

RESEARCH FUNDING

European Science Not As Intense As Hoped

European research got a mixed report card in an analysis released last week by the European Union. The report says that the 27 E.U. nations have done well at increasing their research work force: Numbers grew twice as fast as in the United States between 2000 and 2006, reaching 640,000 researchers, while also attracting more foreign researchers to come and work there. Europe also attracted record amounts of private R&D funding from U.S. companies during that period. But at the same time its “R&D intensity” (research spending as a percentage of gross domestic product) pretty much stuck at about 1.84%—a long way from the E.U.’s self-imposed goal of reaching an R&D intensity of 3% by 2010.

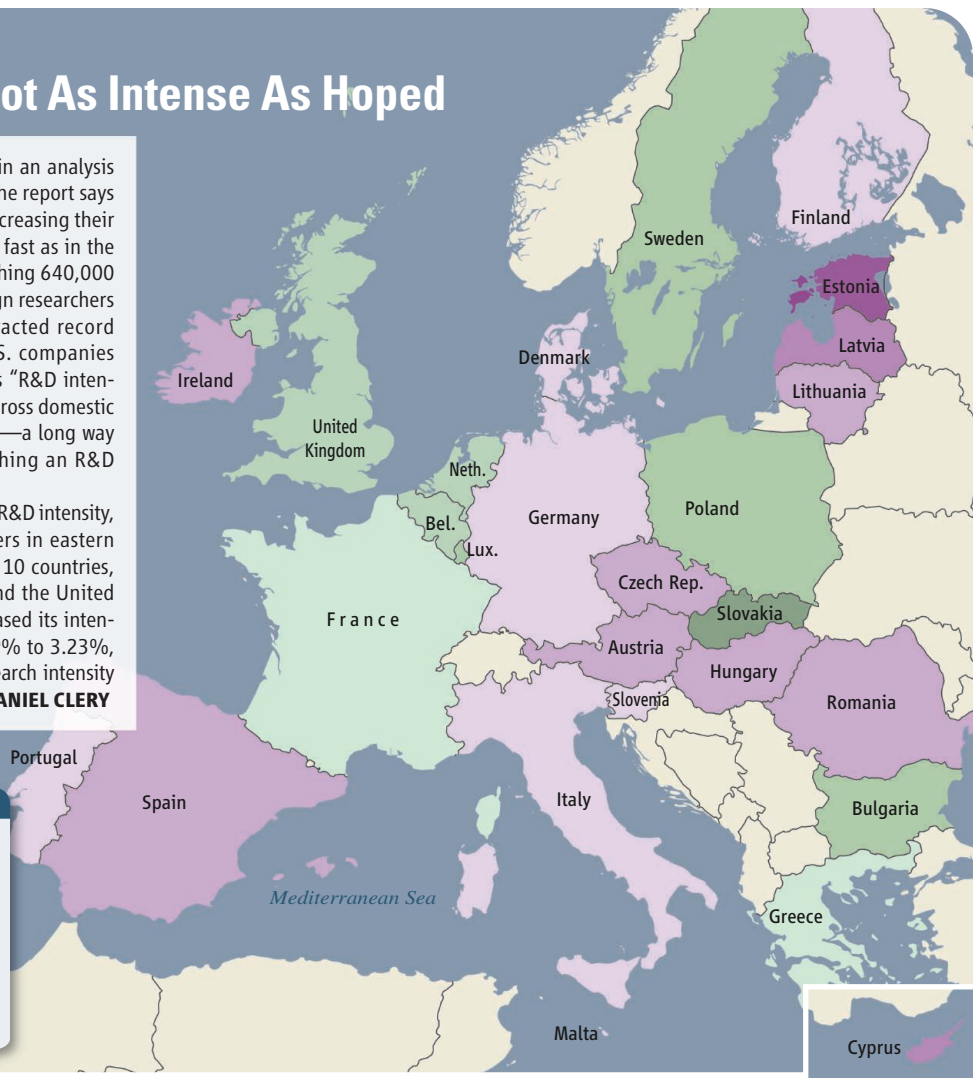
Across the E.U., there is much variation in R&D intensity, with 17 countries, particularly new members in eastern Europe, making marked improvements. But 10 countries, including science powers such as France and the United Kingdom, declined. Meanwhile, Japan increased its intensity from 3.04% to 3.39%, Korea from 2.39% to 3.23%, and China from 0.90% to 1.42%. (U.S. research intensity fell, from 2.74% to 2.61%.)

—DANIEL CLERY

Percentage Change in R&D Intensity (2000–2006)

Estonia	+146	Ireland	+24	France	-3
Latvia	+97	Slovenia	+16	U.K.	-4
Cyprus	+90	Portugal	+11	Belgium	-8
Lithuania	+56	Denmark	+9	Netherlands	-9
Spain	+40	Italy	+5	Bulgaria	-11
Hungary	+36	Finland	+4	Sweden	-13
Czech Republic	+36	Germany	+3	Luxembourg	-14
Austria	+33	Malta	+2	Poland	-17
Romania	+33	Greece	-2	Slovakia	-35

-35% 0 +146%



ARCHAEOLOGY

Iraq Museum May Reopen Amid Controversy

A dispute over whether it is safe to reopen Iraq's renowned archaeology museum in Baghdad has cost the head of the country's archaeology board her job. The battle over the Baghdad museum, closed since before the U.S. invasion in 2003, is one of several sticking points in the ongoing debate over how to manage the country's cultural heritage.

