

# Measuring Progress towards Sustainability

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***The National Academies***  
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SCHOOL OF NATURAL RESOURCES & ENVIRONMENT  
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# Charge

1. How have business sustainability metrics evolved in the US?
2. Which business sectors have most readily and extensively adopted use of sustainability metrics?
3. Which metrics have proven to be the most useful? How are quantitative metrics being used to guide business decisions and practices?
4. What are the remaining gaps and critical barriers?

# Evolution of Reporting

- Mid-1970's, Ernst and Ernst (precursor to Ernst and Young) find that *only 1% of Fortune 500 companies* provide social responsibility material to financial report.
- 1984, CMA Responsible Care program formed
- 1986, Emergency Planning and Community Right-To-Know Act passed
- 1989, Valdez Principles => CERES Principles formed
- 1997, Global Reporting Initiative formed
- 1999, Dow Jones Sustainability Index formed
- 2000, Carbon Disclosure Project formed
- 2001, GHG Protocol Reporting Standard released by WRI and WBCSD
- 2009, Integrated Reporting emerges as new focus of sustainability reporting
- 2010, SEC releases disclosure guidance for climate change risks
- 2011, The Sustainability Accounting Standards Board formed
- 2011, *53% of the S&P 500 and 57% of the Fortune 500 companies* report on their ESG impacts

4 Decades



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- 2011, The Sustainability Accounting Standards Board formed
- 2011, *53% of the S&P 500 and 57% of the Fortune 500 companies* report on their ESG impacts
- 2014 PwC investor survey finds *61% of U.S. investors are dissatisfied with the current level of corporate disclosure* regarding matters relevant to climate change, resource scarcity, social corporate responsibility and good citizenship.

4 Decades



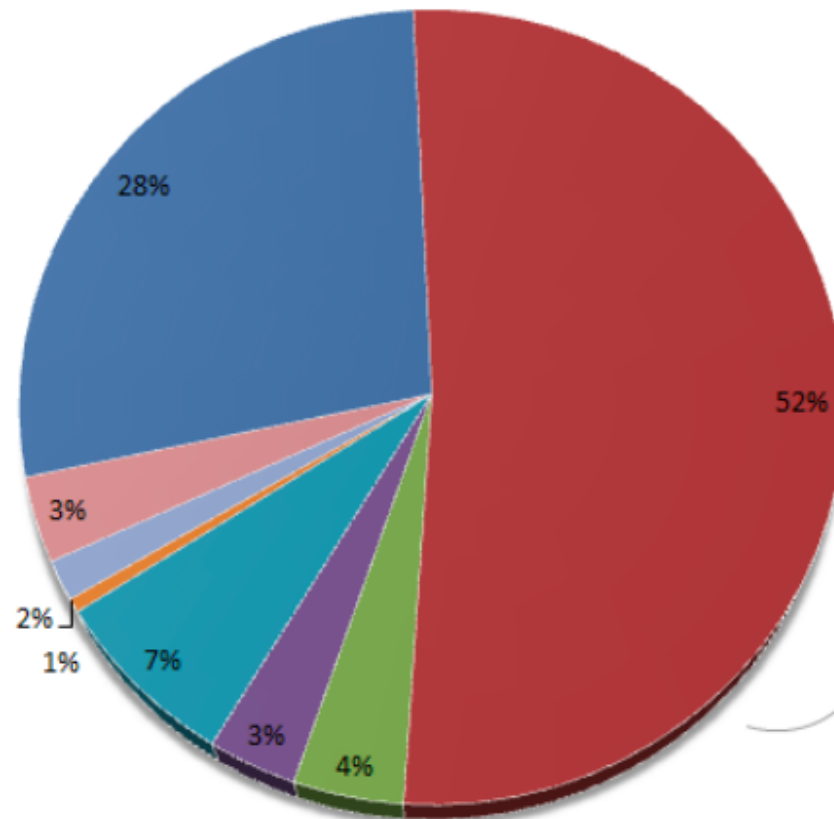
# Top 10 Reporting Countries 2011

Country	% of registered 2011 GRI reports	% Global 500 HQs*	GDP (IMF data in US\$ billions)**
United States of America	11%	27%	15,094.025
Spain	8%	2%	1,493.513
Sweden	6%	1%	538.237
Brazil	6%	1%	2,492.908
China	5%	12%	7,298.147
Netherlands	4%	2%	840.433
Germany	4%	7%	3,577.031
Australia	4%	2%	1,488.221
Switzerland	3%	3%	636.059
Canada	3%	2%	1,736.869

Source: Global Reporting Initiative



# Which Business Sectors?



- Private (non-listed)
- Public Institution
- State-Owned
- Partnership
- Publicly Listed
- Partially State-Owned
- Cooperative
- Non-Profit

