Internationale
Forschungs-, Technologie- und
Innovationspolitik

Info-Service

18. Dezember 2006

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

Global

The 2006 R&D Scoreboard

This report compiles data about the top 1250 global companies as measured by R&D investment. Within the five largest sectors, the pharmaceutical and software industries continue to enjoy a steady increase, gaining on technology hardware in the top spot.

http://www.innovation.gov.uk/rd_scoreboard/downloads/2006_rd_scoreboard_analysis.pdf

Are Elite Universities Losing Their Competitive Edge?

The authors study the location-specific component in research productivity of economics and finance faculty who have ever been affiliated with the top 25 universities in the last three decades. They find that there was a positive effect of being affiliated with an elite university in the 1970s; this effect weakened in the 1980s and disappeared in the 1990s.

http://papers.nber.org/papers/w12245

The Importance of Clusters for Spillovers from Foreign Direct Investment and Technology Sourcing

This paper examines the link between cluster development and inward foreign direct investment. The conventional policy approach has been to assume that inward foreign direct investment (FDI) can stimulate significant clustering activity, thus generating significant spillovers. The authors conclude that clusters can generate significant productivity spillovers from FDI, though this only occurs in pre-existing clusters.

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=904500

Determinants of Long-Run Regional Productivity: The Role of R&D, Human Capital and Public Infrastructure

This paper estimates the long-run relationship between regional total factor productivity, R&D, human capital, and public infrastructure between 1980 and 2001. Empirical evidence shows that there exists a long-run equilibrium between productivity level and the three kinds of capital; among them, human capital turns out to have the strongest impact on productivity. Regional productivity is found also to be positively affected by R&D activity and public infrastructure of neighboring regions.

http://www.bancaditalia.it/ricerca/consultazioni/temidi/td06/td597_06/en_tema_597.pdf

Bahrain Seeks to Become Research Leader with $1B Science and Technology Park

The Economic Development Board of Bahrain and Kuwait Finance House have begun planning a $1 billion (US) Science and Technology Park in Bahrain. The park

will be modeled on the Sophia Antipolis Technology Park in France, which is the largest of its kind in Europe and the second-largest technology park in the world, according to the European Commission's PAXIS innovation program. The Kuwait Finance House has appointed Philippe Mariani, former director of the French park to oversee the new project. Bahrain Science and Technology Park has already announced several partnerships with Middle Eastern and European universities to attract research in clean technology, renewable energy, environmental technology, IT, and communications.

http://www.ssti.org

Norwegen

Proposed increase of NOK 1.1 billion in the 2008 research budget

The Research Council recommends a large-scale investment in 2008 to focus on the northern areas and research on energy and the environment. This is reflected in the Council's overall budget proposal to the ministries. Norway is committed to reducing its greenhouse gas emissions by two-thirds by 2050, and the Research Council believes that research is key to achieving this goal.

- In the budget proposal recently submitted to the Ministry of Education and Research, the Research Council recommends an increase of NOK 93 million to its research programmes relating to environment and energy: CLIMIT (Natural Gas Power), RENERGI (Clean Energy for the Future and NORKLIMA (Climate Change and its Impacts in Norway).
- The Research Council proposes an increase of NOK 300 million to research related to the northern areas, with special focus on petroleum activity in the north, innovation and industrial development, increased cooperation with Russia, and better utilisation of the unique research opportunities in the northern areas.
- The Research Council proposes an increase in 2008 of NOK 130 million in allocations to key funding instruments designed to promote independent, researcher-initiated research projects in all fields.
- The Research Council budget proposal also calls for strengthening instruments that promote R&D activity in trade and industry. An increase of NOK 70 million is proposed for the new Programme for User-driven Research-based Innovation (BIA) and NOK 80 million to a newly established programme to promote regional R&D and innovation.

http://www.forskningsradet.no/servlet/Satellite?c=GenerellArtikkel&cid=1165475216882&pagename=ForskningsradetEngelsk%2FGenerellArtikkel%2FVisMedHovedtilhorighet

EU / Europa

Kommission legt Zeitplan für Überarbeitung des EU-Emissionshandelssystems ab 2013 fest

Die Europäische Kommission hat eine Mitteilung angenommen, in der sie ihren Zeitplan für die Überarbeitung des EU-Emissionshandelssystems (EU-ETS) aufgrund der Erfahrungen festlegt, die seit der Einführung dieses Systems im Januar 2005 gemacht wurden. Die Kommission möchte die Umweltwirkung des Emissionshandels verbessern, indem sie neue Sektoren und Gase einbezieht und seine weltweite Anwendung als wesentliches Mittel im Kampf gegen den Klimawandel fördert.

http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/06/1548&format=HTML&aged=0&language=DE&guiLanguage=en

EUCAR legt Forschungsprioritäten für Automobilsektor fest

Der Automobilsektor, der durch verschiedene Aspekte (Energie, Umwelt, Sicherheit) immer stärker unter Druck steht, be-

nötigt zur Erfüllung neuer Verbraucher- und Gesetzesanforderungen unbedingt eine Strategie, um bei wachsender internationaler Konkurrenz wettbewerbsfähig zu bleiben. Auf der EUCAR-Jahreskonferenz am 23. November wurde eine diesbezügliche Strategie mit entsprechenden Forschungsprioritäten vorgestellt. Dieser integrierte Ansatz würde die Weiterentwicklung herkömmlicher Antriebstechnologien und Abgasnachbehandlungssysteme zur Emissionsreduzierung, den Einsatz alternativer Treibstoffe wie Biomasse und die Suche nach besseren Möglichkeiten zur Speicherung von Elektrizität und Wasserstoff umfassen.

