FACILITY ISSUES

Ongoing Performance Analysis of Cultural Facilities

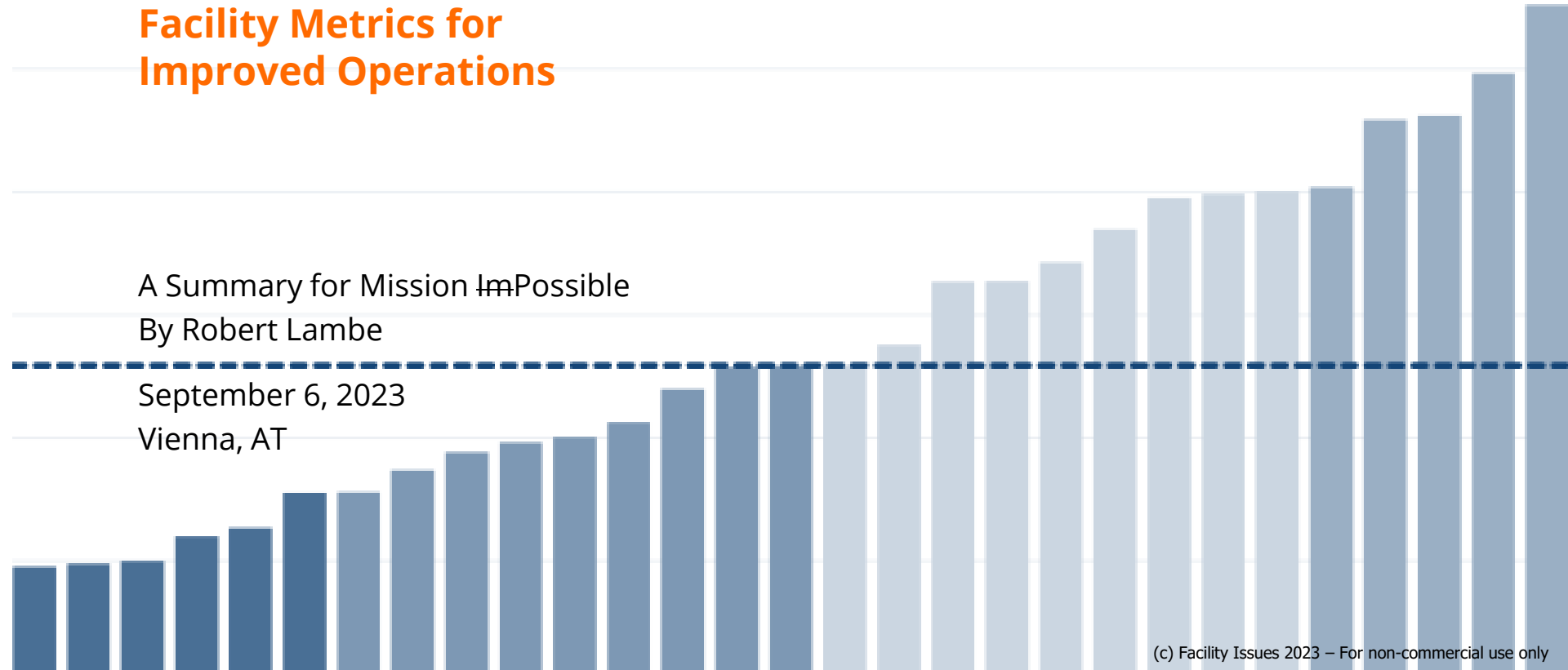
Facility Metrics for Improved Operations

A Summary for Mission ~~Im~~Possible

By Robert Lambe

September 6, 2023

Vienna, AT



Our desired performance = the journey we want to take.

Use performance metrics to stay on the correct path and measure our progress.

Agenda

- What are metrics? Why they are important.
- What metrics are useful for Facility Management (FM)?
- Some examples of how Cultural Facility Managers use performance metrics.
- Some tips for using metrics effectively.

Strategic Use of Metrics → Better FM

- Facilities are needed for our organization's mission
  - Physical space and assets
  - **Effectiveness (Increased Performance, Quality, & Value)**
- Continuous improvement is required
  - Change is a constant and expectations increase
  - **Efficiency (Reduced Time and Cost)**
- Facility data can provide insight
  - Need to capitalize on increasing amount of data
  - **Integration and Distillation (Timely and Affordable)**
- A Strategic approach is imperative
  - 80/20 principle
  - **VUCA World (Volatility, Uncertainty, Complexity, Ambiguity)**

What are Metrics and Why are They Important?

Metrics

Measurements are a reduction in uncertainty

- Quantifying an attribute (size, weight, etc.)
- The accuracy of the measurement can tell us the degree of uncertainty

("Big" vs. "~5,000 SM" vs. "4,7252.5 SM")

Metrics are Measurements "with math"

- Sum, Median, or Measurement per unit
- Allows comparisons

(Total SM, Average SM, or KwH per SM)

Performance Metrics

A Performance Metric is a metric compared to an goal.

