

Improving Technology Distribution

*How universities, governments,
and industry get together—
formula for success*

BY A.L. FRYE*

Daily we hear concern expressed about the United States balance of payments, the decline of the smokestack industries, and the question, "Is our American standard of living destined to decline?"

I'm optimistic about the future in this area, particularly if we can get it together in certain areas. In my opinion, one of our best opportunities is to better utilize our technology. It's really a distribution problem of transferring our technology from our universities and government labs to the right place. I like to compare technology transfer to a polymerization reaction—an initiation step, a propagation step, and a termination step.

There are some universities like MIT, for example, where there are *relatively* few inhibitors and where there seems to be no rate-controlling step. But for most university and government labs, it is my opinion the initiation step is controlling. I'll spend most of my time telling you what some of us are doing on a *macro* scale to speed up this part of the process. We in the U.S. are good at creating new business, which I consider the termination step. Also, some of us are quite good at killing projects. Additionally, research partnerships can be quite helpful in both the propagation step and the termination step.

For more years than I like to remember at 3M and Inmont corporation, I would visit universities and government labs hoping to find that bit of information that could start a new business—like fluoro chemicals from Penn State for 3M. If not a new business, I hoped to find at least a new technical breakthrough for one of the product lines. Frankly, the hit rate was very low. Sure, it was stimulating to talk to the professors about their work and those from the university were most cordial. But the chances of a success was quite low. When I came to Aladdin 14 years ago, it was even more frustrating, because the whole culture of the company is that of technology transfer (a Professor DeWar invented the vacuum bottle, not Aladdin).

A Better Way

One day, I told Dr. Bill Crandall, a consultant and a good friend of mine, who was head of the Research Foundation at Alfred University, "There should be a better way to

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initiate technology transfer. If you can get one-half dozen universities together, I'll bring in a dozen Fortune 500 companies and we'll have an exploratory session." The purpose was not necessarily to find the billion-dollar idea, but to see where the action is, such that would interest our respective companies.

Our first meeting was in February almost four years ago in Buffalo, NY. Buffalo and Alfred co-hosted on the former university campus. It was close to a disaster, but it showed promise and we learned a lot. Also, at least 50% of the universities talked about nontechnical things. One jovial participant from an un-named university replied as follows when it came his turn. "I'm from the Public Relations Department. I can't talk about anything technical, but the Dean says "Hi." But for my good friends at Monsanto, who have supported us from day one, I would have "hung it up" on the spot! We did learn by our mistakes, however.

Where are we four years later? First, we learned to select our meeting place as near a major airport, as practical. By doing so, a lot of travel time is eliminated. The industrial people will stay later, rather than leaving in mid-afternoon.

We selected a university to co-host the meeting. For example, Dr. Bill Ragan of Columbia held such a meeting last February. He invited 10 universities from the region. The meeting was cosponsored by Aladdin, and 63 Fortune 500 companies attended. We had two identical back-to-back meetings, with the universities spending two days and industry only one. The agenda for each day included a "happy hour" at 5:30 p.m. and dinner at 6:30 p.m. Following dinner, each university took five minutes to brag about its accomplishments and describe its patent policy. The important point is that those from the university had an opportunity to get anything nontechnical off their chest, so that the next day's program was strictly technical.

Coffee, rolls and juice were in the meeting room the next day at 7:30 a.m. Beginning at 8:00 a.m., each university had 20 minutes to tell about its technical wares (technical niches, unique equipment, patents available for license, and new areas of research that might be a basis for a new business).

To get the best qualified people from the universities, a fee was charged each company. From this fee, the travel expenses of two university professors were paid. All meals, cocktail parties, coffee breaks, meeting rooms, etc. were paid for everyone attending the meeting. During a buffet lunch, there was an opportunity for various university and industry participants to talk about items of mutual interest. At 1 p.m., each university had one of its personnel located at each of two tables, identified by signs, and the industry people filed by to see if there was

mutual interest. The meeting adjourned about 4 p.m.

What are the benefits of these meetings? Frankly, Ms. Lucy Malone, who runs the meetings, does not have the time to make a study. The results, however, are all too clear. The university people love it and are always calling and asking, "May our university host a session?" As a matter of fact, about three-fourths of our meetings are the result of such requests.

Attendance Grows

The industrial people are a little close-mouthed on specifics, but the fact that the number of companies attending these meetings has grown six-fold and most of the companies repeat, is a positive sign. I expect during the next year the attendance by industry will increase further. We hear terms like, "We find out where the technical action is," "Time saving for scouting," "We find good consultants," and "Discover good places to spend seed money." New areas for new business are sometimes found, but industry is not inclined to talk about that. Patents are frequently licensed. We had some good publicity in the February 15 issue of *Chemical Week* magazine.

Well, that's where we are. Where are we going? January 1 of this year we incorporated as a nonprofit educational organization under the name of Technology Transfer Conferences, Inc., to handle all housekeeping items, invitations, money collections, bill paying, etc.

I have one staff member, Ms. Lucy Malone, who is Executive Director and Secretary/Treasurer of the corporation. We buy secretarial services from Aladdin, reimbursing Aladdin for all out-of-pocket expenses. I draw no salary. I am reimbursed for travel expenses, but everything else is paid by industry.

We plan meetings a year ahead. The next meeting, this winter in Salt Lake City, is sponsored by the University of Utah. Ten area universities, Sandia (a government lab), and a representative who has technology for sale from Stanford will be giving presentations. We have invitations available for any of you representing industrial companies. One of our most successful past meetings was held by Jim Wyckoff from the Bureau of Standards last year. In the middle of January, a meeting will be held at the New Orleans Airport. It will be sponsored by Louisiana State University. In March, we are returning to Kansas City where for the second time Oklahoma State University is sponsoring a meeting. Also included will be the

Midwest Research Institute and one major government laboratory in the area.

For the rest of 1985, host universities will include the University of Cincinnati, which sponsored one of these meetings a couple of years ago. For the multinational companies, in September of 1985, we are having our first meeting in Europe with English Universities. Additionally, a Canadian meeting is planned in Toronto in May 1985. We expect to hold at least one meeting a year offshore.

Catalyze

Now, how would you categorize our activity other than that as initiation step of Technology Transfer? The first characteristic is that we don't talk about technology transfer—we do it or at least catalyze it. Second, we started out as a selfish group. Industry wants something; the university wants something, don't worry about the high ideals. Looking at it another way, we're a scouting group, a dating bureau, if you will, to catalyze getting university, government labs and industry together on a macro scale. Really, there is essentially no one we are competitive with. People have criticized by saying, what you want is a one-on-one meeting between industry at the university or you can't tell your story in 20 minutes, and it's true. Again, this is the initiation step to start the ball rolling, not the propagation step.

We have been asked to run sessions of this type for what I call soft sciences, and also to run sessions for the Chamber of Commerce of a large city. My reply has been that we should stay in the technical area. We have been copied by an enthusiastic Dean Zaffarano at Iowa State, who conducted one of these sessions in April 1983 and now is conducting an identical session for the universities and companies in the state of Iowa.

We are zealous on one point. We want to develop the technical market for this initiation step; keep the price down and keep out the charlatans. I have a friend who came to me and said, "Al, you're sitting on a gold mine; let's capitalize on this." Every time this happens, I have the urge to reduce the fees still further.

So, fellow LES members, again, I feel there is no shortage of technology, just a distribution problem. I feel we have a process for breaking the log-jam—to get the right people talking. And if we fully utilize our technology, I feel confident that we will maintain - yes, and even improve the economic viability of this country.