

Dear Reader,

I am pleased to send you our final newsletter for this project. I would like to thank everyone who participated in the Industry Interviews for her or his time and invaluable information. Final presentation was held Thursday March 11<sup>th</sup>. All newsletters and the final project report are posted on the website of the CREDO Lab: <http://www.vr.clemson.edu/credo/> → Projects → Innovation Projects → Collaboration between University and Industry.

### Summary of Project:

The primary research objectives were to learn more about the advantages of university-industry collaborations, the needs that drive both parties, and to determine whether these needs can be coordinated in order to achieve successful collaborations. To achieve these objectives, existing “containers”, (a form of collaboration, a mechanism to achieve a targeted transfer) were identified, analyzed, and classified. Next representatives from university faculty and industrial managers were surveyed to learn more about needs, expectations, and reasons for failure of collaborations from both perspectives.

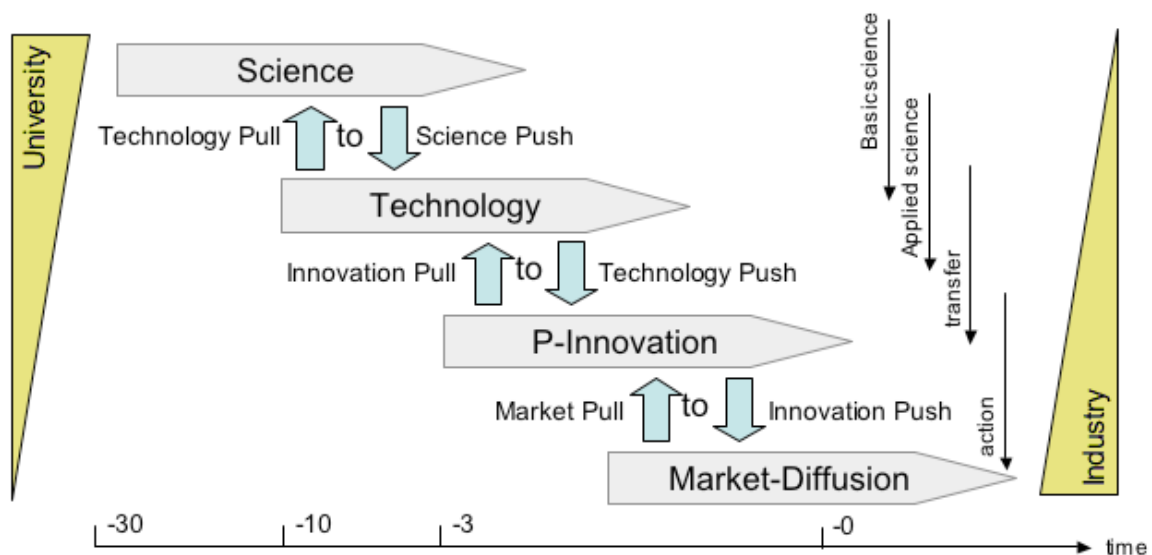


Figure 1: The model “Science-to-Market”

The research of the project was based on the “Science-to-Market” model, see figure 1. The model fosters the definition of methods and tools, which should lead to effective and shortest-time-possible transfers of science and technology.

Finally, recommendations based on the results and, a viable classification of the “containers” (which is strongly based on the needs of each party) were presented. Their aim is the improvement of forming and planning collaborative relationships.

### Industry Interviews:

Our interviewed industry representatives held positions ranging from President & CEO, R&D manager to Communications and Strategies manager. It was a great experience to be exposed to and learn about these different areas of industry.

**Results of Industry Interviews:**

The interviewees were from the following fields, see table1:

Industry:	Subgroup:	Number of Interviewees:
Manufacturing	Automotive (OEM)	1
	Automotive (tier 1 suppliers)	5
	Aerospace	1
	Electrical	2
Biotechnology	Pharmaceutical	2
	Consumer & Health Care	1
	Gene Technology	1

Table 1: Consistency of Industry Interviewees

Almost all of the interviewed companies (11) stated that they are currently collaborating with a university. Out of those 11 companies, 6 are satisfied with their current level of collaboration and do not seek more. The 2 companies that have never engaged in a university-industry collaboration mentioned that the main reasons they do not is because they are too busy with everyday business, the nearby universities lack expertise in their specific field, and universities are generally too slow with solutions.

All industry interviewees agreed that collaborations are advantageous for their company and that the following were the primary benefits for industry in collaboration with academia: 1) Technical assistance/expertise, 2) Hiring graduates, 3) Receiving technology, 4) New ideas, 5) Solution to problems.

The most frequently mentioned reasons for collaboration failure were given as follows from the industry interviewees (see figure2):

**Reasons for collaboration failure (times mentioned)**

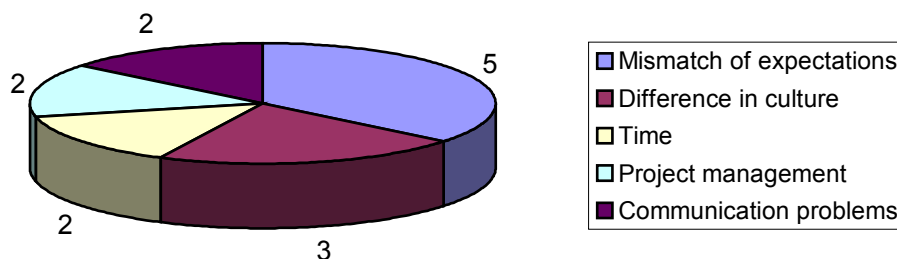


Figure 2: Reasons for Failure of Collaborations

All of the interviewees agreed that their needs to be a clear mission statement and project plan established that both parties agree on before a project even starts.

**Recommendations—an overview:**

University-Industry collaborations need to be taken as seriously as collaborations between companies. Therefore it is necessary to:

1. Develop methods and tools to improve the management and governance of U-I collaborations
2. Universities need to develop a strong name recognition for successful U-I collaborations (ex. MIT)
3. Work towards an improved understanding of both cultures by getting to know each other closer (ex. performance of joint forums and workshops)
4. Adapt a “win-win” perspective

Alumni are essential in establishing the contact between a company and their former university therefore alumni networks need to be cultivated and maintained.

Furthermore the research project led to two concrete ideas of methods and tools that should help improve U-I collaborations including:

- *The Internet U-I Innovation Matchmaker*: An internet based IT-tool to ensure that the right parties meet.
- *The U-I Collaboration Governance Tool*: A need evaluation and configuration tool to align the incentives of university and industry.

Based on the outcomes of this project the Center for Product Development at ETH Zurich is going to continue researching the topic trying to develop tools and methods in order to improve U-I collaborations and thus science and technology transfer.

Additional information and the final report can be obtained from the Faculty involved:

**Clemson University:**

[Dr. George Fadel](#) and [Dr. Joshua Summers](#) from [CREDO](#)  
[Dr. Caron St. John](#) from the [Spiro Center for Entrepreneurial Leadership](#)

**ETH Zurich:**

[Dr. Markus Meier](#) from the [Center for Product Development \(ZPE\)](#)

Sincerely yours,

Martin Gunzenhauser