

AERTC 2009

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Buildings Business



Our Customers' Top Challenges

Cost of Energy in the Building

as a key operational challenge

Connectivity

too many disparate systems in the building

Total Building Life Cycle Costs

due to the increasing complexity of building operations

Security

as a growing concern

The Energy Dilemma is Here to Stay

The facts

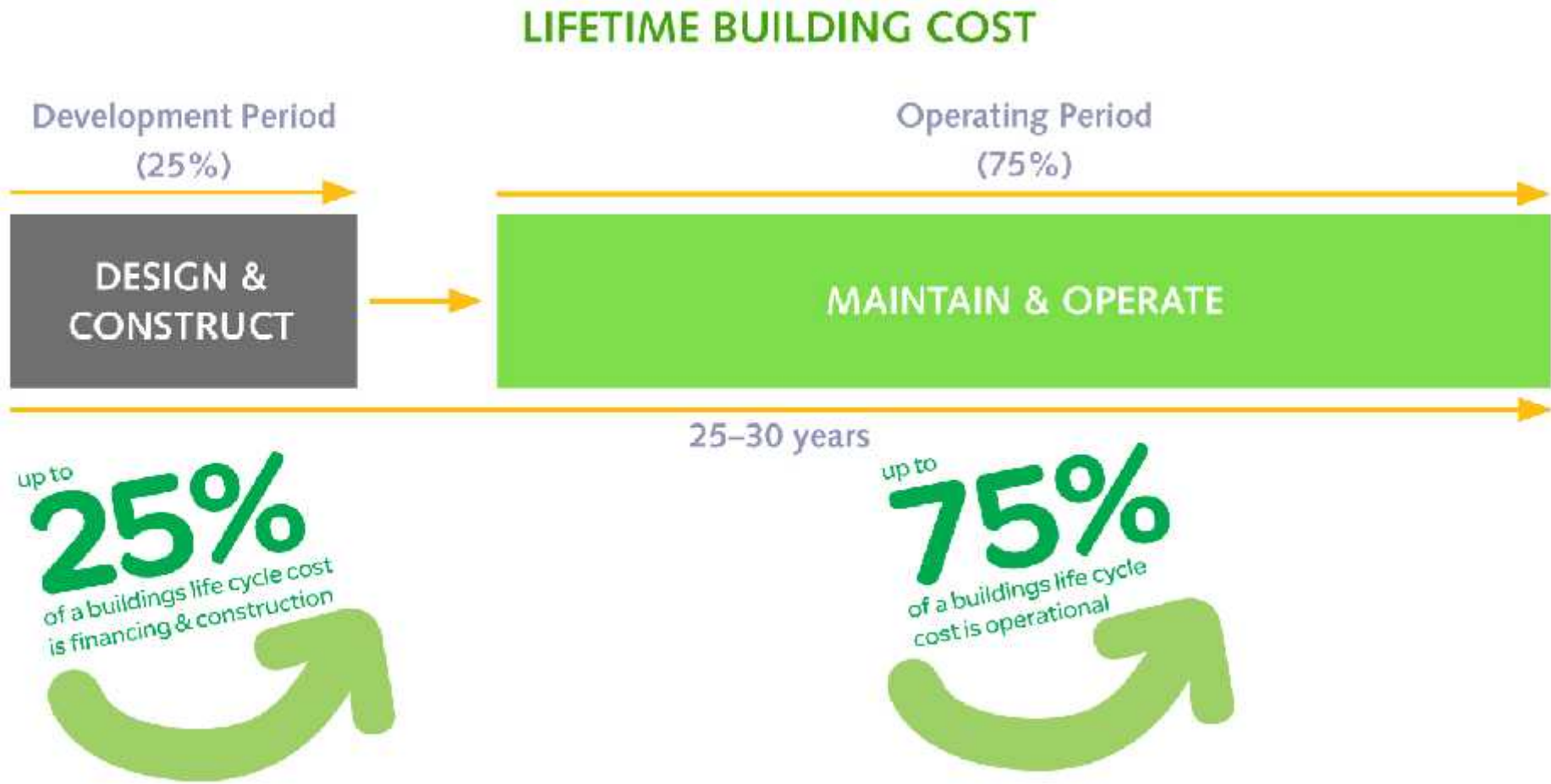
Energy demand
By 2050



Source: IEA 2007

Energy management is the key
to address the dilemma

Life Cycle Cost of a Building



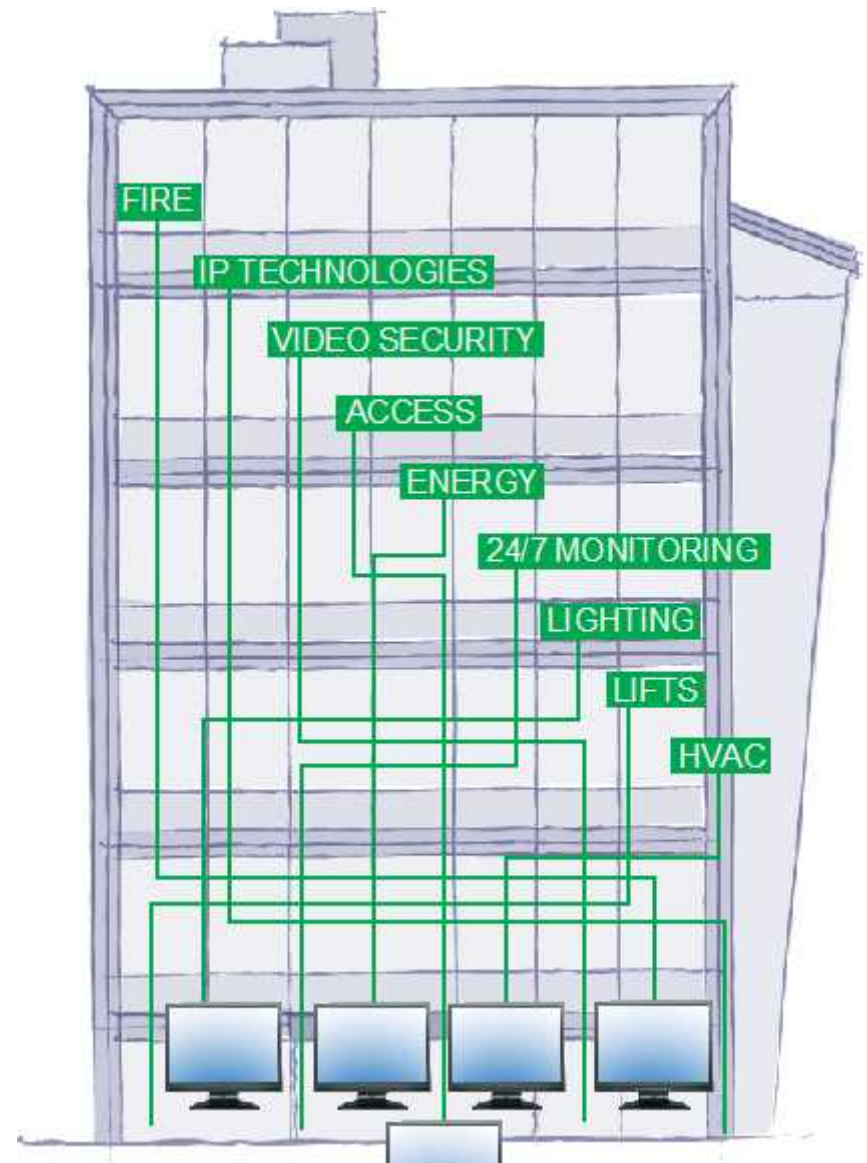
An integrated system can reduce ongoing operational costs by up to 36%

Multiple Silo Systems in the Building

- ? Multiple Networks from Multiple Vendors
- ? Too Many Systems to Learn
- ? Complex Troubleshooting

Silo Systems add:

