

2014 Iowa Industry Survey Report

Machinery Manufacturing (NAICS:333)



Center for Industrial Research and Service, Iowa State University

**Economic Development Administration-University Center Program
Iowa Advanced Manufacturing Innovation Network (AMIN)
2014 Machinery Manufacturing Industry Survey
Center for Industrial Research and Service**

Iowa State University's Center for Industrial Research and Service (CIRAS) surveyed the Iowa machinery manufacturing industry to understand their business characteristics and orientation toward technology adoption, product development, process development, process upgrades and continuous improvement. Data was collected in the Fall of 2014 with an online survey targeting the machinery manufacturing subsector (NAICS Code: 333).

The results of the survey are contained on the following pages together with your individual response for comparison purposes. Your company specific information is noted on all figures where you provided a response.

Survey Sample Summary

Target Industry	Iowa Machinery Manufacturing Subsector. NAICS Code: 333-Machinery Manufacturing
Survey Sample	606
Response rate	15.7%

Executive Summary

- Figure 1:** 71% of the companies have been in business for more than 25 years.
- Figure 2:** 73% of the companies belong to the Other General Purpose Machinery, Agricultural Implement, Construction Machinery, and Metalworking Machinery Manufacturing sectors.
- Figure 3:** 51% of the companies employ 50 or fewer employees.
- Figure 4:** 29% of the companies have no engineering employees with a bachelor's degree.
- Figure 5:** 55% of the companies engage more than 10% of their employees in product development activities.
- Figure 6:** 17% of the companies engage more than 10% of their employees in process development activities.
- Figure 7:** 79% of the companies conduct product development onsite for products produced at that facility.
- Figure 8:** 87% of the companies conduct process development onsite for products produced at that facility.
- Figure 9:** 48% of the companies have used research or technical assistance financial resources funded by the state and federal agencies.
- Figure 10:** 81% of the companies are currently developing a new product or upgrading an existing product.
- Figure 11:** Over 70% of the companies have indicated 3D CAD modeling and engineering simulation as the top two technologies that could add value to their product or reduce development risk.
- Figure 12:** 73% of the companies are currently developing a new process or upgrading an existing manufacturing or production process.
- Figure 13:** Over 65% of the companies have indicated 3D CAD modeling and advanced tooling as the top two technologies that could improve their process design or reduce development risk.
- Figure 14:** The companies have a diverse sales profile.
- Figure 15:** 80% of the companies have a majority of their sales to companies or distributors in other U.S. states.
- Figure 16:** 81% of the companies have identified that the personnel they hire need additional training.
- Figure 17:** In the next 3-5 years, 88% of the companies have identified reducing costs through process improvements, and 83% identified increasing sales through improved products as the top two key strategies to increase profitability.
- Figure 18:** 10% of the companies have identified that new products, services, and systems launched in the past have performed below expectations.
- Figure 19:** 73% of the companies are interested in participating in a CIRAS organized innovation summit.

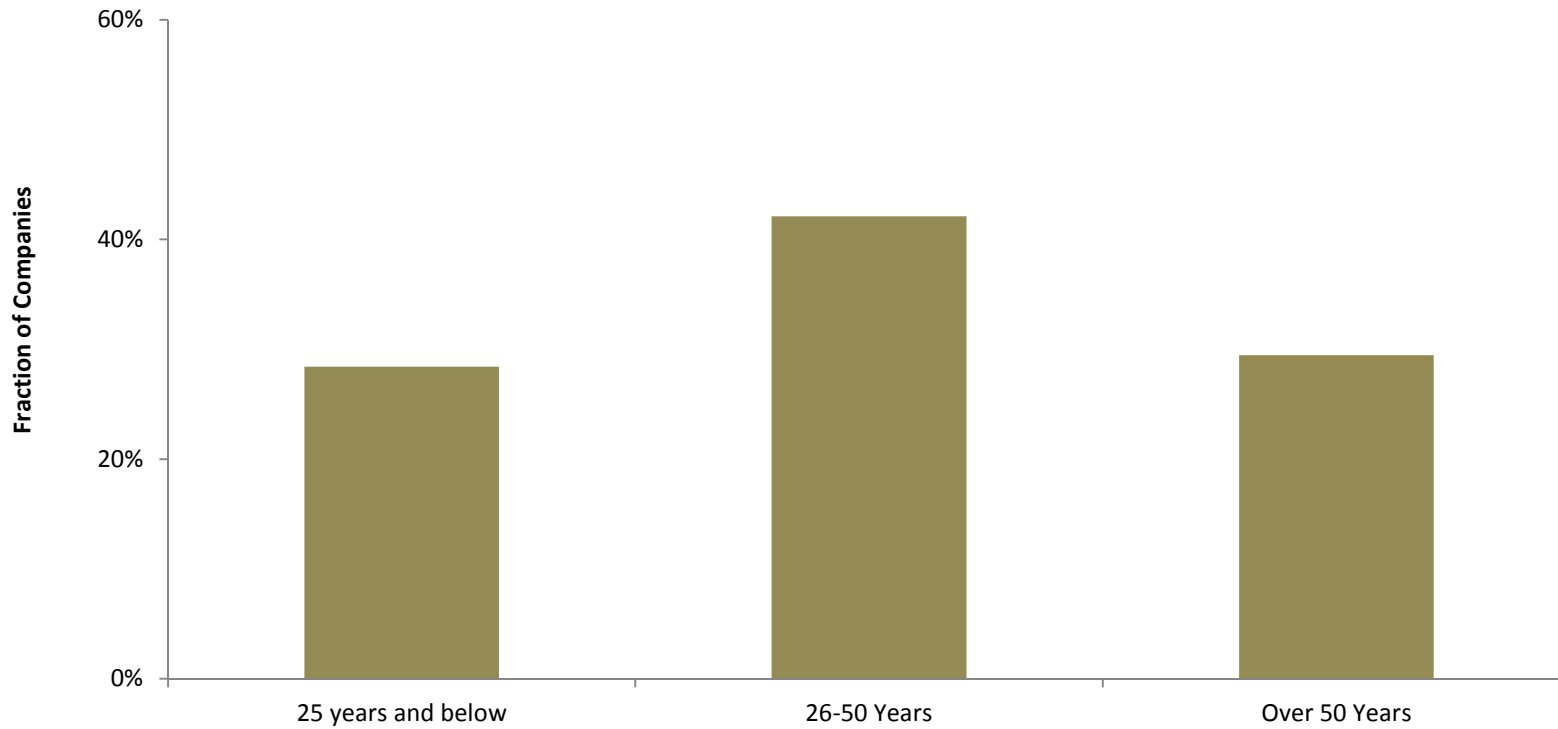


Fig 1. Number of years in business.

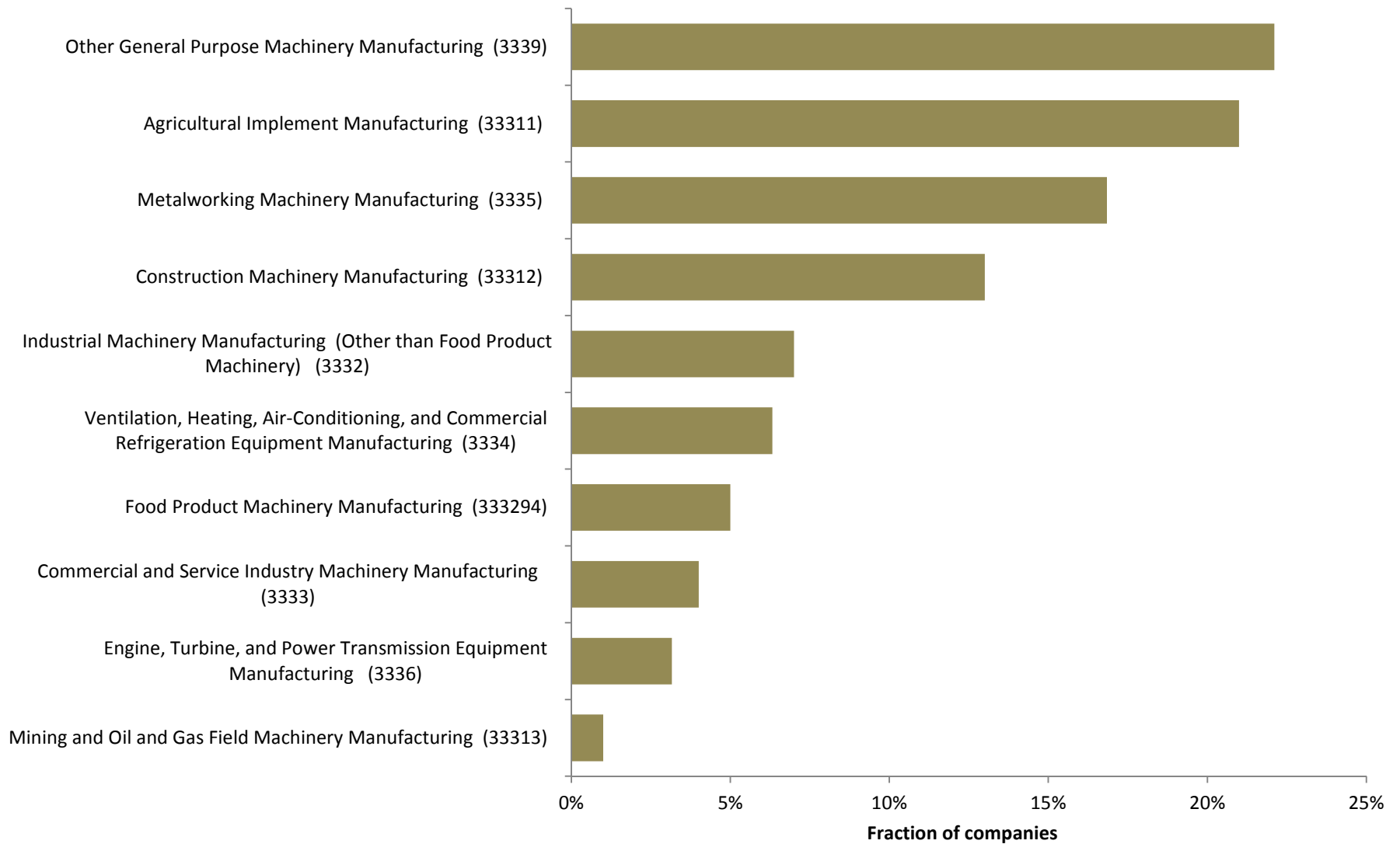


Fig 2. Distribution of companies according to NAICS.

