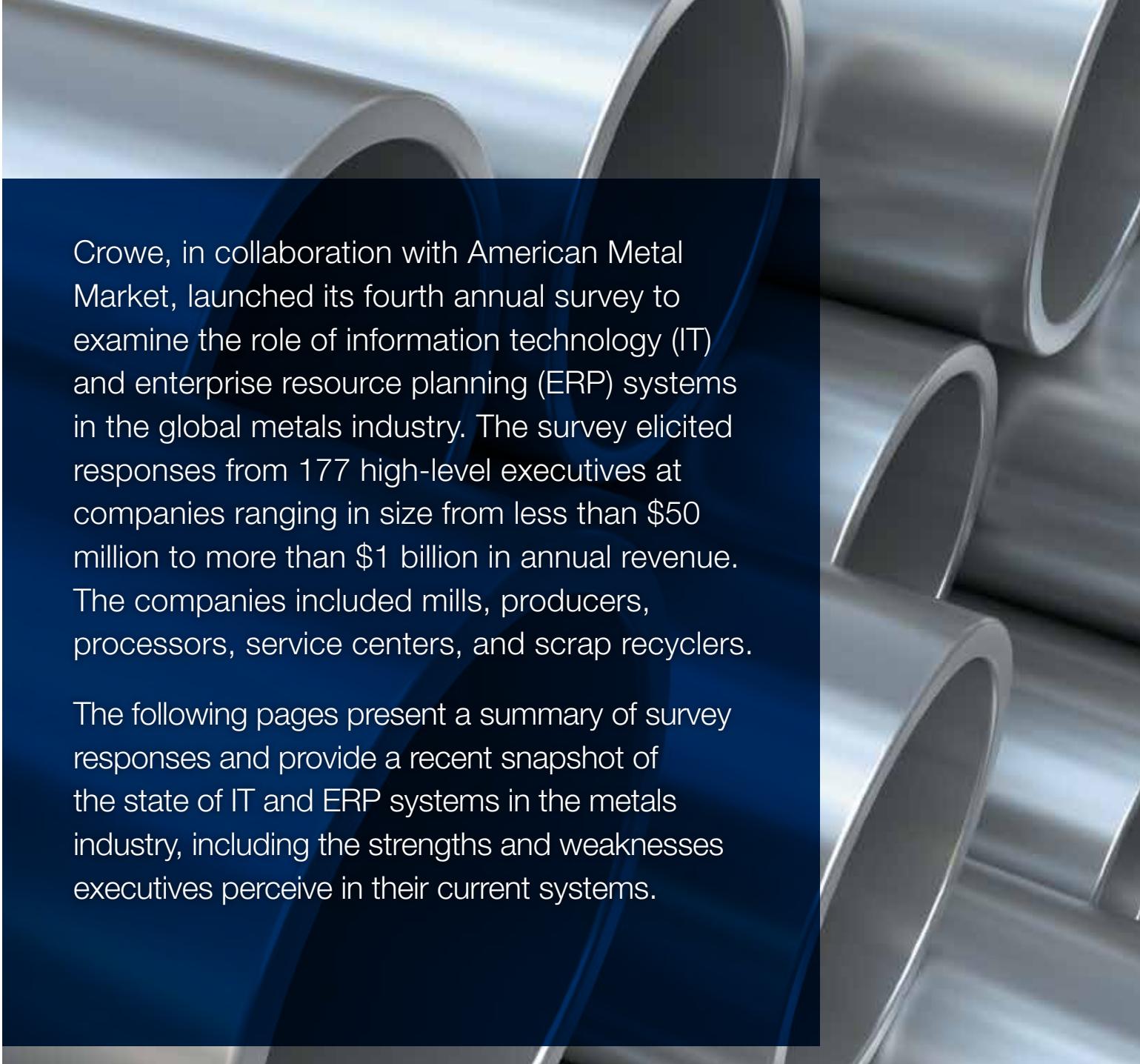


Information Technology in the Global Metals Industry

Fourth Annual IT and ERP Research Project
by Crowe and American Metal Market



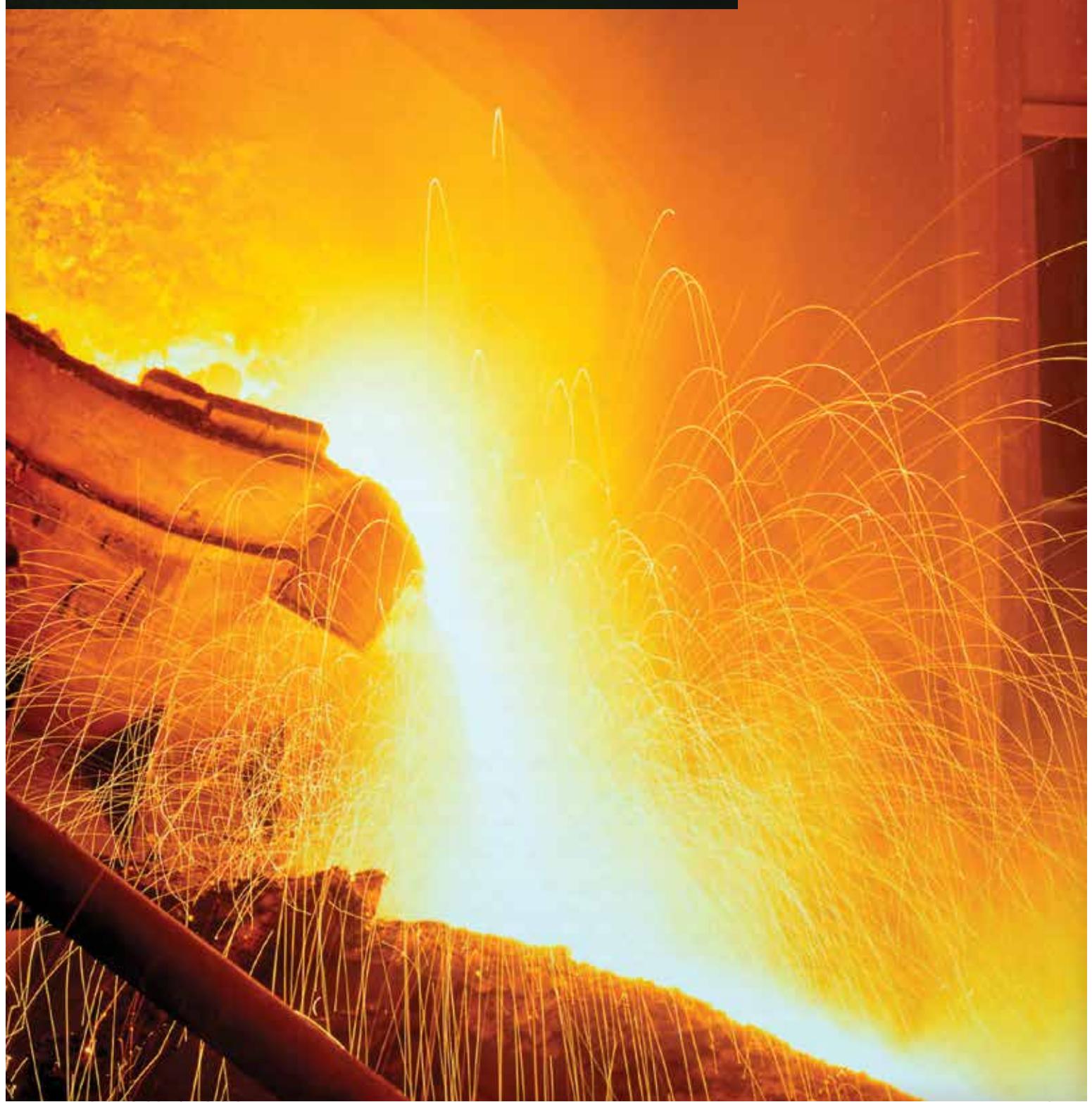
Crowe, in collaboration with American Metal Market, launched its fourth annual survey to examine the role of information technology (IT) and enterprise resource planning (ERP) systems in the global metals industry. The survey elicited responses from 177 high-level executives at companies ranging in size from less than \$50 million to more than \$1 billion in annual revenue. The companies included mills, producers, processors, service centers, and scrap recyclers.

The following pages present a summary of survey responses and provide a recent snapshot of the state of IT and ERP systems in the metals industry, including the strengths and weaknesses executives perceive in their current systems.

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Management/Outlook



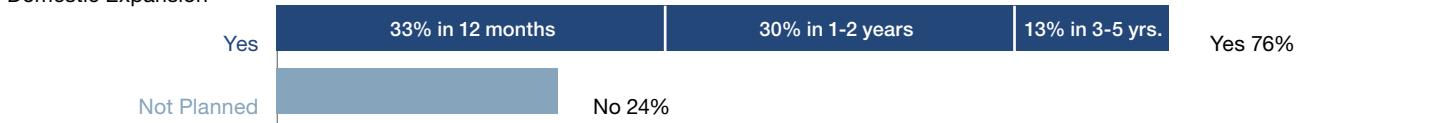
1. Which best describes your company situation related to 3-5 year plans for growth and expansion?

