5.6 Overall Summary

The perspective of the ERCâ€™s Industrial Liaison Officer is a bipolar one, which involves championing industryâ€™s views to academics as well as representing the university center and culture to industry. Most ILOs find common ground in these seemingly divergent points of view, working to promote mutually beneficial interactions between partners from the two cultures. Achieving this balance requires personal and programmatic flexibility as well as diplomacy. Programs developed by effective ILOs often challenge the status quo in both the university and industry. The desire to facilitate their success and learn from their failures is the basis for the suggestions that follow.

The most important lessons learned regarding industrial collaboration are:

- Keep at itâ€”industrial collaboration is difficult and requires continuous effort.
- Inform new members early that satisfaction and benefits accrue to those firms that interact frequently with the centerâ€”participating in collaborative research, attending meetings regularly, making contacts, supporting students, seeking information, and giving advice.
- Trust, not a contract, is the basis of a long-term relationship.
- Industry wants a solid return on its investmentâ€”demonstrable, personalized value for each member company. Therefore:

- For many companies, access to valuable ideas or processes is a significant motive for joining. ERCs must provide members meaningful access to technology on an equitable basis.
- For technology that is not appropriate for protection as intellectual property, members should be given the utmost chance to incorporate it in their operations.
- Industry must have a strong role in setting the centerâ€™s research agenda.

In recruiting members, especially for a new center, there are a number of "rules of thumb":

- Tailor recruitment strategies to each prospect; partnership is achievable only if there is a true confluence of interests.
- Maintain frequent and direct personal communications and visits.
- Clearly state the purpose of the center and the role of the company in the proposed center's research and education programs.
- Share the plans for any characterization or instrumentation facility to be developed.
- Clearly state the intellectual property rights issues and proposed or developed solutions.
- Share the university's plans for long-term viability of the center.
- Convince the companies that leveraging resources through center membership provides a strong return on investment, and that the more they participate the more they will gain.
- Discuss with prospective members the uses to which industry funds are put; also note whether overhead charges on industry contributions will be waived.
- Discuss the commitment of the university and college administration to the long-term viability of the center.
- Create opportunities for industry professionals to interact with students and faculty in such a way that they can influence center programs.
- Discuss center plans for distance learning and short courses.
- Be honest about what you think the center can do for a company, and deliver what you promise.
- Follow-up with required information.

The favorite practices developed by ERCs to facilitate industrial collaboration are:

- Canvassing the Industrial Advisory Board for ideas on directions in research, education, outreach, and innovation;
- Cooperative research projects and personnel exchanges;
- Student internships in industry;

- Using senior-level students as links to industry;
- Workshops;
- Keeping a current contacts tracking database; and
- Developing solid metrics for assessing the industrial interaction.

NSF, and in particular the Leader of the ERC Program and the individual ERCâ€™s Program Director, serves a vital role in helping ERCs achieving the support of both industry and universities. Simply by providing its imprimatur, the agency opens doors for the Industrial Liaison Officers and builds support for the ERC concept of industrial-academic partnership.