Benchmarking Management Practices that Support PtD: ORC Worldwide Survey Results

Stephen Newell

Principal

Mercer ORC HSE Networks

ORC | Networks

Special Thanks To:

- Mercer ORC members that contributed to the survey
- Dee Woodhull and Joanne Linhard at Mercer ORC who helped field the survey and tabulate the results

- Dr. Elyce Biddle at NIOSH who helped develop and edit the survey questions

ORC | Networks

Mercer HSE Network Practice Summary

- Nine different networks with approximately 120 large global corporations in 20 industry sectors
- The Mercer HSE Networks:
  - Promote effective occupational safety, health and environmental programs and practices in business
  - Serve as a forum for HSE developmental work
  - Facilitate industry understanding of and input into national occupational safety, health, and environmental policy

➢ The Mercer ORC HSE Network model is built upon the premise that member value can be maximized through diversity; by cross-industry benchmarking to share best practices and lessons learned

ORC | Networks

Select Mercer ORC Network Member Companies

3M
Abbott Laboratories
Air Products and Chemicals, Inc.
Alcoa
Anheuser-Busch Companies
AT&T
Baxter Healthcare Corporation
Becton Dickinson and Company
The Boeing Company
BP America Inc.
Bristol-Myers Squibb Company
Cargill, Inc.
Caterpillar, Inc.
Chevron Corporation
CITGO Petroleum Corporation
The Coca-Cola Company
Colgate-Palmolive Company
Coors Brewing Company
Corning Incorporated
Chrysler LLC
The Dow Chemical Company
Duke Energy
E. I. DuPont de Nemours & Company, Inc.
Eastman Chemical Company
Eaton Corporation
Eli Lilly and Company
ExxonMobil Corporation
General Electric Company
General Motors Corporation
The Goodyear Tire & Rubber Company
Hess Corporation
Hewlett-Packard Company
Honeywell International
IBM Corporation
Ingersoll-Rand Company
International Paper Company
International Truck and Engine Corporation
ITT Corporation
John Deere
Johnson & Johnson
Kimberly-Clark Corporation
Kraft Foods Global, Inc.
Lawrence Berkeley National Laboratory
Lockheed Martin Corporation
Marathon Oil Company
Mars, Incorporated
MeadWestvaco Corporation
Merck & Company, Inc.
Monsanto Company
Northrop Grumman Corporation
Novartis Corporation
Pfizer, Inc.
Philip Morris, USA
Pitney Bowes Inc.
PPG Industries, Inc.
Praxair, Inc.
The Procter & Gamble Company
Raytheon Company
Rohm and Haas Company
Sanofi-aventis
Schering-Plough Corporation
The ServiceMaster Company
Shell Chemical Company
The Sherwin-Williams Company
Siemens Power Generation, Inc.
Sprint Nextel Corporation
U. S. Steel Corporation
United Parcel Service
United Technologies Corporation
Verizon Communications
W. L. Gore & Associates
W. R. Grace & Co.
W. W. Grainger, Inc.
Walt Disney Company

ORC | Networks

Purpose of the Survey

- Determine the level of adoption of PtD concepts among a subset of Fortune 500 companies in the US that pride themselves for superior safety and health performance

Scope

- Identify the level of leadership commitment to PtD among safety conscious corporations
- Identify existing PtD practices in:
  - Manufacturing and work processes
  - Corporate procurement policies and procedures
- 19 questions included; combination of “yes/no” and multiple choice questions

ORC | Networks

Specific Survey Objectives

- Areas of focus included policy and practice, organizational roles and responsibilities, accountability and performance measurement
- The survey is designed to provide insights into:
  - The extent to which companies understand PtD
  - How far it extends throughout their operations
  - Whether or not they require contractors and suppliers to implement PtD
  - Components of their PtD process
  - How Ptd is implemented in their operations
  - What functions have PtD responsibility
  - How performance in implementing PtD is measured

ORC | Networks

Survey Participation

- **Initially posted on web site and administered in person at May 2009 ORC OSH meeting; 55 individuals responded**
- **Participation solicited from primary contacts within each member company – responses ultimately received from 35 companies**
- **Not a scientific sample, but anecdotal information from a significant number of companies and individuals**

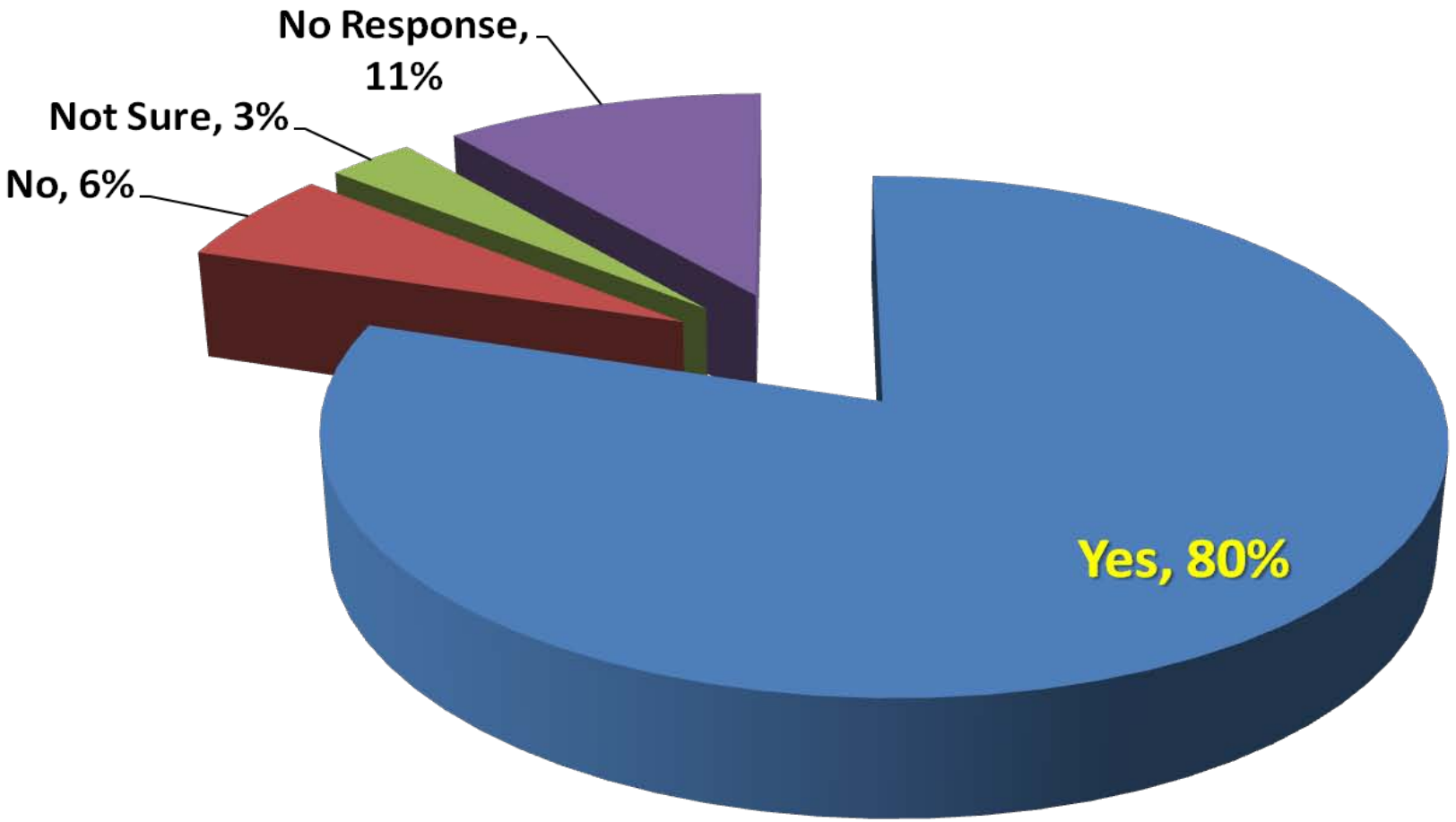
Results

- Findings shed light on the extent to which PtD practices are integrated into existing programs and policies
- Illustrates status of PtD among safety conscious companies at a point in time and can serve as a baseline to measure progress in implementing PtD concepts

