

Breaking the Mould – Business as Usual is a High-Risk Strategy for the EU Plastic Industry

Below is the edited transcript of a question-and-answer session held on 30th May 2022 between Paul Hodges (Chairman, New Normal Consulting) and John Willis (Director of Research, Planet Tracker). The full webinar may be viewed at https://youtu.be/aZpk_XoDntE.

The research presented at the webinar, 'Breaking the Mould' may be found [here](#).

JW: Paul, the first thing I'd like to ask you is if you could help define this complex area of chemicals, petrochemicals, and plastics?

PH: We could spend the whole webinar on this. But in a nutshell, , essentially what we're looking at is the chemical industry which is the building block for many products in the modern economy. It goes into detergents, agrochemicals, pharmaceuticals, for example. But what we're really talking about here is petrochemicals. Most petrochemicals go into plastics. So, we're talking about the range of packaging materials that we know well, as well as the sort of longer use products that go into cars, to water pipes and so on. I'm talking about polyethylene, polypropylene, PVC, polystyrene, PET; those kinds of products.

JW: Thank you very much for clearing this up. Secondly, this might appear controversial coming from an environmental think tank, but I want to push you on this. Many people understand that plastics are well integrated into the global economy. We've gone through some examples on the previous slides. Let's be honest about this, Paul, we relied heavily on single-use plastics in the medical field, for example, during COVID. We rely on it for food packaging, construction, autos etc. I'm wondering whether you believe from your extensive understanding of this industry, that we have to pay this environmental price if we want these plastic products?

PH: I think I'd rephrase the question. There are things that we know about today, and that we're worried about today that we didn't know about, and we weren't worried about, 20 to 30 years ago. And it's the job of any industry, whether plastics or otherwise, to keep up to date with developments. At one point, I was running ICI's chlorine business, and we had the problem of ozone. Now, first of all, nobody knew about ozone, then we realised that its disappearance was due to CFCs. And then we said what this is about is a licence to operate. And so we got rid of CFCs. So, I don't think there's any issue with the chemical industry understanding this. Plastics themselves have made a fantastic contribution to modern life. My former company, ICI, invented polyethylene (PE), in 1933.

But that doesn't mean that we can sit on our laurels. We have to tackle the problems such as marine waste; we have to tackle CO₂ emissions in order to continue the progress that we've made. But I don't think there's a choice here.

JW: Thank you. Earlier, I presented a bleak picture of the competitiveness of the European chemical industry, The region's sales have been flat over a decade, and

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we have witnessed China growing bigger and bigger, Is this a fair summary in your mind?

PH: Well, it is, but there's a context to it, John. If we go back to petrochemicals, they were invented in the 1960s taking over from coal. For a long time, Europe was the main exporter because it was based on oil; the U.S. was based on natural gas. Therefore, the U.S. didn't have the range of petrochemical products that Europe had. And so for a long, long time, Europe was growing very quickly, indeed, from a few million tonnes to 300 or so million tonnes. But in the early 2000s, China joined the World Trade Organization (WTO), inevitably resulting in a migration of production into the Asian market, where a lot of European exports had been heading. Asia was now large enough to look after itself. Countries decided to have their own national petrochemical industry. So demand for European petrochemicals changed. But what I would argue is that we are a Napa Valley kind of industry; you have to think in decades, not minutes. The industry has to make major investments, so it thinks in long time periods. And what we're now seeing is a move away from globalisation towards localisation. So if you now look at China, what I think we're going to be seeing is that China will continue to increase its domestic consumption. It's very, very low at the moment, with per capita household disposable income in China averaging only USD 5,400, significantly below Europe or the USA. Also, Europe will be pulling back and moving to local supply chains. So I expect to see Europe holding its own, for the time being.

JW: Paul, as I mentioned earlier, when running through your impressive CV, it is evident that you've provided consulting services to many companies. So, can I ask you for some insight? Is it fair to say that most managements view business-as-usual, despite some of these headwinds, as safer than a transition strategy? I mean, transition is always a worrying, risky time.

PH: Well, I mean, as Machiavelli said a long time ago in 'The Prince', the people who were wanting change have no friends, because nobody can definitely see the benefits that they bring. And they have a lot of enemies. Because all the people who are doing well say, 'Oh, I don't like that. I want to stay where I am'. That is not a new problem. But I think you know, what we're looking at here are companies that are dividing into potential winners and losers. And this is what happens in a transition period. If, you look at companies like Arkema, Covestro, OMV, and Borealis, as well as some parts of TotalEnergies, Shell and BP as well, they've been very public about acknowledging the need to change.

The European chemical industry association CEFIC, the European plastics association, Plastics Europe and the American Chemistry Council (ACC), have all said that the industry needs to change; they freely admit it. There are going to be losers, companies which bury their heads in the sand.

I mean, there are a lot of companies still in the U.S, I'm afraid, which invested heavily in shale gas production, which was never a good idea in my view, and they don't want to admit their mistake. So they're digging their own hole, rather than trying to find another way. But you know, things change.

