



Internationale Forschungs-, Technologie- und Innovationspolitik

Info-Service

23. August 2004

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

Großbritannien

Grünes Licht für Forschung mit embryonalen Stammzellen des Menschen

Das britische Amt für Embryologie und künstliche Befruchtung (Human Fertilisation and Embryology Authority - HFEA) gab am 11. August grünes Licht für die Forschung an embryonalen Stammzellen. Damit wurde in Großbritannien erstmals die Erzeugung von embryonalen Stammzellen des Menschen durch Zellkerntransfer genehmigt. Nach einer intensiven Debatte in der Öffentlichkeit und beiden Häusern des britischen Parlaments wurde dieses - auch als therapeutisches Klonen oder Forschungsklonen bezeichnete Verfahren - bereits 2001 zugelassen. Diese Entscheidung folgte auf eine über mehrere Jahre geführte Debatte und beruhte auf einem breiten gesellschaftlichen Konsens.

Die britische Regierung begrüßt die Entscheidung des Amtes für künstliche Befruchtung und Embryologie. Solange das Potential adulter Stammzellen nicht ausreichend geklärt ist, möchte die britische Regierung die Option auf die Forschung mit embryonalen Stammzellen offen halten. Deshalb fördert sie die Forschung mit allen Stammzellarten - adulten, embryonalen sowie aus Nabelschnurblut gewonnenen. Hierfür stehen in den nächsten zwei Jahren insgesamt 40 Mio. Pfund bereit.

<http://www.britischebotschaft.de/de/news/items/040813.htm>

Rund 18 Mio. Pfund für Nationales Netzwerk für Verbundwerkstoffe

Das britische Ministerium für Handel und Industrie (Department of Trade and Industry) und die regionalen Wirtschaftsförderungsgesellschaften in Großbritannien werden den Aufbau eines Nationalen Netzwerks für Verbundwerkstoffe (National Composites Network) mit rund 18 Mio. Pfund (27 Mio. Euro) fördern. Die Mittel werden durch die Beteiligung industrieller Kooperationspartner um geschätzte 12 Mio. Pfund (18 Mio. Euro) ergänzt. Das Netzwerk fördert die Entwicklung und Verwendung ultraleichter und -fester Composite in der Luft- und Raumfahrt, im Fahrzeugbau und weiteren Industriezweigen.

Das Netzwerk führt Forschungseinrichtungen und Industrieführer im Bereich der Verbundmaterialien zusammen. Es fördert den Austausch von Know-how und Technologien. Der Transfer findet sowohl zwischen Industriezweigen als auch zwischen einzelnen Unternehmen bzw. Forschungseinrichtungen und Firmen statt. Das Netzwerk wird insbesondere kleineren Unternehmen, die nicht über die notwendige Forschungs- und Entwicklungskapazität verfügen, Zugang zu modernsten Herstellungsverfahren, Verarbeitungstechniken und Werkstoffen ermöglichen.

http://www.britischebotschaft.de/en/embassy/r&t/notes/rt-ft-notiz04.023_verbundwerkstoffe.htm

Italien

Research National Priority for the Italian Industry

Following the presentation of the Foresight Lab Report, compiled by the Rosselli Foundation, Letizia Moratti the Minister for Education, University and Research, outlined future government strategy in R&D investments.

The aim of the Rosselli Report was to analyse Italy's innovation potential in comparison with other industrialised countries. The overall value for Italy of the "system potential innovation" is low at 2.97 compared to 7.68 for Finland (first in Europe), 7.21 for Sweden, 5.69 for Germany. Italy's negative outcome is balanced if labour productivity is included, where Italy is in line with other G8 countries such as Sweden, Germany and the UK. However, in the long term Italy's competitiveness model will be made more vulnerable by the emerging technology know-how, which will be different from the traditional core of many manufacturing sectors.

The Rosselli Report identified strategic sectors that should become "National Priorities" for the Italian Industry are the following: Advanced Materials; ICT; Biotechnology for Health, Industry, Agriculture and the Environment; Energy and Sustainable Development; Space.

British Embassy, Rome
<http://www.britain.it>

EU / Europa

Slowenischer Ökonom wird neuer Kommissar für Wissenschaft und Forschung

In der vergangenen Woche benannte der designierte Präsident der Europäischen Kommission, José Manuel Barroso, sein zukünftiges Team von 25 EU Kommissaren. Der 46-Jährige parteilose Ökonom Janez Potocnik wird ab 1. November als

Kommissar für Wissenschaft und Forschung zuständig sein und dort den Belgier Philippe Busquin beerben. Potocnik leitet seit dem Beitritt Sloweniens in Kooperation mit Günter Verheugen das Ressort Erweiterung. Zuvor war Potocnik in Slowenien Minister für europäische Angelegenheiten.

Mit dem Ungarn László Kovács (Energie), dem Zyprioten Markos Kyprianou (Gesundheit und Verbraucherschutz) und dem Slowaken Ján Figel (Bildung und Kultur) werden ebenfalls Vertreter der im Mai neu beigetretenen EU Staaten als EU-Kommissare in forschungs- bzw. bildungsrelevanten Bereichen Verantwortung übernehmen.

<http://www.europa-digital.de/aktuell/dossier/kommission04/team04.shtml>

USA

Graduate, Post-Graduate Trends in U.S. and Non-U.S. S&E Students

Graduate enrollments in science and engineering (S&E) fields reached a record high in the fall of 2002, according to data collected by NSF through 2002. After a downward trend beginning in 1994 and reaching a low of 404,856 in 1998, graduate S&E enrollments began rising again. They reached a peak of 455,355 in 2002, an increase of 6 percent over previous-year enrollments.

