

# High-Performance Buildings Congressional Caucus Coalition



International Facility Management Association



## Education and Training for Continued High Performance

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# IFMA Sustainability Committee Overview

- **International Facility Management Association (IFMA)**
- **IFMA Sustainability Committee (ISC)**
- **Strategic and Tactical Initiatives**



#### **Mission**

Enable facility management professionals to lead the implementation of sustainable practices in their workplaces and communities.

#### **Overview**

The desired future state of sustainability implies a paradigm shift in the way we live, work and play. As the largest international facility management association with research and education competencies, a globally-recognized facility management credentialing program, strategic partnerships and delivery capabilities, IFMA will take a leadership role in expanding, refining and improving sustainable practices. As a global representative in facility management and a major source of knowledge and thoughtful leadership for the built environment, IFMA is also a logical champion for the global development and deployment of sustainability models, frameworks and practices that connect sustainable strategy formulation with operational execution.

#### **Sustainable facility management is a proactive process focused on enhancing social responsibility through:**

- Strategically managing sustainable workplaces
- Minimizing the impact of facilities on the environment
- Contributing to the bottom line through reduced operating cost—while enabling increased health, safety, and productivity of employees.

Within private and public organizations, facility managers are in a unique position to accomplish these goals by strategically and operationally managing the entire lifecycle of an organization's property assets that is in concert with the organization's strategic plan, business plan, environmental management plan and the needs of affected communities. At the same time, these actions taken should protect and regenerate the natural environment. Once accomplished, facility managers will become "trusted advisors" to their stakeholders, boards, public constituencies, and C-suites on all matters related to sustainability.

#### **Focus**

- Establish IFMA as a global leader and expert resource on sustainability
- Develop an integrated sustainability strategy framework that:
  - Addresses long-term and short-term building portfolio goals; and
  - Creates a "total life cycle" sustainability strategy approach to managing building portfolios and that positively impacts local communities and the environment.
- Provide the training and resources for members to sustainably manage their assets either alone or with strategic partners

# “How-To” Sustainability Guides

- Getting Started
- EPA’s ENERGY STAR® Portfolio Manager
- Sustainability in Food Service
- Lighting
- No Cost/Low Cost Energy Savings
- Landscaping
- Capital Requirements for Energy Retrofits
- Certification Systems
- Water
- Waste Management
- Commissioning
- Data Centers
- Energy Storage
- Legislative Environment/Stimulus



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# The importance of a sound strategy

## TREND NUMBER 1

### **Linking facility management to strategy**—*including workplace culture and branding*

Since IFMA's formation and early research into the roles of facilities and facility management professionals began, it has been clear that a critical facet of successful facility management is the ability to link the role of facilities to an organization's core business strategies. In the coming years, we believe this will be of even greater importance. Physical facilities can have a large role in determining productivity, supporting innovation, efficiency, employee satisfaction and public perception of an organization. Every dollar invested in improving and maintaining facilities must be analyzed for return on investment (ROI).

