

Outlast Technologies, Inc.

Named to the "Space Hall of Fame"

Smart Fabrics made with microencapsulated phase change materials, called Thermocules®. If it sounds like space-age technology, then you're right. Boulder Colorado based [Outlast Technologies](#) has successfully leveraged NASA technology to make life more comfortable for earthlings and has claimed a spot in the "Space Hall of Fame" for its achievement.

Outlast Technologies, Inc. is the maker of Smart Fabric Technology™ that is designed to balance temperature, keeping you more comfortable by absorbing and storing excess body heat and then releasing it later. Smart Fabric Technology™ is applied to fibers, fabrics and foams. More than 200 brands use their products, including The North Face, Sears, Lands' End, Dockers, Eddie Bauer, Serta, Wamsutta, and Burton.

Their website claims that Outlast is a "virtual manufacturer." CEO George Cattermole describes Outlast as "a technology company." He goes on to say, "We design and engineer phase change materials that optimize the functionality and performance of materials for climate control. We license our technology to brand partners as well as global manufacturers."



The product offering ranges from high performance hiking boots and socks to high tech outerwear and bedding. Cattermole explains, "Bedding is a perfect fit for our technology because there's anecdotal evidence that the quality of deep sleep is improved if you have a more uniform temperature. You don't get too hot or too cold throughout the night."

Outlast Technology was originally developed for NASA by Triangle Research and Development Corporation (TRDC) for use in space suits to protect astronauts from the extreme temperature in space. Outlast founders Ed Payne and Bernard Perry obtained the patent rights from TRDC in 1991 with the idea of using the technology in outdoor sporting apparel. In 1997, Outlast introduced their first commercial product used in gloves and footwear. Soon after came products in Europe and Asia used in jackets, socks and underwear. In 1997, Nordica introduced ski boots with Outlast's Adaptive Comfort® linings. In 2002, Time Magazine chose bedding products made with Outlast Technology as the "Coolest Invention of the Year." Outlast has acquired 20 new patents (plus 16 pending) on a wide range of products.

The technology uses microencapsulated "phase-change materials" (PCMs) that interact with your body to balance temperatures by absorbing, storing and releasing heat within a designated temperature range to maintain comfort. Cattermole elaborates, "You get what is called a temperature flux, the differences in temperature when the body becomes overheated or chilled. Our technology buffers against those extreme temperature swings."



A company press release in December 2004 illustrates Outlast's meteoric success. "At year-end 2004, revenues will have increased almost five-times over year-end revenues of 2001. During this period, Outlast® has introduced a variety of new, improved products, lowered costs; expanded and upgraded licensed manufacturers and OEM partners; restructured the marketing message; expanded patent estate and know-how; and focused on additional markets, such as bedding and casual wear. In 2004, Outlast products being sold into apparel, bedding and specialty markets worldwide will represent half a billion dollars at consumer retail after being combined with and enhancing the performance of consumer end-use products of their OEM partners worldwide." Outlast is a privately held company and does not release revenue or profitability results.

George Cattermole reflects on Outlast's success: "Our greatest achievement over the past five years has been the tremendous improvement of the quality and performance of products produced."

Even with this success, the company stays close to its NASA roots. In 2002, Outlast received accreditation as a Certified Space Technology from the Space Foundation, a national non-profit based in Colorado Spring, Colorado that advocates for the civil, commercial and national security space industry. In April 2005, Outlast's Smart Fabric Technology™ was inducted into the Space Technology Hall of Fame at a gala dinner attended by more than 1,000 industry insiders.

Space Foundation President & Chief Executive Officer Elliot G. Pulham said, "Our 2005 Hall of Fame inductees represent space technologies that save lives, and improve the quality of life for thousands of people on a daily basis. They are great examples of why what we do in space matters on earth."

"This is not only an honor for Outlast Technologies Inc.," said CEO George Cattermole, "but an honor for all the individuals and companies that have helped commercialize our technology on a global scale. We're very proud to be a member of the Space Technology Hall of Fame."

The Space Foundation, in cooperation with NASA, established the Space Technology Hall of Fame in 1988 to honor the innovators who have transformed space technology into commercial products, to increase public awareness of the benefits of space technology, and to encourage further innovation. Outlast Technologies Inc. is one of only four companies being inducted in 2005, adding to the elite group of 48 already in the Hall of Fame.

Ed Payne and Bernie Perry, founders of Outlast Technologies, were Individual Inductees into the Space Technology Hall of Fame. Individual Commendation Awardees, for those that brought the technology to the market, include Martin Bentz, Managing Director of Outlast Europe, Roland Cox, Acordis Acrylic Fibers, Andrew Bell, Global Product Manager Ciba, Monte Magill, V.P. Business Development Outlast Technology.

Holland & Hart's Kevin Crandell was also inducted into the Space Hall of Fame in recognition for the legal work he did on behalf of Outlast. "Kevin deserves it. Early on in the game he did a tremendous amount of pro bono work to get Outlast going," said Cattermole.

Outlast sees its lawyers as an integral part of the business. "With Kevin's understanding of the history and origins of our company, and the importance of corporate governance, he has successfully helped drive our business strategies ahead," said Cattermole.

"What's next for Outlast? I think we will continue to come out with new and innovative products. We're working on incorporating our material into like viscous fiber and polypropylene. The emerging use is in places like Japan or Germany, where the governments are looking at using phase change materials in construction materials to save energy. During the day when you have solar heat or warm temperatures

outside, it would absorb temperature with that energy, and then during the night when it gets cooler, it gives it back. We have models that show that they could cut energy costs up to 30%.”

George Cattermole stepped down as President and CEO of Outlast on May 9, 2005, but remains on their Board of Directors facilitating coordination between the Board and business operations. He is replaced by Dr. Patrick Gruber as President & Chief Executive Officer. Gruber comes from NatureWorks LLC (formerly Cargill Dow LLC), where he was the Vice President and Chief Technology Officer. As one of the founders, Gruber has served in his position since the company’s inception in 1997. Gruber has spent his career focused on the technology, business development and commercialization of renewable resource based products. Gruber has been the leader in the development of lactic acid based polymers and products, in particular, NatureWorks™ PLA and Ingeo™ Fibers. He is the recipient of numerous awards in recognition of his work and accomplishments and holds 48 US patents.