- There are different types of performance:
  - Service Level
    (safety, quality, speed/frequency, availability, etc.)
  - Cost
  - Sustainability
  - Flexibility/responsiveness
- Values typically have a target range
- "How" you accomplish is not a performance metric
- *Key Performance Metrics* (KPIs) are the important ones

Image source: https://pixabay.com/

The Value of Metrics

To quantify something:

- Current condition
  - Magnitude
  - Comparison
- Trends and patterns
  - Degree of change
  - Direction of change
  - Rate of change

Image source: https://pixabay.com/

Metrics help us communicate more clearly with both leadership, staff, and other stakeholders.

The Value of Metrics

To help us manage the volume of information:

- Filter out noise
- Focus attention
- Identify changes
  - Metrics identify change in dynamic environments

The Monkey Business Illusion

This was Dan's submission to the 2010 Best Illusion of the Year contest.

http://www.theinvisiblegorilla.com/videos.html

42%

of viewers do NOT notice the gorilla when focused on counting the number of passes by white shirt team.

Metrics for Improved Facility Management

Two Types of Metrics in Facility Management

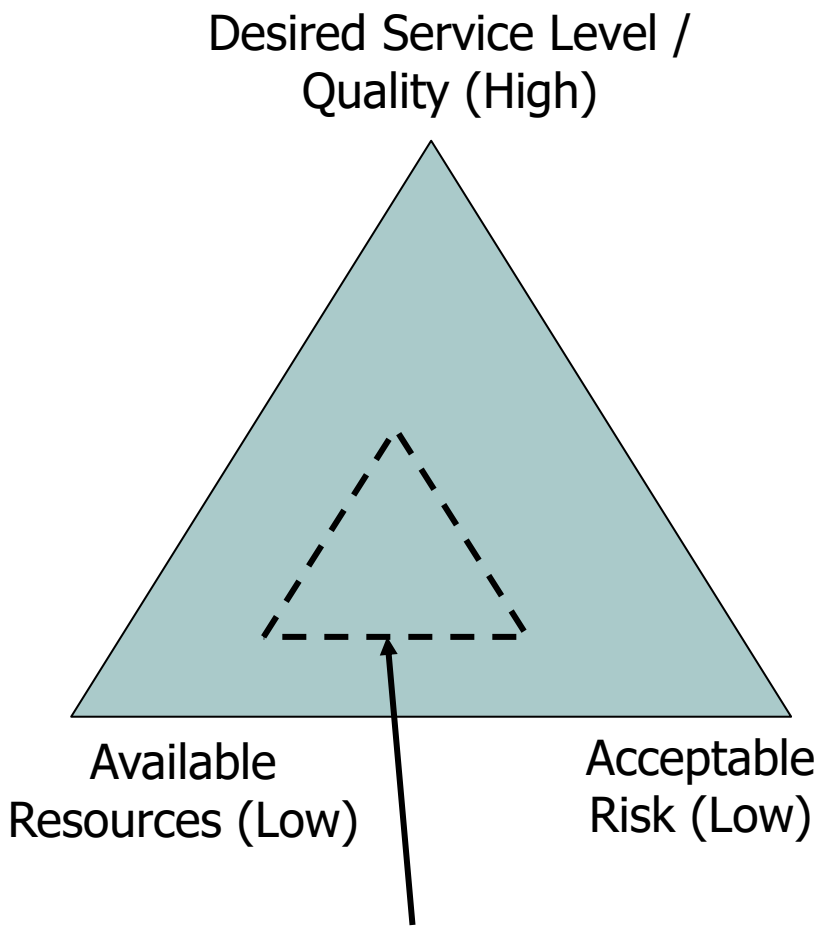
Property Asset metrics

- About the property performance:
  - Fit for purpose, utility
  - Efficiency, quality
  - Resources required
  - Impact (employees, environment, community)

Property Operation metrics

- About our process performance:
  - Effectiveness
  - Compliance, execution
  - Timeliness
  - Resources employed
  - Practices & technology

Facility Operations Balance Multiple "Objectives"

