrier to career enhancement.

FM speak combined with finance speak can be a potential weapon in a facility manager’s communications arsenal, whether presenting a business case to the C-suite, negotiating your budget, service and supply contracts, or recommending staff salaries and bonuses.

Without venturing to become an expert in finance, one should focus on understanding the fundamentals of financial statements which monitor, report and analyze performance of your

business be it your division or your company. As the old saying goes, “What you cannot measure, you cannot manage.”

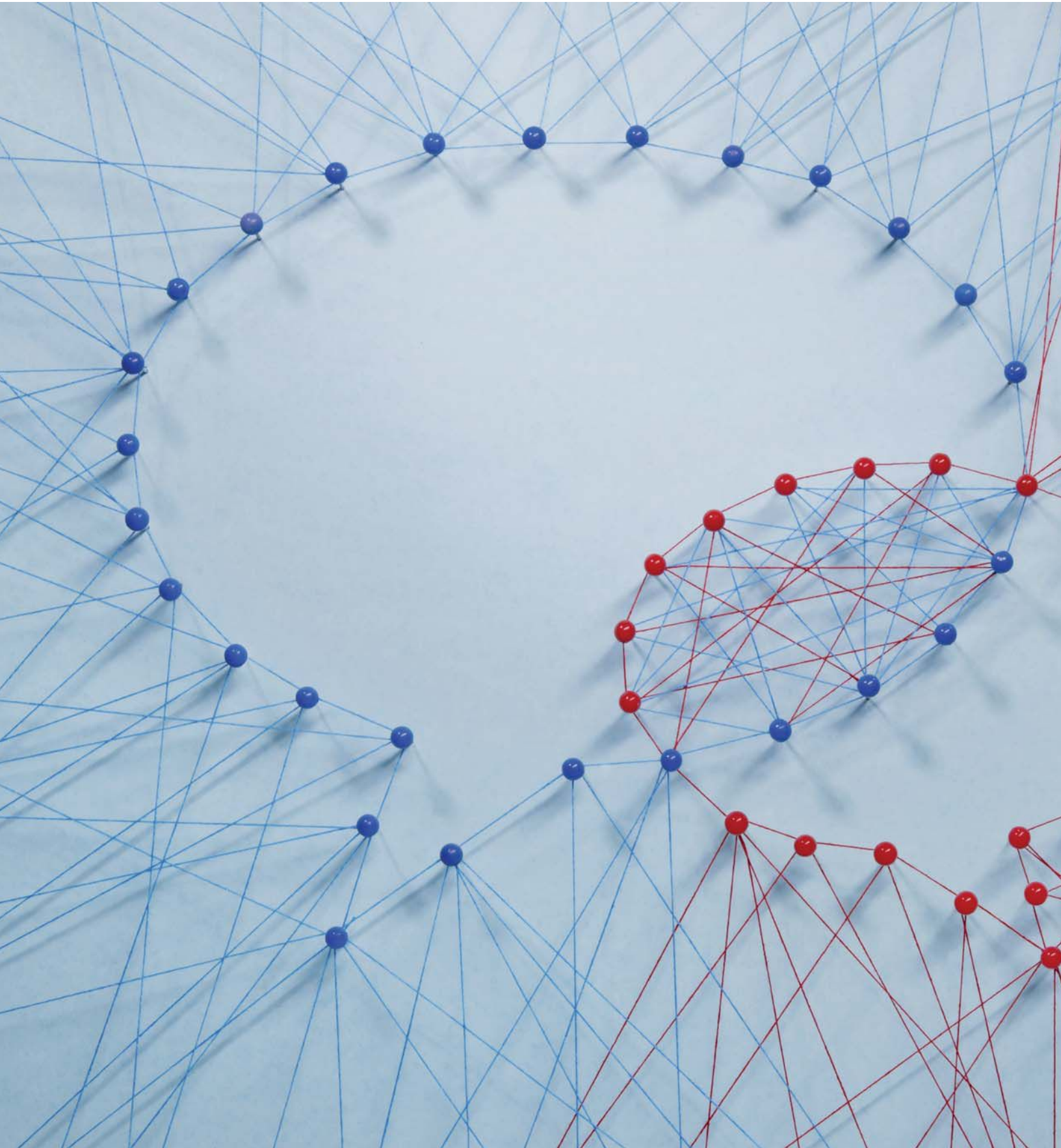
For beginners, I would recommend profit and loss statements, which help in measuring the performance of your division or your company.

In addition, it is helpful to understand balance sheets, which tell you your position relative to assets and liabilities (what you own versus what you owe), and cash flow statements, which are key to liquidity (how much cash you have on hand and how much you need for the financial years ahead).



