



# **Beyond the New Normal**

The European Petrochemical Association Virtual  
Annual Meeting 2020

## **Thomas Casparie**

Executive Vice President, Shell Chemicals  
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Thomas Casparie took up his role as Executive Vice President Shell Chemicals on 1 July 2019.

In this role he is accountable for overseeing Royal Dutch Shell's global chemicals business - and in particular - leadership of its ambitious growth strategy. Thomas provides strategic oversight, leadership and accountability for safety, the commercial business and operational results.

Prior to his current role, Thomas was Vice President Chemicals Americas, with responsibility for the Americas region of Shell's chemicals business since early 2017.

Thomas has been a part of the Shell Chemicals Leadership Team since June 2012, when he was appointed Vice President for Chemicals Operations with responsibility for supply, logistics, customer centres and HSSE. He then became Vice President for Global Base Chemicals & New Business Development in February 2014.

Thomas joined Shell in 1996 after graduating from the University of Utrecht, Netherlands with a degree in Theoretical Physics. His first role was Retail Loyalty & Marketing Project Manager in Shell Netherlands. Subsequently, he held a variety of commercial, operational and marketing roles in the Retail business and, in 2005, Thomas became the General Manager for the Dutch Retail Business. Before joining Chemicals, Thomas was General Manager, Retail Network Planning, with responsibility for strategy and planning for all Retail locations globally. He played a critical role in increasing Retail's ability to grow in markets such as China, India, Russia and Indonesia.

Thomas is married with two children. Although originally from the Netherlands, the family considers London (UK) home. He is a member of the Windsor Leadership Trust and plays an active role in the community through various roles in the arts scene. He also has a passion for cooking and football.

**Thomas Casparie argues that the future of the chemical industry isn't just about getting through the challenges of COVID-19. It's about acting now and working together for sustainability – less CO<sub>2</sub> and more circular products.**

Ladies and gentlemen,

Today I will talk about three things that I believe are critical for the future of our industry.

Before we begin, a word from our legal team... Today we're going to be talking about the future, and with that comes a lot of uncertainties. And, as such, I am obliged to share the following disclaimer notes with you.

Our industry is vital. It proved it this year helping the world fight COVID-19. Those frenetic first few months of the pandemic proved how quickly our industry can adapt to provide the world with the products it needed.

COVID-19 raised significant challenges which have been already eloquently expressed. On the demand side it has increased the speed, and likely depth, of the existing chemicals cycle, as demand dropped very abruptly. What is perhaps less understood as yet: the refining industry has also been hit hard, putting pressure on naphtha pricing. I also see a structural trend where more refineries pivot to chemicals output, which will clearly increase supply of petrochemicals.

So, although the long-term growth fundamentals of our industry are strong, there are serious short and medium-term challenges. However, there is another important development that I want to talk about today.

Because consumer demand is changing. And the expectations of society are changing. In short, the world wants more **sustainability**: this means less CO<sub>2</sub>, and more circular products.

And business customers are responding to these changes. We have seen

announcements to this end from big consumer brands in recent weeks. And this will increase. I also believe this because my thirteen-year old daughter tells me that our sector needs to change every evening over the dinner table.

I am extremely confident that our vital industry will do more than simply survive. It will thrive! It will meet all of these challenges with ingenuity and vigour. Not because it must, but also because it is the right thing to do. I believe it will be held up as the flagship for sustainability. Not just by other industries facing similar challenges, but by a far tougher crowd - my daughter and her friends.

So, this leads me to the three things that I believe our industry needs to do in order to truly thrive... **decarbonise, create circular products and collaborate.**

Now, as I've told my daughter, many finished products made from chemicals are helping the world address climate change.

But she is much smarter than I am... and also more stubborn... so she usually answers that our industry is one of the largest sources of industrial greenhouse gas emissions in the world. And she is right. I believe the chemical industry must act now and work together to reduce the carbon intensity of the processes used to make these chemicals. Although it has come down an impressive 60% since 1990, in Europe alone our industry still accounts for 135 million tonnes a year.

At the Shell Group level, we aim to be a **net-zero emissions** energy business by 2050 or sooner, in step with society and our customers.

