

Fiber Optic Sensing Association Contact: Neema Hakim, Brodeur Partners 617.587.2851 nhakim@brodeur.com

Fiber Optic Sensing Association Releases New Data on Global Installations

Interactive map details more than 1,300 deployments around the world, the largest representative sample ever published

WASHINGTON – **November 8, 2017** – The Fiber Optic Sensing Association (FOSA), the world's premier fiber optic sensing trade association, today released details on more than 1,300 installations of distributed fiber optic sensing (DFOS) around the world. The data reflects the largest representative sample ever published.

In an <u>interactive map</u>, FOSA provided a geographic breakdown of global DFOS installations in more than 75 countries. Key insights include:

- China had more deployments than any other nation with roughly 11.3% of all identified installations, followed closely by Germany at 9.4%. The United States came in third with roughly 6.5%, and South Korea was fourth with 4.8% of installations.
- Assets most frequently monitored using DFOS included power cables (22.2%), tunnels (20%), pipelines (13.5%) and perimeters (8.4%).
- The more than 1,300 identified installations span more than 20,000 miles in length (33,300 km).

"According to our data, the United States is well behind China and Germany in terms of total deployments of fiber optic sensing. We are committed to raising awareness of this powerful technology, which can help bring U.S. infrastructure and asset security into the 21st century," said Mark Uncapher, Director of FOSA. "It is critical that American industry and policy makers understand fiber optic sensing so we can ensure that the United States keeps pace with other global technology leaders."

Fiber optic sensing enables highly precise remote monitoring of physical assets, including power cables, pipelines, railways, international borders and critical infrastructure. These capabilities are unlocked through the measurement of deviations of light in a fiber optic cable occurring as a result of acoustic, temperature or strain signals.

"With fiber optic sensing, hundreds of miles of highway can be monitored for accidents and traffic flows," Uncapher said. "Power cable faults and pipeline leaks can be detected and located instantly, and footsteps can be heard on a perimeter in the middle of the night. They are all detectable through fiber optic sensing."

Industries that already leverage DFOS include transportation, energy, security, oil and gas, and defense. FOSA maintains an extensive list of case studies.

The release of the FOSA interactive map and corresponding data builds on the organization's ongoing effort to promote awareness of fiber optic sensing technology. In the coming weeks and months, FOSA will continue integrating data from additional sources to offer a more complete picture of global DFOS deployments.



The new data reflects information provided by FOSA member companies' reference lists. Reference lists are comprised of projects determined by a company to be representative of its total deployments. FOSA members surveyed include AP Sensing, Asymmetric Technologies, Fotech Systems, LIOS Technology, Omnisens, OptaSense and OZ Optics. Oil and gas down-hole applications are not represented in this survey.

FOSA's interactive map on global DFOS installations is available here.

About the Fiber Optic Sensing Association:

The Fiber Optic Sensing Association is a non-profit organization with the mission of educating industry, government and the public on the benefits of fiber optic sensing. Through webinars, videos, white papers, public presentations and public policy advocacy, the organization provides information on the use of fiber optic sensing to secure critical facilities, enhance public safety and protect the environment. FOSA Members include Adelos, AFL, AP Sensing, Asymmetric Technologies, Corning, Ditch Witch, Dura-Line, Fotech Solutions, Frauscher Sensor Technology USA Inc., Integrated Roadways, LIOS Technology, OFS, Omnisens, OptaSense, OZ Optics, and Prysmian. For additional information, please visit us here.

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