I. Scope of PtD Efforts

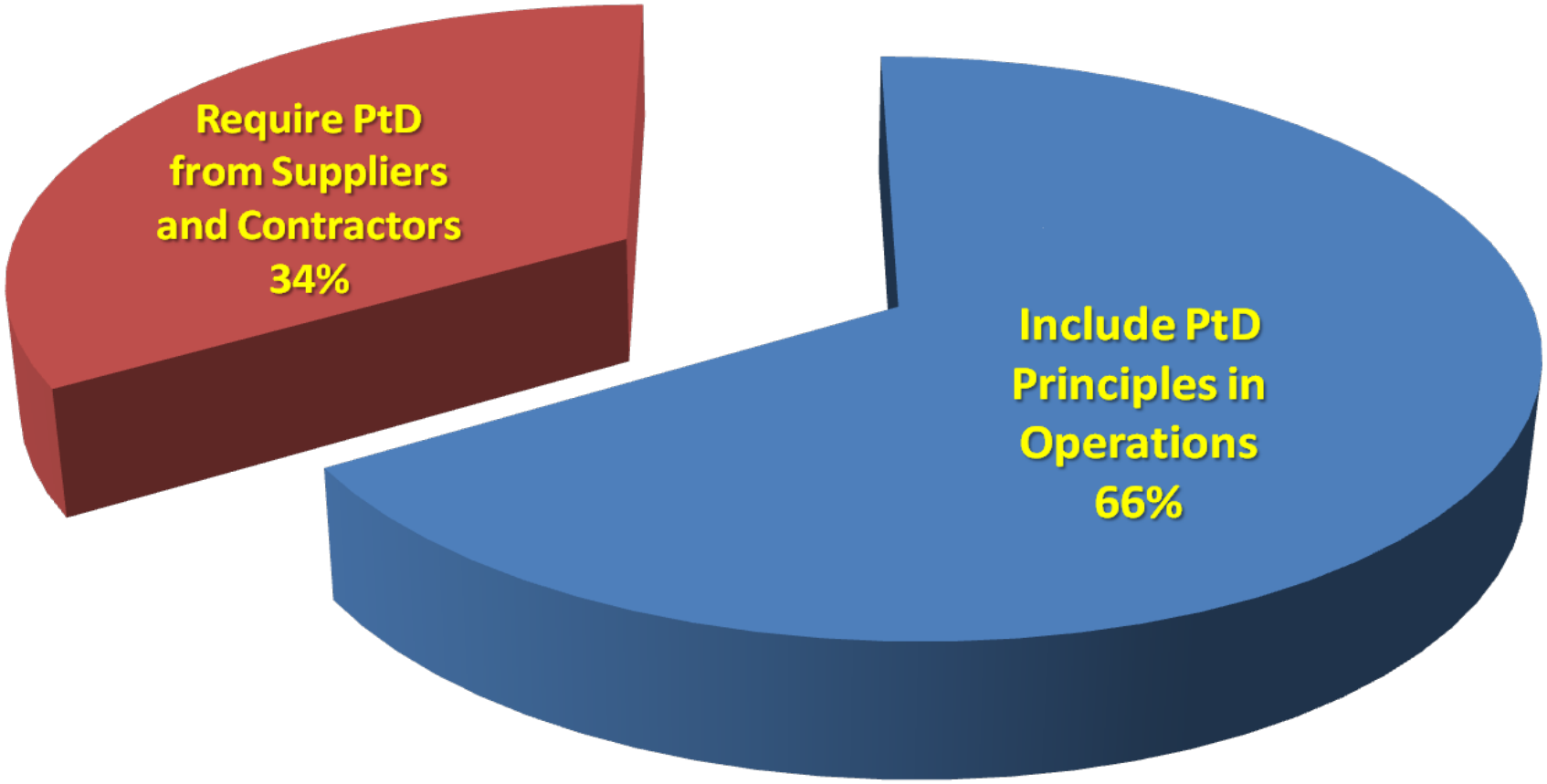
ORC | Networks

"Do You Know What PtD Principles Are?"



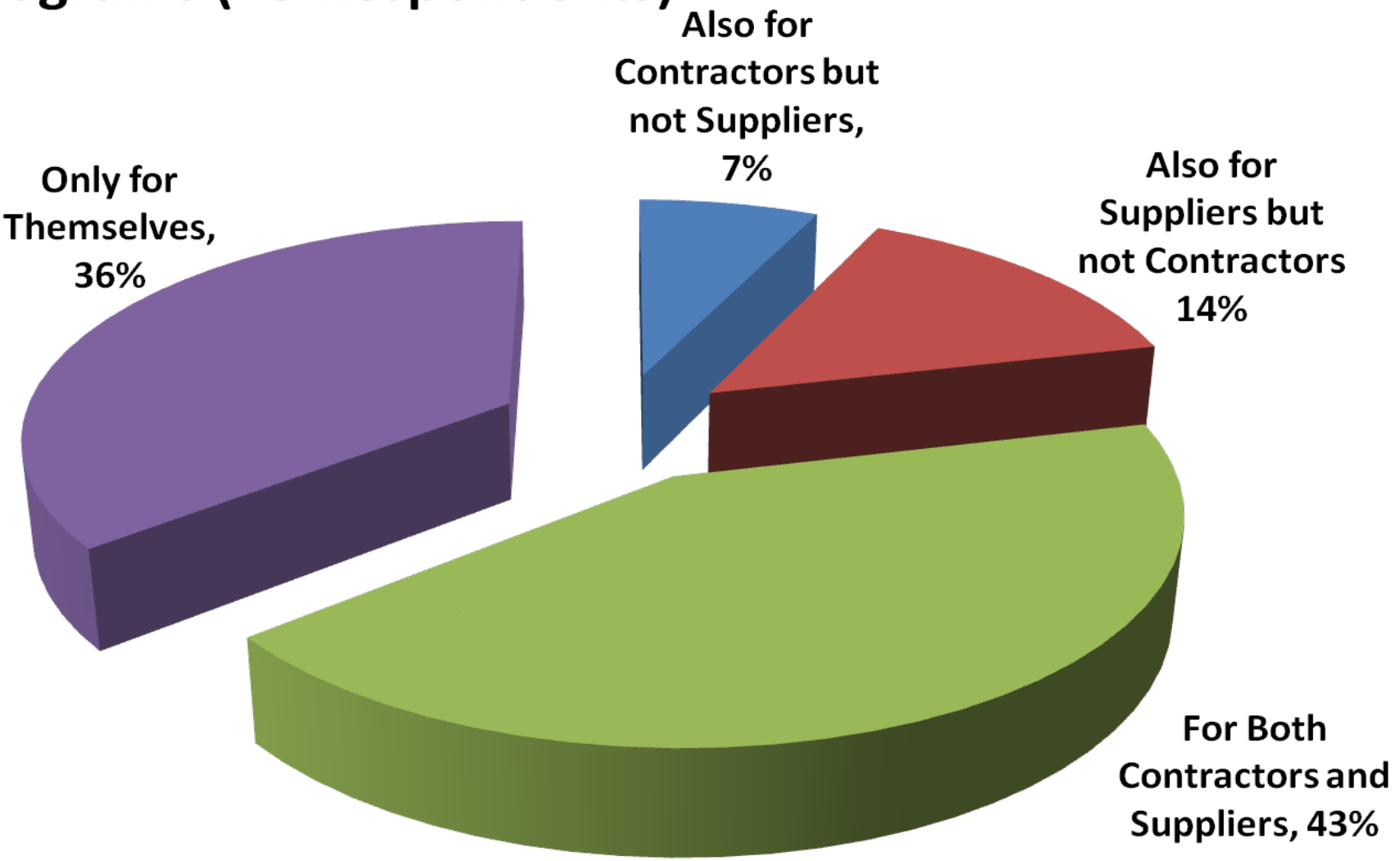
ORC | Networks

Companies that Answered "No“, "Not Sure“ or Gave No Response to Knowing What PtD Principles Are (7)