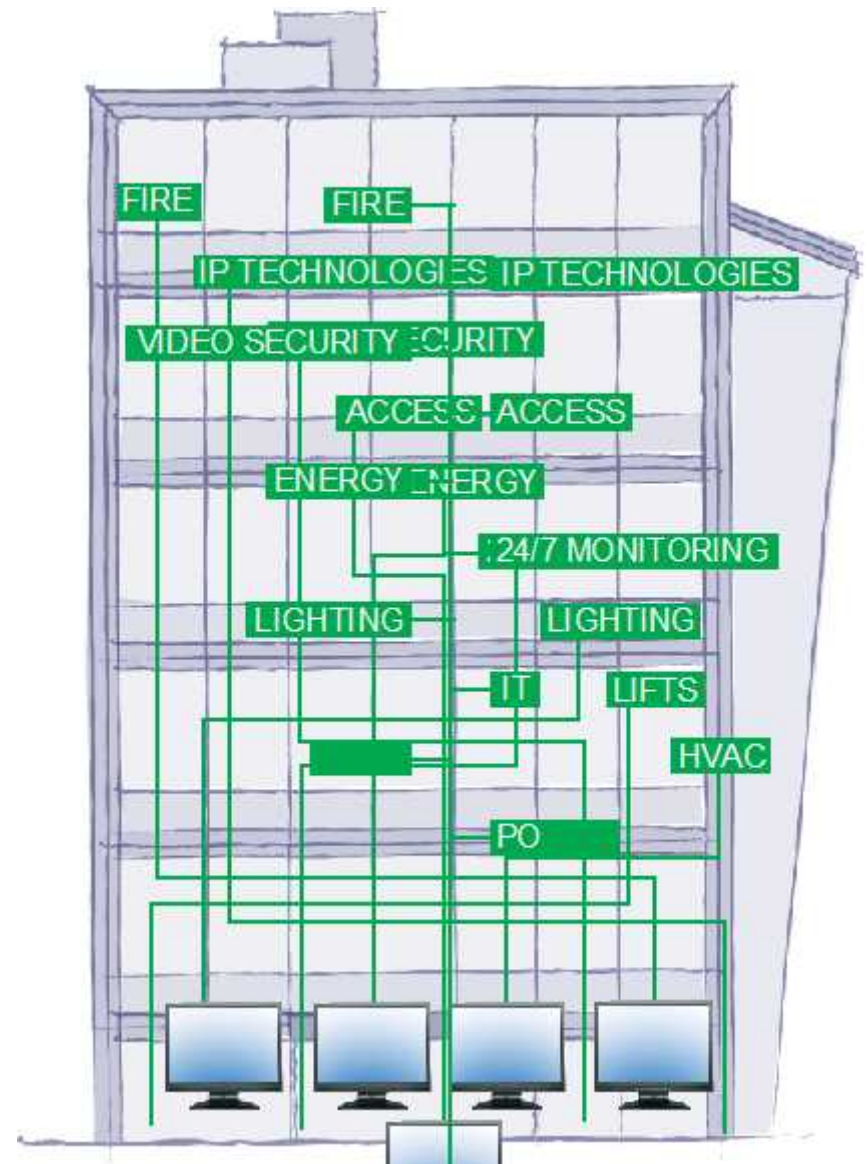
- v CapEx
- v OpEx
- v Obstacles to achieving Energy Efficiency



The Integration Difference

? Integrated building infrastructure systems enable:

- ? Shared Operating Data between Systems via a common Interface
- ? More Productive and Responsive Staff
- ? Centralized Services that Reduce Costs
- ? Lower Cost of Network Ownership
- ? What gets Measured gets Managed



Intelligent Buildings are the Only Way to Solve the Energy Efficiency Challenge

? This is great opportunity to think and act in new ways

- That deliver improved results
 - Economically – Save Dollars
 - Technically – Save Time
 - Socially – Save Planet

? Intelligent buildings successfully converge data, voice and video with security, HVAC, lighting on a single network platform

? Intelligent buildings demand a new approach to:

- ? Design and Construction
- ? Operation and Maintenance
- ? Empowerment of Human Action

Intelligent Buildings Integrate Independent User & Building Services

User Services and Technologies IP-Based

Internet

Wireless

VPN

IP Telephony

Audio and Video Conferencing

Visitor Management

Interactive Media

Digital Signage



Common
IP Network

Building Services and Technologies IP & Non-IP Based

Lighting

Power Management

24/7 Monitoring

HVAC-Sensors

Fire

Video Surveillance

Access

Energy

Create a Shared / Common Data 'Bucket' and a Common Granular Dashboard

User Services
and Technologies
IP-Based

Building Services
and Technologies
IP & Non-IP Based

User **Dashboard** (2-Way / \updownarrow)

People & Building 'Shared' Data


Data

Data




One New Change main panel contacts help notes date : 20 May 2009 time : 9:02:05 PM


office panel [click here for more options](#) energy consumption:




cctv cameras




fire & smoke




temperature




lighting




security




enviromental



I.T.



Schneider Electric



Customer Sound Bites

Municipality

“By 2020 we have committed to reduce our energy consumption by 50% from our 2001 benchmark.”

“When we integrate everything in one package we received a 10% CapEx cost reduction. Making the right decision at the beginning it’s much cheaper than having to achieve this in a second phase.”

“From 2001 to 2007 SE has helped us reduce our energy consumption by approximately 35%”

Convergence in Practice



Mixed Use Shopping Mall

- ? BMS
 - ? Access Control
 - ? CCTV
 - ? Lighting Control
 - ? Power Distribution
 - ? UPS
 - ? Facility Management
-

Customer Benefit

- ? 25% reduction in energy costs
 - ? €120 million reduction in investment costs
 - ? 45% less power consumption
 - ? €500k savings in cabling savings
 - ? Easier management due to one service contract for the whole facility
-

Convergence in Practice



Mixed Use Shopping Center

- ? BMS
- ? Access Control
- ? Intruder Detection
- ? IP CCTV
- ? Pedestrian Counting
- ? Tenant Information
- ? IT Infrastructure
 - ? LAN
 - ? Wireless
 - ? Cellular