- a. M&A activity (within 12 months, 1-2 years, 3-5 years)
- b. Domestic expansion (within 12 months, 1-2 years, 3-5 years)
- c. International expansion (within 12 months, 1-2 years, 3-5 years)
- d. Adoption of new upstream or downstream capabilities (within 12 months, 1-2 years, 3-5 years)

Key Finding: 76% of respondents are planning domestic expansion, 59% are planning adoption of new upstream or downstream capabilities, while 56% are planning international expansion and 54% are planning M&A.

■ Mainly in the short term (in the next two years)

Domestic Expansion



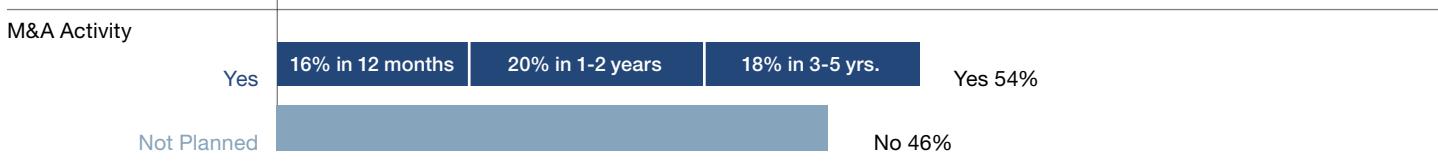
Adoption of New Upstream or Downstream Capabilities



International Expansion



M&A Activity

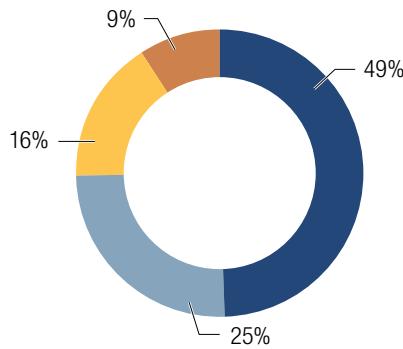


2. How vital is new technology to your 3-5 year business strategy?

- a. **Very Important:** We have a technology road map that prioritizes our IT needs; our IT investments are tied to business results.
- b. **Important But Not Started:** We need a technology road map that ties IT investments to business results.
- c. **Gaining Importance:** We do not know how our current technology is impacting our business results. We have a long list of IT requests but have no way to prioritize or evaluate the effectiveness.
- d. **Not Important:** We are not considering IT's role in financial and operational performance.

Key Findings: 74% believe new technology is important to their business strategy (49% believe it is very important).

- Higher importance is found among companies with higher annual revenue.
- Approximately half of those who believe technology is important to their strategy do not have a road map that links investments to business results.



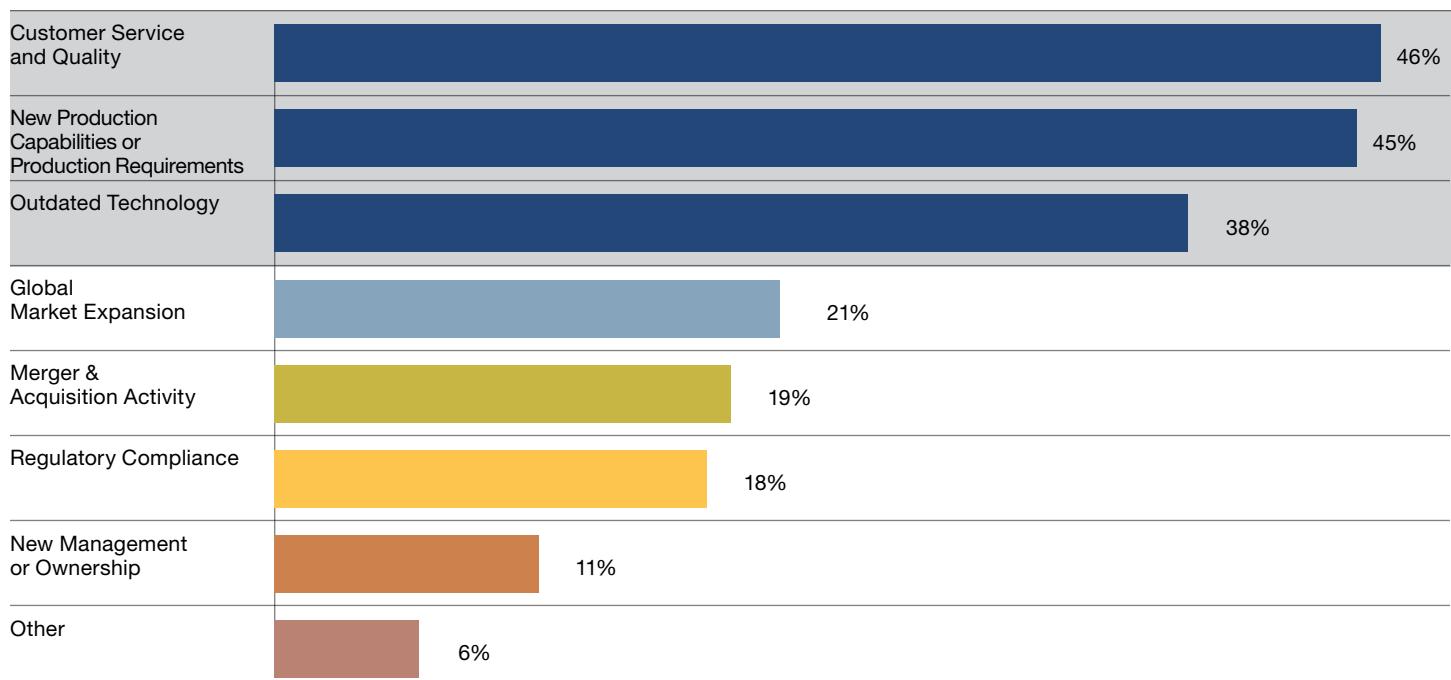
- **Very Important:** We have a technology road map that prioritizes our IT needs; our IT investments are tied to business results.
- **Important But Not Started:** We need a technology road map that ties IT investments to business results.
- **Gaining Importance:** We do not know how our current technology is impacting our business results. We have a long list of IT requests but have no way to prioritize or evaluate the effectiveness.
- **Not Important:** We are not considering IT's role in financial and operational performance.

3. What business factors are driving your budget for IT investment? Select all that apply.

- a. Merger & Acquisition Activity
- b. Global Market Expansion
- c. New Production Capabilities or Production Requirements
- d. New Management or Ownership
- e. Customer Service and Quality
- f. Regulatory Compliance
- g. Outdated Technology
- h. Other

Key Finding: The top three factors driving investment in information technology:

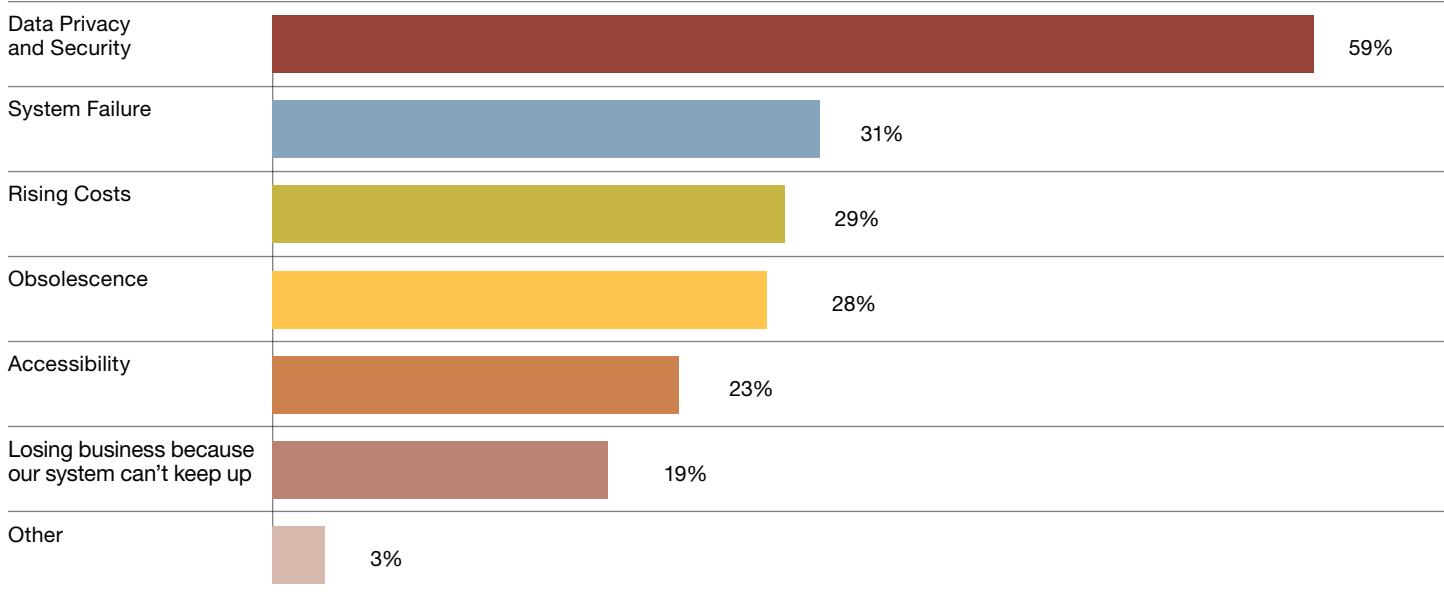
- Customer service and quality, 46%
- New production capabilities or production requirements, 45%
- Outdated technology, 38%



