

Future sustainable solutions: How Stanford and Sweden are working together

Jimmy Chen leads global partnerships at Stanford's Doerr School of Sustainability. He sees great potential in combining the strengths of two of the world's leading innovation ecosystems. Jimmy is one of Vinnova's closest collaborators at Stanford, and we took the opportunity to ask him a few questions during his recent visit to Sweden.

Why do you see Sweden as an important partner in research and innovation?

Sweden, like Stanford and Silicon Valley, is a real innovation center in the world. Sweden has world-class universities and a long history of innovation. There is a strong collaboration between academia, industry, and government. You think long term and care deeply about sustainability.

That resonates strongly with the kind of work we are doing in sustainability. As a result, there is a very strong interest in collaborating on these kinds of topics.

How do you view the Swedish innovation system compared to the one in California?

In Silicon Valley, we have a habit of moving fast, and we have strong systems for access to capital and financing. But sometimes we break things along the way, and that is not always a good thing.

The Swedish innovation system is also very successful, but it is more structured, consensus-oriented, and long term. Sweden does this really well. But one question I often ask is whether there are ways to do it even faster. Can we find a meld between the two models where we can move fast without breaking things? I see opportunities to increase the pace without leaving behind the system that Sweden has established and perfected over a long period of time.

You have extensive experience building bridges between academia and industry. Stanford has a well-established model for collaboration. What is the recipe for success?

I think each of these segments, industry, academia, they kind of have their, roles, their strengths. And, part of the secret of success is really sort of understanding and convening and building relationships, which leverage both.

I find that creation of these value streams and projects is really the key part. The other thing that I've discovered and I found to be very important, is the deep, trusted relationships. They tend to be very effective at navigating organizational complexities. And that's where a lot of the speed can come about.

You are involved in a collaboration with Lund University on the digitalization of power grids and power electronics. Could you tell us a little about it?

Both Lund University and Stanford are working with microgrids. Lund is building a microgrid and Stanford has two of them. At the same time, there are major changes taking place in what the grid needs to do, creating natural opportunities for collaboration.

One important area is protocols that allow us to create, operate, and interconnect these microgrids. That is the work we are doing together with Lund, and it is very exciting. We are also exploring how to integrate other areas beyond traditional power systems, such as transportation and thermal energy storage.

You are also involved in so-called living labs, where new solutions are implemented and tested in real-world environments. Stanford has several of them, and there are plans for a similar initiative at Blekinge Institute of Technology?

Living labs are a way of bridging the gap between research and real-world adoption by taking ideas from the laboratory and testing them in real-world environments in a safe and structured way.

At Stanford, we are building a global community of institutions that are practicing this approach. What is particularly exciting about BTH is that they are very committed to developing this kind of platform. They are also planning a number of new buildings and investments on campus.

I see the opportunity to create a true living-lab campus where energy efficiency, energy storage, transportation, and energy conversion from one form to another are integrated into a cohesive whole. It could be very exciting.

Are there any other collaborations with Sweden that you would like to highlight?

Yes, we have several. The Knowledge Foundation has graciously supported an opportunity for ten PhD students to participate in an exchange program at Stanford and spend between six months and a year there. We are currently in the middle of implementing the program, and it is going very well.

We are also exploring opportunities to bring more Swedish universities into our international living lab community.

In addition, we are building a global sustainability community. There are many initiatives in the works, and I am very excited to see them make progress.