

Energy Efficiency Indicator

2010 Global Results

Media Webcast

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Bonn, Germany



Introduction and Welcome



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Today's Agenda

- Introducing Johnson Controls
- Overview of the Energy Efficiency Indicator
- Summary of 2010 Global Results
- Panel Discussion of Results
- Media Question & Answer

About Johnson Controls

130,000 Employees

Multi-industry

Founded 1885



Building Efficiency

Creating quality indoor environments that are comfortable, safe, energy efficient, and sustainable



Power Solutions

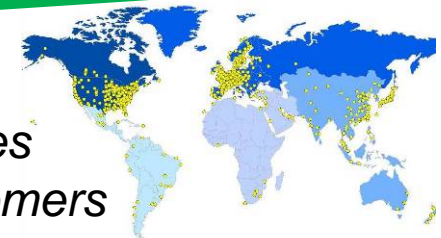
Providing the highest quality, lowest cost automotive batteries to power vehicles of today and tomorrow



Automotive Experience

Delivering world-class technologies that differentiate vehicle interiors and increase consumer demand

- *>200 million vehicles*
- *1/3 of world's automotive batteries*
- *1 million building efficiency customers*



EEI Overview Topics

- What is the Energy Efficiency Indicator?
- Who did we survey?
- What are their priorities and concerns?
- What are their investment plans and financial criteria for making energy efficiency investments?
- What practices and technologies are most common?

What is the Energy Efficiency Indicator?

- A global survey of decision makers responsible for commercial buildings and their energy use
- Examines **trends** in energy efficiency **priorities and practices**
- Founded by **Johnson Controls** and the International Facility Management Association (**IFMA**) in 2007
- **Global** survey was completed during **March and April, 2010**
- Targeted Canada, China, France, Germany, India, Italy, Poland, Spain, United Kingdom, and the United States.

RESPONDENT PROFILE

Energy Efficiency Indicator

2010 Global Results

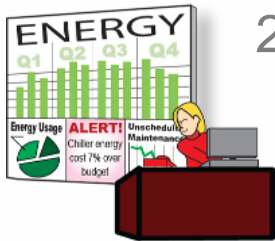
Global *Energy Efficiency Indicator* study

2882 total respondents across the world

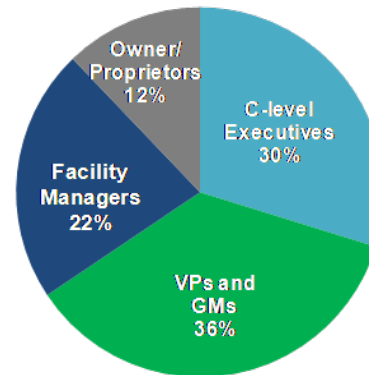
1. Must have capital- or operations budget responsibility for facilities



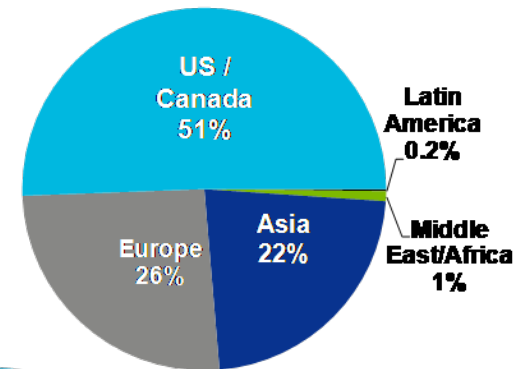
2. Responsibilities must include monitoring energy usage, proposing or approving efficiency initiatives