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JW: I'm going to push you a bit further on this point. In fact, you formerly ran a division of ICI. I would like to put you on the spot and ask if you were presently running one of these chemical and plastic companies, would you be tempted to dig in and increase the political lobbying budget? What I'm saying is, we know these are big companies, they're big employers, they are often very important to regional economies, let alone the national economy. Politicians can't really let these companies fail. So, it's quite tempting to keep the strategy as it is, isn't it?

PH: I would say not. I think what we're really talking about here is a license to operate. And this is important for any company. If you lose your license to operate, if people begin to think you're not actually there for their benefit, then I think you'll run into trouble. I've been involved with two examples, both related to chlorine. In the 1990s, we had a problem around ozone, as I said, which was threatening the license to operate. There were also question marks about chlorine itself; the use of chlorine in PVC, the use of chlorine in drinking water, and so on. Well, we looked at the science. We looked at it and discovered that chlorine in drinking water was beneficial. And Time Magazine said in 2000, it probably made the greatest single contribution to public health of anything in the past 1,000 years, because it eliminated typhoid and cholera. So we went to the regulator, we went to the public, and we explained this is the benefit. And people accepted it. They said, 'Oh, well! You know, you haven't told us that before'. Probably we should have known but we didn't. So, I think the chemical industry shouldn't be defensive. What it needs to do is to ask itself, 'Am I doing the right thing here?' If it is, let's get out and talk about it. Because otherwise, silence is a message. It implies, you're guilty. We're not guilty in a number of areas, and therefore we have a lot to talk about. I don't think we do that very well. To be honest, I think we could do a lot better.

JW: From that suggestion, Paul, you're saying you would not support political lobbying, but getting the scientific facts out there and you think the chemical and plastic industry could do a better job at this?

PH: Yes. I mean that the industry has a lot of scientists as well as engineers. It's not quite so smooth in public relations as some others, which I would argue is a good thing. But in terms of three-minute soundbites, we don't necessarily come across as well as we should.

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JW: I would like to examine an earlier comment you made. You kindly shared with us your view that there's a parting of the ways happening. If you look at this industry, there are some leaders appearing, But you recognise that there are some laggards.

Without giving away your consultancy IP, how do you encourage companies to look at alternative strategies? I recognize that you're saying that some already are, but how do you encourage the laggards to move?

PH: Well, I think there's two angles. One is the public space. And, you know, that if you've got the right analysis, then over time, it becomes clear that the world is moving in certain direction. We've been talking about plastic recycling at the World Economic Forum, or with Ellen MacArthur Foundation, since 2015 or 2016. So, you know, it's still relatively new. So this issue has been around five or six years, while the history of the petrochemicals and plastics industry is about 60 years old. And before that, chemicals have been around over hundred years. The second point is that if we look at where we are today, we've obviously got a problem with plastic waste. You referred earlier to the potential UN Treaty on Plastic Waste coming along.

We've also seen a major shift in the energy markets so that the International Energy Agency a month or so ago, came out with its 10-point plan for combating the Russian invasion and the issues around higher energy prices. And for two of its points, one was about the need to move more quickly to electric vehicles and away from diesel and gasoline. The second, noted the need to move more quickly to recycling. So what I think you're seeing is that more and more the consensus is saying business-as-usual doesn't work. And this important for investors and the general public. It's important for the companies. If companies haven't got an efficient business model, if they can't make money, then they will go bust and jobs will disappear and investors won't get the dividends that they need to pay pensions. So, we need to get a consensus here. And that's why I'm so glad to be on this webinar now, because this is one of the mechanisms by which we can develop thinking and enable people to share ideas and move forward, hopefully, together.

JW: Thank you, Paul. I'm actually going to use a quote of yours. You have mentioned 'the risk of not doing something new is very high'. When looking at this industry, and I understand it's very subjective, how risky do you view a transition strategy?

PH: All transition is risky because you're doing something new and you don't necessarily know that it's going to work. So you've got to be careful. But that doesn't mean you should do nothing. The problem you've got today is that you have a number of different issues coming at you all at once, which we haven't seen for the last 20 or 30 years.

We've got what I call the three horsemen of the apocalypse riding at the moment. We have the pandemic, which is still going on.

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You've only got to look at China, with 300 plus million people still locked down and with Shanghai, a main port of the world, only just slowly coming back to life.

We also have the war, the biggest war in Europe since, since the Second World War and one that looks as though it's going to be very attritional. So, you know, it's hard to see how this ends quickly.

And then of course, you've got the third horseman, which is potential famine with the World Trade Organization, World Bank and International Monetary Fund, all warning of this, in turn causing, high gas prices. Natural gas goes into ammonia and nitrogen fertilizers. And you know, half of the world's population is fed on nitrogen fertilizers. It's not a petrochemical issue, but it's an energy issue. And that is at risk with today's prices. Ammonia prices have gone up from USD 200 to USD 1,600. So not a lot of farmers can afford these fertilizers for the future. We don't see that today, but we will see that in future crops. So, when you look at this, companies obviously have to look at all of the environment and how to manage through this?

