

USGBC/LEED

and

Historic Buildings

NCSHPO, February 26th, 2007

Max Zahniser

U.S. Green Building Council

October 17, 2006

mzahniser@usgbc.org

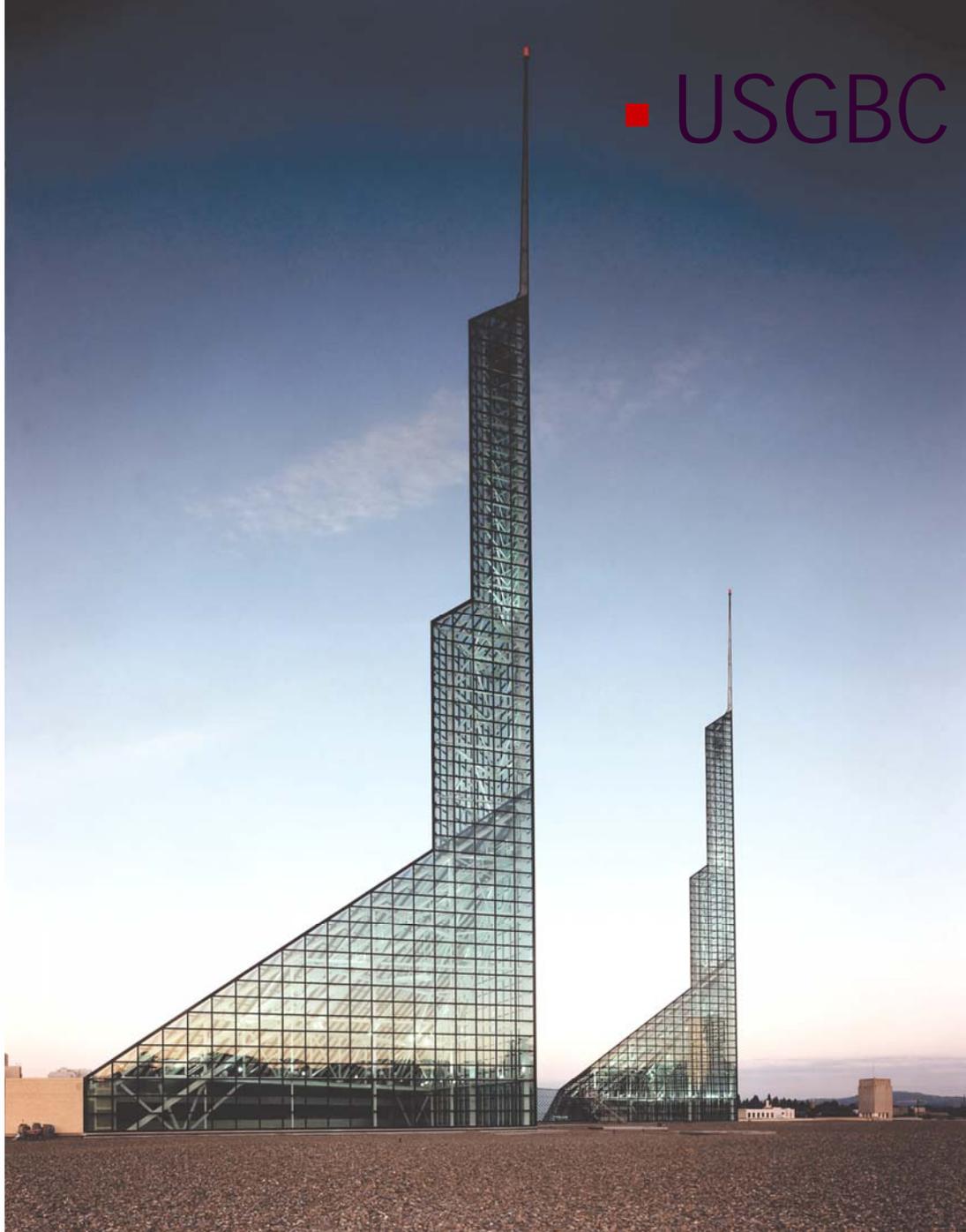


We promote
buildings that are

Environmentally
responsible

Economically
profitable

Healthy places to
live and work



Architects

**Product
Manufacturers**

**Federal,
Local,
and State
Governments**

**Building
Owners**

Nonprofit Leaders

Planners

USGBC

Engineers

**Financial
Planners**

**Utility
Managers**

**Interior
Designers**

