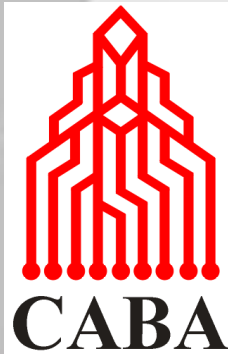


# **Intelligent Building Trends for the Future**

## **Intelligent Cities Conference**

January 19-21, 2009  
Umm Al Qura University  
Al Abdiyah, Markbah  
Saudi Arabia

Ron Zimmer, President & CEO  
Continental Automated Buildings Association (CABA)



# CABA Vision

“The knowledge-based forum for industry leaders who advance the use of technology and integrated systems in the global home and building industry.”

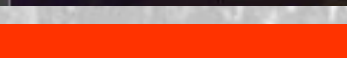
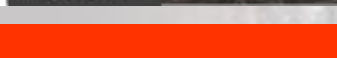




# Intelligent Buildings

How does it manifest itself in RE?

The Fourth Utility<sup>®</sup> Experts

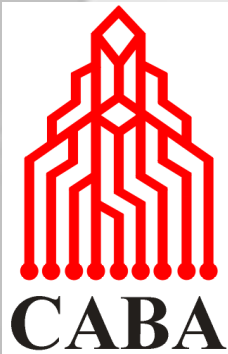




# Technological Evolution of BUILDING AUTOMATION SYSTEMS



# What "Information" is in an Intelligent Building?



- Building automation systems
- Energy management
- Security
- Digital signage
- Facility mgmt. and visitor mgmt.
- POS
- Consumables
- Parking
- Tenant technology
- Property mgmt. and back office
- ...more

