

# FUCHS CONSULTING



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IMPACT

**CLIENTS INCLUDE U.S. NAVY AND DOTs  
ACROSS THE UNITED STATES**

**FUCHS CONSULTING**

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**The husband and wife team at Fuchs Consulting is changing the status quo when it comes to inspecting large bridges.** Normal maintenance for these critical structures usually started off with a mere visual inspection. Repairs were made based on a hypothesis, creating a huge issue as far as cost and more importantly, safety. Fuchs Consulting responded to a Federal Highway Administration (FHA) SBIR solicitation with its solution – ThermalStare. And while the SBIR project saw the development of a tool to assess corrosion below the surface, the company leveraged this funding and created an entire suite of products based on the same concept.

The technology uses infrared cameras that collect data over a three-day period. By accurately assessing non-visible sub surface damage, which was never before available, repairs can be planned based on actual damage. In the most severe of cases, detecting this sub surface damage can prevent major structural deformities. Fuchs offers this technology as a service, and has clients in Oregon, Missouri and South Carolina, as well as DOT clients in many states.

Prior to this new technology, Fuchs had previously developed a patented coating system with the help of the SBIR program, which works very well for the detection of defects. The U.S. Navy purchases this system to inspect the flight decks of its large ships. Fuchs also has clients in China for its coating system, including an engineering inspection company. Since many different industries use coatings, the company is currently exploring applicability in other sectors.

“The SBIR program has been invaluable to us,” says Dr. Paul Fuchs, Founder and CEO. “It’s an excellent vehicle to not only develop these products, but to get them out to the industries that really need them.”

Fuchs Consulting’s Large Area Inspection system is designed to assess subsurface damage and corrosion on things like bridges, tunnels, dams, flight decks and more.

ThermalStare was set up as a new entity in 2014 after the development of a suite of products directly related to the company’s SBIR work. The new company markets and disseminates these tools around the world.

Dr. Paul Fuchs founded Fuchs Consulting after serving as an electrical engineer for years. He began to work within the civil engineering community after starting a PhD dissertation on civil infrastructure.

Total DOT SBIR Investment:  
850K