

Michelle Martin (Money FM 89.3) 00:01

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Vopak is an independent infrastructure provider with a diversified portfolio. By 2030, they will have invested 1 billion Euros to develop their base and industrial and gas terminals, for example, and another billion to accelerate towards new energies. Their targets include repurposing infrastructure for low carbon fuels, like the clean energy carrier, ammonia. Dick Richelle is Group CEO of Royal Vopak. Welcome, Dick.

Dick Richelle (Vopak) 00:49

Thank you very much. Glad to be on the program. Thank you, Michelle.

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Happy to feature you, likewise. Ammonia is considered one of the most efficient ways to store and transport hydrogen. Can we take a look at the key milestones for Vopak's expansion of ammonia infrastructure and gas storage. How have these strategies helped grow Vopak?

Dick Richelle (Vopak) 01:12

Let me take you one step back to a little bit of Vopak's history, and how we actually got set up here in Singapore over the past year or so. Vopak is a company that is over 400 years old – 408, to be exact. So, we kind of almost jokingly say from tea back in the days, more than eight years ago, to LNG, and in the future to hydrogen. We have a presence here in Singapore for over 40 years already. With the support of PSA and DBS, we set up our first facility on Sebarok Island in 1983. So, we're very proud today to have a very strong presence in Singapore, and have been very excited to do business for all these years in Singapore. And it is a very natural way. Also, if you look at what we have been able to do as a company in Singapore, it shows more or less the journey that we've made in other parts of the world as well. So, we started on Sebarok Island with oil storage, and are still very active in it, supporting the bunker markets in that part of Singapore that have over time developed into more facilities.

Currently, we have four facilities and Singapore for Vopak is really a very important part of our footprint. It's part of a legacy. But it's a really important part of our footprint. It's today, next to the Netherlands, or

following the Netherlands, it's the largest operation that we have on a global scale. Vopak is a company that is active in 23 countries around the globe, but this is really a big, big center. We have over 400 people here, and it is for Vopak an important location. So over time, we've been able to develop from oil storage to serving the industrial complex in Jurong Island, to also getting into the gas storage with LPG. And since already many years also ammonia and the handling of ammonia. So excited to be here, also personally for me because I lived here for four years of my professional life in Singapore. So, a lot of reasons to be excited about the Vopak journey, and about Vopak in Singapore.

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Have the expansion projects specifically related to ammonia and gas storage helped also grow Vopak?

Dick Richelle (Vopak) 03:24

Yeah, they clearly helped. But it's very important in our business, Michelle, is that we do that, so we are independent. We don't own the molecules that we store, so we need a lot of support and confidence and reliability, trust from our customers, from authorities in what we do as a company. We need a social license. And having a track record that is demonstrable to people around the world, it helps tremendously for what we try to achieve as Vopak. So having LPG storage facilities in Europe helps us to actually pave the way and grow our presence on the LPG side here in Singapore. Having ammonia expertise in different parts of the world helps us enormously to actually get access to ammonia storage and get the social licence – if that's the right way to put it – to do this in Singapore.

So, from that growth and having the presence in Singapore, it allows us then again to build on that. First of all, experience from the people that operate over here and have that experience also exported, if you like, to other parts of the network. So not only for gas storage, but in a more broader sense. Singapore has always been and will continue to be incredible, incredibly important part of our global network global footprint and that facilitates the growth.

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fantastic to hear. Tell us how you see ammonia's role in sustainable energy evolving?

Dick Richelle (Vopak) 04:55

Yeah, so obviously, there's different ways of how the energy transition is going to take shape, and different ways, meaning different solutions in different paths in different timeframes. For different parts of the world, one thing that people are quite sure about is the role of hydrogen. Now, before we even talk about ammonia, we have to understand that the likelihood of hydrogen being produced at locations where it's being consumed is very low. It's being produced in locations where you can do that competitively. And then needs to be shipped to locations where you're going to consume it just as we see there. But there are other parts of the energy infrastructure, or energy supply chain. Now, setting up that supply chain, there's different ways that you can carry hydrogen, ammonia is one of them. And why is ammonia attractive? Because of a pure characteristic point of view, just the energy density that you can ship hydrogen with, through ammonia as the carrier. That is an attractive way of doing it. There's existing infrastructure available, there's ships available, there is storage capacity available both at locations of origin, as well as applications of destination. At the same time, we all know that ammonia is a difficult product. If you look at the characteristics of ammonia, the properties of ammonia, it's a very toxic product, and it needs to be handled in a very careful manner. And it needs to be done in good cooperation with authorities, in good cooperation with the communities in which you can operate that. And therefore, ammonia is exciting as it gives you opportunities, but only if you do it in a very safe and

respected and reliable manner. We have the opportunity, or at least we have the experience to do it already. For over 20 years in six different locations around the globe, in different parts of the world. And we have actually used that experience – Singapore is one of those six locations. So, we are very excited to have that experience over here. And to see how we can further develop that and grow that. But again, the reliability and it should not be underestimated the toxicity of ammonia and let's mature together with authorities, with the end users of the product that we do it in a very responsible manner. And as Vopak, obviously, we're ready to engage with whoever we need to engage with to do that in a responsible manner.

