
PIMA
Manufacturing
Reliability
2005

Objectives

- Introduce PIMA Manufacturing Reliability
- Discuss PIMA MR opportunities for the PIMA NE Division

PIMA

PIMA

- Established in 1919 in Appleton Wisconsin
- Pulp and Paper Superintendents looking to improve themselves, their firms and the industry
  - Sharing expertise and experiences
  - Develop better work methods, improve quality
  - Operate more safely
  - Better environmental stewardship

PIMA Today

- Improve Paper Industry Management Skills Through:
  - Education
  - Recognition

PIMA Specialist Groups

- Couch Pit University
- Information Technology
- Manufacturing Reliability
- Marketing and Communications
- Technology Resource Management
- Purchasing and Affiliates

Manufacturing Reliability

- **Vision**
  - *To create a paper industry culture focused on manufacturing reliability that demonstrates leadership among all industries*

Manufacturing Reliability

- **Mission**
  - *Educate the paper industry on how to create sustainable value through manufacturing reliability.*

- “Change is cultural”
  - Industry must anticipate change
  - Respond immediately
  - Evaluate impact
  - Decide what change is next

PIMA Research Study of Management Practices in Manufacturing Reliability

Objective:

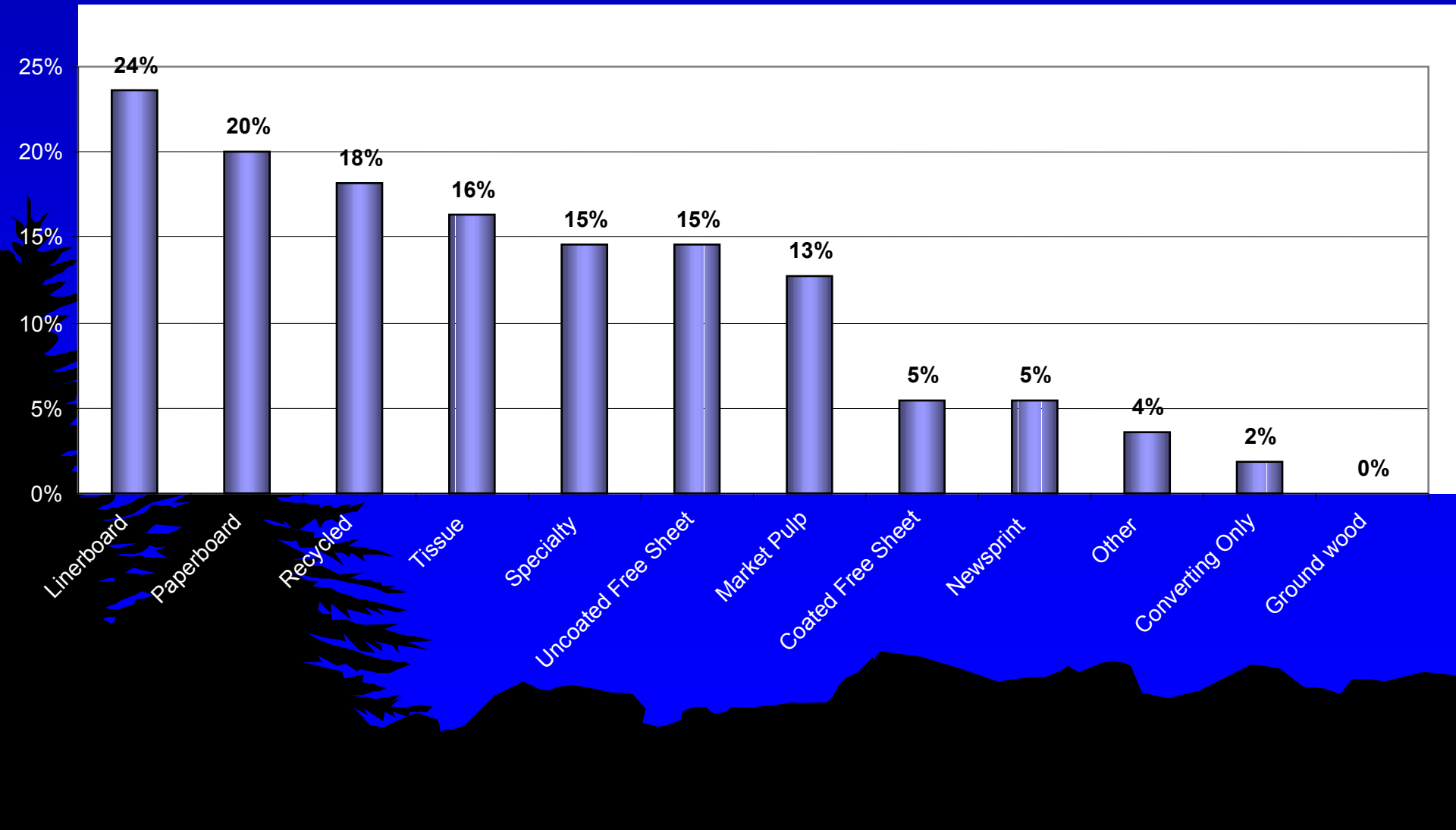
Take a measurement of the culture in the Pulp and Paper Industry in regards to Manufacturing Reliability

Study conducted in the first quarter of 2002.