4. What do you see as your most significant business risks related to IT in the next 3 years? Select all that apply.

- a. Data Privacy and Security
- b. Accessibility
- c. Obsolescence
- d. System Failure
- e. Losing business because our systems can't keep up with the competition
- f. Rising Costs
- g. Other

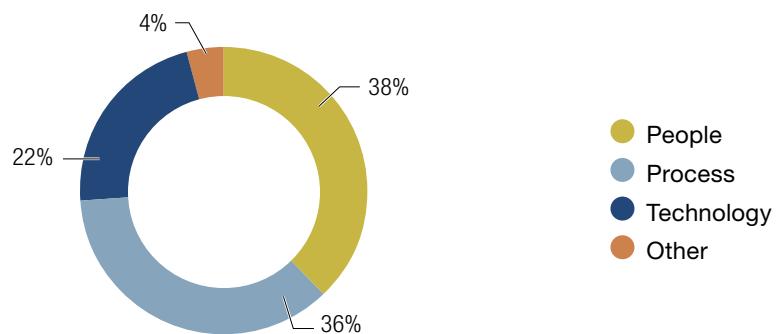
Key Finding: Data privacy and security is the main IT business risk for 59% of respondents.



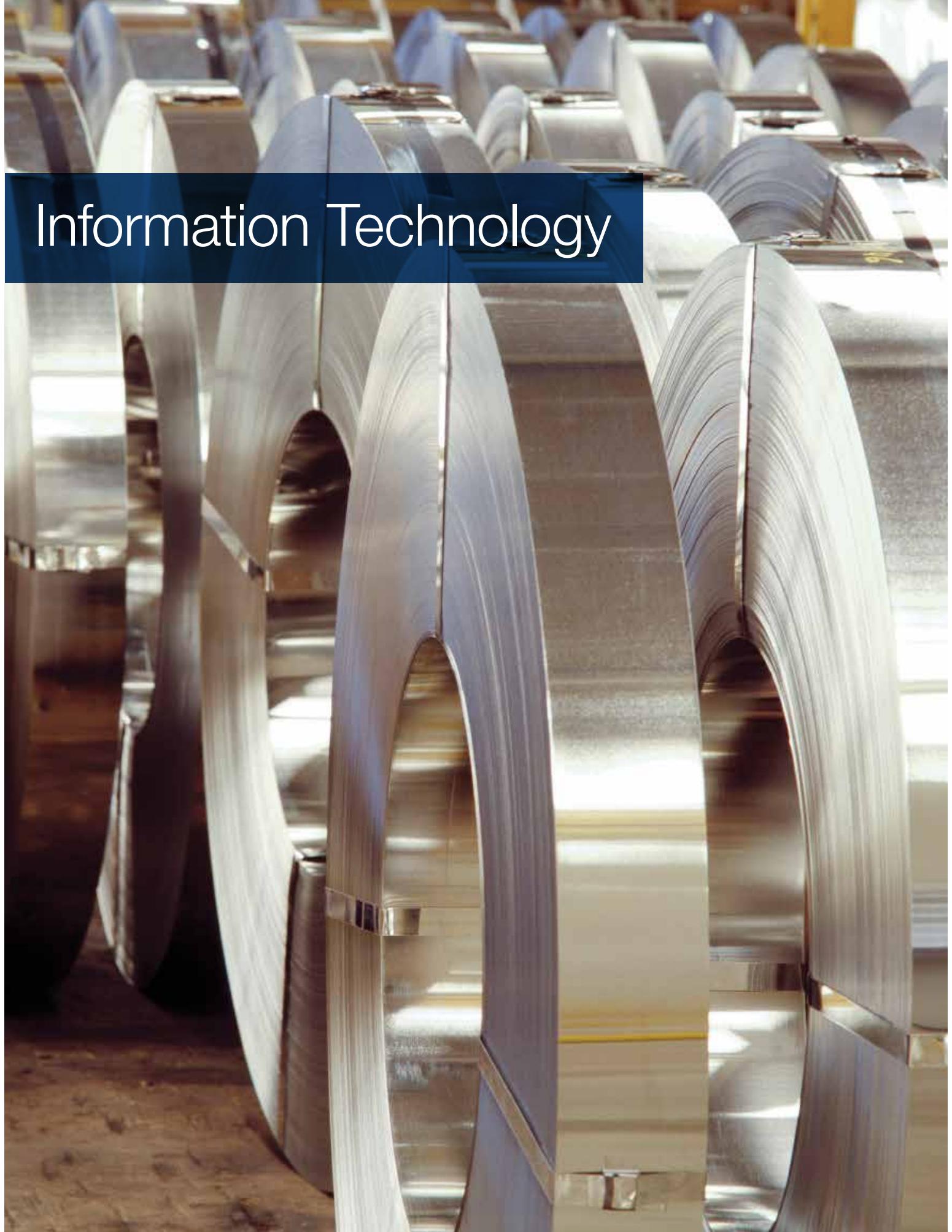
5. Where does your company look to start a new profitability improvement initiative?

- a. People
- b. Process
- c. Technology
- d. Other

Key Finding: When companies are looking for new profitability, 38% start with people and 36% start with process.



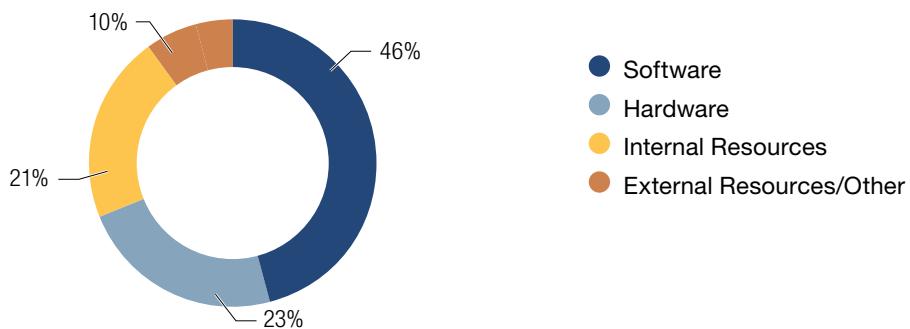
Information Technology



6. Which is the largest component of your IT budget?

- a. Software
- b. Hardware
- c. Internal Resources
- d. External Resources
- e. Other

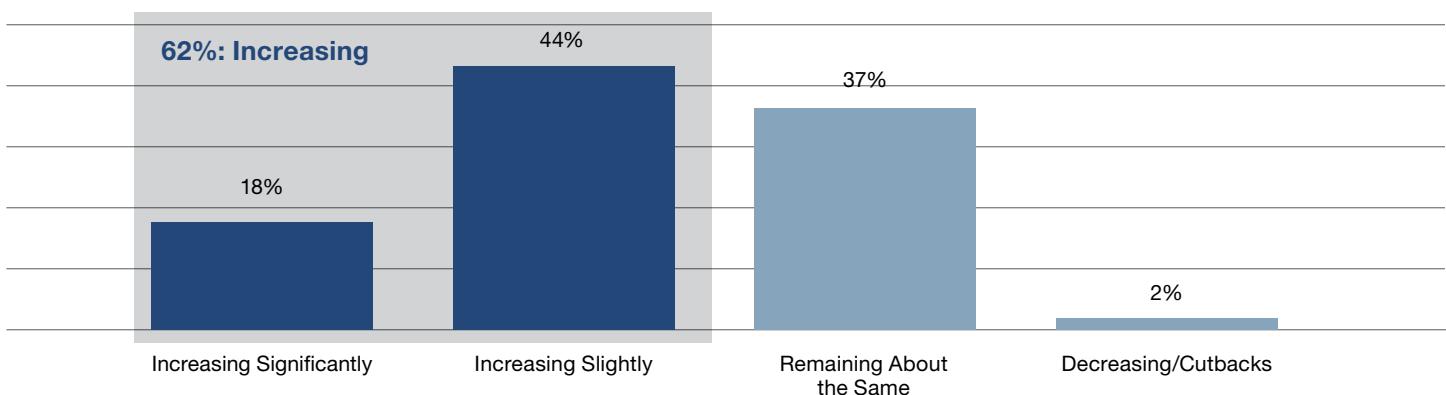
Key Finding: The largest component of the IT budget is software (46%).



