



Groundbreaking ceremony for high-purity ethylene oxide, ethoxylates & polyols investments in Singapore

Graham van't Hoff

Executive Vice President, Shell Chemicals Limited
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Graham joined Shell in 1984 after obtaining a degree in Chemistry from Oxford. His first role was in London as a Customer Services Assistant, followed by time as a polypropylene sales representative in the UK.

Between 1988 and 1992 he worked as Product Manager for Shell's Higher Olefins and Detergents business, initially in the UK and then in Houston. During this time he also obtained a Masters in Business Management, with Distinction, from Manchester Business School.

After a spell in Corporate Planning in Shell Oil Company in the US he returned to Europe in 1995 as European Marketing Manager for Chemical Solvents and then as Global Vice President, Polystyrene. Subsequently, Shell took the decision to divest this business, and Graham led the divestment projects through to completion in early 2000.

Graham then briefly took over the role of Director - Customer Fulfilment Centre of Excellence before becoming Chief Information Officer for Shell Chemicals. In this role he oversaw the globalisation of IT, including the implementation of the first global SAP system in Shell. He then became Shell International's Director of IT Strategy and Applications Development where he developed and led the ITVision project to restructure IT across the Shell Group.

Graham took up the assignment as Vice President Base Chemicals Europe and member of the Chemicals Leadership Team on 1 February 2005, adding the role of General Manager Shell Chemicals Europe BV on 1 March 2006, based in The Netherlands. In mid-2008, Graham was appointed Global VP Base Chemicals returning to the UK at the beginning of 2009, before being appointed as Chairman Shell UK on 1 May 2011 and later that year Executive Vice President, CO2 and Alternative Energies.

On 1 January 2013 Graham was appointed to his current role as Executive Vice President, Shell Chemicals.

Graham is on the CBI Climate Change Board and the boards of the Cambridge Programme for Sustainability Leadership, the Oxford Smith School of Enterprise and the Environment, Race for Opportunity and Youth at Risk.

Graham and his wife, who also works for Shell, have four children. They are based in London, UK. While work and family are their main commitments, their key hobby is sailing.

Mr Lee Yi Shyan, Senior Minister of State for Trade and Industry and National Development; Your Excellencies Mr Johannes Jansing, Ambassador for the Netherlands and Mr Antony Phillipson, High Commissioner of the United Kingdom; Ladies and Gentlemen. Good morning.

I'm delighted to join you here today to witness the groundbreaking ceremony for Shell's latest investments in Singapore. We are adding to our portfolio of world-class manufacturing facilities and boosting our petrochemicals production to meet customers' needs in Asia. Before I share with you details of those investments, let me say a few words about the chemicals industry.

The chemicals industry

Petrochemicals are fundamental to positive growth in economies. They are used in a wide variety of important products, such as plastics, rubbers, coatings, solvents and additives. And they are used to make many consumer goods we see more of as economies grow, including soaps and detergents, textiles, mattresses, car components and electronic casings.

Global demand for petrochemicals has grown faster than GDP over the last decade, driven by population growth and increasing wealth. That strong demand growth is expected to continue, with projected global demand for petrochemicals in 2030 potentially double that of 2010. A significant slice of this extra demand is expected to emerge from Asia, particularly China.

Increased population and wealth also drives greater demand on the world's resources, which would mean more energy use and emissions at source. However, the chemical industry can actually enable society to save energy and emissions - through supplying raw materials for more energy-efficient solutions. Examples include light-weight car components, insulation and low-temperature washing detergents. Or, in Shell's upstream business, chemicals injected into wells to recover oil normally left stranded, through enhanced oil recovery. The chemicals industry can also enable society to tackle other resource stresses, including land use and clean water.

Shell Chemicals in Asia

Shell has more than 80 years' experience in the chemicals industry. We focus on producing building-block petrochemicals for sale in bulk to other chemical companies or industries. In 2012, we sold more than 18 million tonnes of high-quality product to over 1,000 customers. Over the years, we have collaborated with many of them to develop our businesses together. In doing so, we have helped to attract investments further down the value chain. We have customers who have also invested in markets where we chose to grow.

Asia is key to Shell's growth. Within the region, Singapore has, and will continue to feature considerably in our long-term plans. In fact, we have been here for more than 120 years, and count among some of the most significant foreign investors.

