



TAUBER INSTITUTE
FOR GLOBAL OPERATIONS
UNIVERSITY OF MICHIGAN

Refining the Stoneridge Program Launch Process



Founded in 1965 and headquartered in Novi, MI, Stoneridge, Inc. designs and manufactures highly engineered electrical and electronic components, control devices, modules and systems principally for the automotive, commercial vehicle, motorcycle, agricultural and off-highway vehicle markets.

A leader in the worldwide automotive market, Stoneridge solutions power vehicle intelligence systems, provide dramatic increases in fuel efficiency, reduce emissions, and improve safety and security for everyone on the road. Its technology and partnership-oriented approach to product design and development enables the company to develop next-generation products and excel in the transition from mechanical-based components and systems to electrical and electronic components, modules and systems.

Over the decades, Stoneridge has experienced rapid growth, in part fueled by acquisitions, with 2019 revenue of \$834.2 million. The company has three business segments, Electronics, PST Electronics and Control Devices, with 4,600 employees at 25 locations in 15 countries.

As a result of rapid growth, recent product launch programs have incurred significant post-launch costs and extended timelines. With significant opportunities to improve the product launch program process, Stoneridge brought in a student team from the Tauber Institute for Global Operations at the University of Michigan, consisting of **Stephanie Hoglund**, a member of the Engineering Global Leadership Honors (EGL) Program, which leads to BSE and MSE in Industrial and Operations Engineering degrees; and **Laura Malecky**, working on a Master of Business Administration degree.

The Tauber team was tasked with understanding the missed opportunities in program launch costs and project timelines by analyzing two recent launches in Stoneridge's actuation and emissions product lines. It was expected that their findings and the solutions the team designed would be applied to a new phase-gating launch process to ensure optimized process flow and time.

"Stoneridge, Inc. is moving towards the development of systems-level parts, which requires cross-functional work across business units," said Malecky. "Stoneridge is looking to leverage its global strengths and capabilities to launch

"The team traveled to five different Stoneridge locations: Lexington, OH; Canton, MA; Juarez, Mexico, Tallinn, Estonia; and Solna, Sweden."

products more efficiently and with greater cost savings.

"The team traveled to five different Stoneridge locations: Lexington, OH; Canton, MA; Juarez, Mexico; Tallinn, Estonia; and Solna, Sweden. More than 70 Stoneridge employees that were involved in the product launches were interviewed."

"The Tauber team then mapped the actual and intended process flows in Sweden, integrating findings from both the interviews and a project management workshop that was held before their work began."

"The team had to streamline this information to map the actual process flows, categorize challenges, and find solutions to support new product launches," said Malecky."



Fred Terry
College of Engineering



Lisa Pawlik
Ross School of Business

Above, L to R: *Stephanie Hoglund* and *Laura Malecky*

During these activities, the Tauber team identified documentation that would support program execution and pinpointed areas for cost saving opportunities. The team's recommendations included several innovative strategies, including adjustment of organizational teams during launch, alteration of the process flow diagram, evaluation of 60 work streams, and revision of 12 documents.

"In addition, the Tauber team identified phases of excessive speed in product launch and suggested four processes for improvement: increased cross-functional communication, improved supplier selection, greater product manufacturability, and concurrent engineering practices.

"The team drafted and edited 12 different documents meant to support program execution and pinpoint areas for cost saving opportunities," said Malecky.

"The Tauber team worked with several departments at Stoneridge to draft these documents, and the documents were shared with team members to ensure they could be integrated into their workflow."

Using secondary research and internal resources, the Tauber team determined that implementing their recommendations could result in estimated total savings of \$20 million annually. The benefits of these recommendations go beyond improving internal processes and reducing product launch costs. They can lead to increased productivity, engagement, and satisfaction at Stoneridge, Inc.



L to R: Jessann Donnelly, Robert Willig, Stephanie Hoglund, Fred Terry, Laura Malecky, Scott Skelton, Melissa Lindquist, and Lisa Pawlik. Photo: P. Ditillo

Stoneridge Inc. Project Team

Student Team
Stephanie Hoglund—EGL BSE/MSE Industrial and Operations Engineering

Laura Malecky—Master of Business Administration

Project Sponsors
Melissa Lindquist—Vice President of Program Management Control Devices Division

Scott Skelton—Senior Program Manager Control Devices Division

Faculty Advisors

Lisa Pawlik—Ross School of Business

Fred Terry—College of Engineering

About Tauber Team Projects

The 2019 Tauber Team Projects resulted in \$390.3 million in savings according to sponsoring company calculations, an average of \$30 million per project over 3 years. Each two to three person Tauber Team consists of graduate engineering and/or graduate business students. Along with receiving high-level corporate support from the sponsoring company, each team is advised by a College of Engineering and a Ross School of Business faculty member and overseen by a Tauber Institute Co-Director. The projects begin on-site in May and continue for 14 weeks. Students present the results of their projects and compete for over \$40,000 in scholarships at the U-M Tauber Institute's annual Spotlight! event, held each September in Ann Arbor, Michigan. Spotlight! provides outstanding opportunities for students and corporate partners to establish relationships while exploring innovations in operations and manufacturing. To learn more about the Tauber Institute for Global Operations, visit tauber.umich.edu or contact us at 734-647-1333.