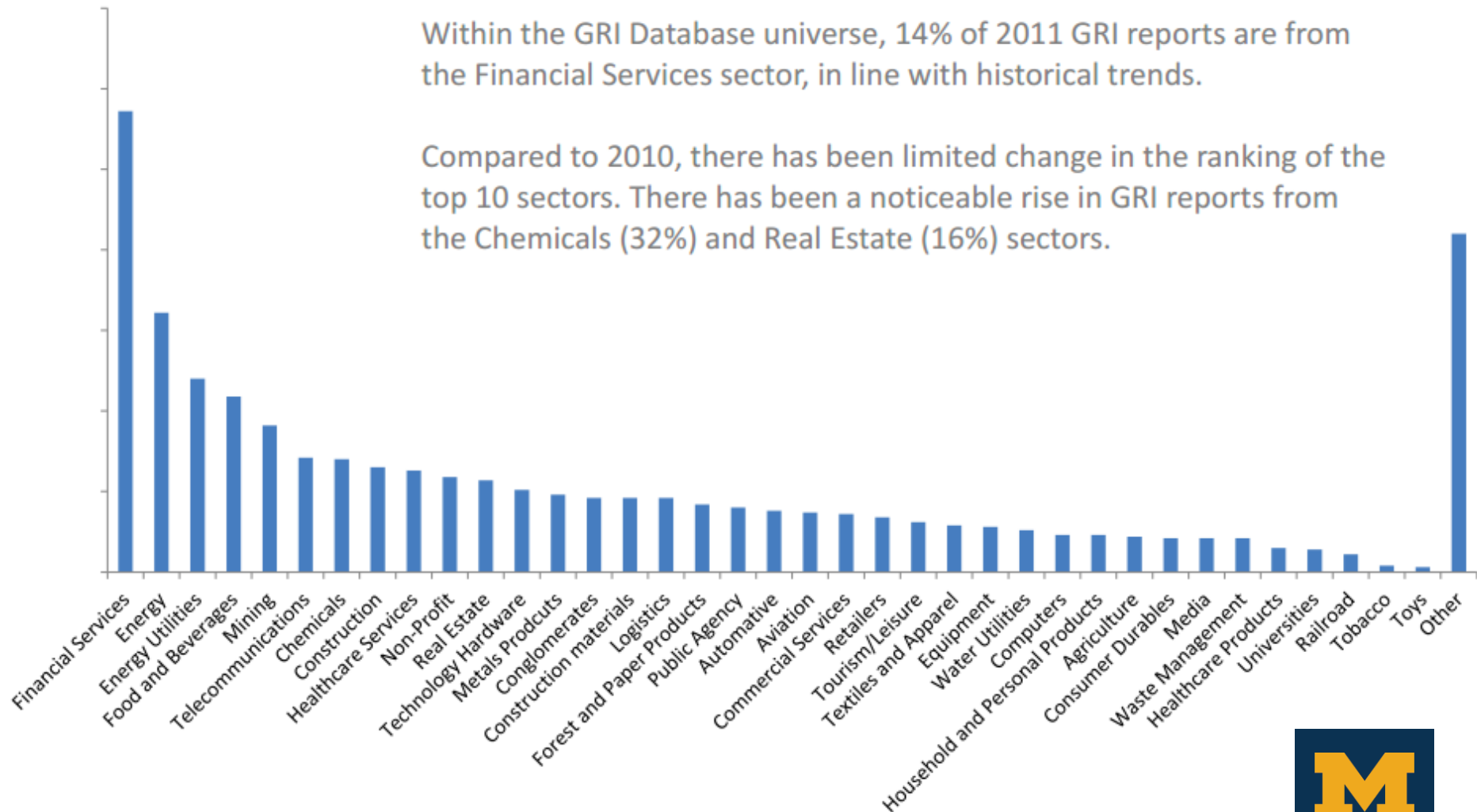
Source: *Global Reporting Initiative*



# 2011 GRI Reports by Sector

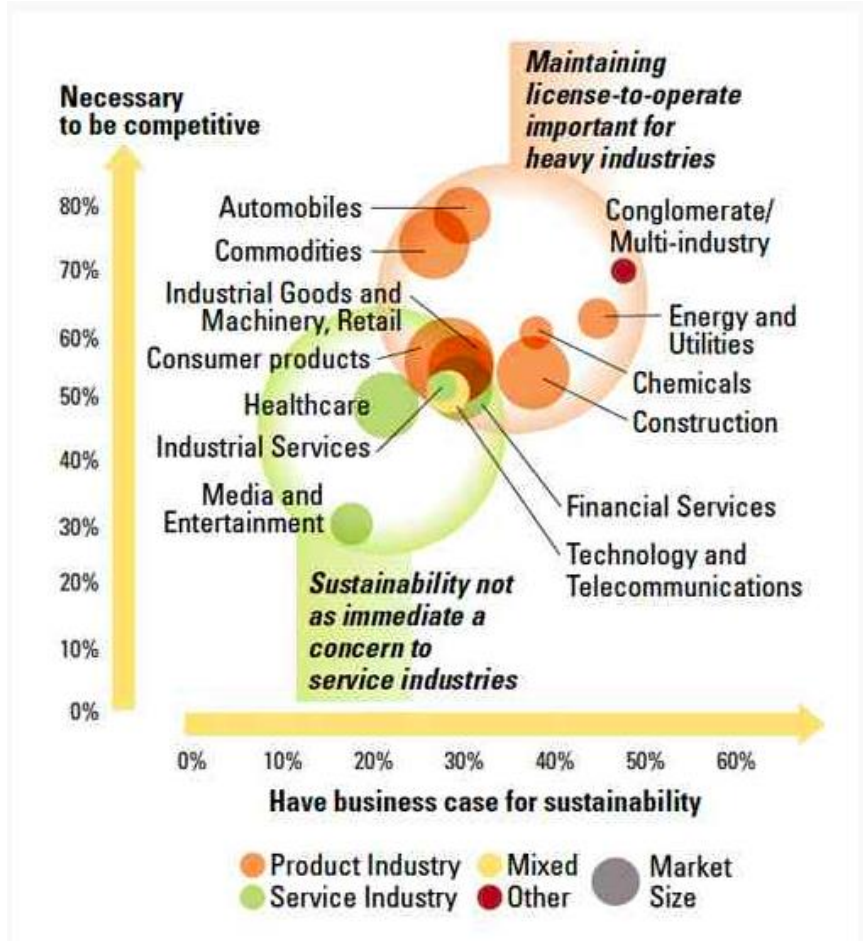
Within the GRI Database universe, 14% of 2011 GRI reports are from the Financial Services sector, in line with historical trends.

Compared to 2010, there has been limited change in the ranking of the top 10 sectors. There has been a noticeable rise in GRI reports from the Chemicals (32%) and Real Estate (16%) sectors.



