

China tops US in high-tech exports

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[BEIJING] A study of technological competitiveness suggests that China's rapid development in high-tech product exports is challenging the United States' leadership in global technological innovation.

□ China ranks highest
in high-tech exports

Published last week (24 January) by researchers at the US-based Georgia Institute of Technology, the 2007 'High Tech Indicators' Technology-based Competitiveness of 33 Nations' report traces the technological performance of 33 countries in the past 15 years.

The report analysed four 'input' indicators: national orientation (evidence that a country is actively trying to achieve technological competitiveness), socioeconomic infrastructure, technological infrastructure and productive capacity (a measure of the resources devoted to manufacturing products and how efficiently these are used).

The opinions of 392 experts from within the 33 countries were also used.

In addition to these, the researchers gave each country an 'output' indicator of technological ranking based on its recent success in exporting high technology products, primarily evaluated by comparing the monetary value of electronics exports.

China obtained a figure of 82.8, replacing the United States who achieved a figure of 76.1 at the top of the technological league table.

Compared with the 2005 report, China rose sharply in the productive capacity indicator, but dropped in the national orientation and technological infrastructure indicators, suggesting that the basic research capacity needed to develop, produce and market new technology is insufficient in China.

The report found that the United States and Japan have both fallen in relative technological ranking because of the dramatic rise of China and other nations like South Korea and Singapore.

"When you take China's low-cost manufacturing and focus on technology, then combine them with the increasing emphasis on research and development, the result ultimately won't leave much room for other countries," says co-author Alan Porter, co-director of the Georgia Tech Technology Policy and Assessment Centre.

Porter told SciDev.Net that he agrees China is still lagging behind in basic research. "But if we step back, the trend over two decades is strongly upward on both input and output indicators. I

see strong signs of rising Chinese strength in basic science and technologies," he says.

Liu Xielin, a professor of science policy at the Graduate University of the Chinese Academy of Sciences, says the study offers separate criteria to evaluate China's innovation capacity.

"But compared with other systems, such as those developed by the United Nations, the Georgia Tech's indicators are too simple," he told SciDev.Net.

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