ANSWERED BY:
Val Moraes, CFM, MBA
(New Zealand)
Director
GregMore Group
Global Liaison South Asia,
FMCC
Vice President, FMCC Board
of Directors

Val Moraes is a principal consultant at GregMore Group, a facility management consultancy based in Auckland, New Zealand. His more than 30 years of international FM experience include senior roles with Oberoi Group, Colliers International and Progressive/Woolworths Australia. Moraes holds qualifications in building and project management from Victoria University, Wellington. He helped found Facilities Management Association of New Zealand and serves as immediate past chair and a foundation member. Moraes is a director and South Asia liaison for FMCC, is a Green Star New Zealand Accredited Professional and was the first New Zealander to achieve IFMA’s Certified Facility Manager credential.





INCREASED RETURN THROUGH INTEGRAL COOPERATION

BY PETRA DEEN & LUC PIETERS

This article was contributed by Facility Management Netherlands from their official publication, FMI, and has been translated from the original Dutch.

Facility services in the form of integral (multi-service) performance contracts are increasingly in demand. Proper cooperation is essential to make this form of integral service profitable for all parties involved. But how does that work?

Integral facility service requires intensive cooperation with several parties, both internally and externally. In daily practice that can be pretty unmanageable (to put it mildly), which makes sense, because both the client and the supplier must get used to the new role description. The client will have to let go of operational responsibility and act more like the director of the service. The supplier always bears more risk and handles organizing coherence in the operational cooperation.

This requires some paradigm shift in the way the parties connect and relate to each other. In addition to the transactional purchase relationship, the parties must arrange their cooperation so each party can contribute its specific value and all interests are secured.

Insufficient cooperation

After a tendering period, the cooperation starts with a decent contract, which is operationally converted into goals and working agreements used to realize them. Subsequently, the progress of the execution is managed by monitoring

the realization by means of criteria established beforehand. This is a recognizable, efficient approach based on the fact that in case of deviations, it is the facility manager's (or the contract manager's) task to intervene, adjust, find and realize solutions. This provides a sense of supervision and control.

In practice, not everything can be contained in the contract agreements. Many uncertainties remain (particularly in the case of long-term contracts). All too often the underlying principles of payment mechanisms, output specifications and monitoring still lead to vagueness, conflict and distrust. Every party thereby handles its own interpretations. Often the various occupants of a property are not contract owners, but have their own interests and expectations which can be contrary to each other's interests and expectations and the agreements.

Within the traditional way of thinking in terms of cooperation, the idea is to be able to solve those issues across the axis of the relationship and skills by putting the contract aside and working them out together.

Dilemmas and conflicts

In practice this approach leads to many problems. The "what" and "how" of what must be done is more difficult to separate than one would think. The

ADEQUATE COOPERATION MAKES OR BREAKS THE RETURN OF INTEGRAL SERVICE.

client and supplier sometimes have conflicting interests, meaning terms such as “trust” and “partnership” suddenly do not mean much or depend on a good relationship between a few people. After every personal exchange people take their own work style and interests with them; they want to leave their own stamp on the relationship. The tendency to always solve dilemmas and conflicts with a compromise emerges, while there is a need for a creative, better solution which keeps all interests in mind.

In addition, thinking in terms of a client-supplier relationship creates the illusion of surveyability because it appears only to involve two people. In reality it concerns various people on either side, who are part of the receiving and supplying systems. This approach leads to conflicts of loyalty for employees who must operate between those parties.

Predictable and reliable

Making the terms of cooperation explicit ensures that an optimal environment is always created for all parties and persons involved to allow the cooperation to be profitable. The following cooperation topics are important for this.

- **Starting together.** Experience with large cooperation projects teaches us that many of the cooperation issues emerge from a faulty start. It's important to establish proper starting conditions so the parties involved know what to organize in order to be fit for cooperation. Which knowledge, skills and mandates do employees require to perform their roles and cooperate effectively? Which decision-making processes must be organized between involved parties?
- **Planning together.** Integrality makes planning together a necessity. How do you create

a supportive plan of approach together (for example, an annual plan or project plan) so all parties involved can execute their contribution with ownership and support from their colleagues?