Source: Global Reporting Initiative

# Which Business Sectors?



- Resource Intensive
- Visible Brands



# What is Measured?

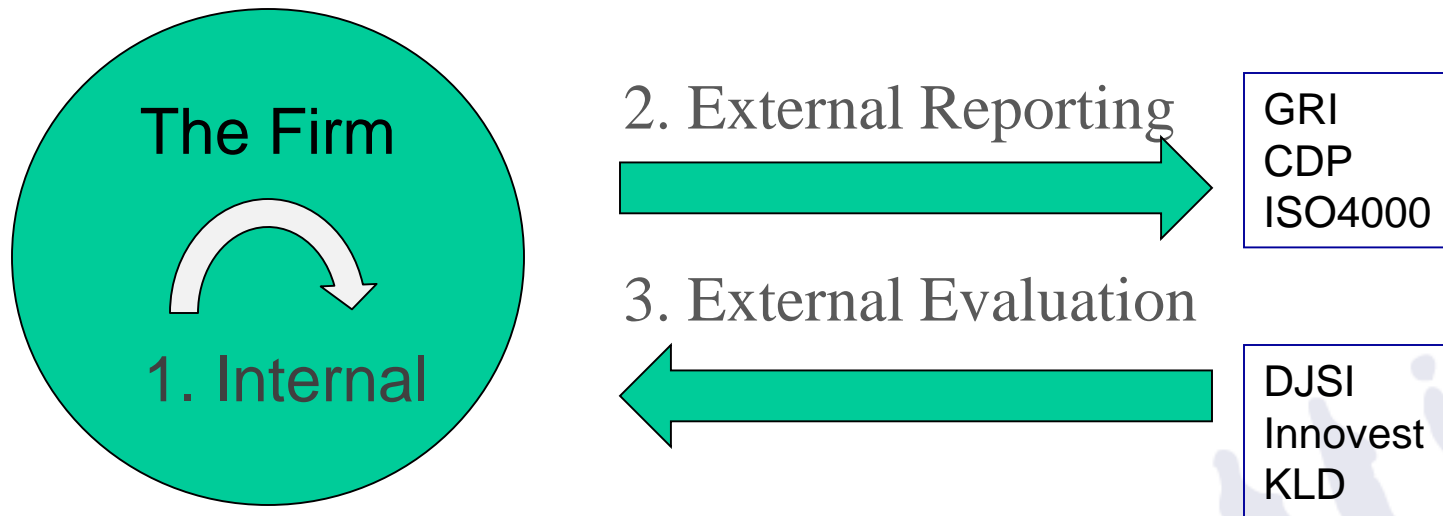
## Past and Present

- Environmental
- Social

## Future

- Existing metrics as obstacles
- New metrics and objectives
  - Environmental
  - Social

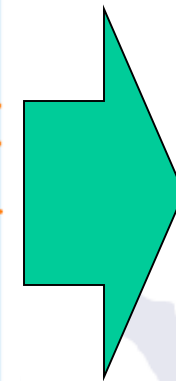
# Present – What is Measured?



