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SURVEY OF THE
RAW - MATERIALS INDUSTRY
IN CYPRUS

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SURVEY OF THE RAW-MATERIALS

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by

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SUMMARY

The purpose of this survey was to investigate the implications of technology transfer on the improvement of the industrial infrastructure of raw materials in Cyprus. This project intends to make a statement as to how the recently established Nanomaterials Research Center (NRC) at HTI can serve as a bridge for technology development between the science/technology creators (HTI faculty) and the technology users (industry at large).

The first step in conducting the survey was to collect information regarding the companies that use raw materials in Cyprus. After collecting the data we divided the companies into categories and identified the ones that can support such kind of raw material improvement.

The next step was to make on-site visits to the pertinent industries for raw material and process evaluation. From the on-side visits we identified two case studies appropriate for our survey on which we will center our research. The specifics of the type of technology transfer and the relevant scientific background will be provided at the end of the project followed by the conclusions of the survey.

INTRODUCTION

One of the goals and probably the most important one for every industry and their production manager is to increase productivity and the quality of the end product by spending as less money as possible. Because of the competitive world we live in today companies try to increase their sales by selling their products at lower prices, offering better deals to the consumers resulting to the increase of their profitability.

Here is where the Nanomaterials Research Center comes in; NRC is a new High-Tec laboratory created in the Higher Technical Institute in Cyprus (Mechanical Engineering Department). NRC serves as a bridge for technology development between the science/technology creators (the HTI and students) and the technology users (industry at large), in order to promote technology transfer.

NRC deals with n-materials, which are scientifically interesting, and of great technological importance. The goal of NRC is to improve the properties of these materials such as strength, ductility, magnetic, electronic, and optical properties. These property improvements derive from structural features, such as grain size or layer thickness on the scale of 1-100 nm, much smaller than that found on conventional materials. The mission is to find economical methods for the production of n-metals, ceramics, and their composites and infiltrate them into the Cyprus industry.

One way to achieve economic production is to buy raw materials of poorer quality therefore cheaper and transform them to materials of the needed quality and standards. By the decrease in price of the raw material we achieve economic production and products which can have even better quality. Now the companies can sell their products at lower prices be compatible and increase their profit.

The survey is about finding the ways for the Cyprus industry to adopt technology transfer concerning raw materials. If such technological

improvements occur in the Cyprus industry economical benefits will not be the only benefits. The Cyprus industry will have much more to gain; the production of n-materials combined with good production processes will result to the production of higher quality end products at an affordable price. Therefore the exporting opportunities will increase, giving a better place for the Cyprus industries in the European market and a stronger economy for Cyprus. With a stronger economy and a stronger industry there will be no limit to the improvement of Cyprus as a country and to the significance of the role that Cyprus could play in the overseas market.

The objective of the survey was to form a database of the companies that use raw, categorized them into groups and then pick some companies as a representative sample. The next step was to make on-site visits to some companies to evaluate the production process and the specifics of the raw materials used. Subsequently, we identified the type of technology transfer that applies to the raw materials used by each company. The result of these on-site visits was to narrow down our list into two companies from the metal working category, which will be our case study.