# Better Tenant and Common Area Experience



High Speed Internet / Wireless



Ambient Music / TV



Audio – Video Conf



Voice Communications



Visitor management



Interactive media



Digital signage



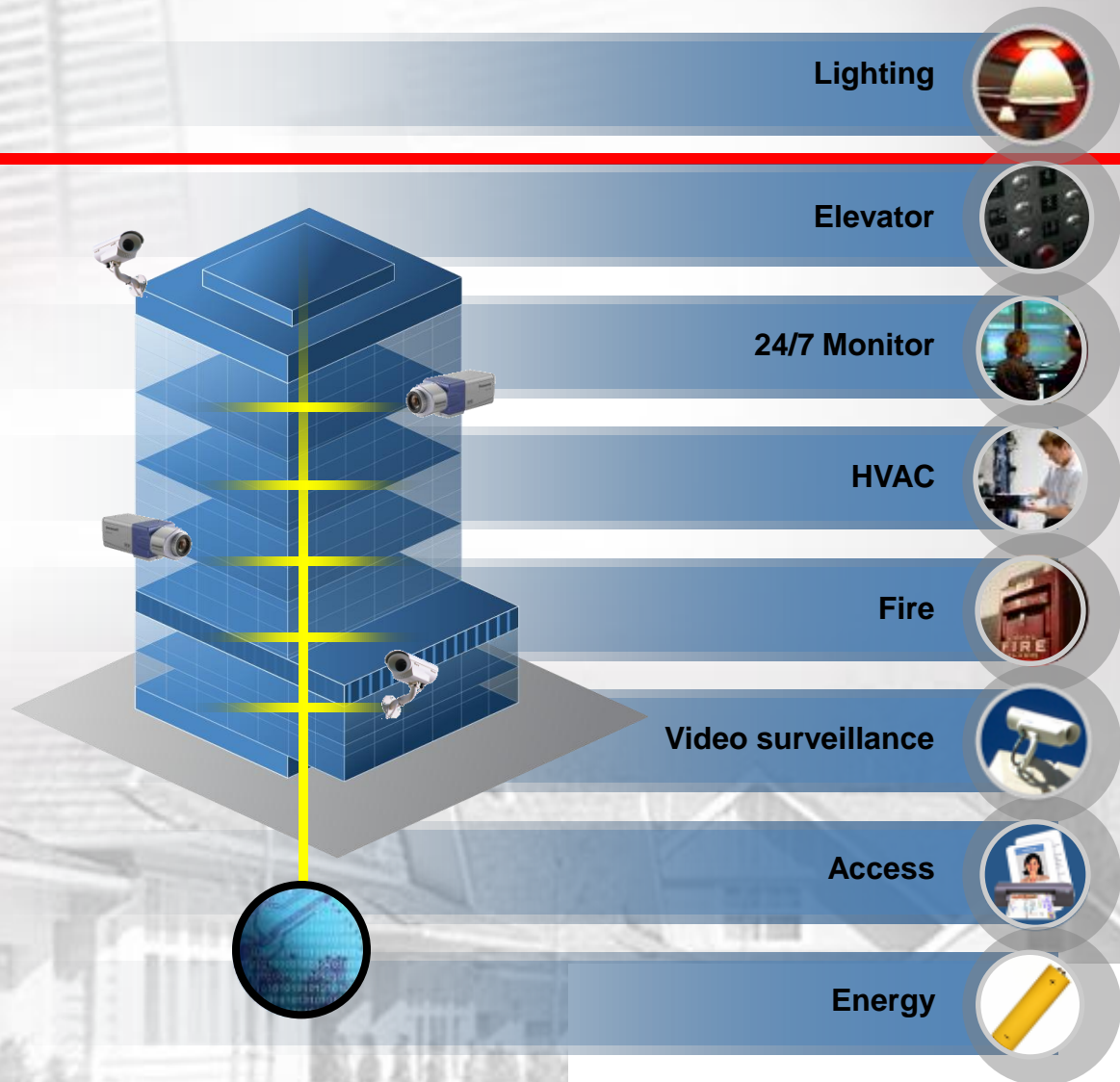
Facilities Management



Services and Technologies



# Reducing Building Cost



Services and Technologies

# Smarter Building / Property



CBDA

High Speed Internet / Wireless

Lighting

Ambient Music / TV

Elevator

Audio – Video Conf

24/7 Monitor

IP Telephony

HVAC

Visitor management

Fire

Interactive media

