

SEVEN DAYS

The news in brief

POLICY

South Africa budget

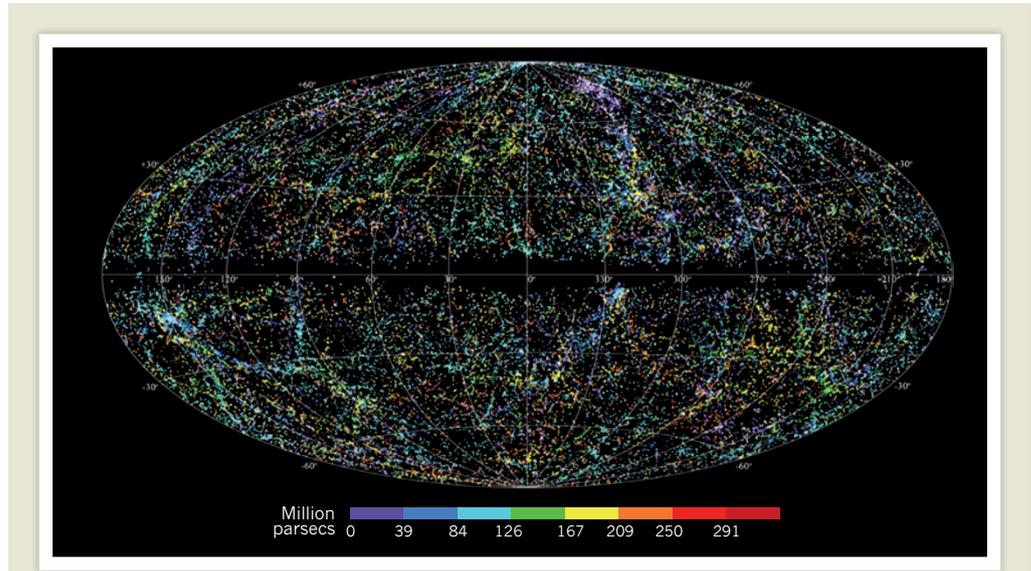
South Africa's budget for public research and development gained a 7% annual increase to 4.4 billion rand (US\$628 million) in 2011–12. Speaking after the budget announcement on 24 May, the nation's science minister, Naledi Pandor, argued that all science funding should be brought into her own portfolio, rather than spread among several departments. She also announced that South Africa would get a national committee on science, technology and innovation, whose members would include politicians and scientists. See go.nature.com/tzraqm for more.

Scientists on trial

Six Italian seismologists and one government official will be tried for the manslaughter of some of those who died in the earthquake that struck the city of L'Aquila on 6 April 2009. The city's public prosecutor had argued that the scientists falsely reassured the public. Last week a judge decided that the trial should proceed, and it will begin on 20 September. See page 15 for more.

Nuclear stress tests

The European Union is pushing for nuclear reactors worldwide to undergo stress tests like those agreed for Europe's 143 nuclear reactors. On 25 May, European regulators announced criteria for the safety reviews, which will judge how well reactors can withstand natural disasters, power blackouts and accidental explosions. The criteria do not include discussion of preparedness for terrorist attacks, which will be assessed separately — and probably confidentially. The



T. H. JARRETT/IPAC/SSC

Details of the 3D Universe

Astronomers released the most complete three-dimensional map of the local Universe so far, covering almost the whole infrared sky, at the American Astronomical Society meeting in Boston on 25 May. The 2MASS Redshift Survey scanned the sky in the near-infrared spectrum to produce a two-dimensional map, and

combined that with redshifts measured by the late John Huchra of Harvard University to give the third dimension. The map shows around 45,000 galaxies up to 290 million parsecs away, including previously unknown ones in the plane of the Milky Way, which had been obscured by dust in earlier images.

European Commission hopes that reactors which fail the tests will be upgraded or closed; it will present a preliminary report in December. Separately, Germany's government said on 30 May that it plans to shut down all 17 of its nuclear power stations by 2022; five days earlier, Switzerland's government said it would close its five nuclear reactors over the next two decades. See go.nature.com/31nwy1 for more.

Carbon high

In 2010, anthropogenic carbon dioxide emissions reached a record 30.6 gigatonnes, according to estimates released by the International Energy Agency (IEA) in Paris on 30 May. The total was 5% more than the previous record, set in 2008, says the IEA. In 2009,

emissions had dipped slightly below 29 gigatonnes as a result of the global economic crisis. See go.nature.com/rtgd7f for more.

EVENTS

E. coli outbreak

Germany is experiencing one of the world's largest ever outbreaks of enterohaemorrhagic *Escherichia coli*. By 31 May, there were 1,400 confirmed or suspected infections, 373 cases of haemolytic-uraemic syndrome (HUS — a complication that can cause kidney failure) and 14 deaths. The bacterial strain responsible — O104:H4 — has never before been associated with an infection outbreak, and its source has not been confirmed. An experimental

RESEARCH

Asteroid mission

NASA is planning a 2016 launch for its first spacecraft aimed at returning material from an asteroid, officials announced on 25 May. The Origins–Spectral Interpretation–Resource Identification–Security–Regolith Explorer (OSIRIS–REx) will visit the carbonaceous asteroid 1999 RQ36, and NASA hopes that it will collect more material than was gathered by Japan's pioneering Hayabusa mission, which in June 2010 returned around 1,000 grains from the Itokawa asteroid. The mission

NASA/JPL-CALTECH/CORNELL

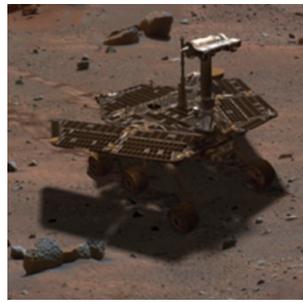
will cost US\$800 million, or \$1 billion including the cost of a launch vehicle. It beat two competing mission concepts: returning a sample from the dark side of the Moon, and a visit to Venus. See go.nature.com/2fup1u for more.

