

A ROADMAP FOR SUCCESSFUL INDUSTRIAL-ACADEMIC COLLABORATION

*Integration of Locally Managed Research for
Global Technology Development*

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INDUSTRIAL COLLABORATIONS FROM EÖTVÖS UNIVERSITY

Dr. Frank Richter (Bayer, Leverkusen, Germany) 2001 –

Dr. I. Tóth, Dr. O. Siecken (DSM Research, Geleen, The Netherlands) 1999 –

Dr. C. P. Mehnert (ExxonMobil Corporate Strategic Research, Annandale, NJ, USA) 1999 –

Dr. L. Nemeth (UOP, Des Plaines, USA) 2000 – 2003

Dr. F. Via (GE Corporate Research and Development, Niskayuna, NY, USA) 1999 - 2000.

ACADEMIC COLLABORATIONS FROM EXXON CORPORATE RESEARCH

Prof. M. Therien (University of Pennsylvania, Philadelphia, PA, USA) 1995 - 1997.

Prof. J. A. Gladysz (University of Utah, Salt Lake City, UT, USA) 1994 - 1997.

- National Science Foundation (Washington, D.C., USA, \$330,000.00/years)

Dr. C. Unkefer (Los Alamos National Laboratory, Los Alamos, NM, USA) 1994 - 1995.

Prof. R. A. Andersen (University of California, Berkeley, CA, USA) 1994.

Prof. R. H. Fish (Lawrence Berkeley National Laboratory, Berkeley) 1989-1991.

Prof. J. Okuda (State University of New York, Albany, NY, USA) 1989 – 1990.

Prof. C. D. Hoff (University of Miami, Coral Gables, FL, USA) 1989.

Prof. R. H. Crabtree (Yale University, New Haven, CT, USA) 1989.

Prof. M. S. Brookhart, (University of North Carolina, Chapel Hill, NC, USA) 1988 – 1989.

REASONS FOR INDUSTRY TO COLLABORATE WITH UNIVERSITIES

Limited number of scientists/engineers

Urgent issues – short term projects with specific targets.

Strategic issues – long term projects with changeable targets.

Personal insight to emerging new concepts and technologies

Motivation of the technical staff

Increased visibility and credibility of industrial scientists and engineers in the academic community

Low risk recruiting opportunities

Knowing the real value of the recommendation letter(s)

Monitoring the developments of students and postdocs

REASONS FOR UNIVERSITIES TO COLLABORATE WITH INDUSTRY

Identification of important and interesting problems for research and education

Direct support of research expenses, students or postdocs

Indirect supports by providing access to state of the art technical capabilities

Broaden the experience of students and faculty

Employment opportunities for students and postdocs

Financial support

ROAD-MAP FOR SUCCESSFULL COLLABORATIONS

The collaboration should be complementary to an internal short, medium or long-term research program

Middle (or higher) level R&D managers should be the champions of the collaboration

The business must support the collaboration and understand the risks involved

A well established scientist should be the contact manager

- Knows the academic world and could evaluate the academic scientist's potentials**
- The academic scientist respects and accepts technical guidance and criticisms**
- R&D managers should not “nano-manage” technical issues.**

ROAD-MAP FOR SUCCESSFULL COLLABORATIONS

Careful selection of the University

Intellectual property rights issues should be resolved with the University before approaching potential collaborator(s)

Understand the local culture and scientific traditions

Step-wise process for selecting potential collaborator(s)

- Invite several scientists to give lectures**
- Visit their research facilities and listen to their students**
- Select one (or two) for consulting – develop a personal relationship**
- Secure local and global scientific evaluations**

Set-up a collaborative research project

ROAD-MAP FOR SUCCESSFULL COLLABORATIONS

All relevant technical information are clearly communicated and understood.

Well defined objectives and mile-stones (technical and administrative)

Clear understanding that the eventual commercialization of the research results is the long term goal

Adequate funds including indirect and direct costs

Multiple year commitment and patience

Appropriate expectations

Intellectual property rights

- University property**
- Selected and filed by the company and then published by the university**
- 1st right of refusal**
- Exclusive royalty bearing license**