Nanotechnology - the next wave

Nanotechnology is defined as the engineering of functional systems at the molecular scale.

In its original sense, 'nanotechnology' refers to the projected ability to construct items from the bottom up, using techniques and tools being developed today to make complete, high performance products. Much of the work being done today that carries the name 'nanotechnology' is not nanotechnology in the original meaning of the word.

Nanotechnology, in its traditional sense, means building things from the bottom up, with atomic precision.

Nanotechnology is also referred to as a *general-purpose technology*. That is because in its advanced form it will have significant impact on almost all industries and all areas of society. It will offer better built, longer lasting, cleaner, safer, and smarter products for the home, for communications, for medicine, for transportation, for agriculture, and for *industry in general*.

Imagine a medical device that travels through the human body to seek out and destroy small clusters of cancerous cells before they can spread. Or a box no larger than a sugar cube that contains the entire contents of the Library of Congress. Or materials much lighter than steel that possess ten times as much strength. ***-U.S. National Science Foundation***