

## Professors urge constitution to promote quest for knowledge

THE heads of five major science foundations are urging EU research ministers to press for a specific clause to be included in Europe's draft constitution promoting the quest for knowledge.

The professors have sent an open letter to the ministers, calling for a policy that promotes science for its own sake rather than simply as a means of creating wealth.

It asks them to "intervene with the European Council to accept an additional phrase in Article III-146, point 1, on the promotion of scientific knowledge without immediate reference to (short-term) economic utility or technological application".

"Too little room is left for... maintaining and strengthening the great European intellectual and cultural traditions," say the professors, adding that the EU's support for fundamental research and scholarship needs to be "explicitly stated".

The letter is signed by Pieter J.D. Drenth, president of the European Federation of National Academies of Sciences and Humanities; Felix Unger, president of the European Academy of Sciences and Arts; Jürgen Mittelstrass, president of Academia Europaea; Enric Banda, secretary general of the European Science Foundation, and Jean-Patrick Connerade, resident of Euroscience.

# Europe must do more to keep up in scientific 'war without guns'



**Karen Carstens** reports from the World Science Forum in Budapest

THE EU must do more to promote advances in crucial areas of research such as genetic engineering and nanotechnology, according to one Europe's top scientists.

"There is a war without guns between North America, the Far East - China and Japan - and the EU," said E. Sylvester Vizi, president of the Hungarian Academy of Sciences, which hosted the World Science Forum last weekend (8-10 November).

"The EU must create a knowledge-based society and a knowledge-based economy if it wants to keep up," he added.

Vizi said European Commission President Romano Prodi, an honorary patron of the event, had been "very, very supportive" but that the EU executive could still do more to support cutting-edge research in genetic engineering and nanotechnology.

The latter, involving the study of individual atoms and molecules as tiny as a millionth of a millimetre, can enhance

precision, speed and control of, for instance, technologies in medical, military or simple day-to-day fields.

"[These areas] are very important for the future of our economies, and the EU is not focusing enough on them," Vizi said.

But Achilleas Mitsos, director-general of DG Research, cited the mammoth growth initiative launched by the EU executive last month, focusing on infrastructure and research projects, as well as releasing extra funding via the 2002-6 Sixth Framework Programme (FP6) and just-launched space action plan. Speaking in Brussels on Tuesday, Research Commissioner Philippe Busquin also insisted the growth initiative would encourage investment in nanotechnology.

Mitsos, however, admitted that the EU continued to be affected by the 'brain drain'. "Even if Europe is the greatest scientific publication factory in the world, it fails to convert this advantage into commercial success," he said. "Although the EU is the world's largest producer of science and technology graduates and PhDs, it employs fewer researchers than the US or Japan."

Vizi said governments were finally beginning to take science as seriously as they should, given that intellectual property rights account for 80% of an average

product's value, while "only 100 years ago, it was the other way around", with labour and parts taking up the lion's share.

Goverdhan Mehta, president elect of the International Council of Science (ICSU), said that 'growth of knowledge' had doubled from the years 1 AD to 1750, between 1750 and 1900 and again between 1900 and 1950. Today, knowledge is doubling "every three to four years", he added. The upshot: "More information has been generated in the last 30 years than in the previous 5,000."

Some 400 participants from around 80 countries took part in the conference, backed by the United Nations' science and culture body UNESCO and ICSU, which is intended as the first in a series of such global fora.

Harnessing the potential of the world's most innovative minds in the most ethical fashion lay at the crux of discussions on topics ranging from genomics to the Arab-Israeli conflict to sustainable development.

Hungarian Prime Minister Péter Medgyessy offered to host the forum every two years in Budapest. His country produced several leading scientists in the late 19th and early 20th centuries. As Vizi proudly put it: "The fingerprints of Hungarian science are all over the 20th century."

● [karencarstens@economist.com](mailto:karencarstens@economist.com)

## Latest generation of Euro-boffins get themselves connected

A PACK of 40 fresh-faced researchers stood out among their mostly silver-haired elders at the Forum in Budapest.

Ranging in age from 16-38, they came to the conference to launch the World Academy of Young Scientists (WAYS).

Among them was Jana Ivanidze, 19, who was born in Ukraine but lives in Munich, where she is a first-year medical and biochemistry student. Ivanidze says she was lucky to find an American scientist who allowed her to do some serious laboratory work at the age of 14.

"I hope that one day, when I'm older, I can be a mentor like that to young scientists, too," said Ivanidze, who was among three first-place winners at the 15th annual European Union Contest for Young Scientists in September.

Other young scientists invited to the forum came from Spain, the Czech Republic, Thailand, Burkina Faso, Canada and the US.

Said one: "They [the Hungarians] have really worked hard on this - they really want to get everybody plugged into a real global network."