

EUROPEAN SPACE AGENCY

All Aboard the Space Station

TOULOUSE, FRANCE—Until almost the last minute, Europe's involvement in the international space station had hung in the balance, threatened by conflicting priorities and ailing economies in the member nations of the European Space Agency (ESA) (*Science*, 13 October, p. 224). Last week, however, the suspense finally ended when a 3-day meeting of government ministers in this southern French city managed to cobble together a set of compromises that will allow Europe to hop aboard the space station, joining the United States, Canada, Japan, and Russia.

In a surprising accord, nine of ESA's 14 member countries agreed to contribute a total of \$3.5 billion to the station between now and 2004. Even Italy, whose budget crisis had posed the most recent threat to Europe's space station ambitions, will be aboard, thanks to a series of unorthodox financial measures including a proposed commercial bank loan. The Toulouse meeting also saw a series of compromises on other disputes threatening ESA's unity. But amid the wheeling and dealing, there was one clear loser: ESA's thriving program of scientific space missions.

For most participants, that didn't dampen the exultation. "If we had not succeeded, ESA would have disappeared the following morning," French technology minister François Fillon told a gathering of journalists during the meeting. "I think we all won," agreed Jürgen Rüttgers, Germany's minister for education, science, research, and technology. All but ESA Science Director Roger Bonnet, that is, who is facing the loss of up to 15% of his program's budget over the next 5 years. Reportedly angry at the outcome, Bonnet refused to speak to journalists after the meeting.

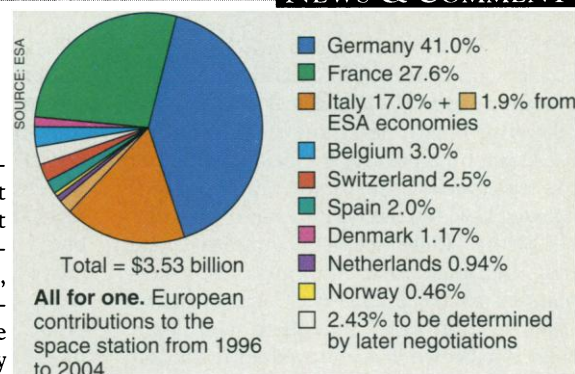
Much of the groundwork for the agreement in Toulouse was laid in a series of meetings between Rüttgers and Fillon over the past few months. France, whose interest in the space station has always fallen far short of Germany's keen enthusiasm, agreed to boost its participation to 27.6%, a major increase over the roughly 10% it had been offering until quite recently. As a quid pro quo, Germany agreed to more than double its subsidy for a separate part of the ESA program, the new Ariane-5 rocket, whose construction is an economic boon to France.

It was not until the Toulouse meeting, however, that ESA ministers came up with a solution to the most immediate threat to their station plans: Italy's insolvency. Italy had thrown a monkey wrench into the works at the end of September when it announced that it lacked more than a third of the \$350

million ESA expected it to contribute to space station development through 2000. In a plan worked out in Toulouse, which must be approved by the Italian government, ESA would cover half of this shortfall by making economies in the space station program, while Italy would take out a bank loan to cover the other half. To sweeten the pot for Italy, France and Germany promised to cede it almost \$80 million in industrial contracts for the station.

In the scramble to gather enough funds for the space station, however, ESA ministers approved a German proposal to cap the science budget at its current level, about \$460 million per year, for the next 5 years—and this sum will only be adjusted for any inflation above 3% a year. As inflation in the ESA countries is currently running at least this high, the science program may well see its purchasing power decline by as much as 15%.

The news could have been worse: The ministers did reject a British demand for a 25% cut in the science budget over the next 5 years. And officials gave contradictory assessments of the likely effects of the budget freeze. ESA's director-general, Jean-Marie Luton, told journalists that a series of econ-



omy measures—notably a 12% cut in the agency's overall administrative costs over the next 3 years—means that "if all goes well there will be no delays in scientific missions." Yet Ian Corbett, science director of the U.K. Particle Physics and Astronomy Research Council, told *Science* it would be "accurate" to regard the ministerial decision on the science budget as an actual cut in funds, which could put a squeeze on planned missions. On the other hand, said Corbett, "we believe that Mr. Bonnet will be able to deliver the program he's promised."

The ministers did agree to review the consequences of the science freeze at their next meeting in Brussels, scheduled for late 1997 or early 1998. But any modification would have to be approved by all 14 member countries. In the meantime, Bonnet's silence about the fate of his program may be speaking louder than words.

—Michael Balter

POLITICS

Clinton Defends R&D in Partisan Speech

Support for science used to be something that both Democrats and Republicans could agree on. Not anymore. Since last fall's congressional election, science has become a bitterly partisan issue, with each party accusing the other of backing the wrong sorts of programs in a search for sustained economic prosperity.

The latest evidence of that animosity was a speech last week by President Bill Clinton, on the occasion of the awarding of the National Medals of Science and Technology (*Science*, 6 October, p. 35). The president denounced

what he labeled "drastic cuts" by Republicans in the \$72 billion federal R&D budget, which is divided among several 1996 appropriations bills now languishing in Congress.

"The plan now being considered by the Congress will cut vital research and development by a third," said Clinton in his first speech as president devoted entirely to science. "We could have a balanced budget to show for it tomorrow, but a decade or a generation from now our nation will be much the poorer for doing that." Vice President Al Gore, who introduced the president, took a sharper tone, calling Republican cuts to science and technology "unwarranted, unwise, and unnecessary" and warning that the entire U.S. R&D enterprise is under attack.

That analysis did not sit well with Republican leaders, who did not attend the White House event. "The president is defending the way things have always been, and he has no designs to accommodate science programs to the changing world," said Representative Robert Walker (R-PA), chair of the House Science Committee. "We're looking 20 to 25 years in the future," Walker told



Tough talk. Clinton greets Ohio senators Mike DeWine and John Glenn after awarding medals.