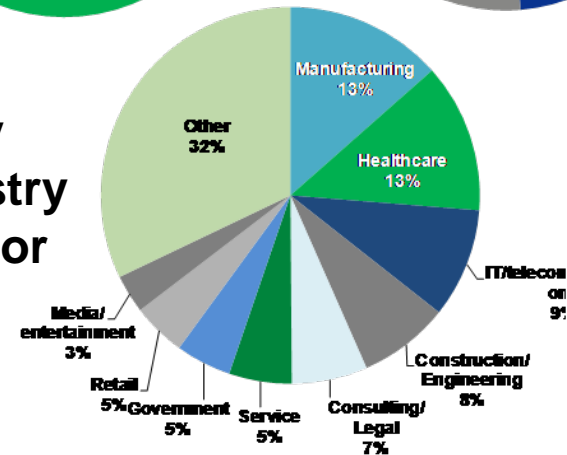
By Role



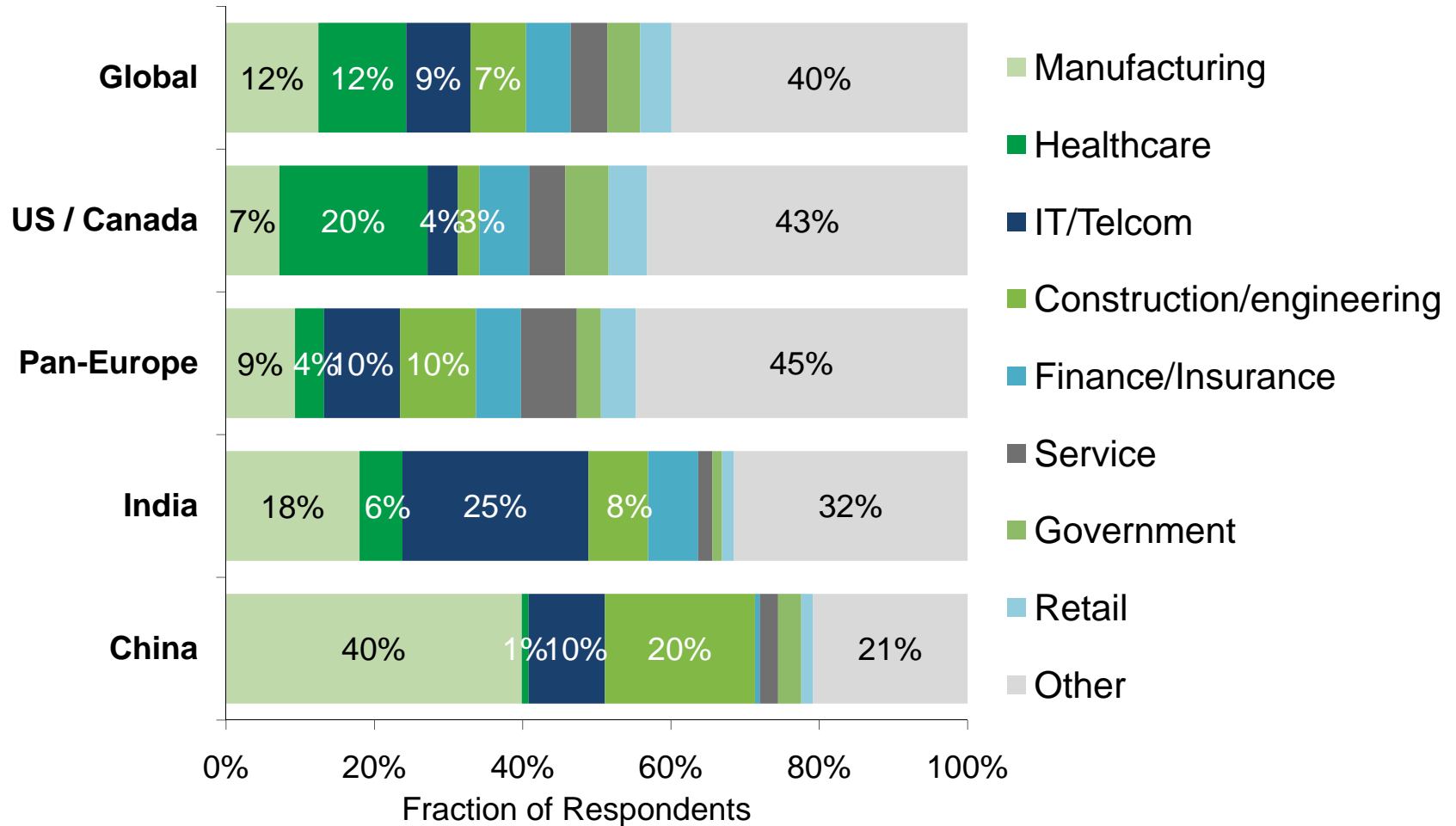
By Region



By Industry Sector

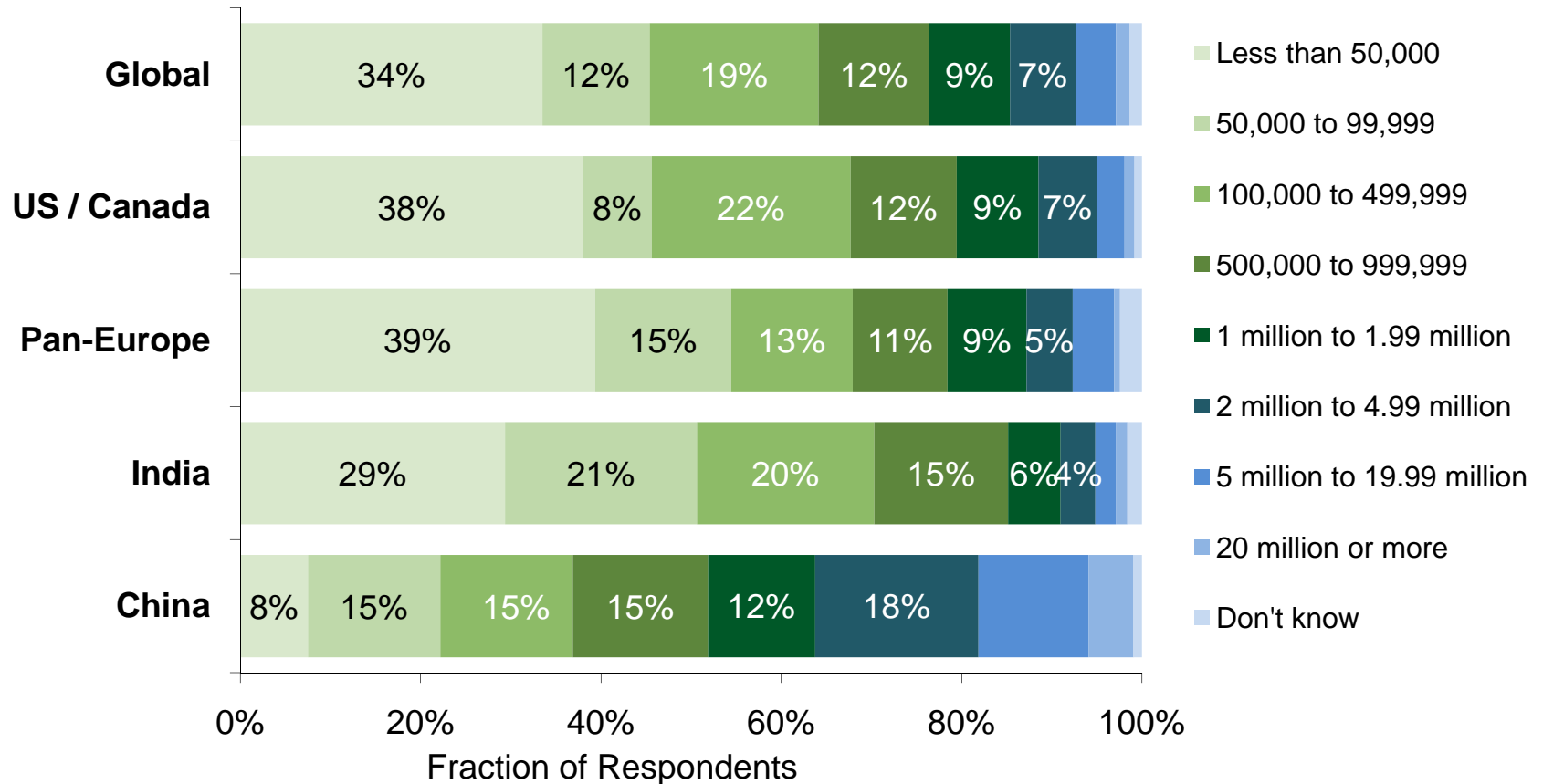


Mix of industry sectors varies by region



Survey respondents in China tended to manage larger areas compared to US, India, & Europe

How many square feet of floor space do your responsibilities cover?



PRIORITIES AND CONCERNS

Energy Efficiency Indicator

2010 Global Results

Energy efficiency is a global business priority

71%...

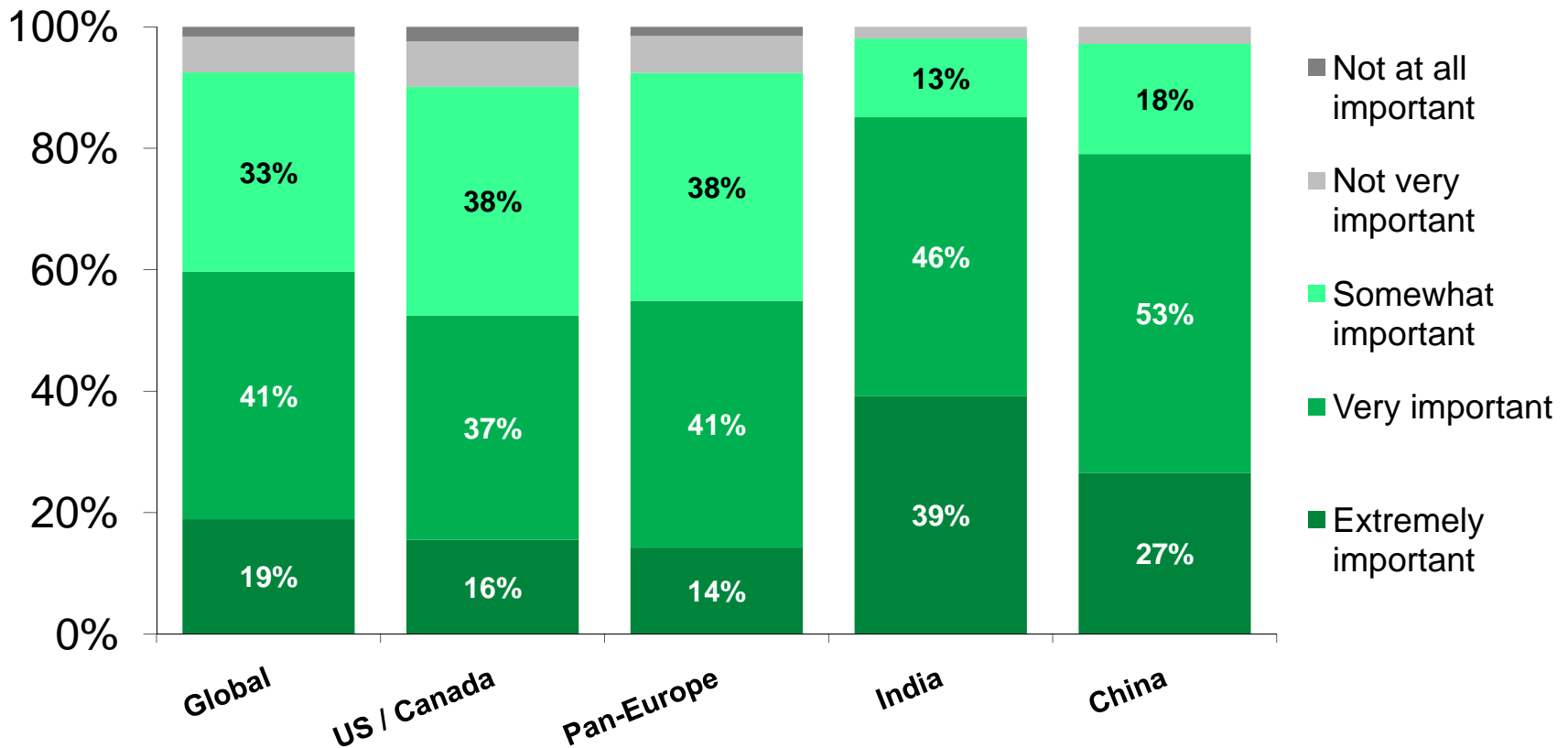
are paying more attention to energy efficiency than last year

85%...

Say energy efficiency is a priority for new construction and retrofit projects

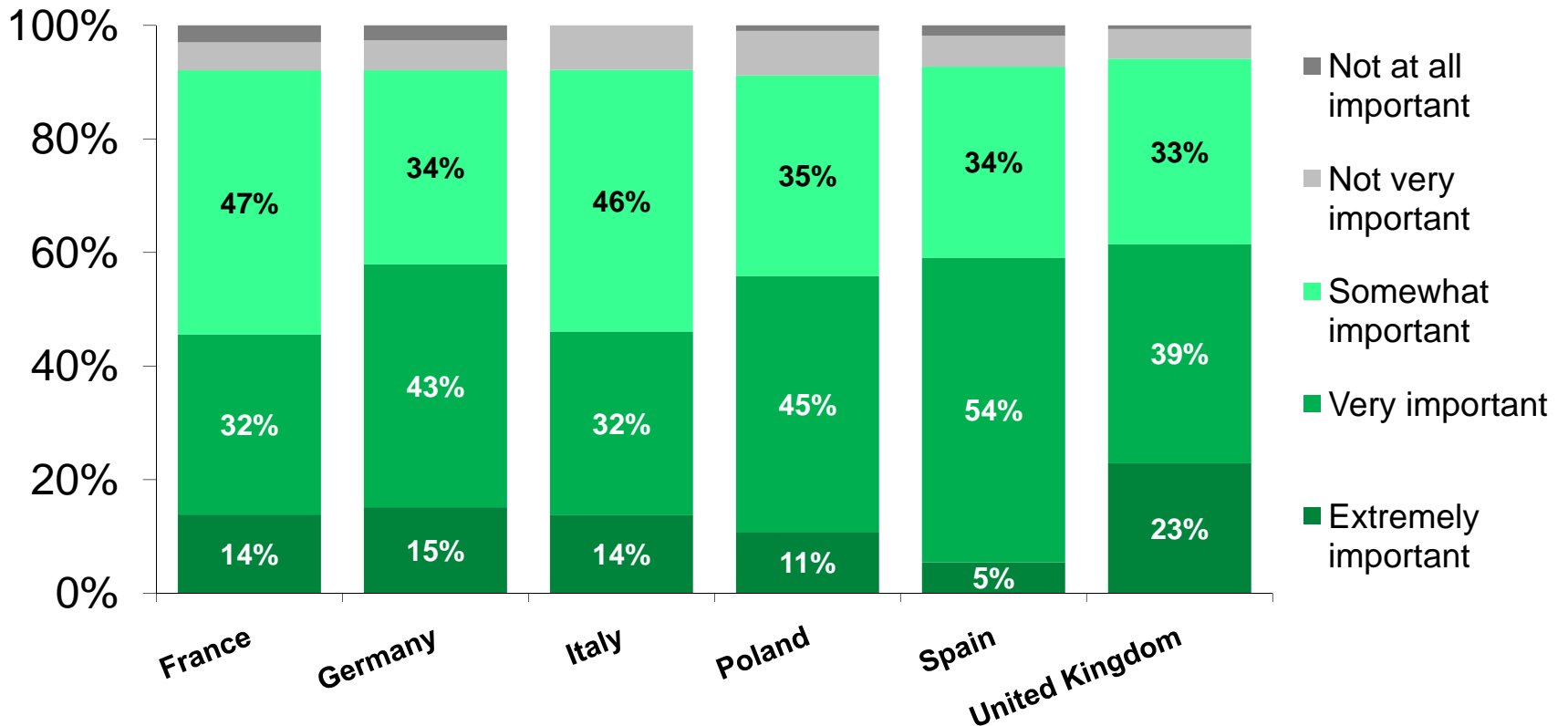
Energy management is considered important throughout the world, particularly India and China

How important is energy management to your company/organization?