# External Reporting - What is Measured?

**TABLE 1: CATEGORIES AND ASPECTS IN THE GUIDELINES**

Category	Economic		Environmental	
Aspects <sup>II</sup>	<ul style="list-style-type: none"><li>• Economic Performance</li><li>• Market Presence</li><li>• Indirect Economic Impacts</li><li>• Procurement Practices</li></ul>		<ul style="list-style-type: none"><li>• Materials</li><li>• Energy</li><li>• Water</li><li>• Biodiversity</li><li>• Emissions</li><li>• Effluents and Waste</li><li>• Products and Services</li><li>• Compliance</li><li>• Transport</li><li>• Overall</li><li>• Supplier Environmental Assessment</li><li>• Environmental Grievance Mechanisms</li></ul>	
Category	Social			
Sub-Categories	Labor Practices and Decent Work	Human Rights	Society	Product Responsibility
Aspects <sup>II</sup>	<ul style="list-style-type: none"><li>• Employment</li><li>• Labor/Management Relations</li><li>• Occupational Health and Safety</li><li>• Training and Education</li><li>• Diversity and Equal Opportunity</li><li>• Equal Remuneration for Women and Men</li><li>• Supplier Assessment for Labor Practices</li><li>• Labor Practices Grievance Mechanisms</li></ul>	<ul style="list-style-type: none"><li>• Investment</li><li>• Non-discrimination</li><li>• Freedom of Association and Collective Bargaining</li><li>• Child Labor</li><li>• Forced or Compulsory Labor</li><li>• Security Practices</li><li>• Indigenous Rights</li><li>• Assessment</li><li>• Supplier Human Rights Assessment</li><li>• Human Rights Grievance Mechanisms</li></ul>	<ul style="list-style-type: none"><li>• Local Communities</li><li>• Anti-corruption</li><li>• Public Policy</li><li>• Anti-competitive Behavior</li><li>• Compliance</li><li>• Supplier Assessment for Impacts on Society</li><li>• Grievance Mechanisms for Impacts on Society</li></ul>	<ul style="list-style-type: none"><li>• Customer Health and Safety</li><li>• Product and Service Labeling</li><li>• Marketing Communications</li><li>• Customer Privacy</li><li>• Compliance</li></ul>