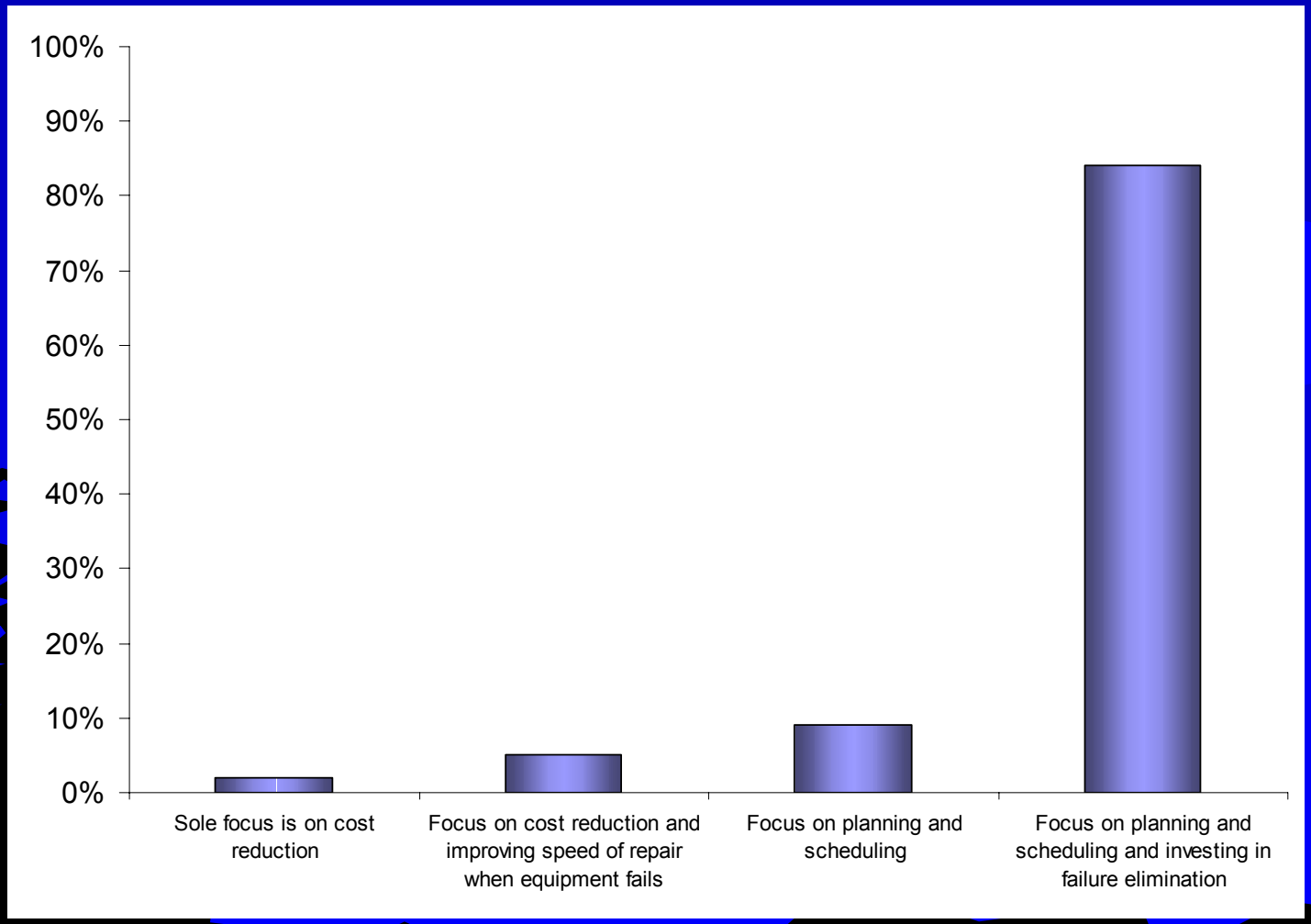
55 respondents from all segments of the industry