- **Organizing together.** This involves making optimal use of each other's diversity and added value. How do you manage proper distribution of tasks and responsibilities and how do you organize, outsource and secure roles in the cooperation? How do you mutually arrange the contact moments so decision making and progress are favorable, despite any differences?
- **Solving together.** Not everything can be set down univocally in contracts and agreements, and it's best to avoid having to reach solutions based on personal relationships and skills every time. To do so, create process agreements that outline which steps each party will take and how they will be executed in order to reach mutual solutions. Consider how you will deal with differences in interpretation, prevent conflicts and resolve them so every interest is secured and how you will mutually interpret the negotiation processes so the outcome will respect the interests of all parties.
- **Evaluating and improving together.** Cooperation must be able to develop and improve, therefore it is important for parties to regularly evaluate and adjust both with regard to content and cooperation. The result thereof must be recognized and implemented by all parties.

Anchoring

Adequate cooperation makes or breaks

the return of integral service. This means cooperation has an increasingly strategic importance which must be embedded in policy. Integrated service contracting leads to higher quality, improved service adjustment, less management attention, less escalations and lower costs.

A special example: In 2012 the initiative was taken to form a trendsetter group “Lasting cooperation in a public private cooperation (PPC) context.” In this group representatives of large construction companies, facility service providers, the Dutch Government Building Department and some ministries work together on improving mutual cooperation, allowing the benefits of PPC construction and related contract types to be realized for all parties. The group is concerned with determining and applying the working principles behind lasting cooperation in a PPC context. Together the important problems and subjects are named and converted to practical consequences.

Based on this mutual standard cooperation processes and working methods are developed that all parties involved can relate to. This creates an equal playing field for both public and private organizations.

This type of cooperation is unique because both public and private parties are prepared to be open and vulnerable, share knowledge and experiences, mutually learn from them and apply the results in their PPC practice. **FMJ**

Petra Deen and Luc Pieters, both organization coaches and partners at ResetManagement, specialize in the cooperation between organizations and team development.



OFFICES WASTE SPACE, TIME,

BY ANDREW MAWSON

New research shows that the office workplace is a poorly used asset. Offices are often available for occupancy 365 days a year but are typically only open 12 hours a day and unused on weekends. Even when offices are open, desks are only used 59 percent of the time and meeting spaces 39 percent of the time, on average.

The good news is that well-designed programs for agile or advanced working can boost desk utilization to as much as 80 percent without adversely affecting productivity.

The Utilization of the Office report, based on data from 20 years' work across 75 major corporate headquarters, 36,100 desks, 542

hot desks and 728 meeting rooms, sets out some frightening truths about the way in which the workplace is being used (or not). In addition, it points at ways underutilized capacity can be used to get better deals for people and shareholders.

The research reveals that the percentage of desks actually occupied is 48 percent. Average utilization, where the desk is either occupied or there are signs of occupancy, such as a jacket on the back of the chair or a task light on, rises to 59 percent. Unsurprisingly, occupancy dips on Fridays.

Hot desks not so hot

Some organizations provide hot desks for short-term use by staff who drop in. The research shows that where hot desks are



THE TRANSITION
TO AGILE
WORKING
CAN BE A
SUBSTANTIAL
BEHAVIORAL
CHANGE
CHALLENGE
FOR LARGE
ORGANIZATIONS.

provided, their utilization is on average just 16 percent, which is surprising given the nature of their supposed use. It seems that hot desks are traditionally used as a last resort or for traveling/visiting staff.

Meeting room utilization in most buildings is very poor with on average 39 percent of meeting rooms being used for the time they are available. This picture however becomes even worse when the degree to which the seats in meeting rooms (their total capacity) is examined. Just 19 percent of meeting room capacity is being used. So in general, meeting space capacity is poorly used, but the worst used spaces are meeting spaces located in open plan areas where average utilization falls to 9 percent. This is because those who could potentially use them are concerned they will either distract others or that their conversations may be overheard by colleagues.

Further inefficiencies come from the departmental “ownership” of space in offices, where typically a department is allocated an area of the building or number of

desks and it regards them as its own to do with as it wishes.

Design constraints

One reason for the poor use of office space is that architectural and interior design professions tend to follow a “less data” approach. Too often, a briefing around a new office or a refurbished space starts with what people want from the space, as opposed to what is demonstrated to be required as a result of thorough analysis.

Architects and interior designers need to adopt an evidence-based approach to briefing and design so that a proper understanding of how people work and their use of, and need for, different spaces is considered and used to inform the design.

It is common sense that people should be provided with the tools and spaces needed to give them the best chance of doing their best work. At the same time, the organization, through the deployment of agile working practices, should make the best use of space to maximize the use, flexibility and sustainability of office assets.

The research into the relationship between space utilization and sustainability reveals that the most powerful way to reduce CO₂ is to use fewer buildings. This can be achieved by consolidating occupancy and increasing utilization through agile working.