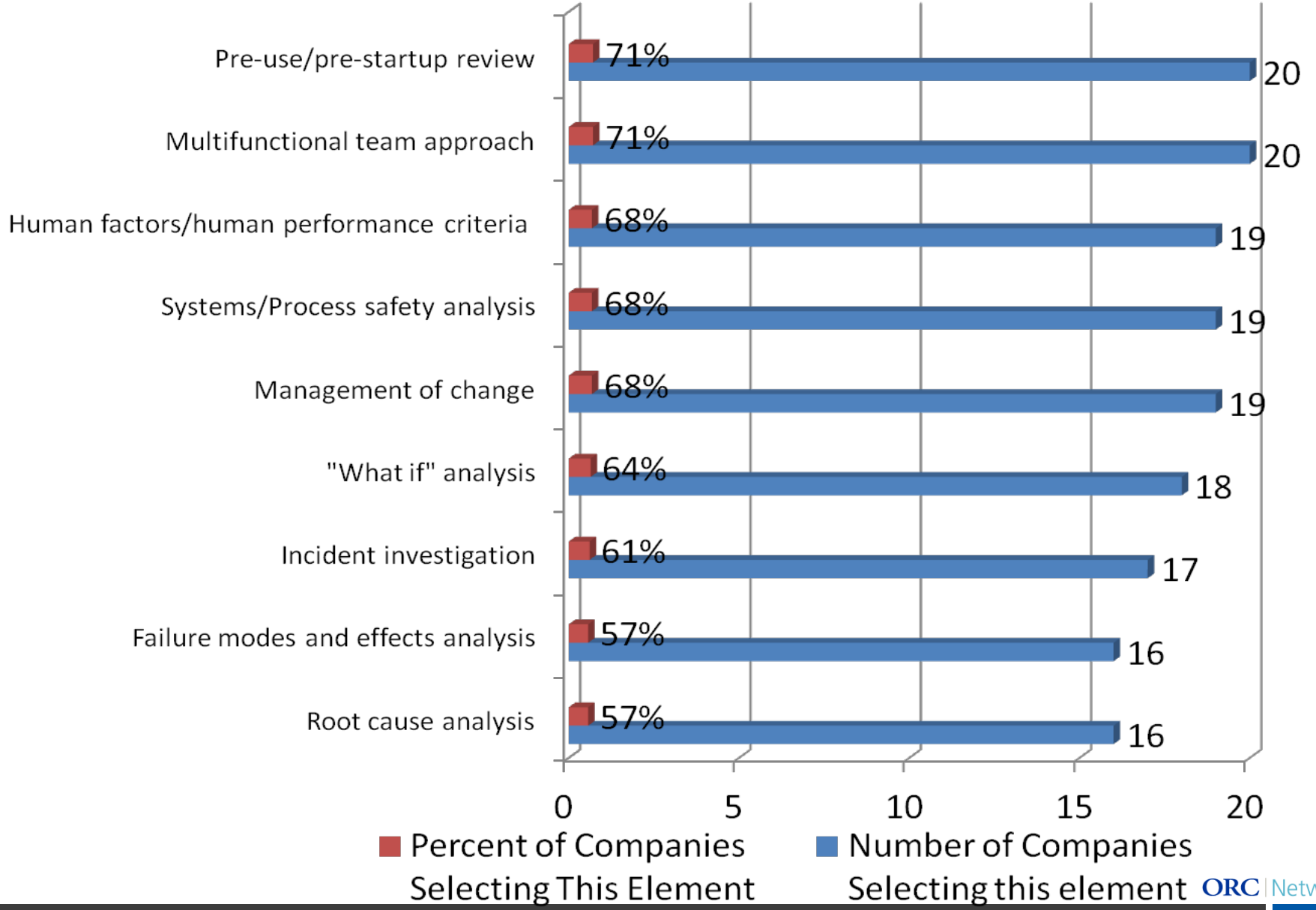
ORC | Networks

Companies that Require Internal PtD Programs (28 Respondents)



ORC | Networks

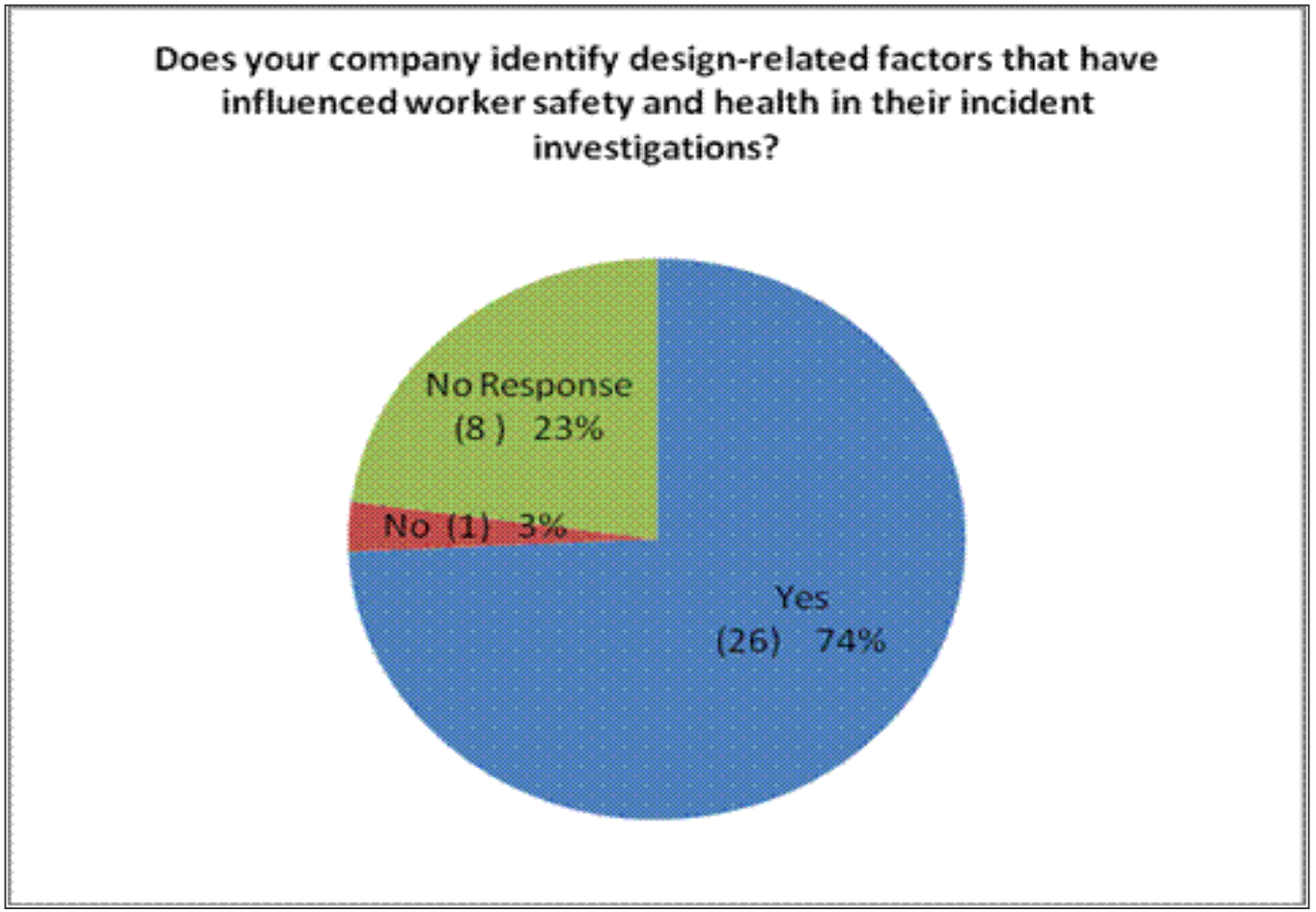
Elements Included in PtD Principles (28 Respondents)