Target audience was top management from within the mills

Segment of the Industry

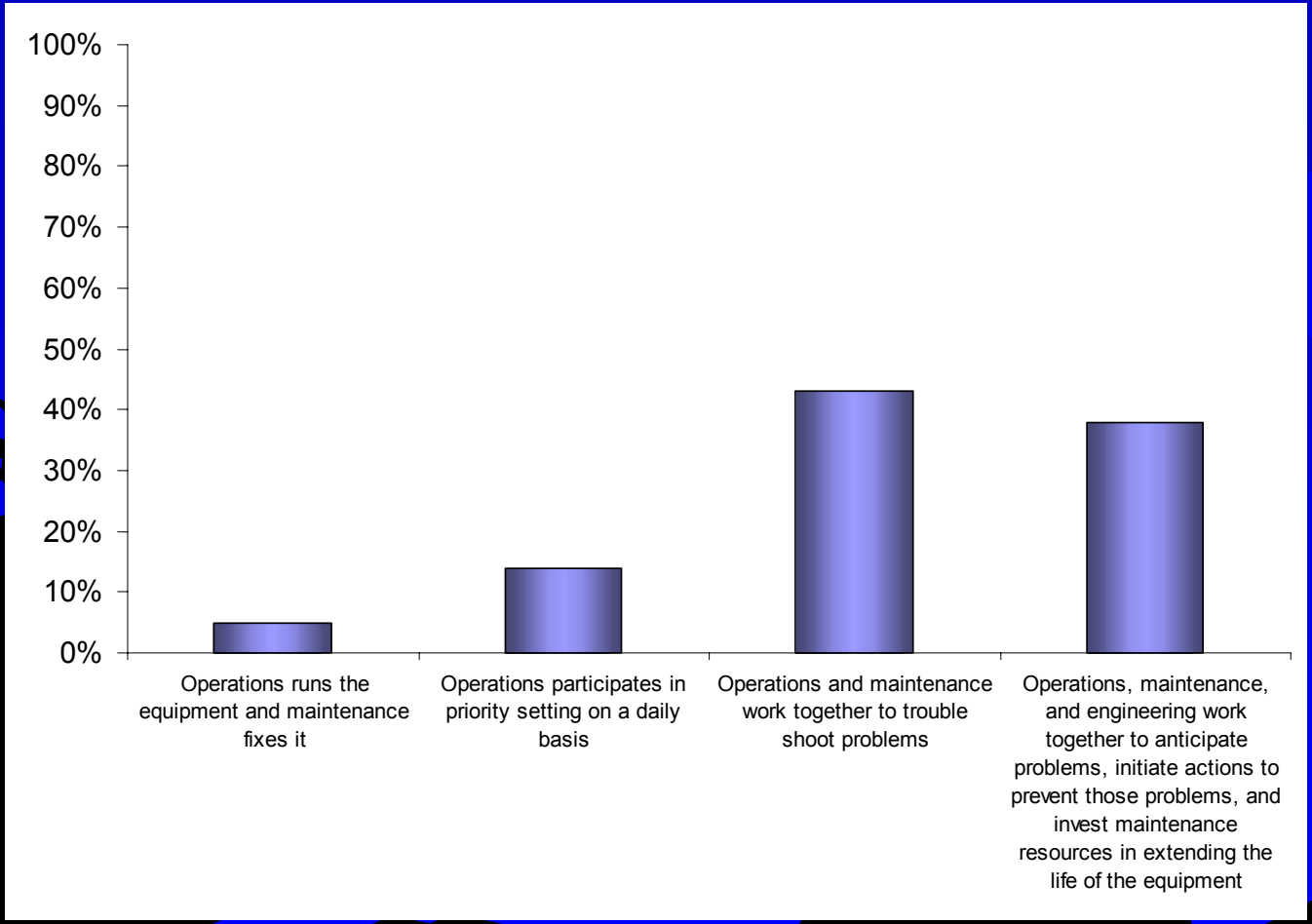


Characterize your maintenance Improvement efforts



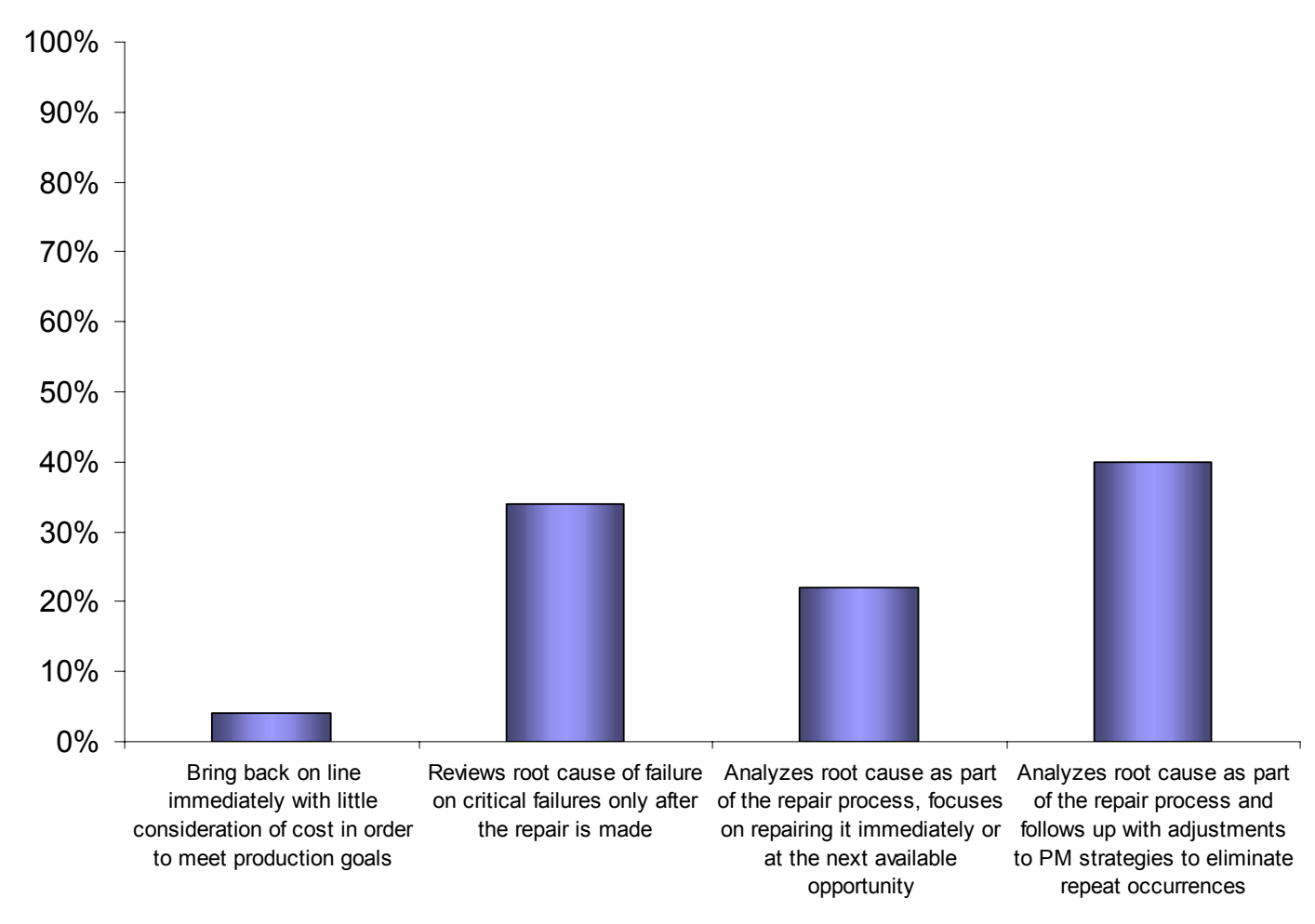
- **Indicates a high recognition of the need to balance cost & reliability**
- **Reliability is an important strategy, implementation is the key**

What is the level of commitment and understanding to maintenance and reliability improvements?