7. What is the 3-5 year outlook for your IT budget?

- a. Increasing Significantly
- b. Increasing Slightly
- c. Remaining About the Same
- d. Decreasing/Cutbacks

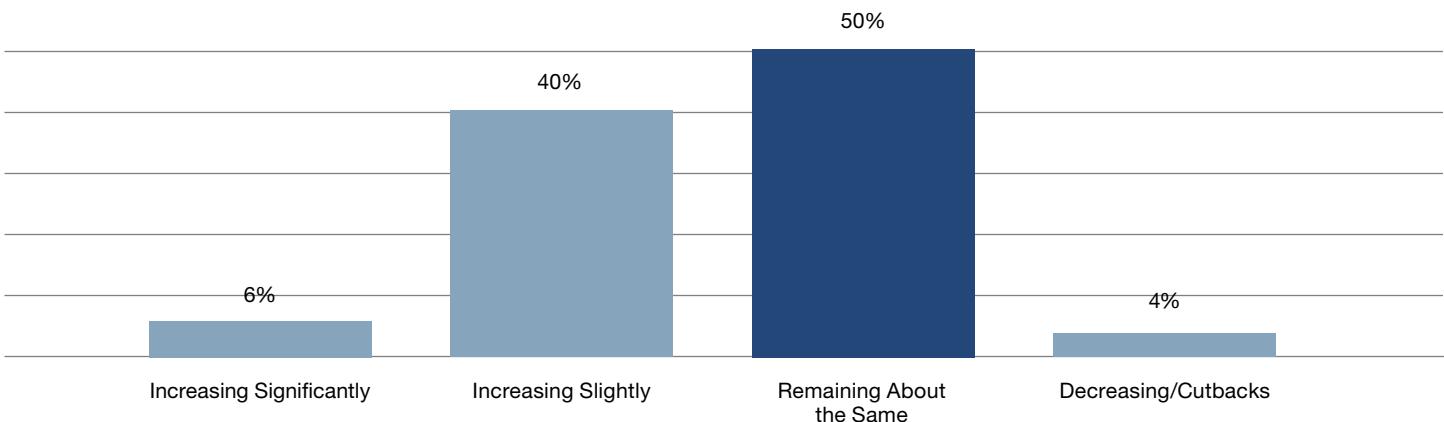
Key Finding: According to 62% of respondents, IT budgets will increase during the next 3-5 years; 18% say it will increase significantly.



8. What is the 3-5 year outlook for your IT staff?

- a. Increasing Significantly
- b. Increasing Slightly
- c. Remaining About the Same
- d. Decreasing/Cutbacks

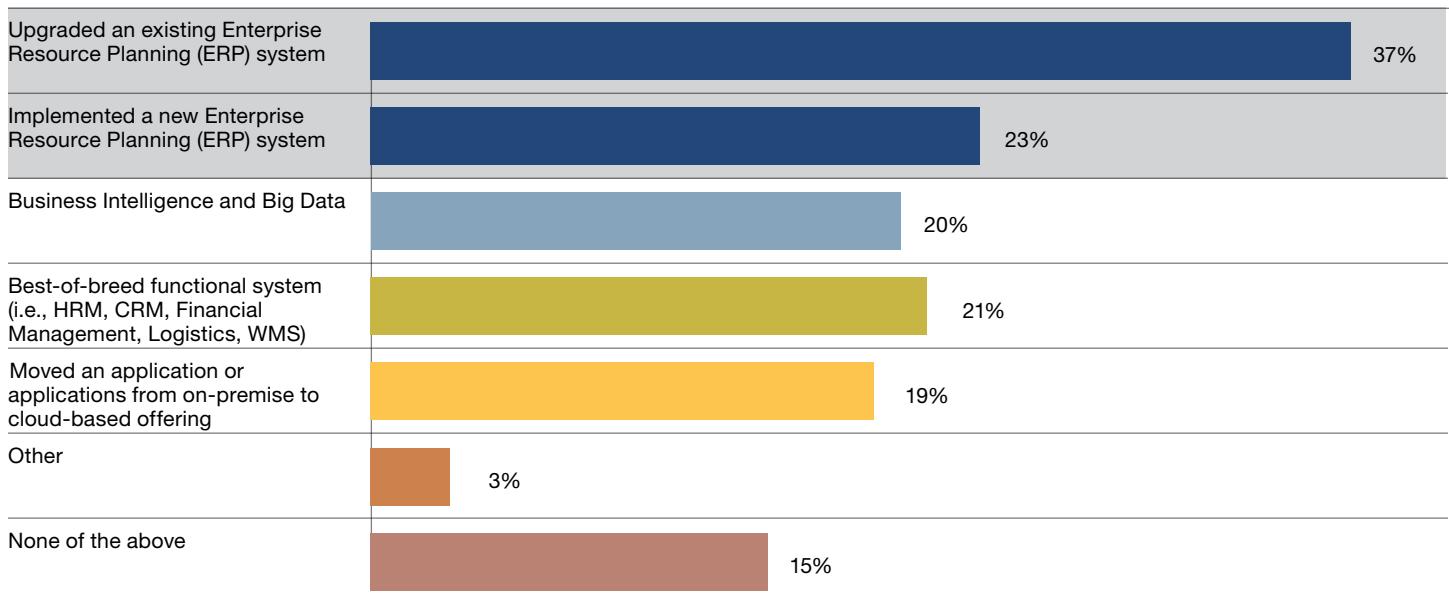
Key Findings: Even though overall IT budgets will increase in the near term for 62% of the respondents, IT staffing will remain about the same for 50% of the respondents and will only increase slightly for 40% of the respondents.



9. What types of IT projects have you **completed** in the past 3 years? Select all that apply.

- a. Upgraded an existing Enterprise Resource Planning (ERP) system
- b. Implemented a new Enterprise Resource Planning (ERP) system
- c. Business Intelligence and Big Data
- d. Best-of-breed functional system (i.e., HRM, CRM, Financial Management, Logistics, WMS)
- e. Moved an application or applications from on-premise to cloud-based offering
- f. Other
- g. None of the above

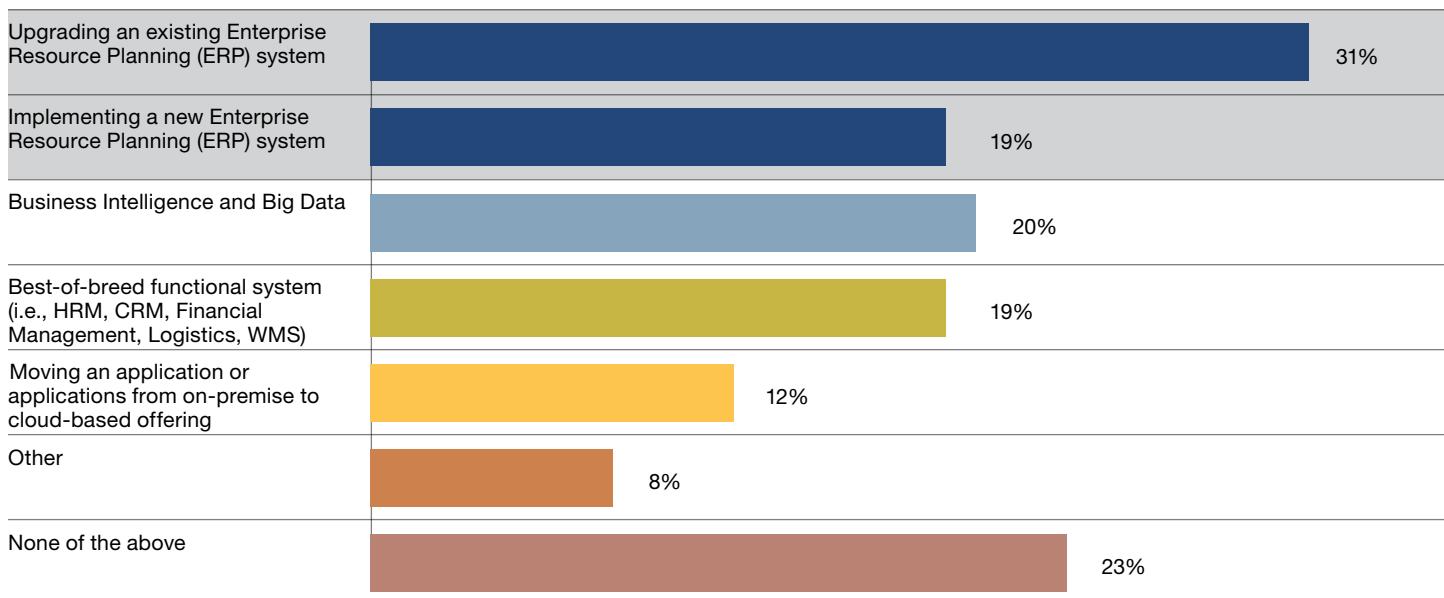
Key Finding: 60% of the respondents have completed an upgrade to an existing ERP system or implemented a new ERP system in the past three years.