#### **Demands on facility management professionals:**

*Ensure that facilities support the business culture and brand.*

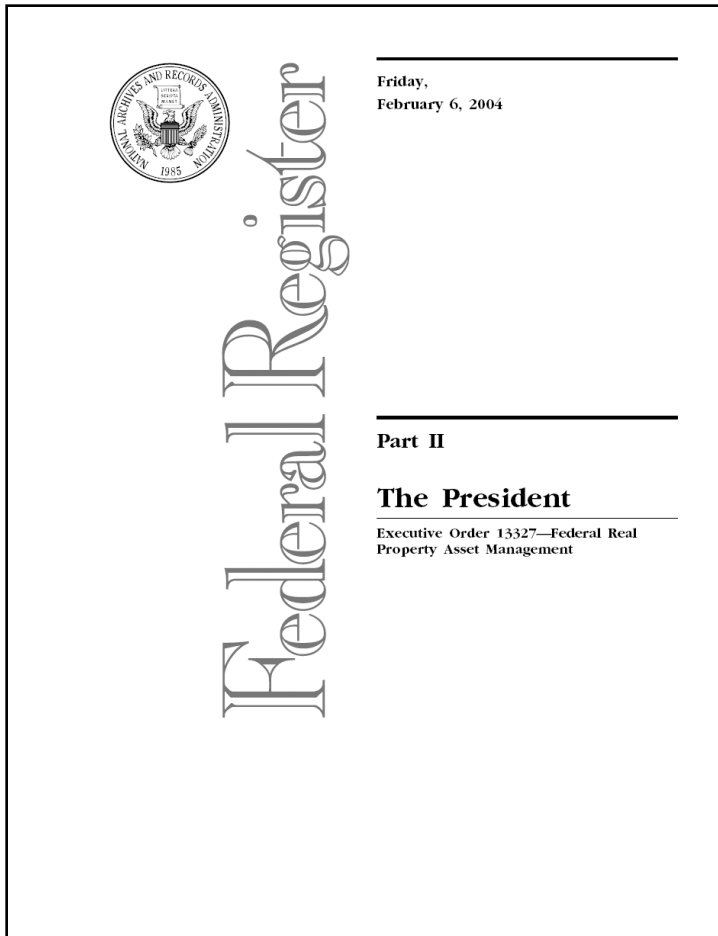
- provide a sufficient and measurable return on investment.
- help differentiate the organization to recruit and retain the best people.
- have a clear vision and understanding of long-term corporate business strategy rather than a short-term focus on tactics.

#### **Learning challenges/opportunities for facility management professionals:**

*Importance of linking facilities with core business strategy.*

- it is sometimes difficult to prove and communicate the value of facilities (constantly changing).
- speaking the language of the C-Suite (highest-level executives, e.g., Chief Executive Officer, Chief Operations Officer, Chief Financial Officer, etc.) may require diversified training.
- a shift in the belief that facilities are an effective component of business strategy and more than just the cost of doing business is required.
- understand the complexities associated with strategic facilities planning/budgeting.

# Executive Order 13327 (Feb 04)



## Policy

- Increased management attention
- Establishment of clear goals and objectives
- Efficient and economic use
- Improved policies and level of accountability

## Responsibilities

- Improve operational and financial management
- Life cycle management
- Operations, maintenance and security costs
- Environmental costs

# The Guiding Principles

## for Federal Leadership in High Performance and Sustainable Buildings

GUIDING PRINCIPLES  
FOR  
FEDERAL LEADERSHIP IN HIGH PERFORMANCE AND SUSTAINABLE  
BUILDINGS

**I. Employ Integrated Design Principles**

**Integrated Design.** Use a collaborative, integrated planning and design process that

Initiates and maintains an integrated project team in all stages of a project's planning and delivery;  
Establishes performance goals for siting, energy, water, materials, and indoor environmental quality along with other comprehensive design goals; and, ensures incorporation of these goals throughout the design and lifecycle of the building; and,  
Considers all stages of the building's lifecycle, including deconstruction.

**Commissioning.** Employ total building commissioning practices tailored to the size and complexity of the building and its system components in order to verify performance of building components and systems and help ensure that design requirements are met. This should include a designated commissioning authority, inclusion of commissioning requirements in construction documents, a commissioning plan, verification of the installation and performance of systems to be commissioned, and a commissioning report.


**II. Optimize Energy Performance**

**Energy Efficiency.** Establish a whole building performance target that takes into account the intended use, occupancy, operations, plug loads, other energy demands, and design to earn the Energy Star® targets for new construction and major renovation where applicable. For new construction, reduce the energy cost budget by 30 percent compared to the baseline building performance rating per the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., (ASHRAE) and the Illuminating Engineering Society of North America (IESNA) Standard 90.1-2004, Energy Standard for Buildings Except Low-Rise Residential. For major renovations, reduce the energy cost budget by 20 percent below pre-renovations 2003 baseline.