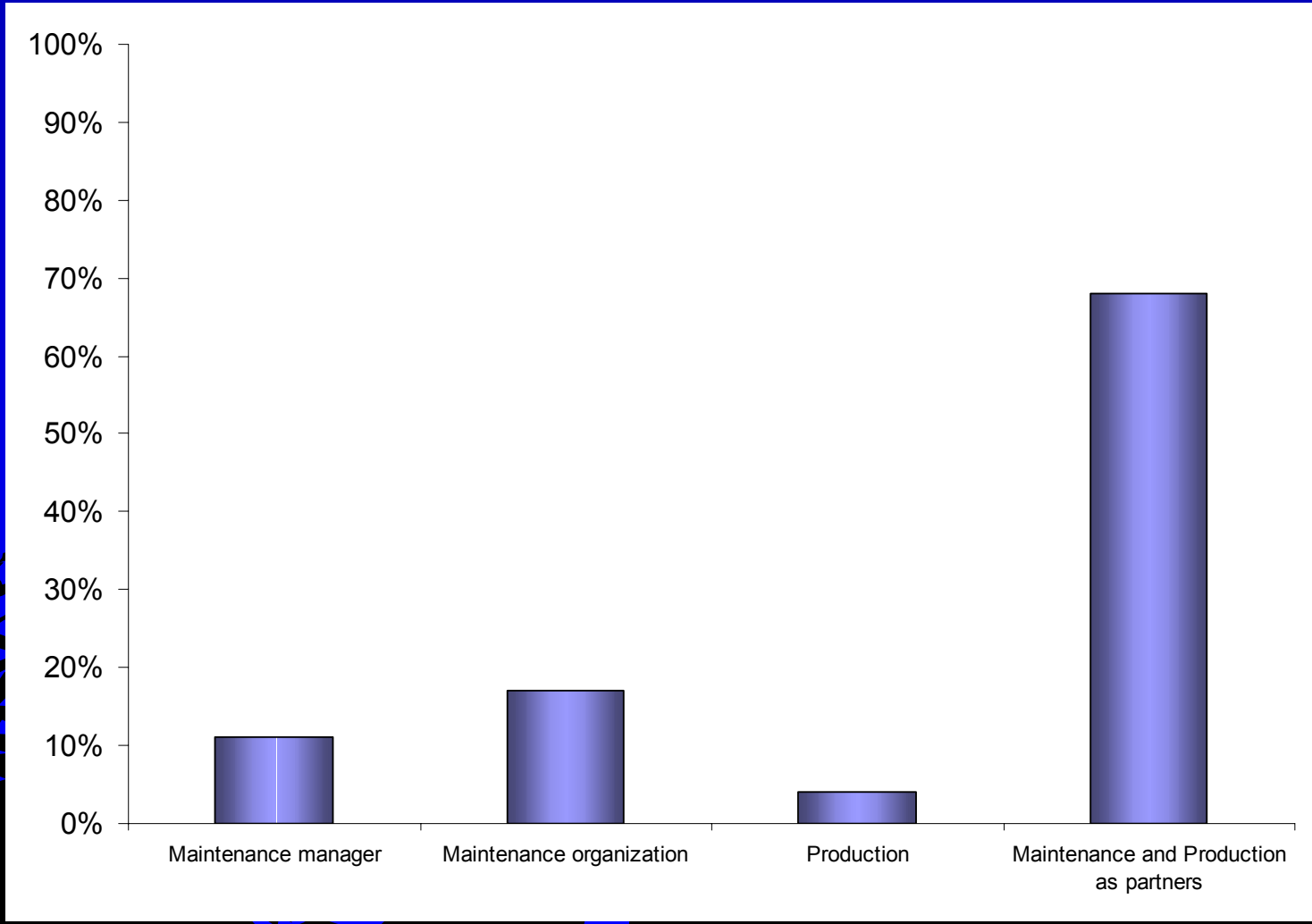
- 38% are proactive and view maintenance as an investment
- Trend is toward eliminating operation and maintenance silos

What is the typical reaction of the organization to equipment failure?



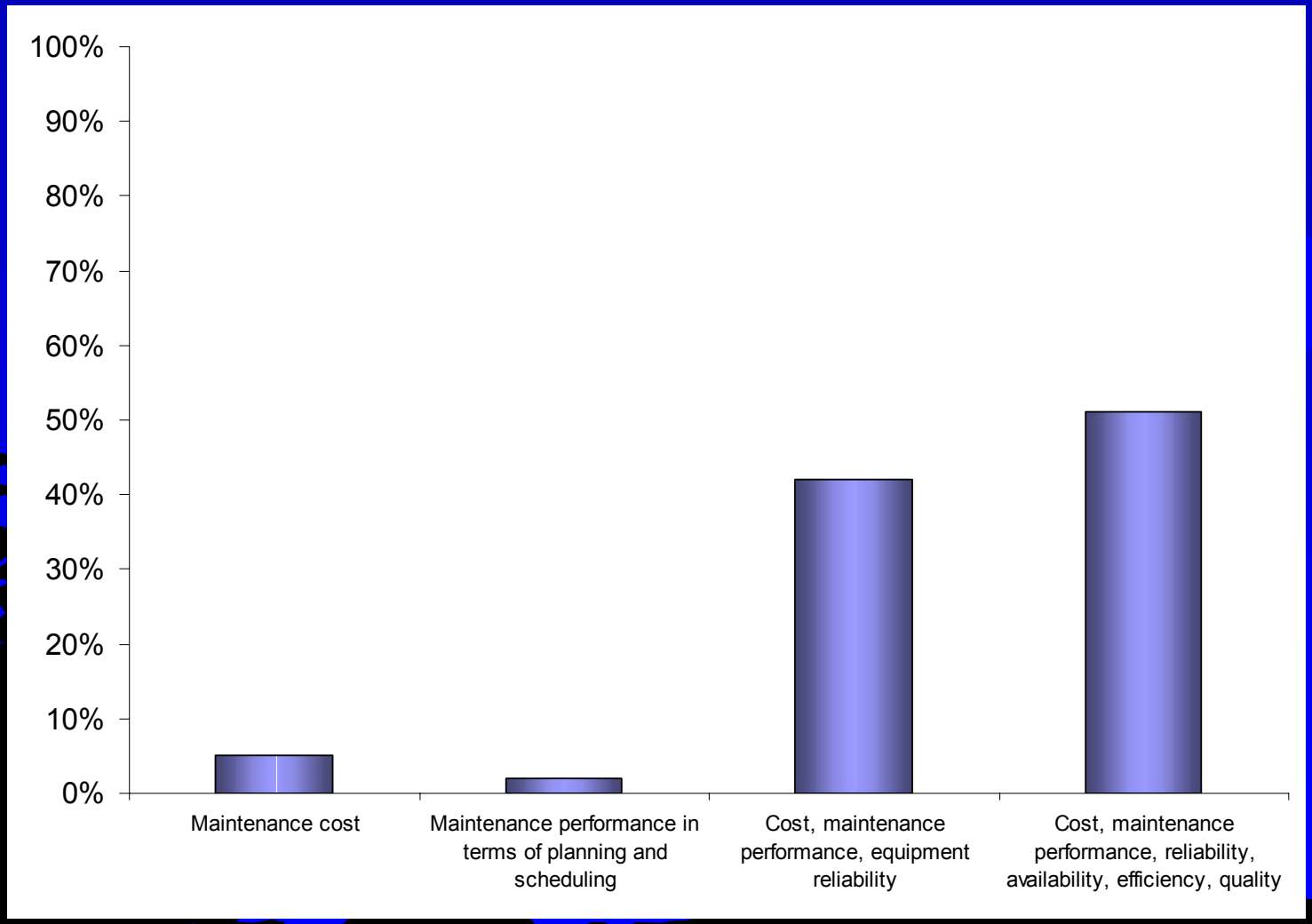
- **40% utilize root cause to focus on continuous improvement**
- **High opportunity for improvement**

