

"So how do the people doing research at the universities and research laboratories know this is what is needed by industry? What can the DEIS do to help?" These questions were posed to me by a concerned member (from industry) during discussions at the International Symposium on Electrical Insulation in Pittsburgh in June. We had just completed a very successful meeting, with a record attendance and number of papers. There had been good discussions during the sessions, and I had been impressed with the interactions. However, these questions made me begin to consider if the society is indeed doing all that it can in this area.

What had triggered the questions was a discussion of how rapidly the technologies and business aspects of the industries in which we are involved with dielectrics and electrical insulation are changing. A few examples are: The electric power industry and electric utilities are seeing the effects of deregulation, with independent power producers growing and the electric utilities responding with changes in their approach to in-house engineering and research; manufacturing companies are in transition or are being taken over; EPRI is changing its organization and funding structure to reflect these changes; and the pulsed power area is being impacted by reductions or reorientations in the defense budget. Make no mistake, there are still significant challenges out there, for example: the need to improve the reliability of dielectric materials and the insulation integrity of equipment; new systems to operate at higher stresses (electrical, thermal and mechanical); insulation systems for new power systems (e.g., flexible ac transmission systems, electric vehicles); dielectric behavior of materials and systems under very fast over-voltage transients; new dielectric materials, such as conducting polymers for dielectric and active electronic devices; and dielectric materials used as a variety of sensors.

However, this is a general listing and is therefore of limited use. What is needed are the details of the specific challenges and research opportunities for fundamental materials and their applications. We need this for the short term (problem solving) and the long term (strategic). It is the old cliché, but still true, that we need closer working relationships between the developers, manufacturers and users of equipment and the research world.

One way in which the society can help serve its members is by actively acting as a "technology broker." We do this partly already by sponsoring conferences and technical committees, so the question becomes, are there more effective ways? Perhaps we can have special sessions or panels at meetings, with invited papers and experts from research and industry to describe their views of the challenges. There could be articles in *Electrical Insulation Magazine*, maybe special correspondence columns or even "Want Ads" looking for technical solutions or applications for new materials or recent innovations.

For this to be effective, we need volunteers to be involved and committed to its success. But the payoff could be enormous for both research and industry. Should we do this? What are your ideas? I would truly welcome your comments. We are all involved in the society because we recognize the importance of acquiring and disseminating knowledge. This usually occurs after the research or products have been completed. This new approach would involve the DEIS more actively in the front end and would help develop new directions for industry and research. Any takers? ~