**Landscape
Architects**

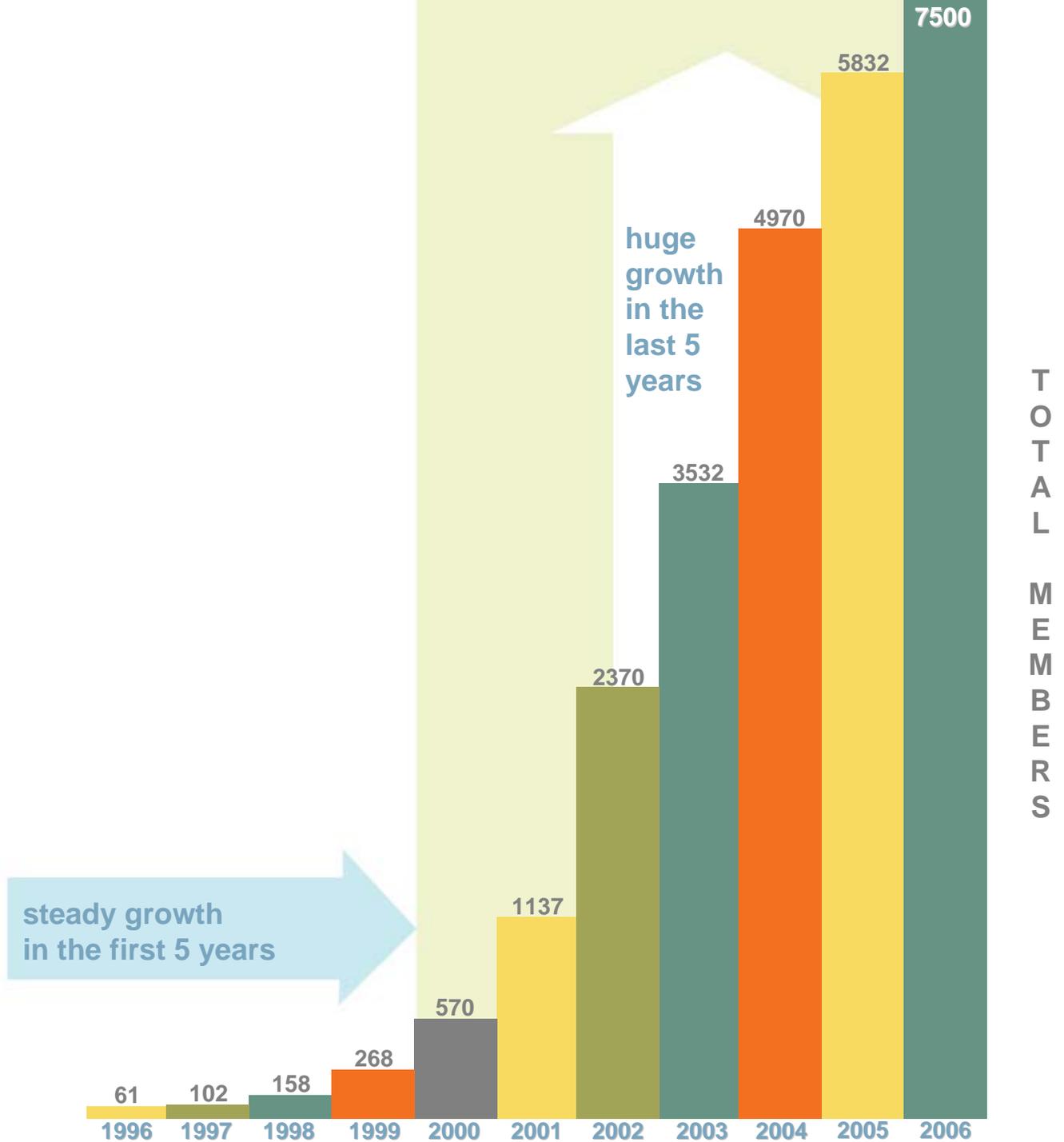
**Building
Tenants**

**Property
Managers**

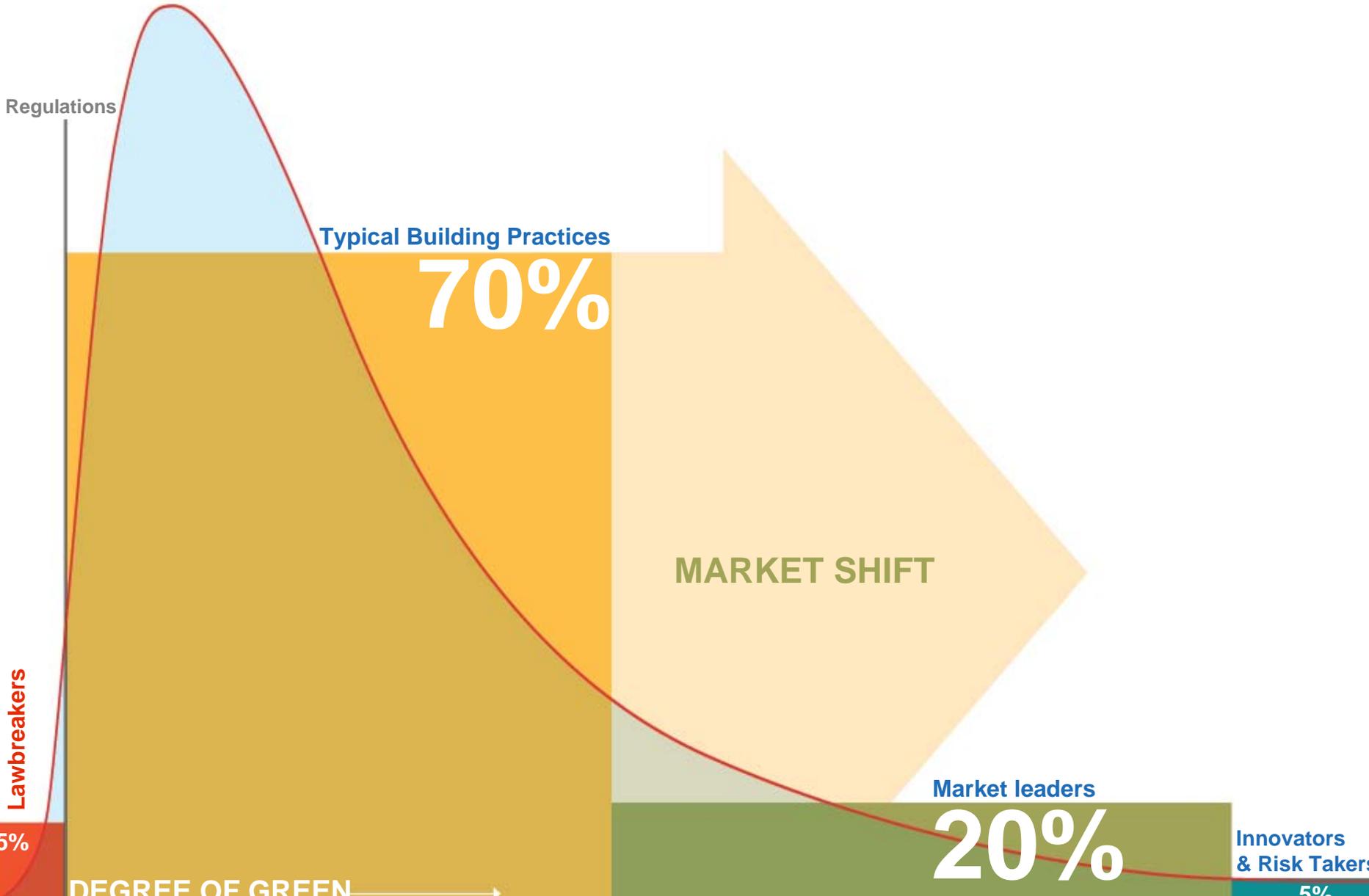
**Code
Officials**



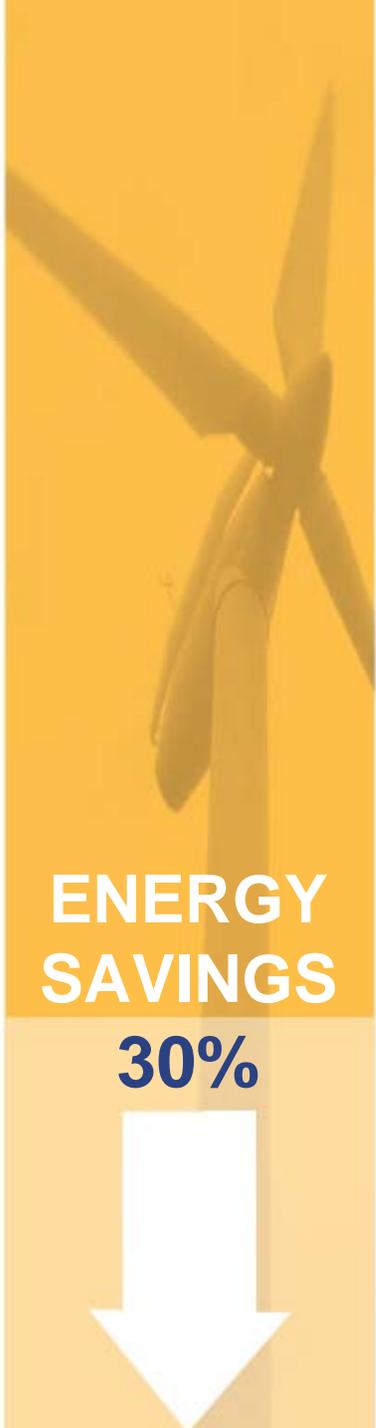
**USGBC
membership
growth reflects
the expansion
of green
buildings in
the market**



The Market



Average Savings of Green Buildings



Source:
Capital E

INCREASED PRODUCTIVITY

HOSPITALS

2 1/2
day earlier
discharge

SCHOOLS

20%
better test
performance

RETAIL

increase
in sales
per sq foot

FACTORIES

increased