Within Europe, efficiency considered most important in the UK, Spain, and Germany

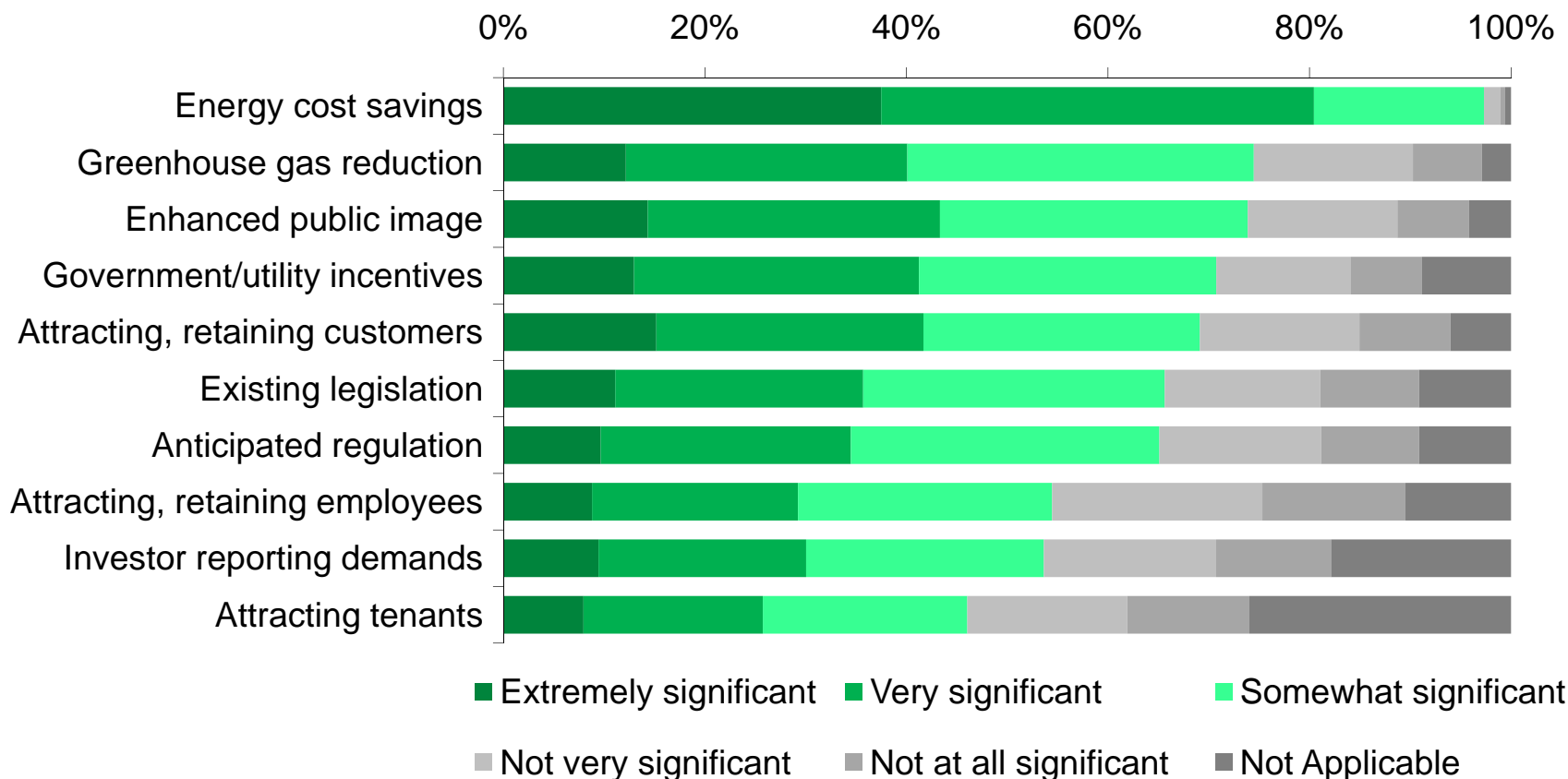
How important is energy management to your company/organization?



Reducing energy costs is most important driver

Public image and government incentives also influential

How significant an influence are the following in your organization's energy efficiency decisions?



Energy costs is top driver in all regions; others vary

Global

1. Energy cost savings
2. Greenhouse gas reduction
3. Enhanced public image

U.S. / Canada

1. Energy cost savings
2. Enhanced public image
3. Government/utility incentives

Europe

1. Energy cost savings
2. Greenhouse gas reduction
3. Existing legislation

China

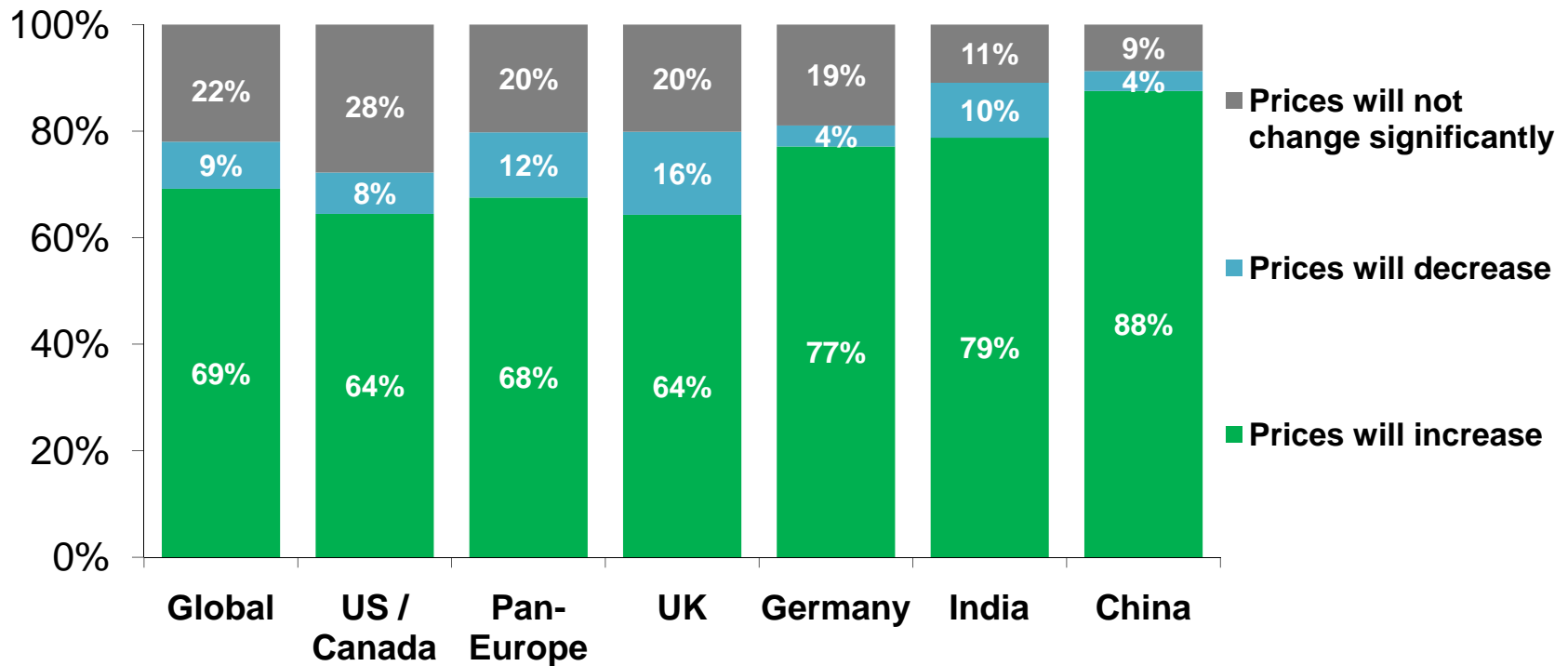
1. Energy cost savings
2. Greenhouse gas reduction
3. Enhanced public image

India

1. Energy cost savings
2. Greenhouse gas reduction
3. Enhanced public image

Price increase expectations consistent across geographies

Do you believe the price of the energy your facilities use will increase, decrease, or not change significantly over the next 12 months?



Real estate leaders believe energy prices will climb significantly this year

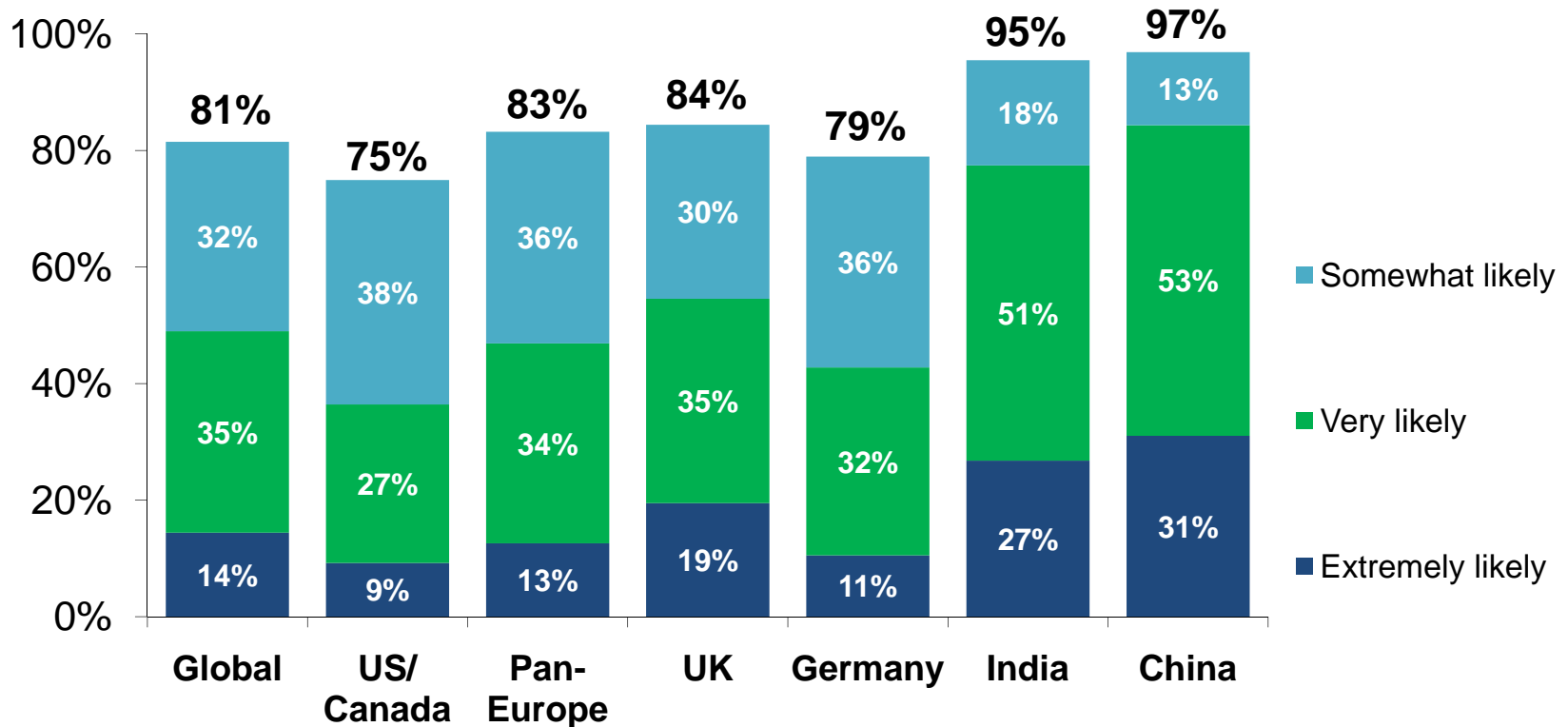
Average expected change in energy prices
over next 12 months = **9% increase**

Do you believe the combined price of the energy that your facilities use will. . .



