



Internationale Forschungs-, Technologie- und Innovationspolitik

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Berichterstattung zu strategischen Entwicklungen auf den Politikfeldern des BMBF in führenden Industrieländern

Global

International University Strength Moving R&D Offshore

To identify and rank the importance of different factors feeding into the corporate decision-making process on locating R&D facilities, a new study sponsored by the Ewing Marion Kauffman Foundation tracked R&D work coming into the U.S. from abroad and R&D work going in the reverse direction; addressed favored countries for locating R&D work and why; and outlined trends industry expects for R&D expansion in the future.

Among the top factors going into new R&D siting decisions in both developed and emerging countries are market growth potential, quality of R&D talent, collaboration with universities and IP protection. How these factors influence the decision, however, depend on whether the site is in a developed or emerging country. In neither emerging nor developed countries was cost consideration the most important factor, which runs contrary to what has been reported by the media.

In fact, collaboration with universities was particularly prevalent as a factor for expanding to emerging countries, even though these countries provide lesser degrees of IP protection.

<http://www.kauffman.org>

EU / Europa

EU und China verpflichten sich zu Zusammenarbeit bei sauberen Kohletechnologien

Die EU und China haben eine Vereinbarung zur Zusammenarbeit bei der Entwicklung sauberer Kohletechnologien zur Stromerzeugung und anderen Energiethemen ausgearbeitet. Die Vereinbarung wird während der sechsten Energiekonferenz EU-China in Shanghai unterzeichnet.

http://icadc.cordis.europa.eu.int/fep-cgi/srchidadb?CALLER=DE_NEWS&ACTION=D&RCN=25245&DOC=15&CAT=NEWS&QUERY=1

EU und Japan vereinbaren Zusammenarbeit bei der friedlichen Nutzung der Kernenergie

Die Europäische Kommission und Japan haben heute ein Abkommen über die Zusammenarbeit auf dem Gebiet der friedlichen Nutzung der Kernenergie unterzeichnet. Das Abkommen schafft stabile Rahmenbedingungen für die Entwicklung des Kernmaterialhandels zwischen den beiden Vertragsparteien und erleichtert die Zusammenarbeit in Bereichen von gemeinsamem Interesse, etwa bei den Sicherheitsmaßnahmen.

<http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/06/236&format=HTML&aged=0&language=DE&guiLanguage=en>

Energie, Umwelt, Wettbewerbsfähigkeit: Die Kommission ruft eine neue hochrangige Gruppe ins Leben

In Weiterführung der Mitteilung zur Industriepolitik vom Oktober 2005 hat die Europäische Kommission eine neue hochrangige Gruppe (HRG) für Wettbewerbsfähigkeit, Energie und Umwelt ins Leben gerufen. In den nächsten zwei Jahren wird diese HRG daran arbeiten, die Koordination zwischen politischen und gesetzgeberischen Initiativen noch enger zu koordinieren und zur Schaffung eines stabileren und besser vorhersehbaren Regulierungsumfelds beitragen. Sie wird versuchen herauszufinden, wie sich das Leistungspotential der Grundstoff- und der Produktionsgüterindustrie mobilisieren lässt, indem die Wettbewerbs-, die Energie- und die Umweltpolitik enger miteinander verzahnt werden.

<http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/06/226&format=HTML&aged=0&language=DE&guiLanguage=en>

Kommission schlägt zweistufige Struktur für EIT vor

Die Europäische Kommission hat am 22. Februar ihre vorläufigen Pläne für die Einrichtung eines Europäischen Instituts für Technologie (EIT) auf der Grundlage einer zweistufigen Struktur, bestehend aus einem zentralen Verwaltungsrat und einem Netzwerk abgeordneter "Wissensgemeinschaften" von Universitäten, Forschungszentren und Unternehmen in ganz Europa, bekannt gegeben. In der Mehrheit der über 700 Stellungnahmen wurde gefordert, dass das EIT auf einer Art Netzwerk basieren sollte.

http://icadc.cordis.europa.eu.int/fep-cgi/srchidadb?CALLER=DE_NEWS&ACTION=D&RCN=25257&DOC=1&CAT=NEWS&QUERY=1

Neue Leitlinien für Gründer von Kooperationsnetzen

Das von der EU finanzierte Projekt Veritas hat Leitlinien zum Thema "How to initiate

cooperative networks" ("Gründung von Kooperationsnetzen") veröffentlicht. Die Leitlinien sind kostenlos erhältlich. Die Leitlinien richten sich vor allem an kleine und mittlere Unternehmen (KMU), die häufig nur wenig Erfahrung mit der Zusammenarbeit im Rahmen eines Projekts haben und darüber hinaus nur über begrenzte finanzielle Ressourcen und Zeit verfügen. Auch für Industrieverbände, Entwicklungsagenturen und Einzelunternehmen könnten sich die Leitlinien als nützlich erweisen.

http://icadc.cordis.europa.eu.int/fep-cgi/srchidadb?CALLER=DE_NEWS&ACTION=D&RCN=25261&DOC=5&CAT=NEWS&QUERY=1

USA

NSF Releases Science & Engineering Indicators 2006

The National Science Foundation (NSF) released Science & Engineering Indicators 2006, an update for the nation's most significant, quantitative and neutral assessment of the health of the U.S. and international science and engineering communities.