production

OFFICES

2-18%
productivity
Increase



Levels of LEED Ratings

**Green Buildings
worldwide are certified
with a voluntary,
consensus-based
rating system.
USGBC has four
levels of LEED.**



Categories of LEED Ratings

LEED for New Construction

LEED for Commercial Interiors

LEED for Existing Buildings

LEED for Core & Shell

NEW PROGRAMS

LEED for Homes

LEED for Neighborhood Development

LEED for Schools

Healthcare
Laboratories
Retail
Multi-building Campuses
Multi-family Residential



SON PARTNERS

Charles Street

J 07030

40

48

onpartners.com

CK, AIA, LEED AP

AL ARCHITECT

39,000
LEED APs

25
accreditations
per day
(average)



**LEED Projects
total 5,000 in
2006**

750
**LEED Certified
Projects**

5,000+
LEED Registered Projects



Increase in LEED Projects in three years.

2002:
More than
80 million
square feet.

2003:
More than
141 million
square feet.

2004:
More than
180 million
square feet.

2005:
500 million
square feet.

2006:
519 million
square feet.

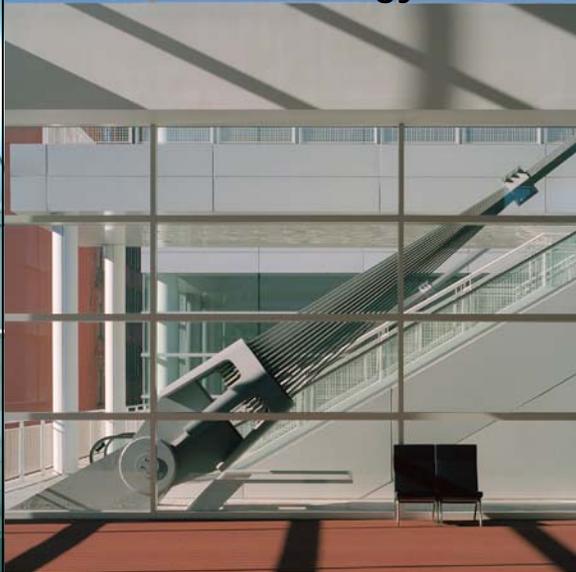


- LEED Buildings...

