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**CHINA IN THE WORLD PODCAST**

Host: **Paul Haenle**

Guest: **Paul Triolo**

Episode 110: Paul Triolo on Made in China 2025

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**Haenle:** Welcome to the China in the world podcast. I'm excited today to have with me Paul Triolo. It's a new practice at the Eurasia group and it's focused on understanding and addressing the global technology policy issues. It includes a pretty big portfolio of cyber security, Internet governance, ICT regulatory issues, and emerging areas such as automation, AI, big data, ambient intelligence, and Fintech and blockchain. That's quite an agenda.

Paul served in senior positions within the US government for more than 25 years. He focused primarily on China's rise as a science and technology and cyber power. He was the lead drafter for a number of widely acclaimed national estimates on China's science and technology innovation and industrial policies as well as cyber cyberspace issues.

Paul has been here in Beijing this week with the Carnegie-Tsinghua Center taking part in our US-China Strategic Track 1.5 dialogues where we had an opportunity to hear from Chinese and US government officials, including our US ambassador in China, Terry Branstad, as well as distinguished experts on the pressing issues in the US-China relationship. Paul thanks for being with us today.

**Triolo:** Thanks Paul. Happy to be here.

**Haenle:** So as part of our track, 1.5, you spoke on Made in China 2025. This is something that's getting a lot of attention in the press, in the United States and in the West more broadly in Europe as well. It's a focus of the Trump administration's current trade disputes with Beijing. Can you give our listeners just a sense of what is Made in China 2025. How has this initiative developed into a major point of tension? And as I think you said yesterday, how has it become the poster boy for US-China trade frictions?

**Triolo:** Great questions, Paul. Great questions. Well, let us start briefly with a description of what Made in China 2025 is. It's basically a Chinese government strategy that was developed in 2015 and released publicly and involves efforts to upgrade China's industrial base. Basically sort of digitizing and bringing modern communications technology to China's traditional industrial base and improving it with the technologies, advanced technologies such as advanced artificial and broadband Internet and basically upgrading the industrial base.

And the program involves 10 sectors including semiconductors, advanced telecom, telecommunications equipment and things like new energy vehicles. So the program as it was released in 2015 also included a roadmap that included things like quotas for domestic production in some of these areas. And this is what's really gotten the attention of people in Europe and the West.

**Haenle:** Can I just stop you there? Because at the face of that, it seems as if this would be a goal and objective of any developing nation, any developed nation that wants to become a leader or wants to become a modern industrial society. So I mean, is this by in the end of itself a negative thing?

**Triolo:** No, no. I think nobody disputes that China needs to upgrade its industrial base integrated advanced technologies and sort of move up the value chain. The problem is that in China, the program has also come with a tremendous amount of government backing, government subsidies and the perception that it favors domestic companies. And so, some of the pushback has been a concern over a distortion of markets in key sectors, particularly things like semiconductors, which are very globally driven and market driven. And there's a concern that all these policies eventually will lead to overcapacity in these sectors.

As we've seen in things like solar and steel. And that's really the concern driving us. In addition in the US, I think there's concern over this idea this China is attempting to essentially appropriate the technologies of the future because of programs like made in China 2025 and other industrial policies and regulatory restrictions around foreign firms.

So I think it's coming at a time in the US China relationship where there's already a lot of concern about China because of other programs such as belt and road. And things like civil military integration. So made in China 2025 is part of a broader package of industrial policies and initiatives undertaken by the Chinese government in the last two to three years that has produced this sort of concern in the west centered on made in China 2025.

**Haenle:** So it's not the principle of the notion of moving up the value chain as you say, or China's goals and objectives. It's the way that it's done with state intervention and in a way that makes it difficult for foreign companies to compete or ultimately foreign companies being replaced by Chinese companies other than the stated primary objective by the Chinese side to do that.

**Triolo:** That's become predominantly because of this document called the roadmap, which was a second document that came out of the made in China 2025 process. It was put together by a group of the Chinese Academy of Engineering and it included detailed roadmaps for each of the 10 major sectors in made in China 2025 and again, in each of these sectors, it called for targets by 2020, 2025 and 2030 domestic content.