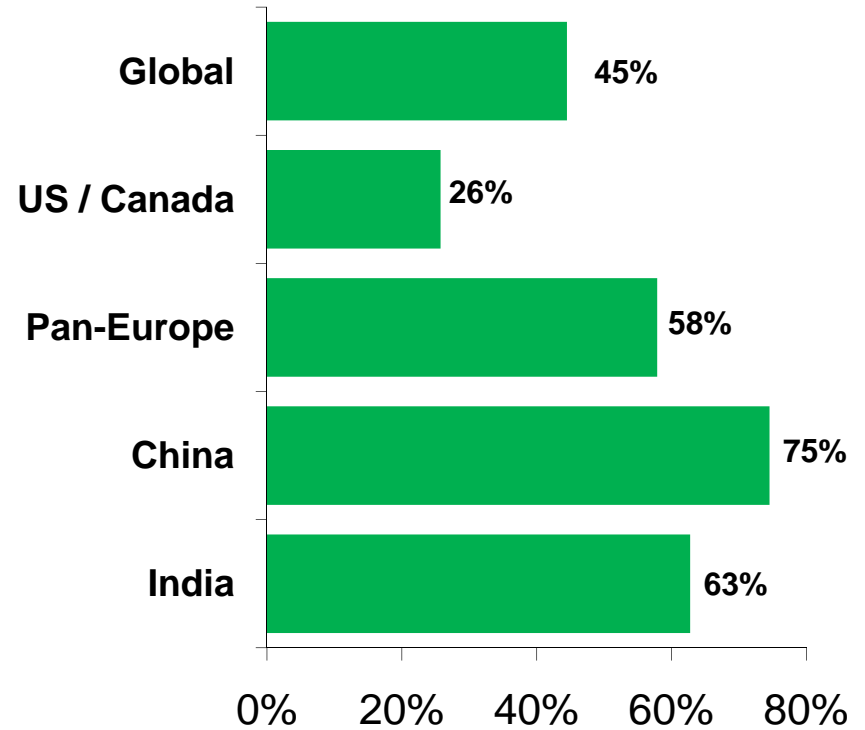
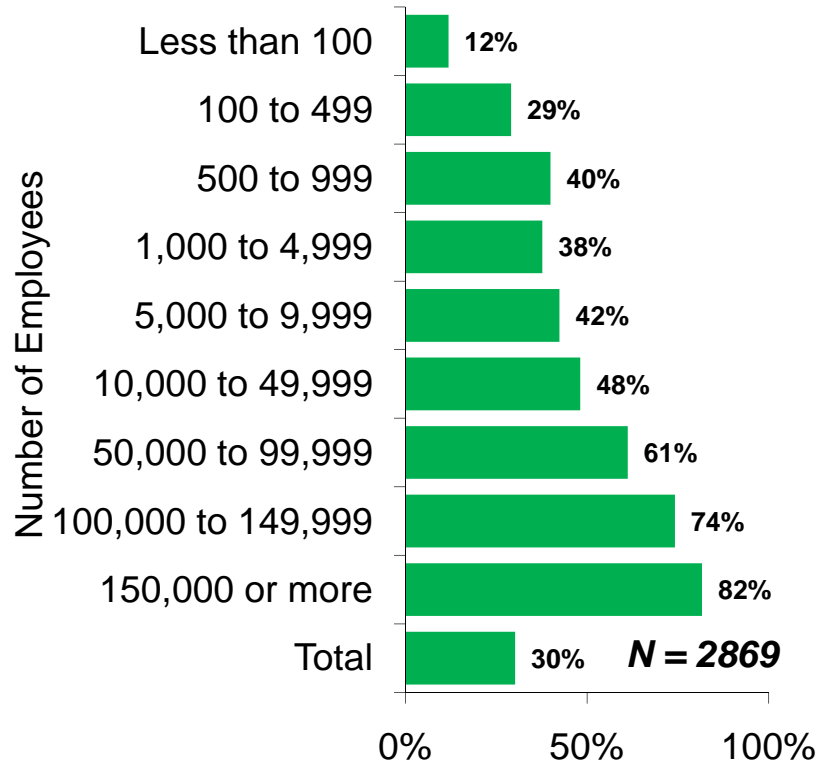
Significant legislation expected within two years

How likely is significant legislation mandating energy efficiency and/or carbon reduction within the next 2 years?



Voluntary commitments also becoming common, especially among larger organizations

Does your company/organization have a publicly stated carbon-reduction goal?

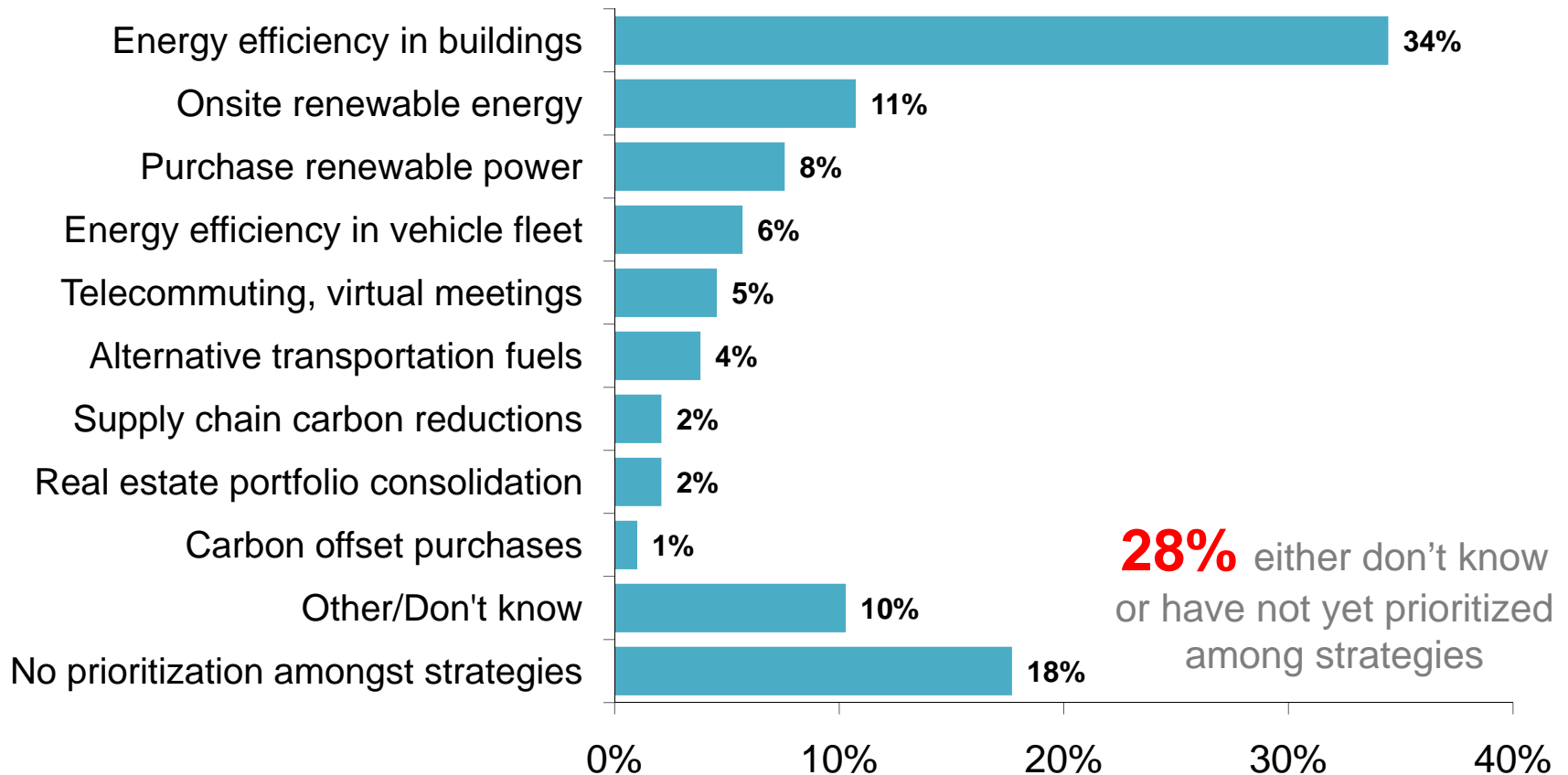


Among respondents in organizations with 1,000 or more employees

N = 1083

Building efficiency is highest priority carbon strategy

What is your organization's top strategy to reduce its carbon emissions?