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So important to have that collaboration. Let's switch gears and talk about carbon capture, utilisation and storage (CCUS). Now, these technologies are not new, but their applications to reduce CO2 emissions from sectors like refineries, for example, is seen as promising. So how do CCUS technologies or projects feature within your broader climate agenda?

Dick Richelle (Vopak) 07:46

Yeah, so I think to put it in perspective, so again, we don't own those molecules. So, for us to take very strong views on technologies. That's the nature of our company, because we invest in the infrastructure to support whatever technology is the right technology that is going to be chosen. If you look at it from a CO2 reduction point of view, CCS, CCUS, however you want to look at it, it is an attractive, and it's an available technology today that is going to help the world tremendously in reducing CO2 emissions. So, I think that that is something to start with.

If you look at it from a Vopak perspective, we are infrastructure players. If you think that we are going to be involved in the carbon capture and storage in the ground offshore in a depleted gas field, that's not really where I see a big role for Vopak. Where I do see a role for Vopak is in the independent storage of CO2 before it gets transported or sent on a pipeline to an offshore depleted gas field. Why is that important? Because there's different ways of how the CO2 in the end is going to be collected before you can ultimately store it in a gas field. And that infrastructure that is required to receive the CO2 before you can actually get it offshore, that is infrastructure that I think there's a very important role for someone like Vopak. Why?

Because we are the ones and companies like ours are the ones that can invest in the infrastructure that creates economies of scale, that is open access, that people from different uses for different purposes can actually make use of before you actually move it from there to whatever the end destination of CO2 and liquid CO2 is, so that's the role that we play. We see that already happening at the early stages. In a place like the Netherlands, we are very actively involved in a consortium to work on CO2 storage solutions. So interim storage solutions, I would call them. Liquid CO2 storage solutions. And from there facilitate, actually the ultimate destination, we hope to be very much involved in a solution like that in Singapore as well, because we think it is something that is very attractive and very much needed also in Singapore. And again, we are the independent specialists, we want to do what we are good at, which is building infrastructure, allowing open access, creating those economies of scale, and handling difficult products in a responsible manner. That's what we're good at.

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That is why Vopak is critical in terms of the value change that support CCUS technologies and their products.

Dick Richelle (Vopak) 10:29

Yes, there's definitely that. I would say it like that. I mean, it's always a bit difficult for me to say that we are the critical part because I think there's so many pieces that need to come together to actually build a supply chain. I would put it maybe a little bit more humbly, and basically say, there's a very important role for Vopak to play in the critical piece of infrastructure that is also required to make the entire supply chain work. I think that will be the right way to put it.

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Speaking of this critical role, how do you balance economic performance and environmental stewardship when investing in infrastructure that supports new energy technologies?

Dick Richelle (Vopak) 11:05

Yeah, I think when it comes to this infrastructure for the new energy of the future, there's a few things that anyhow, we need to reconcile. That's affordability, that's reliability, and that's sustainable energy. So those three. It's not a matter of whether it's either economical, but then is not sustainable, or it's sustainable, and then it's not economical. We need to balance those things, in any case. I think the second thing for me to mention is cooperation is key. Because the only way you are going to be able to develop infrastructure for the new energy system, there's a lot of cooperation needed. Cooperation needed, between parties that have not cooperated maybe before. That's authorities together with private enterprises. It's different types of companies that have to work together because there's going to be new supply chains that have to be set up. From the Vopak side, the way we look at it, I don't yet feel a lot of pressure to say 'ah, I all of a sudden have to do and have to invest in certain part of the infrastructure'. But it's economically, totally unviable. That's not the case. Supply chains get developed. It requires support from governments and from the authorities to actually allow the supply chains to be developed, any infrastructure needs to be there. Any infrastructure, to a certain extent, whether I today store ammonia that has a purpose, a different purpose, that maybe the ammonia that will be stored there tomorrow, that might be green, or blue ammonia, the infrastructure is still the same. And therefore, the economic viability of that infrastructure is still a similar type of discussion. Up until now, I don't see a big debate happening between oh but it's economically unviable, but guess what, you Vopak, or anyone in the supply chain, you need to basically subsidize it before it becomes a sustainable solution, if that makes sense,

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Yeah, it does. From a leadership perspective, talk to us about the real challenges or the requirements to steer a major player like Vopak through such a transformative era?

