Why we must collaborate to innovate across the world

Frédérique Vidal  13 April 2019

We are facing important collective challenges. Climate change has been shown to have devastating effects on populations, but also on fauna and flora; poverty endures in developed nations and developing countries alike; human health is still under the threat of untreatable diseases such as the Ebola virus; just to name a few.

Science has made these challenges known to the wider public. My profound belief is that science also has one of the greatest roles to play in finding solutions. In fact, the greatest revolutions the world has known were born in labs. This must be said and repeated to all those who question the role and place of science.

At a time when our values are under threat, research allows our societal models to adapt and keep moving forward in the face of difficulties, should they be environmental, societal, technological or medical. It allows our nations to choose from a range of possibilities instead of being pushed into choosing the solutions that are preferred and designed by others.

Research allows our countries to choose the path that best corresponds to our values in times of adversity. It is research that enables us to keep our freedom to choose the way we want to live our lives, to choose our priorities and to choose the way we want the world to be.

The triangle of knowledge

France perceives knowledge to be the product of three actors: research institutions, higher education and innovation. It is what we like to call the ‘triangle of knowledge’.

First, we are strongly attached to the link between research and teaching. Research, and specifically public research, was never designed to be reserved just for our peers. The underlying logic is extremely clear: publicly financed research projects should be made available to the community. Science is a common good that should be made accessible to all.

While fake news is very easily accessible, scientific publications are protected behind paywalls. While it takes 10 minutes to invent and spread crisp and easy-to-understand fake news, it often takes 10 years to produce scientific evidence that provides quality information and arguments.
Open science is the ideal vehicle of knowledge in the face of rumours. I do not resign myself to us being forced to confine our scientific results behind a paywall, separating those who know from those who are condemned to ignorance.

It is from that perspective that research deserves to be taught. It is with this ideal in mind that France has chosen to reorganise its higher education landscape in important clusters, which we call IDEX and I-site, bringing together research centres and universities, nourishing lectures by state-of-the-art scientists and new inventive brains and ideas to research.

The third actor in the knowledge triangle is, of course, innovation. Innovation is often the most visible part of the triangle of knowledge.

**A start-up nation**

Behind any innovative product are emerging start-ups, competitive small and medium-sized enterprises, companies that are at the leadership of a sector. Innovation is at the very core of our economies. Thus, innovation is nothing less than science in action, science that engages in the transformation of the world.

When it comes to innovation, France has great ambition: to become the country of start-ups and entrepreneurship, to become the ‘start-up nation’ of the world. French President Emmanuel Macron called for the construction of an ‘enlightenment entrepreneurship, by reinventing our values, reinventing our love of freedom, rights and justice’. In other words, ‘a country of unicorns’.

Thinking outside the box and promoting a truly entrepreneurial spirit is one of the cornerstones of our new policy on innovation. The links we create by increasingly including innovation structures on university campuses is one of many initiatives we have taken to bring innovation, higher education and research closer together.

**A Franco-Australian strategy**

Creating a common ambitious Franco-Australian strategy has not always been easy – notably because of the 10,532 miles that separate Sydney from Paris. For us, Australia is literally on the other side of the Earth. But France and Australia have gone beyond this tremendous distance to learn from each other’s strengths.

In 2016, Australia decided to trust the French Naval Group firm with the construction of 12 submarines. This contract runs over a period of 50 years and includes important higher education, research and innovation facets. Indeed, the construction of submarines supposes the existence of people who can guarantee their maintenance and these will require training and education. The transfer of know-how that is part of the contract also includes important research aspects.

From that perspective, French and Australian actors have made a big step by laying the first stones of the OzCean Technocampus, which brings together universities, research facilities, government representatives and the marine industry in one place. This ambitious initiative intends to connect the different actors in the sector to foster ideas and eventually bring
About innovation.

It is these types of collaborations that need to be pushed forward. For the very reason that our two countries are at opposite sides of the globe.

They enable us to bring transformation to the world, by bringing our youth to see something else, to experience another way of life and diverse ways of thinking, by showing them how different systems can also bring about excellence.

They also allow us to transform the world by the research collaborations that we will develop through our encounters and by the innovation outputs of our cooperation schemes that will reach the market with the help of innovative businesses.

This is what the world of higher education and research can do to change the world. It is our duty as scholars and scientists to carry out this mission.

Frédérique Vidal is the French minister for higher education, research and innovation. This is an edited extract from a longer speech delivered at the Universities Australia Higher Education Conference in February 2019 and was first published on Universities Australia’s website.