

# INFORMATION SYSTEMS RELATED TO TECHNOLOGY TRANSFER

## A Report on the Organizations, Mechanisms, and Barriers to Technology Transfer in the United States

### INTRODUCTION

The Federal government will spend approximately \$70 billion for Research and Development (R&D) this year through Federal laboratories, universities, and companies. This vast expenditure of resources addresses virtually every area of science and engineering. Harnessing the leading edge technology developed by this investment can be a major factor in driving the engine of the National economy and bolstering America's competitive posture in the international marketplace.

While this technology may seem to be readily available for commercial use, there are many barriers that prevent its easy movement from the Federal to the Private Sector. Among those barriers are a lack of awareness of the R&D, a misunderstanding of its potential applications to commercial use, a means to access technology information, and the capital to fund the commercialization process. These barriers are compounded by others such as issues with intellectual property rights, concern for national security, and institutional barriers.

"Technology Transfer" is a complex topic that has various meanings to different audiences. To industry it could mean loss of proprietary technical information to a competitor or the licensing of a new technology which could be used to increase productivity or introduce a new product. To the military or the state department, it could be connected with helping an ally to introduce advanced weapon systems for cooperative defense; but is more likely to be construed as meaning the loss of a national security-sensitive technology to a potential adversary via espionage or a breach in security,

In the purest sense of the meaning, Technology Transfer is the process by which technology, knowledge and/or information developed in one organization, for one purpose is applied and utilized in another organization, in another area, for another reason.

For Federal organizations, this could mean:

- Use of technology from outside the government for a government purpose (Technology Infusion)