Behavioral change challenge

Many new, small organizations are able to adopt an agile workplace model from their inception, because the leaders set out the model as part of the vision for the firm. For large organizations with engrained rituals, cultures and attitudes, the challenge is much greater requiring substantial, well-resourced and well-thought-through behavioral change strategies. The transition to agile or advanced working can be a substantial behavioral change challenge for large organizations.

It also requires that the facility management team work with other departments and functions. Information technology is a key enabler in supporting mobility, both in and out of the office. Staff need to be able to make and receive calls and access their information and applications from anywhere inside the office, and



in some cases, outside. Internet protocol telephony and desktop virtualization are key technologies that help support increased office utilization. Real estate and facility management professionals must build good relationships and alliances with their colleagues in IT to influence and support, sometimes financially, plans to create a platform for agile working.

Future perfect

For the last 20 years, organizations, largely driven by cost pressures, have been improving the efficiency of their spaces by conventional means, introducing open-plan accommodations and reducing the number and size of individual offices, desks and so on. However, there is a limit to what can be achieved in taking this conventional approach to increasing building capacity.

In support of an evidence-based approach, the first thing organizations should do to understand the use of their workplaces is to carry out regular (at least once a quarter) studies to assess the utilization of space through time. This will draw management attention to new

opportunities and can support consolidation of space or, in a growth situation, avoidance of the need for more space.

In an agile working regime (sometimes referred to as free seating, unassigned desking or hot desking) people come to an area in the office where their team is located and use available desks around an anchor point. With this regime people still have access to their colleagues, papers, telephone calls, IT applications, electronic files and desktops.

Anchor points mark the central point of occupation for a unit, team or department and instead of allocating space to a department, people are simply asked to sit close to their anchor point and use space on a first-come, first-served basis. This approach is analogous to just-in-time manufacturing.

The benefit of this approach from a space utilization standpoint is that all the unused time slots of capacity are now usable and because owned areas are not being created for each department, the ebbs and flows of each department's occupancy can be accommodated within the whole of the space.

Results

Where the research analyzed utilization before and after the implementation of agile or advanced working programs, it revealed that agile working increases utilization. Typically, for the initial transition to advanced working there is an improvement in utilization (occupied spaces) on average of 7 percent, based on a 12 percent reduction in workplace space.

At the outset of the journey to higher utilization, it is normal to move to a 6:5 ratio of people to desks. This can rise to 7:5 once staff have become used to the new way of working and can often transition further if some managed home working is introduced for those staff and jobs for whom it is feasible. At these levels, 80 percent desk utilization is achievable without detriment to productivity. **FMJ**

Andrew Mawson is managing director of management consultants and workplace specialists AWA. To request a copy of The Utilization of the Office report, contact info@advanced-workplace.com.

VENDOR PROFILES

The following product and service providers offer solutions for your everyday and specialized facility management needs.



Companies in **BOLD ITALIC** are IFMA Corporate Sustaining Partners.

ACOUSTICAL/SOUND MASKING

Cambridge Sound Management

We provide the number one sound masking solution, which protects speech privacy, reduces distractions and is trusted by more than 40 percent of the Fortune 100 firms. Powered by direct-field Quiet Technology, QtPro works by emitting a uniform, barely perceptible background sound. QtPro patented sound masking systems combine exceptional audio performance, low-impact installation and affordability. All QtPro systems are GreenSpec listed and can contribute to LEED certification.

www.csmqt.com/hero | +1-800-219-8199

BUILDING MAINTENANCE/SUPPLIES

Lowe's Companies, Inc.

Lowe's Commercial Services is your best partner in business with over 1,700 stores and over one million items available for all your facility management needs.

www.lowesforpros.com

FM CONSULTANTS/SERVICES/PROVIDERS



ARAMARK

Innovation is what Aramark brings to the everyday to deliver comprehensive facilities management. United by a passion to serve, more than 270,000 employees make a meaningful difference each day for millions of people in 22 countries around the world. It's a quest for excellence that involves people with a strong sense of pride and passion in their work. This quest is simple in intent; complex in execution. It's all about continuously finding the perfect balance of doing things incredibly well over and over again to deliver experiences that enrich and nourish people's lives.

www.aramarkfacilities.com | +1-800-901-7373

Sodexo

Sodexo increases our client's competitiveness by delivering innovative workplace solutions that improve the building environment, employee engagement and enhance workplace and organizational effectiveness; ultimately delivering shareholder value.

www.sodexousa.com | +1-888-SODEX07

Often imitated, never duplicated – IFMA's FMJ magazine has been the number one resource for facility and building management professionals for more than 25 years. Want to see your name here? Contact Diana Maldonado at diana.maldonado@ifma.org to learn more about becoming a supporter of FMJ.