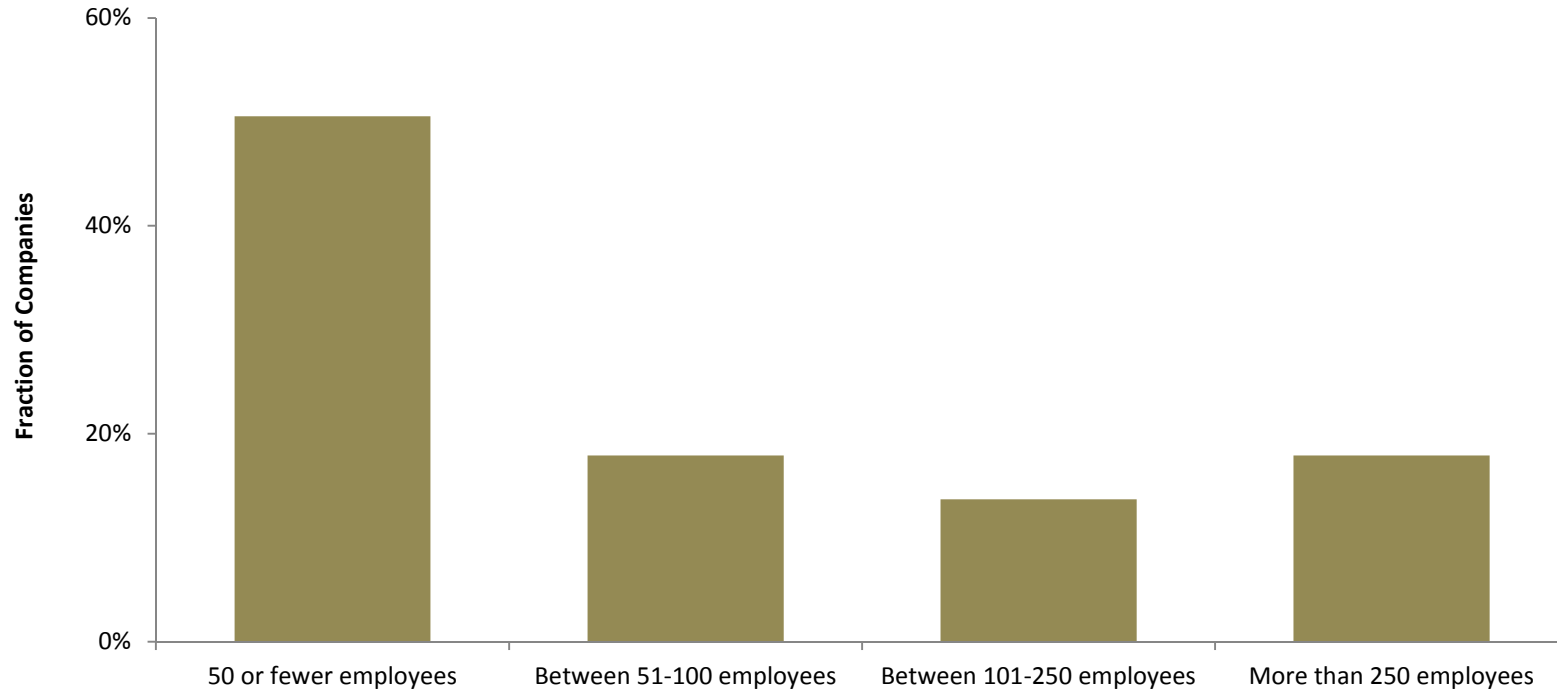


Fig 3. Distribution of employees.

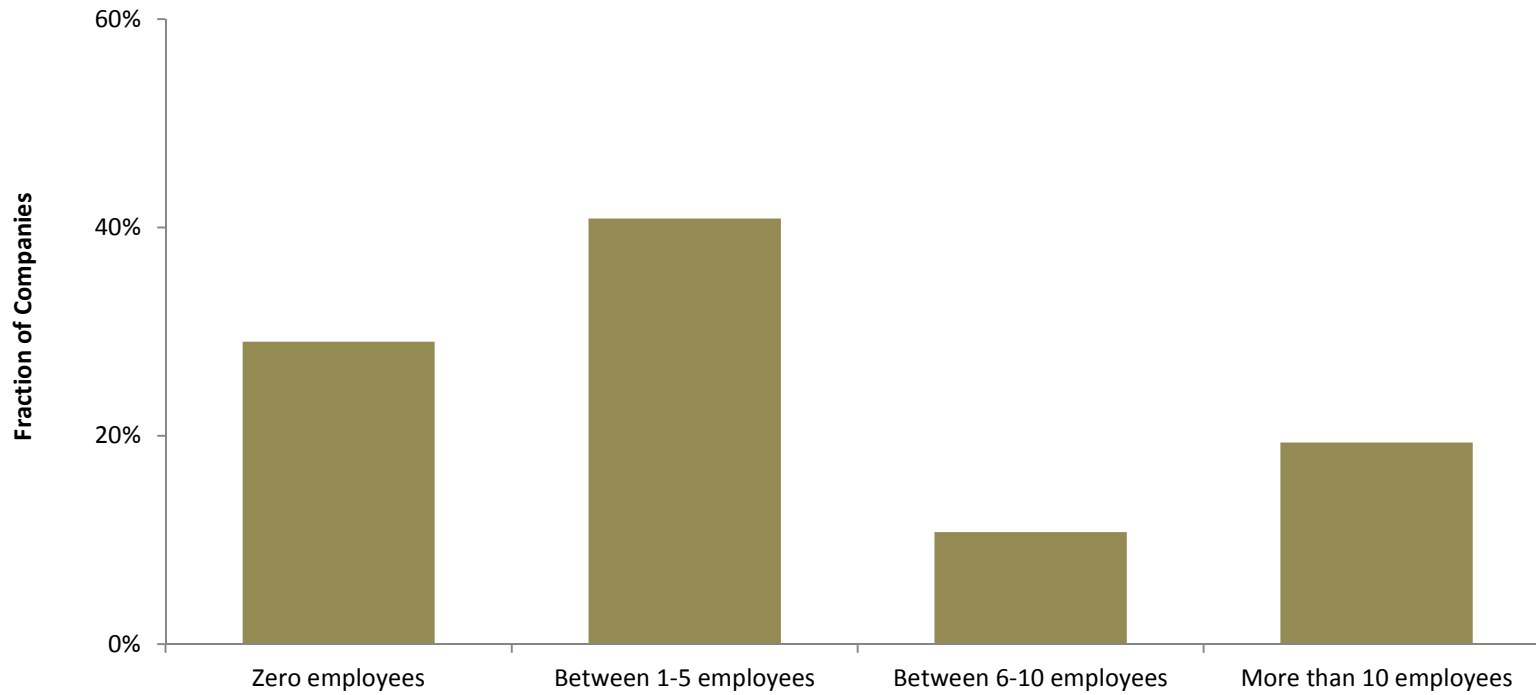


Fig 4. Engineering employees with a bachelors degree or higher.

