

COMMISSIONER MOEDAS

Prince Claus Curatorium

12th April – 09:30

Science is a Game-changer for Development

[Opening]

Your Majesty (Queen Maxima),

Your Royal Highness (Princess Beatrix),

Minister Pandor,

Your Excellency,

Distinguished guests,

Ladies and gentlemen,

Good morning.

Thank you very much for inviting me here today. I am very happy to be here in The Hague.

First let me tell you that I love your country. My first recollection of my father was when he told me the story of all the Portuguese Jews that were chased by the inquisition and found their home in the Netherlands. So way before - so many - your country understood that only by being open you could thrive. And you did.

You got Spinoza, Belmonte, Isaac Fonseca, Lopes Cardoso and so many.

Spinoza used to say something that we need so much today in these turbulent times: "If you want the present to be different from the past, study the past"

Second because I had the pleasure to observe the quality of your people in the EU institutions. Today I have here Robert-Jan Smits who is one of the most distinguished

6th April 2018 YH V3

Director General of the European Commission. He was the architect of the current science program and I wanted to thank him publicly for the amazing job he did for Europe.

He represents the best of your country: **Openness, Hard Work and Commitment to results.**

[Science, Innovation and Tech for Development]

Standing here, I realise how many of you were lucky enough to have known Prince Claus personally. He was a man ahead of his time, as he said a "citizen of the world".

And this inspired his incredible passion for development in Africa. Development was in his heart and his soul. He dedicated so much of his life work to improving the lives of those living there. And to inspiring the same passion in other people.

Today I wanted to talk about the link between Science, Innovation, Technology and the field of Development.

[Science]

First, let's start with Science. This link that seems obvious is not always obvious in the mind of the citizens - and sometimes - governments all over the world.

Politicians are moved by the short-term and they seldom have the incentives to think long term. We have to change that and scientists have to be more vocal about this link.

In the 70's a Zambia-Based nun heard about an ongoing NASA research program to Mars and sent a very tough letter to one of the directors asking how could he justify spending billions on such a project at a time when so many are starving on the face of earth?

The Director Ernst Stuhlinger wrote back to her with a beautiful letter. In that letter he tells a 400-year old story of a Count in Germany who in medieval times used to give money to help the people of his town every year. One day he met a strange man with a lab in his own little house where he would work with small pieces of glass putting them together in tubes to look at small objects. The Count decided to help him too. But people were outraged that the count was wasting money and time with this strange man. The count said to the people: *"I give you so much as I can afford, but I will also support this man, because I know some day something will come out of it"*.

Indeed something came out of it: The Microscope. The microscope has been one of the major advances in medicine eliminating plague, and so many contagious diseases. The Microscope has saved millions of people from disease.

After he told this story in his letter, the NASA Director then goes on explaining all of the discoveries we have made through the space programme that have changed our world and helped mankind. From medical instruments, to weather forecasting, to farm equipment.

So it is our mission to explain this link over and over again to politicians. Whether you are in the so-called developed countries or not if you don't invest in Science there is no development strategy that can survive. There is no development.

In 2015 a report from the United Nations stated that Science is the "game changer" for development.

[Innovation]

Second, Let's look at innovation defined as something new and useful. Innovation has changed radically in the digital world. 50 years ago you would need to be a big corporation to innovate. You would have innovation centres in the big cities and then ship innovation to other countries.

A little bit of the Schumpeter paradigm. The producer will innovate and push to the user. In the digital world it is actually the other way around. The user is the one leading innovation and the developing world has been the leader for Social Innovation. A field that is changing our perspective in the developed world.

Joshua Okello is a Ugandan student, who helped develop an ultrasound application for mobile phones that can detect if a baby is in distress. It is based upon the Pinard horn, a 19th century listening device that is placed on a woman's abdomen to determine the health of the foetus. The Pinard horn is still widely used in many countries, including Uganda, but takes years of practice to operate effectively.

So, Joshua invented a way of connecting the Pinard horn to a smartphone, so an app can do the listening instead. This allows healthcare workers to get accurate and in-depth results from the app, and it also allows untrained workers to get consistent and reliable readings. The app also uploads data to the cloud, which can be accessed anywhere by a doctor. So that health recommendations can be made quickly, even in remote areas.

Joshua is a student not a big corporation, he wants to change the world and he inspired so many in the so called developed world to do the same.

[Technology]

Third, I want to talk about deep tech and development. The next wave of the internet will be about Artificial Intelligence, Quantum Computing or technologies like Blockchain.

Blockchain will be another game changer for the future of development. When people hear about Blockchain they think about bitcoins or cryptocurrencies but Blockchain is much more than that. Blockchain has the ability to connect people without intermediaries and at a marginal cost.

This has a couple of advantages that will change the world for better and have a huge impact on development:

- Today most of the value of a transaction goes to intermediaries – banks, companies like Uber, AirBnB, Google or FB. When I pay a ride on an Uber only a percentage of that goes to the driver. In a Blockchain world the value goes to the one who creates it. So this technology has the ability to connect people directly without intermediaries, without barriers.

- Second, there are people today who are excluded from the economy because they don't have a digital identity or they don't own their own data. Those people don't have access to financial services. The establishment finds them too risky. But they will be able to enter the global economy through this new technology.

- Third, Blockchain will change the whole political world. Politicians used to correct inequalities through taxes. So you would create inequality and then correct it. Blockchain will allow us to have a system that distributes wealth without creating inequality in the first place. Don Tapscott in his book "BlockChain Revolution" puts it:

"Rather than trying to solve the problem of growing inequality through the redistribution of wealth only, we can start to change the way wealth is distributed - how it is created in the first place, as people everywhere from farmers to musicians can share more fully, a priori, in the wealth they create. The sky does seem to be limit".

So Blockchain will allow everyone in every part of the world to develop their own business and technologies. They don't need the developed world to transfer them innovation, or technology. They will create and co-create that future.

Prince Claus was an advocate for this kind of thinking. He said it perfectly when he said:

"The decisive factor is the growing realization that development and progress can be realized only by people themselves, in an environment where there is respect for one's own culture, own language and our own lifestyle. Without respect and trust in one's own culture and traditions, progress is difficult to achieve." End quote.

In other words, the best development is self-development. When countries are given the resources they need to develop themselves in their own way. And not when it comes from outside.