Riess. That was more than enough to show that SN1997ff was a type Ia supernova in a galaxy over 10 billion light-years away. And it was brighter than it would have been if either dust or evolution were responsible for the apparent dimming.

Does this supernova prove that the universe is filled with dark energy? Cosmologists say they would like to see a few more examples before they decide. "Extraordinary results require extraordinary scrutiny," Turner says. But at the least, the discovery of SN1997ff gives cosmologists a useful new tool. "The way to understand the nature of dark energy is by studying supernovae like this one," says Turner, "and this discovery shows that they are out there." **–MARK SINCELL**

Mark Sincell is a science writer in Houston.

VENICE PRESERVATION

Climate Change Data Prompt New Review

TRIESTE, ITALY—The Italian government has put another hurdle in the way of a controversial plan to control the flooding of Venice. Last month, the government sent the plan—which has been under development for almost 30 years—back for reworking under its water authority in Venice. The move leaves open the question of exactly what will be done.

On 15 March, the Council of Ministers agreed that the city's proposed $2 billion mobile floodgate scheme, called MOSE (Modulo Sperimentale Elettromeccanico, or experimental electromechanical module), should be reviewed once again to factor in potential rises in sea level caused by global climate change (*Science*, 25 August 2000, p. 1301). The ministers also directed that MOSE should be integrated with small-scale measures such as raising pavement levels.

The review is expected to begin immediately. But details remain unresolved, as does the role of the Consorzio Venezia Nuova, which has designed and assessed the project and is also expected to lead construction of the floodgates.

Willer Bordon, head of the Environment Ministry (which has opposed MOSE in its present form), emphasizes that the review is not a green light for MOSE itself. Nerio Nesi, head of the Ministry of Public Works—which has backed the project and will oversee the review—is more positive. "Venice needs [both] MOSE and the small-scale measures," he says. "The MOSE project only needs updating in view of the predicted changes in climate."

The idea for MOSE arose after a 2-meter flood in 1966. Its central feature is a system of inflatable mobile barriers that would close off the three lagoon outlets when tides exceed 1 meter. Planning began in the 1970s, and the project was finally endorsed in 1998 by the Veneto region, as well as an international panel. The ministries of environment and cultural heritage rejected the assessment, however, but the Veneto Court annulled their decree last July.

With two ministries warring over the project, the issue was handed over to the Council of Ministers to resolve. Last month's decision comes 10 weeks after a deadline set last year and 2 months before general elections.

Members of environmental groups, who say that MOSE could turn the ecosystem into a "stinking marsh," worry that projected global warming will exacerbate the problems by requiring greater use of the floodgates. Instead, they pin their hopes on such small-scale operations as raising pavement, which is already under way, and proposals to reconfigure the port outlets, strengthen the shorelines, and rebuild the quays. Officials for the Green Party say that such projects could reduce the effective tide level by up to 40 cm, safeguarding the lagoon for the next 50 years and permitting a reanalysis of MOSE that is based on more recent scientific findings.

Nesi says that the planning effort should be completed within "a few months." Bordon and the environmentalists hope for a formal reassessment of MOSE's environmental impact then, before the Council of Ministers takes final action. In the meantime, the European Community is looking into whether the Consorzio's role in the project represents an infraction of community regulations on open competition.

–SUSAN BIGGIN

Susan Biggin writes from Trieste, Italy.

Slogging along. The government orders another look at how best to keep Venetians high and dry.

BUSH APPOINTMENT

Venture Capitalist to Lead Science Panel

The Bush Administration has made its biggest science-related job appointment so far. President George W. Bush last week named Floyd Kvamme, a former computer industry executive and Republican stalwart, to lead his science advisory panel. The post of presidential science adviser, a full-time position typically held by a prominent scientist from academia, remains empty.

Insider. Floyd Kvamme is likely to have Bush's ear on S&T issues.

Kvamme, 62, is a partner in the California venture capital firm of Kleiner Perkins Caufield & Byers, which provided early backing for such prominent high-tech companies as Genentech and America Online. He becomes co-chair of the President's Committee of Advisors on Science and Technology (PCAST), a volunteer panel stocked with prominent researchers and industry chiefs whose other co-chair is the science adviser, who also heads the White House Office of Science and Technology Policy. PCAST meets periodically to offer its thoughts on hot science policy topics, although past presidents, including Bill Clinton, have paid scant attention to the group.

In naming Kvamme on 28 March, Bush said that "science and technology have never been more essential to the defense of the nation and the health of our economy." He called Kvamme "a risk taker" who "knows the players." Kvamme's background includes stints at computer giants Apple and National Semiconductor. He is an electrical engineer by training.

CREDITS: (LEFT TO RIGHT) FERNANDO PROIETTI/AP; JOEL PAGE/AP

Kvamme was unavailable to comment, but science community leaders familiar with his résumé predict that he will be a strong advocate for science and technology. John Yochelson, president of the Washington, D.C.–based Council on Competitiveness, says Kvamme understands the link between government research spending and economic growth, and he is close enough to Bush to gain his ear.

