

The E&Y report contends that biotech currently generates a European market of goods and services worth \$50 billion, a market that will grow to \$110 billion by the year 2000.

OXFORD, U.K.-Politicians of the European Union (EU, Brussels) have received another tome extolling the merits of biotechnology and warning them that they had better not legislate it out of existence. The latest report comes from Ernst & Young (E&Y, London), though it was commissioned by the Senior Advisory Group Biotechnology (SAGB, Brussels), the leading European trade association for biotechnology. Like other biotech reports published recently in Europe, this one describes the macroeconomic potential of biotechnology, pegging the technology as currently generating a market of goods and services worth 1 percent, or \$50 billion, of the EU's gross domestic product of \$5 trillion and as likely to generate \$110 billion of goods and services by the year 2000. Biotech, moreover, presently produces 184,000 jobs directly tied to the technology.

There is no doubt that this is a political report. The SAGB will use it as an independent, thirdparty validation of the crucial role that biotechnology will play in Europe's future global competitiveness. Just as the SAGB convinced Jacques Delors, the outgoing president of the European Commission (EC), the EU's civil service, to take on-board its concerns in Delors' December 1993 white paper on European competitiveness, the SAGB will no doubt use the E&Y report to try to influence Jacques Santer, the EC's president-elect. With EC officials now looking at ways to streamline European biotechnology regulations, the reported influence that such streamlining will have on investment intentions and, consequently, jobs will certainly capture the attention of these officials.

Notes Brian Ager, the SAGB's director, "This report clearly demonstrates the capacity of modern biotechnologies to positively impact European industrial growth. Its messages need to be heard and acted on."

Even when viewed in its political context, the E&Y report's tally of biotechnology-dependent sales and services in the food sector is eyebrow-raising stuff. E&Y estimates that such sales currently top \$12 billion and that they will rise to about \$20 billion by the end of the decade. Closer examination of E&Y's methodology reveals how it was able to serve up such intriguing numbers. Indeed, the numbers are based on the value of food sales and services that have even the faintest fingerprints of biotechnology on them. For instance, the value of a genetically modified yeast is calculated according to the value at the wholesaler level of the products, such as beer, that it is used to make.

Equally eyebrow raising is the methodology E&Y used to determine the number of jobs directly tied to biotech. E&Y got responses from companies with a total European workforce of 830,000 people and determined that these firms employ some 27,000 people in biotechnology. "Extrapolating to account for all EU sales, not just the sales of the responding companies, it is estimated that the total number of employees involved in some aspect of biotechnology-related industrial activity is of the order of 184,000 people," notes E&Y.

Moreover, at a time when jobs are being cut back throughout Europe, E&Y claims that the number of biotech-related jobs in surveyed companies is growing at an annual rate of 1 percent. And in small-tomedium-sized firms—those with less than 1000 employees biotech-related jobs are growing at a 6.5 percent annual rate, according to E&Y.

Regarding research and development (R&D), E&Y estimates that European industry is currently investing more than \$1.2 billion a year in biotech-related R&D. Industry may not be making these investments in Europe, however, as the availability of skilled staff, regulatory constraints, proximity of scientific institutes, and local costs all affect industry's investment-location decisions.

The biggest hurdles to biotechnology's development in Europe, according to E&Y, are a negative regulatory climate and a high level of public hostility to the technology. "This endorses the view that the industrial application of biotechnology will be a job creator only if the climate is conducive. If the current European climate for the application of biotechnology continues, or becomes more onerous, there is a danger that manufacturing processes---and their related jobs---will move elsewhere," notes E&Y.

Interestingly, almost 75 percent of European firms identified product-approval delays as a major constraint to investment in European biotech. In the U.S., however, it is almost universally accepted among biopharmaceutical firms and agbiotech firms that product approvals are far speedier in Europe than in the U.S. "It sounds like a typical case of 'the grass is always greener,''' says one U.S. biotech executive. —**Mike Ward** 

## COMMENTARY ON WALL STREET

## Will biotech stocks ever rise again?

David Stone is managing director of Cowen & Co. (Boston, MA). Chief executive officers will cheer, and brokers will shout, and the momentum players will all come out, when those biotech stocks finally go up again.

Another string of clinical set-

backs has turned the biotechnology sector's usual autumn rally into a rout. After two years in a bear market, investors surely feel like victims of a long siege. But a congenital streak of optimism DAVID STONE

drives most participants in this industry. So we soldier on, waiting for the spark of good news that will ignite the next bull market for biotechnology stocks.

Despite recent disappointments,