

11:00 – 12:00 p.m.

Topic: *“Light the fire? – A Case Study”*

Speaker: Dr. Michael Gordon, *Founder and Chief Executive Officer of AngelDeals.com*

**March 31, 2002:**

Mark Greene and Larry Quinn sat in a local café with apparent stress and frustration written all over their faces. They were doing some deep 'soul-searching'. They wanted to be in business for themselves so badly that they could taste the entrepreneurial thrill, but they couldn't figure out what to do and how to do it. "So what should we do" asked Mark? "Should we take a chance and buy the equipment at auction tomorrow? Quit our jobs and 'go for it'? "But how will we support our families", asked Larry? "Maybe we should just stop thinking about starting a business and give up our life dreams of being in business for ourselves? What is the right answer? I just wish we could figure out a course of action. I can't sleep".

**The Idea:**

Mark Greene and Larry Quinn worked together at Kodak Corporation in the Plastic Materials Development Department since 1990. Those were intense times for Kodak because their breakthrough color photographic technology had been unveiled at the past stockholders' meeting, but the announcement was premature. The product was not ready for commercialization. Many significant problems persisted which prevented Kodak from actually launching the new camera and film system. Dr. Edward Lane, the inventor of the new technology, was driving the company very hard to solve the problems and to get the product to market. Greene and Quinn were responsible for solving the quality control problems for Kodak's plastic camera components: gears, lenses, mirrors, bellows, the camera body, and more. They traveled around the country, working with plastic manufacturers to develop manufacturing specifications, to refine plastic processes, materials, tool and part design, metallizing, electroplating. After three years of this intensive travelling, they began to wonder why there were so many persistent manufacturing problems. Perhaps the country needed a precision manufacturer of small, custom injection molded plastic parts for very demanding applications. They concluded that there was an opportunity and they began to get excited about the possibilities of launching their own business and filling this unmet market need. They had even thought of a name for their company: **Plastechnology, Inc.**

**Mark Greene:**

Mark, 34 years old, graduated from Cal Tech with a Ph.D. in biology. He then went into the army for two years as a Captain, doing research on exotic electro-optic materials. He spent two years at Dupont Plastics Company, working on improved plastic formulations as a development engineer. Currently, he is the Manager of the Plastic Materials Development Department at Kodak Corporation. Mark has a wife and two children - Adam, 5, and Debbie, 2 years old. They live in their own modest home, which has a sizable mortgage. Recently, Mark's father became seriously ill and his mother required considerable emotional support. Mark's family life is very important to him.

### **Larry Quinn:**

Larry, 31 years old, graduated from Lowell Polytechnic Institute with a degree in Plastic Engineering. Throughout his professional career, Larry has distinguished himself as a creative product and process development engineer. Mark is Larry's boss in the Plastic Materials Development Laboratory and they enjoy a productive working relationship. They have grown to be very close friends. Larry's family life revolves around his mortgaged home in the suburbs, his wife, his dog Winston, his children - Ingrid, 3 and Amber, 1 year old.

### **Injection Molding:**

Injection molding is a high-volume manufacturing process which is capable of producing a wide variety of plastic parts from a broad range of plastic materials. In operation, plastic pellets are placed in the hopper and conveyed along the barrel under conditions of high temperature and pressure. The molten plastic is then injected into a single or multi-cavity mold, which is the negative image of the desired part. The molten plastic is allowed to solidify in the mold until the part is stable and can then be ejected. One machine has the capability of producing millions of parts per year.

Applications for thermoplastic injection molding are limitless. Virtually every sector of the economy uses plastic injection molded parts: medical, automotive, sports, recreation, electronics, custom industrial components, toys and other consumer products. Because plastics are so ubiquitous, the industry is well developed and very mature. In fact, there is intense competition for work. Price undercutting is one main way for companies to try to gain a competitive advantage. Since the customer owns the molds, he can remove them at any time and place work with another molder. There are thousands of custom injection molders in the United States and most of them are barely profitable. They range from unsophisticated 'garage shops' to highly sophisticated, highly instrumented manufacturing operations.

The market characteristics would be described as regional, engineering-oriented, equipment intensive, and strongly competitive with a lack of competitive advantage.

### **The Auction:**

Used molding equipment can be purchased from 1.) dealers, 2.) from private molders with excess equipment and 3.) through auctions. Although it is cheaper to purchase at auction, often times it is the wrong equipment and there are no warranties. The equipment is sold 'as is' - '*caveat emptor*'. The molding equipment that Mark and Larry had seen at the auction preview was old technology, larger machines than they wanted, dismantled, but they were quite affordable. They estimated that they could buy the equipment for \$10,000 (if new, \$300,000). They could afford \$10,000 from their personal resources, but if they didn't purchase the equipment at auction, they had no idea how they could finance anything more expensive.

### **April 1, 2002:**

"OK, Larry. It's decision time. Today, April Fool's Day, is the auction. What are we going to do"? Mark and Larry had lumps in their throats from the excitement and uncertainty as the two of them pondered their future.

**Questions for the class to discuss:**

What risks face Larry and Mark?

Are they truly entrepreneurs? Are they capable of actually starting this business?

Is this an opportunity and should they pursue it?

What are the next steps?

Should they buy the equipment at auction?

How do they raise money?

Would you invest if they approached you for capital?