The number of women among S&E graduate students increased more than 6 percent between 2001 and 2002, and as a fraction of S&E graduate students, women increased from 35 percent in 1992 to over 41 percent by 2001 and 2002.

Another NSF InfoBrief, on the movement overseas of U.S.-born S&E doctorate recipients, finds that "relatively few U.S.-born S&E doctorate recipients from U.S. universities plan to work or study abroad at the time of receiving their doctorates." The

number planning to study or work outside of the U.S. in 2002 was 289, or 3 percent of U.S. native-born S&E PhD. The top destinations for postdoctoral study or employment since 1982 have remained Canada, the United Kingdom, Germany, France, Japan, Switzerland, and Australia.

<http://www.nsf.gov/sbe/srs/infbrief/ib.htm>

2002 State Rankings of Academic R&D Expenditures

Academic research and development expenditures grew 11 percent in fiscal year 2002, according to new data released by the National Science Foundation (NSF). An NSF report, Academic Research and Development Expenditures: Fiscal Year 2002, finds 625 institutions of higher education in the U.S. collectively spent \$36.332 billion in FY 2002. The figure for FY 2001 was \$32.723 billion.

Federal sources of R&D funds accounted for a significant majority of the growth, climbing to \$21.834 billion in FY 2002 - 13.8 percent higher than the \$19.191 billion reported for the previous year. State and local sources of R&D expenditures at academic institutions went up 8 percent, with a \$2.501 billion share of the nation's total. Funding from industry sources, accounting for \$2.188 billion, experienced a 2 percent decrease over the previous year.

The District of Columbia reported the highest academic R&D expenditures per capita for FY 2002 at \$442.06. Maryland, Massachusetts, Alaska, New Hampshire, North Dakota, Iowa, New Mexico, Connecticut and Pennsylvania round out the top 10 on a per capita basis.

<http://www.ssti.org/Digest/Tables/080904t.htm>
<http://www.nsf.gov/sbe/srs/nsf04330/htmstart.htm>

DOE to Improve S&T Education through STARS Initiative

To help foster the next generation of American scientists and engineers, the Department of Energy (DOE) announced the Scientists Teaching and Reaching Students (STARS) initiative involving both students and teachers in grades K-12. The STARS initiative will work to fill the deficiency occurring during the middle school years by incorporating several programs intended to pique students' interest in math and science careers. The initiative consists of seven steps, for example, to host Science Appreciation Days at the national laboratories or to upgrade the "Ask a Scientist" website, which provides a forum for basic and complex science questions screened by teachers and answered by scientists.

<http://www.er.doe.gov>

VC Continues Upward Trend in Second Quarter with \$5.6B Invested

The steady upward trend in venture capital (VC) investments continued in the second quarter of 2004, with \$5.6 billion going to 761 companies, according to the latest PricewaterhouseCoopers/Thomson Venture Economics/National Venture Capital Association MoneyTree™ Survey. The Q2 2004 figure compares to \$5 billion invested in the year's first quarter and \$5.4 billion in the fourth quarter of 2003..

The Life Sciences sector outpaced other industries for the eighth consecutive quarter. Investments in the sector totaled \$1.41 billion, or 25 percent of all venture capital. Software, with 212 companies securing \$1.2 billion in Q2 2004, remained the single-largest industry category for the second consecutive quarter.

<http://www.ventureeconomics.com/vec/statshome.htm>

Mexiko**Mexico Approves Genomic Medicine Institute**

After 5 years of discussion, Mexico is getting a new institute for genomic medicine. President Vicente Fox last week approved construction of the \$200 million INMEGEN center in Mexico City, which is expected to employ 120 researchers and open its first units next year. The institute, which will focus in part on disease susceptibilities among Mexico's dozens of indigenous groups, will be led by biomedical researcher Gerardo Jiménez-Sánchez of Johns Hopkins University in Baltimore, Maryland.

<http://www.biomedcentral.com/news/20040803/01>
<http://www.sciencemag.org/content/vol305/issue5684/scope.shtml>

China**Chinese Government Sets New Guidelines to Grow High-tech Industries**

China is focusing on the newest and most promising areas of technology to expand economic growth through the development of high-tech industries, suggests a new report released by the nation's government. The report, 2004 Guidelines for Priority on Key Technology Areas, indicates China will channel investments to 134 key sectors and promote exports, according to an article in *The Scientist*.

Key areas include biotechnology and new medicines, new materials, information technology, environmental protection, aeronautics, astronautics, and agriculture. The report was created with input from 200 experts in domestic and international high-tech trends, the National Development and Reform Commission (NDRC), and the Ministry of Commerce, the article states.

The *Scientist* states China's High-tech Research and Development (863) Programme, established in 1986, has enabled some of

these key areas to begin approaching international standards. China's Tenth Five-Year Plan (2001-2005), according to the article, included \$1.8 billion (US) for the 863 Programme.

http://www.materials.gov.cn/newMaterials/static/e_projects/863_prg/

Südkorea**Korean science set for government promotion**

Science in South Korea is to become a higher political priority with the impending elevation of the role of science minister to the post of deputy prime minister. The new position, which could be created as early as next month, is expected to go to the current science minister, Myung Oh. The new government line-up will feature three deputy prime ministers, responsible for science, education and industry, respectively. Korean researchers hope the move will bring in more cash for research.

http://www.nature.com/cgi-taf/DynaPage.taf?file=/nature/journal/v430/n7001/full/430716a_fs.html

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 111

Redaktion:

Dr.-Ing. Raimund Glitz
 0211/6214-546, glitz@vdi.de
 Dr. Andreas Ratajczak
 0211/6214-494, ratajczak@vdi.de
 VDI Technologiezentrum GmbH

Erscheinungsweise: 14-tägig,

online unter  **internationale -
 kooperation .de**

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