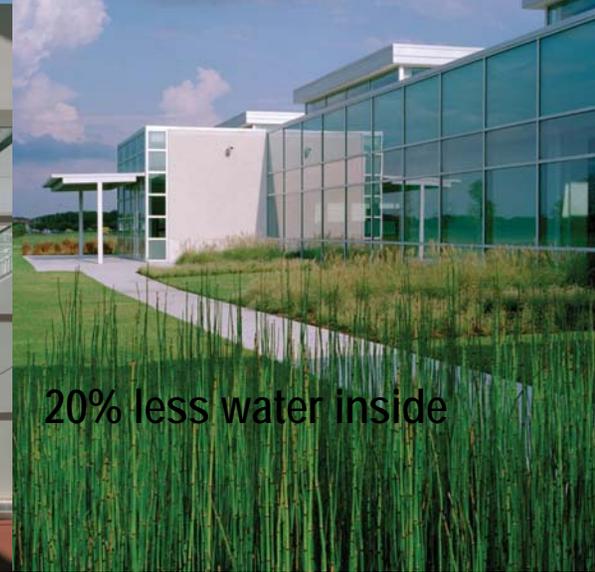
Reduce stress



Use 35% less energy

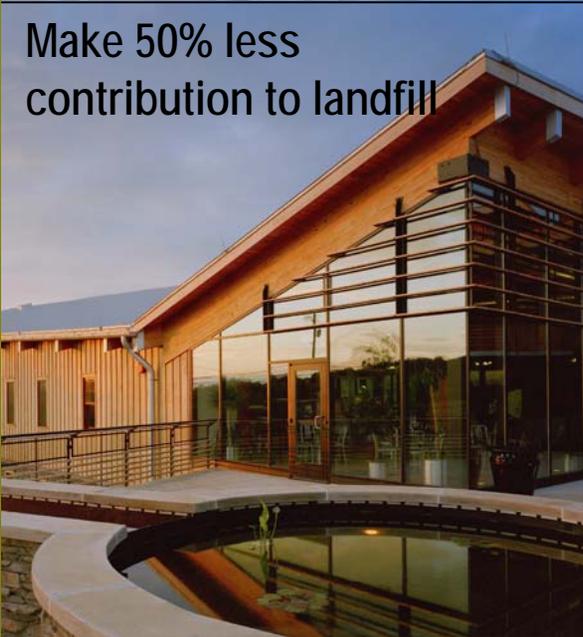


Use 85% less water outside

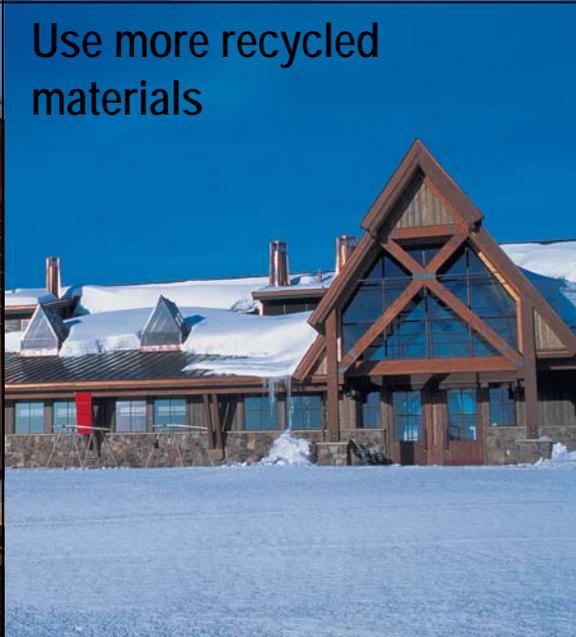


20% less water inside

Make 50% less contribution to landfill



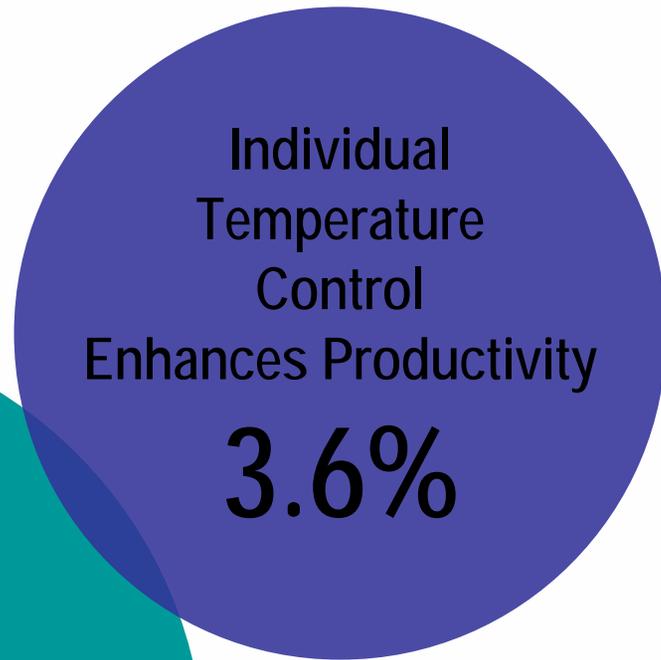
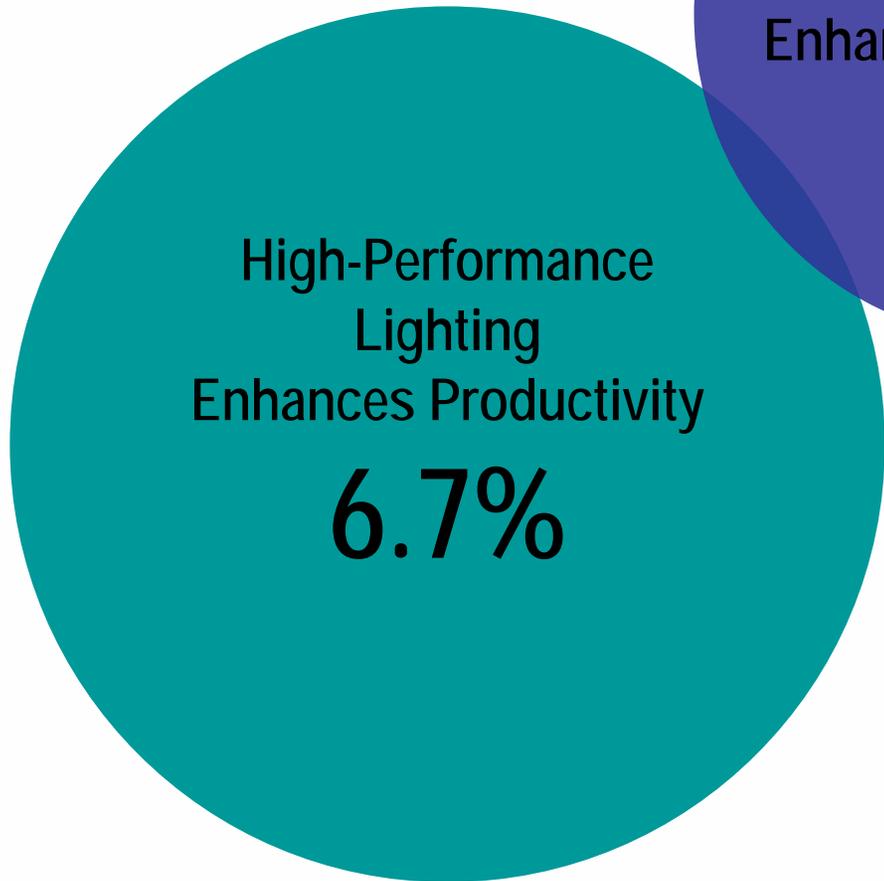
Use more recycled materials



Don't have to cost more



- People Benefits



Change is Good

Health gains from improved Indoor Air Quality

As indicated by reduced symptoms for flu, asthma, allergies, respiratory infections, headaches, and colds.



Source:
Carnegie Mellon
University Center
for Building
Performance,
2005



Case Study
Landmark
Building

Harvard School
of Public Health
Boston MA
Office Renovation
LEED-CI
Pilot Project

20% reduction
in water use

40% reduction
in lighting demand

50% of
construction waste
diverted from landfills

Estimated savings
in energy coupled
with productivity gains
resulted in a
ten-month
payback
for green features.



Case Study The Chicago Center for Green Technology

Chicago Dept.
of the Environment
owner/operator

Multi-use:
government and
commercial offices,
assembly and
educational
40,000 sq ft



LEED Platinum

Renovated 1942
building and
restored industrial
waste site

EPA satellite office

Green commercial
tenants



Change is Good

Case Study
Oregon
Convention
Center

Oregon Convention
Center
owner

Largest convention
center in NW
1,000,000 sq ft



SUSTAINABLE CITY INITIATIVES

LEED-EB
Certified

Waste diverted from landfill:

80%

Water bill savings per year:

\$15,600

Up front HVAC savings:

\$300,000



Case Study FAA

Seattle Terminal
Radar Approach
Control Facility
Burien WA
New construction
LEED v2 Gold
52,000 sq ft