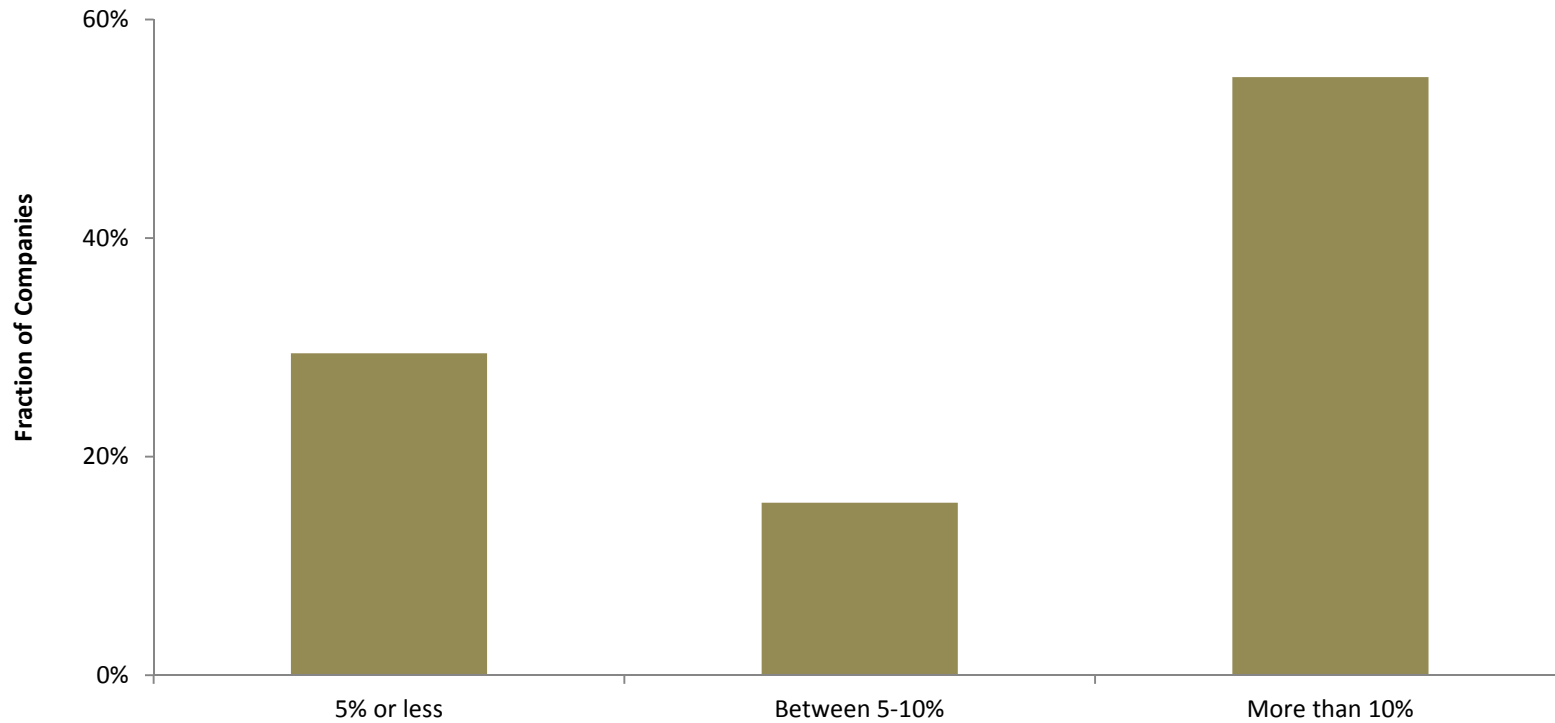


Fig 5. Fraction of full-time employees engaged in product development.

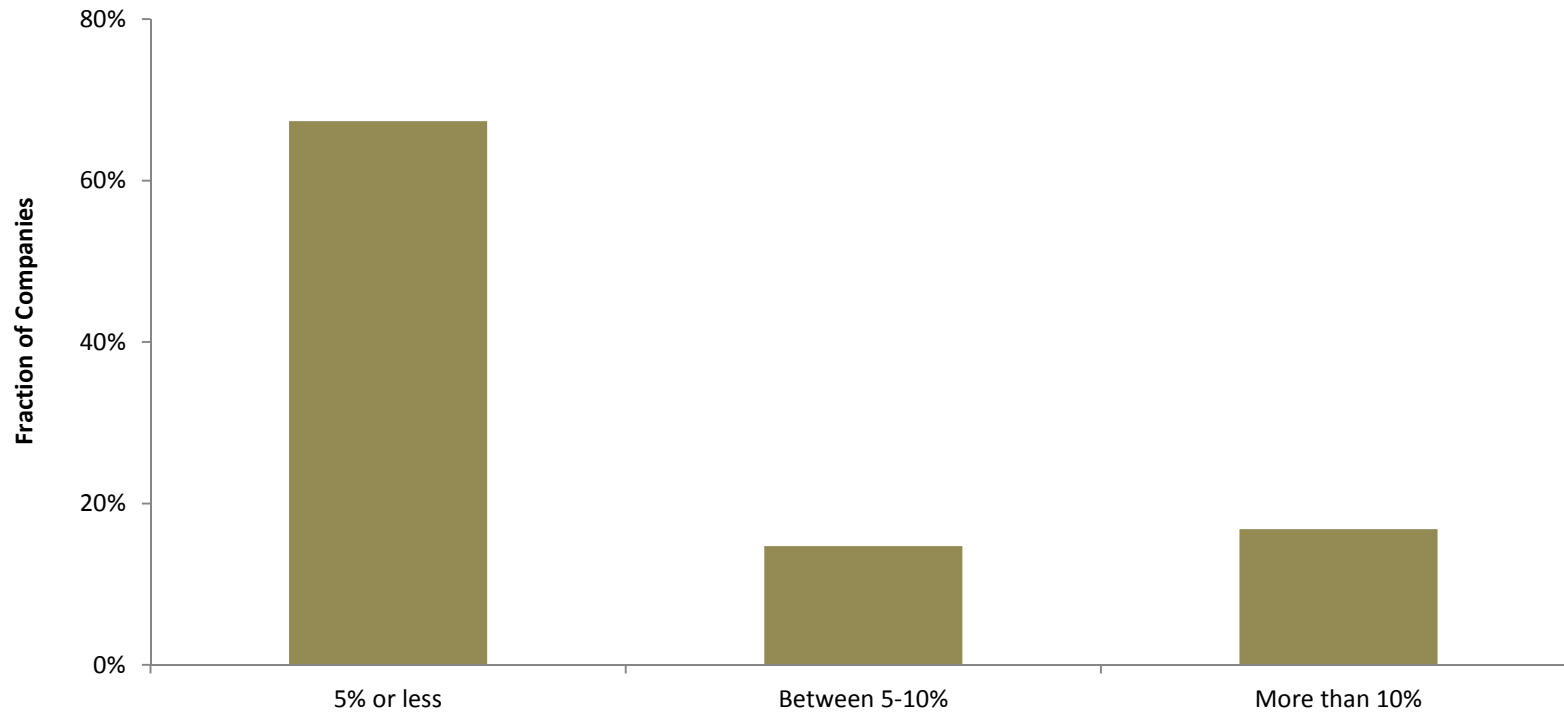


Fig 6. Fraction of full-time employees engaged in manufacturing process development activities in companies.

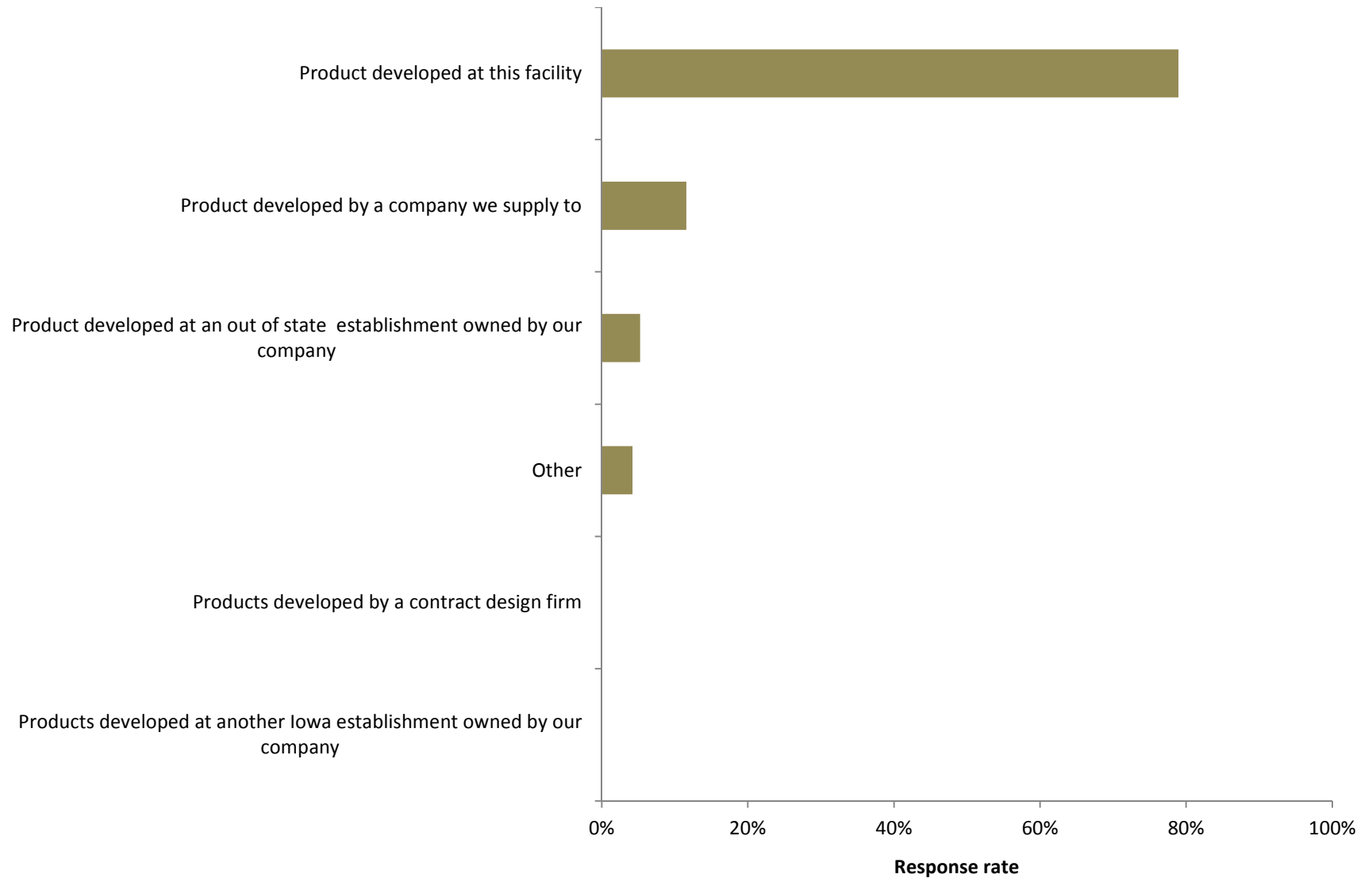


Fig 7. Categories that describe where most of the product development occurs for companies.

