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15.351 Managing Innovation and Entrepreneurship  
Spring 2008

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## TEAM PROJECT DESCRIPTION

### 15.351 Managing Innovation and Entrepreneurship

**Assignment Overview:** A key requirement for 15.351 is for student teams to gain access to managers at a firm (small or large) with significant activities in technological innovation. Their brief is to interview one to three managers at the firm to understand innovation “in practice”. The exercise is intended to be a learning opportunity for students to explore the main lessons of each course module: to develop questions for the managers based on what they have learned, to interview managers, and then to document how they could apply, are applied and could be improved upon in a particular company. This is an opportunity to examine how managing innovation works “in practice” building on the experience of managers. There are three such exercises (with the same or different companies) each one focusing on one of the three course modules.

**General Instructions.** There are **three** group assignments designed to consolidate learning from the first three course modules - Exploring Innovations, Executing Innovations, and Exploiting Innovations. In concrete terms, each assignment includes the following elements:

- a) **Identify a firm of your choice with one or more managers willing to be interviewed (for 1 – 1.5 hours) for your class assignment.** Where possible try to interview at least two people in different positions. While you can choose the firm, there are a number of constraints; most important, the firm must be built around one or more innovative technologies as a source of its competitive advantage (i.e. not strictly service firms or consulting firms). Similarly, there are few constraints on who you interview, only that the manager(s) must have responsibility for innovation i.e. Chief Technology Officer, Head of R&D, Chief Operating Officer, VP or Director R&D, VP or Director Applications, Head of Engineering etc.
- b) **Develop a list of questions** to ask the manager(s), designed to that capture the lessons and key practices from the module (i.e. the innovation processes for exploring an innovation for Assignment 1, the innovation structures and incentives for executing innovations for Assignment 2 etc.). These questions should be structured so that you can address whether the various innovation practices covered in the module are used, how they are organized, what are their strengths, what are their limitations in the “real world.”
- c) **Write up an analysis of your interview(s)** including background information about the firm (age, size, technology, market application, stage in the innovation cycle), your questions, your assessment of the firm’s strengths and weaknesses in implementing “best practices” for the aspect of innovation covered in the Module. Also include recommendations on how they might improve and your insights into the challenges associated with implementing the processes, structures and strategies covered in class in real world situations. Finally document any related

practices – processes, structures or strategies that the manager emphasized but we overlooked in class.

- d) In the period following posting, individuals must read and blog their classmates' assignments providing comments, suggestions, lessons they have learned comparing their assignment outcome with that of others. Blogs should be cumulative wherever possible and assignment authors are encouraged to respond and engage in debate. **Blogging will be graded separately** although the number of blogs that a given assignment has generated will be factored into the assignment grade.

### **Module-specific instructions:**

#### **Assignment 1: Exploring innovation**

- The focus here is to understand the methods that companies use when selecting and refining a particular business concept/project: How did market and technology dynamics provide opportunities for the company? How was the opportunity concept developed? Was it a “technology looking for a home” or a need looking to be met? What sources of ideas were consulted? What methods were used – brainstorming, lead user analysis etc.? How were the risks assessed and prioritized? How did the company plan the order in which technical experiments were done – according to a standard stage-gate, by risk, by investor demands?

#### **Assignment 2: Executing innovation**

- The focus here should be on the structures and incentives the organization utilizes to effectively allow talented individuals (from different functions) to execute innovation processes: How was the entire innovation process structured? Is it a stage-gate process? Are many activities undertaken in parallel? How are R&D teams designed? What is the incentive structure within a team and across teams? What types of incentives are given to technical and business people engaged in the process? Are outside individuals part of the innovation process – for example out-sourced R&D, community-based users such as open source, academics? If so, what are the incentives for them? How is IP managed in these external relationships?

#### **Assignment 3: Exploiting innovation**

- Lastly, it is important to understand the strategies that a firm must consider to most effectively exploit the value of their innovation, including innovation platforms that incorporate multiple product options, portfolios and standards. What are the drivers of commercialization? Does the firm have strong IP? How much do they rely on other assets such as market channels, brand etc.? Does the firm engage in strategic partnerships? If so, what are the basic factors that make this partnership-based approach effective? Which markets and customers will be the initial focus; which portfolio of projects will provide early success and a

platform for the future? Does the firm have a platform strategy? What are the challenges of managing platforms and portfolios for the firm?

### **Additional Guidelines**

- Please limit your reports to 2-3 pages, double-spaced.
- The three projects together will account for 40% of your final grade.
- For each module the assignment directions are the same although you can work with different team members if you wish.
- The assignments must be completed in teams of no more than three people.
- It is preferable if you complete all three assignments in the same company although there is no penalty if you cannot do so for any reason.

### **Deadlines**

Your write-ups must be **submitted by the following due dates:**

- i) Assignment 1 – Exploring Innovation – due Friday March 14 by 5pm
- ii) Assignment 2 – Executing Innovation – due Friday April 18 by 5pm
- iii) Assignment 3 – Exploiting Innovation – due Friday May 9 by 5pm

Also, you should post a corresponding forum posting by the following due dates:

- i) Assignment 1 – Exploring Innovation – due Friday March 21 by 5pm
- ii) Assignment 2 – Executing Innovation – due Friday April 25 by 5pm
- iii) Assignment 3 – Exploiting Innovation – due Friday May 9 by 5pm