Sustainability Dashboards Provide Roadmap to Success

By Jim Simpson

I love looking at classic cars in parades. From Model Ts to 57 Chevys, they're a great flash from the past. Best of all are the dashboards. At a glance, you can see how much gas you have left, how fast you're going, and if the engine is running hot.

As much as I love the old chrome dials, to be honest, I've gotten used to looking at the information you can find in today's cars. I really like to know my mileage per gallon, what direction I'm headed, and - with hybrids - how my energy is being used. It's a little more complex, but it makes me a better driver.

It's similar to new software for campuses with many buildings. A Sustainability Dashboard provides a graphic look at real-time data from across the enterprise. It's a single interoperable platform that can communicate with existing control systems, normalize the data, encrypt it, and integrate that data securely with enterprise applications and suppliers – for both financial and environmental reasons.

A SUSTAINABILITY DASHBOARD PROVIDES A GRAPHIC LOOK AT REAL-TIME DATA FROM ACROSS THE ENTERPRISE.

TOTAL COST OF OWNERSHIP

This type of dashboard provides visibility to the total cost of ownership for operations, maintenance, energy, and capital sources across an entire real estate portfolio and the business processes that support it. The system enables accountability through real-time smart decisions that use data to dramatically increase efficiency and reduce operating costs across the entire enterprise.

That means organizations can manage energy and water, improve operations and inventory, diagnose downtime and maintenance, and report on capital investment – and track results in terms of greenhouse gas (GHG) emissions.

For instance, the State of Missouri developed an enterprise sustainability manager across its 32 million sq. ft. of space and thousands of buildings. After facility audits, the team integrated existing and new systems to build a complete, Web-enabled, building information management system, including a portal interface that delivers operations, maintenance, energy, and capital data to the state's facilities department in real time.

The result is a more efficient and effective state facilities department and annual energy and operational savings of $9.5 million. In addition, the state is using the data to calculate its carbon footprint and determine how to best reduce emissions. Information is normalized across the portfolio to reflect usage, costs and GHG, by square footage, number of people that occupy a facility, and degree heating or cooling days.

THE COLOR CODING AND METRICS ON A SUSTAINABILITY DASHBOARD REPRESENT DATA IN SUCH A WAY THAT AN END USER IS NOT BOGGED DOWN BY INFORMATION OVERLOAD BUT INSTEAD IS ABLE TO DECIPHER VERY QUICKLY AREAS WHERE ADDITIONAL ATTENTION IS REQUIRED.

CONSIDERING THE INVESTMENT

The concept of a sustainability dashboard is terrific, especially when there are multiple systems and buildings within a campus. But it's not for everybody. Here are some things to think about when you're considering the investment:

- *Are you responsible for a building portfolio exceeding 1 million sq. ft.?*
  Dashboards are most effective when you can take volume into account.
- *Is your institution data-driven? Do you need to measure your campus's performance to meet government mandates, benchmark facilities to meet ENERGY STAR® or LEED® ratings, or provide voluntary reporting such as the American College & University Presidents Climate Commitment or Mayors Climate Protection Agreement?*
  Dashboards can provide all this information.
- *Do you have a strong IT team?*
  Although integrating data can be challenging, a robust interoperability layer helps you extend the value of your legacy systems. Be sure the dashboard you choose can talk with TCPIP, Web Services, SOAP, and XML in order to both take the information in and report the information out.

And perhaps the toughest question of all — *Are you ready for this?* Because a Sustainability Dashboard transparently reports data – LOTS of data – it means the college or university and its leaders need to be committed to:

- **Using the data in a meaningful way.**
  For instance, a dashboard can provide actionable information to reduce energy waste on average of 20 percent annually, representing 25 to 55 cents per square foot. The organization needs to be ready to move forward and reduce energy, perhaps through a performance contract.
- **Demonstrating the value each part delivers to the whole.**
  The detail of a dashboard will make it very clear which areas are performing – and which could do better. That also means having a team that will be accountable for continuous improvement and to some degree, encouraging competition to develop best practices.
- **Being innovative and entrepreneurial, rather than bureaucratic.**
  When it comes to finding ways to reduce greenhouse gas emissions without spending capital funds, facilities teams have to consider new technologies, approaches and partnerships that all can make best use of the dashboard data.

COMMUNICATION IS KEY

The key to success is communication. Business guru John Naisbitt says, "We are drowning in information but starved for knowledge." The color coding and metrics on a sustainability dashboard represent data in such a way that an end user is not bogged down by information overload but instead is able to decipher very quickly areas where additional attention is required.

It takes a true leader to not only have the information, but also use it to enact change. For example, at the University of North Carolina – Chapel Hill, a Web-based enterprise building management systems is allowing the traditional BAS to move from a proprietary and private world, little understood by the building occupants, to a system that everyone can actively use to enhance their use of the space they occupy.

Just as we've moved from country lanes to the interstate, having a strong dashboard will help large-scale organizations move from a building-specific approach to an enterprise approach that will benefit all.

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