http://cordis.europa.eu/fetch?CALLER=DE_NEWS&ACTION=D&DOC=7&CAT=NEWS&QUERY=1165249696241&RCN=26717

USA

Findings from the New S&T Benchmark Report

The Task Force on the Future of American Innovation released "*Measuring the Moment: Innovation, National Security, and Economic Competitiveness. Benchmarks of our Innovation Future II."* "These benchmarks demonstrate America's historical strength in science and technology, but they also reveal the impact of earlier decisions about the federal investment in basic research in physics, mathematics, engineering, chemistry and computing. The benchmarks help us see how inadequate investment has helped to set in motion an erosion of American leadership in science.

U.S. leads world in nanotechnology but competition is fierce: Two recent reports, one by Lux Research and one by the President's Council of Advisors on Science and Technology, confirm that the United States leads the world in nanotechnology, but that future leadership is not assured. Despite doubled spending on nanotechnology between 2001 and 2004, the U.S. share of the global investment in this field decreased from 30.3 percent to 26.2 percent.

U.S. universities are still best in the world: In its rankings of the top universities in the world, researchers at the Shanghai Jiao Tong University found that the United States had 8 of the top 10 and 35 of the top 50. A report from the Center for European Reform found that the United States has 18 of the world's top 20 universities, and 37 of the top 50.

http://futureofinnovation.org/2006report/
http://www.aip.org/fyi/2006/137.html

Number of Science and Engineering Doctorates at All-Time High

The number of doctorates awarded in the U.S. within science and engineering (S&E) fields reached an all-time high in 2005, according to a recent National Science Foundation (NSF) issue brief. After the previous high of 27,273 S&E doctorates awarded in 1998, the number decreased for four years until 2002, and has steadily increased the past three years to the 2005 number of 27,974 Ph.D. graduates. The percentage of Ph.D. degrees awarded to women in science and engineering as a whole increased from 32 percent in 1996 to 38 percent in 2005.

http://www.nsf.gov/statistics/infbrief/nsf07301/

Study Finds Immigrant Entrepreneurs Drive U.S. New Business Formation

One out of four public, venture-backed companies started since 1990 were founded by entrepreneurs who immigrated to the U.S. before starting their company, according to a recent study commissioned by the National Venture Capital Association. Immigrant-founded companies are even more common within high-tech industries, where 40 percent of all new publicly traded firms in the past 16 years have had immigrant founders, including widely-acclaimed IT success stories like Google, Yahoo! and eBay. The aggregate market capitalization of new immigrant-founded tech companies since 1990 exceeds $500

billion. India was the most common country of origin for the founder, followed by Israel and Taiwan for publicly traded companies and the United Kingdom, China, Iran and France for private companies.

http://www.nvca.org/pdf/AmericanMade_study.pdf

China

China's R&D budget overrated, warns official

China will overtake Japan to become the world's second biggest spender on research and development by the end of 2006. But the estimates by the Organization for Economic Cooperation and Development (OECD) conflict with official Chinese figures, and a senior Chinese science policy advisor warns the report might have overestimated China's spending. The OECD says China will have spent over US$136 billion on research and development (R&D) in 2006. If correct, this makes China the world's second biggest spender on R&D behind the United States, estimated to invest US$330 billion this year.

But the OECD figure is quite different to the official Chinese figures. According to China's National Bureau of Statistics, the country's R&D spending in 2005 was about US$30 billion. With a 20 per cent projected growth for this year, it should reach $36 billion by the end of 2006, just over a quarter of the amount predicted by the OECD report.

The OECD report is based on China's R&D investment from 2000-2004, with an average projected annual growth of 20 per cent. The OECD report also showed that the number of science researchers in China has grown by 77 per cent between 1995 and 2004, reaching 926,000. This is not far behind the 1.3 million researchers in the United States.

http://www.scidev.net/News/index.cfm?fuseaction=readNews&itemid=3268&language=1

Südkorea

Nano-related activities in Korea

The Korean government strongly supports nanotechnology (NT) and has a number of initiatives with substantial financial commitment; the performing organizations are involved in a broad range of research activities. In comparison to other advanced countries such as the US or Japan, Korea is still behind in both the level of fundamental (core) technology and the country's infrastructure for NT R&D.

However, in several specific technical areas such as carbon nanotubes (CNTs), Korea has already reached world-class levels. In addition, the local engineering venture companies have successfully developed and commercialized nano-measurement systems and manufacturing systems, especially nano-imprinting equipment. Therefore, it is likely that Korea can become a leading source of commercial technology utilizing NT.

http://www.atip.org/pubs/reports/atip06.050r.pdf

Impressum

Herausgeber:
VDI Technologiezentrum GmbH
Abteilung Grundsatzfragen von Forschung, Technologie und Innovation
Graf-Recke-Str. 84, 40239 Düsseldorf

Im Auftrag des Bundesministeriums für Bildung und Forschung, Referat 211

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Erscheinungsweise: 14-tägig,
online unter internationale-kooperation.de

Die Informationen werden zur Wahrung der Aktualität in der Originalsprache wiedergegeben.