10. What types of IT projects do you currently have in process or planned? Select all that apply.

- a. Upgrading an existing Enterprise Resource Planning (ERP) system
- b. Implementing a new Enterprise Resource Planning (ERP) system
- c. Business Intelligence and Big Data
- d. Best-of-breed functional system (i.e., HRM, CRM, Financial Management, Logistics, WMS)
- e. Moving an application or applications from on-premise to cloud-based offering
- f. Other
- g. None of the above

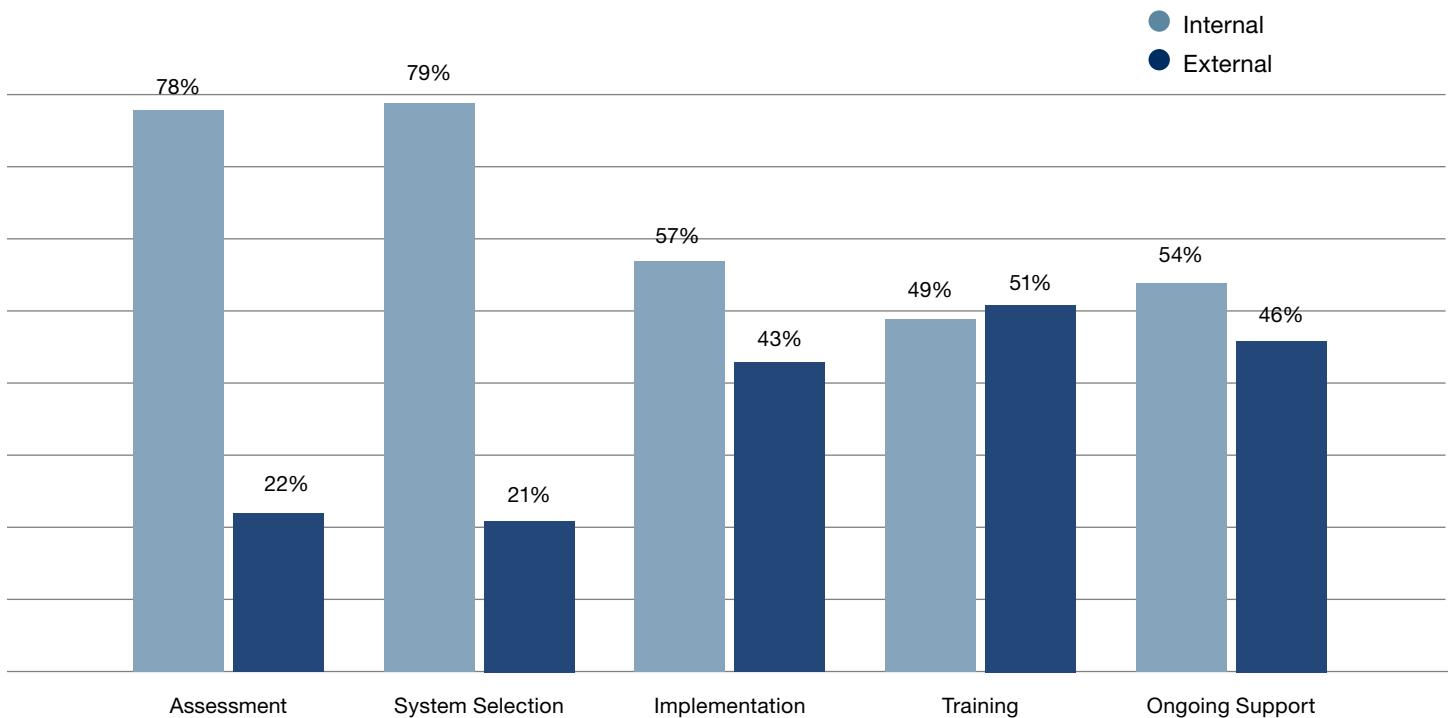
Key Finding: 50% of the respondents currently are planning or have a project in process to upgrade an existing ERP system or implement a new ERP system.



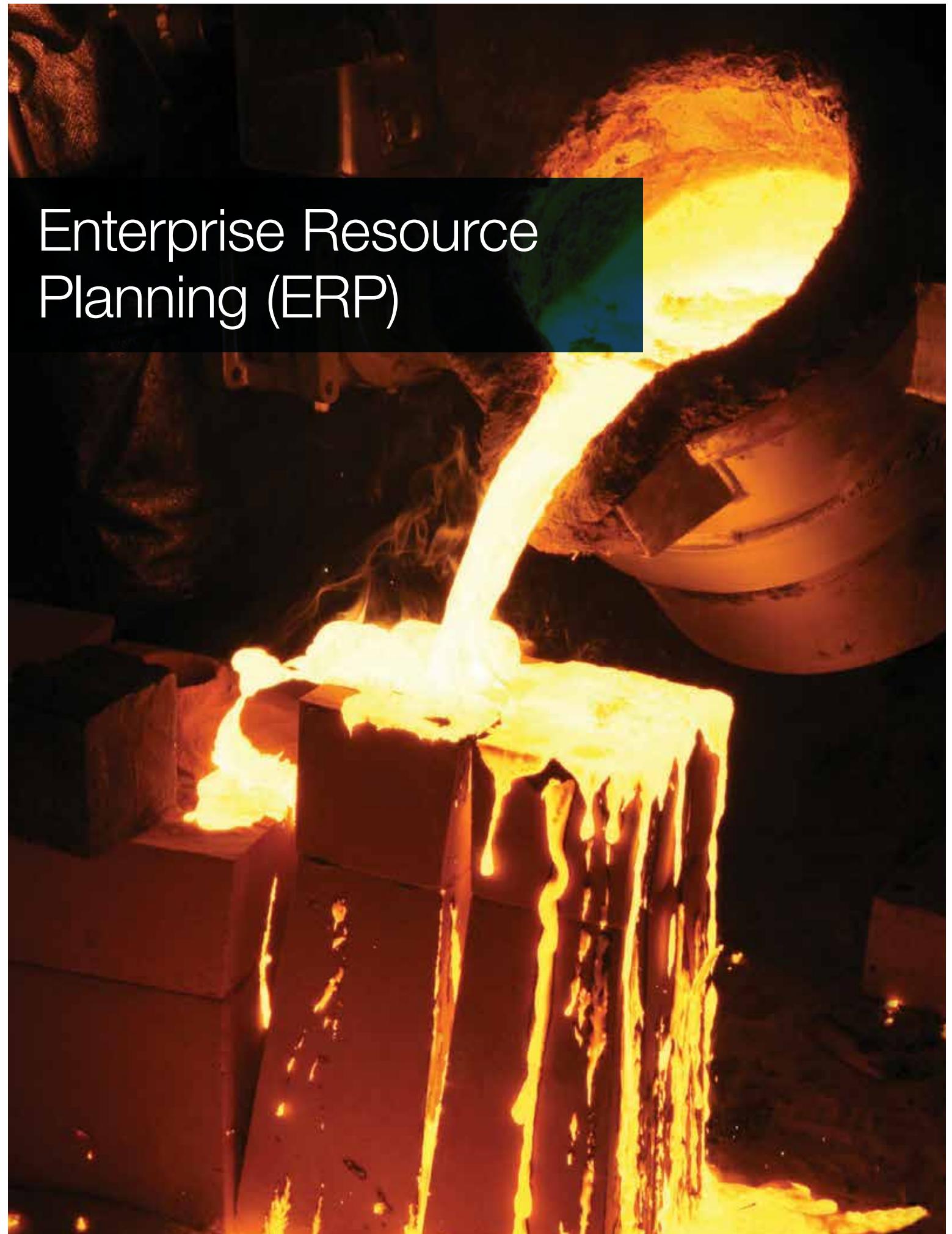
11. For each phase of a major IT project, are you more likely to depend on internal or external resources to lead and manage the following phases?

- a. Assessment
- b. System Selection
- c. Implementation
- d. Training
- e. Ongoing Support

Key Finding: Respondents rely more heavily on internal resources for the assessment and system selection phases, while respondents are more inclined to use external resources for implementation, training, and ongoing support.



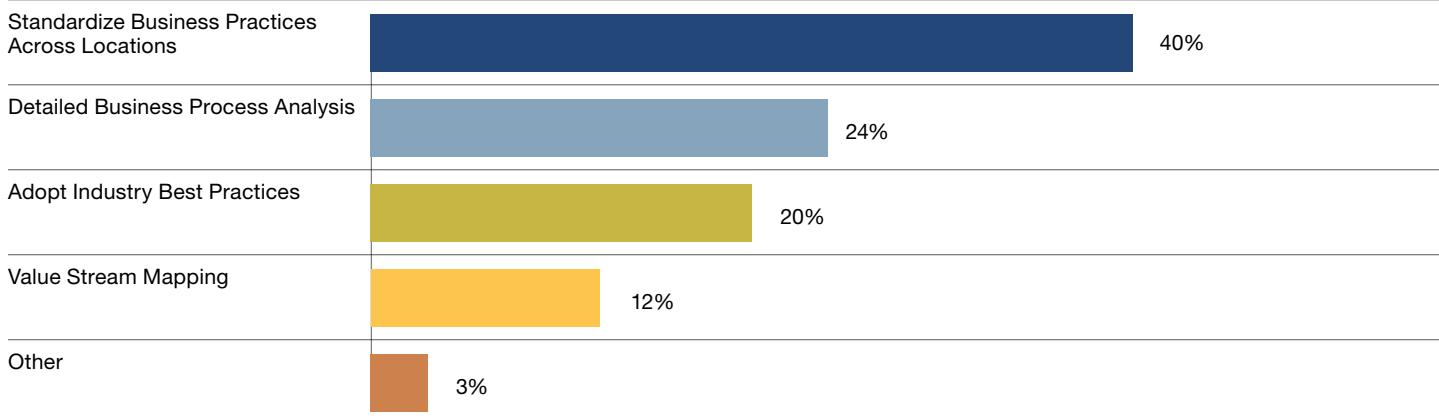
Enterprise Resource Planning (ERP)



12. How do you integrate process improvement into an ERP implementation?

- a. Adopt Industry Best Practices
- b. Standardize Business Practices Across Locations
- c. Detailed Business Process Analysis
- d. Value Stream Mapping
- e. Other; please specify

Key Finding: 40% of the respondents standardize business practices across locations to integrate process improvement into ERP implementation.

