

Views of Shipping Companies Worldwide on the Arctic Market

Leah Beveridge, M.M.M.¹, Mélanie Fournier, Ph.D.¹, Frédéric Lasserre, Ph.D.², Linyan Huang, M.A.², Pierre-Louis Têtu, M.A.²

¹Department of Industrial Engineering, Dalhousie University, ²Department of Geography, Université Laval

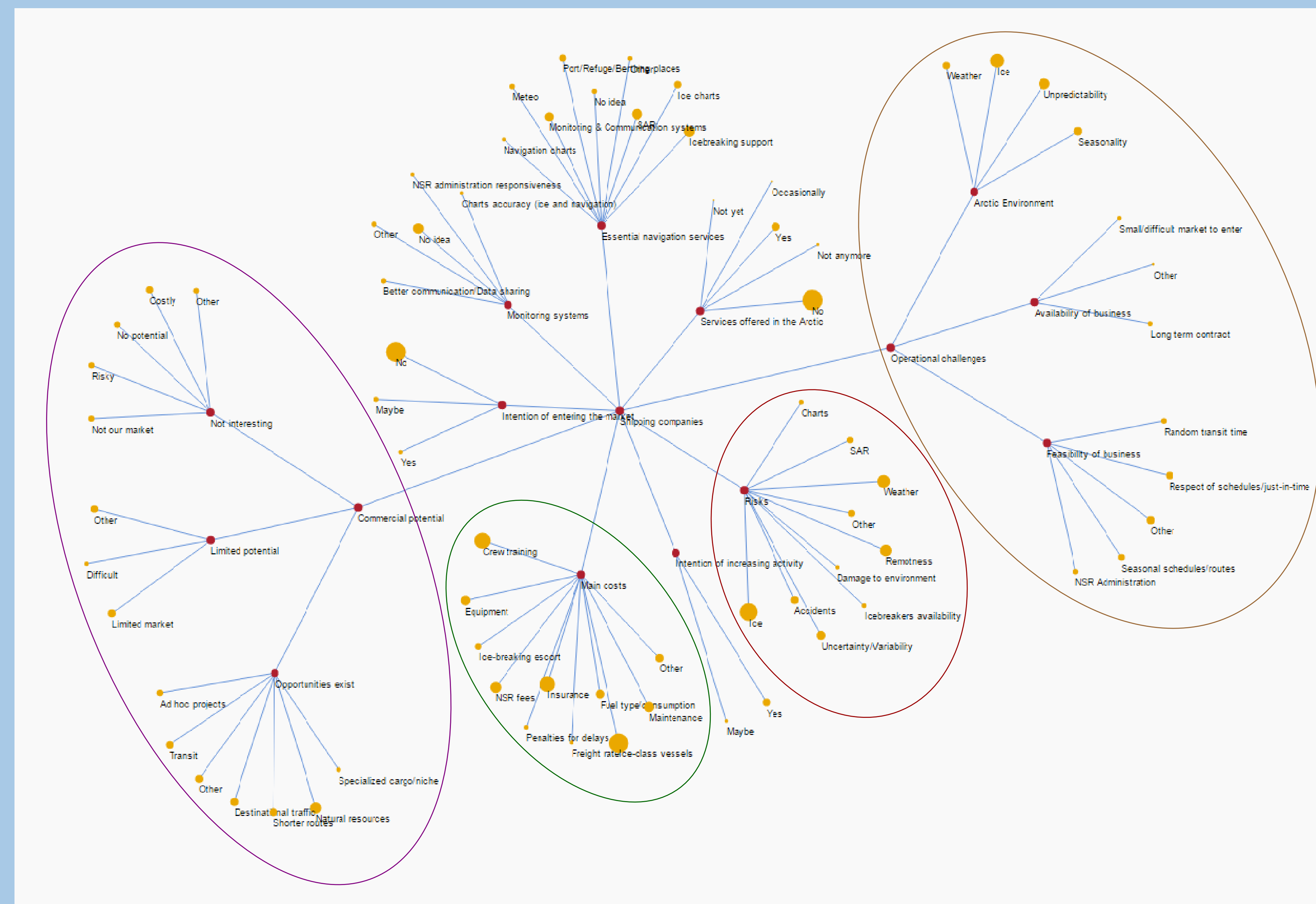
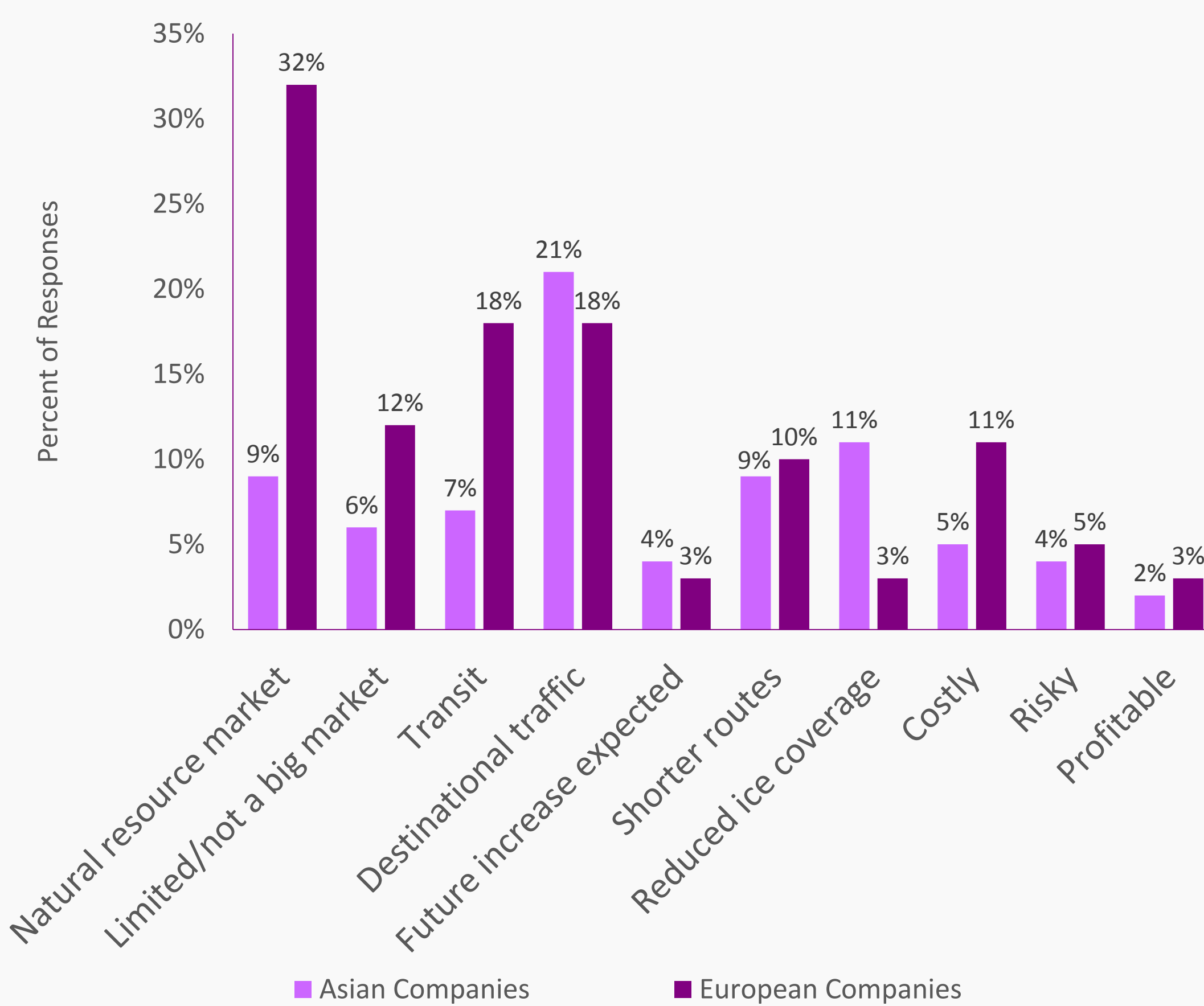
Purpose

The media speaks of a pending boom in the Arctic shipping industry throughout the circumpolar North, using routes along the coast of Norway and Russia, through the Canadian Archipelago, and across the North Pole. We wanted to know the reality behind the headlines, and we wanted to share our findings in an interactive and easy-to-use format.