ORC | Networks

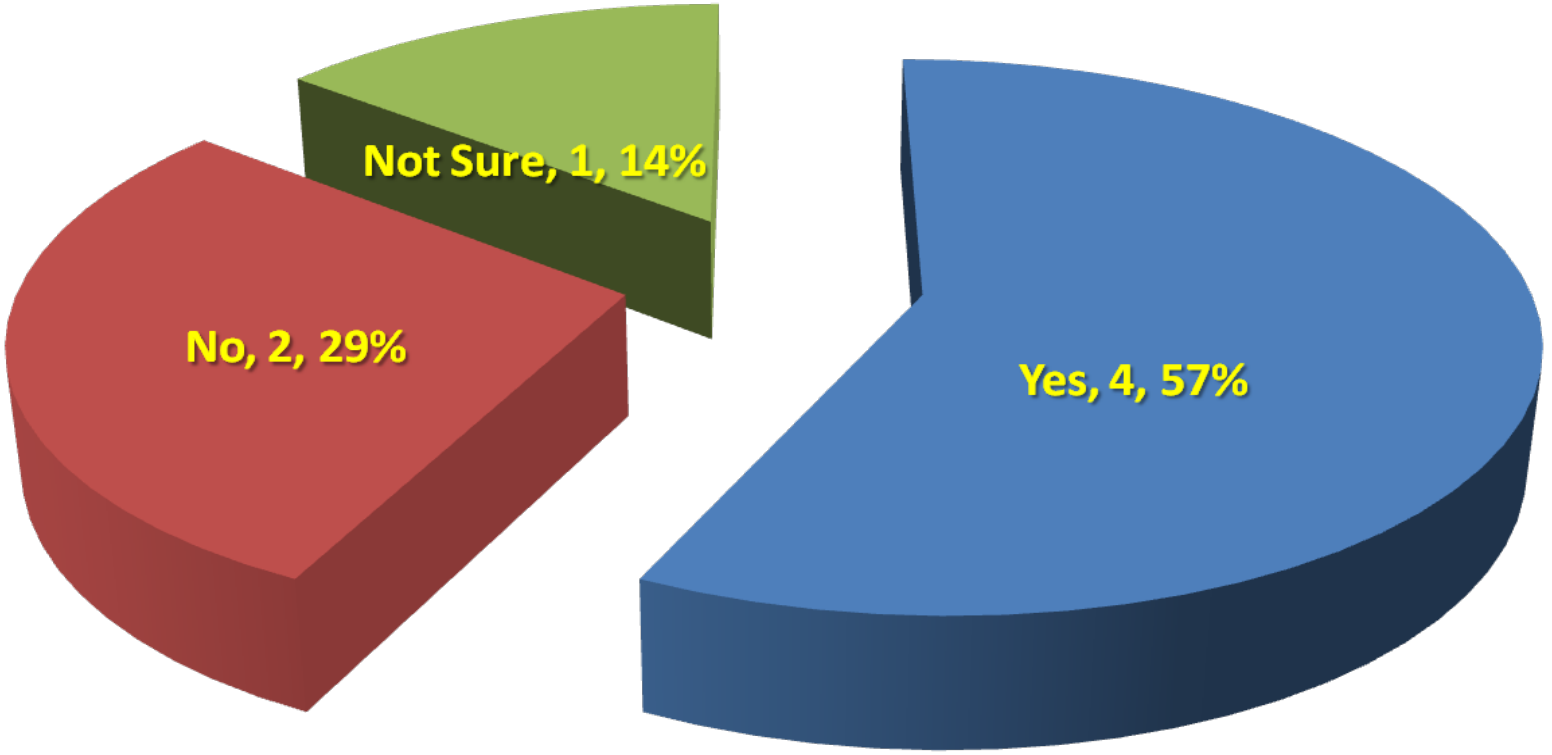
Additional Elements Not On Survey List

- Project EHS Reviews
- Design review prior to build.
- Four Custom electronic tools to integrate safety prevention principles across all engineering disciplines
- Use PtD approach in workplace ergonomics
- Risk Assessment



ORC | Networks

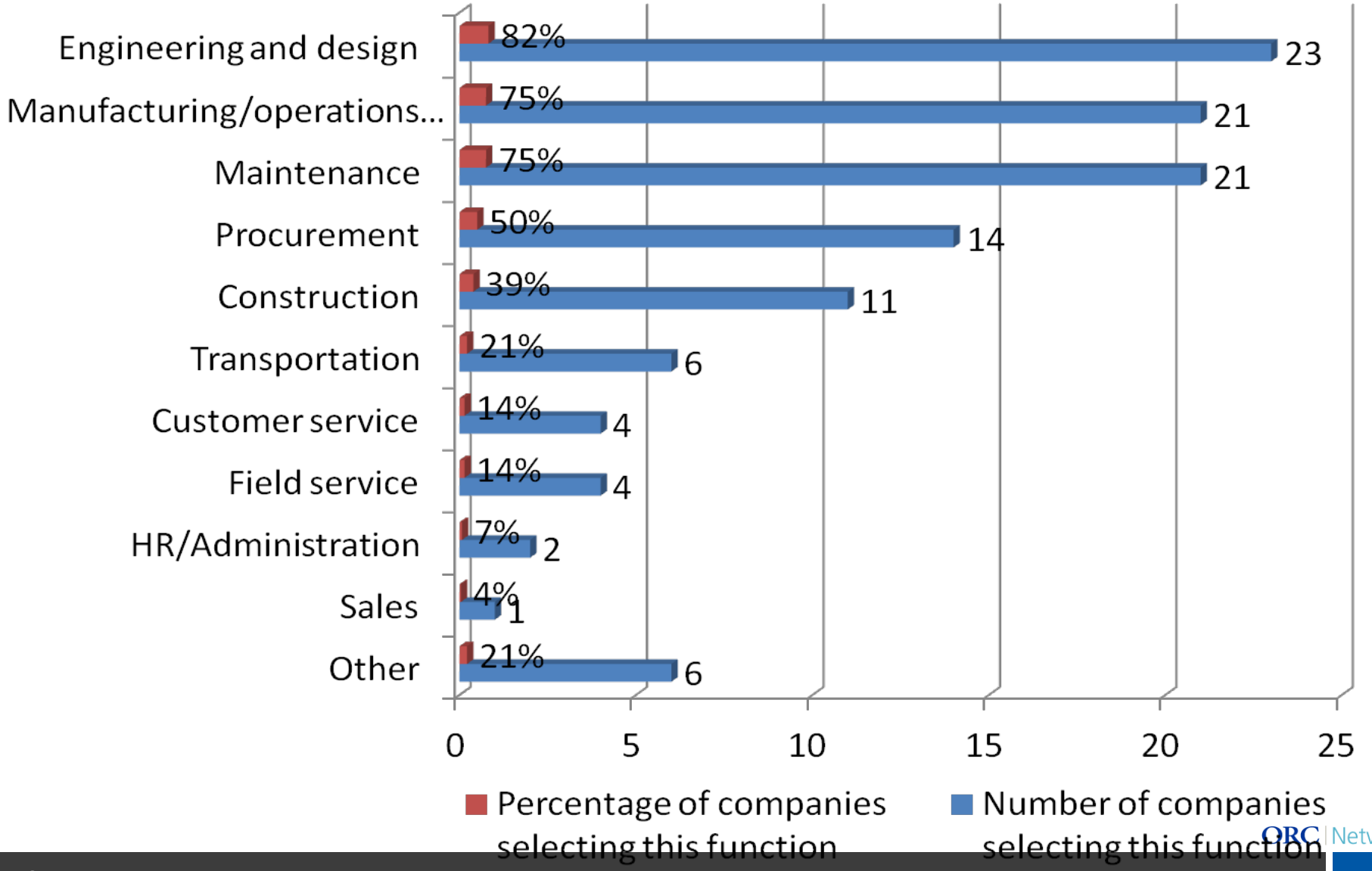
Number of Companies without PtD in Operations Responding that They Identify Design-Related Factors



