

2012 Honors and awards citations



One of the most important functions of a professional society is honoring those who have made significant contributions to the profession and to science. This function is implicit in SEG's stated objective "to promote the science of geophysics, especially as it relates to exploration and research, to foster the common scientific interests of geophysicists, and to maintain a high professional standard among its members." Moreover, the founders of SEG underscored this importance through explicit references in our founding documents.

Our profession has many components: the science of exploration geophysics; the education of geophysicists, other professionals, and the general public; collaboration with professionals in related fields; and application of geophysical knowledge to economically find and develop natural

resources, characterize the near surface, and mitigate Earth hazards. The 2012 Honors and Awards Program recognizes superior achievement in all of these areas. The distinguished recipients of this year's awards are role models for excellence in our profession, and the Society proud to honor their contributions.

Please join me at the Honors and Awards Ceremony to recognize and honor these individuals and institutions. By bestowing these awards, SEG strives "to promote the science of geophysics ... and to foster the common scientific interests of geophysicists." Indeed, it is through these awards and their associated accomplishments that we define the highest aspirations of SEG and its members.

—Leon Thomsen
Chairman, Honors and Awards Committee

Cecil Green Award for KMS Technologies

Extract from "The Leading Edge"

KMS Technologies is a major provider of niche technology, most notably electromagnetics for exploration and reservoir characterization. With vision and hard work, the company was transformed, at considerable personal risk to the principals, from a fledgling bootstrap operation to a highly successful company in less than 10 years. The primary focus has been development of patented tools for electromagnetic data acquisition. KMS was sold at the end of 2007 for US \$60 million to two Norwegian marine geophysical companies, RXT and EMGS. KMS was later repurchased by its employee stakeholders, and is now an independent technology incubator to the industry. It is unique in its kind and scope, with over 25 patents covering a broad variety of niche technologies. KMS delivers land EM acquisition systems worldwide, and has deployed them in at least nine countries. While building the company, founder Kurt Strack continued his commitment to SEG, conducting several Summer Research Workshops, serving as Chairman of the Research Committee, and serving on the board of SEAM. When funding for SEG Global Membership was depleted in 2007, KMS Technology stepped in and provided the necessary \$20,000 to keep it going.

Cecil Green Enterprise Award for KMS Technologies

by SHIV N. DASGUPTA

Selection of KMS Technologies for the Cecil Green Enterprise Award is a deserving tribute to this unique company and I am truly delighted to write this citation. Kurt M. Strack founded KMS Technologies in late 1999, after a successful tenure at Baker Atlas. As the chief scientist in Baker Atlas, Kurt had become familiar with the needs of the oil industry in reservoir monitoring. His team developed borehole tools for the DeepLook project, funded by a consortium seeking to image reservoir rocks and fluids in the formation far from boreholes.

Encouraged and inspired by several clients, Kurt formed KMS Technologies. Tilman Hanstein, Charles Stoyer and Horst Rüter joined during the DeepLook project. They were true entrepreneurs. When the 2000 economic downturn hit the oil industry, soon after the company's formation, it was a difficult time for the founders. However, they persevered and even added other technologies like through-casing resistivity and marine electromagnetics to the portfolio. These individuals risked their personal funds and invested ample sweat equity into the fledgling "concept" company that became a major technology incubator for innovative EM and MT tools, and techniques for reservoir characterization and fluid monitoring solutions. The research team developed many electromagnetic-based technologies, created numerous prototypes tools, and carried out a proof-of-concept field test with Shell in early 2007.

Today, the company has well over 25 US patents and a large global coverage. It is a recognized leader in land EM and MT acquisition and is presently marketing yet another innovative acquisition system a broadband MT acquisition system with fidelity ranges from dc to high frequencies. This has been sold in nine countries on four continents. Time-domain geosteering technology for drilling horizontal wells, developed at KMS Technologies, is still considered a technology breakthrough. The company developed tools and methodologies and conducted full commercial field trials of their marine EM technology in 2006.

In 2007, less than eight years after its inception, two Norwegian geophysical companies bought the company. The ongoing recession, which began in 2008, encouraged the new owners to consider a resale of their stake in KMS Technologies. In 2011, the original founders agreed to take back the company at attractive terms. The company is now an independent technology incubator, unique in its scope and positioned to provide a broad variety of niche technologies. KMS Technology now delivers land-based EM acquisition system worldwide. The EM data have been proven to be a complementary technique with seismic imaging for reservoir characterization and reservoir fluid-monitoring challenges.

Each team member has a unique background. I Kurt received SEG's Reginald Fessenden Award for dev innovative logging tools, such as through-casing resistiv 3D induction tools. He has also received an SPWLA tr achievement award, is a member of the Russian Academy of Science, and winner of the Kapitsa Gold Medal. Tilman was first PhD student in the early 1980s in Cologne and was Kurt's de facto advisor at Colorado School of Mines (Keller was his formal graduate advisor). Tilman has wo algorithm development for many projects, in sensor and system verification/evaluation. Charles is an A. von boldt Awardee and also received the Harold Mooney from SEG's Near-surface Section in 2001. He is now th tor of software at KMS. Horst collaborated in the desig first multichannel seismic/electromagnetic system. He ceived SEG Special Commendation and EAGE's Conr lumberger Award. Horst is the strategic advisor at KM: instrumental in developing a solid portfolio in through resistivity and marine electromagnetic technologies.