Video surveillance

Digital signage

Access

Future Applications

Energy



**Too  
Many  
Protocols  
and  
Standards!**

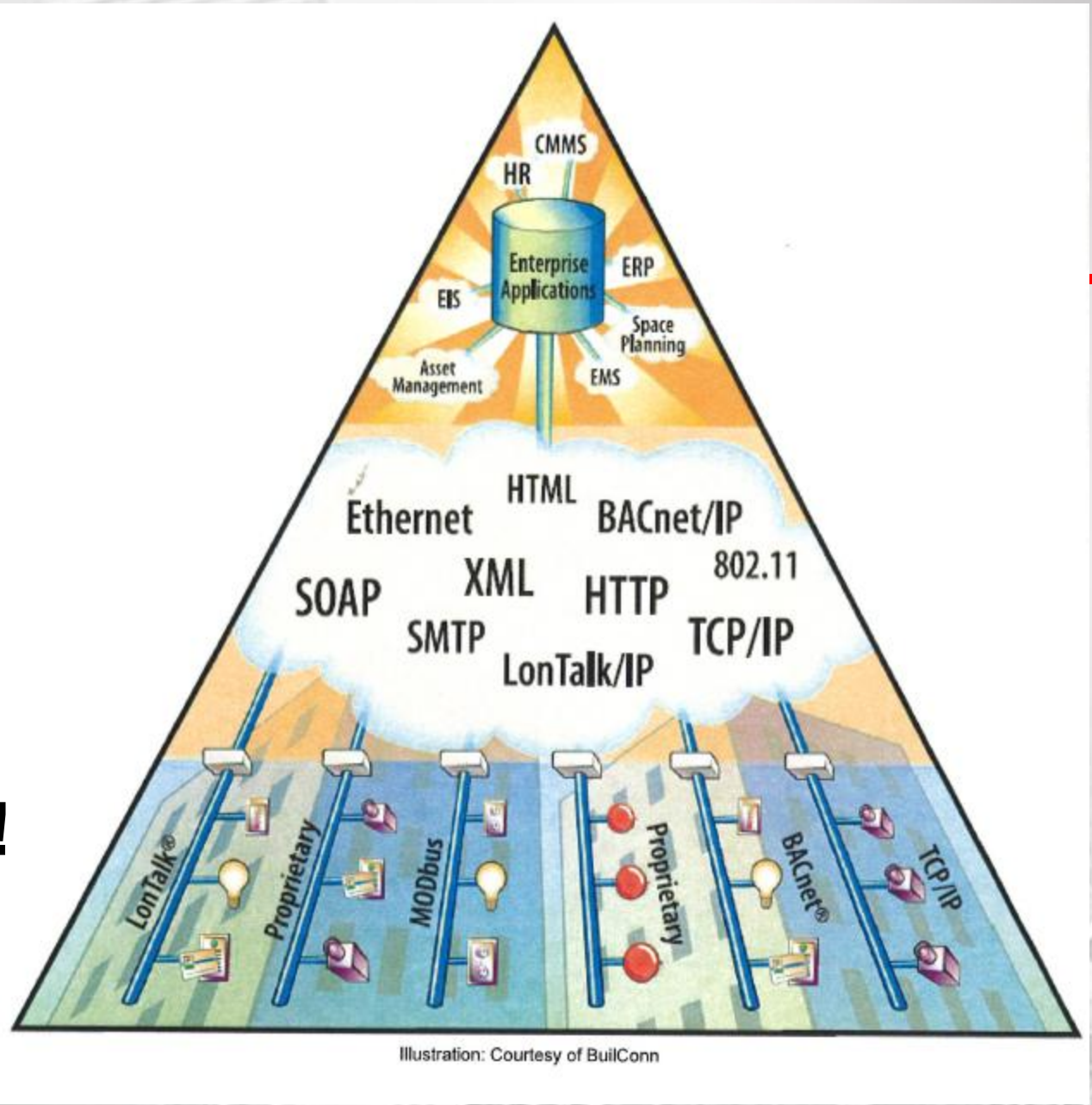
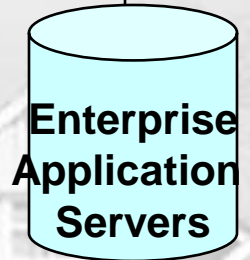
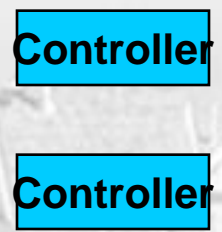
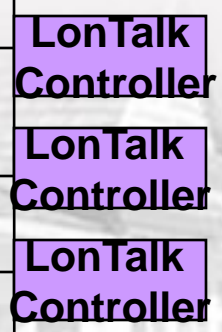
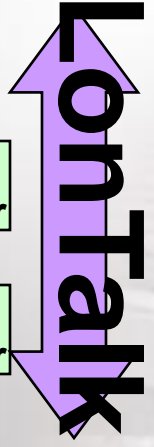
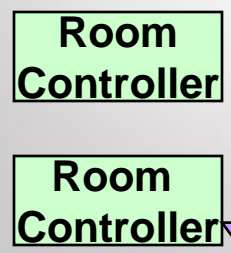
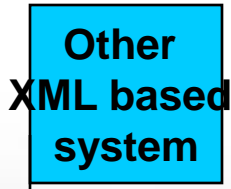
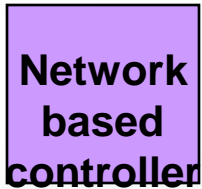
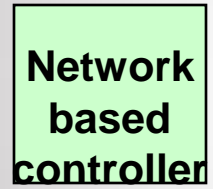
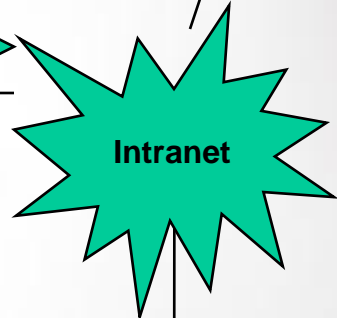
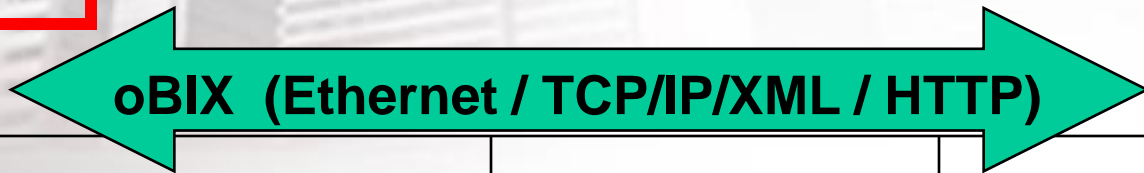