**Measurement and Verification.** In accordance with DOE guidelines issued under section 103 of the Energy Policy Act of 2005 (EPAAct), install building level utility meters in new major construction and renovation projects to track and continuously optimize performance. Compare actual performance data from the first year of operation with the energy design target. After one year of occupancy, measure all new major installations using the Energy Star® Benchmarking Tool for building and space types covered by Energy Star®. Enter data and lessons learned from sustainable buildings into the High Performance Buildings Database.  
([www.eere.energy.gov/femp/highperformance/index.cfm](http://www.eere.energy.gov/femp/highperformance/index.cfm))

- “commit to design, construction, and operation of High Performance Buildings”
- Signed in January 2006
  1. Employ Integrated Design Principles
  2. Optimize Energy Performance
    - Part 1 (Design)
    - Part 2 (M&V)
  3. Protect & Conserve Water
  4. Enhance Indoor Environmental Quality
  5. Reduce Environmental Impacts of Materials

## Executive Order 13423 (Jan 07)



**Federal Register**

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Thursday,  
October 8, 2009

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**Part VII**


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**The President**

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Executive Order 13514—  
Leadership in Environmental  
and Economic Performance

## Executive Order 13514 (Oct 09)



**Federal Register**

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Friday,  
January 26, 2007

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**Part II**

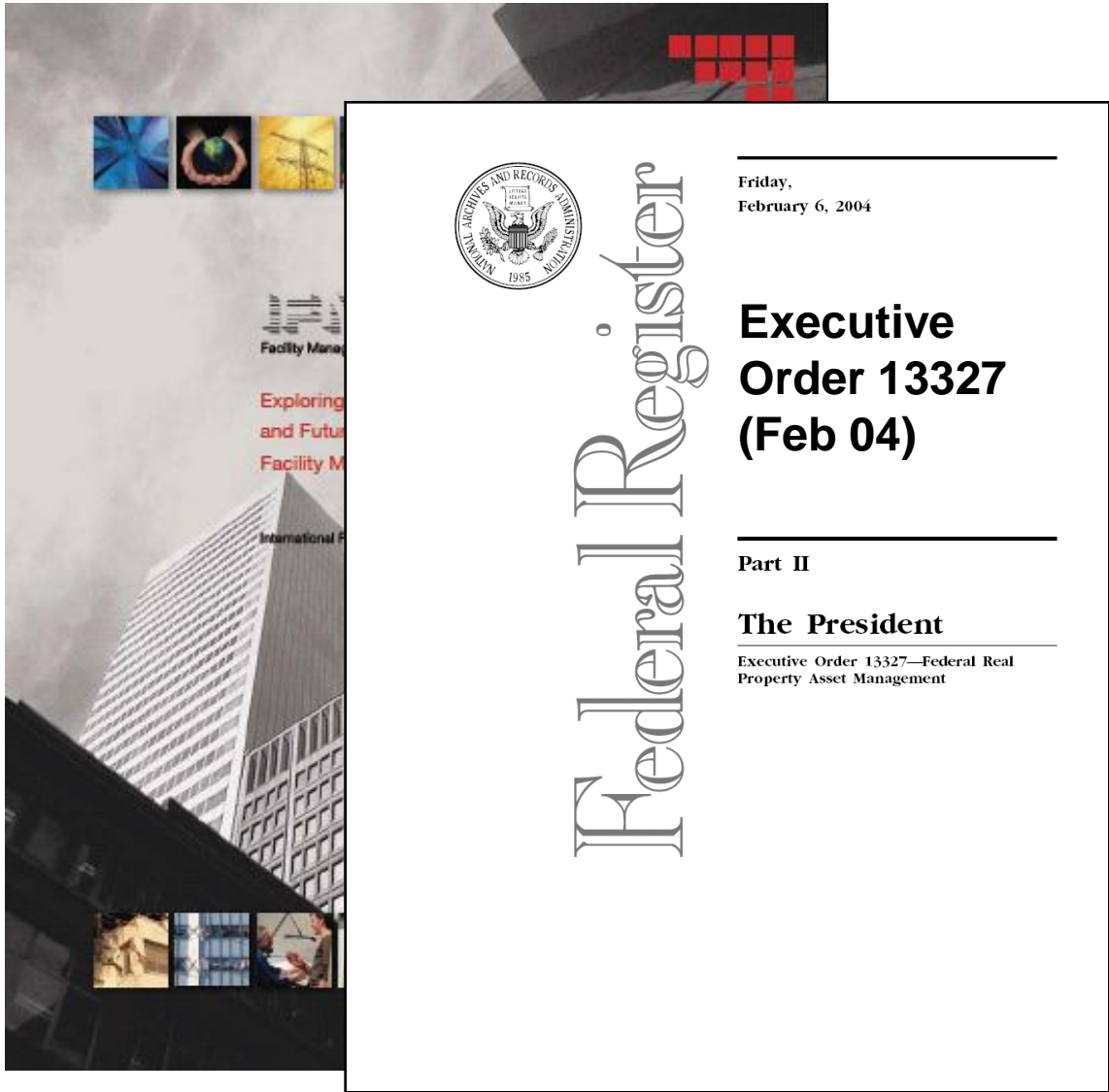
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**The President**

