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Science shunted to the sidelines as EU sets out its space agenda

Declan Butler, Paris

Plans for a sweeping revamp of Europe's space sector are in danger of neglecting space science, researchers say.

Space scientists are worried that a much-anticipated white paper, or policy document, on space strategy, to be issued in October by the European Commission, will emphasize military and commercial applications in space at the expense of science.

They also fear that the European Space Agency (ESA), which most scientists view as a force for good, could be marginalized when the European Union (EU) starts to take a lead in space policy.

Europe's activities in space — damaged by a flagging commercial satellite market and crashes of its flagship Ariane launcher — are gaining fresh political impetus this year. On top of the white paper, the draft constitution for the EU, drawn up in June by a convention chaired by former French president Valéry Giscard d'Estaing, gives responsibility for space to the EU.

Together, these events bring the EU's political clout to bear for the first time in a sector that has previously been managed by national governments and by ESA, which was created as an intergovernmental agency quite separate from the EU.

The white paper will identify an autonomous space programme as a key element of Europe's political and economic independence. This is broadly expected to open the door to more public spending on space, greater integration of civilian and military space programmes, and the expanded use of space technologies in agriculture, telecommunications and other policy areas.

Space scientists welcome all this. But at a consultative meeting in Paris on 23–24 June, many expressed concern that early drafts of the white paper relegate space science to the sidelines. Roger-Maurice Bonnet, executive director of the International Space Science Institute in Bern, Switzerland, and former head of space science at ESA, told the meeting that the white paper should be amended to include a broad vision for space science in Europe.

Jean-Louis Fellous, a member of the

Up in smoke: the new Ariane rocket failed just three minutes after its launch last October.

European Space Science Committee of the European Science Foundation, said that science should be explicitly included in the white paper's call for a doubling of Europe's total investment in space by 2010. According to the European Commission, Europe spent some €6 billion (US\$7 billion) on space last year, with 90% of this on civilian programmes, whereas the United States spent \$36 billion, split equally between civil and military spending.

Europe spends less than \$1 billion per year on space science — a sixth of the United States' investment, according to Paris-based analysts Euroconsult. "New investment in launchers and industry must not be to the detriment of science," said Fellous. European Commission officials at the conference promised scientists that their message had been heard and that the white paper would be modified accordingly.

"The white paper is a unique opportunity in the history of European space," says Bonnet. Alluding to Europe's inability until now to close the gap in funding with the United States, he argues that: "There is a profound crisis; the existing system doesn't work; so we

need to change the system."

Bonnet says that shifting responsibility for space to the European level will ultimately benefit science, as present funding is too fragmented. Integration of space within military, environmental and other EU policy sectors will result in a funding boost for space research, he predicts.

But in changing the system, scientists are also concerned that the European Commission may eventually usurp ESA in running the science. They cherish ESA's bottom-up approach, says Fellous, exemplified by its track record of backing investigator-driven proposals based on scientific excellence, and are wary of the commission's legendary bureaucracy and top-down programming of research areas.

And in a thinly veiled warning against any such takeover bid, Antonio Rodotà, director general of ESA, stressed the agency's past achievements. "We must not lose sight of what we have already accomplished, and not undo the solid foundation that has made Europe the major player it is today. Change is a must, but continuity also has its place."