

# 6 WAYS TO SMARTER FACILITIES MANAGEMENT

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## INSTALL ENERGY- SAVING SYSTEMS

Today's smart campuses are lowering emissions and saving energy and money by investing in efficient systems—including HVAC, lighting, roofing, ventilation, plumbing and more.

**Over 39% of students are concerned about sustainability.**<sup>1</sup>

### FAIL

- ✗ Haven't installed energy-saving systems or equipment
- ✗ Haven't assessed your energy efficiency in the last 5 years
- ✗ Don't have resources focused on energy conservation or efficiency

### PASS

- ✓ Installed energy-saving HVAC systems
- ✓ Optimized programming on your heating and cooling systems
- ✓ Installed energy-saving lighting
- ✓ Installed a cool roof to lower peak energy demands
- ✓ Developed and executed energy conservation programs in your facilities management approach

### BENEFITS

- \$ 10% savings or more on heating and cooling
- \$ Annual energy savings in the hundreds of thousands
- \$ Lower campus-wide emissions of 30% or more
- \$ Reduce carbon footprint by reducing emissions by hundreds of metric tons



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## IMPLEMENT ENERGY- SAVING HABITS

Many campuses are implementing cost-effective, energy-efficient measures by making better use of existing equipment.

**A typical 50,000-square-foot classroom building uses more than \$100,000 worth of energy each year.**<sup>2</sup>

### FAIL

- ✗ Running air conditioner, heating and lighting in closed and unused buildings
- ✗ Not scheduling regular equipment maintenance and periodic tune-ups
- ✗ Haven't created a strategic plan that identifies every opportunity to eliminate waste and maximize savings

### PASS

- ✓ Turning down or turning off systems in buildings when they are not in use
- ✓ Installed controls for lighting and computers to shut down when idle
- ✓ Regular cleaning of condenser coils and changing filters
- ✓ Sequencing chillers on and off
- ✓ Conducted a comprehensive review of your HVAC systems in every building and analyzed them against building occupancy levels

### BENEFITS

- \$ Reduce campus energy consumption by 10% to 25%
- \$ Cut energy bills by 30% or more
- \$ Reduce school's carbon footprint by hundreds of metric tons
- \$ Gain cost savings of hundreds of thousands of dollars

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## LAUNCH ENERGY- SAVING PROGRAMS

Campus-wide energy-saving programs encourage students, staff and faculty to help lower energy use and boost your energy savings.

**Over 31% of students believe energy conservation is the most important pursuit.**<sup>3</sup>



### FAIL

- ✗ Lack effective community programs that encourage students to save energy and the environment
- ✗ Haven't launched faculty or staff educational programs with a focus on energy conservation
- ✗ Haven't created campus-wide recycling programs

### PASS

- ✓ Launched student dorm energy-saving competitions
- ✓ Launched social media campaigns with energy-saving tips for your community
- ✓ Launched recycling programs across campus
- ✓ Launched faculty and staff educational programs that integrate energy conservation as part of the community culture

### BENEFITS

- \$ Increase student and faculty enthusiasm for saving energy
- \$ Generate annual energy savings in the hundreds of thousands
- \$ Save millions of pounds of waste from filling up landfills



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## LEVERAGE INTERNET OF THINGS (IoT)

IoT is the latest catchphrase for the technology that connects people and business with all of the digital objects in their lives and workplaces. The expansion of IoT is affecting the way campuses manage, plan and execute facilities management in many productivity-enhancing ways.

**There will be 6.4 billion internet-connected things in use worldwide in 2016—and 20.8 billion by 2020.**<sup>4</sup>

### FAIL

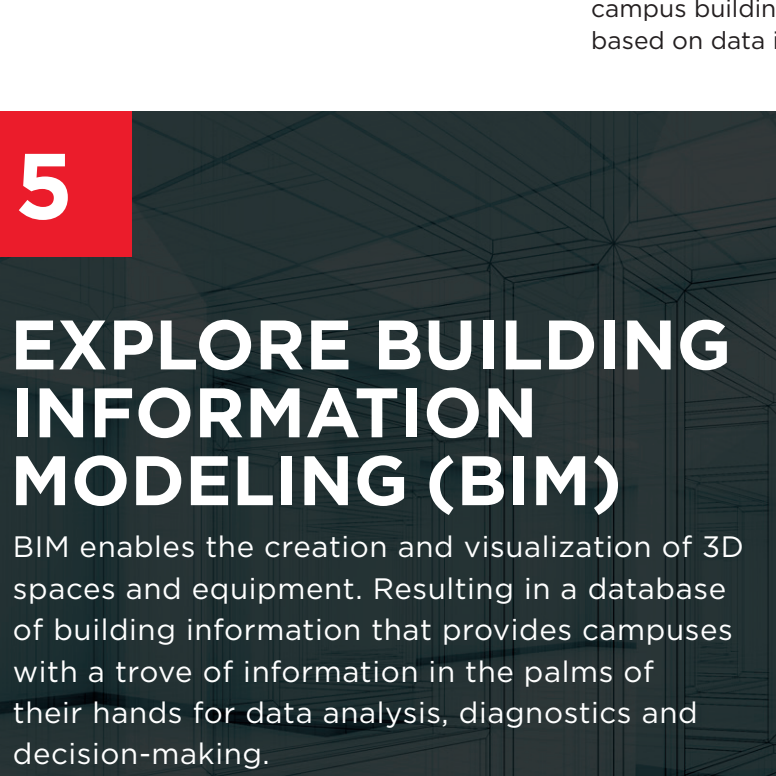
- ✗ Still deploying facilities staff across your campus to manually check on buildings and grounds
- ✗ Facilities staff reactively handles crises, wasting valuable time and resources