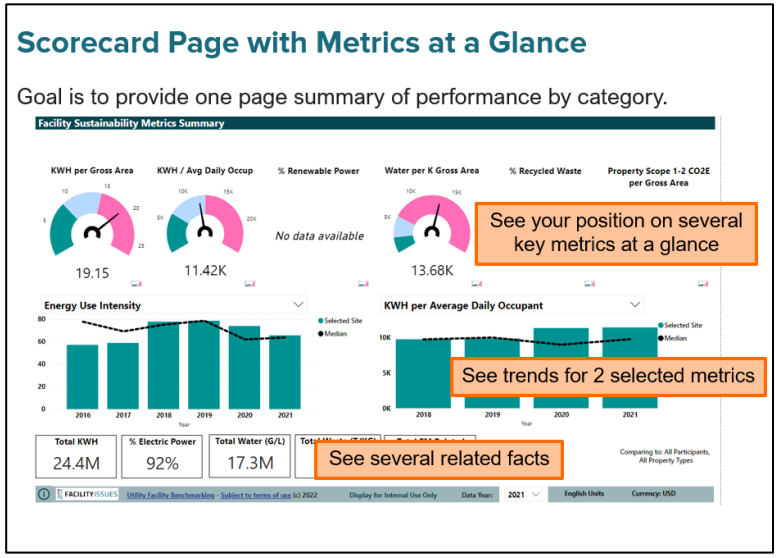


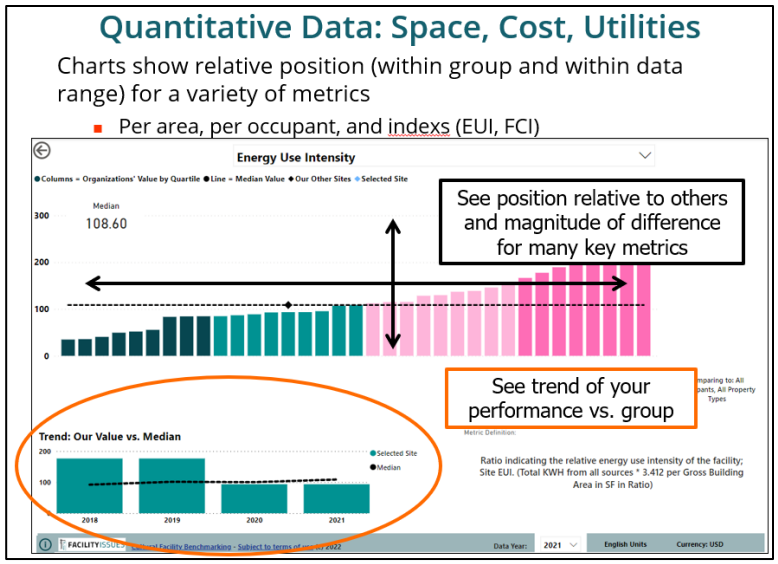
Your "target" area depends upon the priority of the objectives which can vary by property or year

Sometimes Competing Objectives:

- Artifact Preservation
- Asset Condition
- Building Technology
- Capital Budget
- Cleaning Standards
- Climate Control Standards
- Historic Preservation
- Lease Conditions
- Life/Safety Codes
- Maintenance Standards
- Occupant Satisfaction
- Operating Budget
- Operational Agility
- Practices/Policies
- Project Delivery
- Regulatory Requirements
- Risk Mgmt. Standards
- Space Standards
- Specific User Needs
- Staffing/Contracting
- Sustainability
- Visitor Education/Entertainment
- Work Technology

Quantitative Performance Metrics





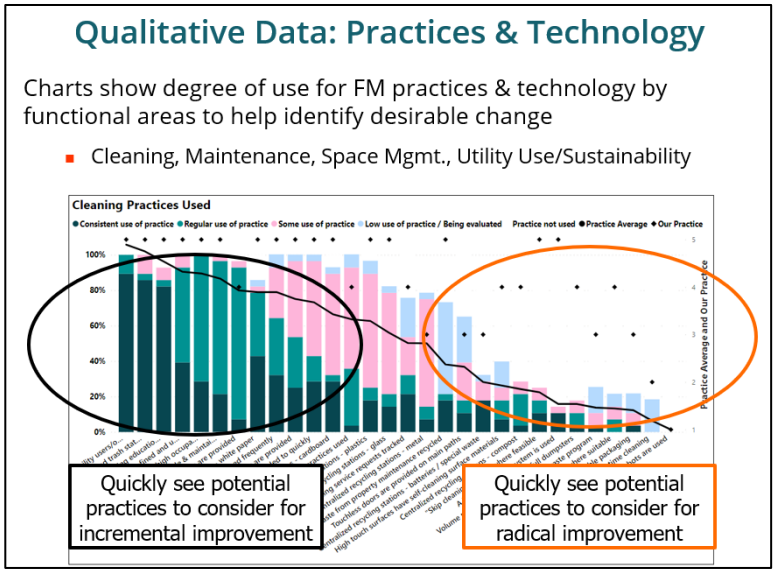
Quantitative Reporting includes:

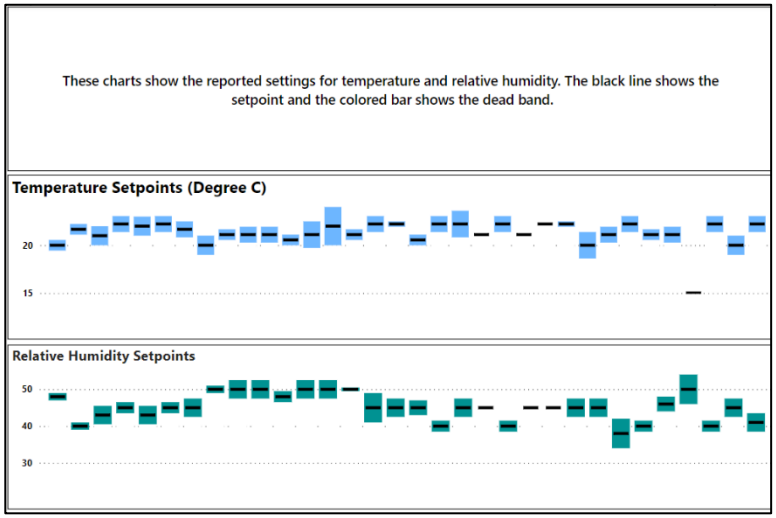
- Reference Info (facts & figures)
- Variance Reporting
- Scorecards & Dashboards
- Benchmarking comparisons
- Technical assessments