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Executive Order 13423—Strengthening  
Federal Environmental, Energy, and  
Transportation Management

**This is  
*what we  
want to  
achieve***



**This is the link  
between the  
need for High  
Performance  
Buildings and  
how we achieve  
them**

**This is  
*how we*  
achieve it**



Education

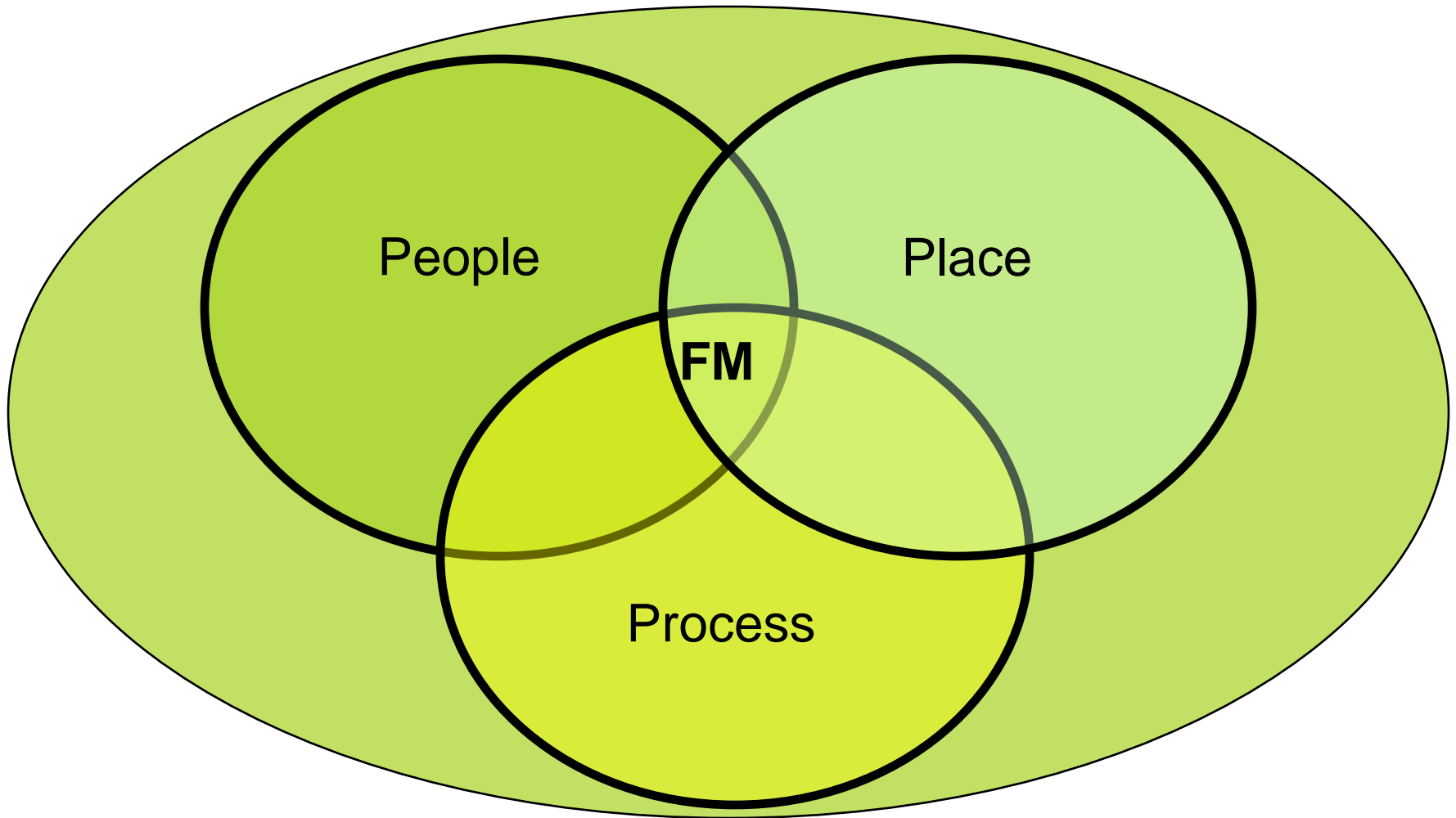


Drive standards, performance and organizational value



# The Core Competency Framework






Sustainable Facility Management is a process of integrating the people, place and business of an organization that optimizes economic, environmental, and social benefits of sustainability.