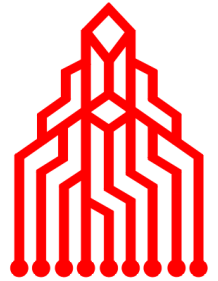
Illustration: Courtesy of BuilConn

# PROPOSED ARCHITECTURE



Client PC's with Web Browser





**CABA**

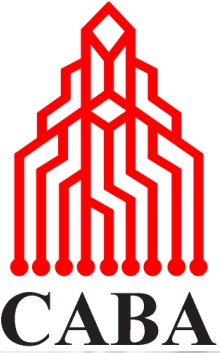
# Intelligent Buildings Roadmap

May, 2007

**FREE  
Executive  
Summary**

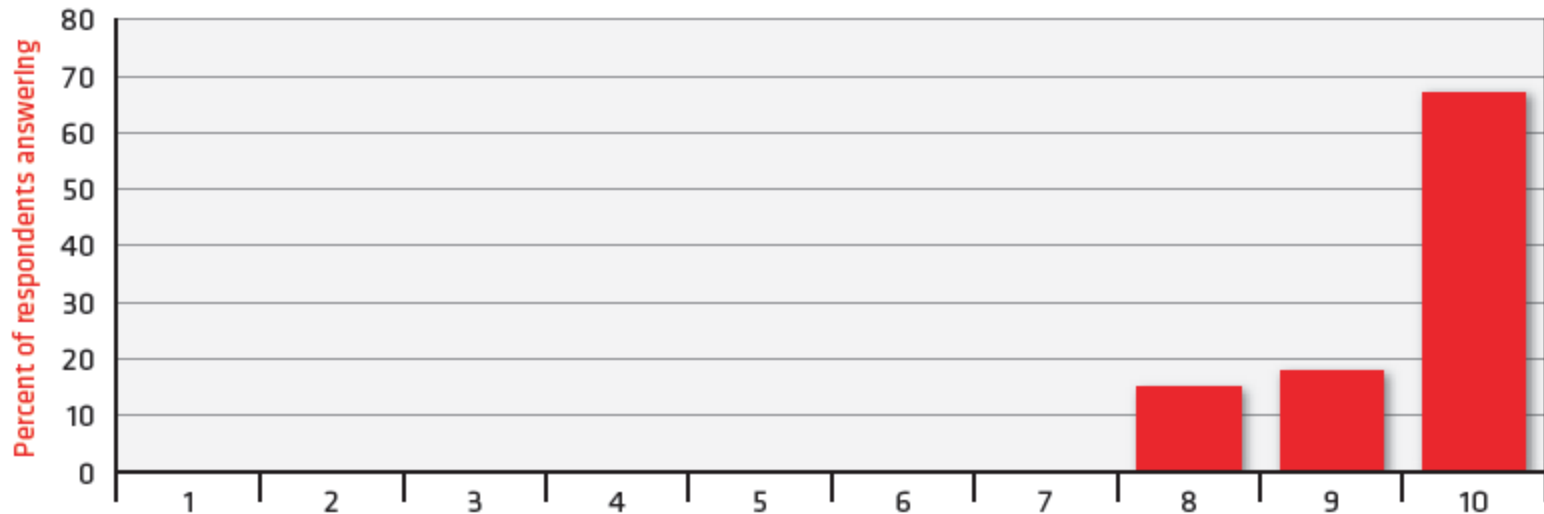


<http://www.caba.org/ibrm>



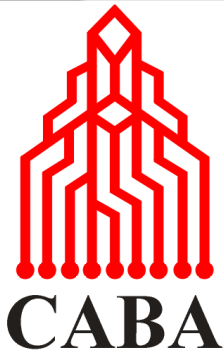
# AND THE SURVEY SAYS?

How likely are you to add new IB technology in the next 1-2 years?



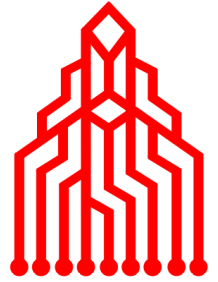
Rating (10 = most likely)

Average = 9.51



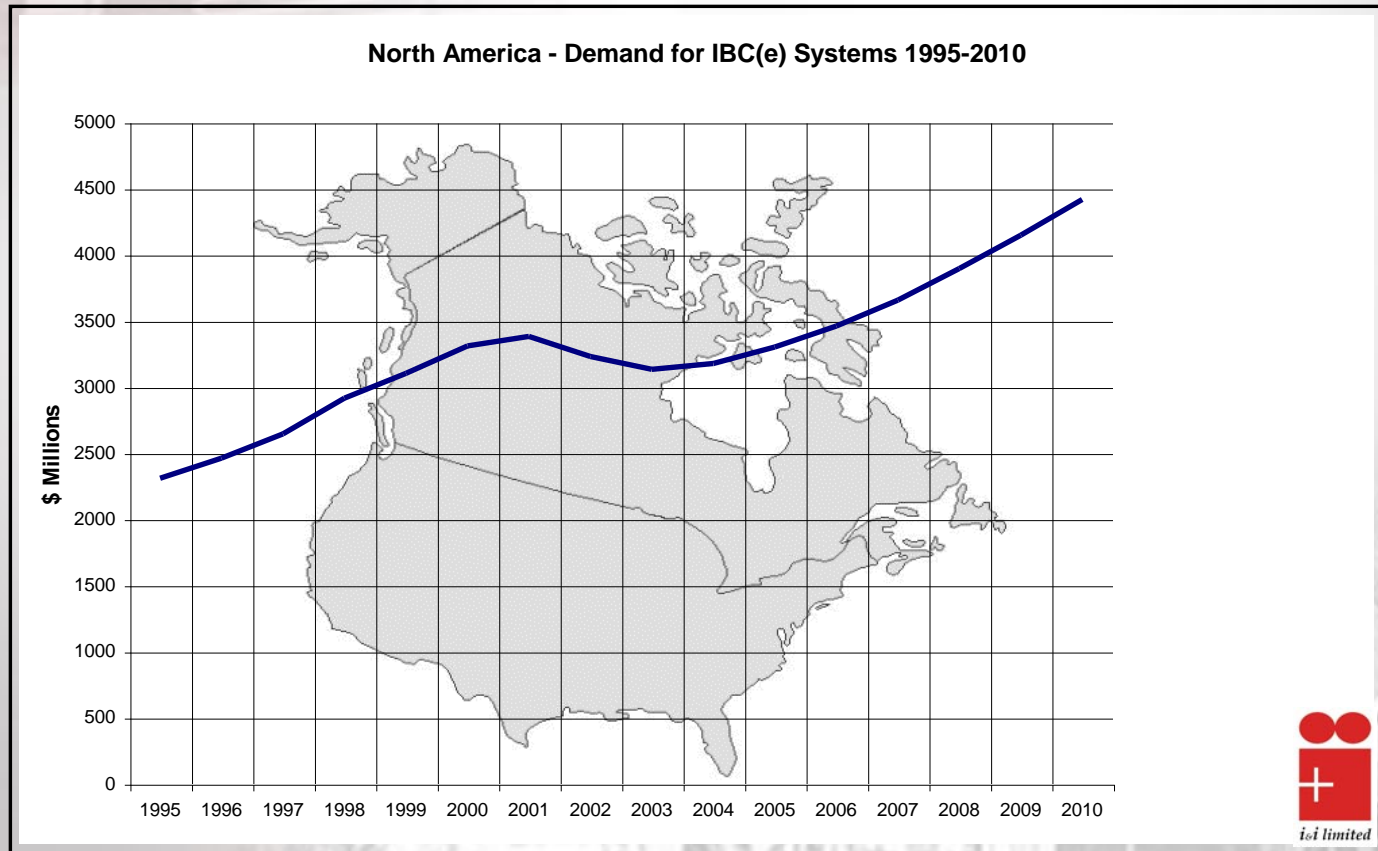
# Technology Usage/Purchase Plans

Technology	Currently Use	Might Purchase
• Smart Telephony	30%	64%
• Telepresence	15%	64%
• Active RFID	9%	64%
• Smart Landscaping	9%	55%
• Intelligent Bathrooms	9%	52%
• Audio/Video Support	39%	48%
• Combined Heat and Power/ Alternative Energy	39%	45%
• Automated Parking	12%	45%
• Green Buildings and LEED Certification	48%	42%
• Digital Signage	21%	39%