The value is to:

- Document current conditions,
- Demonstrate your performance,
- Measure both incremental and quantum progress
- Identify what you don't know & potential opportunity areas

Qualitative / Practice Metrics





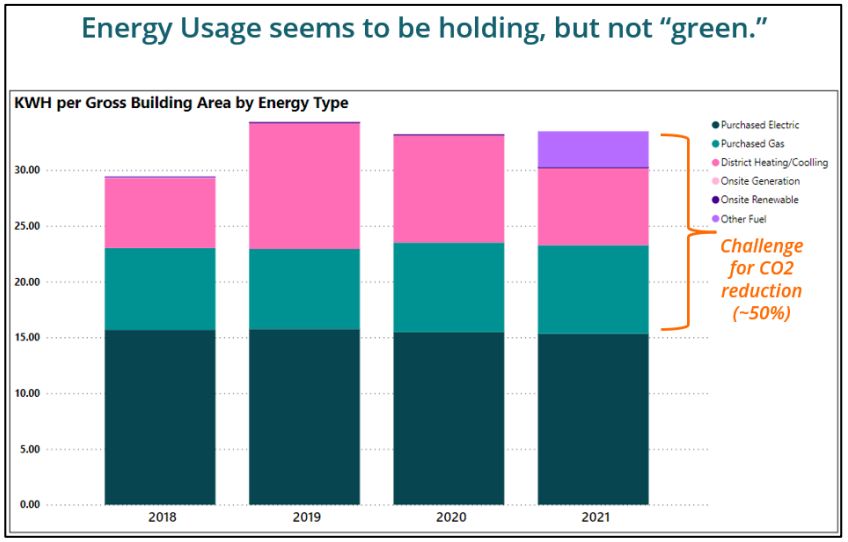
Quantitative Reporting includes:

- Comparison of service levels
- Comparison of practices and technology used

The value is to:

- Identify potentially applicable actions to pursue
- Learn from Others

Trends & Forecasts

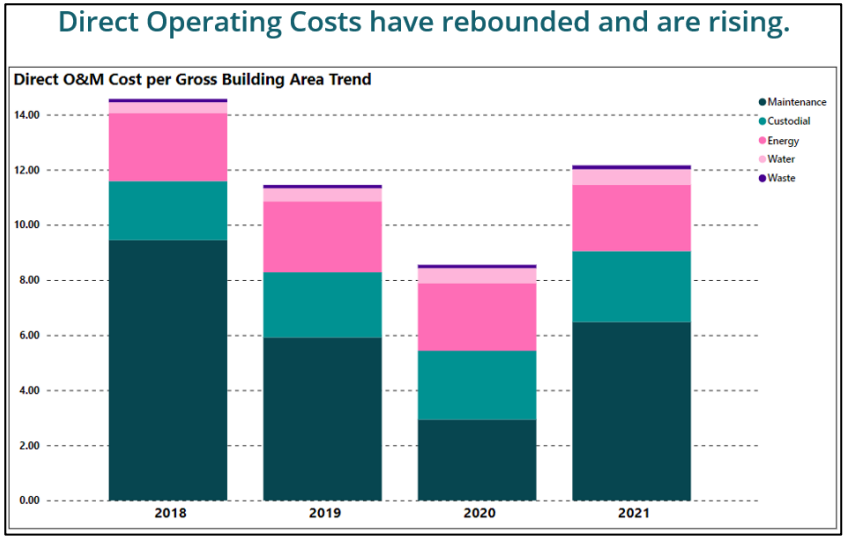


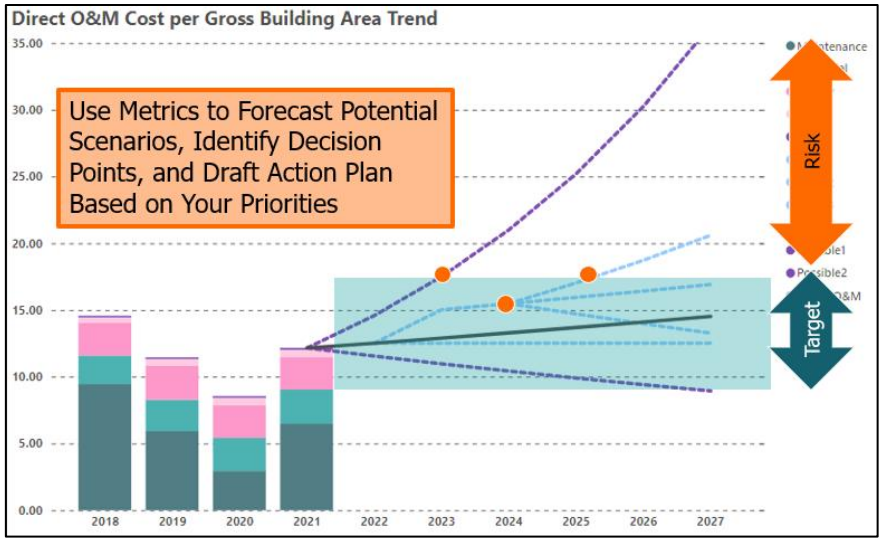
Measure progress to determine how effective changes are.