ORC | Networks

II. Implementation of PtD

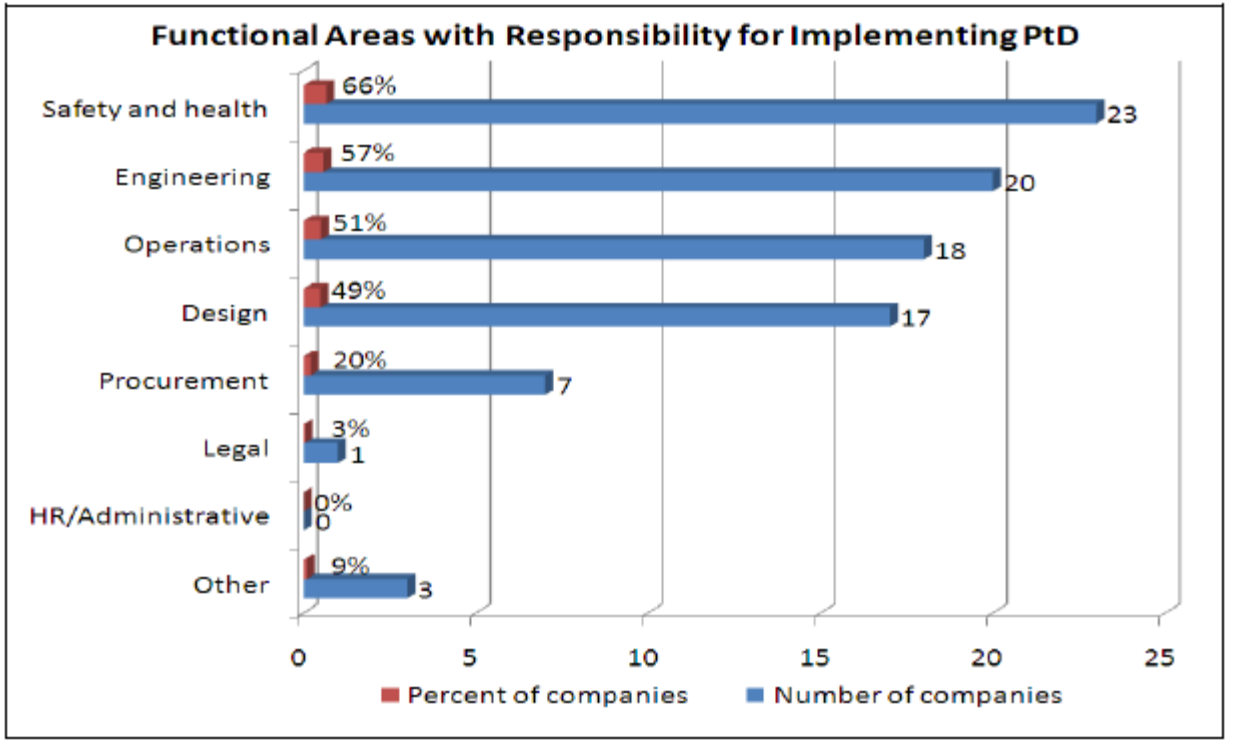
Organizational Functions Included by Companies that Have PtD in Their Operations



