The Future of Supply Chain: Episode 147 - What the Fehmarnbelt Tunnel Means for Europe's Infrastructure and Supply Chain: Insights from Kai Gerullis

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Richard: Hello, I'm Richard Howells and this is The Future of Supply Chain, a podcast where we discuss hot topics, best practices, and the latest innovations in today's global supply chains. And as ever, I've joined by my wonderful co-host Sin.

Sin: Yeah. Thank you Richard. And hi everyone. As Richard said, I'm Sin To and the co-host of today's episode. And in today's [00:01:00] episode, we focus on one of Europe's largest infrastructure project, the Fehmarnbelt Tunnel. Once completed, it will provide a permanent link between Germany and Denmark and form a key part of a major European transport corridor connecting Scandinavia with Central Europe, the Fehmarnbelt Tunnel promises shorter and a more reliable transport route for both road and rail.

And now we are very delighted to welcome our guest, Kai Gerullis from the Hamburg Chamber of Commerce to discuss this big project with us. A warm welcome Kai, and could you please introduce yourself and your roles?

Kai: Yeah. So first of all, thank you very much for having me here in your podcast. My name is Kai and I'm a Deputy Managing Director of the Chamber of Commerce here in Hamburg. And currently our Chamber of Commerce is in

the lead of the Fehmarnbelt Business Council, the FBBC actually the FBBC is a cross-border network of business organizations from Denmark, from Germany and Sweden.

And we [00:02:00] all support the development of the Fehmarnbelt region and promote the economic potential of the link to the Fehmarnbelt Tunnel. Our mission is to ensure that the tunnel becomes more than just a piece of infrastructure, but for me, it's a true driver of economic integration, innovation, and long-term growth for the Northern Europe. So this is our task to bring this to life.

Sin: Fantastic. As we are talking about the Fehmarnbelt Tunnel, and it may be not so well known for everyone not living in the northern part of Germany and close to Scandinavia, may can you share a little bit, some more insights and goals about this specific project and later on also to summarize the significance of this tunnel project in maybe one or two sentences.

Kai: Yeah. As you said before, the Fehmarnbelt Tunnel is actually and definitely one of Europe's most ambitious infrastructure projects. It's an 18 kilometer long tunnel linking Germany and Denmark. It's an connection we so [00:03:00] far didn't have, so we connect Germany and Scandinavia and enabling both a road and rail traffic.

The tunnel is designed not only to reduce travel time significantly between Scandinavia and Central Europe. It also serves as a catalyst for economic growth, sustainability, and cross border integration. So it makes Europe coming more closer together.

Richard: Kai, you mentioned it's more than just reducing travel time for us everyday people. Infrastructure projects like this have an impact far beyond that and also the logistics impact and economic prospects. So what opportunities do you see for the region and for the entire North-South trade corridor of Europe once this tunnel is complete?

Kai: To bring it to a point for me, the economic impact extends beyond the region. The tunnel strengths the entire North-South trade corridor. From Sweden down to Germany, to Austria [00:04:00] well, and further into Southern Europe. For me, it opens up new opportunities for regional development. It anchors investments surrounding infrastructure and creates more resilient supply chains by offering faster, more reliable transport alternatives. To make it clear one, example, just from the Hamburg point of view. At the moment now it

takes about four hours by train from Hamburg to Copenhagen. So Copenhagen is pretty far away from us.

, The moment it takes about 90 minutes from Hamburg to travel to Berlin by train and when the tunnel is fixed, the travel time from Hamburg to Copenhagen is nearly the same as from Hamburg to Berlin, and this makes a whole region as coming together as one. And this is great. So it's big for tourism, for trade, for sightseeing, for employees. It's a great opportunity for whole Europe.

Richard: On top of that transportation time [00:05:00] gains that reduction in time to get from, say, Copenhagen to Hamburg. What are the supply chain effects and benefits are you expecting once this tunnel is complete?

