



Singapore – a leader in climate change mitigation

Speech of the President of the Max Planck Society

Professor Dr. Patrick Cramer

At the occasion of a joint dinner on invitation of the Max Planck Society with selected scientists on the topic of climate protection/sustainability and research

8 April 2024

Swissôtel The Stamford, Singapore

- Check against delivery -

Just over 100 years ago, in November 1922, Albert Einstein came to Singapore. It was a stop-over. He was on a boat trip from Marseille to Japan, where he would give lectures. In his diary, Einstein noted about the reception here that it was a "desperate calamity of language with good-tasting cake."

Nowadays Singapore is not a stop-over anymore. It is a destination for scientists. Today we got a glimpse of the fascinating science here. I was impressed by our visits at Nanyang Technological University (NTU) and the National University of Singapore (NUS). We met our collaborators at the Max Planck – NTU Joint Lab for Artificial Senses and at the NUS Mechanobiology Institute, where the first Max Planck Partner Group was established in Singapore in 2022.

Singapore may be the smallest country in Southeast Asia. But its economy prospers. It has the second largest harbor, world-wide. And its educational and scientific systems perform extremely well. In a comparative analysis of scientific publications, Singapore is leading within Asia with respect to highly-cited papers per capita. Both NTU and NUS are amongst the Top 40 universities. In education, Singapore even ranks number one in the world!

For sure, education and science are treated as top priorities by the government of Singapore, as we learned from today's meeting with representatives of the National Research Foundation. Clearly, we should work together closely, and this is why we also signed a Memorandum of Understanding with the NTU.

At the Max Planck Society we see several areas for cooperation, but one clearly stands out: climate change mitigation. Why? Because it tackles an outstanding global challenge, because it is our shared interest, and because we have complementary expertise that can lead to synergy.



Singapore invests heavily in its Research Innovation Enterprise Plan, and one of its priorities is “Urban Solutions and Sustainability”. And you have an ambitious Green Plan. Joe Hooper, the Director of the UNDP Global Center noted that “Singapore established itself as a hub for the rapid development, testing, and deployment of climate-tech solutions...”

Indeed, we have to act fast. This is obvious when you get here. Singapore produces only about 0.1 per cent of global greenhouse gas emissions, but it suffers disproportionately from climate change. How can a small tropical island address rising sea levels, changing wind and rainfall patterns? Singapore is leading by example: it develops technologies that reduce dependencies on energy, water and food supplies.

So, really, I do *not* need to tell *you* about climate mitigation. But what I want to tell you is, that this is also a strength at several Max Planck Institutes, and that this offers opportunities.

Let me just mention the planned “Singapore Center for Carbon-negative Products and Processes”. The aim of this project is no less than to fight climate change by making use of large amounts of biomass that is left over from palm oil production. The hope is to first remove the useful pharmaceutical or cosmetic materials from the biomass, then convert the accessible sugar molecules into fuel and chemicals, and to use the rest to make “anthropogenic soil” that stores carbon and can even render agricultural land more fertile. It sounds like phantasy – but it may soon become real!

Let me come back to Einstein. Soon after he left Singapore, he became a Nobel laureate – he actually learned about this during his journey to Japan. I hope this story encourages us to excel in our research. And I hope that our visit today sends a signal to scientists in Singapore and the Max Planck Society to engage in more collaborations, for the benefit of humanity.

We are here tonight to learn from you, to think big, and to develop positive future scenarios. Thank you for joining us. Now I wish us a fruitful discussion – and I trust we get good food, as Einstein did already 100 years ago!