

Investors in

FUTURE BREAKTHROUGHS

Battelle has continued to invest heavily in targeted science and technology strengths that will create value in the future for our clients.

We have established 14 Technical Networks (among Battelle, the national laboratories that we manage or co-manage for the U.S.



“Our technology platforms are an integrated set of technologies that underlie high-value, intellectual property-based products.”

— **Rich Adams**, Chief Technology Officer, Battelle

Department of Energy, and affiliated partners/universities) to ensure strong collaboration for future breakthroughs. These networks focus heavily on the *fusion* of science and technology concepts to create potential marketplace value.

Battelle also has established five technology platforms that provide a mechanism to mature early-stage, basic laboratory-scale research and development for deployment in commercial products or

in applications and services that benefit our government customers. These platforms are: Aerosol and Microstructure Delivery, Biotechnology, Information Technology, Nano/Microtechnology, and Smart Sensor Systems.

Aerosol and Microstructure Delivery

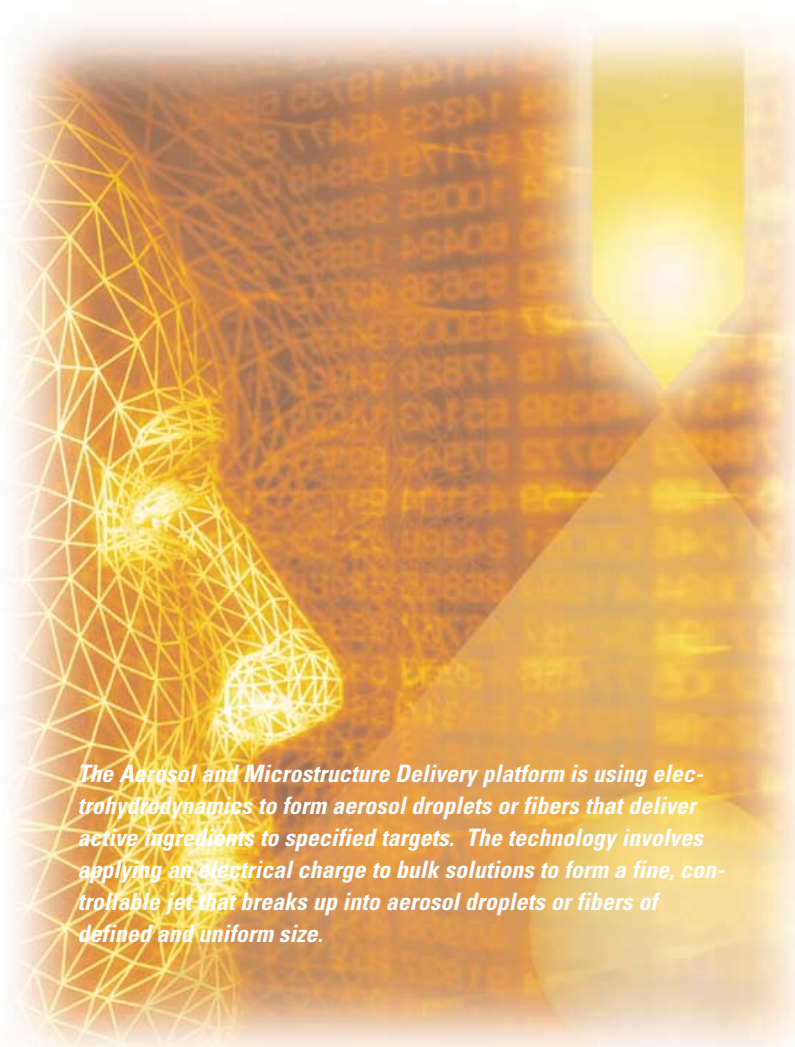
Battelle is a leader in aerosol delivery technology with potential future applications in treating pulmonary diseases such as lung cancer and asthma. This technology platform (Battelle’s newest platform) will help facilitate future advances in drug delivery and tissue repair.

Biotechnology

The Biotechnology platform includes expertise in biostabilization, human proteomics, and biodetection. For instance, microspheres developed by researchers make possible the encapsulation of biotherapeutics for safer and more effective treatment of human patients.

Information Technology

This platform focuses on developing, acquiring, and merging innovative technologies to solve large and complex data analysis problems. Analytic visualization tools are being developed for exploring and categorizing patterns and trends in collections of large and complex data.



The Aerosol and Microstructure Delivery platform is using electrohydrodynamics to form aerosol droplets or fibers that deliver active ingredients to specified targets. The technology involves applying an electrical charge to bulk solutions to form a fine, controllable jet that breaks up into aerosol droplets or fibers of defined and uniform size.

Nano/Microtechnology

Nano/Microtechnology teams are providing the processes, process equipment, and materials to help reduce the size and improve the efficiency of chemical and thermal systems. Size reduction allows distributed and just-in-time processing systems to be developed for use in areas such as generating power in a building or automobile, producing chemicals faster and cheaper, and providing individual cooling and heating units for people and automobiles.

In the future, nano-machines will likely revolutionize several industries and perform a wide range of jobs—from home comfort to manufacturing to health care.

Smart Sensor Systems

Smart sensor teams are focusing on building intelligence into products by incorporating a combination of sensing systems, information analysis, and decision making. Smart sensors will be needed in the future for self-healing structures, “smart” patient monitoring and drug delivery systems, on-board diagnostics and controls that optimize vehicle operation, and advanced detection systems for food and water safety. The platform also focuses on two areas of photonics: optical switching and optical fiber design and manufacturing, with potential to improve transmission speeds significantly.