

INTERNATIONAL

EUROPE 'NOT LAGGING IN BIOTECHNOLOGY'

DELFT, The Netherlands—European biotechnologists, united in the European Federation of Biotechnology (EFB), have criticized the report from the U.S. Office of Technology Assessment on the commercialization of biotechnology. According to Dieter Behrens from DECHEMA (Deutsche Gesellschaft für Chemische Apparatewesen), the OTA report used too narrow a definition of biotechnology when it stated that Europe is lagging behind the U.S. and Japan.

"If we view biotechnology as being more than genetic engineering and monoclonal antibodies—in short, new biological techniques—the position of Europe would be quite good," he notes. "OTA has forgotten that biotechnology also consists of downstream processing and environmental biotechnology, for instance anaerobic water treatment. If you take that kind of biotechnology into account, the outlook for Europe becomes brighter than OTA has sketched."

Behrens also says that, unlike the situation in the U.S., most European countries are developing biotechnology expertise within major corporations. And these industries do not have to shout their results from the rooftops in order to raise capital.

Erik Houwink, who works with Akzo-Organon (Arnhem, The Netherlands) and is on the executive committee of EFB along with Behrens, says that the OTA report is the most authoritative business analysis of biotechnology to date. OTA examined only four European countries, however, and Houwink thinks that including some 17 additional European countries would yield a more optimistic outlook. He agrees with OTA that Europe has a strong foothold in pharmaceuticals and enzymes, but he adds that Europe also has expertise in the food and beverage industry, cattle feed, and environmental biotechnology—all unmentioned by OTA.

According to Houwink, "The conclusion that Europe is not effective in the commercialization of the new biotechnologies is also not sustainable, since it was Europe that saw the first marketing of a monoclonal diagnostic, genetically engineered veterinary vaccine, the first biochemically prepared human insulin, and the first technical enzyme made by recombinant DNA."

Both Behrens and Houwink admit that Europe does lag behind the U.S. and Japan in some areas. For instance, the OTA report views the

availability of raw materials as but a minor competitive factor. In Europe, with its community policy of guaranteed prices for agricultural products, this could become major.

Says Behrens, "Agricultural policy in the European Community nowadays is directed at creating a strong agricultural sector by means of guaranteed prices. In terms of development of a strong industrial use of agricultural products in biotechnology, I consider this suboptimal."

The agricultural sector has a strong foothold in overall European policy, so a change in policy would seem quite unlikely in the near future. But, according to Behrens, things are changing. Ministries of the countries that make up the European Community are studying a proposal to sell sugar to industry at world market prices instead of the fixed European

price. And the European Community will probably award DECHEMA a grant for a study on how to optimize the use of agricultural products.

Patent law—another factor that hampers development of biotechnology in Europe—is also under scrutiny. Behrens says the length of the patent procedure must be shortened. "As this procedure can take two years or more, you might as well be doing your research for nothing," he says. "This, it seems to me, is unacceptable from the point of view of technological development."

According to both Behrens and Houwink, the position of European biotechnology—in a broader sense than that used by the OTA report—is at least as strong as that of the U.S.

Adds Behrens, "Our position might be even stronger for the future."
—Joost van Kasteren

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