Kai: Yeah. Look on the supply chain perspective the tunnel is, for me, really is a game changer. Travel time between Hamburg and Copenhagen, as I said before, will be cut by roughly less than two hours, and this allows for tighter delivery windows, lower warehousing needs, and better utilization of transport assets. For industries that rely on just in time delivery or temperature sensitive goods these changes can translate into significant cost reductions and service improvements. It opens sometimes new markets.

Richard: So the tunnel is gonna connect both road and rail. And improve these cross border routes. So what opportunities does the tunnel offer for multimodality in logistics? Could it become a model for better [00:06:00] integration of European transportation systems, for example?

Kai: As you said one of the tunnels key strengths is its multimodal design enabling both road and rail transport in a single fixed. This is not only improves connectivity between Scandinavia and Central Europe for me, it also supports a modal shift from road to rail. It reducing air congestions emissions and transport coasts by integrating different transport modes efficiently.

The Fehmarnbelt Tunnel sets a new standard for cross border infrastructure in Europe. We haven't had something like this before. To mention it again, it strengths, freight capacity promotes sustainability and serves us a model for the future projects, aiming to build a more connected and resilient European transport network.

Sin: Kai, you mentioned several times now, sustainability in connection with this tunnel. So this new level of connectivity is not only a matter of, efficiency, but also a [00:07:00] responsibility of how goods are transported, as you said, the different multimodal connectivity. And this way of transportation or the

transportation models, plays a decisive role in the climate footprint of modern supply chains. And this brings us to the topic of sustainability as I just mentioned which has become an indispensable consideration, especially in large scale infrastructure projects like the Fehmarnbelt Tunnel.

So how can this tunnel support more sustainable transport chains? And what contribution do you expect it to make to reduce the CO2 emission?

Kai: As I said before sustainability is no longer an afterthought. It's a core driver of infrastructure policy. The Fehmarnbelt tunnel can contribute meaningfully to climate goals by enabling more energy efficient transport routes, rail freight in particular, can play a major role in reducing CO2 emissions, especially [00:08:00] when powered by renewable electricity.

And this is the goal to use renewable electricity and tunnel by shortening routes and reducing congestions. The tunnel also and directly cuts emissions from the road transport. So there are many aspects which make this tunnel of this fixed link as we say, also a very sustainable investing.

Sin: Right now there is a way to get from Hamburg to Denmark, it's via the bridge. Will this still be available for, let's say, the car as a normal transportation way like it is now, or will that be cut off?

Kai: No. So every connection, which is there at the moment, will be used in future because you may know, in Denmark, there are a lot of islands that are a lot of waterways in between. We need this, but we now get, with the fixed Fehmarnbelt Link, we get a direct connection from Central Europe to central Scandinavia. So this is an addition and a very strong addition to [00:09:00] this.

Sin: Let's talk a little bit about the political significance and resilience of the Fehmarnbelt Tunnel itself, so beyond economic and environmental impact, the tunnel has also a clear strategic and political dimension as I followed it through the news. What political and economic significance do you see in this project and how does this tunnel contribute to strengthening the resilience of European supply chain?

Kai: Strategically, the tunnel strenghtens, in one hand the cohesion of the EU and enhances the resilience of the whole transport networks. In times of crisis as we face currently for a few years now that's geopolitical disruptions, pandemics or climate related events redundancy and alternative of roots are essential. And this is to come back to your former question. So this is very good to have the former connections also, then we have a [00:10:00] resilient network we can

use. The Fehmarnbelt links adds capacity and flexibility to the European infrastructure grid. Political, it's also a success story of cross-border collaborations, something Europe needs more in infrastructure planning and more nowadays.

Richard: So Kai every major project has its risks. We're early in the actual construction phases of the tunnel. So what challenges do you see in the construction and operation of this project, and how can companies and policy makers jointly manage risks such as delays or bottlenecks or minimize delays and bottlenecks?

Kai: Yeah, that's a good question. Of course, a project of this scale is not without challenges while Denmark has moved swiftly, the German side has faced a few delays to say like this, due to complex permitting processes as we have here in Germany, environmental impact assessment and public [00:11:00] oppositions. This reflects a broader issue in Germany's infrastructure landscape overly bureaucracy approval processes, underinvestment and frequently literal hurdles in Germany.