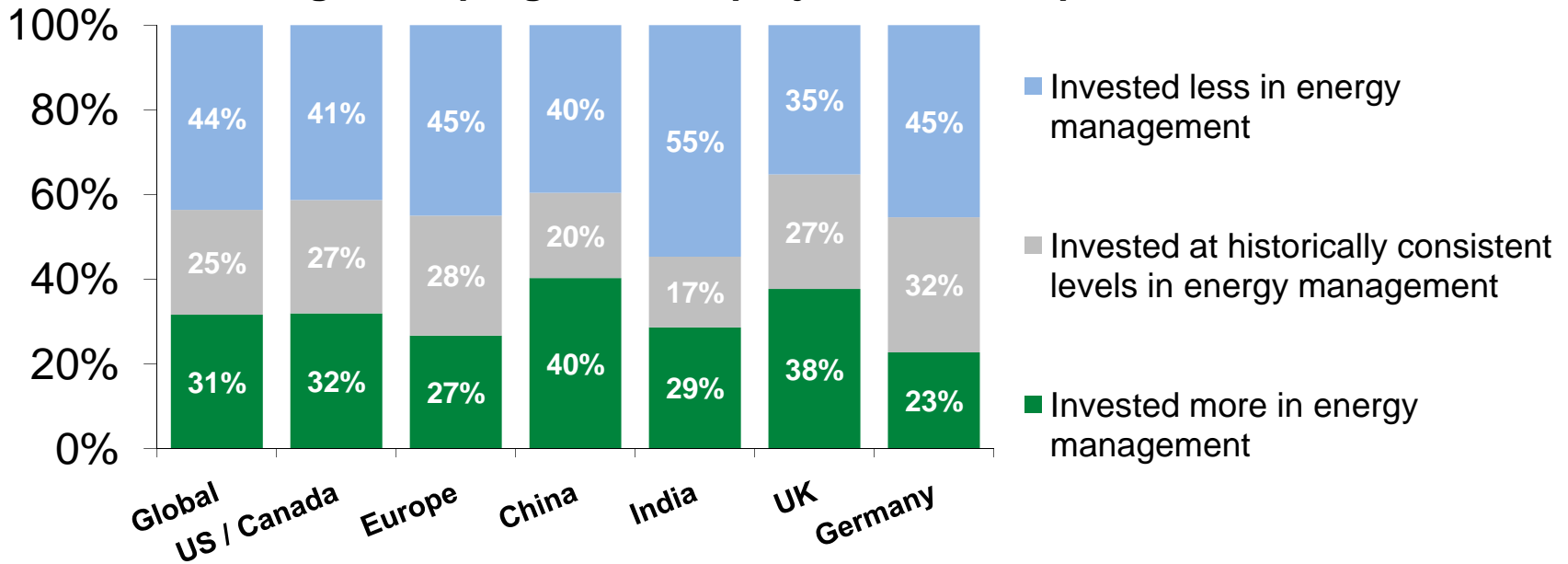
INVESTMENT PLANS & FINANCIAL CRITERIA

Energy Efficiency Indicator

2010 Global Results

Investment in efficiency remained strong, despite the global recession

What impact has the economic recession had on your level of investment in energy management programs and projects over the past 12 months?



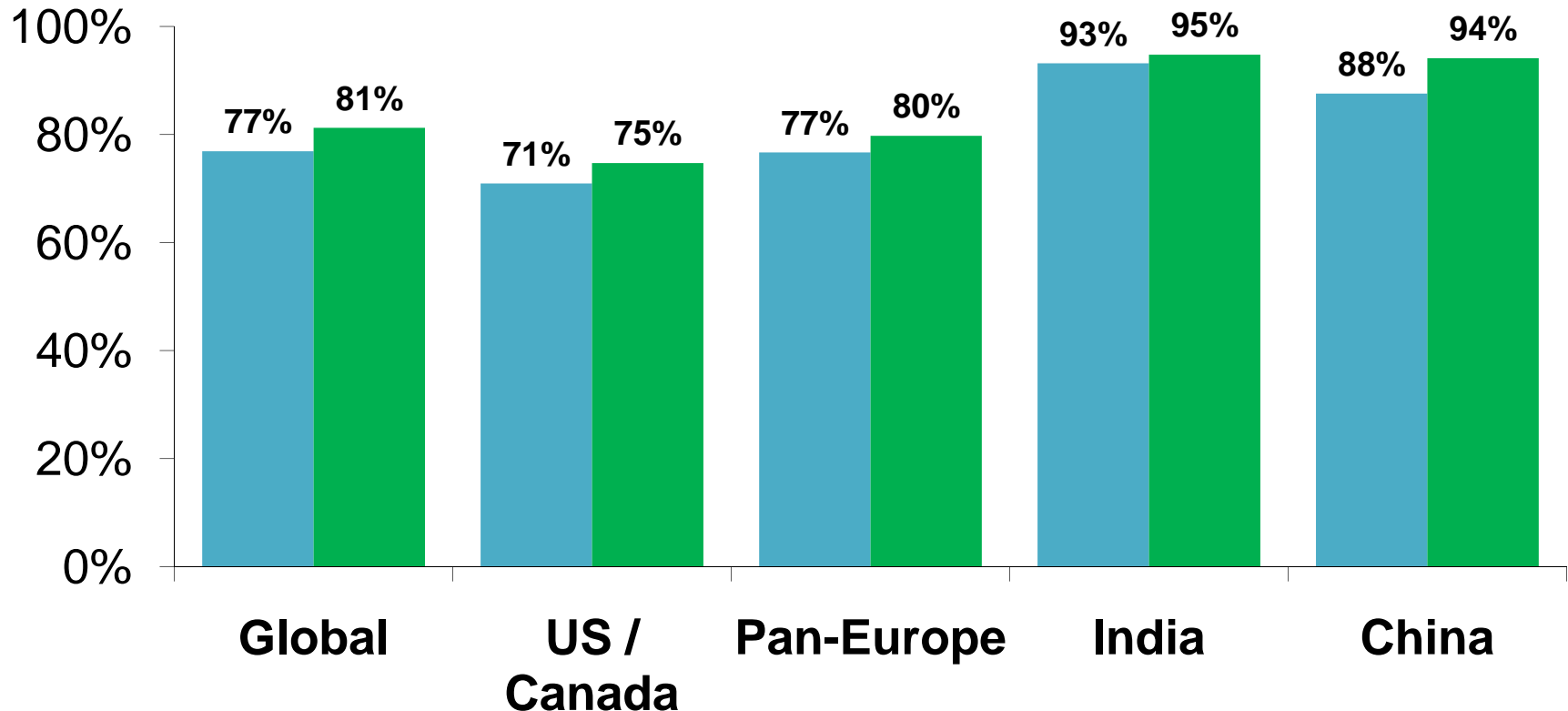
56% have invested the same or *more* in energy efficiency over the past 12 months due to the recession

Energy efficiency spending plans for 2010

Fraction planning to make energy efficiency investments over the next 12 months with...

