

BOB KRONE's QUALITY ESSAYS*

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Section

The Global Voice of Quality™

Production: People to Robots

Dr Neville Marzwell, one of the world's leading scientists and scholars in space, energy, robotics and their potential for future human progress, said in 2008, and that I included in a presentation at the International Space Development Conference, ISDC- 2011 at Huntsville, Alabama, on 21 May 2011:

"The only way the United States will compete internationally is by smarter machines, smarter people and automated mass production."

The U.S shocked the Third Reich and the world by its manual labor mass production of weapons to win WWII. Henry Ford began converting his Detroit car production plant to B-24 Liberator bombers in June 1941. An assembly line B-24, composed of 1.2 million parts, exited his plant every 55 minutes. By 1945 18,482 B-24s had been built. It's a reasonable hypothesis that the Allies could have lost WWII without that breakthrough achievement. It's now a reasonable hypothesis that without flexible smart machines and intelligent automated mass production the United States will, in the future, lose its competitive advantages in international industrial and economic competition. As the 21st Century begins it is apparent that global problems, on equivalent scales of WWII, need breakthrough solutions. Achieving more with the same, or less, resources at higher efficiency and plan utilization will be essential as a component of those solutions.

What can innovative smarter people, smarter intelligent flexible machines and higher efficiency automated mass production achieve in the 21st Century?

Neville Marzwell has the answers. The most critical need is energy to meet humanity's increasing needs. Throughout history energy has been a key ingredient of better standards of living. Energy resources continue to be a

cause of conflict and wars. Wars continue to destroy humans, consume limited resources, pollute our planet and divert resources and leadership attention that should be devoted to solving long-term human needs. Earth's energy needs are projected to seriously fall short of demands by 2050 without breakthrough solutions which includes, but not limited to, Space Based Solar Power. Innovations are needed in power generations, power transmission, power management and power consumption by both computers and machines.

The LAW OF SPACE ABUNDANCE states: "*Space offers unbounded resources to meet human needs.*". To put the message of this essay into one overall worthy goal for the Quality sciences, my recommendation for the leadership of the American Society for Quality (ASQ) is:

TO SPONSOR WAYS TO CREATE SMARTER INNOVATIVE PEOPLE, WHO ARE CAPABLE OF BREAKTHROUGH THINKING; SMARTER INTELLIGENT, FLEXIBLE MULTI-FUNCTION AND MULTI-TASK MACHINES; AND EFFICIENT AUTOMATED MASS PRODUCTION TO SOLVE EARTH'S PROBLEMS THROUGH WORK WITHIN THE LAW OF SPACE ABUNDANCE.

The priority of the United States should be:

- To invest in technology, skills and training of workers; and for efficient use of energy, production plants and machines In manufacturing.

This will achieve prosperity for all, in our country and around the world. It will deliver on our goal to increase jobs and put people to work. It will create a new generation of students with 21st Century skills and visions to lead in science and technology innovations.

The macro responsibility of business, and of governments that sponsor it, is to ethically make profit and to sustain growth. Wasting tax-payers resources in subsidizing losing industries creates huge cost of quality failures. Leadership that continues approaches that caused past failures will increase the downward quality and profitability spirals.

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With respect and profound appreciation to Dr. Neville Marzwell for sharing some of his wisdom, career learned practical advice and his forefront science and technology research.



Dr. Neville Marzwell

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