And this where the great companies always score well, because they have the resources. They have got the ability to look longer term, but I would argue that it's very important for investors and NGOs to get on board with this thinking as well, because, you know, if you've got investors who are only worried about what the next quarterly results look like and don't care about the end of the end of the year or the next 10 years, it's very difficult for companies to raise the money for transition. It's no good just throwing stones and saying, they're useless. You need to support them.

JW: And, as you know, Paul, we have a number of financial institutions that have joined us on this webinar. Could you give a few headlines to what a transition strategy for a plastic company should look like? What are the sort of high-level clues that they should be observing?

PH: Well, I think one thing is that we are moving from globalisation to localisation. So supply chains – I built these global supply chains in Asia at one point – have clearly proved very fragile and they are not working anymore. We're moving back to a more local model as we discussed before. We're also moving away from a linear value chain towards more of a value circle. And so this means that one is going to be partnering with people that you haven't partnered with before.

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In the case of plastic recycling, for example, typically petrochemicals industry or the plastics industry will partner with upstream companies which supply the oil and gas, the feedstock, and then downstream with the converters and the brand owners. But now they actually have to work with the waste managers, with the recyclers, with the cities which collect the waste plastic.

And they have to bring all of these people together. And that's not easy. You're talking to people you haven't ever talked to before, and they may not immediately understand why they should be spending the time and the money doing this. And you get conflicts.

For example, some waste companies have built incinerators. Now the plastics industry is saying that they want to keep the plastic and recycle it.

The one critical point I would make is that we obviously reduce, reuse and recycle in that order. But you talked earlier about the cement industry and others. The point about the plastics industry is that we need carbon. If we don't have carbon, we don't have a plastics industry. So, what we have to do is to find a way of working with renewable carbon and by recycling the waste plastic and turning that back into products and doing that continuously year by year, decade by decade. But it will take time to set-up these plants up and to get the technology up and working and so on, but that is the way forward. And I believe this will give the industry a big platform for future growth,

JW: You just raised a really important point about trying to get this balance between reduce, reuse and recycle. In your opinion, is there an obvious route to take or do we need all three to achieve not just a circular economy, but also a reducing circular economy?

PH I think that in the simplest way, what is happening and comes back to demographics. If we go back in time to the 1960s, we were in the world of the baby boom. There were lots and lots of young people, and there was an awful lot of demand. And those young people went out into work. They settled down to have families. They bought cars, they bought houses and so on. There was this tremendous surge of demand for plastic. From 2000 onwards, that balance changed as from the 1970s onwards in Europe and in the U.S., the birth rate had fallen below the replacement level of 2.1.

So the number of people in what you might call the wealth creator generation, in the 25 to 54 years age group, is now reducing very fast. We need to move towards a more sustainable economy because at the same time, life expectancy is increasing. This is partly due to the pharmaceuticals industry, a key part of the chemicals industry. So demand is now slowing and therefore we need from a societal point of view to become much more sustainable.

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We need to do more with less because people haven't got that cash anymore. And this is where the chemicals industry has this great opportunity. If we move towards reuse, recycle, and taking on board, renewable carbon, the industry can perform a very valuable service for the next 30 or 40 years.

JW: I'm going to jump to that last question. These chemical companies, petrochemical companies and plastic companies are very asset intensive. I'm going to quote your earlier comment that these companies think in decades rather than the next quarter. Do you think the solutions that we have been discussing – reduce, reuse, recycle – are all very long-term solutions or do you also see some short-term ones?

PH: Yes, I do. If I may put in a plug for one of the companies which I have the privilege of chairing, NiTech Solutions, we are developing new technology targeted at the net zero concept where we are replacing old stirred tank reactors.

We can make greener products. We can make it cheaper, which is very important. So, you are getting 30 to 50% cost savings. You'll make much, much less waste and so on. We are always going to be a technology- based business, but we can move now towards technologies that are much faster to implement, particularly because I believe we're going to be on a much more locally based.

In the past, we were building world scale plants. Well, inevitably they take three to five years to build, but if you are going to build local plants around say London, Vienna, Paris, or Madrid and so on, then actually you can do that much faster. And so I think that this is one of the keys for winners and losers. I expect to see companies beginning to put their toe in the water in this way. And, you know, the great thing is that will give them the experience and the confidence to move ahead on a wider scale. The chemical industry is not suddenly going to stop doing everything it has in the past and move to a new way. That's just impractical and couldn't be afforded and it probably wouldn't work anyway. But what you can do is take a modern technology solution and put that to work and develop methodologies which will be cheaper. And then the industry can achieve good financial returns as well, which is of course, at the end of the day, important.

Paul, thank you very much for answering my questions. I know that many of them are very complex and we've forced you to condense it into very short answers. I understand that will leave some people dissatisfied, because they'll want to explore this in a lot more detail. I know that you are definitely available on LinkedIn and people can reach out to you there as well. From Planet Tracker, a big thank you for providing your answers. It's a pity we're out of time. We could have spent a much, much longer discussing these issues, but it is what it is. Thank you, Paul. Thank you to everyone who joined us. Take care.