- An advantage of an ongoing benchmarking program is that each cycle lets you build on the prior one.

Forecast Scenarios to anticipate potential risk.

- Identify likely decision points.

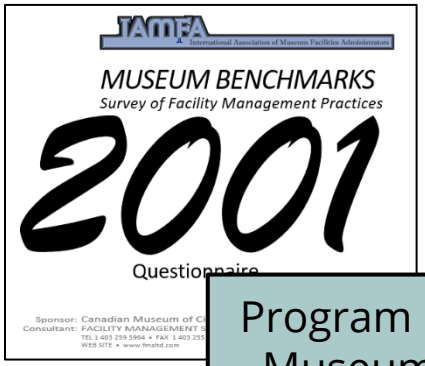


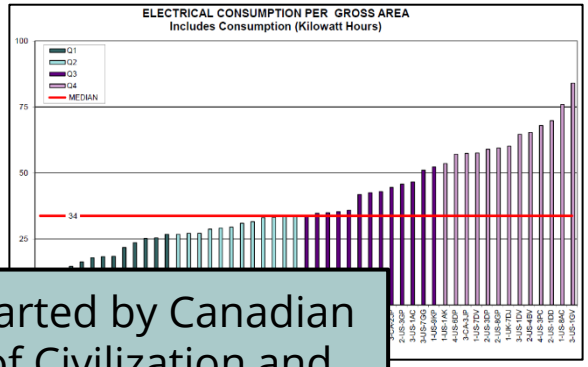


Example Uses of Performance Metrics

From International Association of Museum Facility Administrators' (IAMFA) Benchmarking Program

22 Years of Cultural Facility Benchmarking





2001

2015

2020+

Program started by Canadian Museum of Civilization and evolved from email/Word documents to Excel and now Power BI reporting.

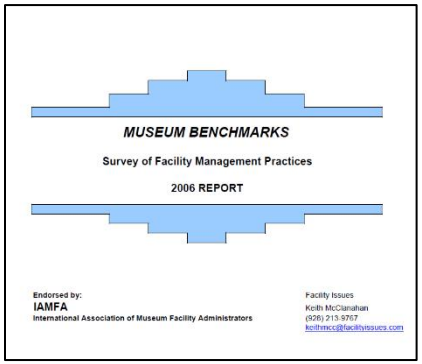
Metrics include:

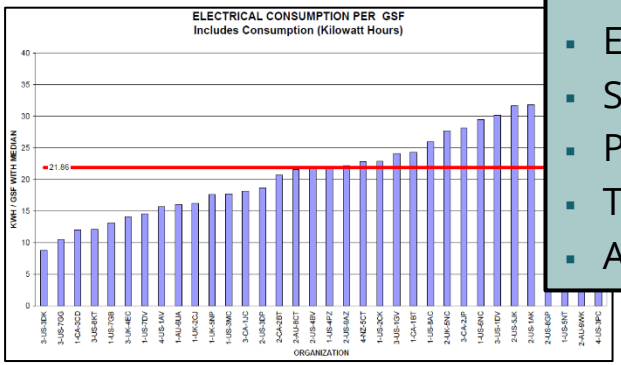
- Space
- Operating Costs
- Asset Condition
- Energy, Water Use
- Staffing
- Practices
- Technology
- And more