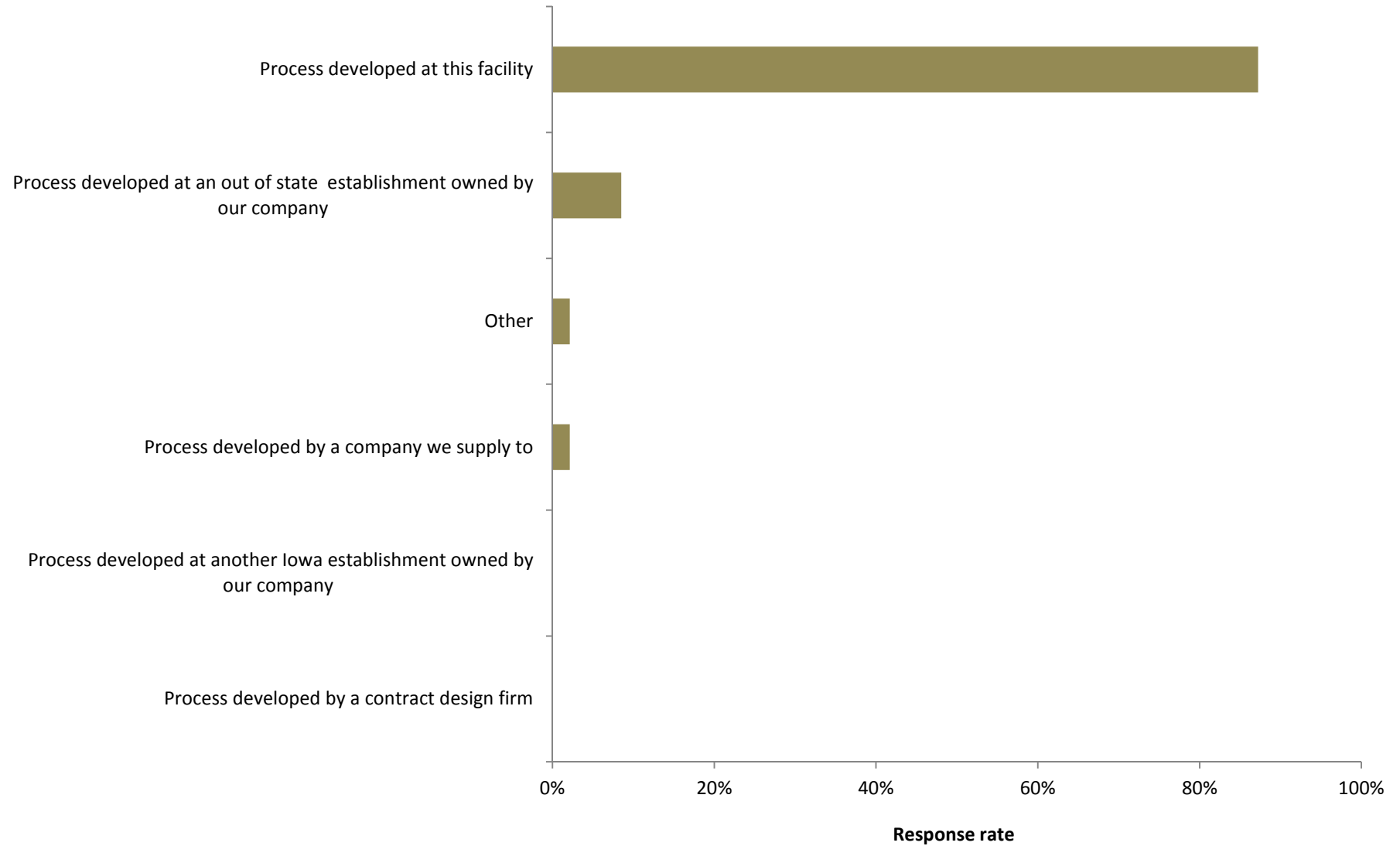


Fig 8. Categories that describe where most of the process development occurs for companies.

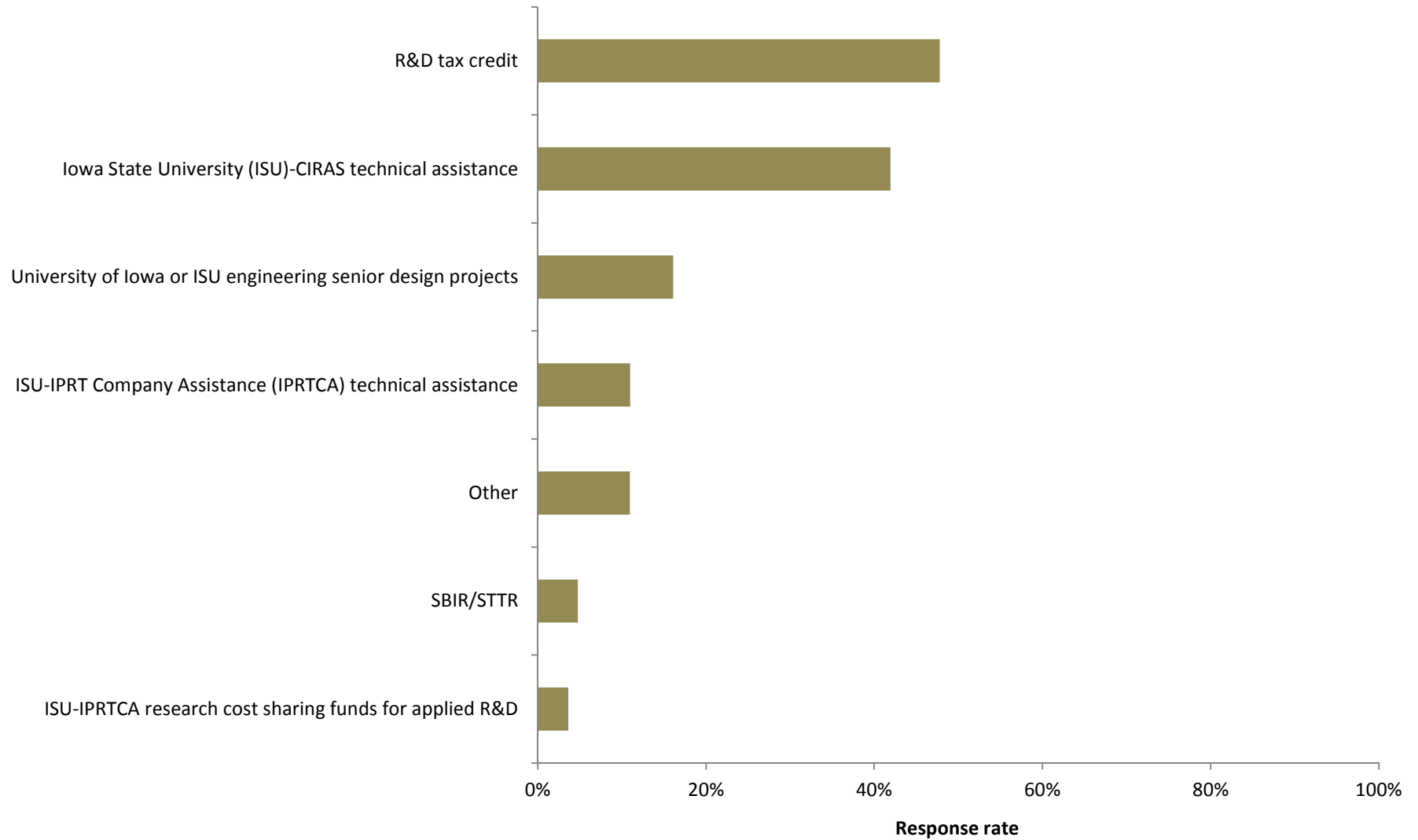


Fig 9. Research or technical assistance financial resources used by companies.