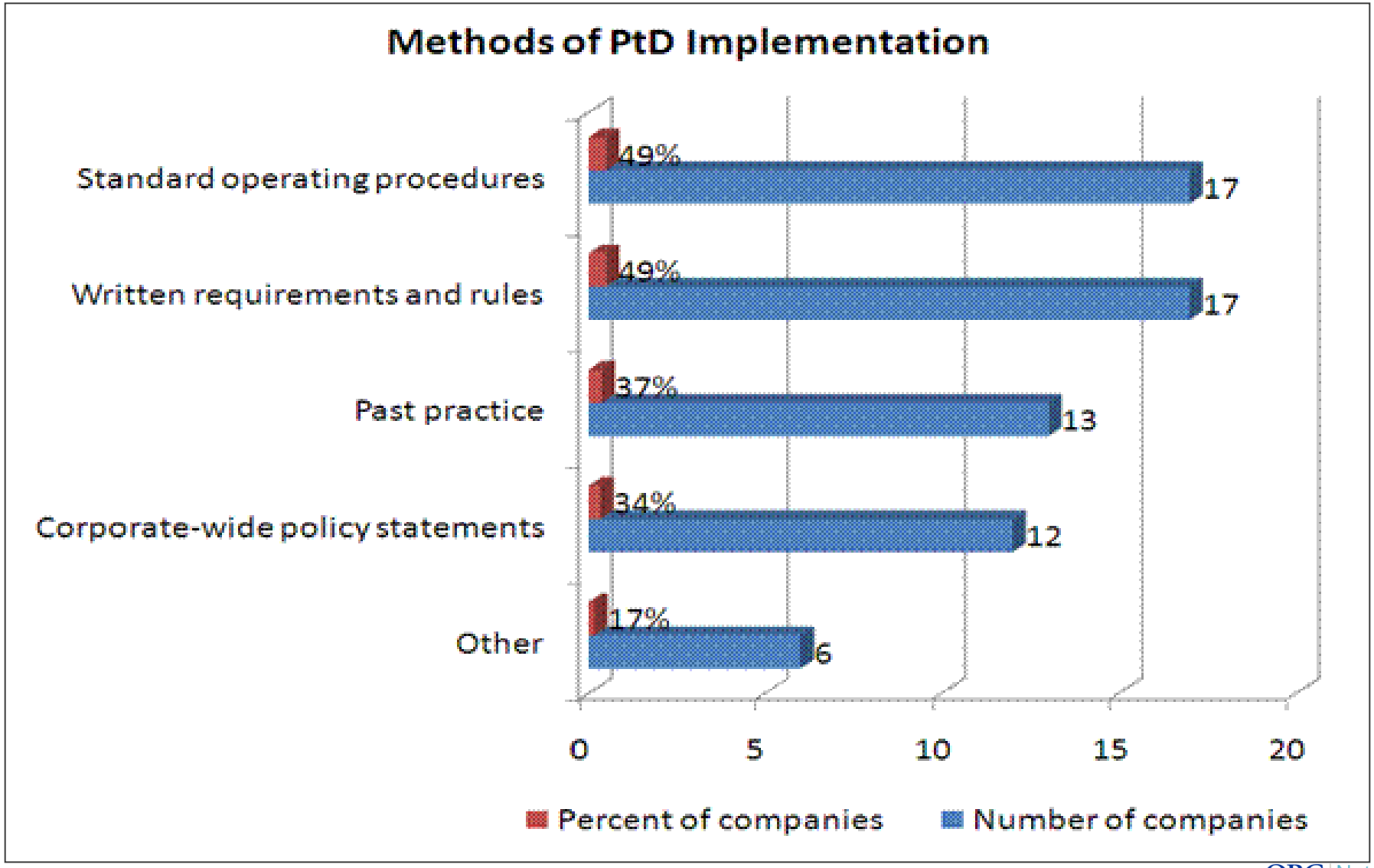
ORC | Networks

Implementation of PtD

Chart 18



ORC | Networks



ORC | Networks

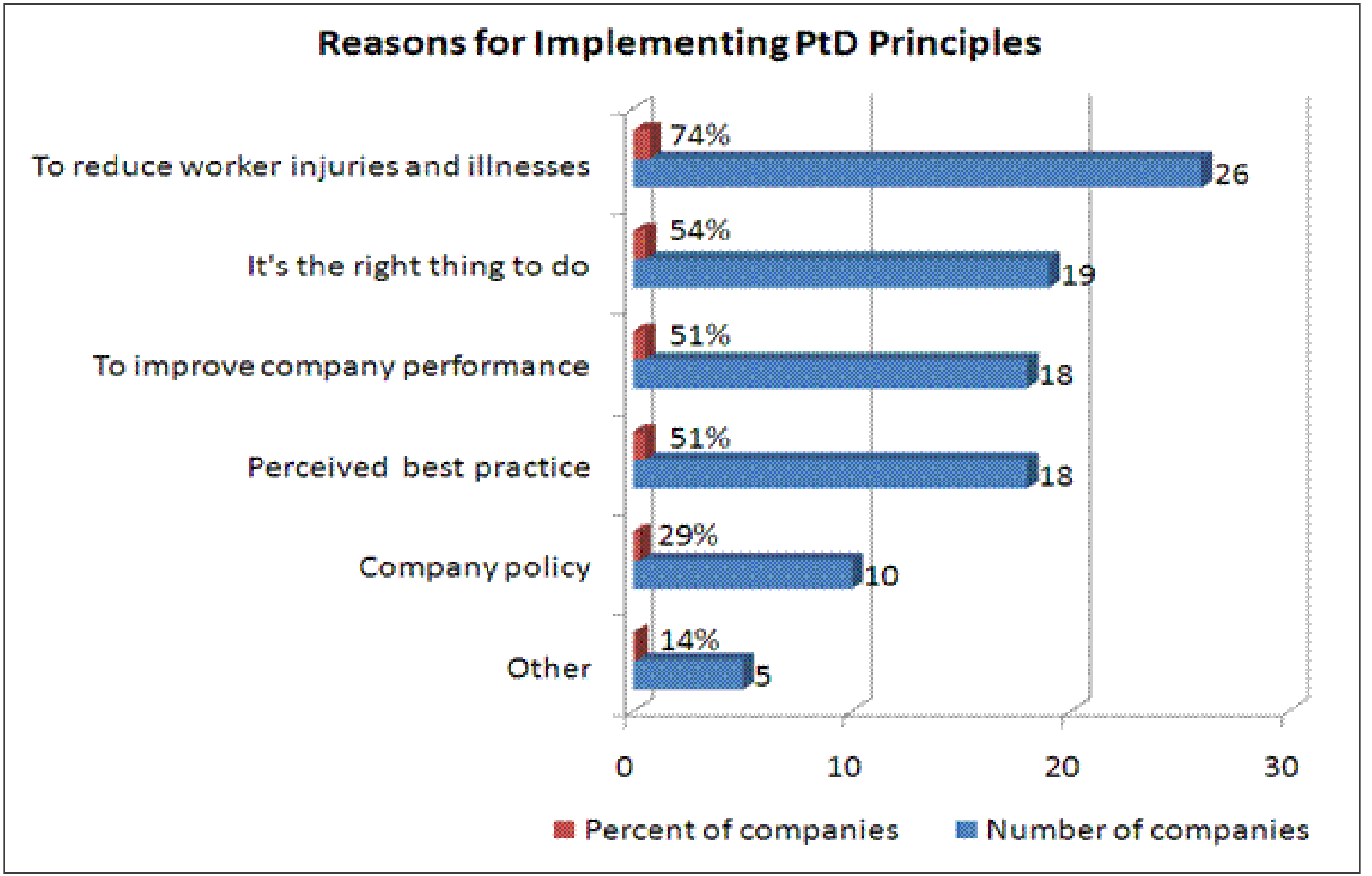
Other Means of PtD Implementation

- Corporate policy for capital projects
- Risk assessment tools
- Global design standards
- Custom electric tools for guiding and capturing knowledge flow
- Embedded in ergonomics program

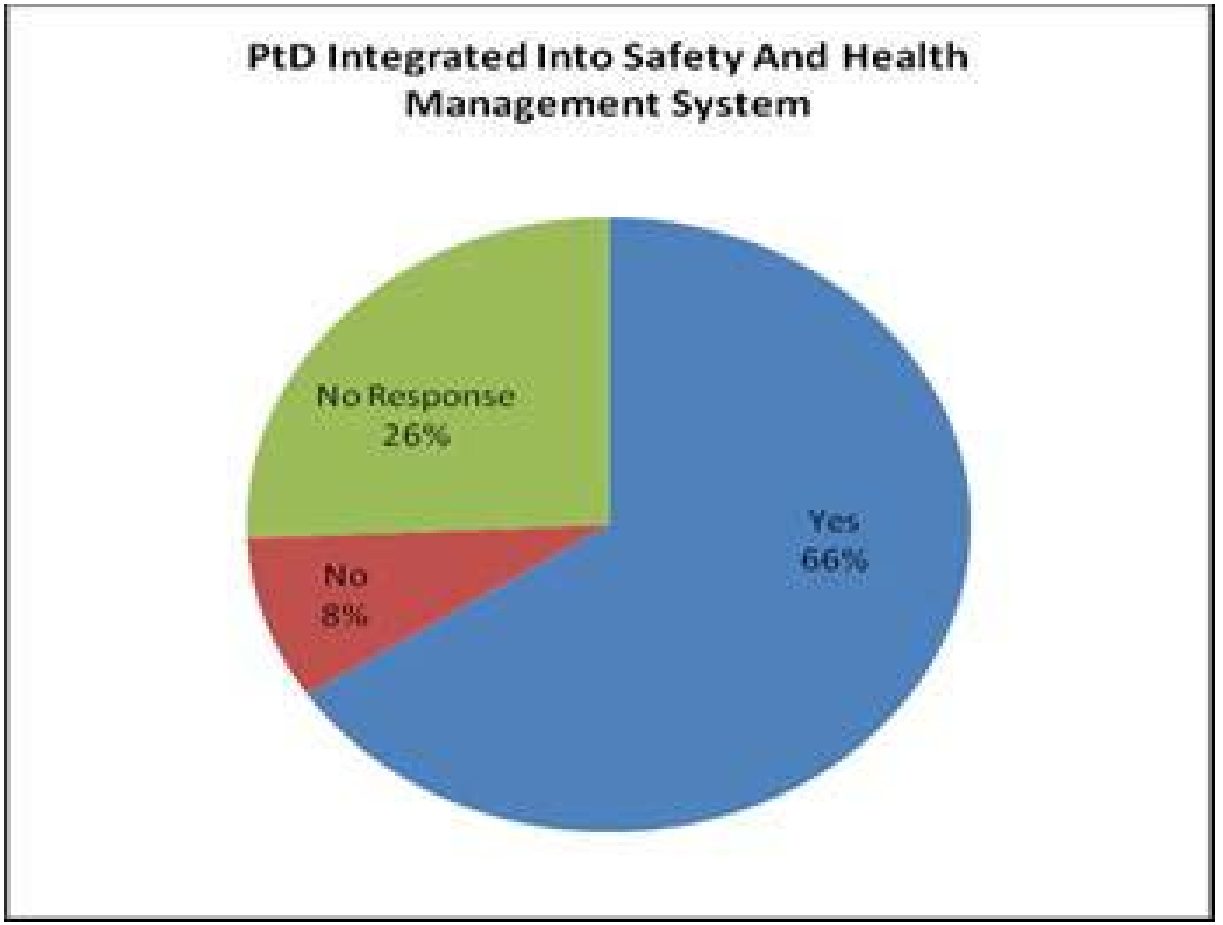
ORC | Networks

When PtD Principles Are Used

- Designing new processes – 69%
- Re-designing existing processes - 60%
- Designing new equipment and tools – 54%
- Re-designing existing equipment or tools – 46%