Some Perspectives on U.S. and International S&T Growth

The international spending on research and development (R&D) is growing rapidly, to \$810 billion in 2003. The U.S. alone accounted for an estimated \$292 billion in national R&D in 2003, and projected to rise to \$312 billion in 2004. From 1990 to 2003, S&E Indicators reveals that China tripled the percentage of its high-tech manufacturing component from 6 percent to 18 percent of its total output, while the United States raised its high-tech output from 12 percent to 30 percent of its total during the same period. Europe and Japan lost market share during the period. U.S. patent applications from the Asia-8 nations (South Korea, Indonesia, India, Malaysia, Philippines, Singapore, Taiwan and Thailand) are growing rapidly.

Science and engineering education and labor force

S&E Indicators 2006 cites a mixed result in the number of first university degrees. Overall, these degrees increased from 6.4 million to 8.7 million between 1997-2002. However, concern persists over the continued low rate of U.S. first degrees in the natural science and engineering, while numbers rise substantially in Europe and Asia. Hitting a low point in 2003, student visas have begun to recover. And between 2003 and 2004, foreign graduate enrollments in S&E fields increased by about 2.4 percent. Foreign-born science and engineering students in 2003 earned one-third of all Ph.D.s awarded.

The conclusion about globalization

Indicators 2006 reveals that the "potential" often cited in past reports to describe global S&T competition is now real. One of the opportunities of increasing worldwide scientific activity is increased collaboration and sharing among scientists of many nations, whose work can open many doors, to broaden knowledge and create innovations for the world's benefit. These opportunities benefit the United States because its robust and flexible collegiate education system empowers students to display a high level of creativity in their own research.

<http://nsf.gov/statistics/seind06/>
http://www.nsf.gov/news/news_summ.jsp?cntn_id=105857

The FY 2007 budget request for NASA totals \$16.8 billion

This is a 1 percent increase from FY 2006. Of the five directorates, the *Exploration Systems Mission Directorate (ESMD)* would receive the largest increase at \$3.98 billion, a 30.4 percent increase from FY06. Three-fourths of the ESMD FY07 budget, \$3.06 billion, is requested for the Constellation Systems Program. This includes \$894.7 million to develop and implement the Crew Exploration Vehicle,

which will replace the Space Shuttle that is due to retire in 2010.

The Human Systems Research and Technology FY07 budget request is \$274.6 million, a 56 percent decrease from FY06. Human Systems Research and Technology supports programs to develop and implement technology critical for supporting long-term human survival and performance during space expeditions.

The third and final component of ESMD is Exploration Systems Research & Technology. The budget request includes \$646.1 million to support four programs:

- Exploration Technology Development Program - program develops key technologies to enable safe, affordable, effective and sustainable human and robotic exploration missions
- Centennial Challenges Program - program establishes purse awards to stimulate innovative technical accomplishments that could advance the state of civil space exploration and aeronautics
- Robotic Lunar Exploration Program - program develops robotic missions to the moon
- Prometheus Power and Propulsion Program - program develops nuclear technologies for power and propulsion

<http://www.ssti.org/Digest/2006/021306.htm>

Japan**Reform des Science Council of Japan**

Der Science Council of Japan (SCJ) hat bis auf 27 Personen alle seine 210 Mitglieder entlassen. Diese Maßnahme wurde im Rahmen einer umfassenden Reform ergriffen, deren Ziele die stärkere Berücksichtigung wissenschaftlicher Standpunkte bei der Entwicklung gesetzlicher Richtlinien und eine schnellere Reaktion auf dringende Probleme sind.

<http://www.jspis-bonn.de>

Singapur

Singapore Plans \$4.6B R&D Investment

The Singapore Ministry of Trade & Industry (MTI) announced plans to commit \$7.5 billion (\$4.6 billion US) over the next five years to sustain innovation-driven growth through economic-oriented R&D. MTI's R&D plans are set out in the Science & Technology Plan 2010 (STP2010), released Feb. 16 by Minister for Trade and Industry Lim Hng Kiang. STP2010 is part of the Singapore Government's overall strategy to make significant investments in R&D in the next five years, so as to increase national spending in R&D to 3 percent of gross domestic product by 2010. The National Research Foundation will coordinate the research of different agencies within the larger national framework, as well as develop policies and plans to implement the strategic thrusts for the national R&D agenda.

STP2010 aims to sustain innovation-driven growth by strengthening R&D capabilities through four key programs:

- *Developing the research talent in Singapore.* A*STAR will develop and sustain a substantial pipeline of research talent to meet industry needs. A*STAR aims to draw the best global talents to Singapore to meet its immediate needs for quality R&D manpower and to create a vibrant research community.
- *Strengthening and deepening the nation's research capabilities.* A*STAR will focus efforts and resources to build internationally competitive concentrations of R&D in areas that are most relevant to the development of key industry sectors.
- *Promoting private sector R&D.* EDB will lead efforts to promote private sector R&D. With the support of A*STAR and universities and polytechnics, EDB will work to anchor more flagship R&D projects and attract more multinational companies to locate corporate R&D activities in Singapore.

- *Providing infrastructure support.* primarily through the development of Fusionpolis, where companies can collocate and engage in R&D collaboration with the SERC research institutes for public-private joint R&D in the physical sciences and engineering.

<http://app.mti.gov.sg/data/article/2001/doc/S&T%20Plan%202010%20Report.pdf>

China

China and Australia to collaborate on water research

China and Australia agreed to create a joint centre for water research, a fund for scientific cooperation and an exchange programme for young scientists. The plans were announced on Monday (20 February) during a visit by China's science minister Xu Guanhua to Australia. The centre for research on water resources will have branches at the Chinese Academy of Sciences in Beijing and the University of Melbourne in Australia. It will focus on issues such as groundwater management and improving irrigation techniques.

http://uninews.unimelb.edu.au/articleid_3180.html

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