



NASA's Impact in Wisconsin: A Tech Transfer Perspective

You know that NASA studies our planet, our sun, the solar system, and the Universe. But did you know about the space program's economic impact here on Earth?



In 2011, NASA invested nearly **\$10.5 million** in the state of Wisconsin.

Since 2001, NASA's SBIR/STTR Program has invested over **\$15 million** in **6 Wisconsin companies** and more than **\$1.2 billion** nationwide.

How NASA's SBIR/STTR Program Benefits Wisconsin

NASA is committed to moving technologies and innovations into the mainstream of the U.S. economy, and the Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) program helps fulfill this goal.

SBIR/STTR stimulates technological innovation by encouraging small, high-tech companies—particularly minority and disadvantaged businesses—to partner with NASA to help meet its research and development needs in key technology areas. At the same time, this program strengthens small companies by enabling them to bring cutting-edge new products into the U.S. economy.

The list to the right highlights Wisconsin businesses that received SBIR/STTR contracts from NASA since 2001. (Visit <http://sbir.nasa.gov> for more information on the SBIR/STTR program.)

NASA SBIR/STTR Companies in Wisconsin

Aniuk Consulting, LLC.....	Kenosha
CompuTherm, LLC.....	Madison
Orbital Technologies Corporation.....	Madison
Phoenix Nuclear Labs.....	Middleton
Quantum Devices, Inc.	Barneveld
Research & Technology, Inc.	Madison



wisconsin



How NASA Spinoffs Benefit Wisconsin



Water Analyzer Ensures Clean Water Supply (Waukesha)

NASA research aimed at helping astronauts generate their own food and water on extended space missions led a Wisconsin company to develop a new product for monitoring treatment processes at water and wastewater facilities. A process analyzer from ASA Analytics, Inc. is helping maintain water quality in many major American cities and around the world. Over its 15-year history, ASA Analytics has experienced a compound annual growth rate of 40 percent as a direct result of the technology's success.



Artificial Light Promotes Plant Growth (Madison)

An artificial light source originally developed to grow edible plants in space is now helping to develop the next generation of bio-agricultural products on Earth. Orbital Technologies Corporation (ORBITEC) developed a lighting system that can efficiently grow high-yield crops. The product also provides aquarium and supplemental greenhouse lighting. The high efficiency and low energy consumption of ORBITEC's lighting systems provides a 60 percent reduction in energy costs over existing systems.



NASA Spinoff Protects Sensitive Skin (Madison)

Solar Protective Factory, Inc. (SPF) has been developing commercial ultraviolet-resistant fabrics since 1989. With decades of experience creating cooling and UV-blocking suits for astronauts, NASA joined forces with SPF to create more comfortable, breathable, and reflective UV-blocking fabrics than ever before. SPF's products benefit beachgoers and outdoor enthusiasts, and enable children with UV allergies to venture safely out in the sun. The company's swimwear and clothing have become the world's best-selling brand of sun-protective fabrics.



Eco-Friendly Outboard Motor (Sturtevant)

An alloy originally developed to produce cleaner burning automotive pistons has helped revive the two-stroke engine. Bombardier Recreational Products, Inc. (BRP) licensed NASA's high-strength, heat-tolerant aluminum alloy to create the first outboard motor that does not require oil changes, winterization, spring tune-ups, or scheduled maintenance for 3 years. Since BRP brought the engine to market in 2003, the company has produced more than 500,000 pistons using the alloy.



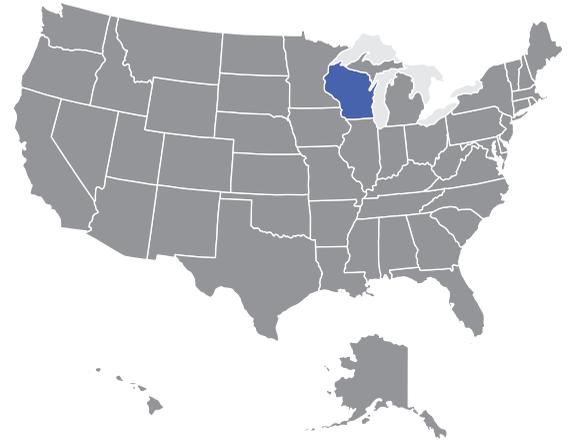
Light Therapy Helps Treat Cancer and Heal Wounds (Barneveld)

A technology originally developed by NASA has evolved into a state-of-the-art medical device that increases the effectiveness of chemotherapy treatments and provides pain relief for thousands of Americans. Quantum Devices, Inc. developed this non-invasive device for use in cancer treatments, prevention of painful sores that result from radiation and chemotherapy, and wound healing. The device shows promise in treating bone atrophy, burns, multiple sclerosis, Parkinson's disease, Alzheimer's disease, and retinal disorders.



Spikes End High-Speed Pursuits (Brookfield)

NASA offers special programs that help minority companies grow and strengthen their businesses by leveraging NASA technology and expertise. Phoenix International, Ltd., a woman-owned company, worked with NASA to improve its spike-lined tire deflating device. The company created a retention system to lock the spikes into place so they weren't inadvertently released into the roadway during a high-speed chase. Using NASA's test facilities and engineering experience, the company developed an enhanced spike system that prevents property damage and saves lives.



NASA actively seeks partnerships with U.S. companies that can license NASA innovations and create "spinoffs" in areas such as health and medicine, consumer goods, transportation, renewable energy, and manufacturing. When businesses leverage NASA technologies to develop new products, it not only benefits the regional economy, but significantly strengthens the nation's competitiveness in the global marketplace.

NASA's centers across the country have helped 31 Wisconsin companies develop revolutionary spinoff technologies.

Learn more about how NASA innovations benefit the public in *Spinoff*, an annual publication that highlights NASA's most significant technology transfer successes. (Available at: <http://www.sti.nasa.gov/tto>)

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