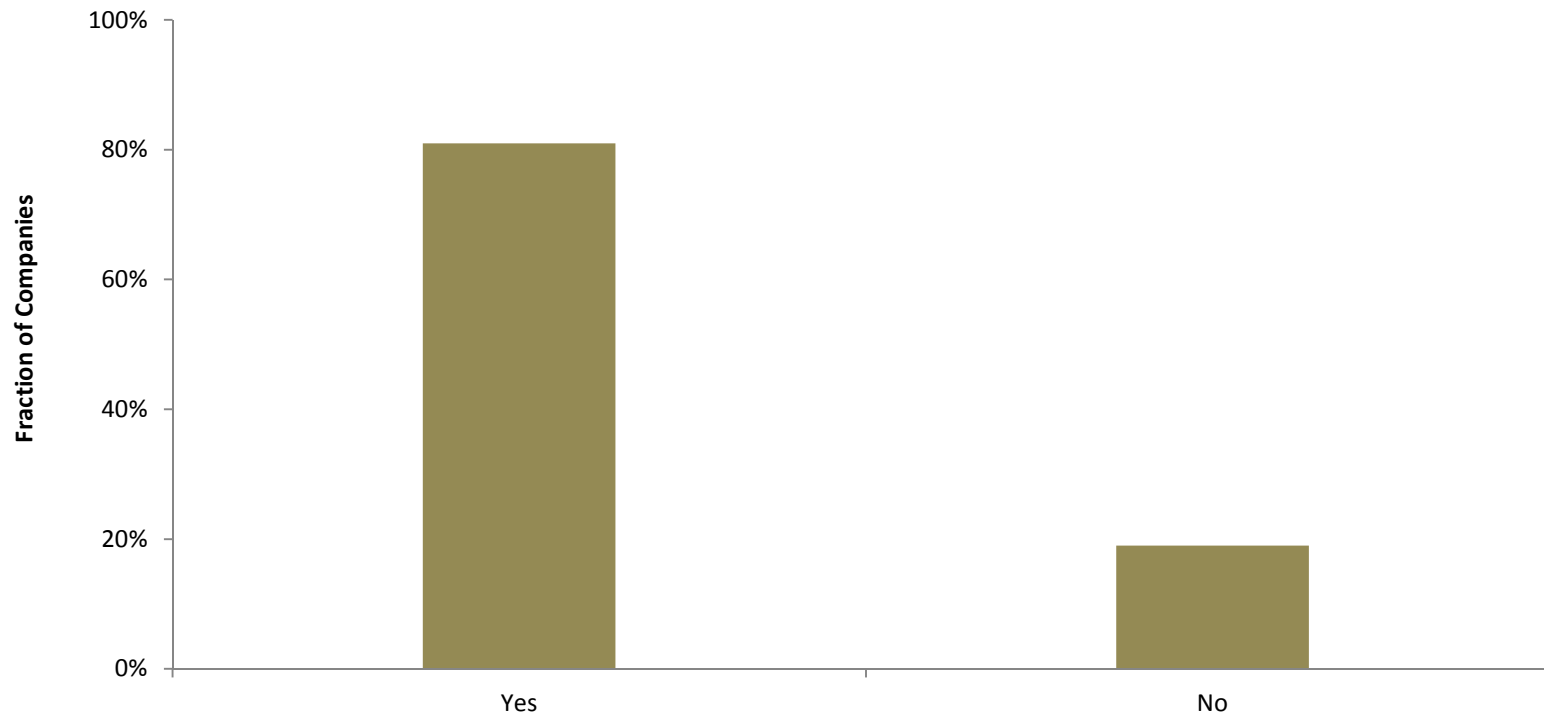


Fig 10. Companies considering or developing a new product.

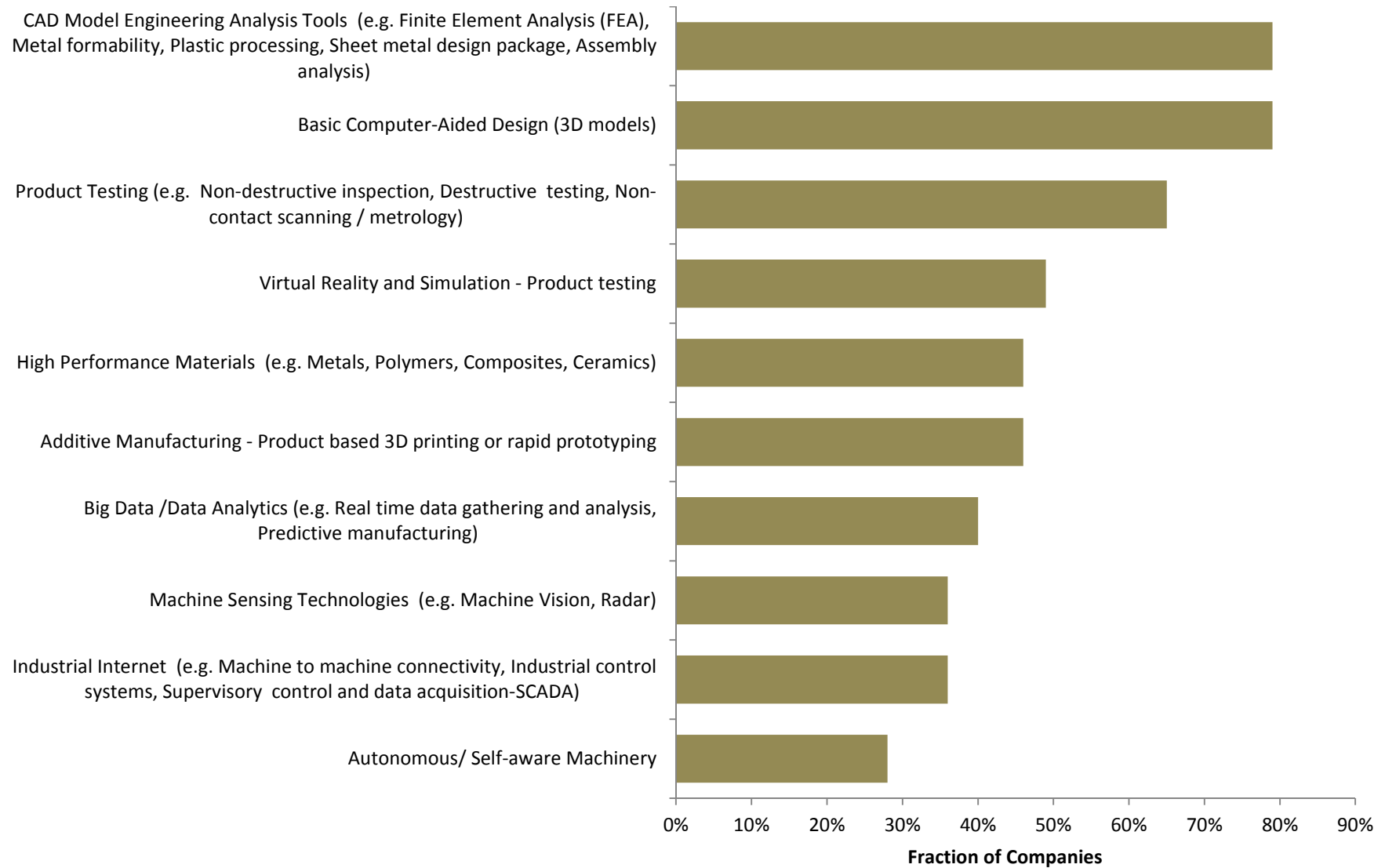


Fig 11. Technologies identified by companies that could add value to product or reduce development risk.