We aim to be net-zero emissions from making our products and to reduce the carbon intensity of the products we sell. We will also work with sectors which use energy to help them find their own path to net-zero emissions. This is a huge task. The business plans we have today will not get us there. So, our plans must change over time, as society and our customers also change.

So how will Shell Chemicals play its part? The most effective route is to improve the energy efficiency of our plants. For example, we recently announced that we are upgrading our cracker furnaces at our Moerdijk site in The Netherlands.

And we need to embrace new technology when designing assets. Our latest 1.2million tonnes per annum ethylene joint-venture plant in China was built with industry-leading energy efficiency in mind. And our 1.6 million tonnes per annum polyethylene facility in Pennsylvania has been designed with an energy-efficient gas cracker and a 250-megawatt cogeneration power unit. It is also using hydrogen as a fuel source for the cracker furnaces.

Our integration with Shell's New Energies business is also a huge advantage to bring low-carbon energy sources into our production sites, such as the largest solar farm in The Netherlands at our Moerdijk plant, and the industry-leading hydrogen electrolyser at our Rhineland site.

And we are exploring carbon capture and storage (CCS) options to reduce the CO<sub>2</sub> footprint of production. The Quest project in Scofield, Canada has captured and stored four million tonnes of CO<sub>2</sub> since it began in 2015. We are also working with partners to push forward a potential CCS project in the Port of Rotterdam.

We will continue to innovate. Shell and Dow have teamed up to develop,

design and scale up cracking technology that can use renewable electricity rather than fossil fuels. My thanks to Jim and his team for working together with us on this.

And Shell Chemicals is investigating low-carbon alternative feedstock such as biomass and plastic waste.

Which brings me to the second way our sector needs to change. We need to **create circular products**.

Shell, like others, wants to be part of creating solutions to the growing problem of plastic waste. And I see a solution that uses the power of the market. Effective chemical recycling practices will create value for plastic waste. And when more people see this, it is less likely to be discarded into the environment.

At Shell Chemicals, driving the plastic circular economy is a key element of our growth strategy. Our ambition is to use one million metric tons per year of plastic waste as feedstock in our global chemical plants by 2025.

We started by producing chemicals at our Norco plant in Louisiana from plastic-waste derived feedstock last year. And Shell is already working with several companies who collect and transform plastic waste, so we can quickly scale this solution to industrial and profitable quantities across our chemical plants - in Asia, here in Europe and North America.

So, I've already talked about the need to start decarbonising and create circular products. I have also said we can only do this by working together. That brings me to my third point: the need to **collaborate**.

Obviously, this means working together within the sector, with other chemicals companies. To innovate.... to share

risks... and to find the most efficient solutions.

But our collaboration must be much broader to be effective. With governments and regulators, for example. Although companies should not wait until authorities enforce more sustainable practices and products, we should support appropriate policies and regulations that help point consumers, communities and companies in the direction of sustainable solutions. This requires our industry to overcome an obstacle. Because I think our industry seems to be good at telling regulators what we don't want. But can we articulate what we really need?

Today, just 15% of EU-collected plastic waste in the EU finds its way back into the plastic market. I believe, therefore, regulators should recognise and incentivise converting plastic waste to chemicals feedstock via chemical recycling in the same way as traditional recycling - and that accurate mass balancing should be an accepted methodology to calculate recycled content of products.

We support policies that promote reuse, recycling and energy recovery of plastics and that take into account impacts over the lifecycle, including CO<sub>2</sub>. These will support unlocking of the economic value of plastic waste and

the creation of a circular economy for plastics.

Thirty years ago, commentators were predicting the demise of the European chemicals industry. But it is still here and continues to reinvent itself. It's the second largest chemicals producer in the world! The chemicals industry has proven it can adapt. We have the perfect example of this in the early months of COVID-19.

One thing is clear. For a chemicals company to survive and thrive through COVID-19; resilience, efficiency, technology, differentiated products and customer centricity are now more important than ever. Shell Chemicals is well positioned with these. And we are at the start of our differentiated and performance growth journey - with our polyethylene plant under construction in the US and our polycarbonate ambitions starting in China. But as I've said, there is far more to be done.

As my daughter reminds me every evening, we need to change further if our industry wants its future to be as bright as its past.

So, we must decarbonise. We must create circular products. In short, we must become more sustainable.

Thank you.

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