CABA

# North American demand for intelligent building controls-environmental (IBC) systems from 1995 to 2010.





# CABA RESEARCH

## CABA's Intelligent & Integrated Buildings Council

- Towards Carbon Neutral Industrial Facilities



- Convergence of Green and Intelligent Buildings



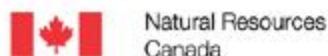
# Convergence of Green and Intelligent Buildings Research



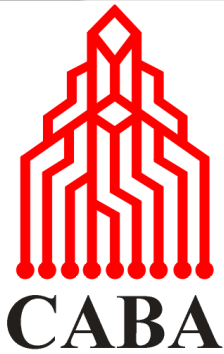
## Level 1 Participating Organizations



## Level 2 Participating Organizations



[www.caba.org/brightgreen](http://www.caba.org/brightgreen)



# Intelligent & Integrated Buildings Council

- **Building Intelligence Quotient Consortium**

**BUILDING INTELLIGENCE QUOTIENT**



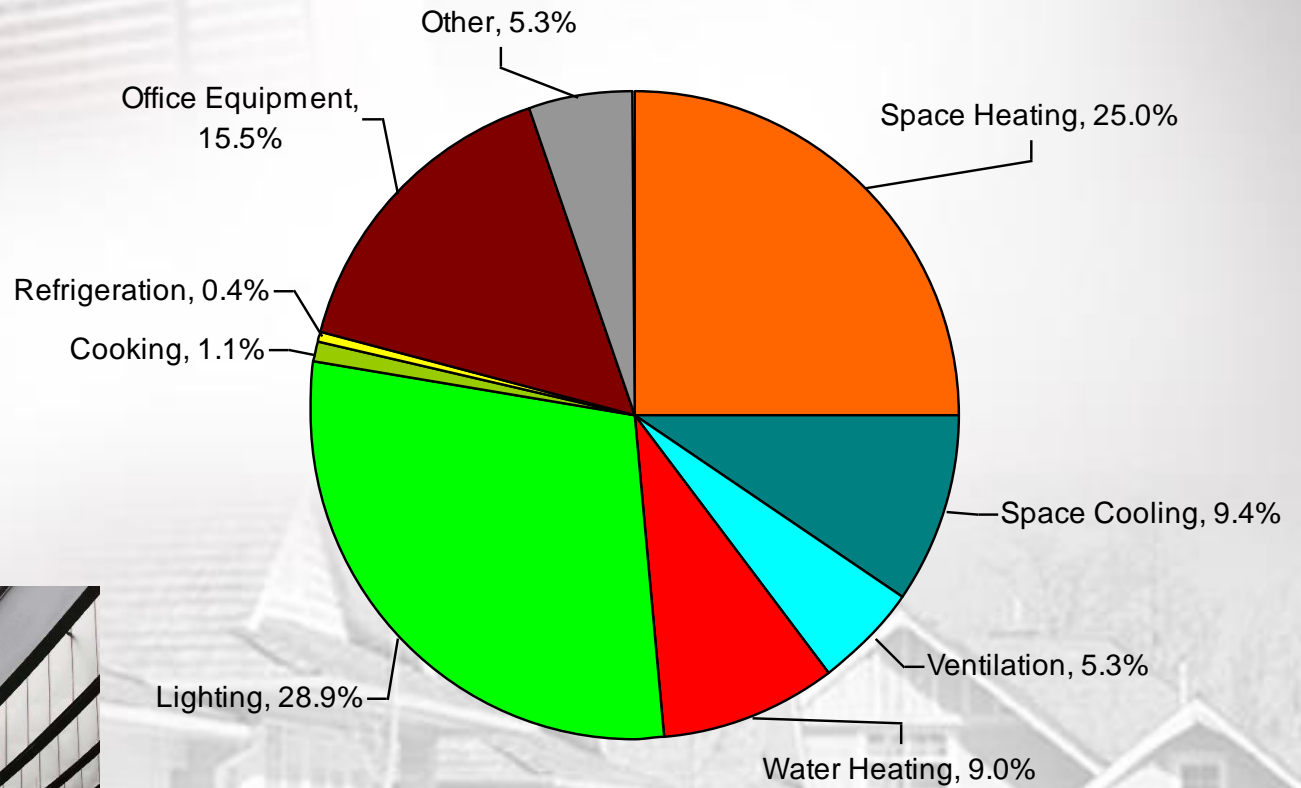
- **Reed Construction Data/RSMeans**

**Life-Cycle Costs Analysis Tool**





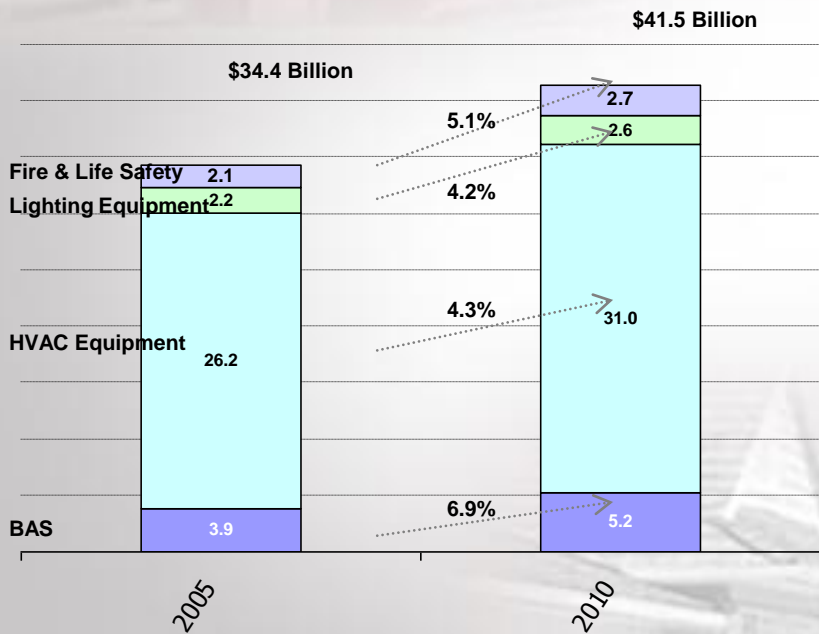
# Commercial Buildings Energy Use



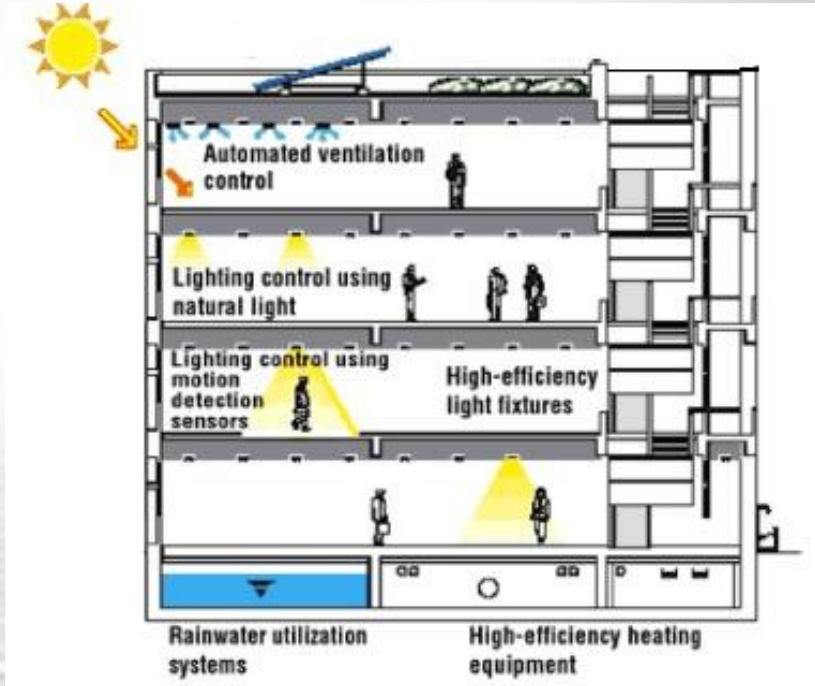
Source: 2008 Department of Energy Buildings Energy Databook



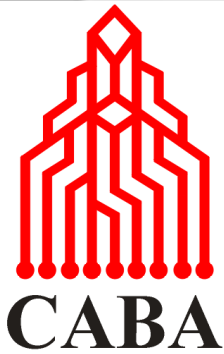
# Projected Equipment Growth and Usage



Revenues (\$ Billion)



