

## **Reflections from experts across the world**

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I will share some views on Cuba regarding what we are doing on higher education and also on science, technology, and innovation. Maybe you are aware that our government is giving high importance to science, technology and innovations in order to solve many of the big problems of Cuba with respect to social and economic development. We have a National Plan for Social and Economic Development until 2030 in which one of the axes is human potential, science, innovation and technology. The vision of our nation of Cuba 2030 defines us as sovereign, independent, socialist, democratic, prosper and sustainable.

Those important goals demand, of course, strong scientific and technological capabilities. We want to promote our socialist project, guaranteeing sovereignty and independence. We want to generate high levels of prosperity with high levels of inclusion. And we want to promote sustainable development. Those are very ambitious targets and demand strong connections between the State, the production sector and the scientific sector.

I want to highlight the importance of the role of university in a society that needs human talent and knowledge to promote its development. Universities are very much involved in what we want to achieve in our country. They produce more than 60% of science and technology results, of the scientific publications, of the postgraduate studies, including long life learning for most of our population.

In recent years, we have worked towards strengthening training and research agenda to contribute to the objectives of our national plan to 2030. We have more than a dozen universities that have already created science and technology parks, companies, start-ups,

foundations, which seek to facilitate university`s connection with society. This is something new for us that started only two years ago, but is now giving initial results.

Very important, and relatively new is the role that universities have in our local development. The Constitution of the Republic in 2019 declared the autonomy of the municipalities. That autonomy requires creating capacities. In each Cuban municipality we have a University Municipal Centre, closely related to the major universities and their research centres and networks. Each municipal government has a local development strategy that must be supported by knowledge and innovation to produce, food, improve habitat, multiply renewable energy sources, among other benefits. The role of the university municipality centre as the most important ally of the government is recognized.

The direct participation of our President in science, technology, and innovation through a direct and systematic dialogue with groups of researchers and experts has worked well in the battle against the Coronavirus pandemic. Of course, universities are present. This dialogue has made possible to advance much faster in solving several problems. In particular the development of new technologies. For example, Cuba has today four vaccine candidates against the Coronavirus. One of them is in phase two of clinical trials. No other country in Latin America has vaccine candidates of their own with this advance. This year Cuba will produce no less than 100 million doses. So, our entire population will be vaccinated this year and we will be able to help other countries that need help.

The innovation also helped to produce lung ventilators that our country had to import at a very expensive amount of money. Almost all the drugs that we use in Cuba in the battle against the pandemic are developed and produced in our country`s biopharmaceutical industry.

The technical direction of the pandemic management rests on an Innovation Committee, which is composed of more than 20 institutions. This committee meets every week with the President and started in March 2020. The President himself chairs these meetings to discuss medical protocols, advanced techniques, and to know what are the results, what is happening? He raises questions such as: why are people are still dying? What else we should do? As of now, we are achieving relatively good results in the control of the pandemic, of course, much more than the media of Latin America, which is our region.

These experiences have been shaping Cuba's a government management system based on science and innovation. I want to share with you that during this year a National Innovation Council will be created directly subordinate to the President.

As you see, we have huge challenges ahead, we are a very poor country, we have human talent formed by our revolution and we have confidence that we will win. So, we applaud the aim of Kerala to transform to a knowledge economy. We're sure with all I've heard today that they will achieve this objective. Thank you very much.