
Society of Tribologists and Lubrication Engineers

Global Challenges: 2013 - 2016

What are the most significant forces affecting
the business community and the
tribology and lubrication engineering sector?

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Introduction

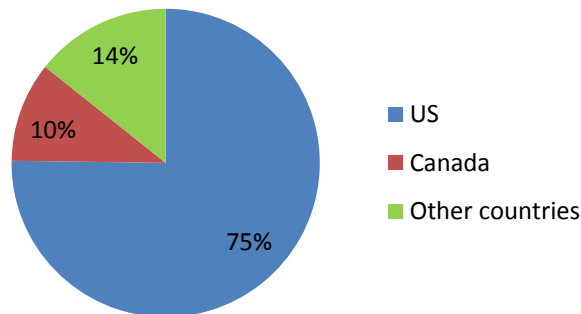
In December 2012, Association Laboratory, a strategic research firm, led two online bulletin boards that included chief staff officers of professional and trade associations representing fifty-four different industries and professions (see Appendix 2 for list). Their input was used to generate a comprehensive analysis of key business forces affecting the marketplace. Analysis anticipates these forces will influence markets and business practices during the next three years.

During early 2013, the Society of Tribologists and Lubrication Engineers (STLE), working with Association Laboratory, conducted an environmental scanning project that collected feedback 538 technical professionals in the tribology and lubrication engineering business.

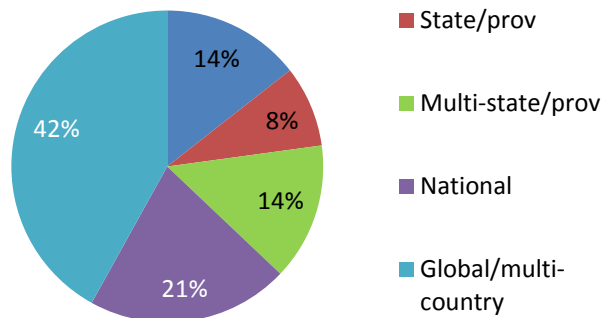
This report is a consolidation of information collected through both research efforts.

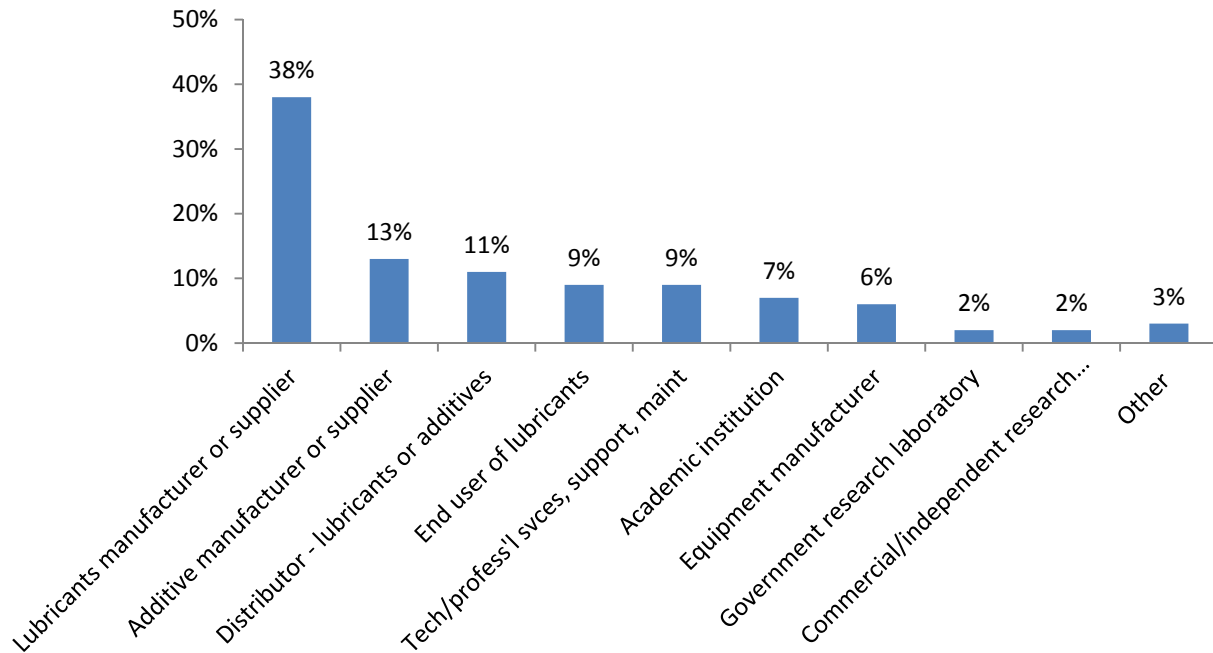
Three quarters of survey respondents are based in the United States; however over one-third have a global or multi-country focus.

Business Location



Geographic Focus





More respondents are employed by lubricant manufacturers or suppliers than any other sector.

Strategic Influences on the Business Environment

Businesses Operate in a Global System

Organizations and individuals in virtually all industries now operate in a dynamic, global system.

The nature of the **tribology and lubrication engineering business** means that all STLE members – manufacturers, suppliers, distributors, end users, and researchers – are affected by changes in the global economic, political, governmental and cultural environment. Participants in the STLE survey are clearly noticing the impact of globalization; see Appendix 1 for further discussion of this topic.

The global system includes the movement of capital, labor, and information. Even small organizations are participants in a global supply chain. Consider the following:

Economic Globalization – Individuals and businesses now access a global market place and the barriers to providing services and products worldwide are rapidly decreasing. **Technical professionals increasingly work across global markets.**

Government Globalization – From regulatory action to trade agreements, actions by governments in one part of the world routinely impact organizations across the globe. The actions of governments and relevant non-governmental organizations (NGO) are now seldom restricted by borders. Businesses in the **tribology and lubrication-engineering sector** deal with government regulations at every level and in many countries.

White Paper on Association Research Challenges

Supply Chain Globalization – Modern supply chains access raw materials and production capacity from all over the world to serve widely dispersed markets. Manufacturers, distributors, and suppliers of lubrication products access a complex world network when developing and bringing products to market.

Financial Globalization – Capital markets operate across country borders allowing investors access to companies worldwide. Companies involved with **tribology and lubrication engineering** conduct business in a 24-hour hour, global economy.

Workforce Globalization – Individuals have routinely traveled across borders in search of opportunities. Now, workers are connected virtually and communication technology has made it possible for businesses of all sizes to access labor on the other side of the globe. **STLE members** have access to workers and skills from the entire global workforce.

Cultural Globalization – Cultural influences now routinely affect people worldwide. Communication technology virtually eliminates the barriers to cross-fertilization or transmission of ideas, meanings, and values across national borders. Understanding differing cultural expectations and meanings will increasingly become a part of business planning for **STLE members**.

While these cultural influences have existed for some time, communication technology now allows aspects of globalization to be integrated at speeds unprecedented in human history. Today, even the smallest rural markets can participate in the global economy in a way that only larger urban areas could in the past.