

SCIENCE

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Science's Next Wave

Editor: John Benditt

EDITORIAL

European Education and Science's Next Wave

In two previous special issues, *Science* took a hard look at the training of scientists in U.S. universities and found a sense of impending crisis. As universities continue to churn out graduates by the score, stagnant research funding cannot provide enough traditional scientific careers for them. Those special reports (*Science*, 4 November 1994, p. 843, and 6 October 1995, p. 121) included the promise to take a similar look at science education in other parts of world. The first part of that promise is fulfilled in this issue, in which *Science* looks at education in a swathe across Europe—from the United Kingdom in the west to Russia in the east. And, in a related development aimed at exploring the impact of changes in universities and other sectors on the careers of young European scientists, *Science* is adding a European dimension to the Next Wave, the new AAAS/*Science* World Wide Web project for young scientists (at URL <<http://sci.aaas.org/nextwave>>).

In the eight countries visited by our seven correspondents for this special issue, the most striking feature is change itself. Across Europe, higher education is in a state of flux. The United Kingdom wants to open up its elite university system to more students, whereas French universities want to be more selective; Dutch universities are being encouraged to specialize; German professors want to improve teaching quality; and in the east, universities are trying to shrug off the straitjacket of communism and bring research and teaching back together.

Although the causes and effects are not exactly the same in each country, all countries are grappling with roughly the same set of variables and constraints—declining funding, increasing student numbers, and the need for more varied and flexible curricula. Yet there is little sharing of information and experiences, and each nation is following its own independent path. It seems that European countries are not even trying to learn from each other.

This chaotic patchwork of reforms could only be helped by the sharing of experiences across borders. This special issue is a modest attempt to help stimulate that process. We are well aware that our coverage is far from complete—important regions, Scandinavia and southern Europe among them, could not be included. We will, however, be reporting developments in university education in these and other areas in the future.

The need for and importance of international collaboration are the subject of another *Science* effort aimed at Europe that makes its debut this week. On 2 February, *Science's* Next Wave presents the second in its series of on-line Forums. This one is called "Scientific Collaboration Across National Boundaries," and it focuses specifically on Europe. In the Forum, representatives of some of Europe's major scientific agencies and laboratories, along with young scientists, express their views on the significance of international scientific collaboration. After reading their essays, you can respond to them on the Web. They will reply to you in turn, beginning a dialogue on this crucial subject.

The Forum, which will last until 29 March, is just one element of the launch of *Science's* Next Wave in Europe. We are also adding the first group of young European scientists to the correspondents' network that was initiated in the United States in November 1995. This diverse and talented group includes a Russian emigré working in Italy and a young woman studying biotechnology in Ireland, along with correspondents in countries that are major scientific powers, such as France, Germany, and the United Kingdom. Like their counterparts in the United States, each of them will be reporting regularly from their own institutions on subjects that are of pressing interest to their peers in the next generation of researchers. To complete the Next Wave's European launch, the entire European Education section will be posted on the Web in the Next Wave's "In Print" section.

Both in the United States and in Europe, young scientists face a landscape that is complex, difficult, and sometimes daunting. Providing navigational guidance through that landscape is a high priority of *Science* and is the main motivation for starting *Science's* Next Wave. This task is truly international in scope, and as this week's efforts suggest, our response will be increasingly international as the months go by.

Daniel Clery and John Benditt