Conclusion

Only 15% of companies surveyed are currently operating in the Arctic, 76% of which plan to increase their activities in the region. Of those that are not active in the Arctic, 86% have no intention of entering the market. Some did, however, say that they plan to "wait and see".

What is the commercial potential of Arctic shipping?

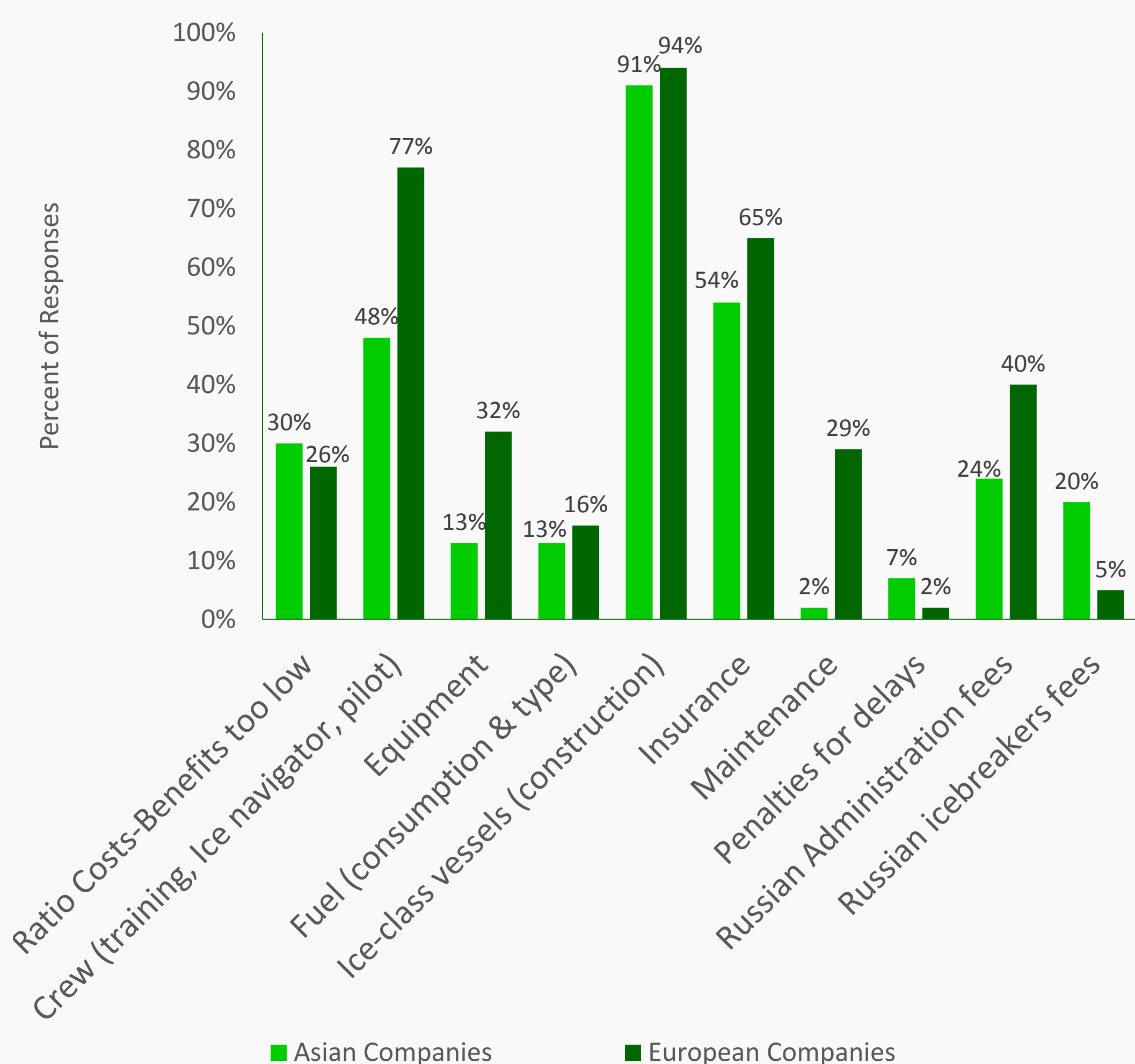


Methods

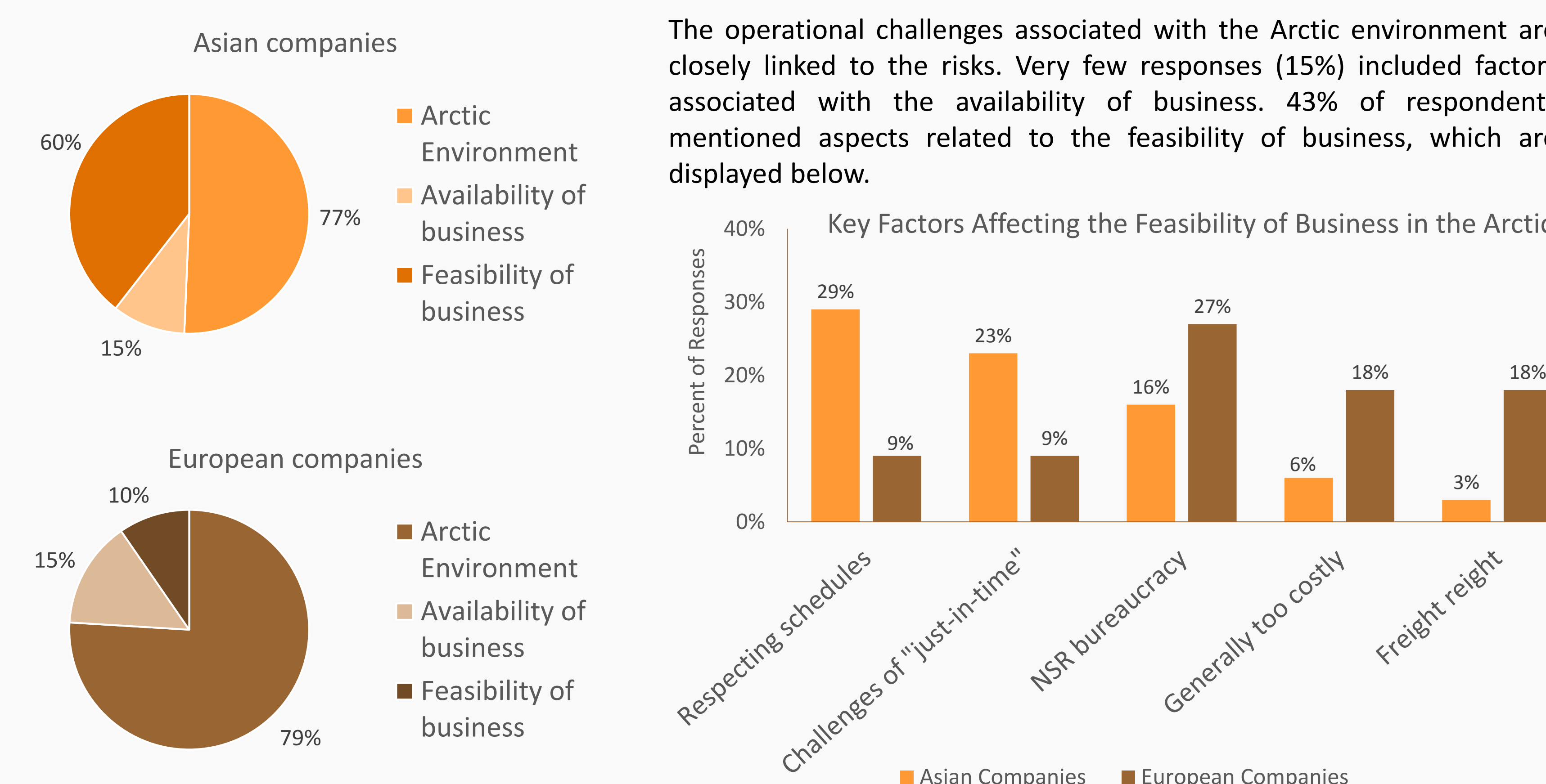
A survey of 9 questions was sent to shipping companies from Europe, Asia, and the Americas, and 167 responded. Only 12 companies from the Americas replied, so their responses are not highlighted in the results.

The visualization tool was developed in d3.js. The center of the tool represents the shipping companies, and the first level of nodes connected to it are the questions asked in the survey. The subsequent levels of nodes represent keywords extracted from the responses. The size of the yellow nodes represents the number of answers received from both the European and Asian companies combined.

What are the costs of Arctic shipping?