Iraq's new minister for tourism and antiquities, Qahtan al-Juburi, visited the Iraq Museum on 3 January and demanded that the museum be opened to the public by mid-February, according to several Iraqi and American sources. The acting head of the State Board of Antiquities and Heritage, Amira Edan, argued against the minister's proposal for security reasons, says Donny George, former head of SBAH now teaching in the United States, who spoke with Edan

about the incident. Edan had previously offered to resign because she lacked the confidence of the ministry, says another source who requested anonymity, but that offer was ignored. Following Iraqi media reports of her opposition to reopening the museum, however, al-Juburi accepted her resignation on 11 January. Neither the ministry nor Edan responded to requests for interviews.

The ministry is controlled by a Shiite party eager to see U.S. troops depart Iraq, and several U.S. and Iraqi archaeologists say that reopening the museum would be a potent political symbol. “That would be a message to the world that everything is fine and that the Americans can leave,” says George, who believes that unlocking the museum doors “is a terrible thing to do.” Another researcher familiar with the situation, however, says that open-

ing some of the galleries poses no major threat because “there is a good security system installed.” But the source adds that the SBAH chief should have a say in the decision and that her dismissal “is disturbing.”

Al-Juburi also refused to allow a team of Iraqi archaeologists, including Edan and her replacement, Qais Hussein Rashid, to visit Washington, D.C., this month to discuss how to spend a \$700,000 grant from the U.S. State Department to help develop a master plan for the ancient Mesopotamian capital of Babylon, once the world's largest and richest city. Babylon has suffered from years of neglect, shoddy reconstruction, and damage during recent occupation by U.S. and Polish troops. Provincial authorities are eager to open the fragile site to tourism, but archaeologists want to preserve it.

Provincial authorities have also asserted their claims to ancient objects discovered by farmers and construction workers, although by law such objects must be sent to the national

SOURCE: SCIENCE, TECHNOLOGY AND COMPETITIVENESS KEY FIGURES REPORT, 2008/2009

U.S. BUDGET

A Stimulus for Science

As the U.S. economy slides deeper into a recession, universities are following other sectors in freezing salaries, canceling job searches, and trimming expenses. At the same time, however, academic researchers are on the verge of receiving a major influx of federal funding as part of a 2-year, \$825 billion economic stimulus package moving rapidly through Congress.

The bills, drawn up in consultation with the new Obama Admin-

istration, include some \$360 billion in new spending, along with \$275 billion in tax breaks and a large expansion of mandatory programs. The research and science infrastructure components tucked into the first category amount to roughly \$15 billion spread across several federal research agencies. As *Science* went to press, the House of Representatives was preparing to vote on legislation introduced on 15 January by Democratic leaders, while the Senate was just beginning deliberations on its version. Democratic leaders have promised to have the bill ready for the president's signature by mid-February.

The table below shows the major science components, by agency, of each bill.

—JEFFREY MERVIS

AGENCY	HOUSE OF REPRESENTATIVES	SENATE
NIH	Total: \$3.5 billion \$1.5 billion for extramural research, \$1.5 billion for extramural facilities, and \$500 million for on-campus buildings.	Total: \$3.5 billion \$2.7 billion split between director's office and the institutes, \$500 million for on-campus buildings, and \$300 million for extramural instrumentation.
NSF	Total: \$3 billion \$2 billion for research, \$100 million for education, \$400 million for new facilities, \$300 million for instrumentation, and \$200 million for academic renovation.	Total: \$1.4 billion \$1 billion for research, \$50 million for education, \$150 million for new facilities, and \$200 million for instrumentation.
DOE	Total: \$41 billion \$2 billion for Office of Science and \$400 million for ARPA-E.	Total: \$40 billion \$430 million for Office of Science, \$2.6 billion for energy efficiency and renewable-energy research.
NASA	Total: \$600 million \$400 million for science, \$150 million for aeronautics, and \$50 million for hurricane repairs.	Total: \$1.5 billion \$500 million for science, \$250 million for aeronautics, \$500 million for human exploration, and \$250 million for hurricane repairs.
NOAA	Total: \$1 billion \$600 million for climate sensors and modeling, \$400 million for habitat restoration.	Total: \$1.2 billion \$795 million for facilities/equipment, \$427 million for restoration/maintenance.
NIST	Total: \$520 million \$300 million for extramural buildings, \$100 million for intramural research, and \$70 million for Technology Innovation Program.	Total: \$575 million \$357 million for intramural facilities, \$218 million for competitive grants.
Biodefense	Total: \$900 million \$430 million for BARDA and \$420 million for pandemic flu vaccine.	\$870 million for pandemic flu vaccine.
USGS	Total: \$200 million Upgrade laboratories; enhance National Map project and various monitoring networks.	Total: \$135 million

museum for cataloging and analysis. "But each [province] hopes to become independent, so they won't send in the antiquities," says an archaeologist close to Edan, who has pleaded with the provinces to cooperate.

Another source of tension is the fate of ancient Jewish manuscripts captured during the invasion. Widah Na'srat, a member of the Iraq Interior Ministry's Criminal Investigations Department, told the London-based publication *Al-Hayyat* on 18 January that he suspects U.S. contractors of smuggling some of the manuscripts to Israel. He did not elaborate but said he would visit Washington soon to investigate the matter. Jeffrey Spurr, a Harvard University researcher, says the manuscripts were housed in Saddam Hussein's secret service headquarters and damaged by water during the fighting, then frozen and flown to Texas for conservation in the summer of 2003 with the permission of SBAH. They are now in a Maryland facility, he says, but have not been cataloged. —ANDREW LAWLER



Safety first. Amira Edan led visiting dignitaries and Iraqi officials, shown here in the Assyrian gallery, on a November tour of the closed and heavily guarded Baghdad museum.