Who is in the drivers seat for maintenance improvement in your mill?



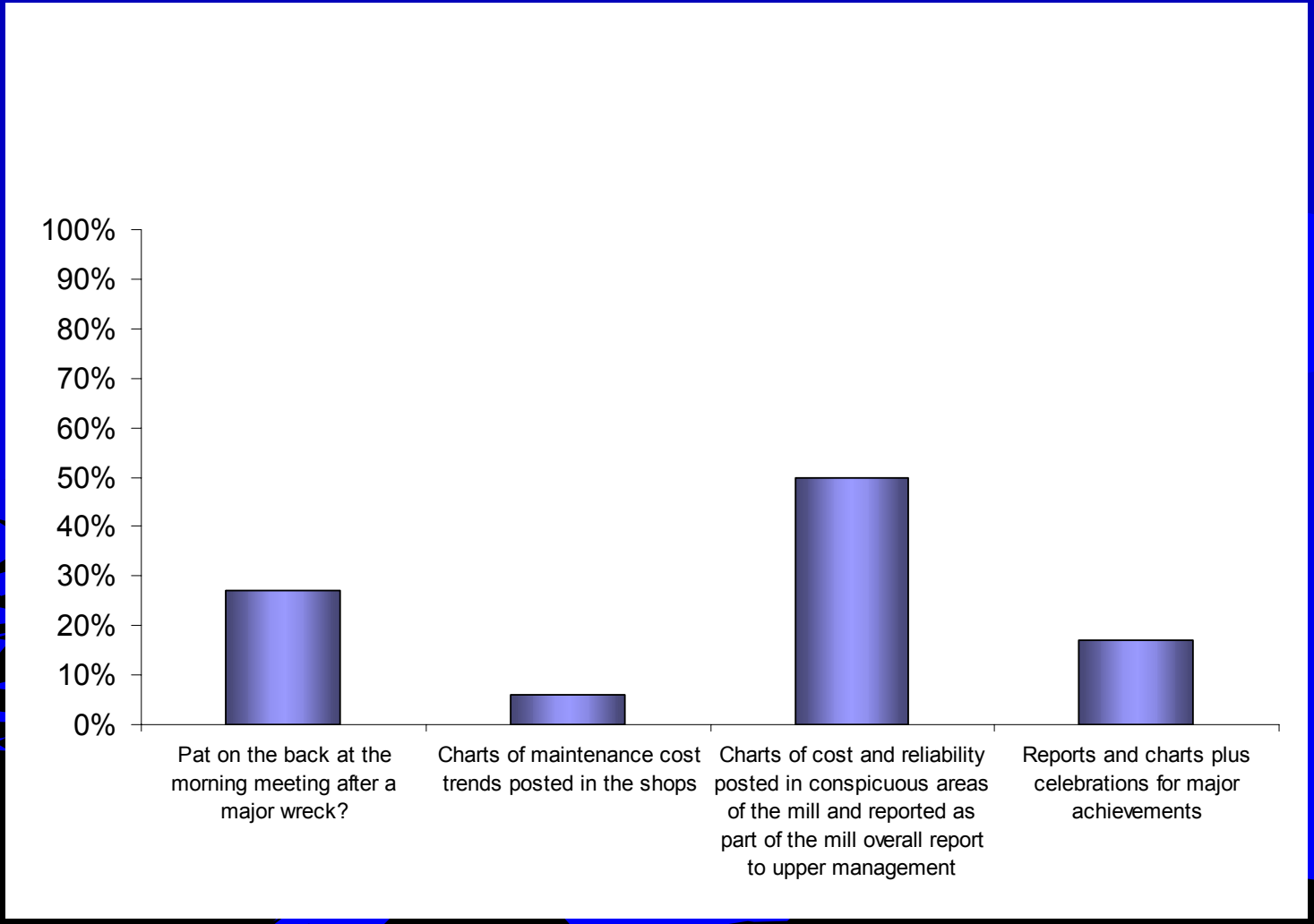
- **68% report partnership in driving maintenance improvement**

How do you measure maintenance performance?