# What does a CFM do?



- Manage the FM workforce
- Evaluate, translate, and organize the strategic objectives of the organization into a manageable work plan
- Execute the work plan
- Maintain the physical assets of the organization
- Provide a safe, healthy and high performance work environment

**How do they do it?  Sustainable Facility Management**

# What does a CFM need to know



# What does the CFM do with all of this information?



# Developing KPIs for the Facility Function

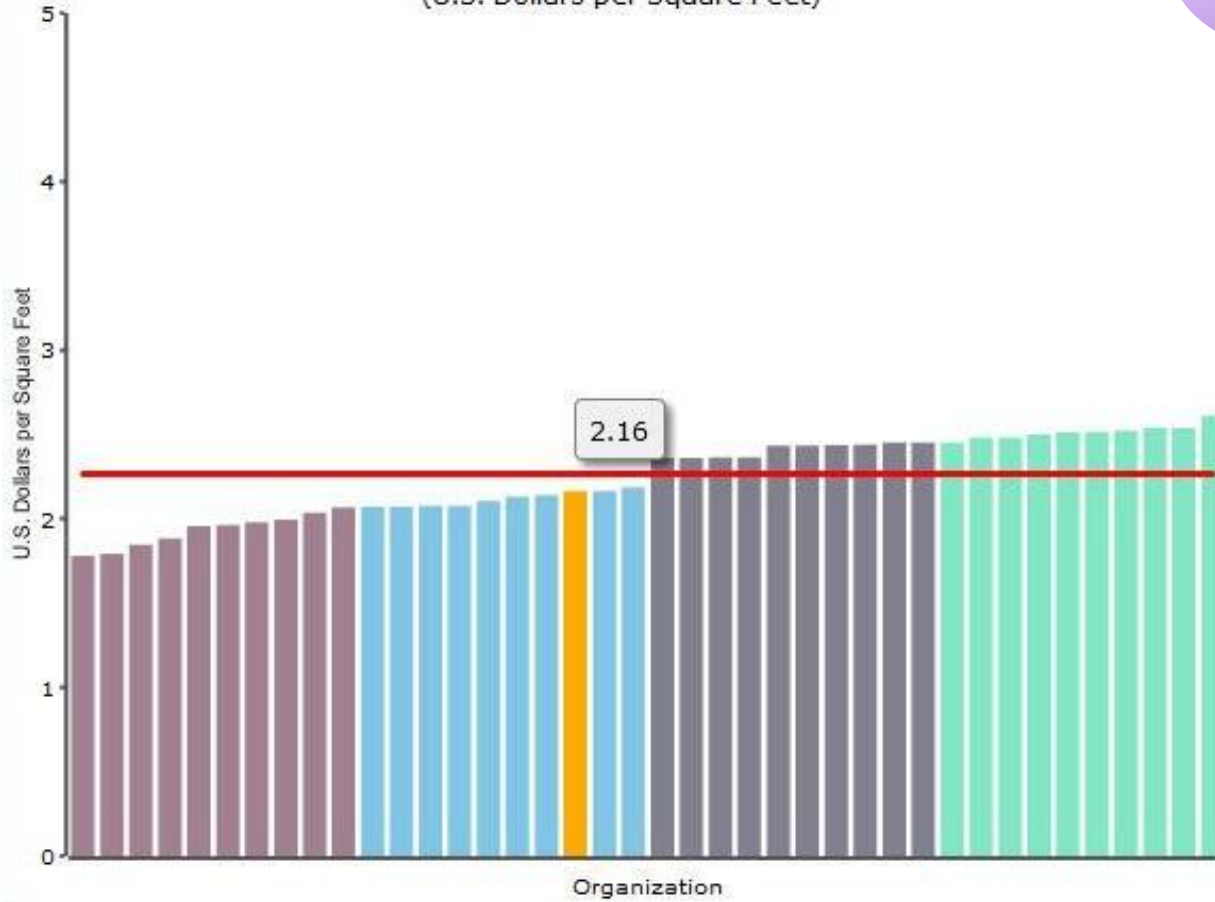
## What do we measure?