So the Chinese government's position on this is guidance, these were sort of inspirational goals, but the perception in the West is that this is actually sort of a return to some level of planning with a heavy stake hand in this and then what has typically happened in China is local governments and municipalities will pick up on these kinds of government priority strategies. And so that's-- the concern then is that all the local investment will again eventually produce the overcapacity issues that we see in some other sectors. So that's sort of the core of people's concerns about 2025.

**Haenle:** If you put aside US concerns and European concerns about the way this is being directed or this guidance that's being given in China and the state led aspect of this. Historically speaking, does the evidence suggest that this kind of approach could even work even without the push back from the West on this?

**Triolo:** That's a really good question. I think the thing to keep in mind here is that we're pretty early on in the made in China 2025 strategy. And traditionally large government led efforts like this top down efforts do have a very mixed record of success. So if you look at even just

something as relatively simple as semiconductors we've have been trying for a long time to reduce this dependence.

There have been any number of plans since the [Inaudible 00:07:31] going back to the eight- five year plan and none of them have really succeeded through a top down kind of a program. And so I think even on the Chinese side, government persons will admit that some of these kinds of inspirational plans are outdated almost as soon as they're put down on paper. But the problem is they do come with these subsidies and some of these preferential policies. And so they do have an impact.

But I think what's important to remember in this case is that a lot of these sectors in China are already being led by the private sector. And so that's something to keep in mind. And that's where really I think that a lot of the changes are going to come. The government will be an important player in some sectors more than others. But yes, I think that there may have been a bit of an overreaction in the west to think that just because China has an industrial policy that is going to succeed and it's going to eventually displace Western companies.

**Haenle:** And the concerns by the US and Europe in your sense how are these perceived by the Chinese and the Chinese government? Is this seen as part of an effort strategically or geo politically to sort of prevent China from being able to compete with the West or contain China, keep it down as we often hear or are they understanding the fact that really this is just about fair competition? We just want our companies to be able to compete in a fair way. And the way we see this effort now is it will give Chinese companies too large of an advantage for US and other companies to compete.

**Triolo:** Yes I think there's mixed views on this in the west. I think at some level people recognize China has to move up the value chain. It has to improve these traditional manufacturing industries along the lines of for example; in Germany it has industry 4.0. So in other countries, Japan is pursuing a similar strategy of improving its industrial base. So at one level everybody agrees that China needs to pursue a similar policy. It comes down at essentially to the tactics and to the policies that are helping to drive this.

And so I think, again, there's sort of short term concern about market access for companies in these sectors and preference of policies. And then there's this longer term issue about potential for these policies to distort global markets and supply chain. So it sorts of-- there are a couple of levels going on here. I think the recent problem with Zte in China has sort of highlighted this issue because in cutting off, for example, the Chinese telecom number two companies in China, their access to US components.

This is reinforced this idea in China that made in China 25 really is important because one of the semiconductor component, for example is designed to reduce dependence so the Chinese companies aren't always at risk of losing their supplies. So I think that's another issue that's come in more recently and has highlighted the importance of something like made in China.

**Haenle:** Try to, if you can talk a little bit about the Chinese views on this. Someone said one of the Chinese participants in our track two said and it was quite powerful, said 'our next are exposed here' and talking about the ZTE case. And as you say, it reinforced their views that made in China

2025 is exactly what they should be doing. How are the Chinese feeling on these issues when it comes to semiconductors and other issues where they don't have their own strong efforts in China underway?

**Triolo:** Well this is the issue of what they call in China core technologies and what they mean by core technologies are semiconductors. And that means things like memory, mobile chipsets and particularly CPU where they're almost in some cases in 80, 90, 100% dependent on western components. It's also things like software also. So things like databases. So companies like ZTE which has 211 or so suppliers in the US are heavily dependent on US inputs for both its handsets and its telecommunications infrastructure.

So I think the ZTE thing really highlighted both the sort of, the weakness of the programs and top down programs to really solve some of these issues. But I think what happened is at the top of [Inaudible 00:11:40] paying basically doubled down on this and after, after the ZTE announcement toward some memory facilities in [Inaudible 00:11:47] and basically made the case that, hey, here's an example of why China must redouble its efforts to reduce dependence.