Investors

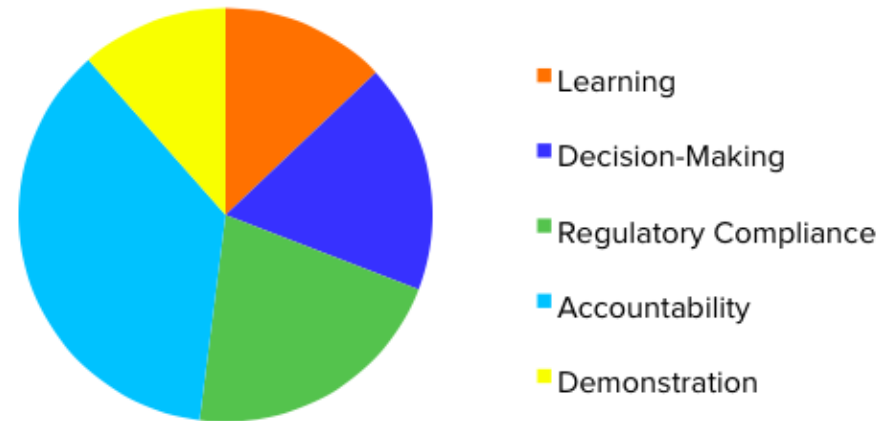


# Present – What is Measured?

Companies track a range of ESG metrics across a variety of categories

Purpose of Internal Metrics Collection

Figure 2



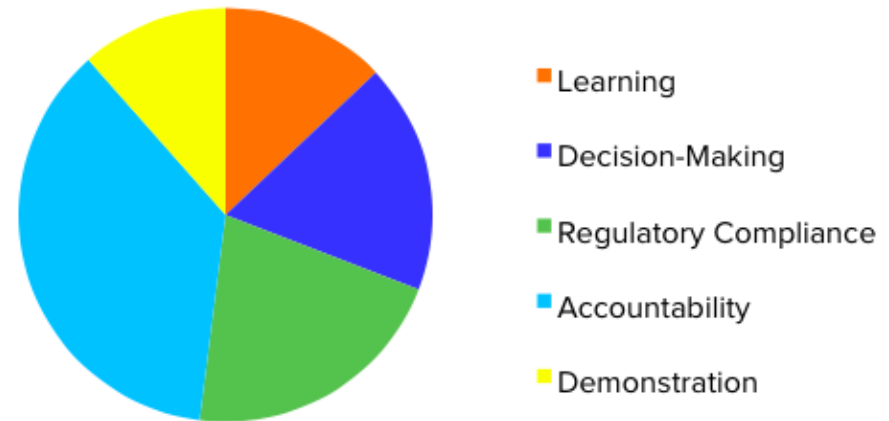
# Present – What is Measured?

Companies track a range of ESG metrics across a variety of categories

“Whereas external audiences may use ESG data as a proxy for accountability, leadership and competitive advantage, internal audiences use ESG metrics as leading indicators for performance management, accountability, decision-making and organizational learning.”

Purpose of Internal Metrics Collection

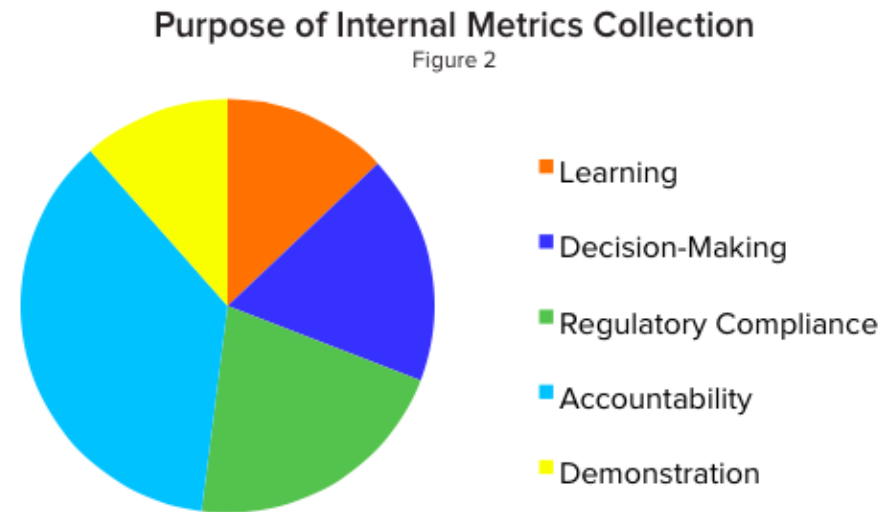
Figure 2



# Present – What is Measured?

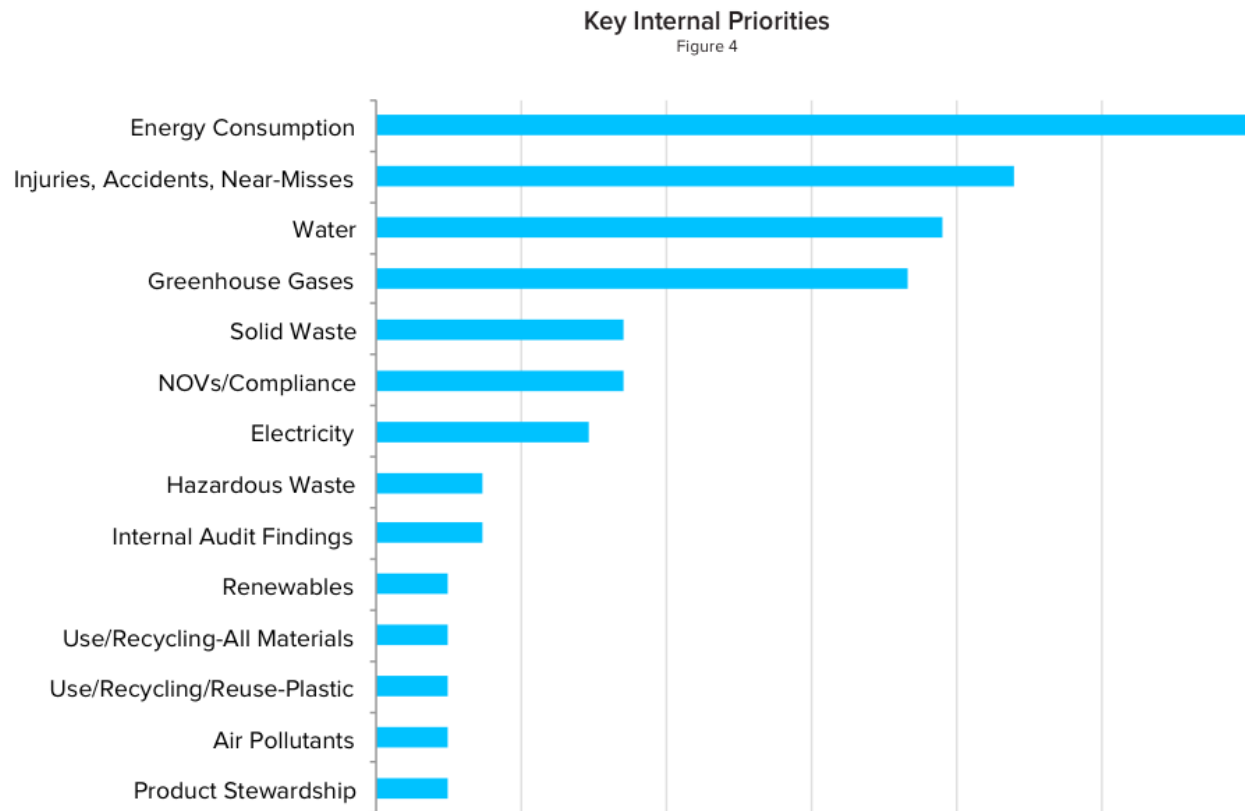
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“Most respondents said it was ‘too early to tell’ whether external reporting delivered clear business benefits such as increased access to capital, improved competitive positioning, investor interest and preferred supplier status.”