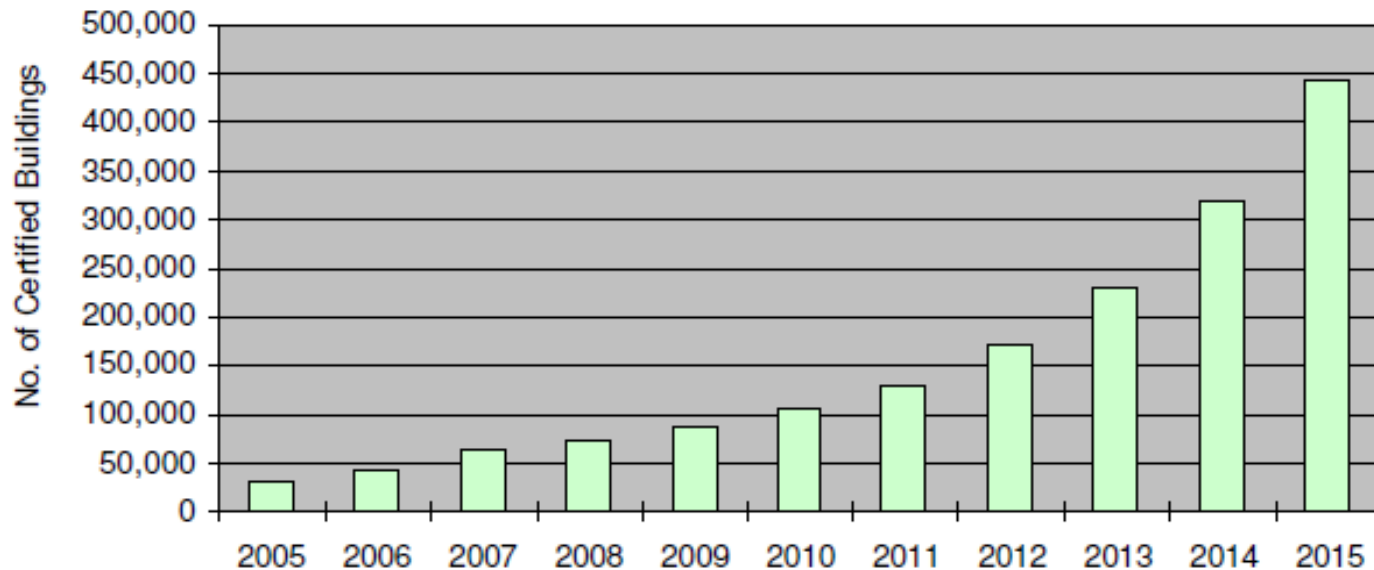
Source: Frost & Sullivan



# Green Building Certification Projection 2005-2015

Chart 1.2 - Green Building Certification Projection 2005-2015

Green Building Certification Projection (North America) 2007-2015

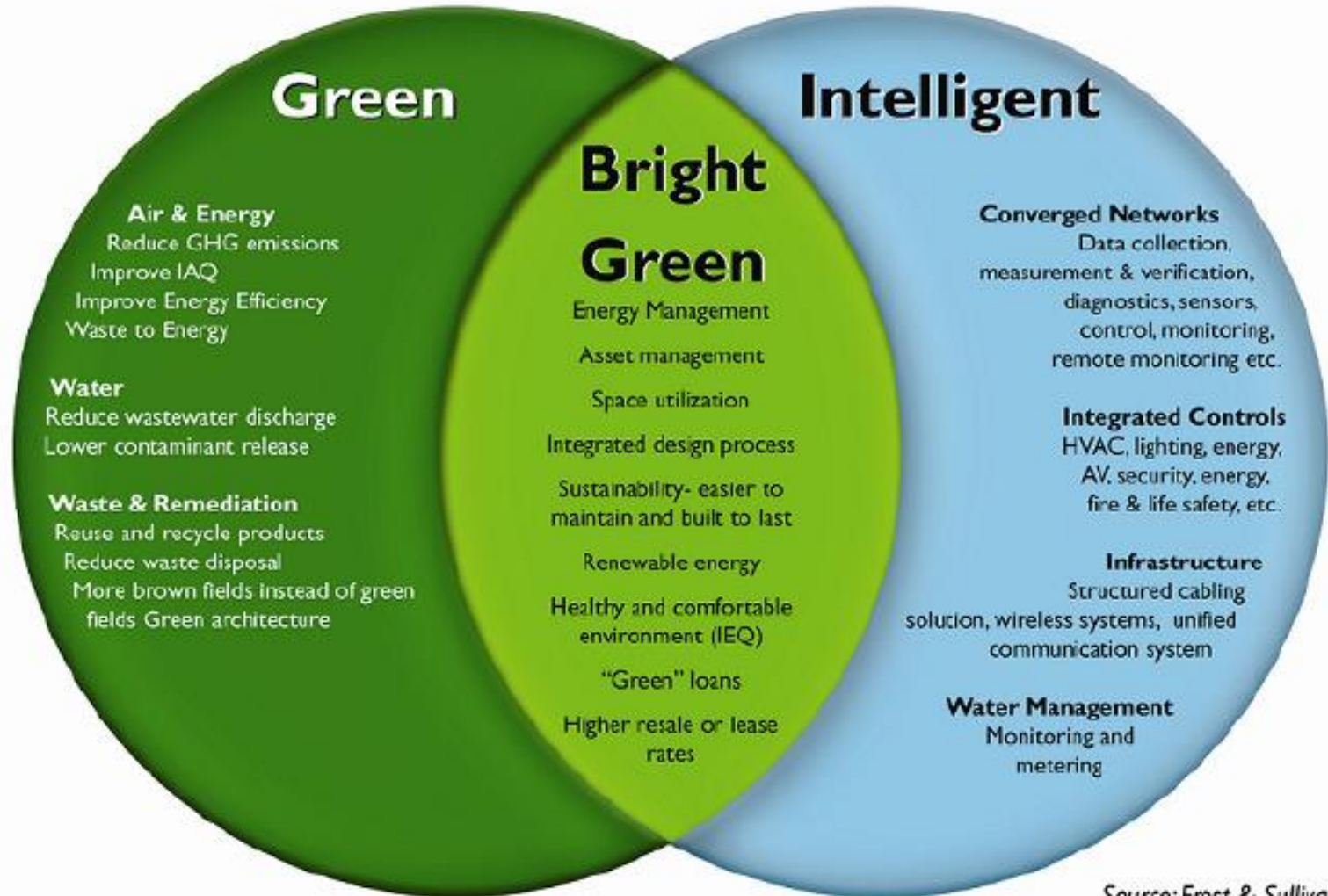


Source: Frost & Sullivan

# Convergence of Intelligent and Green Buildings



CABA





# BiQ - an online tool

**Rating and  
Certification**

**(demonstrates the  
added value)**

**+**

**Upgrade Design  
and  
Implementation  
Guidance**

**(demystifies  
implementation)**

❖ [Benefits of Intelligent Buildings](#)   ❖ [Technology Roadmap for Intelligent Buildings](#)   ❖ [Case Studies](#)

❖ [BIQ Attributes](#)

❖ [Frequently Asked Questions](#)

❖ [Cost](#)

❖ [Certification](#)

❖ [BIQ Report](#)

❖ [Test Drive BIQ](#)

❖ [Purchase BIQ](#)

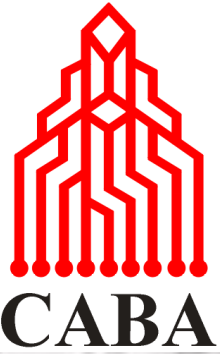
❖ [Start Using BIQ](#)



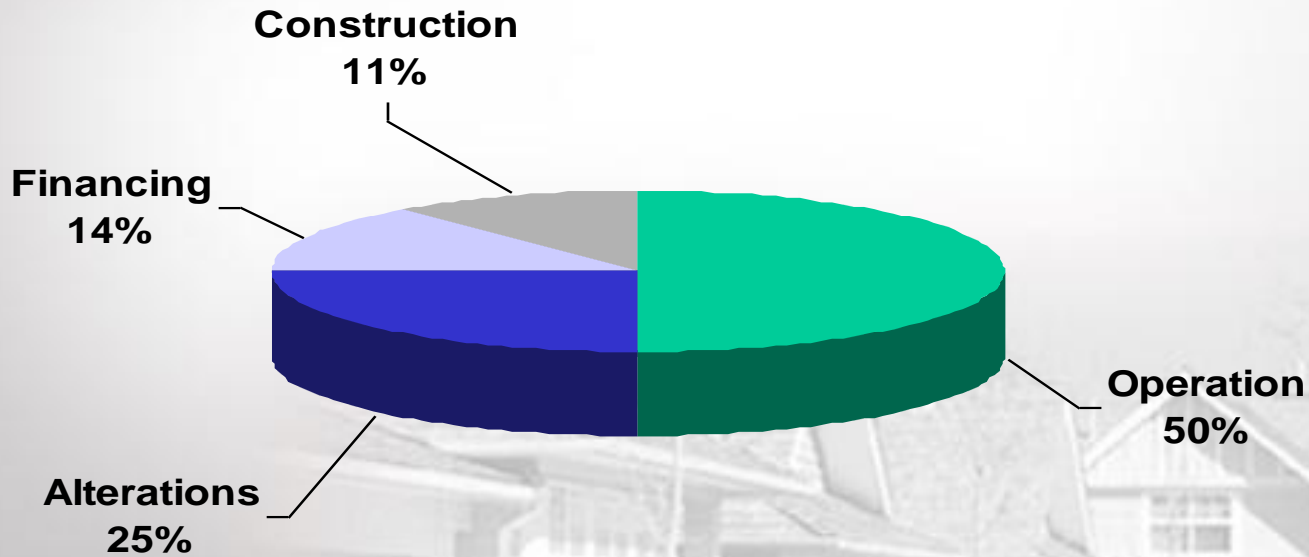
Welcome to CABA BIQ. The purpose of this tool is to rate a building's intelligence and provide design guidance to ensure that all relevant issues are considered when making a choice of subsystems suitable for linking into a building automation network.

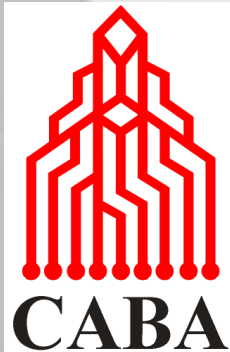


**Continental Automated Buildings Association**



# Typical Building Cost Over A 40 Year Life Cycle

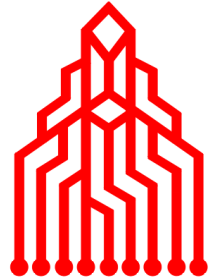




# Facilities as Profit Centers

**“Today, facilities are viewed as strategic resources... elevating the facility manager to the role of asset manager supporting the organization's overall business goals. ... managing facilities as a true profit center.”**

*(From an E-mail promoting a new book “Total Productive Facilities Management - By Richard Sievert)*




**CABA**

# Your Information Source for Home & Building Automation

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[www.caba.org](http://www.caba.org)

[\*\*www.caba.org/samples\*\*](http://www.caba.org/samples)

