

► researchers informing business and policy leaders. For example, after the terrorist attacks in France last year, the CNRS [France's National Centre for Scientific Research] got all the relevant research groups working to better understand the problem of radicalization. We plan to launch new research programmes, with an initiative at the University of Paris-Sud's campus d'Orsay which will bring together much of our expertise in the social sciences.

France has often had a reputation of lagging in innovation — yet French start-up firms seem to be an emerging force.

France has made it easier for researchers to become entrepreneurs. But we don't succeed in making start-ups grow. Part of the problem is that the strategy of start-ups is too often to be bought out by firms in other countries. There's still too little direct contact between companies and universities, and we are working to improve this. Wealth creation must become one of the missions of the universities. Moreover, the universities are still 90% dependent on state funding. More direct links with companies could also allow universities to generate more durable financing themselves.

Is a problem in the perception of French science that the research community seems to promote its successes much less than do, say, its US and UK counterparts?

It is a problem. I spend my time telling French researchers to sell themselves a bit better. Take the example of the recent discovery of gravitational waves. There was a simultaneous press conference in Italy, in France and in the United States. In France, it was a low-key event in a minuscule room at CNRS, where our researchers expressed everything very modestly. By contrast, at the US event [at the National Press Club in Washington DC], one had the impression that we were at a White House event.

I'm not saying that French researchers should become as excessive as the Americans can sometimes be in their capacity to sell their advances. But in the modern world, we need to be a bit more promotional to make our excellence in research better known. At the same time, I respect a lot the sort of ethical aspects of their modesty, which has a good side.

It often seems very difficult to create change in France. But universities are innovating. My big message is that France is in the process of profoundly changing, and that researchers often aren't really taking the measure of that change. ■

INTERVIEW BY DECLAN BUTLER

This interview has been translated from French and edited for length and clarity. See go.nature.com/o79dmq for a longer version.



Neuroscientist Elena Cattaneo has made complaints about the Human Technopole to the Senate.

ITALY

Row grows over biomedical centre

Document submitted to the Italian Senate criticizes institute that will oversee a €1.5-billion project.

BY ALISON ABBOTT

A plan to create a €1.5-billion (US\$1.7-billion) centre for biomedical and nutritional research has been causing rifts between Italian scientists ever since Prime Minister Matteo Renzi announced it last November. Now the row has escalated, courtesy of a 48-page document submitted to the Italian Senate on 4 May by Senator Elena Cattaneo, who is also a neuroscientist at the University of Milan.

In the document, she complains that the idea for the centre, called the Human Technopole, was conceived by a small group of scientists behind closed doors, and that the large sum of money involved should not be concentrated in a single project, in particular because Italy's research community as a whole has been starved of funds for years.

"To allocate money in this way without discussion of ideas corrupts the ethics of science," Cattaneo told *Nature*.

That sentiment is in line with arguments

already made by Cattaneo and others. Cattaneo's report also lists a series of complaints against the Italian Institute of Technology (IIT) in Genoa, which Renzi has designated to oversee the Technopole project.

The complaints against both institutes are "entirely political", says Roberto Cingolani, who is the Technopole's main architect and director of the IIT. He designed the Technopole concept together with scientists from various universities and research institutes in Milan, and now plans to submit a detailed rebuttal of Cattaneo's document to the parliament.

Like the IIT, the Human Technopole was approved by government decree, and, although supported with public money, will be a private foundation. As such, it will avoid much of the red tape that holds back state universities and publicly funded research institutes.

According to Cingolani's plan, the Technopole will focus on genomics and personalized medicine, with an emphasis on nutrition,

TANIA/A3/CONTRASTO/EVERETT

cancer and neurodegenerative diseases. The plan is now being evaluated by a panel of international scientists.

But many researchers are incensed that the project was announced without an open call for ideas. “The evaluators should have had the opportunity to compare different proposals,” says astrophysicist Giovanni Bignami, former director of the Rome-based National Institute for Astrophysics.

Earlier this year, physicist Giorgio Parisi at the Sapienza University of Rome initiated a petition, now signed by more than 72,000 people, arguing for Italy to invest more in research. But even he takes issue with the way in which the cash is to be doled out. “An investment of this magnitude should have involved the whole scientific community, and different projects should have been compared,” he says.

Supporters of the Technopole say that what matters is the progress of Italian science, not the specifics of how the project was chosen, and that the government is within its rights to set up such a centre by decree. It is “nothing unusual for a government to set science policy”, says neuroscientist Emilio Bizzi at the McGovern Institute for Brain Research at MIT in Cambridge, Massachusetts, and a member of the IIT scientific advisory board.

Cattaneo’s report also questions the choice of the IIT to coordinate the Technopole project. She notes that although the IIT is rated top among the country’s institutes for nanotechnology when measured by the impact of its publications, it is not in the top five for the life sciences or biomedicine, which are the subjects that will be the focus of the Technopole.

“An investment of this magnitude should have involved the whole scientific community.”

She cites a newspaper article from 6 January that reported that the IIT had not spent all of the money it received in 2013, and raised the issue of why the executive had not turned down the payments if it was not going to use them, so that they could be used by other research institutes. And Cattaneo’s report says that, according to the IIT’s internal regulations, the institute appoints members of a national committee to evaluate the institute’s progress, without the oversight of an external body.

Cingolani refutes all of these criticisms. He says that there are many ways to measure scientific success, and accuses Cattaneo of cherry-picking the facts to fit her argument. He points out that any money that the IIT doesn’t spend gets returned to the state. And he says that the IIT undergoes many levels of

evaluations and that all are carried out according to best practice. “I am preparing my rebuttal line by line, point by point,” he told *Nature*.

Parliament has yet to decide on whether to debate the issues raised by Cattaneo’s submission. But the ongoing public discussion is fuelling calls for Italy to reform how it funds research.

It is one of the few countries in the European Union without a national research agency, and in a Correspondence in this week’s *Nature*, 15 Italian members of Europe’s life-sciences organization EMBO emphasize the need for such an agency, to provide “transparent jurisdiction over the funding and execution of research” (see page 179). “The agency,” the scientists add, “would also monitor the progress of the Human Technopole and oversee its accountability.” ■

CORRECTIONS

The News story ‘Human embryos grown in the lab for longest time ever’ (*Nature* **533**, 15–16; 2016) wrongly characterized the US 14-day restriction on *in vitro* growth of human embryos as a law — it is a guideline. And the News Feature ‘The material code’ (*Nature* **533**, 22–25; 2016) omitted Gerbrand Ceder’s first name.