# Internal – What is Measured?

Typical company tracks 35-40 ESG metrics, but only have specific targets for 50% of the metrics they track



Source: National Association of Environmental Management, 2011 *Identifying Corporate EH&S and Sustainability Metrics: What Companies are Tracking and Why*, Washington DC

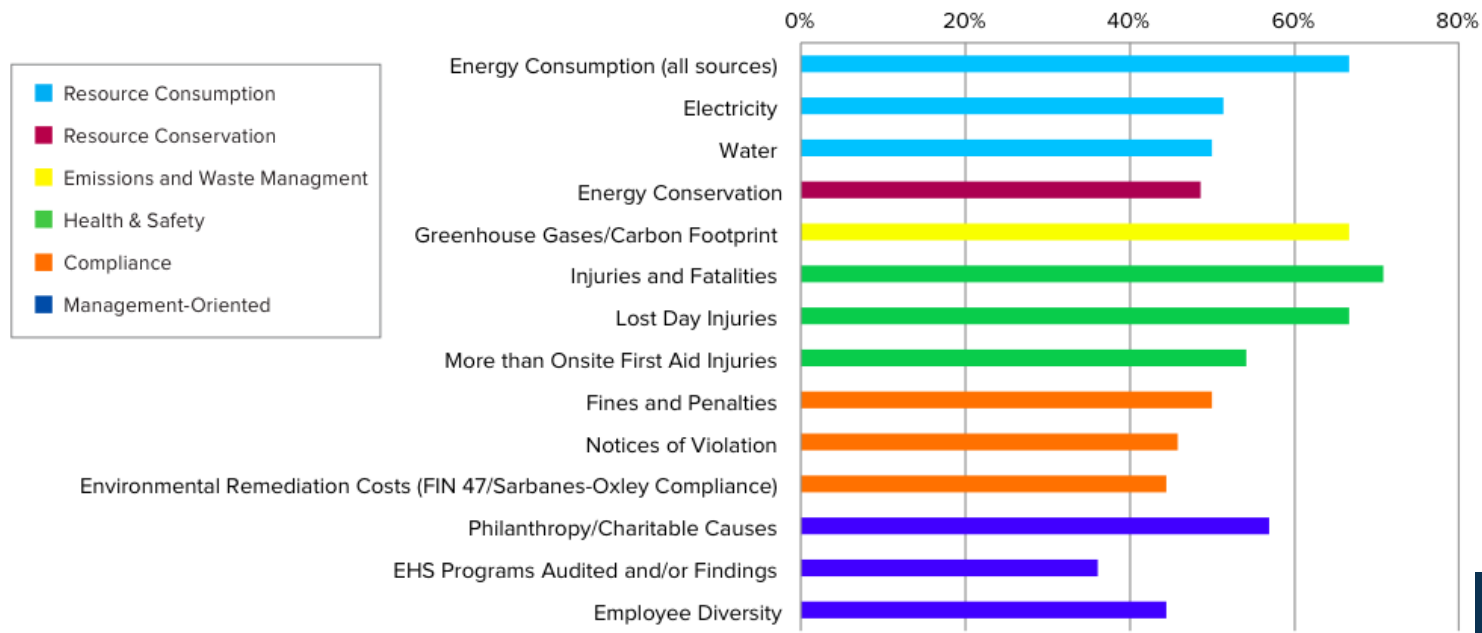


# Internal – What is Measured?

One average, about 18 metrics get reported to senior management. Most often, resource consumption metrics, such as energy use, electricity usage and water consumption