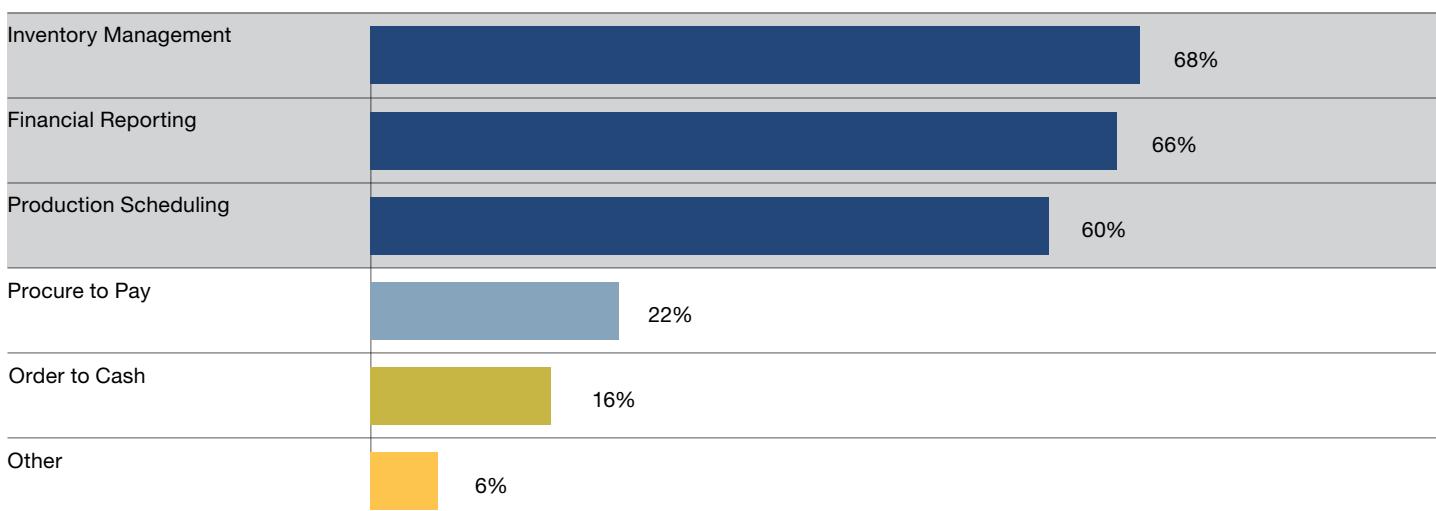


13. What are the key business processes you are looking to improve with an ERP implementation? Select all that apply.

- a. Financial Reporting
- b. Production Scheduling
- c. Inventory Management
- d. Procure to Pay
- e. Order to Cash
- f. Other; please specify

Key Finding: The top three business processes to be improved are:

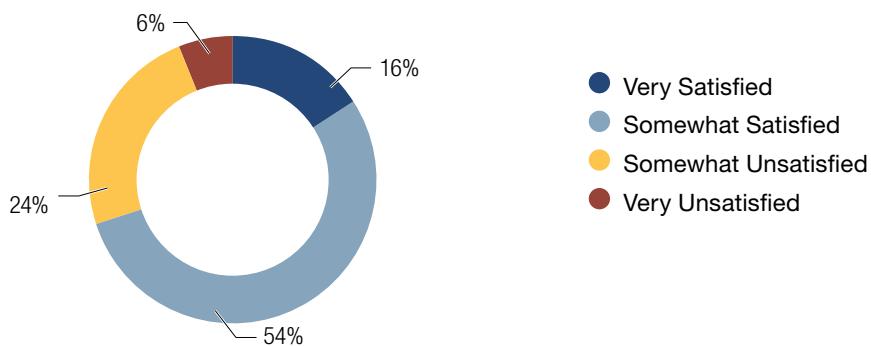
■ Inventory management (68%) ■ Financial reporting (66%) ■ Production scheduling (60%)



14. How satisfied are you with your current ERP system(s) and why?

- a. Very Satisfied
- b. Somewhat Satisfied
- c. Somewhat Unsatisfied
- d. Very Unsatisfied

Key Findings: Only 16% are very satisfied with their current ERP system. Even though 54% report they are somewhat satisfied, improvements and ongoing upgrades are needed. Another 30% are unsatisfied to some extent.



15. Which of the following best describes the situation in your company?

- a. We recently invested in enhancements to our current ERP system(s).
- b. We recently implemented a new ERP system.
- c. We plan to move to a new system; system requirements need to be captured prior to moving forward.
- d. We plan to move to a new system upon budget approval.
- e. We want to move to a new system but it is not practical in the short term.
- f. We are not planning to move to a new system.

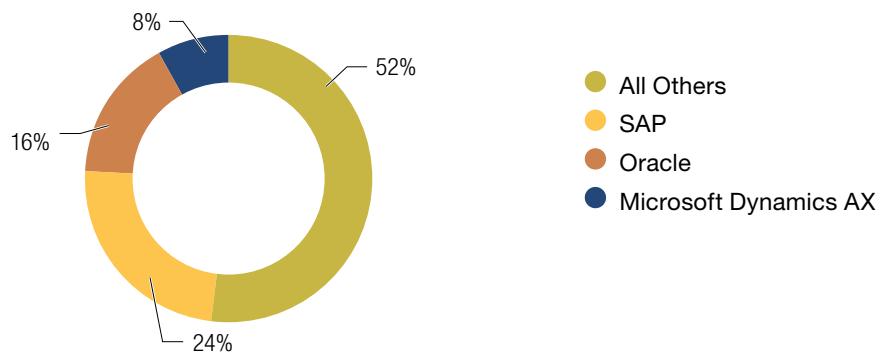
Key Findings: 47% have recently made investments to Improve or Implement new systems. 26% want or plan to move to a new ERP system. 27% do not have plans to move to a new system.



16. What ERP systems are currently in use within your company?

- a. AXIOM
- b. Enmark Systems (Eniteo)
- c. Epicor
- d. Invera (STRATIX)
- e. Metalware
- f. Microsoft Dynamics® AX
- g. Oracle
- h. Plex Systems
- i. Sage
- j. SAP
- k. Custom Developed Application(s)
- l. Other; please specify

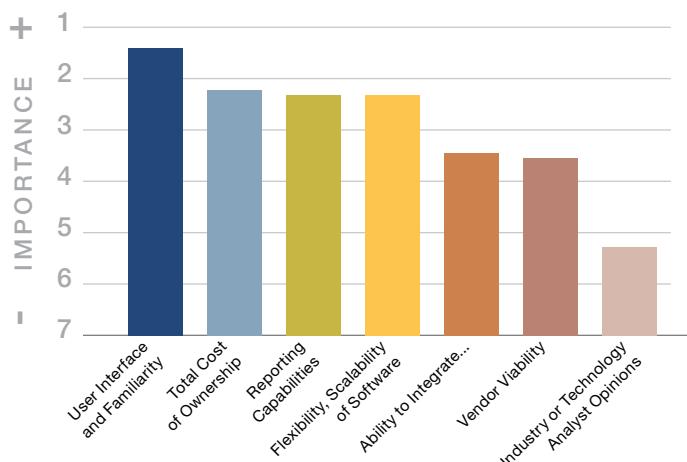
Key Findings: The 177 respondents mentioned 34 different ERP systems. Approximately one-fourth of the companies use custom developed applications.



17. How important are the following issues when selecting or evaluating new enterprise technology solutions? List in order of importance: 1 = Most, 7 = Least.

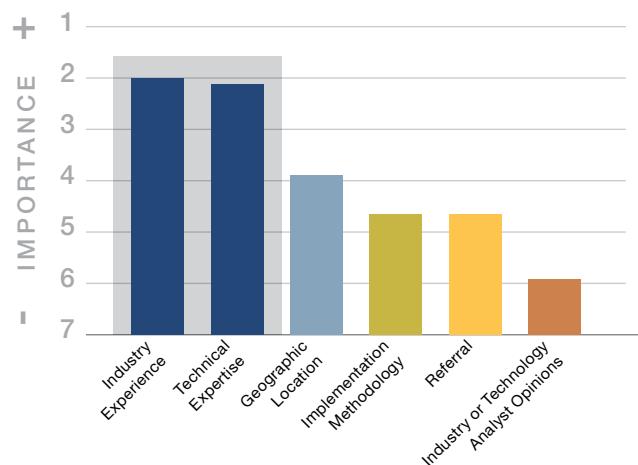
- a. User Interface and Familiarity
- b. Vendor Viability
- c. Total Cost of Ownership
- d. Flexibility, Scalability of Software
- e. Reporting Capabilities
- f. Ability to Integrate With Other Business Software
- g. Industry or Technology Analyst Opinions

Key Finding: The most important criteria for selecting a new solution: user interface and familiarity.



