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## **Innovating on Educational Collaboration**

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### **ABSTRACT**

The purpose of this paper is three-fold. Firstly, to present a unique collaborative project in a graduate course module on Technology strategy between the biotech company Biogaia and the Faculty of Engineering, Lund university in Sweden. Secondly, to present and discuss some key findings for working and collaborating with this company in university education. Thirdly, to present and discuss the implications for university teachers and faculty that intend to or already are using collaborative educational collaboration projects/knowledge sharing projects in their teaching and applied research.

We want to give our warm compliments and gratitude to BioGaia Sweden and especially their managers at BioGaia in Lund, Sweden for participating and deeply sharing their unique learning experiences and reflections with us at the Faculty of Engineering, Lund University, Sweden. Without their innovative “mind set” this industry and academy collaborative project haven’t been possible! Thank you very much!

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## **INTRODUCTION**

There is a growing interest in universities and firms of developing different collaborative projects between industry and academy. We know relatively much about how to create, maintain and evaluate collaborative research projects (e.g., Bengtsson, 2006) between industry and academy, but relatively little is known regarding educational collaboration between industry and academy (Asplund and Bengtsson 2008). There is a small but growing knowledge base on how to establish and conduct collaborative educational projects, such as case writing projects, in university education (e.g., Bengtsson and Asplund, 2002, 2003; Asplund & Bengtsson, 2004, 2005). In this paper we present one approach/method of developing a collaborative educational project between the university and the industry.

## **ACADEMY MEETS INDUSTRY – EDUCATIONAL COLLABORATION**

### **The outline of the collaborative educational project**

In the autumn of 2004 a contact was taken with us, initiated by the company Biogaia in Lund, to possibly participate in and contribute to an organizational development program in the company due to a forthcoming reorganisation. The main focus was the company's ambition to become more market oriented in order to further develop their presence on both the domestic and international markets. They expressed a need to be educated how a more market driven organisation could be designed and managed in this special kind of industry. In this meeting we decided to form an educational collaboration project together. In the planning phase we envisioned the project in three learning arenas (see Appendix 1) in order to help us to a) define the goals for all parties, b) design the actual collaboration project, and c) to clarify our different and complementary roles in the whole learning process.

### **The first (A) learning arena (triangle): The Business platform**

This learning arena included six half-day workshops (i.e., a combination of lectures, exercises and cases) and was held in the late autumn of 2004 and early spring of 2005. The purpose of the workshops was to address the theme of becoming a product manager. Each workshop had a main theme: a) Business platform, b) Industrial marketing and c) Relationship marketing. The learning material used included two text books and working with assignments and mini-cases related to managing products and market orientation.

### **The second (B) learning arena: Technology strategy course**

This student course focused on learning the topic of technology strategy (TS) in connection to business strategy, e.g. R & D-strategy, product development and collaboration between companies (Dodgson, 2000). The idea was here in the learning arena B to address and interconnect the "needs" of both the academic course and the BioGaia managers. Students got an in-depth insight into the industry, the company and phases of technological and business innovation through three presentations by the managers. Besides Biogaia two other companies: Alfa-Laval and Sony Ericsson participated with one lecture each. For the BioGaia managers both learning arena B and C meant collaborating more in depth with the students at the university compared to just giving a stand-alone guest lecture. .

### **The third (C) learning arena: Case writing**

This arena meant that the managers provided an opportunity for the students to produce a technology strategy case (Bengtsson and Asplund 2002) that the company could use in their internal development and education, for example in becoming more market oriented. In this case construction process we stressed the key importance of the construction of a instructors manual in order to support new knowledge of both content issues and at the same time

creating a good learning vehicle to support this. The managers and two students groups constructed two BioGaia cases and instructor's manuals during the spring of 2005. In the course a total of eight technological cases were produced.

### **MAIN CONTRIBUTIONS: Managers perspective**

For the managers at Biogaia Lund, reflecting back on the collaboration, the most valuable contributions was the creation of a new business "language" and deeper insights into the business world facing them in their new role as product managers. A stronger confidence and familiarity with handling the often difficult combination of technology strategy and business was also achieved. They also especially liked their lecturing at the university and that this part of the learning arena functioned very well! They also stressed the importance that their preparations for the university lectures also gave them all more clarity of their unique competences and different roles in Biogaia in becoming product managers. Finally, they got more internal visibility from the collaboration project which helped them in forming better links between the research and development unit in Lund and the head office in Stockholm.

### **MAIN CONTRIBUTIONS: University perspective**

When summarizing the contributions to the academy the students achievements and knowledge comes in the forefront. The working format (i.e., pedagogy) worked very well because the managers together with us at the university took a joint responsibility for working with both the themes of market orientation as wells as technology strategy. This gave the project a lot of energy. Finally the visualization of the format (i.e., the three learning areas) functioned very well to communicate the advanced educational collaboration format as well as giving all of us clear roles.

### **IMPLICATIONS: Towards an innovative frame of mind**

What have then been the unique characteristics of this collaboration project in Lund with BioGaia? We think that the main characteristic have been the **innovative and collaborative mindset** that is held by the managers in this very innovative company. Without their "intervention level" (see Bengtsson & Asplund, 2003) attitude a project of this kind and range could not have been possible. Of course the timing was very good and this was pure luck and coincidence. Had the BioGaia manager in Lund approached us some weeks later that year the university course had already been planned or held and the connection to the university course; teaching and case construction with the students had not been possible.

We have now come to main implications for university teachers/teaching. The first implication is to work with companies and managers that really see the opportunities in educational collaboration and to create clear educational gains for the company and managers in the collaboration project and not only for the university and the students. The second implication is to design a pedagogical format that both address the educational needs in the company and at the university which explicitly communicate the overall and different learning objectives for all parties involved at the industry and university; i.e., students, managers and faculty.

Is it then possible for other companies and universities to create this type of educational collaborations in the future? The answer to this is yes but it demands a shift in mindset and a good pedagogical format. We think that one feature is that we as university faculty have to as Dodgson (2000) says go into the thinking of the "5th generation innovation process". This means for us at the university to open up and work together more closer with industry in addressing and achieving mutually shared goals in education. The university faculty could

with their knowledge of both research and pedagogical formats invite industry to new, innovative and “daring” educational collaboration projects. If we, at the universities, could put also us in this “innovative frame of mind” (that the managers held in the collaboration) we could increase the valuable “friction” and exchange between these two contexts (i.e., industry and academy) that is needed for the prospering new future in university education as well as in the business world.

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**Figure: Learning arenas**