Metrics Most Commonly Reported to Company Senior Management

Figure 1

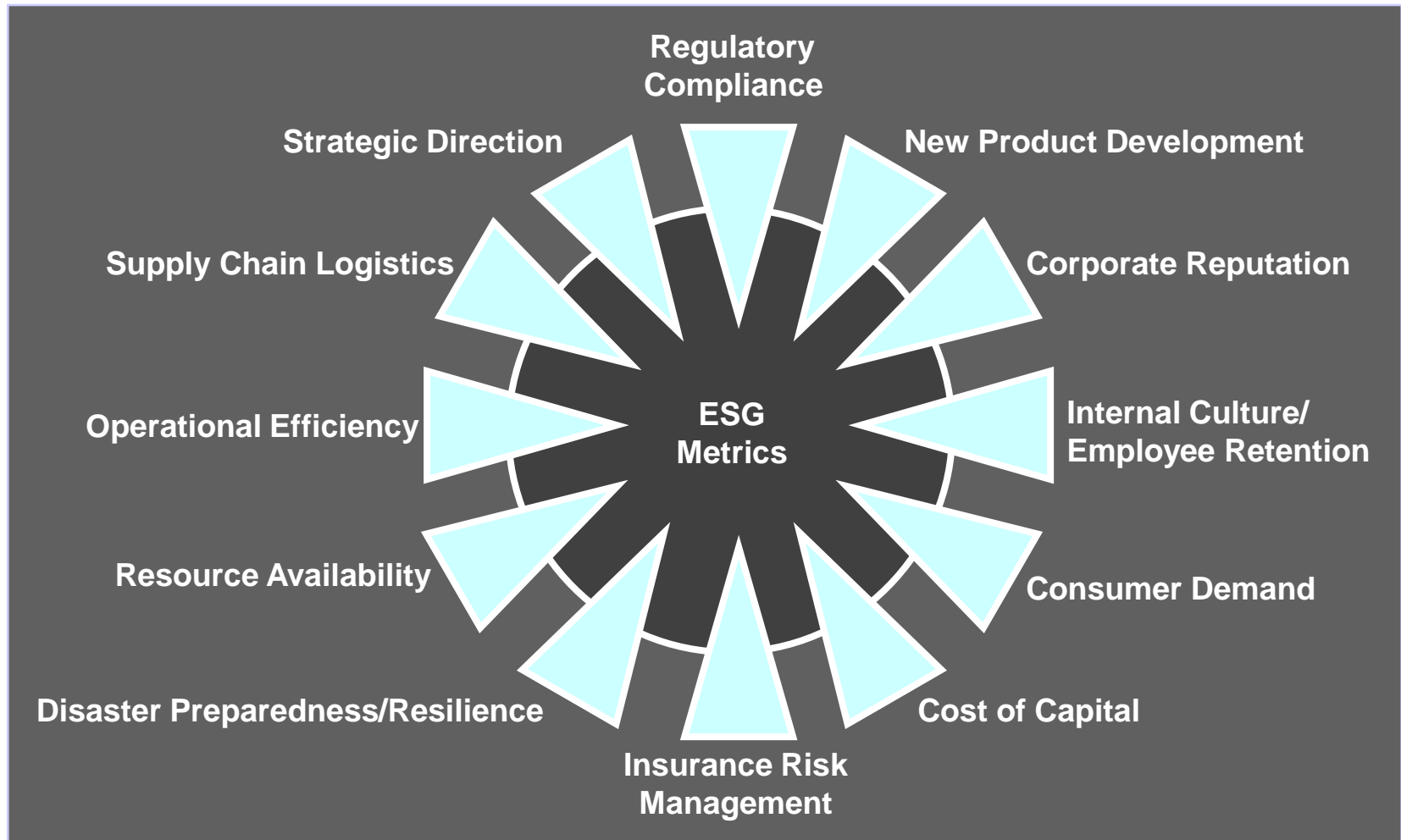


Source: National Association of Environmental Management, 2011 *Identifying Corporate EH&S and Sustainability Metrics: What Companies are Tracking and Why*, Washington DC