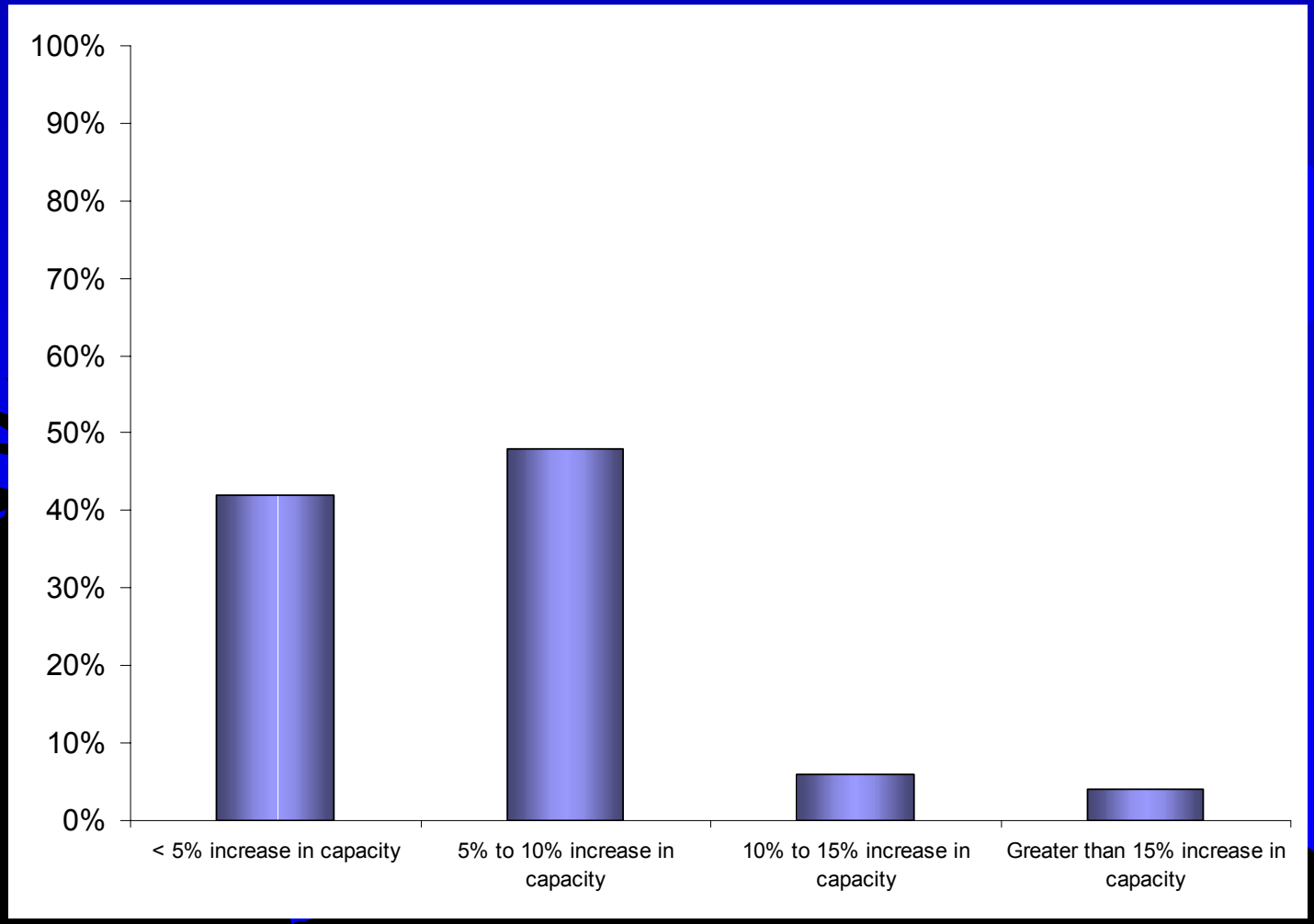
- **High percentage look beyond cost as a measure of maintenance**

How is maintenance performance communicated and rewarded?



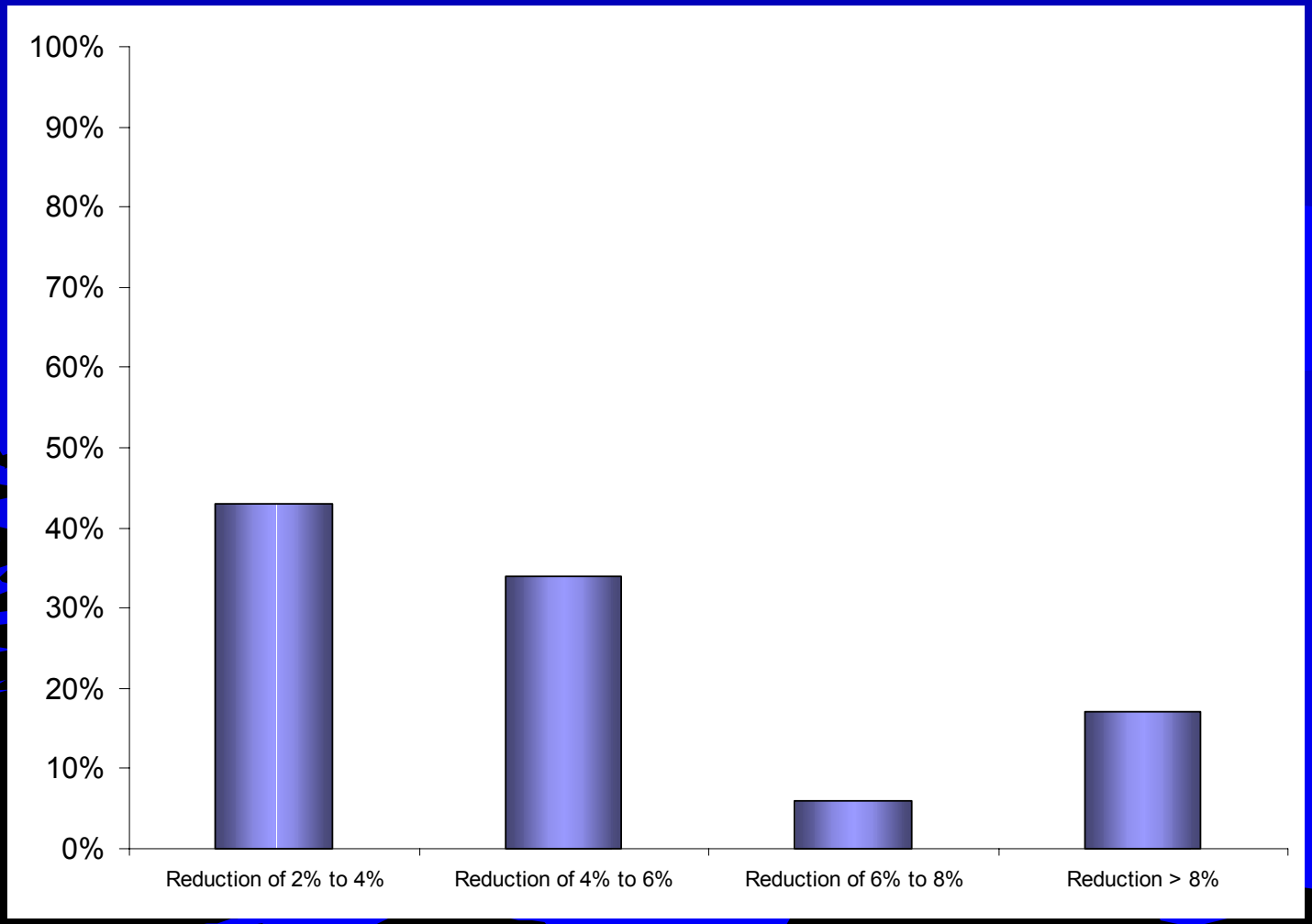
- **Passive communication on improvements in cost and reliability**

