Competence Centre Climate and Social Justice



There is no need for a 'MAGA version' of industrial policy

Cornel Ban on China's lead in clean technologies, failed EU initiatives and a credible strategy for the working class.

Cornel Ban is Professor of International Political Economy at the Copenhagen Business School.



The interview was conducted by Claudia Detsch.

In Europe, the fear of de-industrialization is spreading. China is increasingly leaving us behind, particularly in the field of clean technologies. Have Europeans missed out on the importance of this sector?

Europeans were pioneers in clean technologies. Our environmental regulations were ahead of all others. At the same time, we had technological advantages and this combination was very powerful. The BMW i3, for example, was the first electric car to sell 200,000 units.

It's not that we are less innovative. In fact, we are more innovative. But we commercialize less. For me, this is the central failure of European industrial policy for clean technologies.

This also has to do with the framework conditions. We have made an enemy of the automotive sector by imposing very strict emission standards on it without providing it with the necessary infrastructure. But without the right infrastructure, you can't achieve economies of scale in production - you can't commercialize the products.

Competence Centre Climate and Social Justice

How can it be that Germany, the country that has the most to lose if the transition to electric cars fails, is the country that relies entirely on the market and fails to develop the infrastructure? In China, building the charging infrastructure was the first thing they did.

China has deliberately taken a different path. They integrate different elements at the same time. I call this "guided entrainment". Finance, planning, digitalization, securing the entire value chain across raw materials, processing and also infrastructure - they do everything at the same time. It's very difficult to counter this with a liberal approach.

Europeans, on the other hand, have always understood clean tech from the familiar perspective of global value chains. However, a determined industrial policy should have aimed for autonomy and maximum integration of these value chains within Europe.

This conviction has now caught on here in the meantime. However, it took the shock of the corona-related supply chain crisis and the energy price crisis following the Russian invasion of Ukraine for this to happen.

That is another point. Clean tech was not existential enough for us in Europe. For the Chinese, the electrification of transportation was a matter of national security. During the Obama administration and even more so under Trump, both the Chinese and the Americans have become increasingly bellicose. Many studies in China at the time addressed Chinese oil vulnerability. They assumed a massive disruption of China's oil supply in the event of a conflict, especially in the event of a naval blockade. Their clean technology strategy was not primarily driven by climate considerations.

In Europe, on the other hand, climate considerations were decisive. After the Crimea crisis at the latest, the security aspect should have become more important for us too. Our dependence on gas, be it Russian gas or American or Azerbaijani LNG, should have mobilized trillions for the electrification of European transport and the decarbonization of the energy sector.

We mainly thought about climate and regulation. China mainly talked about energy security and industrial policy.

In Europe, too, we are now talking more about industrial policy and energy security than about the climate. But is it still possible to close the gap?

We have great strengths. We have only made some bad political decisions. It's not that the Chinese system is inherently better. Seriously, we invented industrial policy in Europe.



Despite many debates, we don't seem to be making much progress. On the contrary, the bad news from the industry is piling up. What is needed now? Is it down to money?

We have all these great alliances like the European Battery Alliance. And they all fail because they are massively underfunded compared to China. The cost of capital is a big problem. The cost of capital for clean technologies has gone up like crazy in the last few years because of inflation. The Bank of China has a lower interest rate for green technologies. We don't. We had it for a year and then got rid of it. We need a discussion on the role of the ECB in clean tech, on the role of the EIB and the AIF. We need a discussion on how Member States can coordinate the whole value chain with their particular forms of public financing instead of just focusing on local projects.

How do you assess the current reform debates in Europe in this context?

Abundant risk capital is a prerequisite for innovation. Innovation is a prerequisite for productivity growth and productivity growth leads to market dominance and sustainable growth. It is not as if Europe has no money. We don't have as much money as the Chinese funds, but we have about half of it.

But the Europeans basically wanted to simulate the conditions for American venture capital. The Chinese set up state venture capital firms. Today, they account for almost half of their trade with the USA. As a result, there is plenty of capital for innovation in China.

In Europe, we have the European Investment Fund, we have 38 regional venture capital funds in public hands. The problem is that they all follow a market-based approach - what is profitable today and in my region? In China, on the other hand, they finance technologies that will come to fruition in the next ten years.