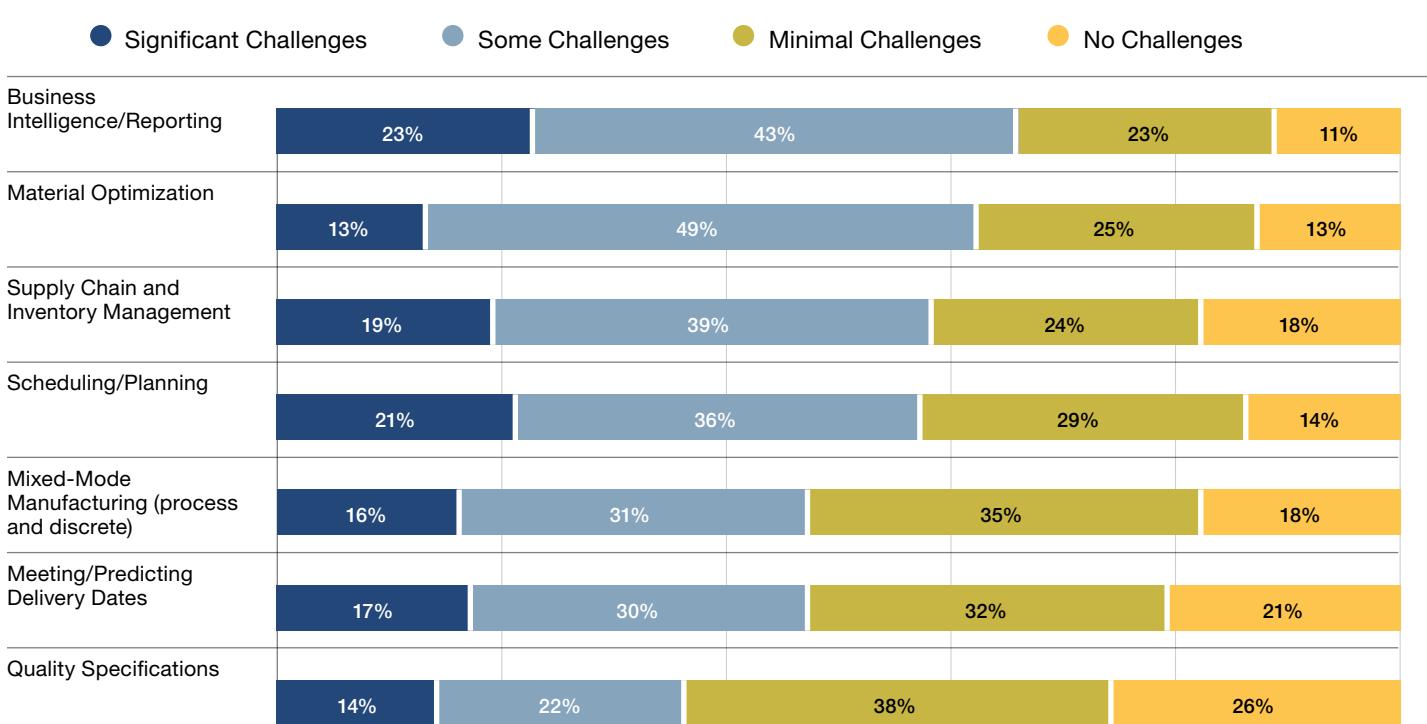
18. What qualities are most important in selecting a vendor? List in order of importance: 1 = Most, 7 = Least.

a. Industry Experience	c. Geographic Location	e. Referral
b. Technical Expertise	d. Implementation Methodology	f. Industry or Technology Analyst Opinions



19. The following is a list of some typical functional challenges with ERP systems. To what degree is your company experiencing each?

Key Finding: Business intelligence/reporting is the most challenging functional aspect of an ERP system.



20. Where do you see the greatest opportunity to get more value out of your current ERP system or from a new system if you were to make a change?

Key Finding: Respondents identified four key areas where they see opportunity for more value from their current ERP system(s): inventory management, reporting, integration, and planning/scheduling.

Inventory Management

Inventory Management

Inventory Management and Levels

Inventory Management and Reporting

Linking Production, Inventory, and other costs to Financial Reports

Better inventory control for all locations should lower overhead.

Reporting

BI/Reporting

Data Reporting Systems

Continued improvement in ease of use, reporting, automated reporting...

Corporate Control and Consolidated Reporting

Enhanced Reporting and Business Analytics

Moving data into information for easier and better reporting

Integration

Improved integration with MS Office Suite of products

Global Integration, Real-time Inventory Updating

Integration

Integration of Bar Coding

Integration of information from other software/systems

Planning/Scheduling

Production Scheduling. Supply Scheduling.

Production and Capacity Planning

Production Planning; Sourcing right material mix

Scheduling, Planning, and Inventory Management

Capacity Planning

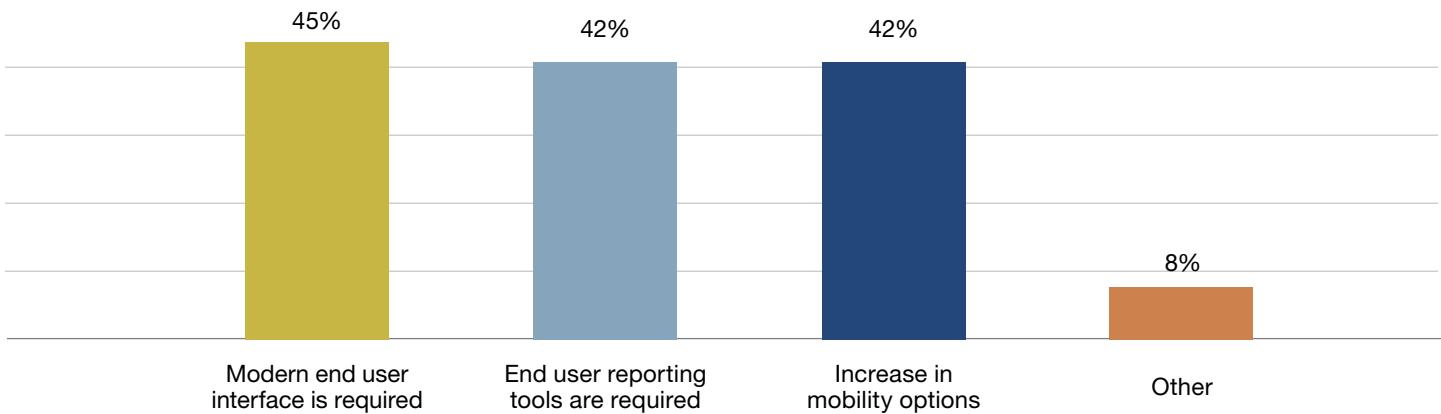
Scheduling and Planning

Verbatim answers written by respondents

21. How is a changing workforce demographic changing the requirements you have for enterprise technology systems? Select all that apply.

- a. Modern end user interface is required
- b. End user reporting tools are required
- c. Increase in mobility options
- d. Other

Key Finding: Respondents identified user interface, end user reporting tools, and mobility as equally important in meeting the challenges of enterprise technology systems for a changing workforce.