Chimp research

A US Institute of Medicine committee charged with determining whether “chimpanzees are or will be necessary for research discoveries” opened its investigation on 26 May. The National Institutes of Health (NIH) requested the study in January, after three US senators wrote to the agency on a controversial NIH proposal to move 186 government-owned chimpanzees out of semi-retirement and back into use in active research. See go.nature.com/m54pgh for more.

Farewell, Spirit

NASA has finally called time on attempts to contact its Mars rover Spirit (pictured). No communications had been received from the rover since March last year, when it was known to be trapped in a sandpit. After its 2004 landing on the planet, Spirit lasted much longer than the three months originally intended (see *Nature* 463, 600; 2010). Spirit’s fellow rover, Opportunity, is still exploring



Mars, and NASA’s next Mars mission — the rover Curiosity — is set to launch late this year.

Well-being index

The Organisation for Economic Co-operation and Development (OECD) has launched its first index to compare well-being across countries. The index is part of the organization’s ‘Better Life’ initiative — its contribution to a movement that hopes to abandon gross domestic product as the overriding measure of social development and living standards (see *Nature* 463, 849–850; 2010). It uses 21 indicators in 11 topics, but leaves the user to assign custom weightings to these topics when comparing countries.

Rid of rinderpest

The devastating cattle disease rinderpest has been eradicated from the globe. The World Organisation for Animal Health made the formal proclamation on 25 May at its

general meeting in Paris. A global effort using widespread vaccination to eradicate the virus that causes the disease was launched in 1994. The last remaining pockets of the virus are thought to have been wiped out by 2007, although scientists have had to wait for confirmation from further cattle surveillance (see *Nature* 462, 709; 2009).

Animal lab warning

The laboratory responsible for the UK outbreak of foot-and-mouth disease four years ago has been reprimanded again for failing to meet safety standards. It emerged last week that the Health and Safety Executive told the Institute for Animal Health at Pirbright in Surrey to improve practices after the lab reported incidents requiring investigation earlier this year. In one case, a sample of the virus that causes foot-and-mouth was being held in a cracked flask; in another, some waste liquid leaked in an incinerator room. See go.nature.com/wabyka for more.

Brain campaign

An initiative that brings together leading neuroscientists, politicians, health-care companies and celebrities aims to raise large amounts of money for brain research. ‘One Mind for Research’ was launched

COMING UP

5–9 JUNE

Canada’s Perimeter Institute for Theoretical Physics in Waterloo, Ontario, hosts an ‘Equinox Summit’ to discuss how the world’s energy supply should look in 2030.

www.wgsi.org

6–11 JUNE

Results from the Large Hadron Collider are presented at the ‘Physics at LHC 2011’ congress in Perugia, Italy.

www.pg.infn.it/plhc2011

9 JUNE

NASA plans to launch its Aquarius satellite, which will monitor the saltiness of the oceans.

<http://aquarius.nasa.gov>

by former Democratic congressman Patrick Kennedy — nephew of former US president John F. Kennedy — at a meeting in Boston, Massachusetts, last week. With lofty goals, the effort hopes to convince funders to reduce their focus on specific neuropsychiatric diseases, and instead support basic research on the fundamental workings of the brain. Early ambitions include a vigorous fund-raising campaign. See go.nature.com/jmytbl for more.

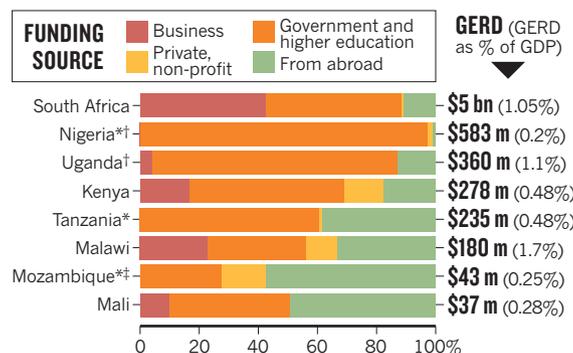
SOURCE: ASTII

TREND WATCH

The first comprehensive African-led initiative to survey science spending on the continent showed that South Africa, Uganda and Malawi invested more than 1% of their gross domestic product (GDP) on science and technology in 2007. But countries spending least in absolute terms tend to be more reliant on foreign funding (see chart). The survey, with detailed data from 13 countries, was unveiled at a conference in Addis Ababa last week. See go.nature.com/hmo3b5 for more.

AFRICA’S RESEARCH SPENDING

A comprehensive survey flags up some countries’ dependence on foreign investment for research.



*Data do not include business enterprise sector; †data do not include private non-profit institutions/organizations; ‡data do not include the higher-education sector. GERD: gross domestic expenditure on research and development.

BUSINESS

Quantum sale

On 25 May, D-Wave Systems of Burnaby, British Columbia, Canada, announced the world’s first sale of a commercial quantum computer. The purchaser was global security firm Lockheed Martin, headquartered in Bethesda, Maryland. See page 18 for more.

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