Facility Management Reporting: The Value of Metrics & KPIs

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Principal of Facility Engineering Associates

- Chris is a founding Principal of Facility Engineering Associates, with over 35 years of experience in facility management and operations.
- He is a Registered Professional Engineer, Certified Facility Manager (IFMA), and LEED AP (USGBC).
- Chris is a Fellow of The Royal Institution of Chartered Surveyors and IFMA. He is co-author of Sustainable Facility Management, the Facility Manager’s Guide to Optimizing Building Performance.
- Chris is an IFMA Instructor in all of IFMA's credential and professional development programs and was the lead Subject Matter Expert in the Sustainability Facility Professional (SFP) credential program.
- He teaches sustainability and facility management in Catholic University’s FM graduate program, for George Mason University in their FM certificate program, and in Rice University’s IFMA course offerings.
Learning Objectives

• Understand the role of organizational drivers in choosing KPIs
• Choose the right metrics and KPIs
• Identify the elements of a good facility management report - who are your stakeholders and what do they need to hear?
• Demonstrate alignment with organizational mission
Agenda

• The Building Blocks of a Strategic Approach
• Facility Operations Overview
• Telling the Story
Starting with the end in mind…

KPIs

doesn’t mean skipping to the end.
“We want to use industry standard KPIs.”

<table>
<thead>
<tr>
<th>Balanced Scorecard Perspective</th>
<th>Measurements</th>
<th>Target</th>
<th>Information Provided</th>
<th>Input / Data Required</th>
<th>CHRM Prioritize</th>
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<th>KPI Level</th>
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1. Customer Satisfaction – Customer
2. Top Ten WO Trouble Codes
3. Workforce Productivity - Process
4. WOs Initiated by Staff as Result of Inspections/RCM
5. PM to CM Ratio
6. PM Schedule Completion Rate
7. Workforce Productivity
8. Work Distribution by Type
9. Open Work Orders (WO) by Type
10. WO Completion Targets
11. Change in Facility Condition Index (FCI) - Financial
What is Important to Your Organization?

- Vision
- Mission
- Values
What is Important to Your Organization?

Be the best widget producer in our industry
Provide world class guest service
Preserve our nation’s treasures
Provide world class educational institution

Provide quality goods at a good price to our customers
Extend and preserve life
Provide full service to our clientele
Maximize profit to our investors

What does this mean for facilities?
The FM Team and where it fits . . .
The FM Team and where it fits . . .
Agenda

• The Building Blocks of a Strategic Approach
• Facility Operations Overview
• Telling the Story
Where to Start

Evaluate Drivers & Define Outcomes

Prioritize

Implement

Measure & Monitor
## Evaluate Drivers

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Purpose</th>
<th>Intended Result</th>
<th>Communications</th>
<th>Frequency</th>
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<tbody>
<tr>
<td>Home</td>
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<td>Departmental page</td>
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<td>Email</td>
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<td>Information bulletin</td>
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<td>Activity reports</td>
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<td>Meetings</td>
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<td>Show/dig lunch/es/ information sessions</td>
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<td>Leadership team employee meeting</td>
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<td>At-manager meetings</td>
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<tr>
<td>All-employee meetings</td>
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<td>Staff meetings</td>
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<td>Team meetings</td>
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<td>Corridor conversations</td>
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<td>Web site pages</td>
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<td>Monthly news</td>
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<td>Director staff meeting notes</td>
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<tr>
<td>Organization</td>
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</table>

- Goals
- Organizational structure
- Communication protocols
- Workflow processes
- Current metrics
- Staffing & resources
- Technology
- Customer satisfaction
- Employee satisfaction
Regulatory Drivers

“...It is therefore the policy of the United States that Federal agencies shall increase energy efficiency; measure, report, and reduce their greenhouse gas emissions from direct and indirect activities; conserve and protect water resources through efficiency, reuse, and stormwater management; eliminate waste, recycle, and prevent pollution; leverage agency acquisitions to foster markets for sustainable technologies...”