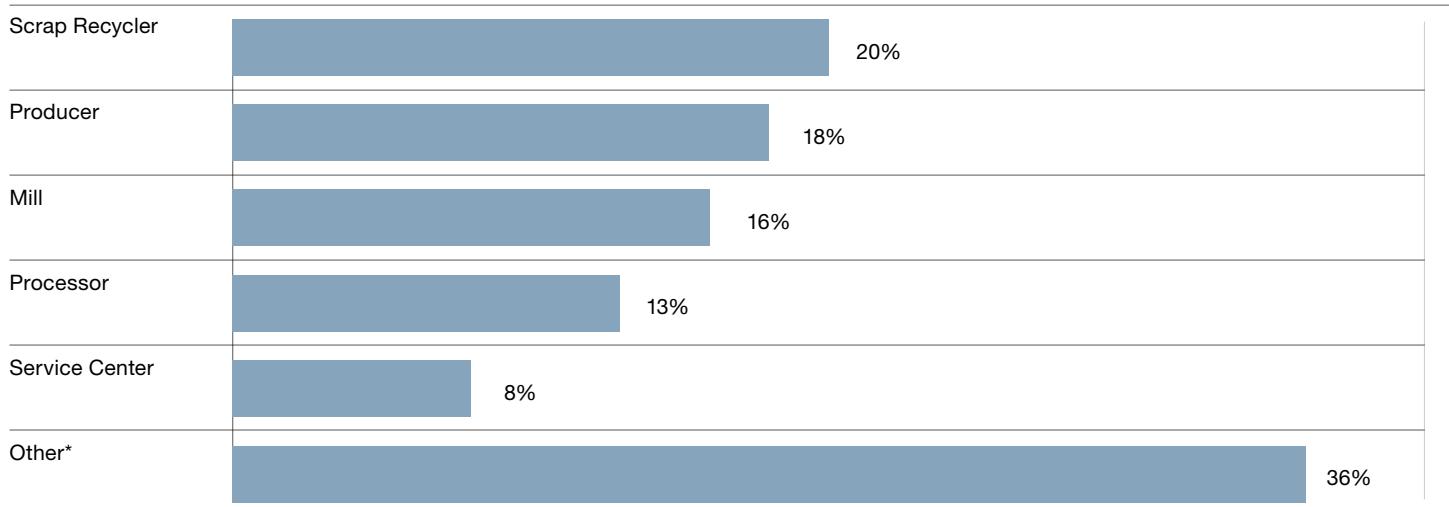


Respondent Criteria



22. Please indicate your company type.

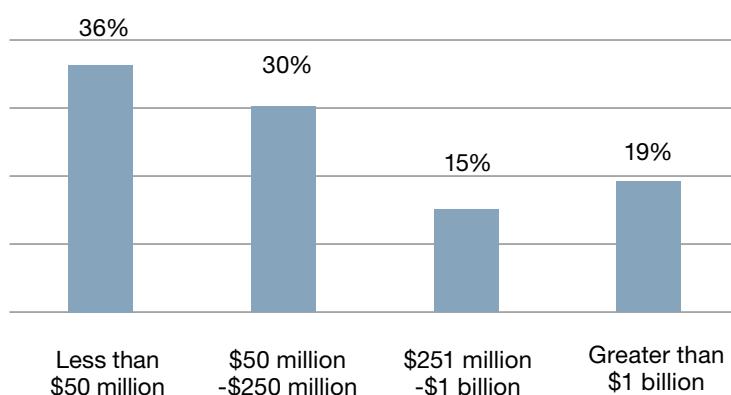
- a. Mill
- b. Producer
- c. Processor
- d. Scrap Recycler
- e. Service Center
- f. Other; please specify



* including but not limited to manufacturer, OEM, consultant, fabricator, trader

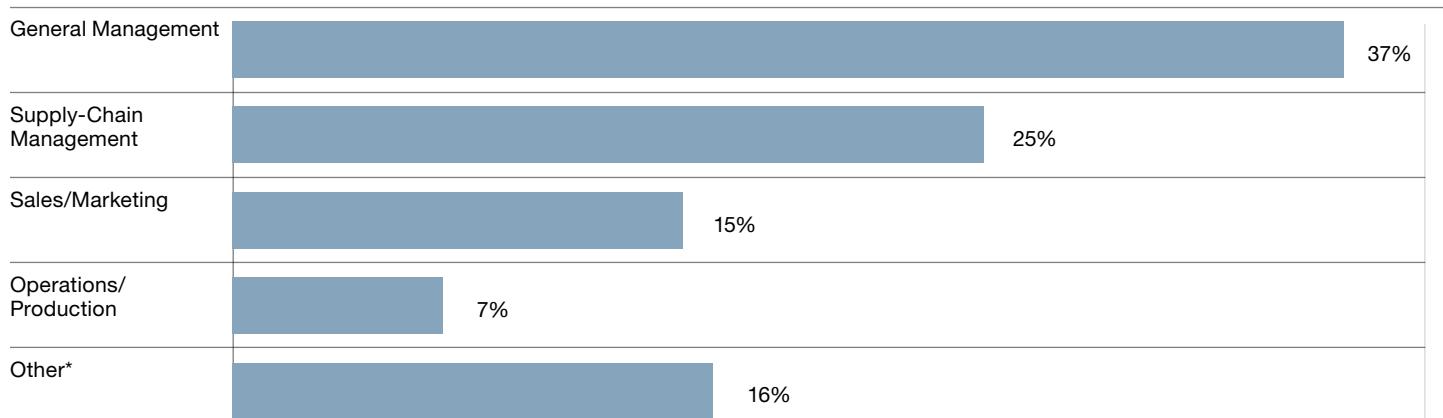
23. What is your company's annual revenue?

- a. Less than \$50M
- b. \$50M-\$250M
- c. \$251M-\$1B
- d. Greater than \$1B



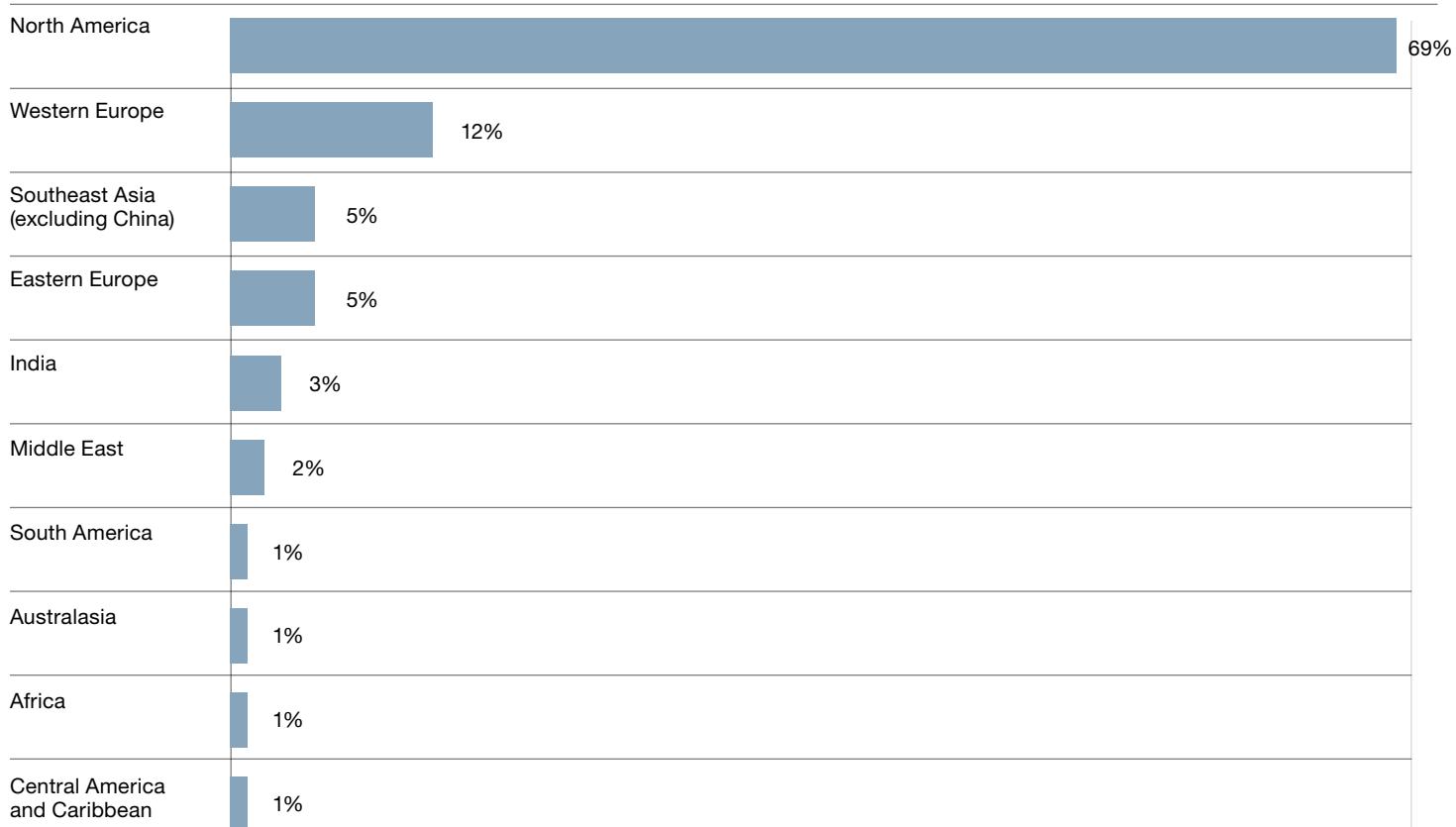
24. Please select the job title category that best describes your position.

- a. Operations/Production
- b. General Management
- c. Quality/Reliability
- d. Product Engineering/
Product Design
- e. Supply-Chain Management
- f. Sales/Marketing
- g. IT
- h. Other



* including but not limited to purchasing, president, director, owner, finance controller

25. In what region is your company headquarters located?



Contact Information

For additional printed copies of this survey report, please contact Tad Baland at 616.233.5679 or tad.baland@crowe.com. To download a printable electronic version of this report, visit www.crowe.com/metals.

About American Metal Market

As the trusted name in metals industry news, prices, and information, American Metal Market (AMM) has been the “publication of record” for the metals industry since 1882. Thousands of industry leaders, decision-makers, and purchasing executives at primary metals producers, service centers, metals-consuming end users, original equipment manufacturers, manufacturers, and metals recyclers worldwide read the publication on a regular basis. Readers rely on AMM to assist them throughout the critical day-to-day decision-making process, helping them to manage, operate, and make strategic purchasing decisions for their companies.

About Crowe Manufacturing and Distribution Services

With more than 60 years of experience with the manufacturing industry and more than 30 years of experience in technology solutions consulting, Crowe has developed exceptionally deep knowledge of the unique challenges faced by steel and metals companies. Building on stable platforms from recognized leaders such as Microsoft, Crowe applies its own intellectual property – the Crowe™ Metals Accelerator – to develop powerful, industry-leading operational and financial tools. The Crowe team works closely with clients to develop high-impact solutions in areas such as merger and acquisition integration, process redesign, supplier viability, IT advisory, working capital management, and risk management.

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