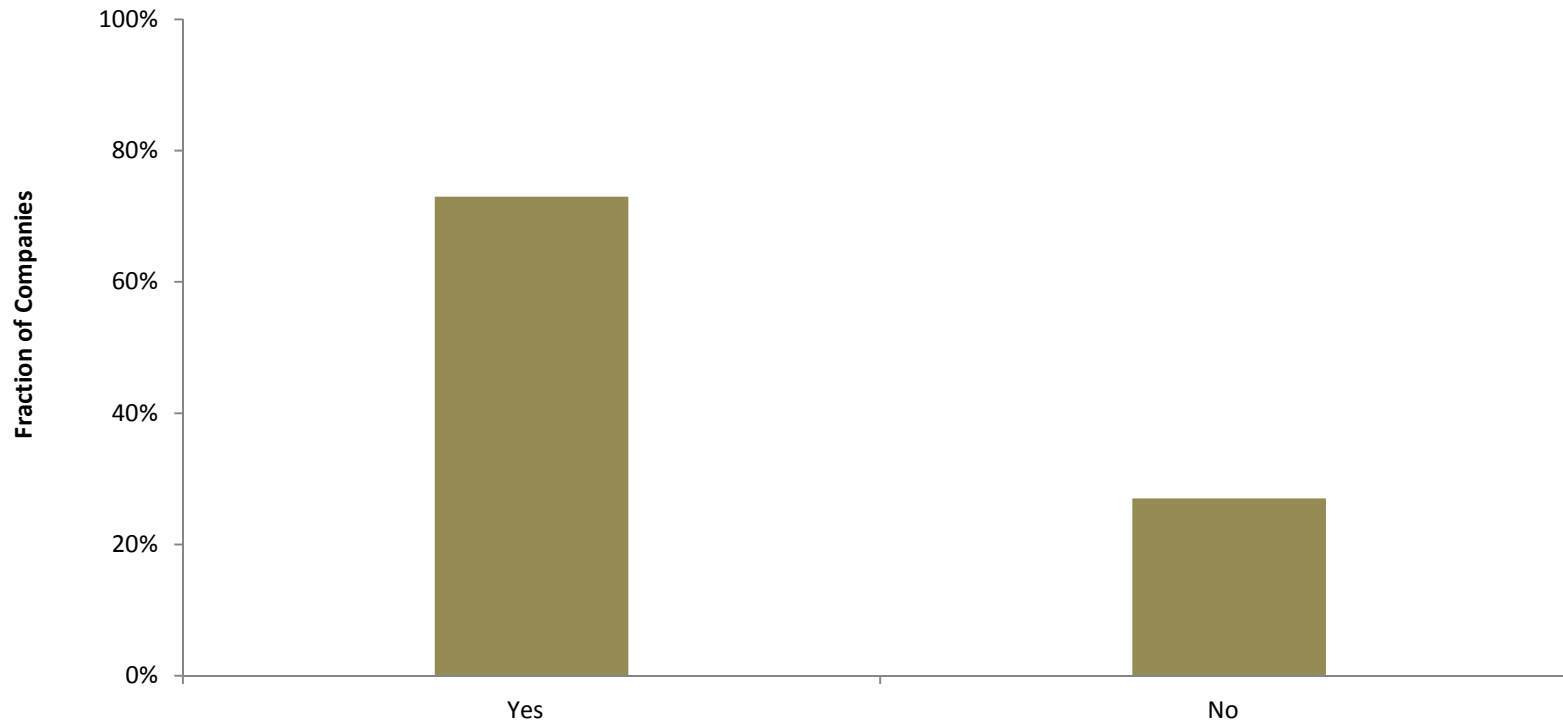


Fig 12. Companies considering or currently developing a new process.

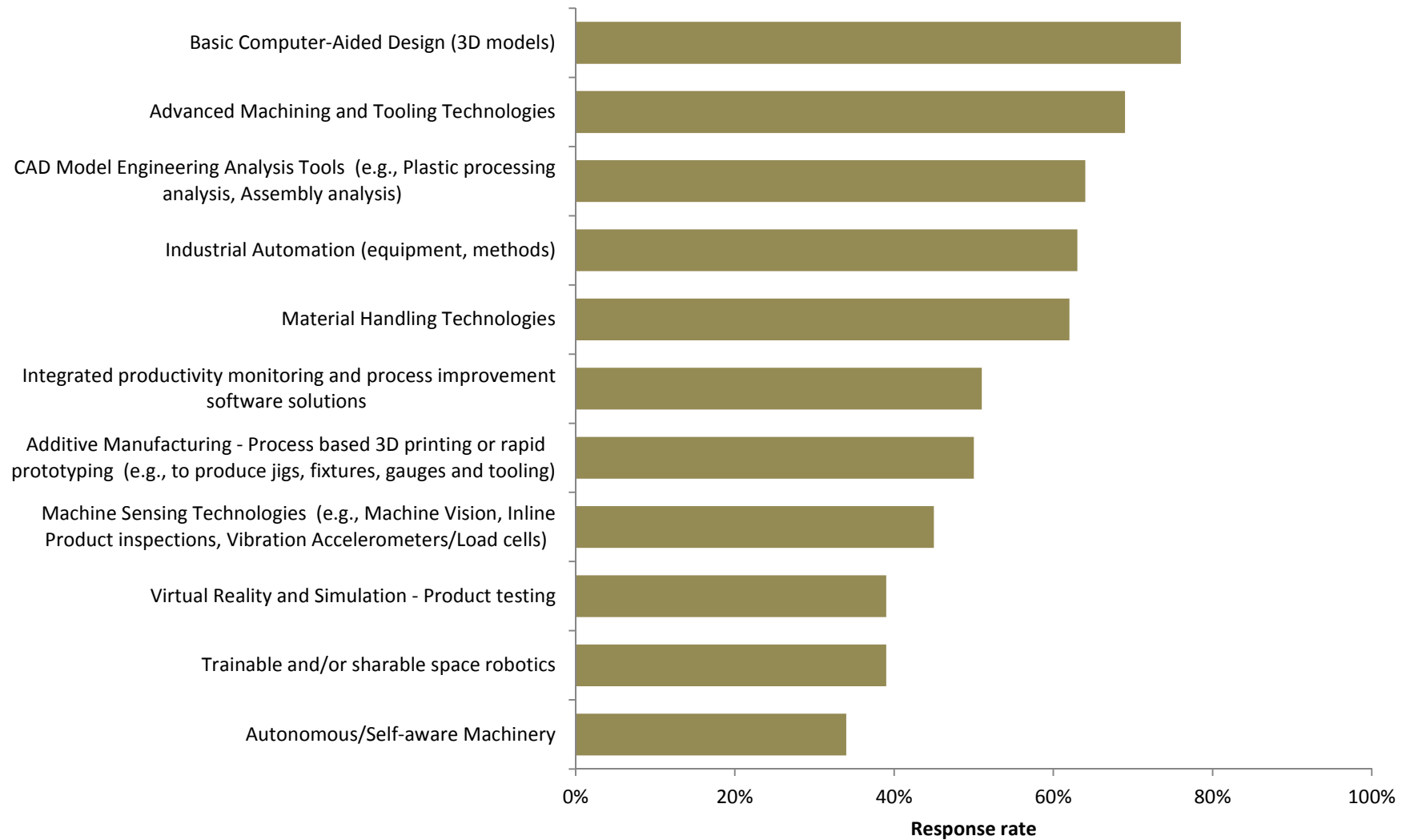


Fig 13. Technologies identified by companies that could improve process design or reduce development risk.

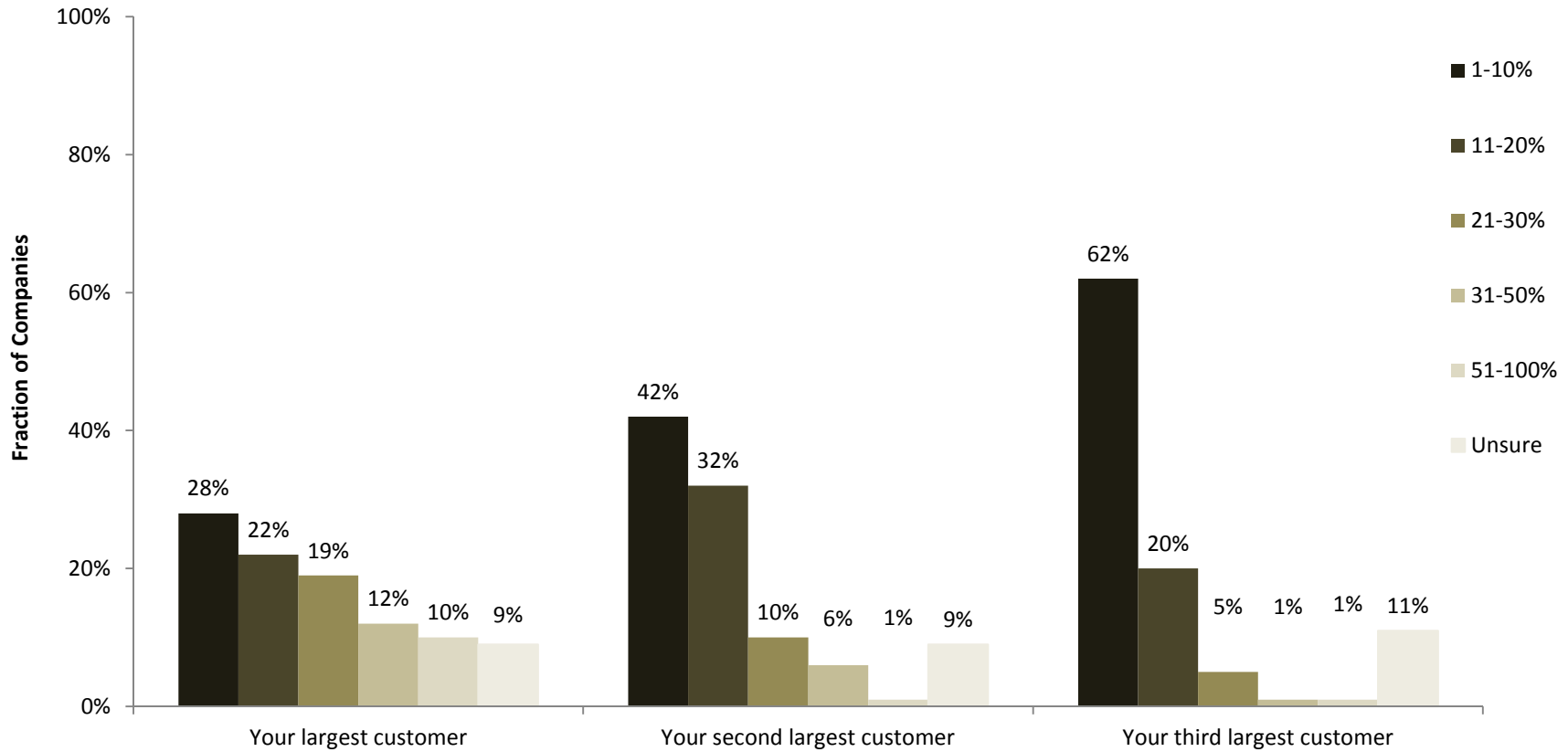


Fig 14. Annual sales profile of companies.