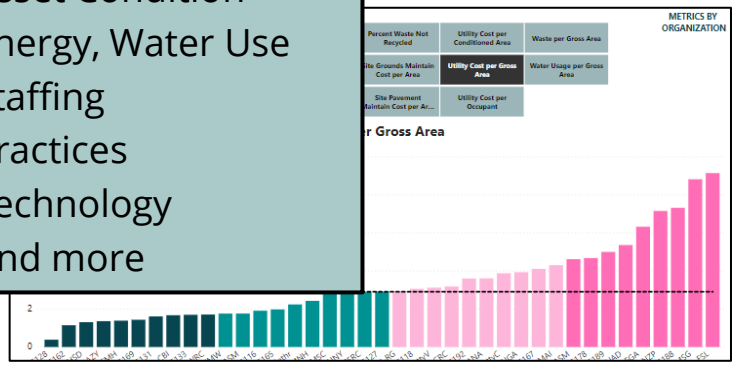
2005

2011

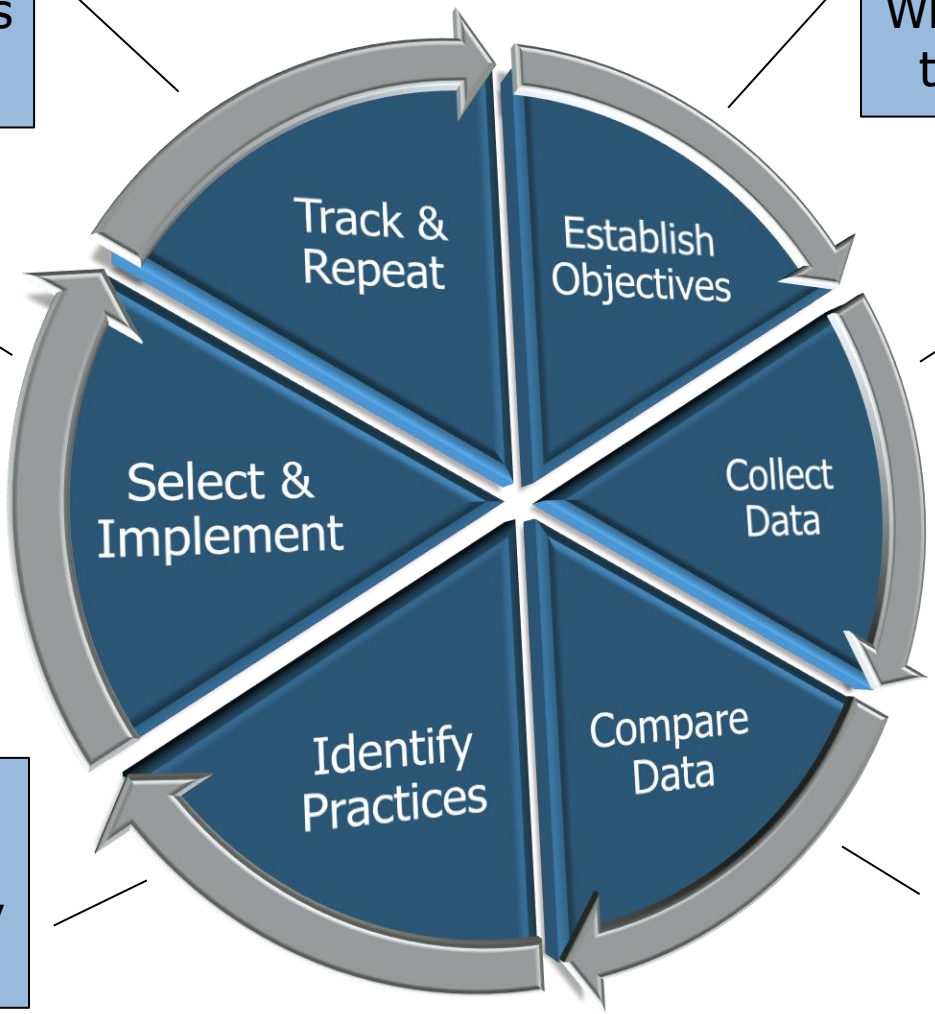
2018







The Benchmarking Process



Were changes successful?

What do you wish to accomplish?

Which changes are feasible for your operation?

What data is required, available, and can be assembled?

What practices might address your opportunity areas?

How do you compare - what are potential opportunities?

VALUE OF FACILITY BENCHMARKING: https://facilityissues.com/facility-benchmarking-process/

Benchmarking Case Study:

Canadian Museum of History

Demonstrate reasonable performance

1. Used annually to demonstrate effective management in funding discussions with Canadian Government & donors.
2. Use internally to compare year-over-year operations performance to inform where improvements might be made.
3. Use as basis for internal department goals, such as: “Cleaning cost/GSF in top 20%”

Benchmarking Case Study:

National Gallery of Art

Guide Action Plan

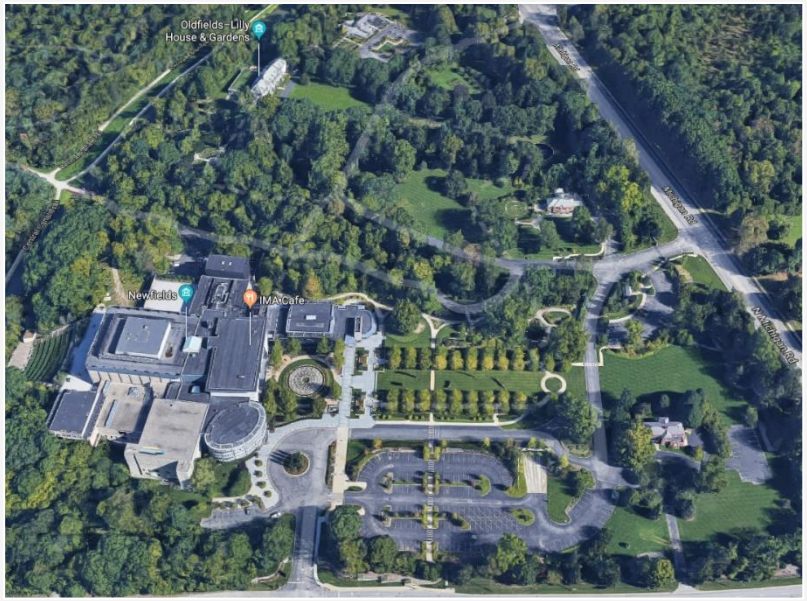
1. Most pertinent data for selected peer group reviewed with leadership at quarterly strategic planning meeting.