What is your opportunity to increase capacity from improved maintenance and reliability?



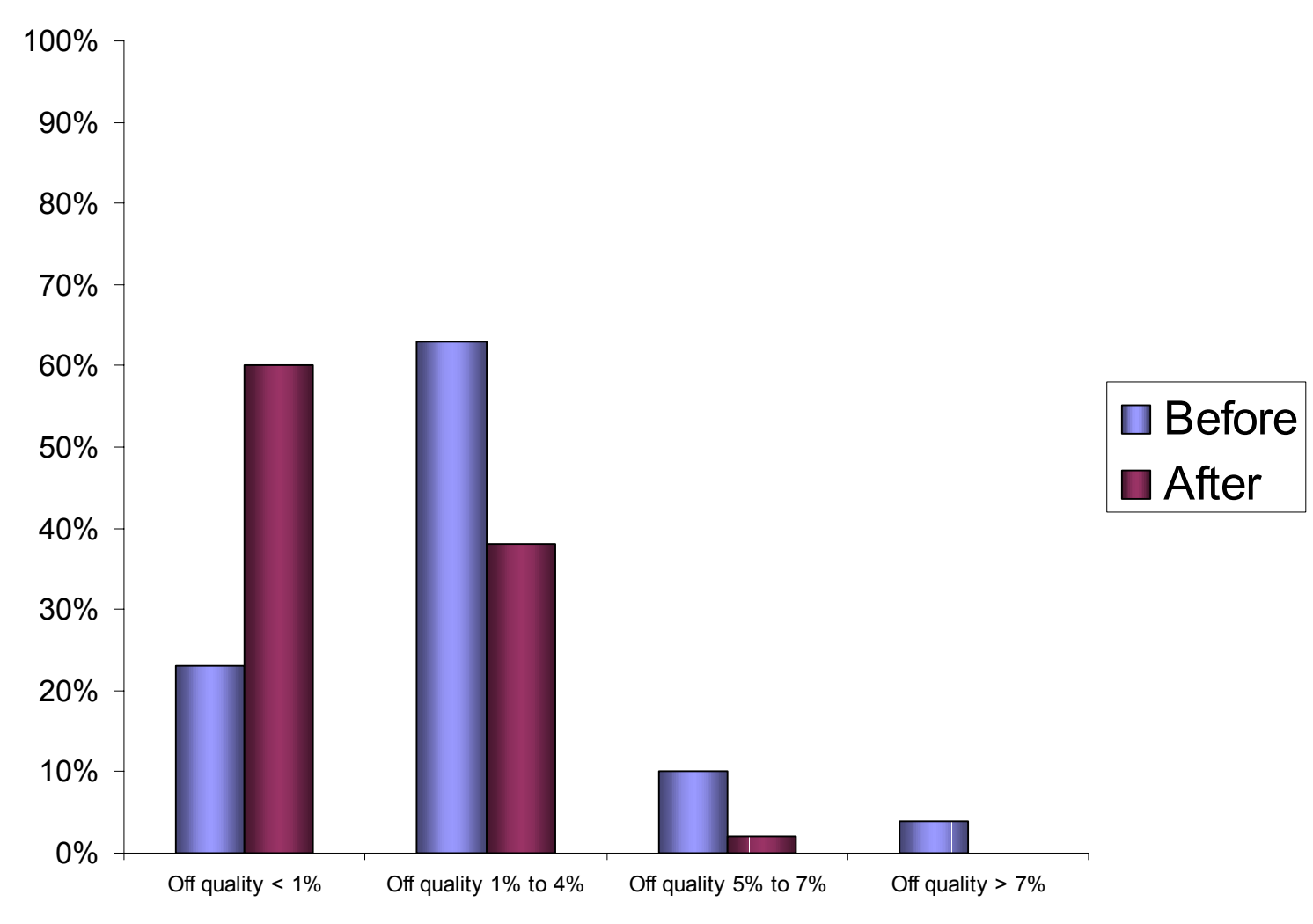
- **Overall opportunity is 7% increase in capacity**

What is your opportunity in overtime from improved maintenance and reliability?