If Germany wants to remain competitive, we need faster procedures there are long term planning and better coordination between federal state, and local levels. The contrast with Denmark shows us that a project like this can be done differently.

So there is a lot of learning in this projects, I hope.

Richard: I had a follow on question on one of the comments you made a little earlier around the increased use of rail as a mode of transport as a result of the tunnel. Are you seeing companies looking to build additional infrastructure nearby the tunnel for increased warehouse capacity or even loading areas where they can load the trains bring the goods closer to [00:12:00] the tunnel itself, and then load trains and use that as the mode of transport. Are you seeing additional infrastructure around the tunnel?

Kai: Yes, of course. So part of the whole project is also an improvement of the whole hinterland collection between the island of Fehmarn and Hamburg. This is a corridor of nearly 100 kilometers and the whole railway infrastructure sees also an improvement. And beside this, there is of course investments in the infrastructure of getting unload and loading storages. And also there is an interesting, as we know from our work as Chamber of Commerce in, building up logistics Hubs around.

So we see this also our colleagues from the Lubeck area. Now, this is not only working on the railroad connections, also there is an interest to increase capacities for the car built logistic.

Richard: I have another question around technology and how technology is [00:13:00] helping or will help in this process 'cause digital solutions can make infrastructure and supply chains more efficient. Pretty much every podcast that we have talks around technology of enabling supply chains. So which technologies could make the tunnel and the associated supply chains more efficient if we think of logistics data, visibility, data control, and real-time tracking of shipments.

Kai: Everything is going on technology nowadays. So digital technology is critical for making the tunnel and its connection supply chains more efficient. This includes real-time checking of the cargo. It's also AI-based traffic control, predictive maintenance systems, and also seamless starter integration between the logistic players and public infrastructure.

However, Germany still faces structural obstacles like uh, fragmented data standards, under developed digital [00:14:00] infrastructure and the cautions, regularity environment. If we want a fully leverage of the potential of such infrastructure, we must treat digitalization not as an add-on, but it must be the core component of the whole system.

Sin: I do have also have a follow on uh, question as we're already talking about technology as this project is so huge and there are so many parties involved, and also the federal government. From Germany and Denmark and Sweden, how are you using as a project team, different technologies to get this project life and also finished in time?

Kai: Yeah. I think this works because there is a very close connection between the companies you are working with all the companies are very experienced in what they are doing. They're working very close together, and I think they are all at the same mindset to use the same technology. Well, [00:15:00] as far as I can see this works pretty good.

But on the other hand there is also a lot of development in it. There is a special ship being built by fema as company which builds the tunnel, a special ship, which will bring out the elements of the tunnel into the water is. This is completely new, something like this has never been there before. And they all developed something like this together and so it works. It's also a very big common learning process going on in this big project.

Richard: Let's look to the future, Kai. And your work is done. The project is complete. The tunnel is finished and running and we are looking 15, 20 years into the future. How do you foresee the tunnel changing the European infrastructure and supply chain landscape, and do you see it as a model for further cross-border projects? You said how important cross-border collaboration is and will continue [00:16:00] to be.

Kai: I really love to look into the future and then I'm really looking forward using this tunnel together with my children and coming quick through to Denmark. Yeah.

So looking ahead, 20 years from now the Fehmarnbelt Tunnel will be seen as a key milestone in European infrastructure, it definitely will be. It will likely shift transport flows permanently, reduce the dominance of bottlenecks like the current ferry link and inspire new cross border projects, possibly linking the Baltics or maybe new European corridors. Or even there is an idea to, connect, north Africa and Europe. So, big project and big idea. Well, for me it sends a precedent infrastructure can be sustainable, multimodal, efficient, and politically unifying. So it's, it's great spirit and we hope we will get it on.

Richard: So Kai, thanks for a great conversation. It's been really interesting. I've certainly learned a lot, and I hope our listeners have enjoyed the conversation [00:17:00] as much as I have.

And thanks everyone for listening. Please mark us as a favorite. You can get regular updates and information about future episodes, but until next time, from Kai, Sin and I, thanks for discussing the Future of Supply Chain.