

Editorial

Drying is a truly multi-disciplinary field. It is also an applied research field. Thus, all research in this area must have, as its long or short term goal, potential application to solving or resolving an industrially relevant problem. Basic research typically has wider applicability and hence needs to be encouraged particularly in academia. For example, if we were to have a generalized drying theory, one could conceivably solve a number of dryer design, optimization and scale-up problems much more easily using our desk top computers than expensive and time-consuming laboratory, pilot or even full scale experiments. Drying research can be intellectually challenging and stimulating as it entails a combination of transport processes with material science. Products and processes are often coupled inextricably. It is clear that linkages with industry are essential to definition of relevant R&D problems and also to resolution and utilization of the resulting R&D effort.

As human and financial resources for research in general are scarce in most parts of the world it is especially important to be more focused and productive. Linkages with industry, including trans-border academia-industry interactions, are essential. A recent study by J. Howells and Maria Nedeva (International Journal of Technology Management, vol. 25, No.1/2, 2003, pp 5-17) provides an excellent analysis of the growth of cross-border industry-academic links with detailed study of the U.K. experience.

Industry-academic links have been a feature of higher education in Germany since mid-19th century when industry approached individual academics to solve their specific problems. Only towards the end of the 19th century did the contacts become institutionalized. By 1870 many German companies, especially in the chemicals sector, had strong connections with universities. Universities played significant role in industrial R&D right up until the First World War; in fact industry and academia were never closer than during the early part of the 20th century! It was after WW 1 that industry initiated In-house R&D in a big way. This may have adversely affected the linkages which started to weaken and even break off. In some countries of Europe, apparently academics were not even allowed to work for industry and many did actively discourage such collaboration as being counter-productive to the aim of teaching and basic research in academia.

In recent years the need for such links has been recognized worldwide. However, this has not reflected in industry-funding of academic research. It is also not reflected in joint industry-academia authorship of published papers. More hard work is needed to shift the current paradigm since the missions of the two sectors do not understandably overlap. As academic institutions change over the coming years, we will perhaps see more active collaboration on international scale. Certainly it will be a win-win situation for academia and industry as well as the society at large.

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