Dick Richelle (Vopak) 13:11

Yeah, I think we have a long legacy of moving through change. If you're a 400 year, 400 plus year company, and I'm only here for a number of years to actually have this responsible role of taking the company in the coming period through this transition, this energy transition. I think as a company, we are much stronger than also going through this one. Values are very strong capabilities. Adaptability has always been one of the key elements of Vopak and is expected to continue to be very strong. What makes this current era really exciting, but also a bit scary, if I'm honest with you, is the fact that not making a choice, and the cost of not making a choice is very high. If you would have asked me 10, 15, 20 years ago, there would have been choices that we made, if we would not have made them, maybe the cost of not making them will be a lot less today. There are certain things that need to happen, and

we need to get moving into a certain direction because if not, we might miss the boat. So, I think that's important. I think as a company, you have to be convinced, fundamentally, that you have something to offer. And that's what makes me very excited about what's ahead of us. And what we have to offer as Vopak is a global presence. So, experience in a lot of different places, we have fantastic people around the globe, all professionals that do this work extremely well, in all parts of the world. And in Singapore, we have capabilities, we know how to handle difficult products for our customers, whether that's LNG, whether it's LPG, whether it's ammonia, all difficult products that we handle extremely well for our customers. And we have a lot of partners. So, we have a lot of customers around the world, we do a lot in joint ventures, good relations in the communities where we operate. So, I fundamentally believe that there is a lot to offer. And therefore, although it's going to be difficult, it's going to be a challenging period, but I think it's a super exciting period to be part of and to steer together with over 5,500 professionals in this company to steer us and navigate through this.

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You mentioned how critical it is to make timely decisions and the opportunity cost of not doing so. How do you see Vopak's initiatives sitting within global energy agendas?

Dick Richelle (Vopak) 15:24

Yeah, so you said it already in your introduction, we are allocating half of our gross capital to as we call that industrial infrastructure and gas, LNG, LPG, the other half moving into, as we call it – new energies infrastructure. The infrastructure needed for the new energy system of the future. Now, that second part, there is quite a lot that starts with having the right locations. So having 78 locations as we have in 23 countries – that gives you scale, and that gives you the opportunity to make the transformation happen in some of the existing locations where we are active. Now, how do we look at that? There's definitely going to be a lot of, as we call it, the repurposing, or modifying of existing infrastructure, that is today we are storing maybe jet fuel at a location and tomorrow, that is sustainable aviation fuel. Well, that's a transition that everyone can kind of like understand how it will move. We announced today that we commissioned a capacity in Sebarok, to move from traditional fuel oil storage to the sustainable alternative for biofuels, into that fuel and bunker pool in Singapore. Those are things that I would say relatively close to home.

If you take it one notch further, you could think of and we talked about that anything related to hydrogen, the different hydrogen carriers. We are not the ones that make the choice in the end, which hydrogen carrier is going to be the most successful, there's probably going to be a few. And we have to make sure that we have the infrastructure ready when society or our customers or in the end when the supply chains become attractive and competitive. And we are ready to play that role, whether that's with ammonia, down the line maybe liquid hydrogen, liquid organic hydrogen carrier.

Michelle Martin (Money FM 89.3) 17:07

You're also entering electricity storage?

Dick Richelle (Vopak) 17:10

And electricity storage is something that we specifically look at. Look, the world is moving from today, energy 80%, molecules 20% electrons, to 50/50. So, electron storage is something that is becoming much more important going forward. That's what the whole world knows. And, again, we come back to our locations, our capabilities, our relations that we have globally, that probably and hopefully will position us well, to move forward, and to move forward on a global scale. But also, specifically here in

Singapore, we're very excited, for what that brings, and what the future will hold. So come to Vopak and see us developing and growing much further hopefully here in Singapore with the support of everyone.

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400-year-old history, and we wish you all the best for the next 400.

Dick Richelle (Vopak) 18:00

Thank you very much.

Michelle Martin (Money FM 89.3) 18:01

We've been taking a closer look at enabling green energy with Dick Richelle, Group CEO of Royal Vopak. Stay tuned to more leadership insights on the green transition next time in SIEWCast. I'm Michelle Martin. This SIEWCast is brought to you by Singapore International Energy Week and MoneyFM 89.3 in partnership with ExxonMobil.