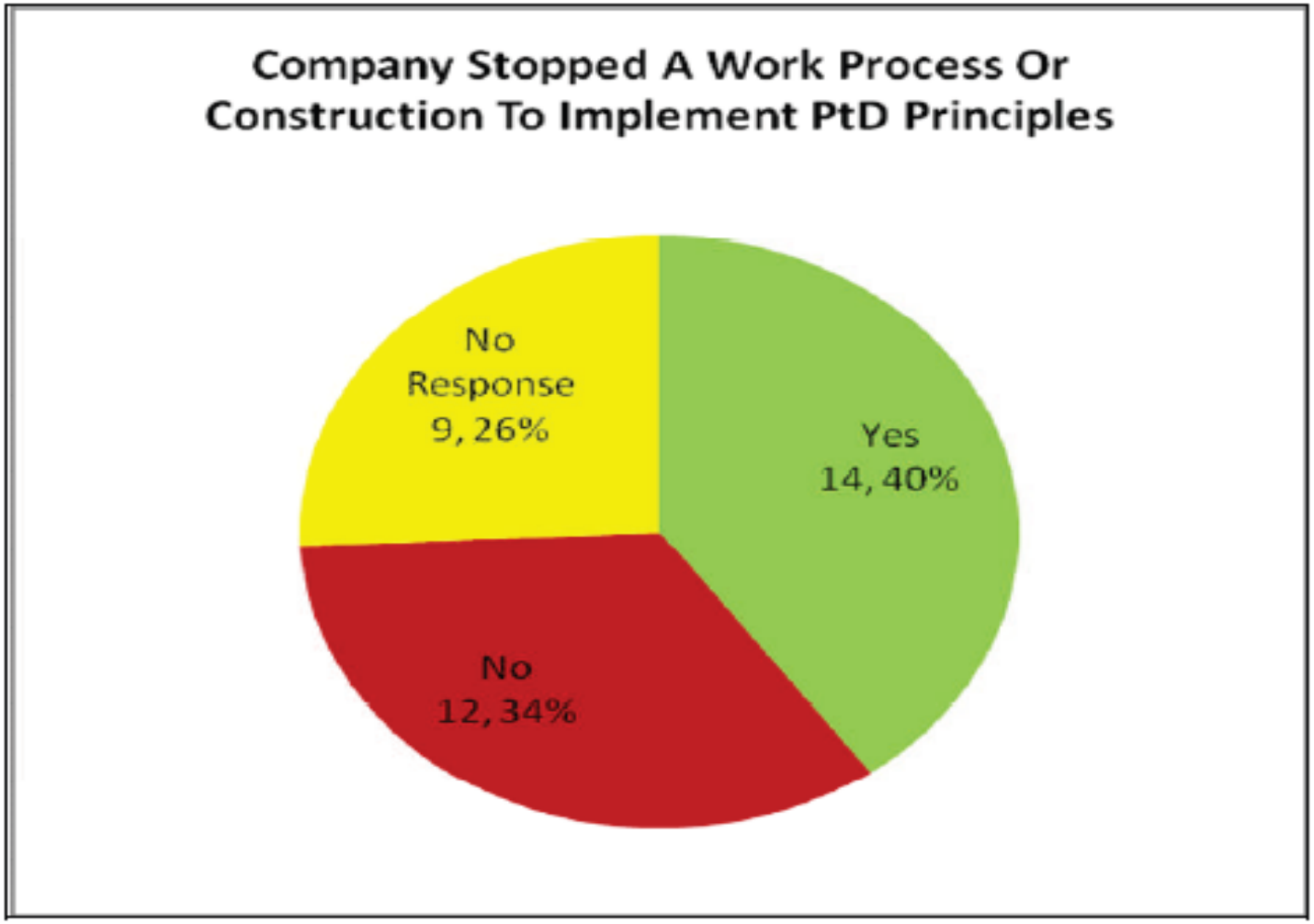
ORC | Networks



ORC | Networks

Implementation of PtD

Chart 20

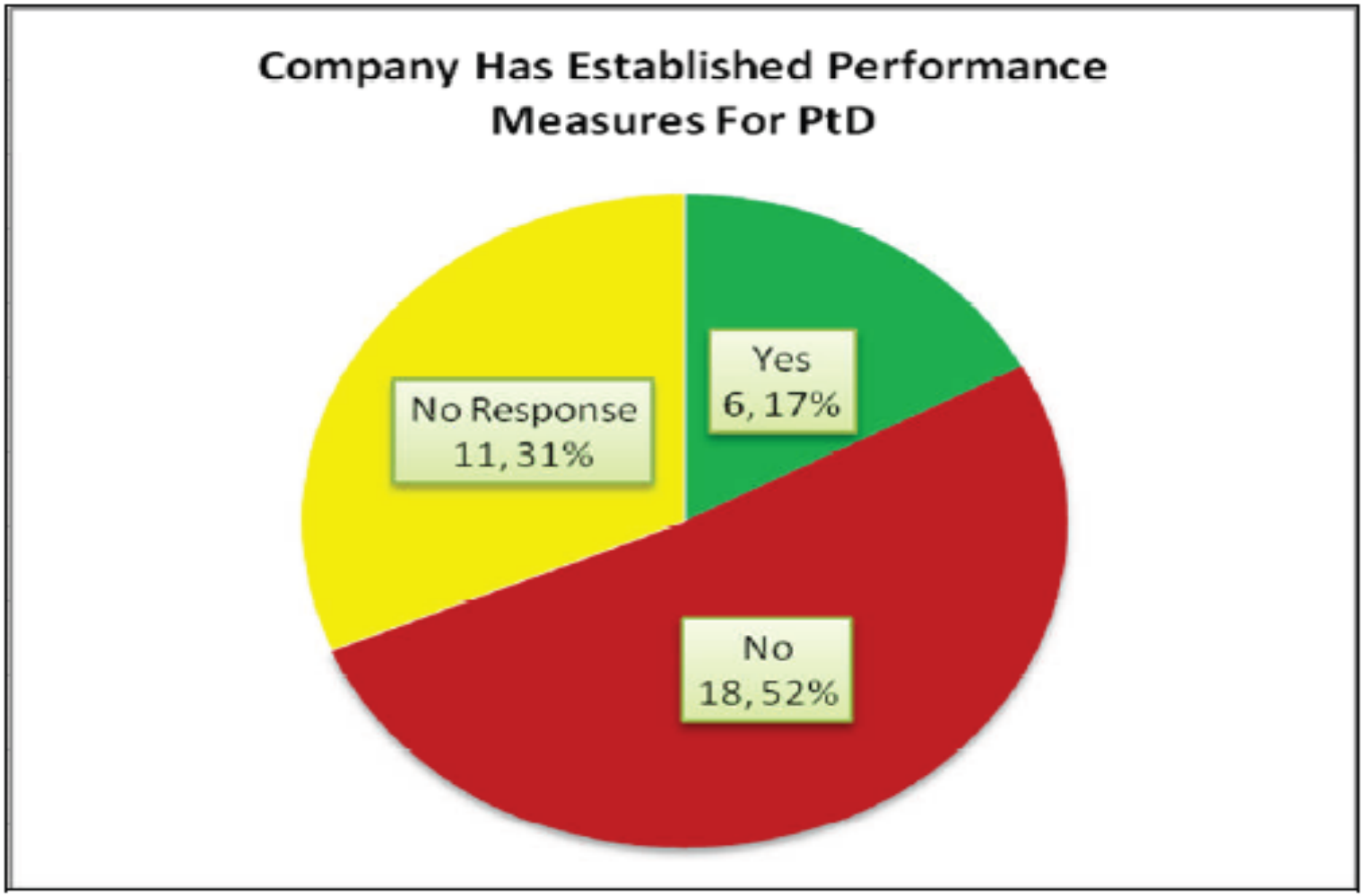


ORC | Networks

III. Performance Measurement of PtD

Performance Measurement of PtD

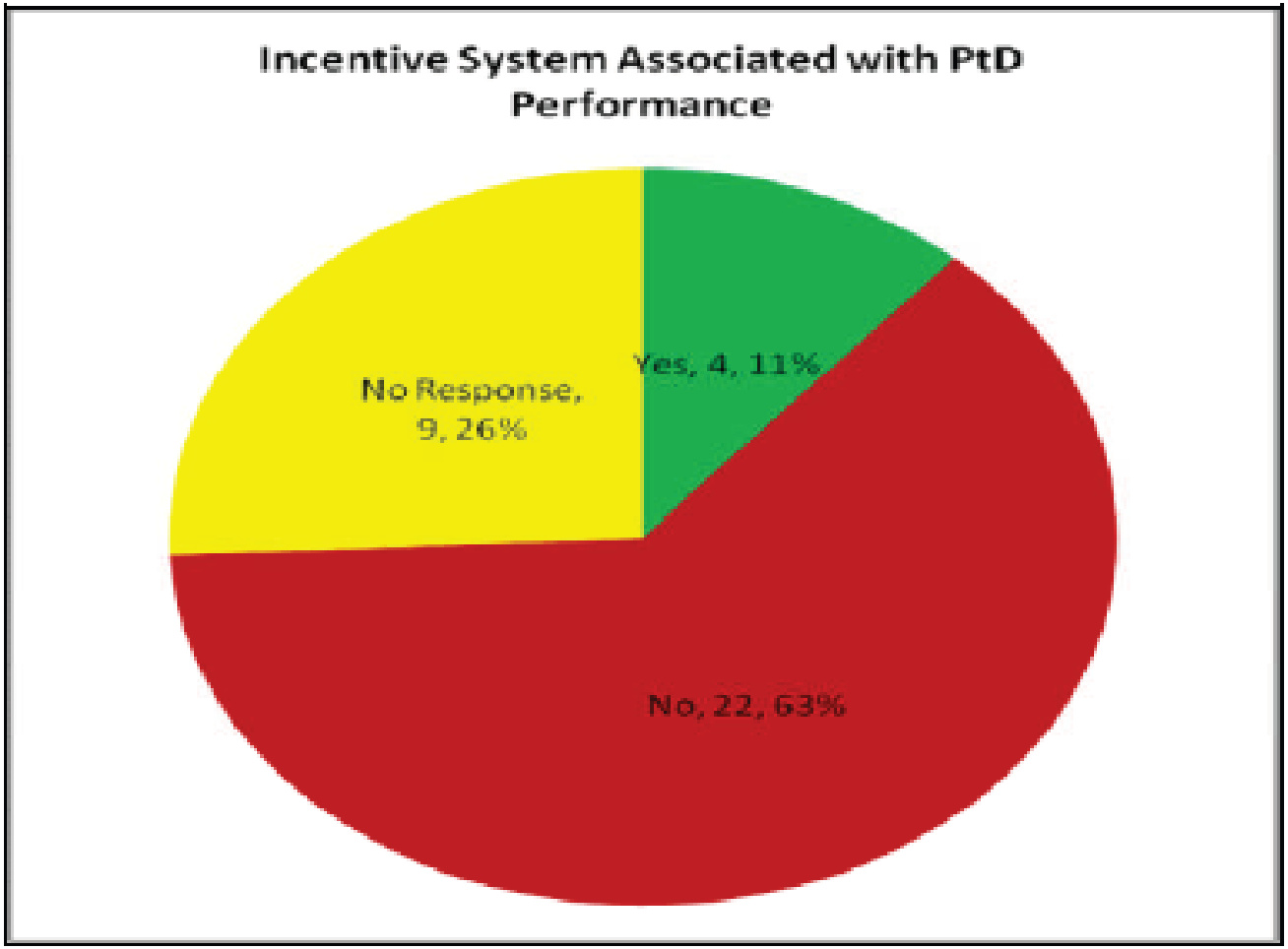
Chart 21



ORC | Networks

Performance Measurement of PtD

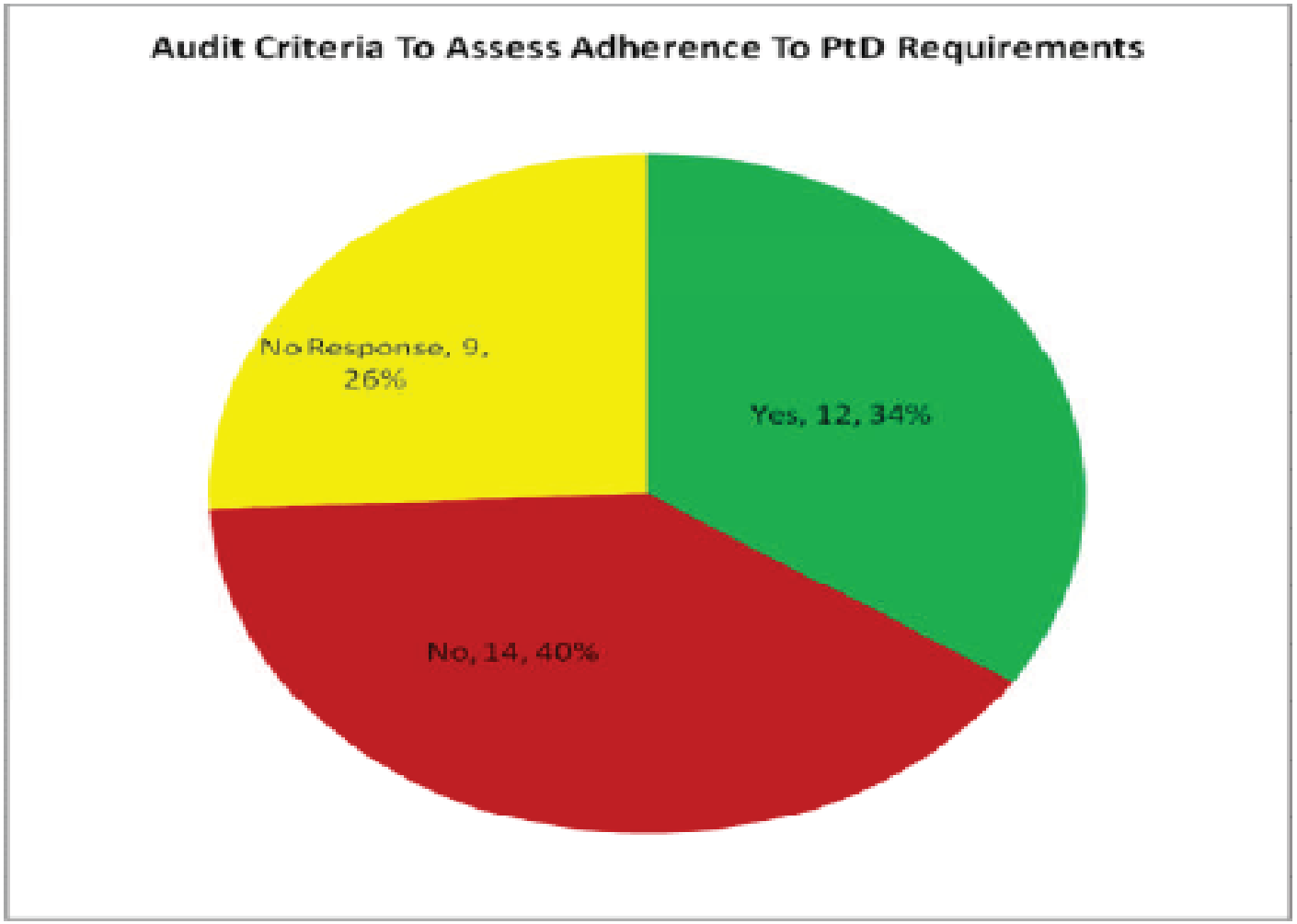
Chart 22



ORC | Networks

Performance Measurement of PtD

Chart 22



ORC | Networks

Performance Measurement of PtD

Chart 23

ORC | Networks

Highlights

- Majority of respondents believed that they understood PtD principles; although supplementary questions indicated some confusion about the term.
- Over 3/4^{ths} of respondents required some form of PtD in their operations, and 2/3 of those required PtD for contractors, suppliers, or both.
- Engineering/design, manufacturing/operations, maintenance, and procurement were the functions most often cited as having PtD in their operations; safety and health was the area with lead functional responsibility for implementation
- PtD was most often implemented through standard operating procedures, written requirements or rules, or corporate wide policy statements, and most often applied in designing or redesigning *processes*
- The majority of respondents indicated that they did not have measures in place to assess PtD

ORC | Networks

Highlights, cont.

- The state of PtD implementation appeared incomplete in most companies that responded to the survey
- Different “maturity levels” were apparent in PtD program elements, PtD program implementation; and PtD performance measurement
- Respondents include some of the largest, most successful companies in the US with well-developed occupational safety and health programs
- Assuming that this small sample of companies is representative of a cross-section of a portion of American industry, there is substantial opportunity for the national PtD initiative to benefit worker safety and health.

Reality Check

