

Reece Smyth AWLC2020 Speech

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6:30 PM, Eastern

Good evening from Washington. My name is Reece Smyth, and I am the Director of Science and Technology Cooperation in the Department of State.

It's good to be talking to folks at Stanford, again. Before arriving at my position, I spent a year at the Hoover Institution exploring the intersection of science, technology, and foreign policy.

This also describes our work in the State Department's Bureau of Oceans and International Environmental and Scientific Affairs. OES was given the mandate of promoting U.S. interests in international scientific topics in 1974, but our history with the field of major physics research facilities predates this by several decades.

In fact, in 1950, the Department authorized the Nobel Physics Laureate, Dr. Isador Rabi, to advocate for the creation of European regional laboratories modeled on U.S. national labs. At the U.S. Mission to UNESCO, Dr. Rabi laid the groundwork for what would later become known as CERN.

Fast forward to the 1980s - Dr. Charles Newstead of OES advocated for the inclusion of nuclear fusion as a tool of civil nuclear cooperation during President Reagan's meeting with General Secretary Gorbachev. This led to the development of the ITER fusion project in France.

In both instances, the Department was motivated by the recognition that when physics is placed in the wrong hands, its practitioners are capable of producing horrors beyond imagination and altering the international landscape.

But at its best, physics is also capable of unleashing transformative innovation that has the ability to improve the way that we live and work,

whether it be through GPS, MRI technology, or the Internet and World Wide Web.

The efforts of the international physics community are nothing short of extraordinary. Your community is one of the most thoroughly internationalized scientific communities in the world. Your commitment to producing new knowledge and disseminating that knowledge far and wide is a model that other disciplines strive to achieve.

In fact, it is not uncommon for us to hear other efforts, like the Atlantic Ocean Research Alliance, refer to themselves as the “CERN of the Sea.”

So we pay very close attention to the prioritization efforts of the U.S. physics communities. We strive to ensure that the necessary supports exist for your community to continue its peaceful exploration of the mysteries of the universe.

In 2014, your community produced an update to the Particle Physics Projects Prioritization Panel report, or “P5”. The P5 created a list of major projects where the U.S. physics community should put their efforts to advance U.S. leadership.

All of the priorities identified by the P5 report are major international undertakings, and I am pleased to say that the Department of State has supported many of them.

We worked closely with the White House, the Department of Energy, and the NSF to modernize our relationship with CERN and advance the High Luminosity Large Hadron Collider. We signed agreements, first with CERN and the United Kingdom, and then with other major players in physics, to advance the Long Baseline Neutrino Facility and Deep Underground Neutrino Experiment.

And more recently, we have joined with the Department of Energy to advocate for the development of the International Linear Collider (ILC) in Japan.

This field provides the United States with unprecedented opportunities. The pursuit of new physics has the potential to alter the ways that we live and work. That is why we support the advancement of physics infrastructures in countries that share fundamental values of transparency, openness, reciprocity, and merit-based competition.

Adherence to these principles is of the utmost importance. As Dr. Rolf-Dieter Heuer said at CERN's 60th anniversary at the United Nations, could we imagine the world today, if CERN had chosen to treat the World Wide Web as licensed intellectual property?

To continue in the same spirit: Would the United States have maintained a trusted relationship in physics with our allies if we chose to promote a one-sided exchange of people and knowledge?

And would it be acceptable for a country to classify and hide a portion of its research produced in one of its fundamental research facilities, to the detriment of the broader global scientific community?

The openness of this community makes this knowledge available for countries that do not share these values. Nothing is stopping actors who fail to abide by these principles from moving forward, other than the scale and expense required to do these experiments.

The International Linear Collider (ILC) provides us with such a platform. I understand we have the technology to build it, today. The ILC has been recognized by both the P5 and the European Strategy for Particle Physics as one of the most promising facilities for pushing the boundaries of physics and technology.

We support the decision to move the ILC efforts forward through the ILC International Development Team, and will continue to work to help educate partner governments about the value of this facility. We also look forward to coordinating with the Government of Japan to advance the facility.

From ITER, we know that any such facility must be professionally organized. The ILC needs to be in a position to succeed from the very beginning. International projects are subject to enormous scrutiny. We need to make sure that any project is supported by competent governance.

In short, we are here to help. We know the importance of your work, we appreciate its role in the world, and we maintain an interest in ensuring that science is conducted in a way that upholds our values. In this regard, your field is an exemplar for others to follow.

I hope you are having a productive week, and look forward to hearing more about the outcome of your meeting. Thank you.