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The alchemist: QuesTek's Olson

By: Howard Wolinsky June 15, 2013

When Gregory Olson bought a \$60,000 final edition red Lotus Elise SC, it wasn't merely a post-retirement-age man trying to recapture his youth. The 66-year-old entrepreneur and Northwestern University professor of materials science and engineering was celebrating the sale late last year of the technology developed by QuesTek Innovations LLC, a new-materials design company he co-founded in 1996.

Mr. Olson and the dozen QuesTekers who didn't decamp for Silicon Valley, where the unnamed buyer is based, are in rebuilding mode. Working from a former car dealership in Evanston, the employees have varsity jackets emblazoned with a phoenix rising from the ashes and the inscription "QuesTek II." (Mr. Olson keeps his old Lotus Elan under a tarp in the building's basement.) He hopes to get back up to 20 employees.

QuesTek retains rights to the intellectual property, which enables researchers to build patented materials at the atomic level using computer-aided design. Mr. Olson also is keeping the company's customer base: the metallurgy industry and the government, including the U.S. Navy, which was QuesTek's first big client; it wanted **new materials for aircraft**.

Mr. Olson says his techniques help develop alloys 50 percent faster and 70 percent cheaper than conventional methods. In October, the American Academy of Arts and Sciences inducted Mr. Olson, describing him as the **"father of materials design."**

"What really makes him stand out is the introduction of a totally new methodology for the design of inorganic materials," says Jon Nelson, a Chicago patent attorney who co-founded the Northwestern University/Evanston Research Park, where QuesTek started. His firm, Banner & Witcoff Ltd., represents QuesTek.

"You start off with some iron and you mix in nickel and some chromium," Mr. Nelson says. "Prior to his work, a lot of that was done by trial and error. Dr. Olson **came up with methodologies** which would predict the outcome before you even made the alloy."

Mr. Olson, who wanted to be a geologist as a boy on New York's Long Island, developed his design method in the late 1980s, giving him an edge over other scientists who relied heavily on traditional techniques.

He founded QuesTek with a protege, Charles Kuehmann, who had received his Ph.D. in materials science and engineering from Northwestern two years earlier. Mr. Olson came to Northwestern in 1988 from the Massachusetts Institute of Technology, where he received his bachelor's and master's degrees in materials science and, in 1974, his doctorate in the same concentration. He also co-founded the MIT Jazz Band and played lead trumpet for years.

He says he has used his experience with the 18-piece band throughout his career, combining formal structure with improvisation, for instance, to set up QuesTek. Do his employees guess? "I think they would be afraid to know, but I deliberately structured some freedom into the organization to foster creativity," he says.