FM SOFTWARE

ARCHIBUS, Inc.

ARCHIBUS is the #1 global provider of real estate, infrastructure and facilities management solutions and services. With more than 30 years of continuous innovation, our industry-leading enterprise software delivers savings. Organizations of all sizes benefit from rapid deployment, improved business processes, lower life cycle costs, increased productivity and reduced TCO.

www.archibus.com | +1-617-227-2508

FM:Systems, Inc.

FM:Systems helps facilities and real estate professionals reduce costs and increase productivity. FM:Systems software improves management of space, occupancy, moves, maintenance, leases and property.

www.fmsystems.com | +1-800-648-8030

iOffice



iOffice's facility management software technology works proactively to reduce and eliminate information roadblocks and daily problems that occur in FM. Our FM system is tailored to meet the unique office needs of our more than 1,800 clients, 20 percent of whom are among the Fortune 1,000.

www.iofficecorp.com | +1-713-526-1029

RSMeans

RSMeans is the peerless industry source for accurate and expert information on materials, labor and construction costs. Localized, simple, always reliable and backed by expert cost engineers, RSMeans has been the most trusted cost information source in North America for more than 70 years.

www.rsmeans.com | +1-800-334-3509

HVAC/INDOOR ENVIRONMENTAL QUALITY SOLUTIONS

Temp-Air

TEMP-AIR is the leading provider of temporary heating, cooling, dehumidifying and air filtration rental services — ideal for any industrial, commercial, institutional or construction need.

www.temp-air.com | +1-800-836-7432

JANITORIAL SERVICES/CLEANING PRODUCTS

xpedx

We distribute facility supplies and services that promote a safe, healthy, and productive environment — while improving efficiency, reducing total costs and meeting sustainability objectives.

www.xpedx.com | +1-888-973-3976

LIGHTING

Cree Lighting

Cree is the leading fully integrated innovator of LED chips, components and complete lighting systems, providing energy- and cost-efficient LED lighting solutions with longer-lasting aesthetics and performance. With more than 25 years of experience, Cree offers an extensive collection of innovative indoor and outdoor LED lighting solutions to match any application.

www.cree.com/lighting

PEST CONTROL

Thermal Remediation

Thermal Remediation® offers insect heat treatment equipment, application training and proven solutions for the battle against bed bugs and stored product pests.

www.thermalremediation.com | +1-800-836-7432

ROOFING

Certified Roofing Specialists, Inc.

Certified is celebrating its 25th anniversary this year and we're proud to be a different kind of construction company. We are modern and innovative with a 25-year history of excellence. Certified offers a unique blend of quality and experience to suit your building needs.

www.certifiedcontractinggroup.com | +1-877-690-ROOF

North American Roofing

North American Roofing has been a pioneer in the single-ply commercial roofing industry since 1979. Family-owned and operated for three generations, we've installed and serviced more than a billion square feet of commercial roofing on more than 20,000 facilities in our 35-year history.

www.narofing.com | +1-800-551-5602

Sika Sarnafil, Inc.

Sika Sarnafil supplies high-quality thermoplastic roofing and waterproofing systems for commercial buildings. Includes energy-saving reflective roofs, vegetated green roofs and solar-ready roofing.

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

TECHNOLOGY SOFTWARE TOOLS

Bluebeam Software, Inc.

Bluebeam Software's innovative desktop, mobile and cloud solutions push the limits of digital collaboration to enable facilities professionals to do what they do, better. Bluebeam's award-winning PDF solutions are used by facilities and operations management to speed up project communication by 60 percent, reduce printing and distribution costs by 80 percent and deliver electronic O&Ms for quicker access to critical information at the completion of a project.

www.bluebeam.com | +1-626-788-4203

The Blue Book Building & Construction Network

Find, Qualify and Connect to Companies with ProView

Find the companies you need for your next project or maintenance contract fast. The all-new ProView provides fast, direct answers to all of your qualification questions! With ProView, you have complete company/project information right at your fingertips. ProView summarizes what a company does, who they've done it for and how well they've done it. Search now and get connected to the all-new ProView and the information you need now!

www.thebluebook.com/connect | +1-855-805-2560

WATER & FIRE RESTORATION

SERVPRO

SERVPRO® is a national leader and provider of fire, water, mold and other specialty cleanup and restoration services, responding to property damage emergencies of any size from coast to coast.

servpro.com | +1-800-SERVPRO