# Internal – What is Measured?



# External Evaluation – What is Measured?

## Methods for rating metrics:

- 1.Past Performance** - Across historical time periods for the same firm.
- 2.Future Performance** - Using historical figures and certain mathematical and statistical techniques, including present and future values.
- 3.Comparative Performance** - Comparison between similar firms.
- 4.Risk profile**, liabilities and violations
- 5.Management Capabilities.**

# BUT...looking to the Future

## Present metrics....

- ...are still in need of improvement to tighten link to finance and investment (internal and external).
- ...are driven more by economic and technological considerations than environmental boundaries and realities. *Does a reduction of CO<sub>2</sub> emissions by 20% have any bearing on our overall goals of carbon reduction targets as a society?*
- ...fit sustainability within existing business parameters, which are in many ways not suited to address the modern sustainability challenge. They are not focused on the market transformations that are necessary to address the social and environmental issues we face.
- ...are focused on reducing unsustainability, not creating sustainability. They are about slowing the decline of environmental systems, not reversing it.

# Looking to the Future

*“The first step in having a new idea is to stop having an old idea.”*

Edwin Land



# Looking to the Future

Existing metrics that stand as obstacles to sustainability.

- Gross Domestic Product
- Discount Rates
- Quarterly Returns



# Looking to the Future

Existing metrics that stand as obstacles to sustainability.

- Gross Domestic Product
- Discount Rates
- Quarterly Returns

Some existing myths that do the same.

- The purpose of the corporation is to make money for its shareholders...to the exclusion of all other considerations
- Government regulation is an unwarranted intrusion and restraint on the market

# Looking to the Future

- Continue to tighten link b/w ESG metrics & bottom line measures (earnings/share).
- Develop new forms of environmental metrics.
  - Systems parameters
  - External lobbying, industry leadership and broad systems change
  - New forms of supply chains
  - New forms of governance models
  - New forms of partnerships
  - New forms of innovation that create sustainability, not just reduce unsustainability

# Looking to the Future

## New forms of metrics on human rights.

- Human Trafficking
- Government Surveillance
- Data Privacy
- Water Availability
- Broadband access
- Living Wage
- Investment Portfolio
- Operating in repressive regimes
- Gender equity
- Worker safety
- Marriage equality





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UN Guiding Principles  
on Business and Human  
Rights

UN Global Compact

# The Anthropocene

## Planetary Boundaries

after Johan Rockström, Stockholm Resilience Centre et al. 2009

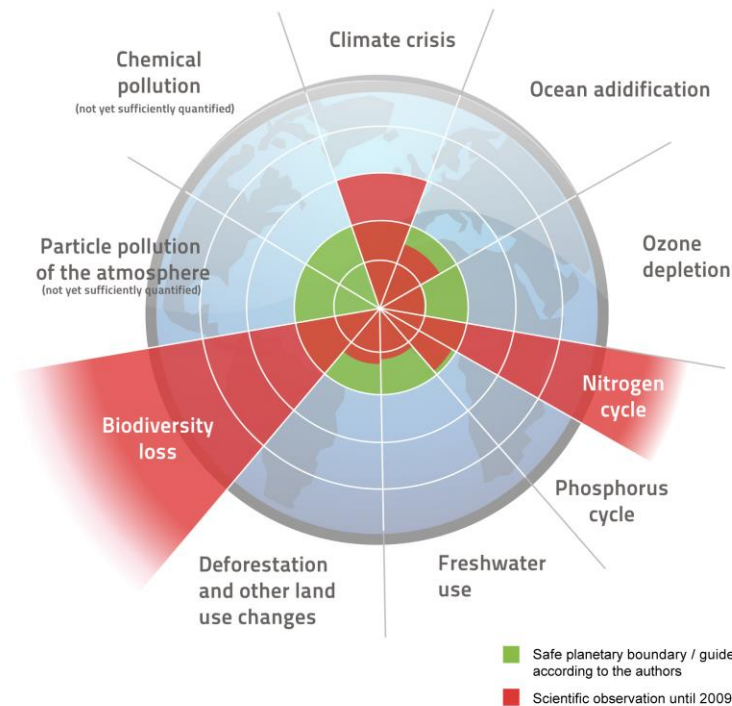


Illustration: Felix Müller ([www.zukunft-selbermachen.de](http://www.zukunft-selbermachen.de)) Licence: CC-BY-SA 4.0

**Source:** Rockström, J; Steffen, WL; and 26 others (2009), "Planetary Boundaries: Exploring the Safe Operating Space for Humanity," *Ecology and Society* 14 (2): 32

***Thank you***

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# Present – What is Measured?

## Annual CDP program reports

### ▼ CLIMATE CHANGE

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### ▼ SUPPLY CHAIN

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### ▼ CITIES

[View more »](#)



The A List Report 2014



Supply Chain Report 2014–15



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CDP Global Water Report 2014



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