2. Data/shared practices used to guide planned initiatives.

3. Facilities group demonstrates stability and confirms reasonableness of budget & practices.

Benchmarking Case Study:

Indianapolis Museum of Art



Justify need for proposed initiatives

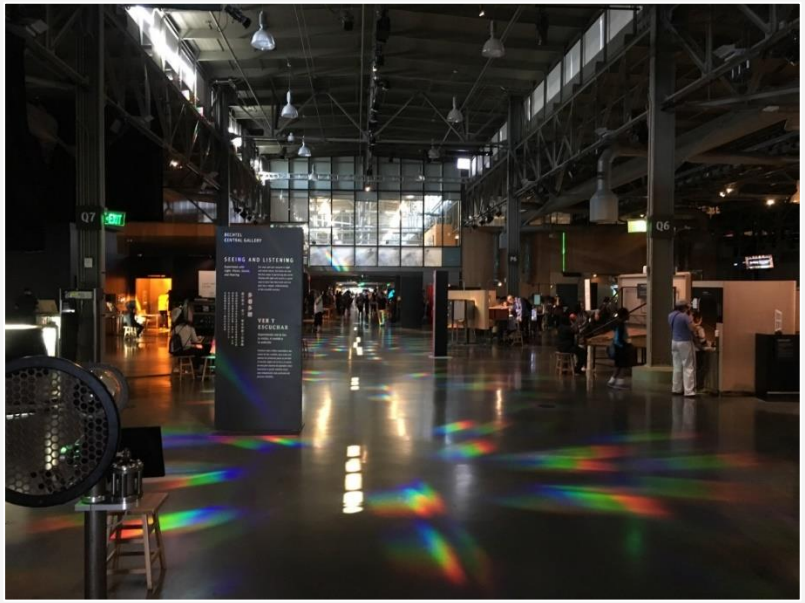
1. Facilities department realized there was a shortfall in maintenance staff.

2. Benchmarking data was used along with review of current equipment to identify reasonable staffing levels.

3. Additional craft positions approved by board.

Benchmarking Case Study:

Exploratorium



Forecast needs for changes/additions

1. Facilities department needed to establish appropriate budget when moving to a new, larger, facility.
2. Used benchmarking data to justify the operating budget that would be required based on the size and nature of the the new facility.
3. Other institutions use similar approach with major facility expansions.

Benchmarking Case Study:

Canadian Museum for Human Rights

CBC

The ups and downs of maintenance costs and stalled elevators at the Canadian Museum for Human Rights

Museum says yearly maintenance costs for unique building are lower than at other museums

Vera-Lynn Kubinec · CBC News · Posted: Jul 16, 2018 5:00 AM CT | Last Updated: 9 hours ago

Respond to questions & criticism

Having independent third-party data from benchmarking can defend against perceived performance issues.

Maintenance costs lower

The museum says overall, it's doing well on its building maintenance. Fitzhenry points to an international survey of operating costs for about 50 museums and cultural institutions in Canada, the United States, and other countries.

The survey, done by a New York company and endorsed by the International Association of Museum Facility Administrators, looked at maintenance cost measured in U.S. dollars per square foot of space.

Tips on Using Metrics Effectively

Prioritize Your Metrics!

- Have a few KPIs (3-5)
  - Key objectives for your goals.
  - Align with organization goals.
  - KPIs are checked frequently.
- Can have many "tracking metrics"
  - Key "exceptions" (identify when investigation is needed)
  - Trends (direction & rate)
  - Simple to calculate / obtain
  - Regular review for potential issues & opportunities

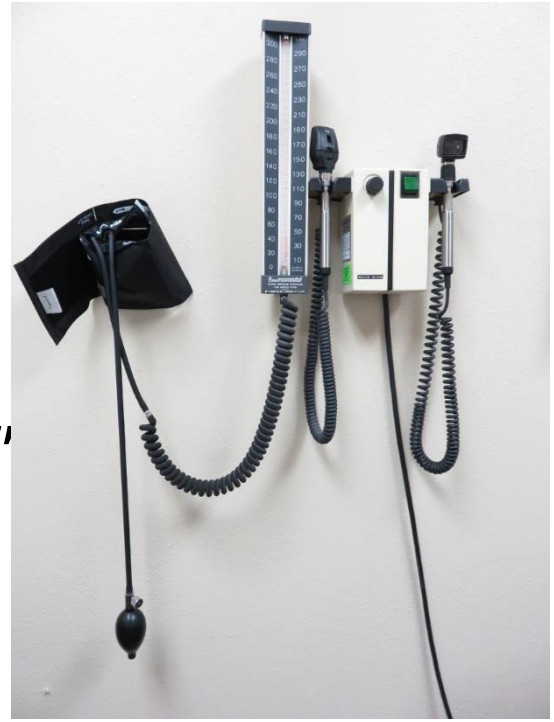


Image source: https://pixabay.com/users/BonnieHenderson-896542

Define Useful Metrics

- Good performance metrics need to have:
  - Clear Definition & Purpose (Why?)
  - Defined Target (What?)
  - Calculation Method (How?)
  - Data Collection Process (Who? When? Where?)
- Keep it manageable when getting started
  - Should be explicit for KPIs & Exceptions
  - May be less structured for general metrics