These Chinese public funds also work closely with universities, where innovation is based. We, on the other hand, follow the American legend of the genius who builds his start-up in his garage. We delegate innovation, so to speak. This stands in contrast to the ecosystem of public research institutes, which requires more funding. China has a real advantage here.

There is no alternative to European companies that provide innovation with cheap venture capital. A kind of crazy innovation ecosystem that can spill over into their own brands. Just like it used to happen in China.

Particularly in view of the current crisis, there is a growing number of voices in Europe that no longer want to adhere to climate-neutral transition. One example is e-mobility and the phasing out of combustion engines. Why should we voluntarily abandon a successful model?

I call this the Trabant strategy in my forthcoming book. The Americans have already clearly decided in favor of this direction. If we in the transatlantic region say 'forget the green transition in transportation, it's destroying jobs or competitive advantage' - what do you think the rest of the world will buy? The growing middle class from India to Brazil to Nigeria? China is putting charging stations everywhere. And they have cars on offer that are suitable for all incomes.

Europeans would condemn themselves to a kind of GDR economy. We know where that ends. It ends in technological obsolescence and a very narrow, closed market. Could we maintain enough jobs in the European economy if clean technologies narrowes that market considerably?

But our own attempts have not been successful either. Northvolt, for example, started with great expectations and has since ended up in insolvency.

In Europe, it is extremely difficult if you don't build up a crazy economy of scale. However, this also requires the right level of demand and support for manufacturers in difficulty, such as Northvolt. The Northvolt case would never have happened in China. Northvolt developed the first sodium-ion battery cell; not for the automotive industry, but for energy storage. You don't need rare earths from China for this. This is the pinnacle of European technological triumph. This is a 15-billion-euro business. And now it is to be sold for peanuts.

Can the successful Chinese model be copied?

The idea of competing with Catl or BYD for lithium-cobalt batteries - forget it. You need a global mining system for that. The Chinese have it. We don't have it. China controls the entire value chain. The materials are transported by State of China Shipping at discounted rates. All smelters are located in China and are state-owned. The mining companies are private and operate in Australia, Latin America and China. They have a value chain. We don't. If we don't innovate and put a lot of money into it, frankly it will end up throwing money down the drain.

What we are really good at in Europe is recycling - making batteries from old batteries. We have incredible innovations, especially in Germany and the Nordic countries. China has been weak in this area so far.

We still have many advantages. We have many starting points to engage in coordinated competition with China until we are able to come up with creative spurts of innovation in technological development. Let's bring the Americans who are being driven out of the American scientific establishment by Trump to Europe. Let's channel some of this brain drain in our direction, because that's where many crucial innovations have taken place so far.

In view of the debate in Europe, conservatives in particular are now feeling queasy. They are warning of an overpowering state.

China uses state industrial policy planning in combination with private FinTech. The financial industry is part of the planning apparatus. And the shareholders are okay with it because it allows them to reach a crazy scale. We should not shy away from this in Europe. Ecological macro-planning should take place more at EU and member state level as well.

You have to decide. You can't complain about the costs and too much state intervention and at the same time moan about dependence on China. No one has yet found a middle way. Even the most right-wing mining entrepreneur from Australia says so. These people are not green or social democratic. But even they say that technically you can't be competitive if you don't have state-owned smelters.

How should we shape our relationship with China? Are we rather rivals or partners? Both at the same time may prove difficult.

When it comes to climate, we need coordination between the world's leading industrial powers in this regard, i.e. between Europe and China. I see an industrial landscape based on a trade agreement with China in which you basically divide up the various clean tech empires. If you engage in a mercantilist battle, the climate will suffer. A bilateral agreement on clean technologies is absolutely necessary for the biggest producers of clean technologies in the world, so for us and for them.

Why should China agree to this?

I don't believe that China is prepared to let the European market go. This is where the infrastructure for clean technologies is the most advanced. It also has the highest subsidies. China already has massive overproduction. If the European market closes itself off to them, it will hurt them.