■ capital expenditures

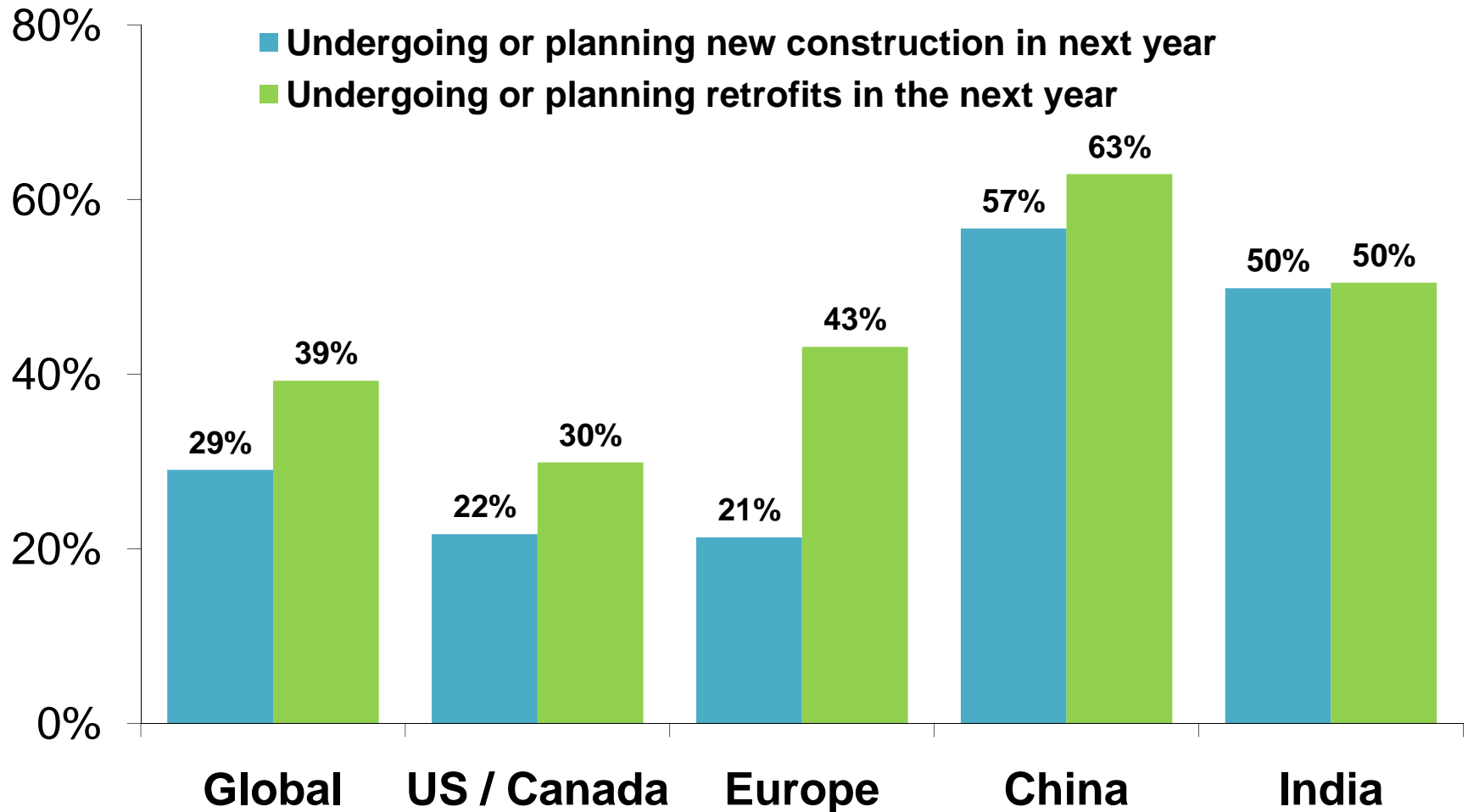
■ operating expenditures



Among respondents responsible for 100,000 sf or more

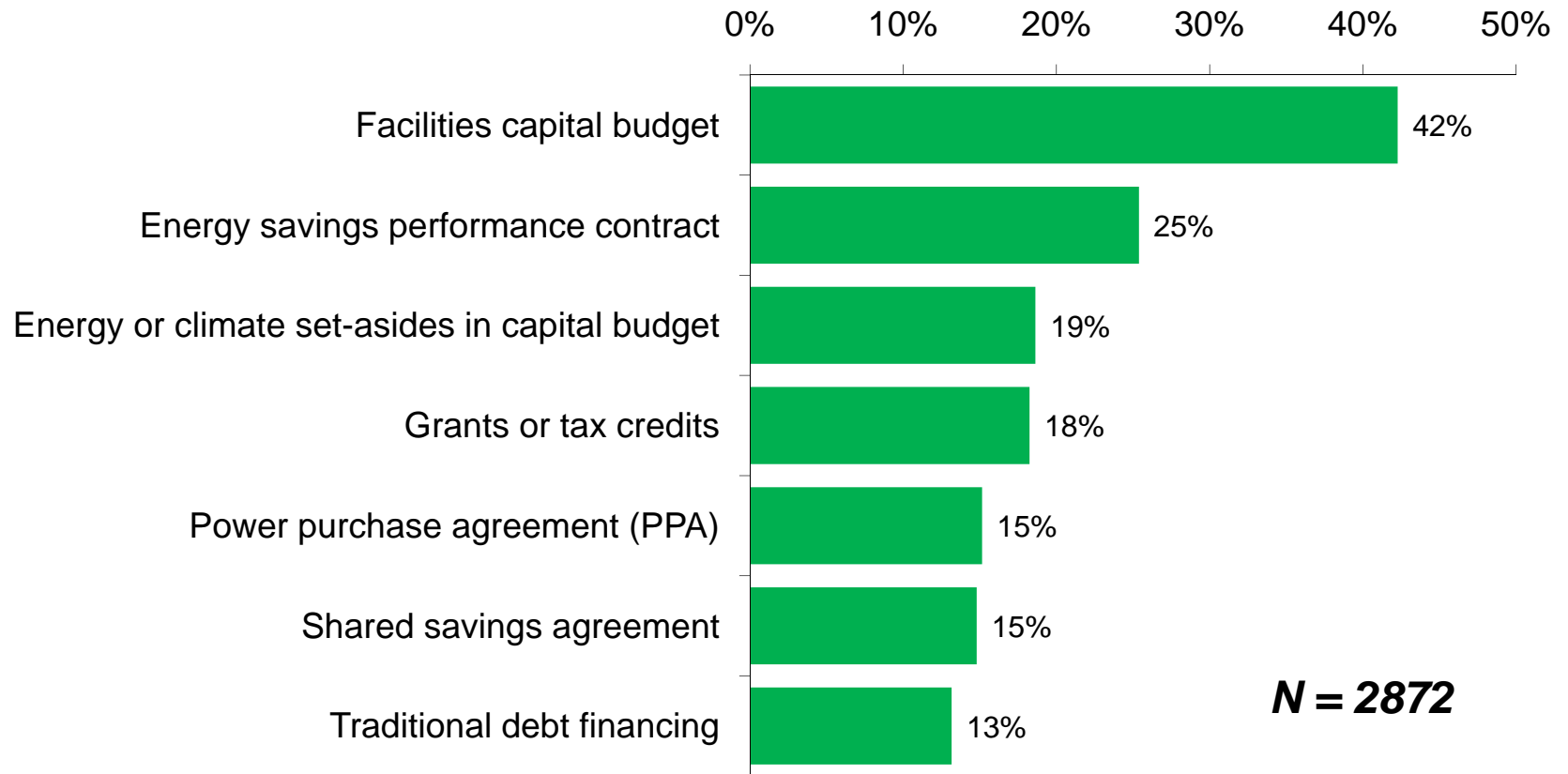
N = 1571

but China and India also more likely to be planning new construction or retrofits in 2010



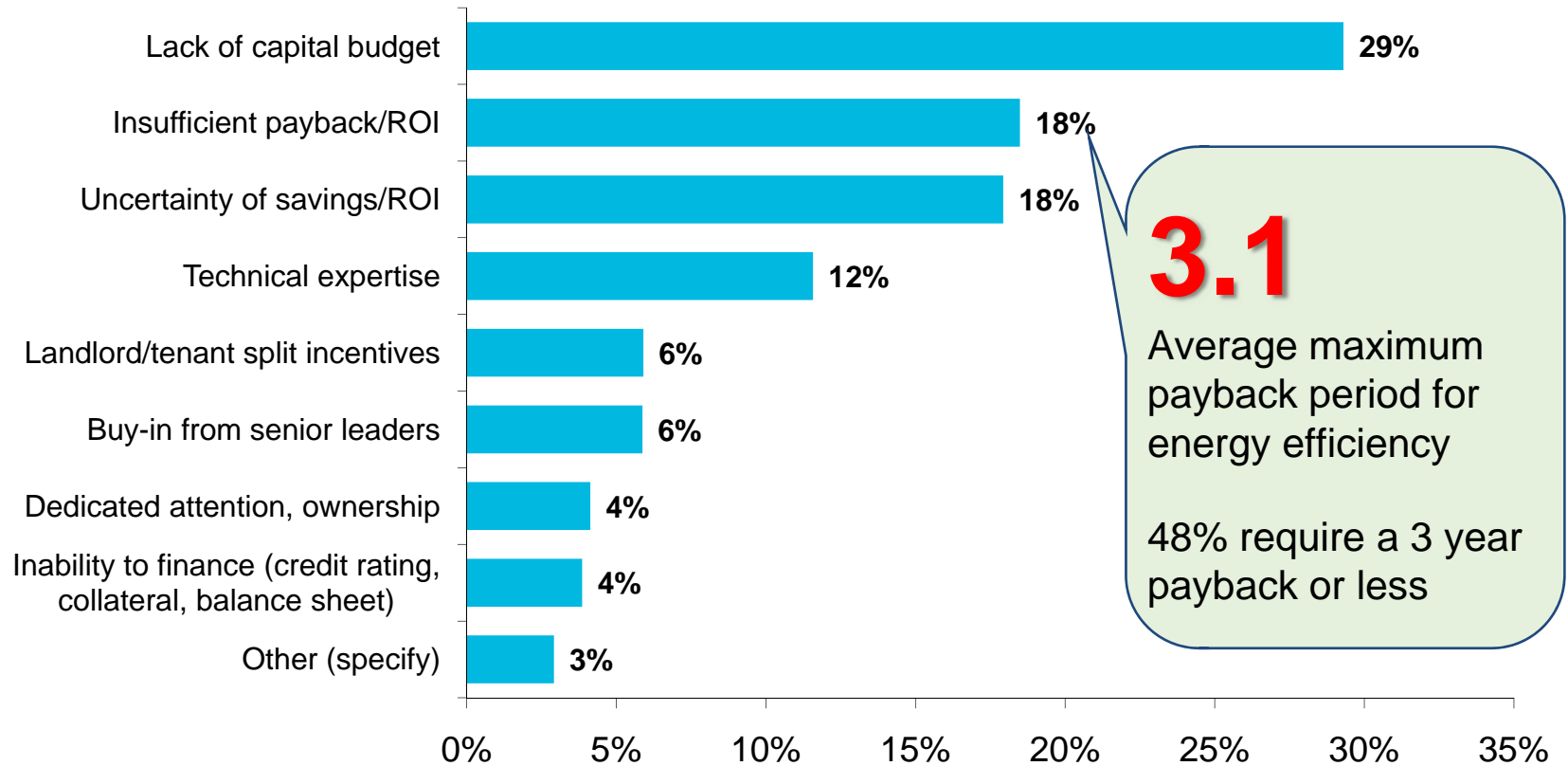
Internal capital budgets is primary funding source

Which options will your organization consider to pay for energy efficiency and renewable energy projects over the next 12 months? (Select all that apply)?



