



Society of Tribologists and Lubrication Engineers

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FOR IMMEDIATE RELEASE

Representatives Ryan, Lipinski, and Doyle Introduce Resolution to Emphasize the Impact of Tribology on the U.S. Economy

May 2, 2017 Issues: [Economy](#), [Manufacturing](#)

Washington, DC – Representatives Tim Ryan (OH-13), Dan Lipinski (IL-03) and Mike Doyle (PA-14) today introduced a resolution to emphasize the massive economic impact of tribology on the U.S. economy and highlight the need for further research and development into the field. Tribology is a branch of science and engineering encompassing scientific disciplines related to controlling of friction, reduction of wear loss, and development and application of novel lubrication strategies. Increased research and development investments in tribology will assist in providing solutions to critical technical problems in manufacturing, energy production and use, transportation vehicles and infrastructure, greenhouse emissions, defense and homeland security, health care, mining safety and reliability, and space exploration, among others.

Approximately a third of the world's primary energy consumption is attributed to friction; and about 70 percent of the equipment failures is blamed on lubrication breakdown and wear loss. Loss of energy to friction and material losses due to wear in mechanical systems such as internal combustion and gas turbine engines account for major economic and environmental burdens.

“More than 1,000 American enterprises comprising of industry, government laboratories, and universities are engaged in tribology related activities that include development of new materials, coatings and lubricants, as well as sales and service. This enabling technology contributes \$400 billion to \$700 billion annually to the U.S. economy. An estimated 300,000 individuals are employed in this sector with salaries that are higher than the median income in the U.S. The job market for tribologists and lubrication engineers has been on the rise. If the economic and social impact of this technology is recognized, increased investments and higher job growth rates are expected,” said Rep. Ryan.

“This important field of science and engineering impacts nearly every manufactured product. Breakthroughs in this area have the potential to vastly reduce wear and tear on our equipment and increase our energy efficiency. An increased focus on tribology will help us harness the innovation of our scientists and engineers to create jobs and protect the environment,” said Rep. Lipinski.

“They say the squeaky wheel gets the grease, and tribology teaches us why that’s such a good policy,” Rep. Doyle observed today. “The impact of friction and wear on our economy is huge – much greater than most people would imagine. Consequently the study of tribology holds the potential for tremendous energy and monetary savings that could ripple through the global economy. That’s why I support this legislation to raise awareness about the benefits of increased research in this field.”

“It is my pleasure to support Representatives Ryan’s proposal to increase research spending in tribology and related fields. As is well known to those in the field, the US economy suffers an enormous cost annually to tribological deficiencies,” Dr. Donald P. Visco, Jr., Interim Dean, College of Engineering, University of Akron.

“Tribology is prevalent in our daily lives, from flexing the biological muscles and joints that set ourselves in motion, to the operation of light and heavy machinery, from nano to macro scales. The management of friction, lubrication, and wear is recognized as essential for the longevity and safety of the machines we rely on, ranging from daily transportation to nuclear power generation. The science and technology of "Green Tribology" is aimed at saving resources and energy, as well as the enhancement of the environment and our quality of life. These challenges present great opportunities to improve manufacturing,” Dr. G. P. “Bud” Peterson, President Georgia Institute of Technology.

“On behalf of the Society of Tribologists and Lubrications Engineers (STLE), I applaud Congressman Tim Ryan for his leadership in introducing this legislation highlighting the importance of tribology and lubrication engineering. STLE is an individual membership society focusing on professional, technical and scientific issues and needs. Our members are technical experts who research, develop and market the methods and products that make industry more successful and that enhance the well-being of people worldwide,” Edward Salek, STLE Executive Director.

This Legislation is supported by the American Society of Mechanical Engineers (ASME), Auburn University, Carnegie Mellon University, Georgia Institute of Technology, Society of Tribologists and Lubrication Engineers (STLE), Pennsylvania State University, and the University of Akron.