

Attracting Industry

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Of all the themes that I have heard over the many years of engineering society membership, one of the most persistent is the wish to attract new industry involvement. The motivating force behind this wish is often, although not always, the hope that industry would provide additional resources for society activities. Usually, although again not always, this hope takes the form of cash.

This theme has been singularly unsuccessful for many of these societies, and the reasons are many. Aside from a fairly clear idea of what industry could bring to a society, exactly what benefits industry would derive from such an association is not as clear.

Perhaps the biggest mistake we academicians make when talking about industry is that we assume all industry is the same, has the same procedures, and has the same needs. As one who is beginning an NIH phase II SBIR, I can tell you that there are segments of industry that have tremendous start-up needs and that are essentially broke. I don't think societies are talking much about wanting to associate with this portion of industry, although it is this portion that probably has the most needs that society associations could satisfy.

The contexts of Board of Directors' conversations about industry involvement usually suggest the idea that industry could contribute to solving society financial woes. Indeed, the worse off the finances of a society, the more intense are the conversations about attracting industry. By this, we usually mean *profitable* industry, with *very profitable* industry preferred.

So, after assuming that all industry is the same, and that individual representatives of this monolith would be eager to contribute to society welfare, if only given a chance, what do we do now?

I have had extended conversations with only a few industry representatives about this topic. There were no general conclusions that I can point to, no magical aphrodisiac identified to attract industry to society membership. Each person I talked to had a different opinion on why their company was associated with BMES. Sometimes it was exposure, sometimes being in the presence of potential customers, and sometimes wanting to hire excellent students were reasons given for their presences. What was not mentioned were the need to disclose the mechanics of their latest products, the need to make contact with closely-associated academic experts, or even society publications. Industry reps did not need a place to publish, a platform for speaking, or credit given for attending workshops. Some did come to find out about the latest research, but other times that wasn't important. In other words, industry folks may have ideas and needs alien to the academic way of thinking.

Dr. Al Mann gave one of the plenary talks at the 2007 BMES meeting. As part of this talk he listed the 10 most important considerations for success. The first three of these were all the same: "Money." It was only when he got to number 10 that he named the "Idea." One might then rightly conclude that one major industry interest is money, and that is *getting* money, not giving it away. In that sense, the interests of industry and societies are competitive. Just as exergonic chemical reactions require that activation energies be overcome before energy surpluses become available, industry and societies must find mutual benefits before the two can cojoin to form useful associations.

With this general discussion as background, let me make several concrete suggestions. First, if industry representation is so important to BMES, then let's restructure the bylaws to guarantee that there will be industry representatives on the committees and the Board of Directors. Instead of industry people running against academics in a general pool of candidates, have industry representatives run against other industry representatives to guarantee that at least some will win. This is not such an undemocratic move as long as we democratically decide on this course of action. The American Society for Agricultural and Biological Engineers constitutionally mandates that every other President will come from industry. The system has worked for many years and is generally accepted by ASABE members.

Second, let's program industry into our meetings. The Institute for Biological Engineering holds what it calls an Industry Nexus at each of its meetings. In these sessions (not held in parallel with any other sessions), industry speakers are invited to present talks on some general topic. Speakers always seem to refer to their products or their companies when reaching for examples to illustrate their points, but these are not product showcase sessions as such. IBE has found a way to engage industry without making the assumptions of homogeneity or potential ATM machines. BMES could do likewise and thus build a foundation for future society-industry interrelationships.

Third, we can provide useful publications. Research journals are often seen by academicians as places to publish, show their progress, and receive credit towards their next promotions. These types of publications do not serve industry very well in many cases. I had suggested that BMES establish some kind of translational research journal, geared toward applications and real uses of advancements in the BME field. Rick Waugh

took this further by suggesting a kind of *C&E News* for BMES. Neither of these is likely to happen soon, but we can ask that a paragraph be appended to each published paper in ABME explaining why the work is important and how it can be applied. Even this may not happen soon, if at all. In the meantime, I will attempt to make the Bulletin serve the translational purpose as much as possible. Contributions to the Bulletin will be welcome, but they must be short (about 2000 words) and they must emphasize background, context, and practical application. I invite you to submit contributions within these guidelines.

It would be good to see more industry involvement. If you have any additional ideas about how this can be done, send them along. Who knows? They may be just the keys we are looking for.