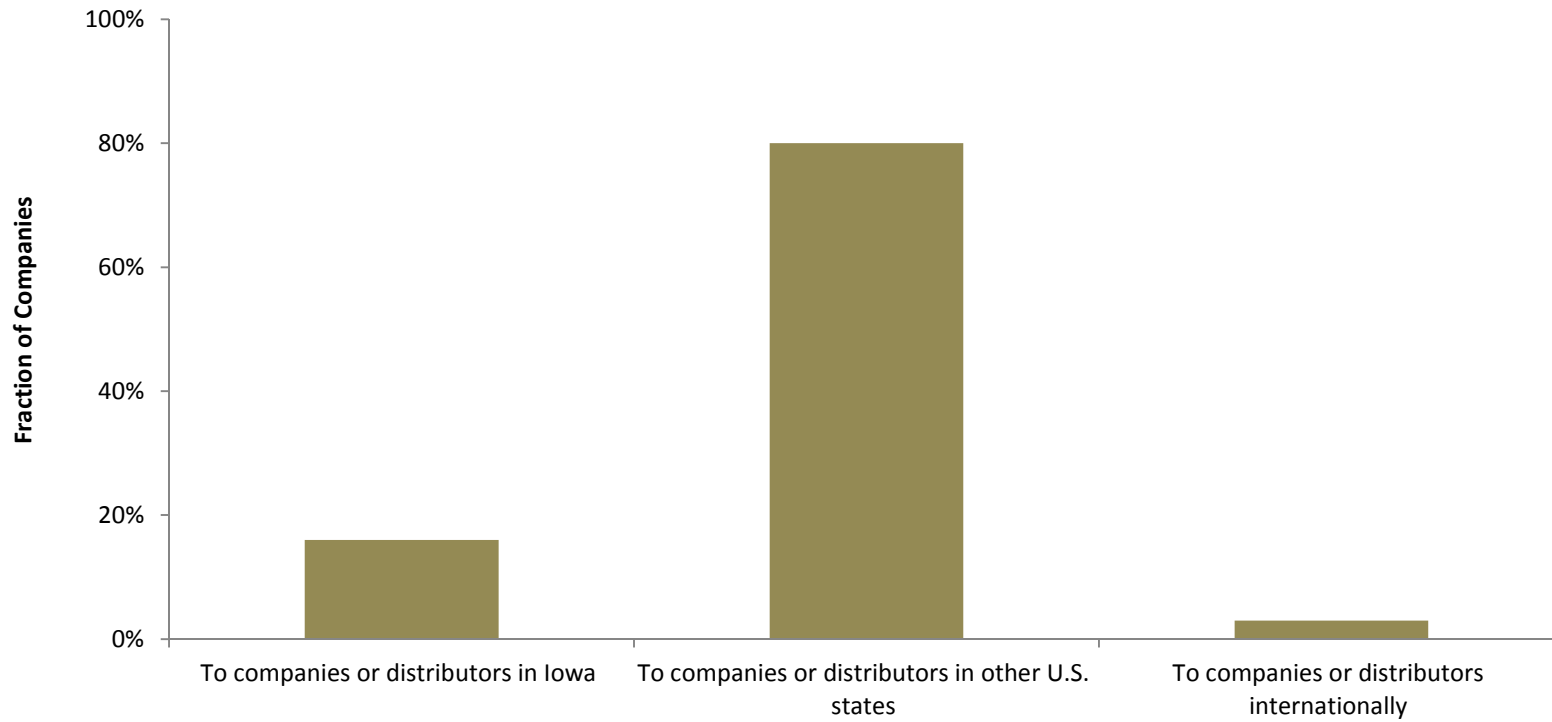


Fig 15. Distribution of company sales.

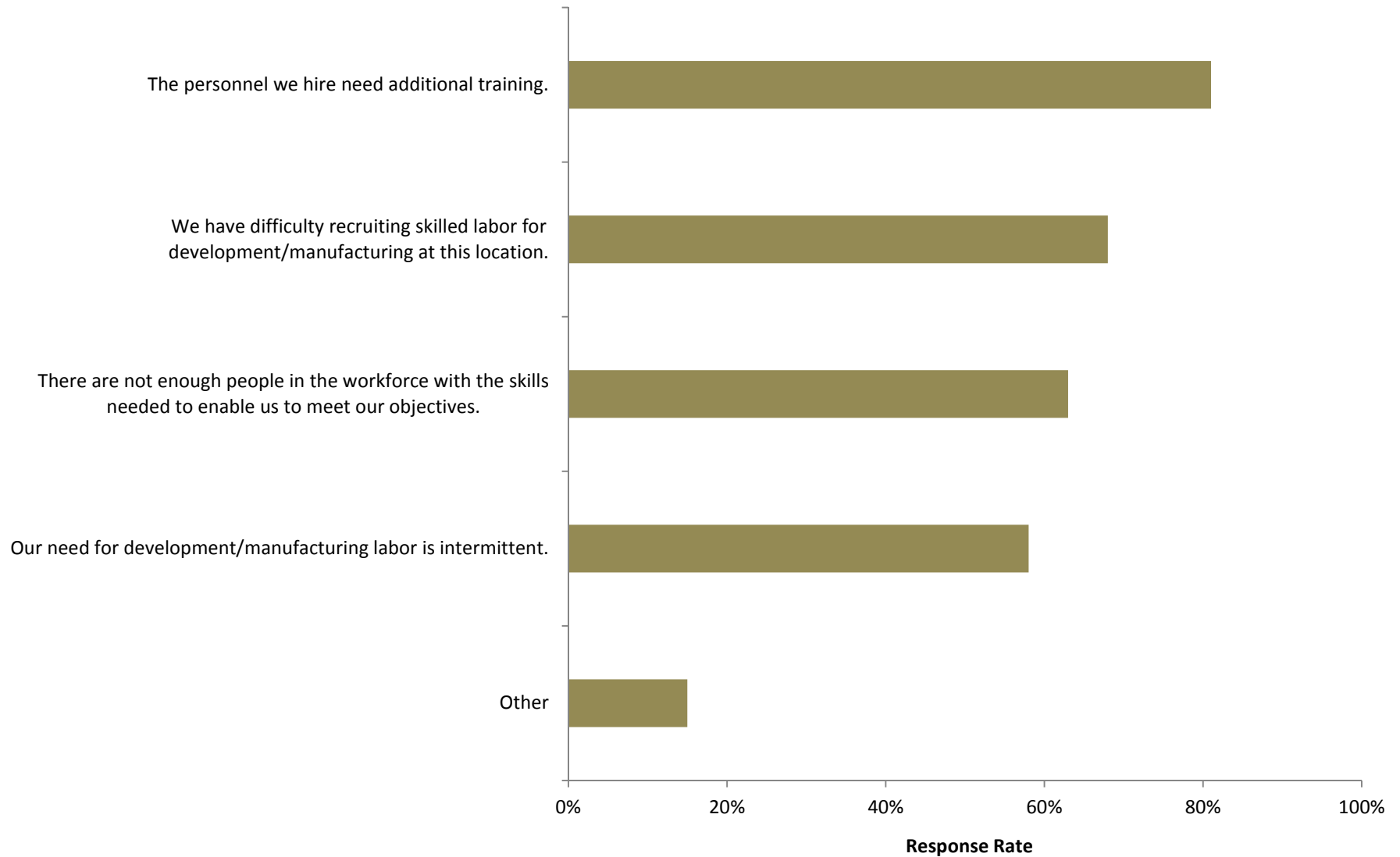


Fig 16. Challenges faced by firms related to workforce.