- PtD represents the quintessential health and safety challenge
  - On the technical front we largely already know what needs to be done
  - **We just need to be empowered to do it**
- Many corporate leaders still mistakenly believe that design solutions… and/or other strategies that utilize higher level controls are cost prohibitive
  - Part of the problem is that they don't understand the real cost of using lower level controls
  - Part of the reason is that we have failed to connect the dots for them,…to adequately demonstrate to **connection between higher level prevention and downstream benefits to the production process**
- Negative pressure likely to increase re. PtD investments due to economic downturn
- Should we do more to make the value case for PtD? Do we need better metrics to accomplish this?

ORC | Networks

Progress on the Horizon

1. Elyce Biddle will discuss a methodology that can be used to capture the value that safety and health (and PtD) bring to the business.

2. Mercer ORC Task Force for Preventing Fatalities and Serious Injuries developing a different approach for addressing risk that highlights PtD
   - Builds on earlier work by Dan Petersen, Fred Manuele, and currently Tom Krause to identify “precursors” to FSI’s
   - Once a precursor (potential high gravity) situation is identified the task force recommends approaches to risk recognition, risk assessment, and risk management that are different than current approaches used to address typical OSHA recordables
   - Much less reliance on humans to never make a mistake; more reliance on making the process mistake-proof or eliminating the hazard altogether.

- Mercer ORC Task Force on Alternative Metrics
  - Developing risk-based and management system-based leading indicators to support serious injury prevention
  - New suite of outcome metrics for global application capable of providing more consistent and reliable data on the more serious cases

ORC | Networks

ORC | Networks

MERCER

ORC | Networks

Building Communities of Thought Leaders Since 1922