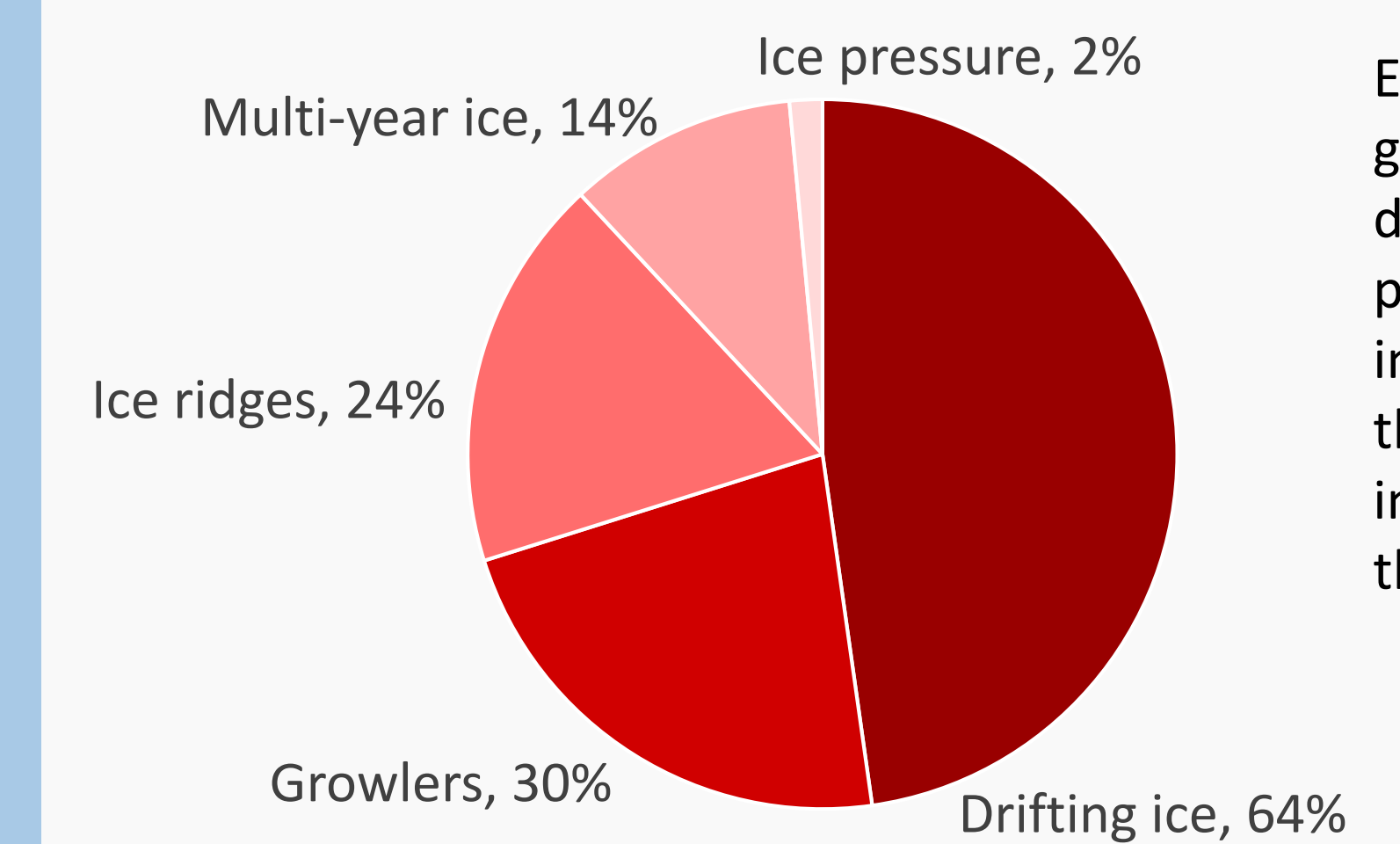


What are the operational challenges of Arctic shipping?



The operational challenges associated with the Arctic environment are closely linked to the risks. Very few responses (15%) included factors associated with the availability of business. 43% of respondents mentioned aspects related to the feasibility of business, which are displayed below.

What are the risks of Arctic shipping?



European companies gave much more detailed responses, providing additional information (left) that was not present in the answers from the Asian companies.

