Sample Executive Summary for an Internship Report to Managers*

The Cain Project in Engineering and Professional Communication

This work is produced by The Connexions Project and licensed under the
Creative Commons Attribution License †

Abstract

This handout illustrates a well-written summary about an internship for a report to managers.

1 Executive Summary

During my internship project for Chamdelphia Corporation, I investigated opportunities where nanotechnology could be effectively used. If a technology strategically fit the company's technological and business objectives, I recommended ways to integrate and commercialize it. The technologies I investigated were at various stages of development: Some are available today, but others are one to two years away from being commercially available. This report describes new and evolving technologies that can enhance the performance of existing tools or aid in the development of a new generation of tools at Chamdelphia.

1.1 Aerogel

The Aerogel is a nanoporous insulating material that was evaluated as a thermal insulator. It is in the second stage of the Project Development and Management (PDM) stage gating process. Results from the tests I performed were promising and the aerogel is being evaluated for use on several projects.

1.2 Nanostructured Metals

Severe plastic deformation (SPD) of metals and alloys refines grain sizes and introduces nanoscale features that offer the prospect of enhancing metal properties to levels not otherwise attainable with current technologies. Virtually all metal and alloy properties, particularly strength, can be enhanced without a significant degradation of other properties such as ductility. These materials are more expensive, but the benefits may outweigh the cost in the final analysis.

1.3 Chemical Analyzers That Use SETs

A disposable array based on ultra-sensitive single electron transistors (SETs) can be created in a microarray test chip. These chips, sometimes referred to as lab-on-a chip technology, can be used for chemical composition and concentration analysis with a portable computer. Most of the research in this area is focused on medical industry applications. However, this technology differs primarily because it is based on SETs, which are solid state devices and can more easily be adapted for use on nonbiological specimens.

*Version 1.5: Jul 25, 2008 11:26 am -0500

†http://creativecommons.org/licenses/by/2.0/

1.4 Actions Needed Now to Reap Benefits

Some technological hurdles must be overcome before any of these technologies can come to fruition. However, most or all of the basic research has been completed and with a minimal financial investment. All of these technologies can be successfully integrated into many of the existing tools. Nanotechnology has many potential applications at Chamdelphia. I recommend that Chamdelphia aggressively pursue the research and development of aerogels, nanostructured metals, and the lab-on-a-chip technologies. My findings are supported by the preliminary research I conducted during my internship. However, additional research, development, and business evaluations will be required to confirm my assertions.

The true benefits of Nanotechnology can only be realized by staying current with all the relevant research and development work. This is a new and exciting area of study with unprecedented benefits if the opportunities are identified and pursued.