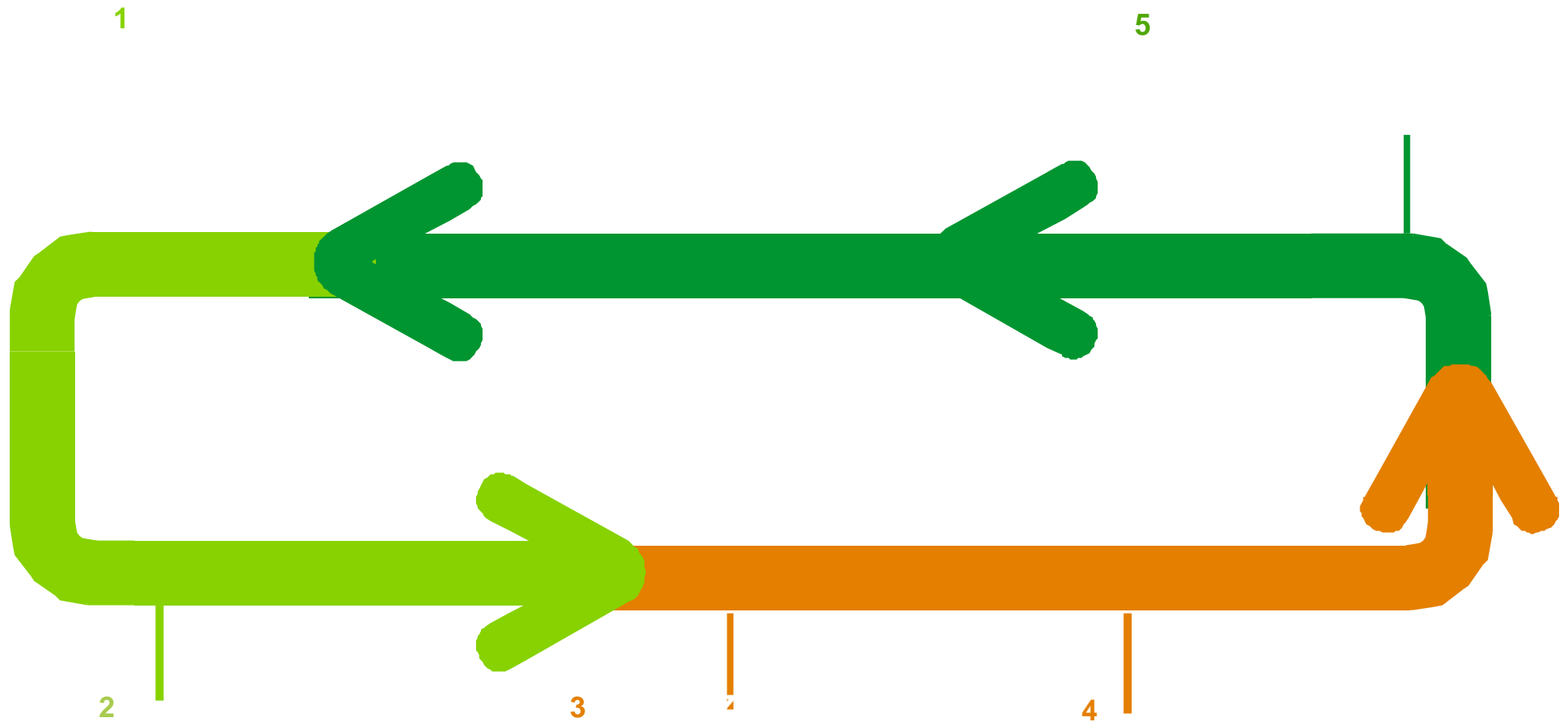
Customer Benefit

- ? CapEx reduced from one common IP network
- ? Proactive theft prevention via streaming video to shop units
- ? Tenant billing based on real time energy data
- ? Shopper analytics
- ? Increased revenue opportunity through lease/use fees of common IP systems

Convergence Value

- ? Lower initial capital expenditures of up to 24%
- ? Reduce ongoing operating expenditures of up to 36%
- ? Significantly reduced energy usage
- ? Improved business performance
 - ? Additional revenue opportunity
 - ? Increased employee productivity
 - ? Improved guest experience
 - ? Ability to meet environmental goals
 - ? Loss reduction
 - ? Revenue protection

Measurement is Fundamental to Energy Efficiency



Delivering Value to Our Customers

A world class team of building experts
We listen first and then we deliver real solutions
throughout the building life cycle

Converge building automation and IT systems
Many parts work together

Measure and control power
Drives energy efficiency

Make buildings comfortable and safe
Increases people productivity and maximizes asset value

Business Results
Lower CapEx, Lower OpEX and improved
business performance