- Client/customer
  - Temperature, cleanliness, responsiveness
- Process
  - Work Processes, PM, CM, DM
- Employee
  - Training, lost time, retention, satisfaction
- Financial
  - Total cost of ownership, budget compliance

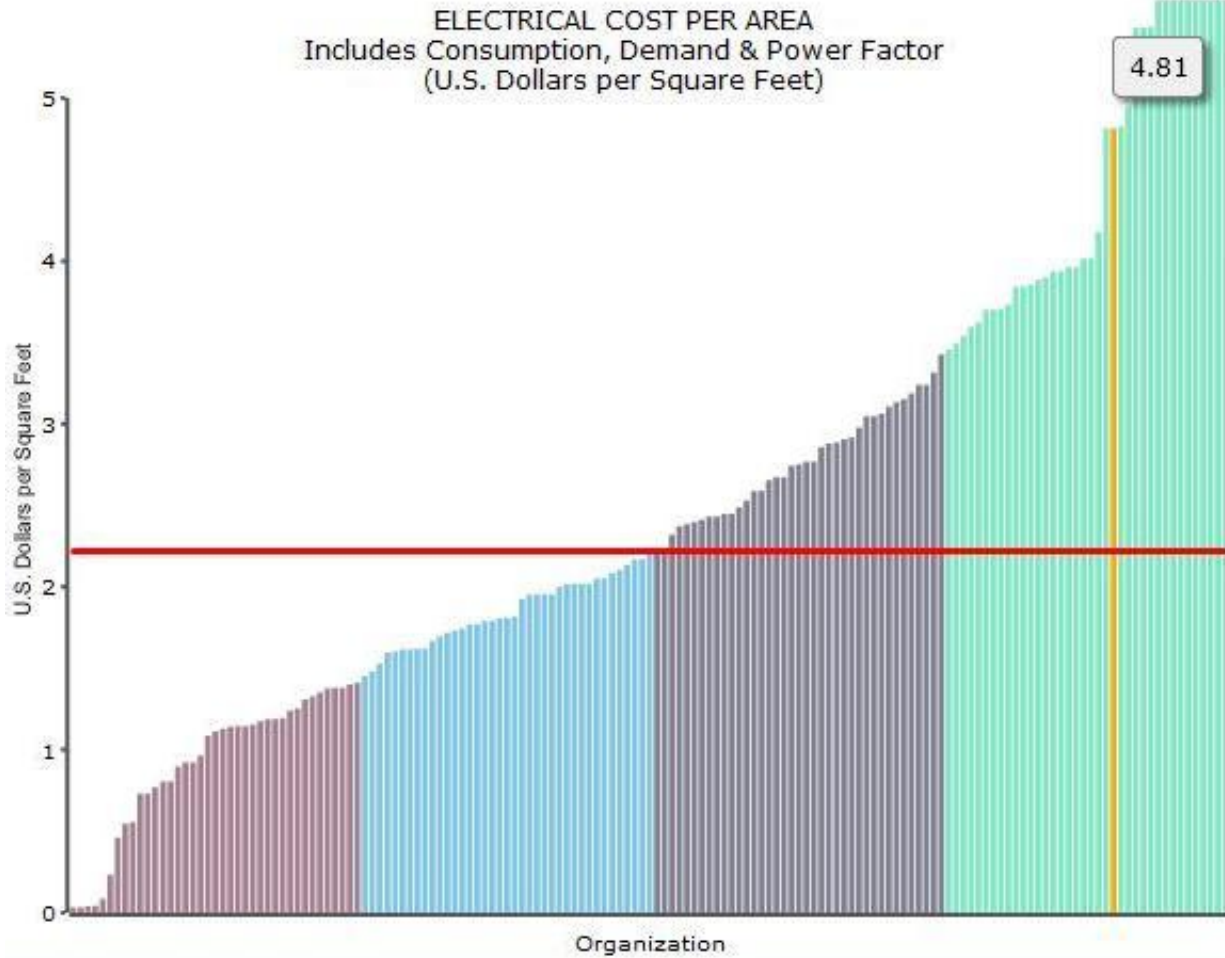


**Benchmarking  
and Best  
Practices**

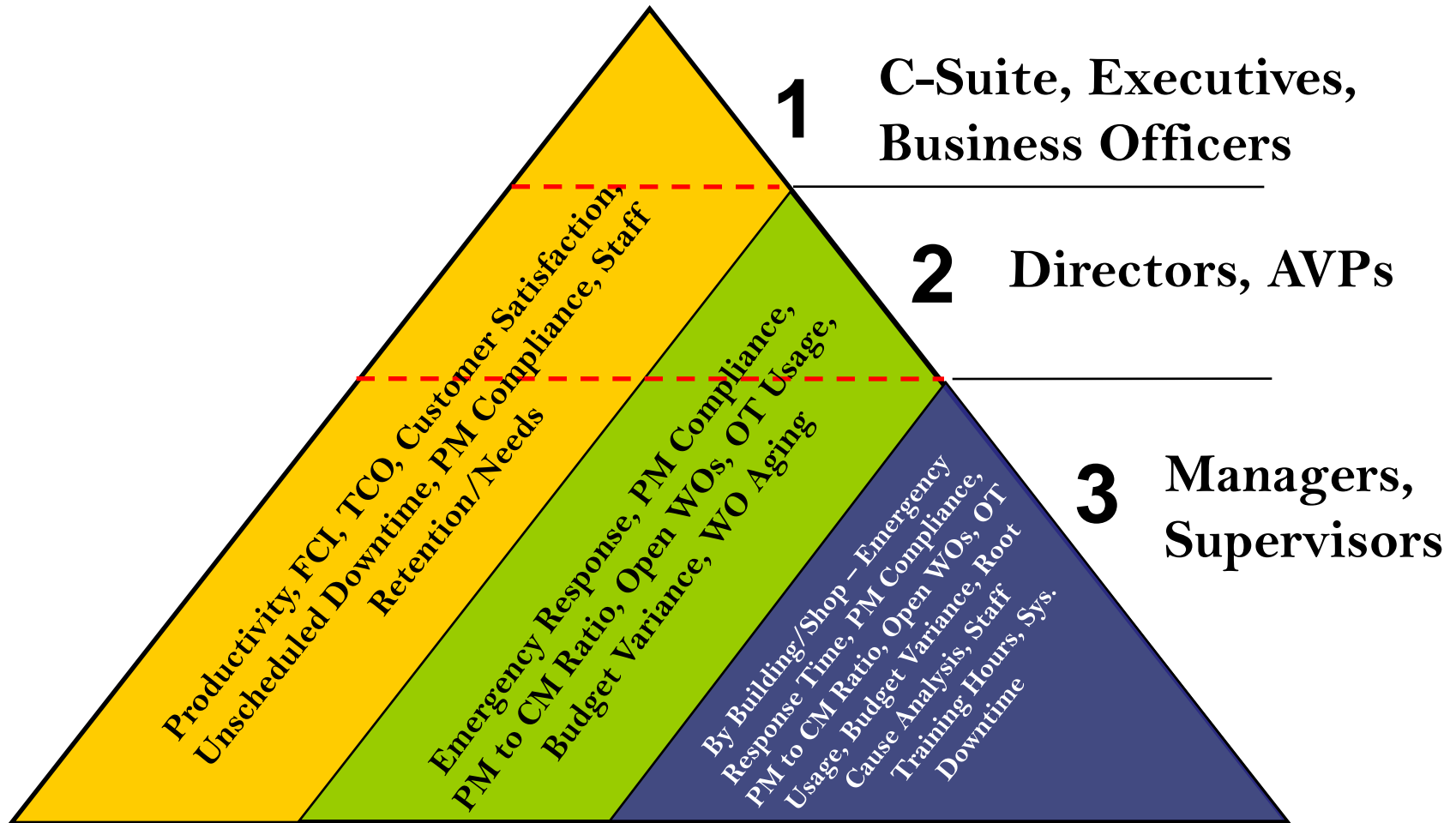
MAINTENANCE COST PER AREA  
(U.S. Dollars per Square Feet)