**Haenle:** Now in the US, the recent national security strategy highlighted something called the national security innovation base and it focused on protecting the core of US innovation, much of which is perceived to be being challenged by made in China 2025. US seem to be increasingly moving towards protecting and developing these key advanced technology sectors. And I wonder, is this the best response from the United States to be able to do that as this? What kind of recommendations would you make in terms of how the US should respond?

**Triolo:** Well, I think that the big challenge is deciding sort of what to protect. I think there are technologies that clearly have military use and the US should to try to maintain its edge and protect those. But there's this huge range of technologies that are going to probably likely to come under this definition of a national security innovation based things like artificial intelligence even things like semiconductors, robotics, automation, and biotechnology.

And the challenge there is that a lot of these are inherently dual use. But I think the challenge is going to be deciding what to protect and what to allow, how to allow innovation to happen in these sectors. Because particularly for artificial intelligence, for example, the two sectors are very much coupled between China and the US and so there's-- because of...

**Haenle:** Excuse me, a lot of collaboration in the United States right?

**Triolo:** There is a tremendous amount of collaboration, right. I mean, Microsoft and Google are hiring hundreds of Chinese AI engineers in China, Baidu who we met with last night as part of the dialogue by the President [Inaudible 00:13:32] we talked about they're setting up research centers in the US and so, yes, there's tremendous amount of collaboration.

So the danger in US trying to protect or to clamp down investments in certain sectors is that some of this vibrancy and this innovation will be lost between the two countries. And I think that's a real danger going forward.

**Haenle:** Let me close on. You know you mentioned, Baidu and Google and sort of Silicon Valley in that context, you served in the US government for more than two decades focusing on China's rise as a science and technology and cyber security power. Do you see a gap between the ways Washington DC views these issues and the way Silicon Valley view's these issues? What's in your mind the biggest disconnect between policy makers and those that are creating and understanding the technology?

**Triolo:** That's a great question. That's a really good question. I think potentially the-- I think there's a danger in Washington that the policy community is a little bit behind the curve and understanding how some of these very dynamic sectors, technology sectors are working, how much money is going into them, how much us money is going into China, how much Chinese money is going into silicon valley and how important that be allowed to continue to improve, to drive innovation in the sector.

So I think that the policymakers in Washington may have a little bit outdated view of China and where the cutting edge is and the critical role that Chinese private sector companies for example, like Baidu, Alibaba and Tencent play in this. So its not-- there is a state role that we mentioned earlier and made in China 2025, but most of the cutting edge technologies are being driven in China by the private sector and Ai is a good example of that.

**Haenle:** And so how do you educate and inform politicians about these very complex and nuanced issues regarding technology.

**Triolo:** It's a good question. I think you write up heads, you engage in track two dialogues of the type that we've had with [Inaudible 00:15:30] here in Beijing, which was fantastic. I think the candor and the dialogue was excellent. And I think following these kinds of dialogues, a chance to pursuing bylaws with policymakers, bringing them into dialogues like this is a way to really help improve the understanding of what's really going on in China because it's very fast paced.

It is very difficult to follow and track. And the media sometimes gets locked into certain memes on these issues and it doesn't help in terms of driving understanding forward about how innovation is occurring in these key sectors.

**Haenle:** Well, we appreciate you participating in the China in the world podcast, but also our track 1.5 over the last two days when we began exploring, introducing an element into our agenda of US, China, and technology. One of the first names that people recommend was Paul Triolo. So we're pleasure and we're delighted to have you join us and we hope to see you again in July in Washington, DC when we do our track 1.5 there.

**Triolo:** Is my pleasure to participate and thank you, Paul for the opportunity to participate. And I thought it was a very fruitful discussion and one of the best kinds of track two dialogues I ever participated in so far.

**Haenle:** Well, thanks again. That's it for this edition of the Carnegie-tsinghua China in the world podcast. I encourage you to explore our site and see the work of all our scholars in the Carnegie-tsinghua center. Thank you for listening. Be sure to tune in next time.