### PASS

- ✓ Virtually monitoring the physical condition of your entire campus
- ✓ Environmental sensors and energy meters relay data on their performance to headquarters
- ✓ Proactively identify and address maintenance before systems become costly failures or emergencies
- ✓ Facilities team proactively manages campus buildings and grounds based on data inputs

### BENEFITS

- \$ Significant drop in risks from equipment damage and malfunction
- \$ Significant increase in facilities staff productivity and efficiency
- \$ Lower cost of operating well-running equipment and buildings
- \$ Free up resources for other critical campus budgetary expenditures



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## EXPLORE BUILDING INFORMATION MODELING (BIM)

BIM enables the creation and visualization of 3D spaces and equipment. Resulting in a database of building information that provides campuses with a trove of information in the palms of their hands for data analysis, diagnostics and decision-making.

**Campuses must find new ways to address the rising costs of facilities management.**<sup>5</sup>



### FAIL

- ✗ Haven't explored the potential benefits of BIM on your campus
- ✗ Do not have a standardized database of facilities data
- ✗ Have no ability to integrate space and equipment data with your software for facilities management
- ✗ Have no ability to view, validate and/or update space and equipment with wireless technology

### PASS

- ✓ Using 2D drawings or 3D models generated by BIM on wireless handheld devices to validate and update actual building space configurations
- ✓ Integrating your BIM space and/or equipment data with your Computerized Maintenance Management System (CMMS)
- ✓ Placed maintainable equipment within BIM models with direct links to essential resources such as user manuals, pictures and/or videos using wireless technology

### BENEFITS

- \$ Reduce risks of expensive disasters
- \$ Improve facilities data integrity to reduce assumptions
- \$ Reduce space density challenges
- \$ Lower escalating campus maintenance budgets
- \$ Reduce time and costs to collect and validate facilities data



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## OPTIMIZE SPACE UTILIZATION

How campuses manage their space has become one of today's biggest challenges for higher education. That's why campuses are establishing reliable space management systems to manage every square foot of space for maximum usage.

**Over 44% of college and university presidents say "making better use of facilities" is key to cost reduction.**<sup>6</sup>

### FAIL

- ✗ Don't know exactly how much net, gross and/or net usable square foot space you have on campus
- ✗ Have building space on campus that is not being optimized
- ✗ Have no ability to verify and/or track space data using wireless technology
- ✗ Can't support the staff and budget levels you need for the work that needs to be done

### PASS

- ✓ Know the exact square footage and use of every building space on campus
- ✓ Track campus space for efficient and cost-effective upkeep and repair
- ✓ Continuously validate space is accurate and represents existing configurations
- ✓ Created systems that mitigate facilities-related risks to your campus

### BENEFITS

- \$ Upgraded buildings keep operations running smoothly and lower maintenance costs
- \$ Reduce renovation expenses, making financial resources available for other campus expenses
- \$ Well-maintained buildings improve students' experience, enrollment and retention
- \$ All space is utilized optimally
- \$ Having accurate space allows the pursuit of grant or other applicable funding

## READY TO IMPROVE YOUR ENERGY MANAGEMENT ON CAMPUS?

DISCOVER 3 MONEY-SAVING STRATEGIES IN THIS FREE GUIDE!

3 SMART WAYS TO IMPROVE ENERGY MANAGEMENT ON YOUR CAMPUS

OPTIMIZE / INVEST / EDUCATE

[CLICK HERE TO GET THE GUIDE](#)



#### Sources:

<sup>1</sup> www.nais.org: Environmental Education and Sustainability

<sup>2</sup> Commercial Buildings Energy Consumption Survey

<sup>3</sup> www.nais.org: Environmental Education and Sustainability

<sup>4</sup> www.gartner.com

<sup>5</sup> www.nebhe.org

<sup>6</sup> www.insidehighered.com