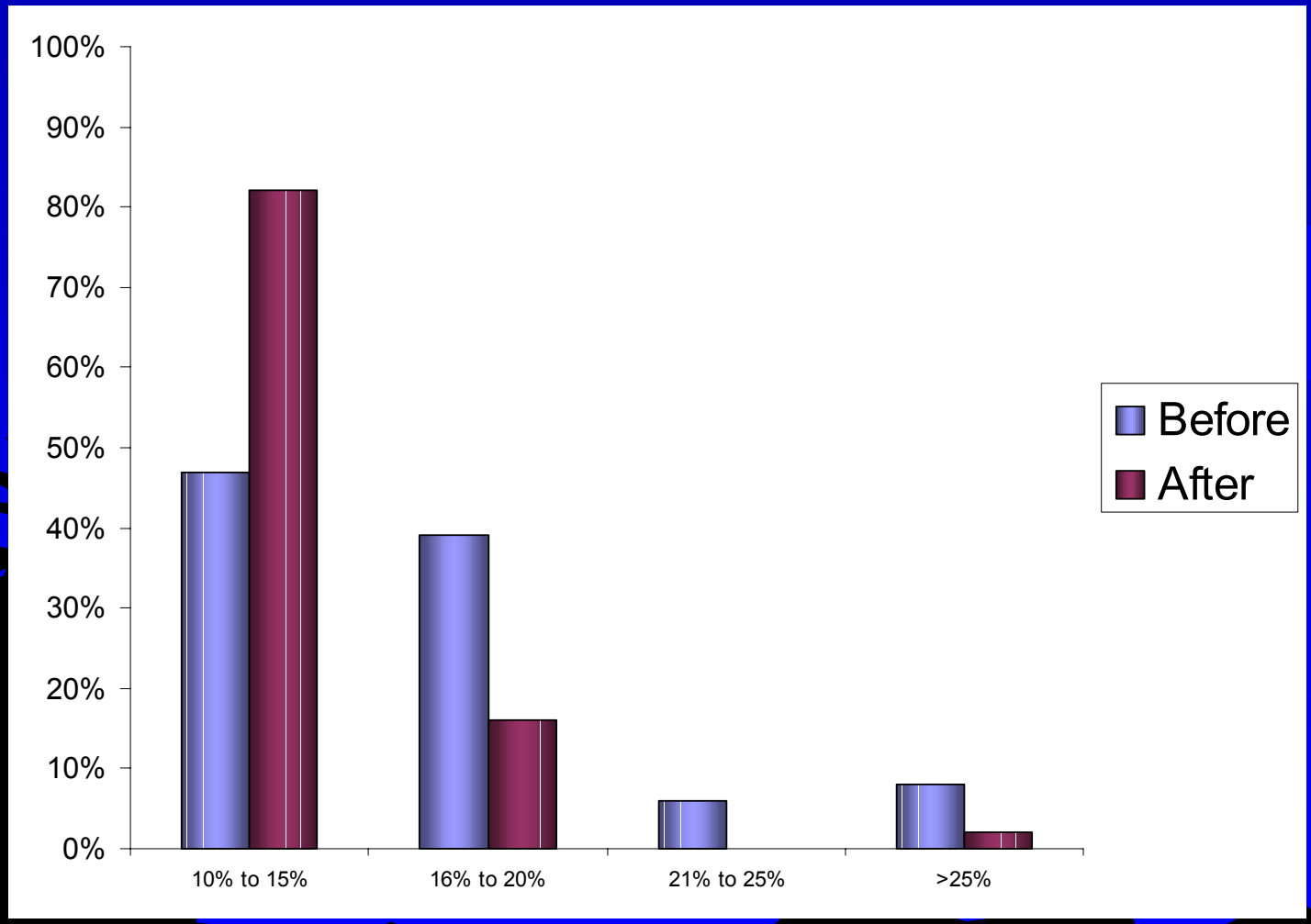
- **Overall opportunity is 5% decrease in overtime**

What is the quality improvement opportunity from improved maintenance and reliability?



- **Overall drop in off quality is from 3% to 1.9% or 62% reduction**

What is the maintenance cost opportunity as a % of total manufacturing cost?



- **Overall drop in maintenance cost from 15.25% to 13.63% of total manufacturing cost or 10.6% reduction in maintenance cost**

Strengths

- ✓ recognize need to balance cost & reliability
- ✓ problems are addressed at the root cause
- ✓ maintenance and production work together
- ✓ for improvements
- ✓ measurements used to track performance

Opportunities

- ✓ leverage partnership to anticipate problems and extend the life of equipment
- ✓ leverage root cause to focus on continuous
- ✓ improvement
- ✓ to "celebrate success"
- ✓ 7% capacity increase
- ✓ 5% overtime decrease
- ✓ 1.1% off quality reduction
- ✓ 10.6% reduction in maintenance cost

What's new?

- Maintenance is no longer considered a service organization
- Process reliability is replacing functional maintenance
- Process knowledge is very important in system reliability
- Recognition and reward systems in place for prevention of maintenance

National PIMA MR & PIMA NE Division

- More national MR focus on divisions

- Seven divisions of which five are active.
- New York/Canadian-Roger Zanatta
- North Central- Joe Konkel and Andy Ginder
- Northeast- Gary Mann
- Southwestern – Gail Peterson/John Yolton
- Dixie-Cary Franklin and Ray Oliverson

Assistance to NE Division

- What assistance can PIMA MR offer?

- Assistance with content
- Webcasts
- Working on link with SMRP (CMRP testing)
- Start up MR division groups
- Vision/Mission discussion (starter kit)

NE Division Assistance to MR

- Participation in MR activities

- Increase industry participation
- Provide feedback on topics for conference
- Provide speakers for conference
- Webcast topics, moderators
- Reliability Web forum participation

PIMA MR Participants

- Georgia-Pacific
- Weyerhauser
- Sappi
- Green Bay Packaging
- Potlach
- SKF
- ABB
- Idcon
- Thielsh Engineering
- Ivara