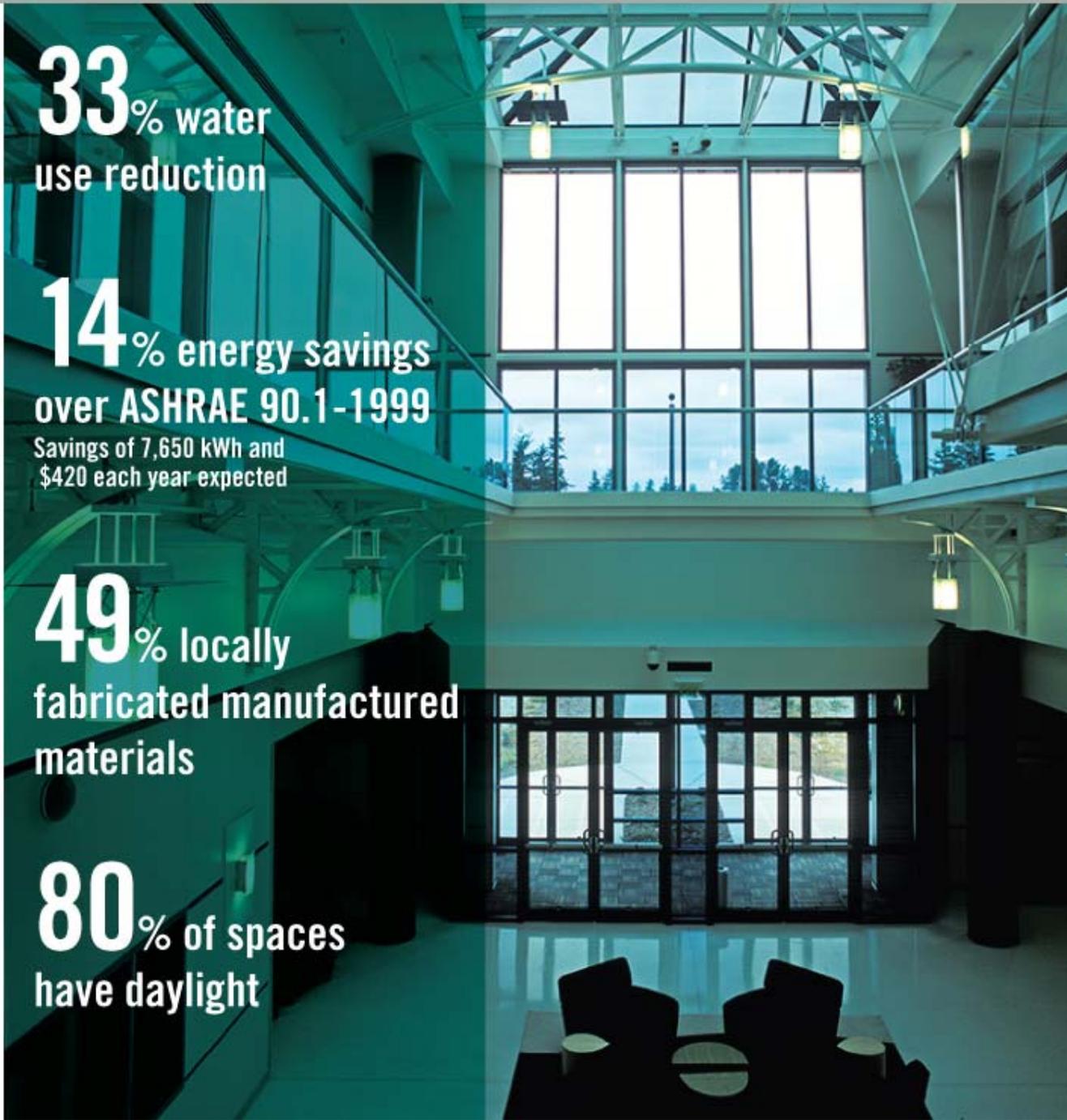
33% water
use reduction

14% energy savings
over ASHRAE 90.1-1999

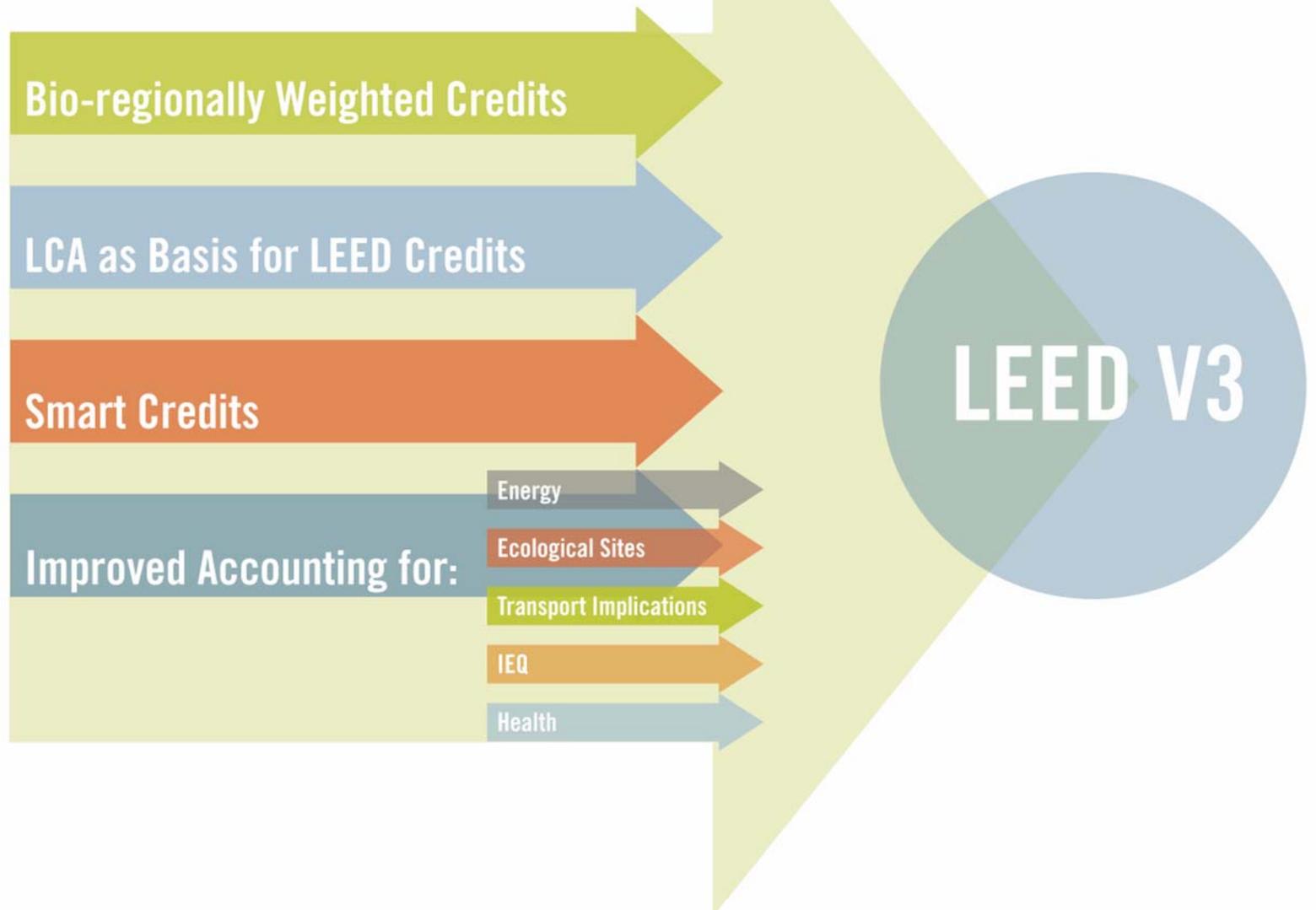
Savings of 7,650 kWh and
\$420 each year expected

49% locally
fabricated manufactured
materials

80% of spaces
have daylight



Taking LEED to the next level



Historic Buildings in LEED?

- Building Reuse
- LEED-ND
- Challenges
 - New climate goals
 - Weighting

Green Construction & Technology

GCT Credit 5: Reuse of Historic Buildings

1 Point

Intent

Encourage use of historic buildings in a manner that preserves their historic materials and character.

Requirements

Incorporate into the **project** one or more buildings that have been:

- designated, listed, or identified by a local government as a historic or contributing structure in a locally designated historic district pursuant to a local preservation ordinance;
OR
- designated, listed, or identified as a historic or contributing structure in a historic district under a state historic register or on the National Register of Historic Places;

AND

Rehabilitate the building(s) in accordance with local or federal standards for rehabilitation, and:

- obtain confirmation from the municipality, and/or the local historic preservation commission that the plan(s) for rehabilitation meet the local standards for an historic rehabilitation,
OR
- obtain confirmation from a State Historic Preservation Office or the National Park Service that the rehabilitation satisfies the Secretary of the Interior's "Standards for Rehabilitation."

Submittals

During the pilot program, project teams are encouraged to suggest replacement documentation that may be easier



www.usgbc.org