But some science policy veterans were surprised that the PCAST appointment preceded the selection of a science adviser. D. Allan Bromley, former engineering dean at Yale University and science adviser to the first President Bush, called the timing "a little peculiar."

–DAVID MALAKOFF

GERMANY

A Big Boost for Postgenome Research

BERN—Germany may have been a minor player in the human genome sequencing project, but it is making a bid for the big leagues in the next wave of functional genomics research. Last week, the nation's research ministry said it will channel $175 million over the next 3 years into a National Genome Research Network involving at least 16 universities, several Max Planck institutes, and four national research centers. German research minister Edelgard Bulmahn, who announced the initiative on 30 March in Berlin, said the new program is intended to "put Germany in the forefront of public support for the systematic functional analysis of genes and the use of those research results in the fight against widespread diseases."

The new Genome Research Network—financed by government revenues from last year's licensing of communications frequencies—has three main parts (see table): a "core area" consortium of big nonuniversity research centers, a "disease-oriented genome network" that links research at 16 universities with other centers, and a separate category to fund proteomics and bioinformatics research. In addition, $10 million will be spent to study the ethical, social, and legal impacts of genomics research. Bulmahn said a high-level group of academic and industrial researchers will serve on a panel that will help set overall directions for the network and give advice on which projects to fund.

The core area consortium will get about 38% of the money for functional genomics projects. Funding will be divided among four national research centers—the German Cancer Research Center in Heidelberg, the German Research Center for Biotechnology (GBF) in Braunschweig, the Max Delbrück Center for Molecular Medicine in Berlin, and the National Research Center for Environment and Health in Munich—and the Max Planck Institute for Molecular Genetics in Berlin. Rudi Balling, a prominent mutant-mouse researcher who became the GBF's scientific director earlier this year, said the $10 million in extra funding that the center will receive from the program will help him reorient GBF's research to focus on the genetic basis of infectious diseases. He said the grants will also help the GBF play a role in the rat genome sequencing project.

A nearly equal share of the money will go to a disease-oriented genome network that will include an array of research institutes at 16 universities. The main focus will be on functional genomics related to five types of disease: cardiovascular disorders, cancer, problems of the nervous system (including Alzheimer's disease), infectious diseases, and environment-related illnesses such as asthma. Those university networks are to cooperate with the core area research institutions for specialized work, such as help with sequencing.

For example, seven research groups at the University of Bonn will share about $4.5 million in genome network funds to help identify the genes and mutations that lead to diseases of the central nervous system, including schizophrenia, epilepsy, and manic depression. At the University of Kiel, about $5 mil-

DIVIDING THE WINDFALL

Core Genomics Research Centers ($67 million)

Funds functional genomics research by the Max Planck Institute for Molecular Genetics in Berlin and four national research centers.

Disease-Oriented Genome Network ($66 million)

Funds projects at 16 universities as well as nonuniversity institutes. Focuses on functional genomics related to the circulatory system, cancer, problems of the nervous system, environment-related illnesses (such as asthma), and infectious diseases.

Proteomics and Bioinformatics ($32 million)

Funds proteomics research, bioinformatics, and "platform technologies" related to those two areas.

Another $10 million will be spent on research into the ethical, social, and legal impacts of functional genomics research.

CREDITS: (TOP TO BOTTOM) NASA; SOURCE: GERMAN RESEARCH MINISTRY

ScienceScope

Together Again Exploring Mercury will be an international affair after all. The European, Japanese, and U.S. space agencies announced last week that they will coordinate the operations of two spacecraft headed for the planet in 2004 and 2009. The deal ends European grumbling over U.S. plans to go it alone to Mercury.

Under a plan announced 30 March at a meeting of the European Geophysical Society in Nice, France, NASA's $300 million Messenger orbiter may serve as an advance scout for Bepi Colombo, a $440 million Euro-Japanese mission that includes two orbiters and a lander. Researchers say the arrangement will help them get the most out of Bepi Colombo's instruments, including sensors that will probe the planet's surface and magnetic field. Details, however, still need to be decided. Marcello Coradini, the European Space Agency's coordinator of solar system exploration, says the partners "want to establish a working group as soon as possible to enhance the science return from both missions."

Chattering Class Both the executive branch and Congress need to spend more time and money analyzing the U.S. government's $90 billion investment in R&D. That's the preliminary conclusion of a 2-year study by the National Science Board, which oversees the National Science Foundation.

The report, led by board chair Eamon Kelly, proposes such new wrinkles as a 5-year science plan, updated annually, as well as the revival of something akin to the congressional Office of Technology Assessment, which was killed in 1995. Kelly, an economist and former president of Tulane University in New Orleans, believes that the government also needs to do a better job of tracking the economic payoff from current investments, laying out possible trade-offs, and comparing U.S. results to those of the rest of the world.

The board will hold a symposium in late May to discuss the 20-page report, entitled "The Scientific Allocation of Scientific Resources." It's available at www.nsf.gov/cgi-bin/getpub?nsb0139.

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