

## **Environmental technology transfer synergism: health risk assessment and community rejection of commercial electronic chip fabrication in upstate New York**

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**Abstract:** A prerequisite to technology transfer is community acceptance of a new technology to be transferred. Health risk assessment is the instrument typically used for evaluating technologies relative to public health issues, which often constitute one basis for community concern about a technology. Technology transfer, therefore, also depends upon community acceptance of risk assessment technology, which itself is new to many communities. Interdependence of a hardware technology, such as electronic chip fabrication supporting the computer industry, with a software technology, specifically health risk assessment, may be termed 'technology transfer synergism'. Here, a case study is presented in which transfer of chip fabrication technology to an upstate New York community failed. The primary basis for this technology transfer failure was community rejection of the chip fabrication technology, not mistrust of risk assessment as an evaluating instrument.

**Keywords:** Technology transfer; chip fabrication; health risk assessment; technology transfer synergism; facility siting; facility permitting.

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**Biographical notes:** Dr. Michaels uses health risk assessment to assist communities to evaluate new technologies. By congressional invitation he testified in support of a major piece of technology transfer legislation: the Superfund Technology Demonstration Act. He has consulted for the US Congress, Office of Technology Assessment; and the California Governor's Office of Appropriate Technology. He serves on the Editorial Board of the journal, *Environmental Engineering and Policy* and most recently has assisted the US AID to introduce comparative risk assessment technology to Caspian Sea nations to enable them to prioritise energy development options in that region. He is also president of RAM TRAC Corporation.

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