

## Due Diligence and Emerging Technologies

The Securities Act of 1933 first established the term “due diligence” in regard to equity brokers and dealers who could not be held liable if they appropriately investigated companies whose stock they were selling. In more recent years the term has come to mean the care that a reasonable person exercises to avoid harm to other person or their property. For commercial organizations it refers to the duty of the firm’s directors and officers to act prudently in evaluating risks that may be associated in transactions. Thus, any risks should be taken knowingly and purposefully, and it is the duty of management to apprise the Board of Directors of any operating, business, compliance, safety, reputational and other risks that a company may face.

It is currently common knowledge that vulnerabilities to cyberthreats pose a significant threat to enterprises and a recent whitepaper published on May 3, 2013 by the National Association of Corporate Directors (NACD) made a number of recommendations. Prominent among them was that: information security be prominently placed on board agendas; a corporation’s information security policy be thoroughly reviewed and approved; management should give specific reports on information security risks, incidents and activities; and audit committees need to devote time to addressing information security risks.

The NACD Advisory Council on Risk Oversight stated that “...the quality of people on boards is more important than ever.” Beyond bringing their respective talents and skills to the board dialogue, directors should have a “real and thorough” understanding of the business to be able to effectively discuss strategy and risk with management.” While it may be relatively easy to locate individuals with information security expertise it is problematic that experts who have knowledge of a wide range of range of technology can be similarly identified. This is even more of a problem when you consider that technology is constantly and rapidly evolving. What, for example, happens if: a board is presented with information by management and they don’t know the significance of, or even understand, what they have seen; or the board doesn’t know what questions to ask to get to the heart of the problem; or there is not the appropriate expertise on the board and they don’t even know what expertise is required.

Let’s talk about a few possible hypothetical scenarios:

### Scenario #1: The New Detergent (Nanotechnology)

A company has a venerable clothes detergent on the market but is losing market share. They find that by incorporating whiteners and softeners in nanocapsules the effectiveness of the detergent is significantly improved. Routine toxicology studies were done in mice and proved negative. The new detergent is produced, sales spike and all is well for six months when it is discovered that the nanocapsules leave deposits in clothed which interact with skin bacteria causing severe dermatitis. What went wrong? Could this tragedy have been prevented if someone on the board knew that mouse fur acts very differently than clothing?

## Scenario #2: The Parts Manufacturer (3D printing)

A aircraft parts manufacturer purchases a new 3D printer and finds that they can produce parts out of titanium more rapidly and with less waste than is possible with traditional manufacturing processes. They bid for a contract to produce a titanium aircraft wing connector and, because of the new printer, undercut the competition on price and win the contract. However, testing shows that the new connector is structurally unsound and they need to make the part using traditional machining. This means that they will lose money on the contract. What went wrong? Could this outcome have been prevented if someone knew that titanium processing must occur in a vacuum or under an inert atmosphere to prevent gases from being dissolved in the metal and thereby compromising strength and integrity?

The list of possible scenarios can be expanded indefinitely but the bottom line is that in the current environment it is incumbent on companies to be able to assess risks by having the appropriate board membership, being able to call upon needed expertise as required and knowing when such expertise is needed.

For further information contact:

Steven J. Hausman, Ph.D.  
President, Hausman Technology Consulting  
Website: [www.HausmanTech.com](http://www.HausmanTech.com)  
Email: [steve@HausmanTech.com](mailto:steve@HausmanTech.com)  
LinkedIn: <http://www.linkedin.com/in/stevenhausman>  
Phone: 301-610-0495