Mexican scientists pin hopes on incoming president

Enrique Peña Nieto takes office on 1 December — but will he make good on pledges to energize Mexican research?

Erik Vance

30 November 2012

Plummeting oil exports; a failing education system; and a six-year drug war. Enrique Peña Nieto will have his hands full when he becomes Mexico's next president on 1 December.

But in his first year, Mexico's research community is hoping that he will also put the country's scientific house in order. To do that, he will need to boost science funding and re-energize Mexico's scientific culture.

For much of the twentieth century, Mexico was considered a leader in science in Latin America — but chronic underinvestment and a failure to stop a 'brain drain' of its own scientists has seen it flounder (see 'Science and technology in Mexico').



Rodrigo Oropeza/Xinhua Press/Corbis

Enrique Peña Nieto has promised to boost science spending in Mexico.

"I think Mexico has dropped the ball. We stopped being productive," says Sergio Roman, a spokesman for the presidential campaign. "Peña's plan focuses on boosting the investment."

"Obviously the very first [issue] is to increase the funding," agrees José Franco, president of the Mexican Academy of Sciences in Mexico City.

Peña Nieto has promised to increase spending on science and technology from a paltry 0.4% of the gross domestic product to 1%, competitive with other emerging economies.

Mexico's science community is unlikely to let the president forget his obligations. In September, a group led by José Narro Robles, rector of the National Autonomous University of Mexico in Mexico City, presented Peña Nieto with a strategy document. It recommended incremental funding increases, the creation of a science and technology minister and tighter coordination between industry and academia.

Peña Nieto has not directly embraced the document, but his spokespeople say that he has taken many of the ideas on board.

Luring back talent

Mexico's primary research funding agency, the National Council for Science and Technology (CONACYT), stands to get the lion's share of new science funds, and the administration will focus on making it more ambitious, says Roman.

He explains that CONACYT has focused more on providing scholarships for Mexican students to study abroad than on luring scientific talent back to the country. Furthermore, scientists who are funded by CONACYT must often apply annually to renew their grants, putting their research in constant flux. The council must address these issues to reverse the country's brain drain.

Roman says that Peña Nieto is unlikely to create the new minister demanded by the group, but he might create an undersecretary for entrepreneurship.

"There's a sort of divorce between industry and academia in general," says Exequiel Ezcurra, a former president of the National Institute of Ecology, who now directs a US-Mexican collaboration programme at the University of California, Riverside. "Most of our industry has preferred to buy intellectual property, patents and design abroad rather than making them in house."

Home-grown research

Ezcurra says that Mexican scientists want the government to use tax breaks to push industry to fund university work, and to foster a culture in which companies value research and hire academics. For example, Mexico is strong in plant genetic research, so

collaborations in this field could boost both industry and academia.

Franco says that genetically modified products are one way to improve Mexico's farming efficiency, and research into this should be home grown rather being "left to the hands of transnational companies".

That, in particular, is an issue on which Peña Nieto will have to move quickly. Agribusiness giant Monsanto, based in St Louis, Missouri, has applied to plant 700,000 hectares of genetically modified maize (corn) in the country, and the new president will have to decide in the next few months whether to grant his permission.



Long-term change in Mexican science may be tough, because Mexican presidents hold office for only one six-year term — although Peña Nieto's party, the Institutional Revolutionary Party (PRI) controlled the country for seven decades until 2000. "Many of these things will take more than six years," points out Ezcurra. "If Peña Nieto starts [complicated reform], he probably will not be reaping the fruits of that decision. But it needs to be done."

Nature | doi:10.1038/nature.2012.11925