Balance the Cost & Value of Information

- It costs (time & resources) to obtain and manage data
  - When do you know "enough?" → marginal benefit vs. marginal cost

> ***It is better to be roughly right than precisely wrong.***
>
> ***— John Maynard Keynes***

- Use data that is acceptable **for the purpose**
  - How accurate and precise does it need to be?
  - How complete and comprehensive does it need to be?
  - How reliable is it? How relevant is it?
  - How timely is it (when needed)? How recent is it (speed)?
  - Is there good data governance and transparency?
- Data should support the decision/action for which it is used.

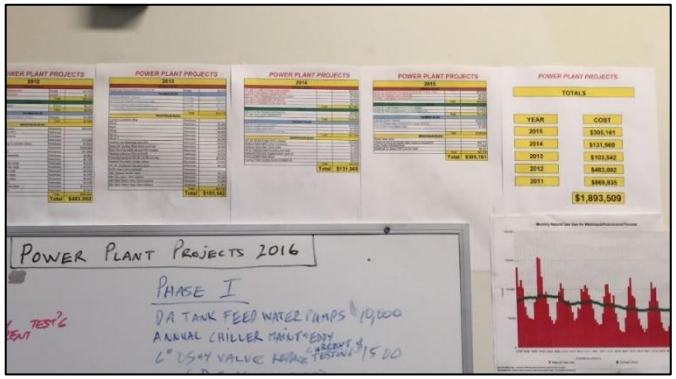
Example Uses of Performance Metrics

- vs. Acceptable Range → **Needs attention!**
- vs. Yesterday → Needs watching.
- vs. Last Month → Need course correction?
- vs. Last Year → Of concern?
- vs. Past 5 Years → Trending favorably?
- vs. Normal → **Good enough?**
- vs. Target → **On track?**
- vs. Industry → "Competitive?"
- vs. World → Leader?

Operational metrics vs. Managerial metrics

Communicate Metrics

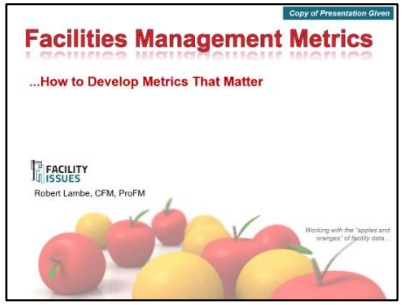
- Metrics do not help if the right people do not see them.
  - Facility Managers & Staff
  - Leadership & Decision Makers
  - Public (part of cultural education)
- Format metric reporting for easy understanding
  - “Lean” principle of 1 – 3 – 10
    - Most important → 1 second,
    - Next in 3 seconds,
    - Details in 10 seconds.

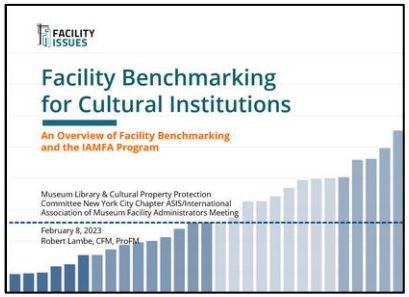


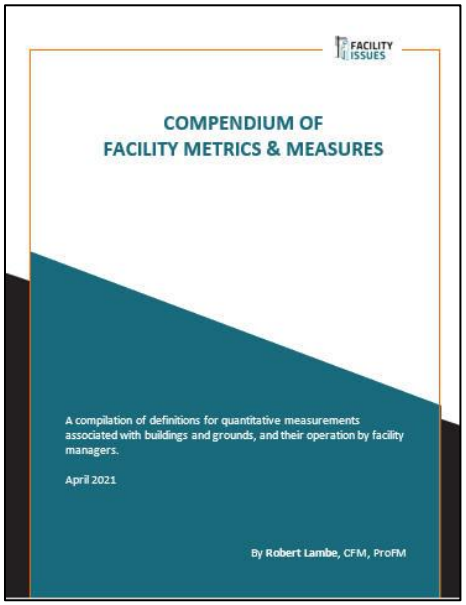
Summary: The Value of Facilities Metrics

- Document your situation quantitatively
  - Measures and metrics → document the facts.
  - Comparisons → provide context for your performance.
  - Trends → direction and rate of progress.
- Detect and manage change
  - Hierarchy of key performance metrics and general performance metrics (exceptions).
  - Allow timely response to new & emerging issues.
- Part of a continuous improvement program
  - Identify cost savings & quality improvements to promote.
  - Be proactive in guiding change with an action plan.
  - Consider both incremental and radical changes.

More Information







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