or using civilian reactor plutonium as fuel. A processing scheme that keeps the uranium and plutonium together while removing fission products and making up the required fissile fuel with weapons plutonium or enriched uranium or building in plutonium in spent fuel with accelerator-generated spallation neutrons (*1*) would provide a safe and safeguarded nuclear fuel cycle.

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Science in Chile

Science is essential for developing countries. It contributes to their cultural growth and quality of life and permits the transfer of creative applications of knowledge to solve major problems that prevent the global development of these countries. Indicators reveal that Chile is in a leading position in terms of scientific productivity per capita in Latin America (Science in Latin America, 10 Feb. 1995, p. 819). Part of this growth can be explained by an 8.7% increase in gross industrial product invested in science and the effects of the National Fund for Scientific and Technological Development established in the early 1980s by the National Commission for Scientific and Technological Research (CONICYT). This system guarantees the maintenance of basic research activity. However, several outstanding laboratories have research programs that generate most of the Chilean research contribution recognized worldwide, and they require additional stimulus if they are to have any impact on Chile's development.

The main problem has been how to channel the scientific creativity of talented scientists so they can express their full potential. A ray of hope emerged 2 years ago when CONICYT proposed a plan to add renewed energy to the gradually growing process to open up possibilities for a more significant participation of Chilean scientists in the world. Unfortunately, this plan did not succeed because the interests of particular groups prevailed. The idea of stimulating the strongest research teams was transformed into a "presidential chair" system emanating from the presidential office instead of CONICYT.

CONICYT is the only national agency for science in Chile, with a structure and organization that have led to a long-standing record of peer-reviewing proposals and tracking investigators' accomplishments. But with decisions in the hands of a study section made up of members of a presidential advisory committee (with the help of a panel of one representative foreign scientist per area), the "presidential chairs" in most cases were not awarded to Chile's most talented scientists.

An obvious strategy to foster scientific growth in countries like Chile is to stimulate those groups of investigators and laboratories that have demonstrated that they are highly competitive in their fields and that they have surmounted the difficulties of carrying out science in Latin America. The "presidential chairs" system, however, is an example of how a significant investment in science can fail to reach its objective when inappropriate evaluation systems are in place and scientific quality is not considered a major goal.

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