-Federal Executive Order 13514
October 8, 2009
Energy: Voluntary and Mandatory Disclosure
Sustainability as a Driver

Reporting Protocol: GRI

Sustainability Reporting guidelines (G4 Guidelines)

Environmental Performance Aspects
- Materials
- Energy
- Water
- Biodiversity
- Emissions
- Effluents, Waste
- Products and Services
- Compliance
- Transport
- Overall
- Supplier Environmental Assessment
- Environmental Grievance Mechanisms
Financial Drivers

1. How much money do we need?
2. Where should it be directed?
3. How do we know we are using our resources wisely?
# Defining Outcomes

<table>
<thead>
<tr>
<th>Success Looks Like...</th>
<th>How Will We Know?</th>
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<tbody>
<tr>
<td>We have great customer service</td>
<td>• Timeliness of response</td>
</tr>
<tr>
<td></td>
<td>• Reliability of services</td>
</tr>
<tr>
<td></td>
<td>• Work quality</td>
</tr>
<tr>
<td></td>
<td>• Positive interactions</td>
</tr>
<tr>
<td>We manage our finances well</td>
<td>• Improve capital budgeting process for long term needs</td>
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<tr>
<td></td>
<td>• Cost effectiveness of work performed</td>
</tr>
<tr>
<td></td>
<td>• Cost of facilities</td>
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<tr>
<td>We have very limited down-time</td>
<td>• Manage scheduled down-time for lowest impact</td>
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<tr>
<td></td>
<td>• Improve critical system reliability</td>
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<tr>
<td></td>
<td>• Perform the right about of maintenance at the right time</td>
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</tbody>
</table>
Evaluate Drivers and Define Outcomes

Prioritize

Implement

Measure & Monitor

Prioritize

Effort/Benefit

- Effort
- Benefit

Legend:
- M&A
- MP
- OP
- WD
- SP
- CF
We like to think that more information drives smarter decisions; that the more details we absorb, the better off we'll be.

-Ron Friedman

Why Too Much Data Disables Your Decision Making
Metrics Can Be Driven By...

1. Financial performance requirements
2. Mandatory reporting requirements (resource use, pollution)
3. Voluntary reporting requirements (corporate citizenship)
A KPI is a core metric that defines top level success.
Choosing Metrics

Be the best widget producer in our industry

### The Right Metrics?

1. Customer Satisfaction
2. Top Ten WO Trouble Codes
3. Workforce Productivity - Process
4. WOs Initiated by Staff as Result of Inspections/RCM
5. PM to CM Ratio
6. PM Schedule Completion Rate
7. Workforce Productivity
8. Work Distribution by Type
9. Open Work Orders (WO) by Type
10. WO Completion Targets
11. Change in Facility Condition Index

<table>
<thead>
<tr>
<th>Desired Outcome</th>
<th>How Will You Know?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have great customer service</td>
<td>• Timeliness of response&lt;br&gt;• Reliability of services&lt;br&gt;• Work quality&lt;br&gt;• Positive interactions</td>
</tr>
<tr>
<td>Manage finances well</td>
<td>• Improve capital budgeting process for long term needs&lt;br&gt;• Cost effectiveness of work performed&lt;br&gt;• Cost of facilities</td>
</tr>
<tr>
<td>Reduce down-time</td>
<td>• Manage scheduled down-time for lowest impact&lt;br&gt;• Improve critical system reliability&lt;br&gt;• Perform the right about of maintenance at the right time</td>
</tr>
</tbody>
</table>
Information Sources

- FM Information System
- Staff
- Internal Surveys
- Utility Companies
- Service Companies
- Vendors
- Building Automation System
- Energy Management System
- Other Internal Systems
Implementation & Monitoring

- Evaluate Drivers and Define Outcomes
- Prioritize
- Implement
- Measure & Monitor
Implementing a Performance Management System

Organizational Level

Strategy Map

Facility Management Level

Performance Management System

BSC
Management Plan
Metrics
Performance Management with a Balanced Scorecard

- A carefully selected set of quantifiable measures derived from an organization’s strategy
The Balanced Scorecard as a Performance Management Tool

- Customer (survey-based) metrics
  - Customer satisfaction
  - Workplace comfort & productivity
  - Work downtime

- Physical performance metrics
  - Energy consumption
  - Water consumption
  - Building condition

- Functional (process) metrics
  - Work management (work orders)
  - Workforce effectiveness
  - Labor efficiency
  - FM learning (Learning & Growth)

- Financial performance metrics
  - Space cost
  - Operational cost (Custodial, O&M, etc.)
  - Capital Budget (% of Replacement Cost)
  - Total Cost of Ownership (TCO)

In BSC format

- Customer
- Physical
- Functional (including L&G)
- Financial
The Balanced Scorecard as a Performance Management Tool