**Benchmarking  
and Best  
Practices**



# Metrics



# In order to create a high-performance building:

## *Create a high-performance FM organization:*

- ❖ Fully supports strategic business initiatives
- ❖ Enhance operational efficiencies and effectiveness
- ❖ Reduce costs
- ❖ Optimize process performance
- ❖ Maximize return-on-investment (ROI)
- ❖ Minimize total cost of ownership (TCO)
- ❖ Maximize asset value and life cycle
- ❖ Continuously monitor improved performance excellence
- ❖ Build pride - and attract and retain the best employees



# Summary



- There is no “one source” for High Performance buildings
- The Facility Manager has to utilize a wide range of resources to manage a High Performance building
- Skills:
  - Project Management
  - Leadership, Communication
  - Finance, O&M
- Tools:
  - Technology (CAFM, CMMS, EMS)
  - BIM
  - The “right” metrics

# Resources for sustainable facility management



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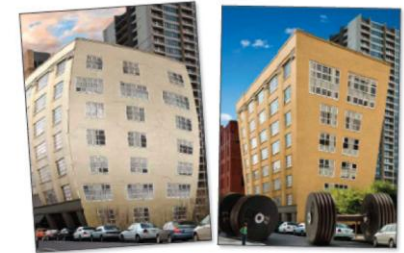
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 Associate,  
 Facility Engineering Associates, PC



Sustainability "How-To Guide" Series



No-Cost/Low-Cost Energy Savings Guide

**Christine Doonan**  
 Editor  
 Building Operator Certification Program's  
 BOC Bulletin

**Alan Kakaley, PE**  
 Principal  
 Demand Side Engineering, P.S.

**Jim Volkman, PE**  
 Principal  
 Strategic Energy Group

**Brad L. Weaver, PE**  
 Principal  
 Northwest Energy Consulting

**Kathleen Cacciola**  
 Director of Reporting  
 for Corporate Social  
 Responsibility  
 ARAMARK

**Robert B. Dennill**  
 Associate Vice President  
 for Corporate Social  
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 LEED AP  
 Project Engineer,  
 Facility Engineering Associates, PC

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 PE, CFM, LEED AP, IFMA Fellow  
 Principal,  
 Facility Engineering Associates, PC

**More on the way . . .**

<http://www.ifmafoundation.org/>

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## Strategic Initiatives

- Green Page Public Portal
- Sustainability Credential
- FMpedia
- FMArticleAccess
- Content Sharing (USGBC, ASRAE, BOMA, BOMI, AASHE, ...)
- University Outreach

## Tactical Initiatives

- IFMA Energy Challenge: ENERGY STAR®
- Webinars and i-sessions
- Social Networking
- Carbon Disclosure Project
- “How-To” Guides