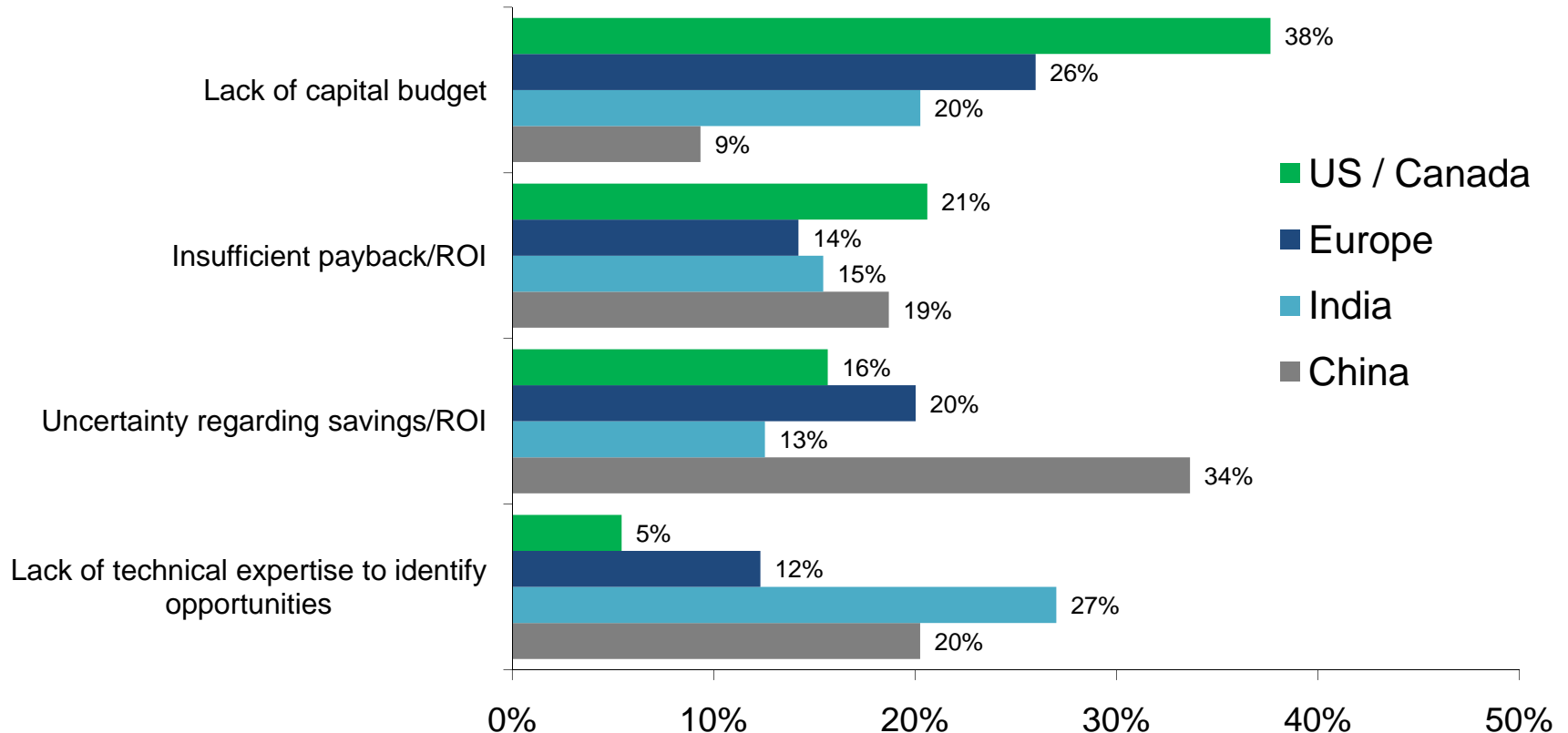
Limited internal capital is greatest barrier

What is the top barrier to capturing potential energy savings for your organization?



Need capital in North American and Europe; Need certainty and more expertise in China and India

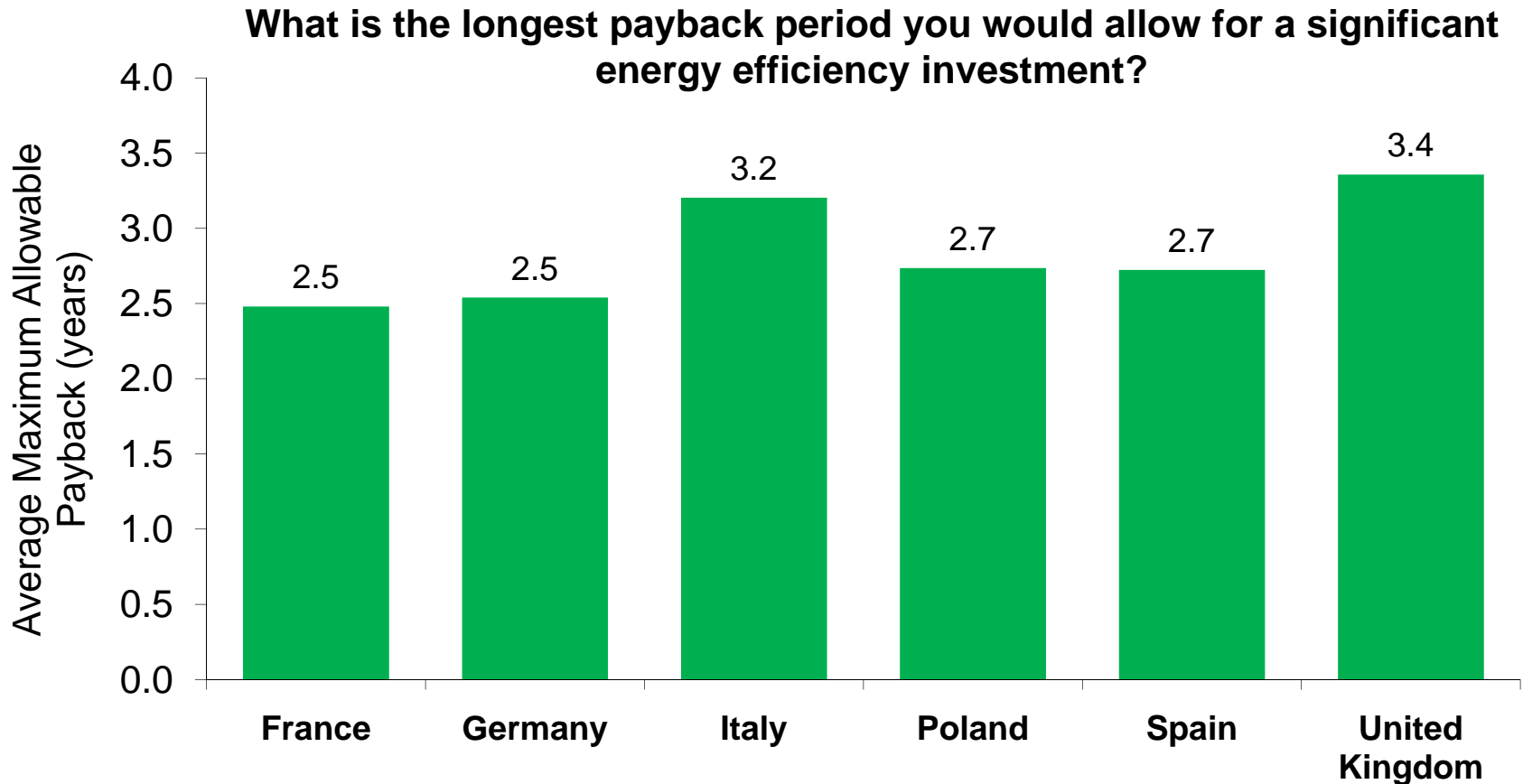
What is the top barrier to capturing potential energy savings for your organization?



ROI requirements are quite consistent globally



Average respondents require a 3-year payback or less



PRACTICES & TECHNOLOGIES

Energy Efficiency Indicator

2010 Global Results

Over the last 12 months, many organizations have implemented measures with low cost or rapid payback

73% switched to more energy efficient lamps, ballasts, or lighting fixtures

64% educated facilities operations staff

62% educated building occupants

49% adjusted HVAC schedules/setpoints

44% installed occupancy or daylight sensors

...but an impressive fraction also made more significant efficiency investments over the last 12 months

37% replaced inefficient equipment *before the end of its useful life*

37% upgraded building management systems

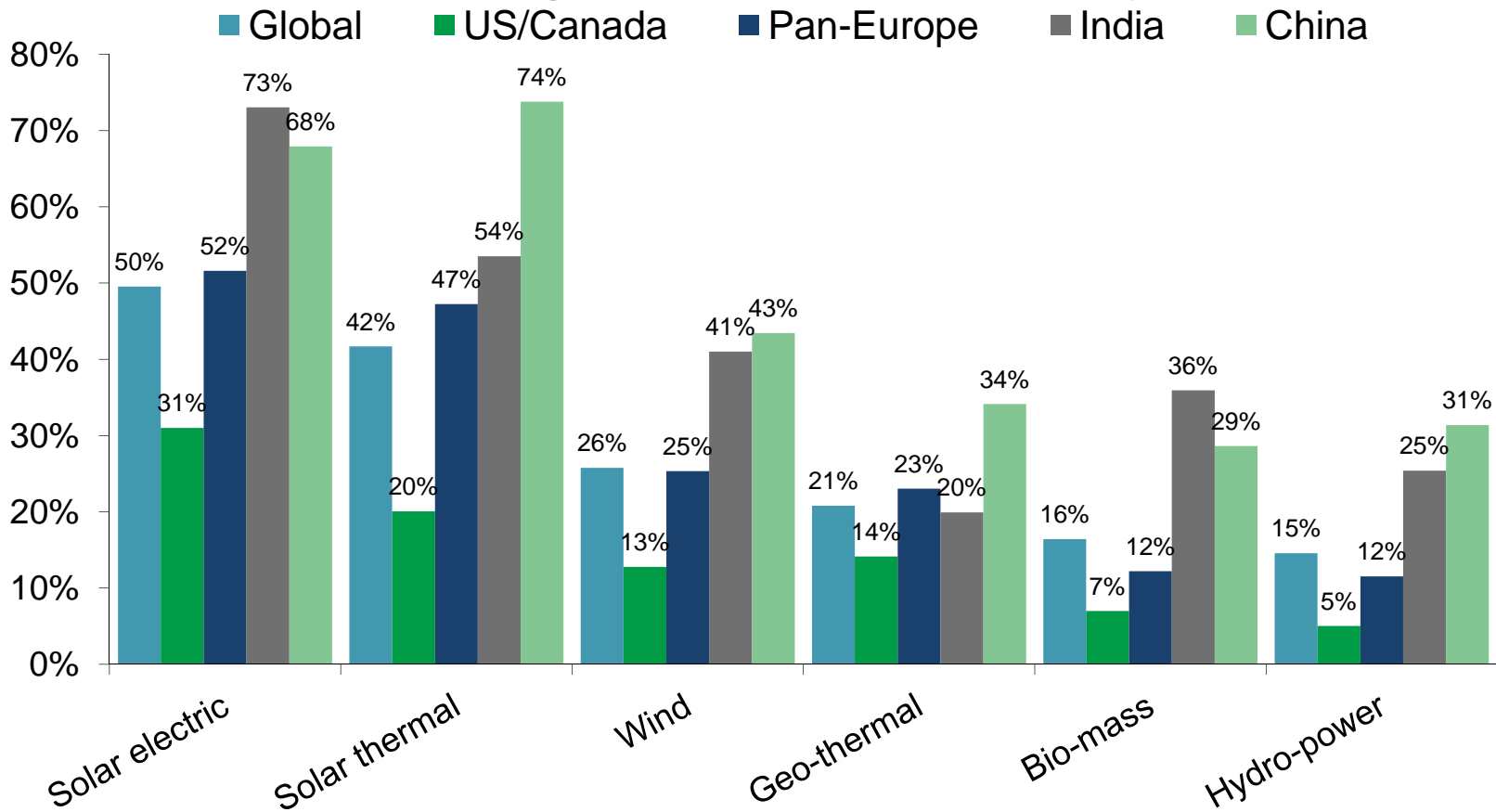
32% installed energy-saving glass in windows

22% participated in demand response programs

21% installed renewable energy systems

China and India lead in *considering* renewable energy

Which renewable energy technologies is your organization considering or utilizing in construction or retrofit projects?