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Measurement</th>
<th>Target</th>
<th>Information Provided</th>
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<tbody>
<tr>
<td>Custodial QA Inspection Hits</td>
<td>G</td>
<td>Y</td>
<td>R</td>
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<tr>
<td>Emergency Response Times</td>
<td>&lt;5 Insp.</td>
<td>5-10 Insp.</td>
<td>&gt;10 Insp.</td>
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<tr>
<td>Percent of Rework (call backs)</td>
<td>&lt;3%</td>
<td>3-5%</td>
<td>&gt;5%</td>
</tr>
<tr>
<td>On-Site Supervisor Time</td>
<td>&gt;65%</td>
<td>40-65%</td>
<td>&lt;40%</td>
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<tr>
<td>Annual Customer Expectations Calibration</td>
<td>APPA L1</td>
<td>APPA L2</td>
<td>APPA L3</td>
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<tr>
<td>Proactive Manager Contacts w/ Customers</td>
<td>&gt;1/qtr</td>
<td>1/qtr</td>
<td>None</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>&gt;95%</td>
<td>90-95%</td>
<td>&lt;90%</td>
</tr>
<tr>
<td>Percent WO with Customer Feedback</td>
<td>&gt;15%</td>
<td>10-15%</td>
<td>&lt;10%</td>
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<tr>
<td>Top Ten WO Trouble Codes</td>
<td># &amp; Type</td>
<td># &amp; Type</td>
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- **Measurement**: Panoramic, Maturity, Self-Assessment, Business Results, Finance, Customer Satisfaction, Internal Processes, Anticipatory Learning, Human Resource Development
- **Target**: Confirm quality of service, ID trends
- **Information Provided**: Work quality, Repeat call on closed WO
- **Information Provided**: Measure of supervisor interaction with customers
- **Information Provided**: Measurement of APPA level of service
- **Information Provided**: Proactive solicitation and PR to customers for feedback
- **Information Provided**: Survey results of completed CM WOs
- **Information Provided**: Measure of customer feedback on work orders
- **Information Provided**: Trade skill requirements
Measuring and Monitoring

Building (physical) data

Process level

Building (physical) metrics dashboard

Building Data
Measuring and Monitoring

Functional metrics

Management level

Workforce Data
Agenda

• The Building Blocks of a Strategic Approach
• Facility Operations Overview
• Telling the Story
We Started Here…

What is Important to Your Organization?

Vision

Mission

Values

Now, tell the story!
Telling the Story

Tips for Success

1. Know your audience and how people think
2. Sketch it out
3. Use graphics
4. Use trends
5. Include the future as well as the past
6. Keep the focus on the right information
Know Your Audience

Cost Center?

An Investment in Organizational Success
Sketch it Out
Use Graphics

Invest $24M

2008

Mission Criticality & Capital Needs

2013
Use Trends

Healthy People Impact Profits

Through these programs, the company reduced employee sick time

Reducing sick time by
• 1 day
• per employee
• per year...

Estimated savings: $105,000 each year

*Based on 1,750 employees, average cost $60/employee*
Include the Future

Energy Consumption (kBtu)

2010

2011

2012

Total Elec Usage (kBtu)
Total Gas Usage (kBtu)
Annual Cost/SF

Include the Future

Energy Consumption (kBtu)

2010

2011

2012

Total Elec Usage (kBtu)
Total Gas Usage (kBtu)
Annual Cost/SF
Reporting

- Targeted to your audience
- Reports progress using selected metrics
- Paints a picture for future success
Case Study: Golden Gate National Parks Conservancy

Addressing Alignment & Drivers: A Strategic Facilities Plan as a reporting tool
Addressing Alignment & Drivers: A Strategic Facilities Plan as a reporting tool

Align with:
- Mission
- Values

State:
- FM goals
- FM drivers
Answers the questions:

- Who are we
- What do we do
- Where do we fit
Answers the questions:

- What do we manage
- How do we manage our resources
- How do we accomplish our work
Summary

- Organizational drivers inform metrics and KPIs
- Choose the right metrics and KPIs
- Demonstrate alignment with organizational mission
- A well crafted report tells your audience what they need to understand past performance and future expectations

**Tactical Level (Data)**
- Work management (FM Technology)
- Building management (Building system technology)

**Metrics**
- Work metrics
- Building metrics
- Environmental metrics
- Workplace metrics

**KPIs**
- Customer satisfaction
- Corporate Sustainability goals
- Business continuity

**Strategic Level (Reporting Value)**
- How well did we fulfill the Mission, Vision, Values?

**Data** ➔ **Information** ➔ **Knowledge** ➔ **Wisdom**
Questions?

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Thank You!