NIST releases annual report on federal technology transfer

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When 33 miners became trapped 2,000 feet below ground, the Chilean government called on NASA specialists to help care for and rescue the men. The rescue is just one example of federal technology transfer highlighted in an annual report compiled by NIST. Credit: Hugo Infante, Government of Chile

With new treatments for disease, test suites that safeguard computers, and even expertise to rescue miners trapped thousands of feet underground, federal laboratories have a wealth of technologies and know-how that can give U.S. companies a competitive edge and improve quality of life.

These science and technology resources were developed in response to national challenges, but they also can be valuable assets for private industry and academia as well as other government agencies.

Each year—as required by federal regulation—the National Institute of Standards and Technology (NIST) releases a report on technology transfer from federal laboratories, detailing efforts to transfer the results of public investment in research to meet marketplace and other needs. The newest technology transfer report tallies the thousands of patents, cooperative agreements, licenses and other pathways by which these transfers happened in 2010.

That year the 11 federal laboratories included in the report had more than 18,000 active collaborative relationships with private entities and other government agencies, disclosed more than 4,700 inventions, submitted 1,830 patent applications and received 1,143 patents.

Examples of federal technologies that have been successfully adopted by the private sector include tests developed at the Department of Health and Human Services' Centers for Disease Control and Prevention. According to the report, the new tests can detect HIV-1 and identify how recently a person was infected, leading to new assessments of infection rates. The technology has been licensed to companies around the world. Within the Department of Commerce, NIST developed the Advanced Combinatorial Testing Suites, which provide a systematic means for testing complex software failure modes. To date, more than 5,000 units have been deployed worldwide.

And arguably one of the most famous examples of federal technology transfer took place near the San José Mine in Chile, when a collapse left 33 men trapped more than 2,000 feet underground. The Chilean government invited NASA experts to consult on caring for the stranded men and to help develop a capsule that would bring them safely to the

surface. On Oct. 13, 2010, all of the men were rescued.

In the report's foreword, Under Secretary of Commerce for Standards and Technology and NIST Director Patrick Gallagher notes, "This report will help serve as a baseline to measure our continued progress toward achieving the ambitious challenge issued to the federal agencies to significantly increase technology transfer over the next five years, while achieving excellence in performing our mission-focused research."

That challenge was outlined in a 2011 Presidential Memorandum* that highlighted the importance of innovation to accelerate development of new industries, products and services. The president directed federal agencies to take action to establish goals and measure performance, streamline administrative processes, and facilitate local and regional partnerships in order to accelerate technology transfer and support private-sector commercialization.

More information: Federal Laboratory Technology Transfer—Fiscal Year 2010 is available at: www.nist.gov/tpo/publications/ … Fed-Lab-TT_FINAL.pdf

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