Global green buildings goals are aggressive

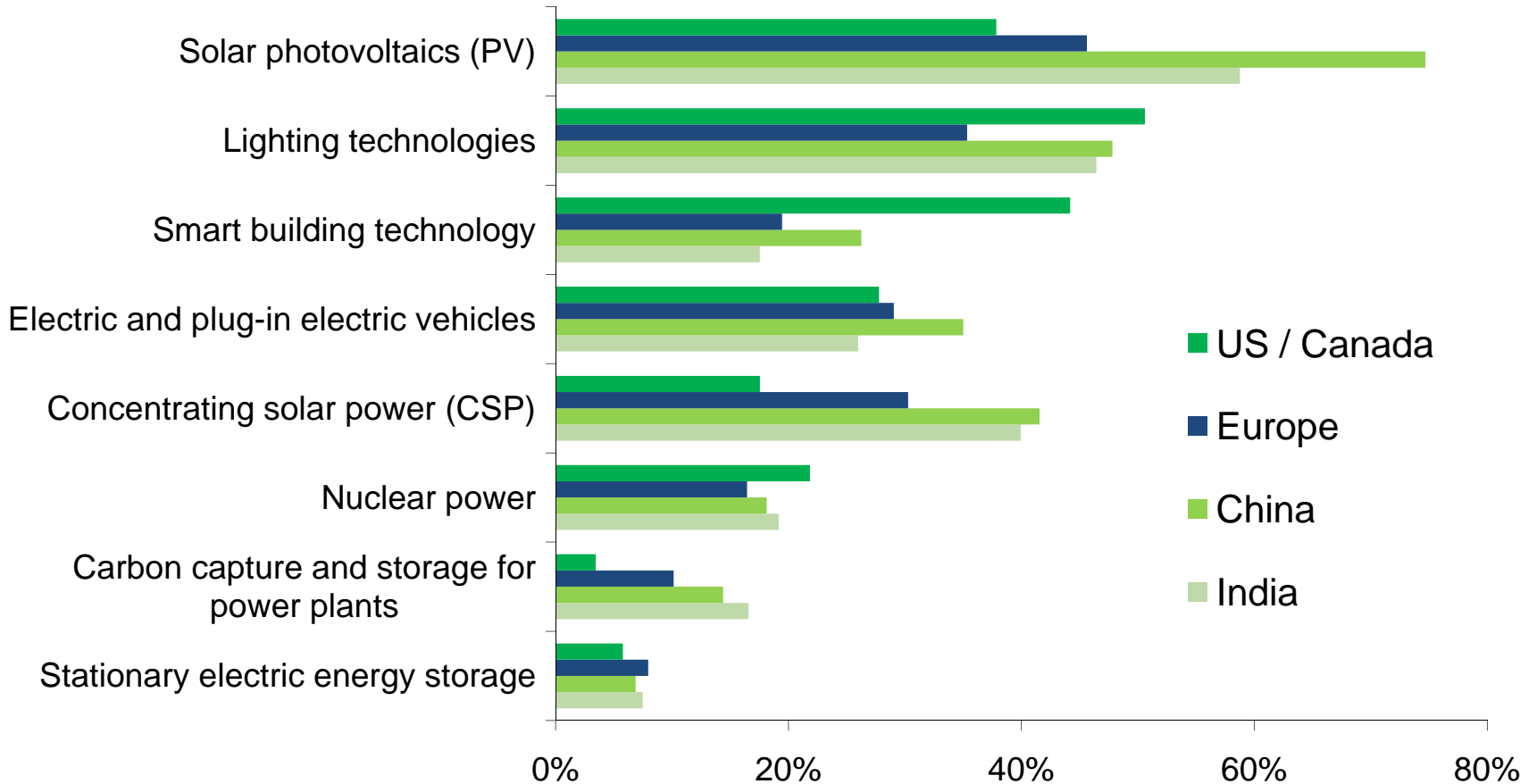
51% are seeking green building certification for new construction projects

An additional **39%** seek green elements, but not certification

19% have at least one green certified building.

Technology expectations vary by region

Which technology do you expect to have the greatest performance-price ratio improvement over the next ten years (select up to 3)?



Observations & Conclusions

- **Energy efficiency is global priority**

Building energy decision-makers are primarily concerned with reducing energy costs, but public image, greenhouse gas emissions, incentives, and regulations are also important.

- **Investment in efficiency remains strong**

52% say they actually invested more in energy efficiency over the last 12 months because of the recession. Two-thirds plan to make energy efficiency investments in 2010.

- **Importance of and planned investment in efficiency is particularly high in China, India**

For more complete EEI results

Go to www.InstituteBE.com

→ What's New

→ Global Energy Efficiency Indicator Results for 2010

Includes link to webcast archive

The screenshot shows the homepage of the Institute for Building Efficiency, an initiative of Johnson Controls. The navigation bar includes links for Home, Existing Building Retrofits, Green Buildings, Smart Grids & Smart Buildings, Renewable & Distributed Energy, Financing Clean Energy, Carbon Management, Energy & Climate Policy, and What's New. The 'What's New' section highlights a new analysis, events, publications, resources, and tools. A spotlight features a line graph titled 'ENERGY EFFICIENCY INVESTMENTS TO INCREASE' with data points: 61%, 55%, 60%, 56%, 46%, and 42%. Below the spotlight, there are sections for Articles, Resources & Tools, and a video player for the 'Energy Efficiency Indicator Overview'.

What's New
Highlighting new analysis, events, publications, resources, and tools that the Institute for Building Efficiency wants you to know about.

Articles
Johnson Controls Launches Institute for Building Efficiency
Grounded in Johnson Controls' 125 years of global experience developing and deploying advanced building technologies and services, the Institute for Building Efficiency will produce timely research that explores critical issues in high performance buildings and smart energy systems. The new Institute will be led by Jennifer Layke, with a global team of Johnson Controls experts and a network of expert advisors and contributors from leading institutions around the world.
[LEARN MORE](#)

Signature Study: Energy Efficiency Indicator Goes Global in 2010
The annual Energy Efficiency Indicator survey assesses the attitudes, priorities, and investment plans of decision makers on the front lines of energy management in commercial buildings. Begun in 2007 with a North American focus, this signature research initiative has grown to become a unique global study on the state of building efficiency throughout the world.
[LEARN MORE](#)

2010 Energy Efficiency Indicator Results for North America
The Institute for Building Efficiency announces results of the fourth annual Energy Efficiency Indicator survey for North America conducted in partnership with the International Facility Management Association (IFMA) and the American Society for Healthcare Engineering (ASHE). The results from the 2010 survey suggest a

Resources & Tools
[EEI 2010 North America Results Presentation](#)
[EEI 2010 North America Executive Summary](#)
[EEI 2009 Brazil News Release](#)
[EEI 2009 India Results Presentation](#)
[EEI 2009 Results Presentation](#)
[EEI 2007-2009 Results Summary](#)
[EEI 2009 Summary Report](#)
[EEI 2008 Summary Report](#)
[EEI 2008 Healthcare Sector Results](#)
[EEI 2007 Summary Report](#)

SPOTLIGHT: ENERGY EFFICIENCY INVESTMENTS TO INCREASE
The economic recession has had a mixed impact on energy efficiency investment.
[LEARN MORE](#)

Energy Efficiency Indicator Overview

<http://www.institutebe.com/Whats-New/global-energy-efficiency-indicator.aspx>

Panel Discussion



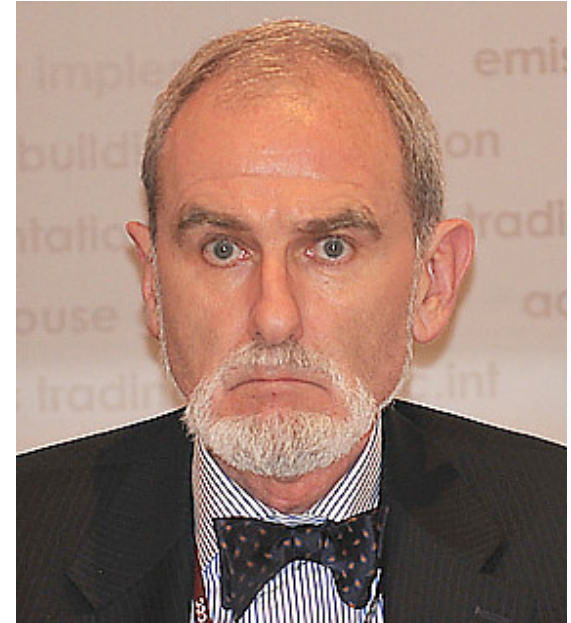
Kejun Jiang

Research Professor and
Director, Energy Research
Institute (ERI), National
Development & Reform
Commission, China



Jennifer Layke

Director
Institute for Building Efficiency
Johnson Controls



Elmer Holt

Senior Economist
Office of Policy and
International Affairs
US Department of Energy

Audience Q&A

Questions can be submitted to the panel
by clicking “ask question” below

A city skyline at sunset, with a green energy swirl overlay. The skyline features several prominent skyscrapers, including the Willis Tower on the left. The sun is low on the horizon, casting a warm glow over the buildings. A bright green, glowing swirl of light curves across the scene, starting from the bottom left and ending near the top right, symbolizing energy or efficiency.

Efficiency Now
It's Never Been More Important