We need an investment agreement for clean technologies in which we define the use of intellectual property; an agreement that says: Guys, we are your biggest market for clean technologies, okay? We love this competition for clean technologies. But you Friedrich Ebert-Stiftung, Competence Centre Climate and Social Justice 5 Cours St Michel 30e | 1040 Brussels | Belgium | justclimate.fes.de can't destroy our industries and jobs in the process. We need some kind of transition agreement in which you give up some of your technologies. In return, we have market power that we can use.

The EU Commission has already imposed this condition if companies want to benefit from subsidies in Europe. If they build the cars here, they have to share the technology.

That is true. But we also have to be realistic. Joint ventures only lead indirectly to technological spillover effects, not directly. It was no different in China. Volkswagen trained engineers in China, who then switched to Chinese manufacturers. The partner that owns the technology finds ways of not really sharing or sharing things that are not state of the art. There is no way around in-house innovation.

It's amazing how quickly the situation has reversed. We are now relying on technology transfer from Chinese companies.

We in the West have tragically underestimated China. If we only see China as a subsidy-driven model, we don't understand what is happening there. Unfortunately, the EU Commission has so far reduced the problem to subsidies. Sure, it is an important part of the Chinese industrial model. But subsidies alone cannot explain why there is this kind of innovation in the Chinese clean tech sector. If you go to an automotive or environmental technology trade fair and talk to engineers, they are completely exasperated by how little decision-makers understand the special features of China.

For a long time, there was a condescending view of Chinese innovations. China was associated with industrial espionage and cheap copies. I'm not saying that didn't happen. It has happened, as it has happened to other countries in industrial history. But if you just copy, you will be three steps behind. China's lower growth rates in recent years have to a considerable extent to do with the fact that less emphasis has been placed on rapid economic growth and more on innovation.

Donald Trump's government in the USA has started a trade war. It is aimed at China in particular, but is also hitting European industry hard. Can this polarization not be used for our interests in Europe?

The Europeans have to be very careful. If there is one thing that upsets Beijing, it is being used as leverage. If you want to play hardball with Trump by simulating a rapprochement with Beijing but not meaning it, you will make life very difficult for yourself with China.



We also have our own trade dispute with China. Is the EU Commission pursuing the right strategy here, for example in the area of e-cars?

The EU's tariffs are not really a killer for Chinese profit margins. They can easily survive these margins. So, it's a band-aid for us. A short-term solution. The problem is that China's next generation of electric cars will come with self-parking and self-driving cars that are cheaper than a Dacia made in Romania.

Chinese manufacturers are using their crazy AI development for further innovations. We didn't expect this development either. This is an intellectual problem. We need to decolonize our minds.

In addition to innovation, does the greater willingness to take risks also play a role in the Chinese lead? Europeans prefer to rely on the familiar and avoid risks.

It's funny, because in China they say that about themselves. There is nothing innate in Europe that would make us less risk-averse than the Chinese. These are institutional decisions. An established technology is of course more difficult to change. If you look at the Chinese winners, they all started as EVs, not as combustion engine producers.

But many workers, especially in the industrial sectors, are also losing faith that they have a future in clean technologies.

I'm still hopeful because we haven't thrown away our industrial base like the US or the UK did. We have shut down too much, but we still have enough of it to get back on our feet. Ecological modernization is the only way we can come back. Incidentally, we can also use the defense sector for this. In China and the USA, too, many technological innovations are driven by the defense sector.

Our most important resource is our trained workforce. We must not lose them for the sake of some kind of automated market adaptation. We have the industrial base, the technological base and the research base to be successful. We just don't have the coordination and the level of public funding in the key value chains where we are still competitive to move forward.

We need intersectoral planning. There will be fewer jobs in the car industry, period. But the workers who work in the combustion industry are fantastically skilled, for example in Germany. Through intersectoral planning, they can work in clean technology sectors. This form of division of labor and financial investment to build new factories is crucial. This is absolutely necessary if Europe is to be truly decarbonized and make climate-neutral politically attractive for the European industrial working class. So far, this has not happened convincingly.

Denmark led the way in the 1990s and 2000s when switching from coal and oil to wind power. They ensured that wages in the wind industry were not lower than wages in the fossil industry. The social partners and the government jointly pursued industrial policy. You don't hear anyone, not even the most fanatical right-wingers in the Danske Party, opposing this. You don't need a maga-version of industrial policy to get the workers on board.