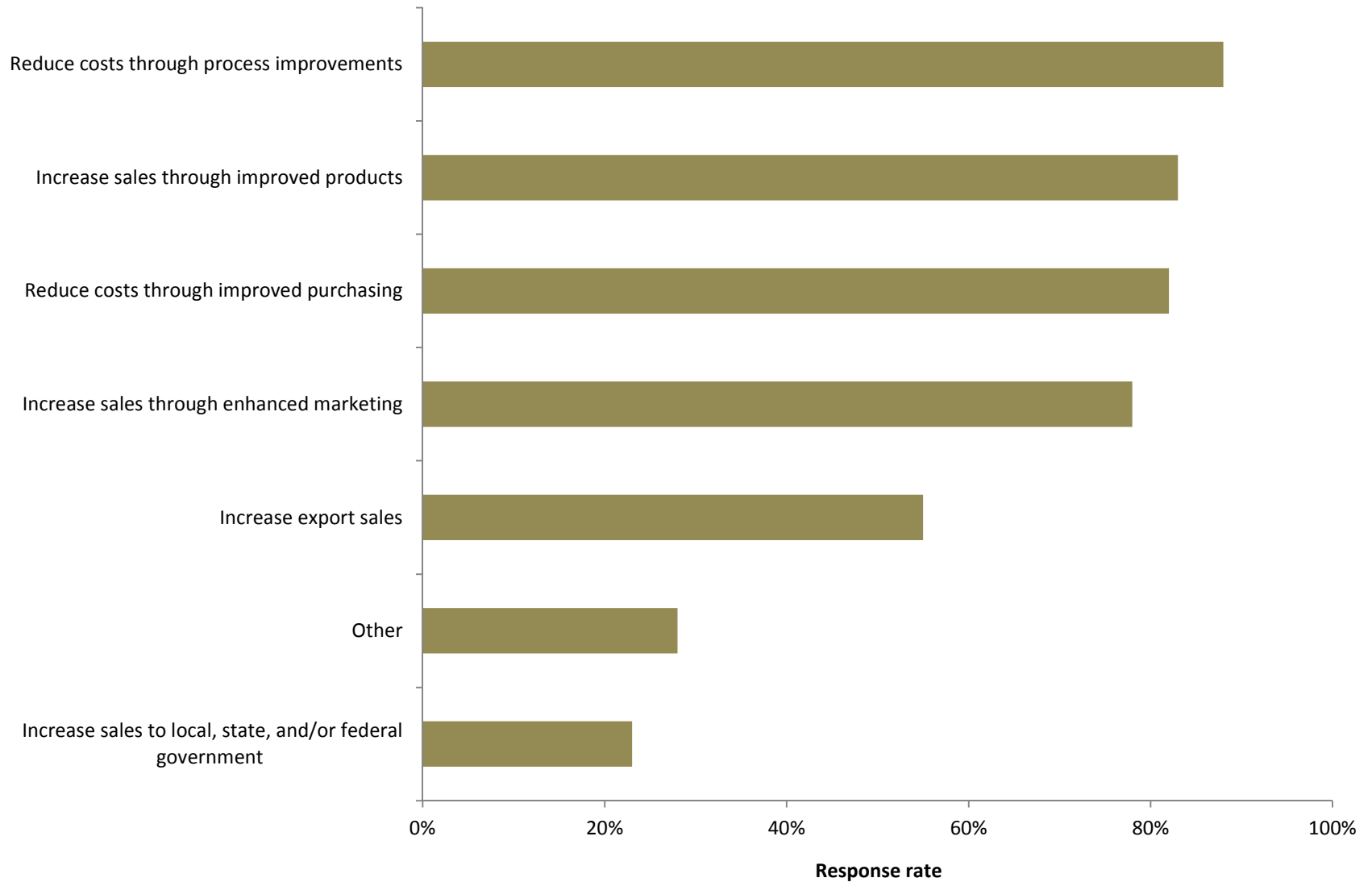


Fig 17. Key strategies to be pursued by companies to increase profitability in the next 3-5 years.

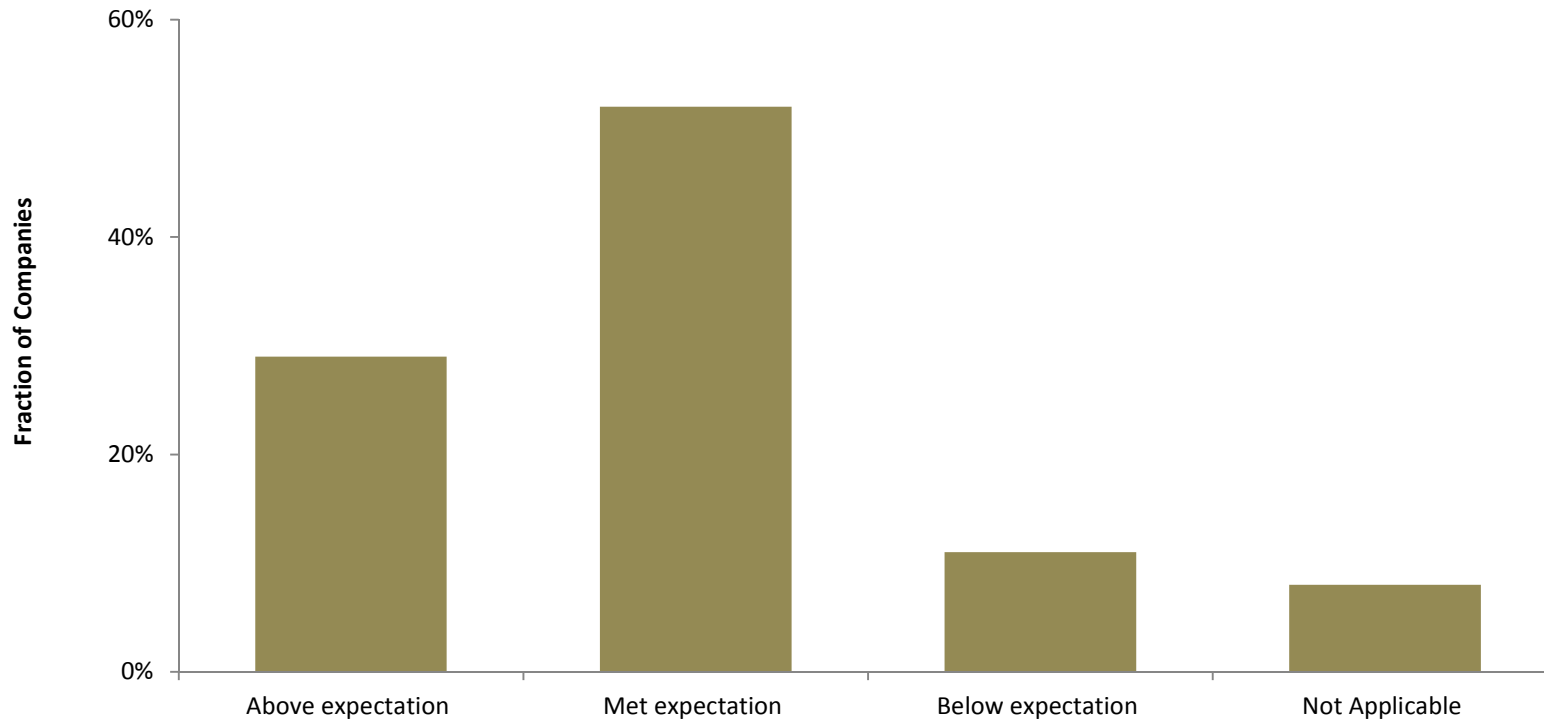


Fig 18. Success of products, services, and systems launched by companies.

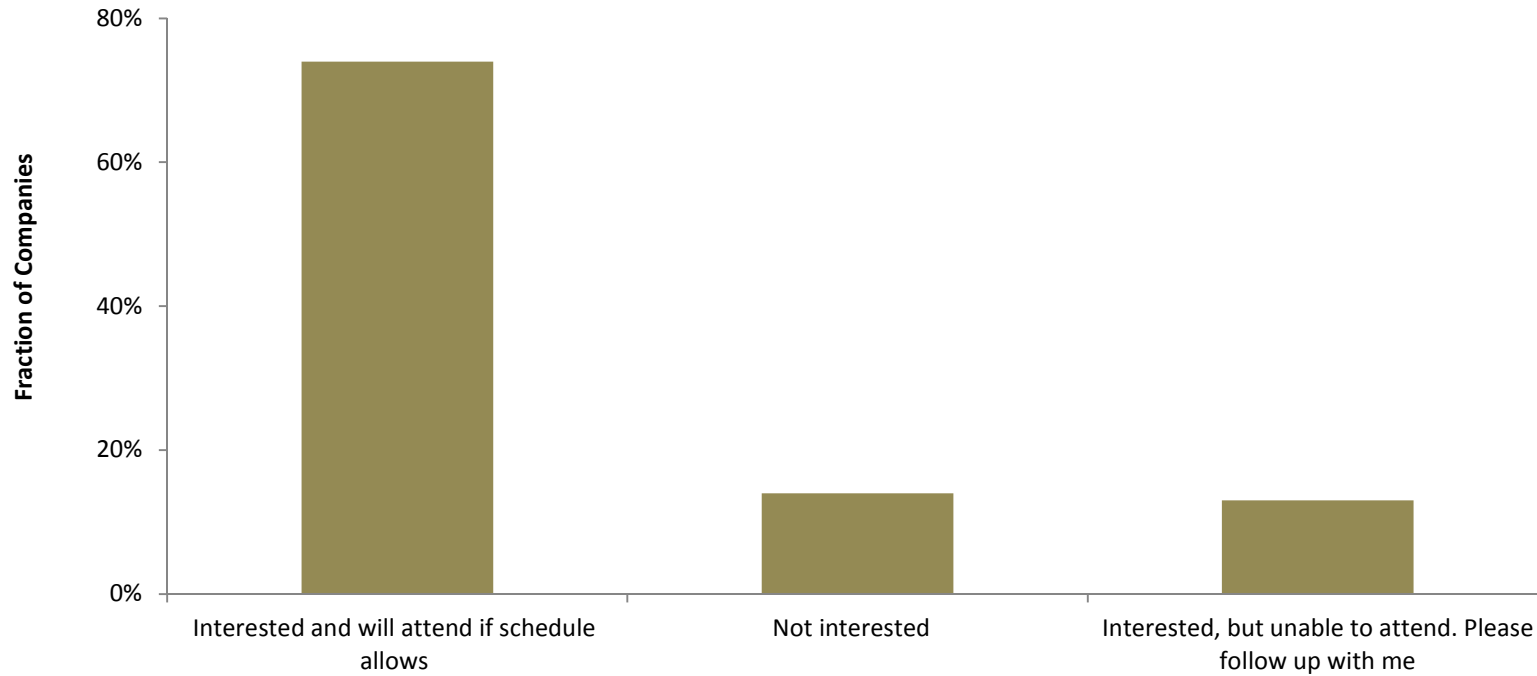


Fig 19. Distribution of companies interested in attending the summit.