Some of you might remember that in May 2010, we completed the Shell Eastern Petrochemicals Complex project. Straddling Pulau Bukom and Jurong Island, and connected by undersea pipelines, it was then the Shell Group's largest-ever Downstream and petrochemicals investment. Later that same year, we acquired our joint venture partner's shares in Ethylene Glycols (Singapore) Private Limited - or EGS - a manufacturer of high-value chemical intermediates for detergents and personal care products.

In 2011, we announced plans for a 500-tonne per year demonstration unit to manufacture the chemical intermediate diphenyl carbonate, or DPC. It was an

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important step towards commercialising DPC as a new product for Shell Chemicals. I am pleased to say that construction of the demonstration unit is progressing well.

Last year, we decided to 'debottleneck' our ethylene cracker on Pulau Bukom. This is expected to increase the capacity of olefins and aromatics by more than 20 per cent. Just two months ago, we shared that we would increase our polyols production capacity by more than 100,000 tonnes per annum and add new grades to Shell's polyols offer by 2014.

Investment details

Today, I am pleased to say that we are making fresh investments to strengthen even further our footprint in this petrochemicals hub.

We will be building a new high-purity ethylene oxide, or HPEO, purification column next to our existing world-class mono-ethylene glycol plant on Jurong Island. It will have an initial capacity of 140,000 tonnes per annum.

We will also construct two world-scale ethoxylation units within the site of EGS. They will have a combined capacity of 140,000 tonnes per annum.

On top of these, we will build support facilities, such as product tanks and a loading and unloading gantry on a greenfield plot adjacent to EGS. A pipeline grid will link the HPEO column to EGS and new over-the-fence customers who have also committed to invest in new plants nearby.

Taken together, our new facilities will be built over some 35,000 square metres of land, about the size of seven football fields. Feedstock for the new HPEO column will come from Shell's petrochemical plants, which are integrated with our largest fully-owned refinery on Pulau Bukom.

Projected increase in demand

Why HPEO and ethoxylates? Quite simply, because the demand for alcohol ethoxylates in Asia is expected to increase at approximately 6 to 7 per cent annually over the next five years. The key driver for this is the move by consumers from laundry powder and soap bars to liquid detergents and soaps, especially in major markets like China, India and South-east Asia.

The largest and fastest-growing outlet for HPEO is the ethoxylation industry, which processes HPEO and alcohol into alcohol ethoxylates. These are key ingredients for a variety of household and industrial detergents and cleaning products, including those used for laundry, dishwashing, personal care and surface cleaning.

Shell is one of only a few merchant sellers of HPEO. This expansion will help us to meet the needs of our existing and new customers. Many are leading manufacturers of intermediate chemicals that go into detergents and cleaning products. A number of these customers share our vision for growth and are making investments in Singapore too. Some of them will receive HPEO supply from Shell, and some will be taking ethoxylates from us either directly or through tolling contracts.

Investing in existing assets

All the projects that I have mentioned build on each other, with ethylene and ethylene oxide as key feedstocks. They are part of a conscious strategy to continue investing in our existing assets, to further increase their capacity and efficiency. This is vital for our growth in the long run, especially in the Asia.

Even though Asia is a key market for us, our strategy to grow is global, even in mature markets like Europe and the Americas. We have been actively developing growth opportunities in every region, particularly at our integrated locations.

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The importance of Singapore

Back to Singapore. The Bukom and Jurong manufacturing platform is one of our main integrated sites. In fact, it is our largest oil and chemicals mega site, created when we built the Shell Eastern Petrochemicals Complex. Through it, we laid strong foundations for maximising value across the hydrocarbon chain. The investments we have announced to-date demonstrate how we have successfully leveraged the benefits of integration.

Before I end, I'd like to underline the importance of Singapore as a key oil and petrochemicals manufacturing centre for Shell in the Asia-Pacific. I also want to express my gratitude to Mr Lee Yi Shyan, for the Singapore Government's collaboration with the Shell Group over many decades. In particular, I wish to acknowledge the role of the Economic Development Board and JTC Corporation as strategic, long-term partners for Shell in Singapore.

At Shell, we recognise that the manufacturing sector is integral to Singapore's long-term economic success; we know that the Singapore Government has a vision to further develop an already successful petrochemicals industry. We look forward to being part of Singapore's growth aspirations and contributing to its position as a world-leading petrochemicals hub.

Last, but certainly not least, a word of thanks to our customers, many of whom have made the effort to come and celebrate with us today. Without you, this would not have been possible.

Thank you.

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