

## **CHEM**SYSTEMS®

## **PROSPECTUS** April 2009

# PolyOlefins Planning Service 2009 Program (March 2009 – February 2010)

Griffin House, 161 Hammersmith Road, London W6 8BS, UK **tel:** +44 20 7950 1600, **fax:** +44 20 7950 1550

Nexant®, ChemSystems® and ChemSystems Online® are registered trade marks of Nexant, Inc.

CHEMSYSTEMS – a brand owned by Nexant, Inc. that provides support to decision makers in the petroleum, chemical and petrochemical industries

## **CONTENTS**

**SECTION** 

1	Introduction to the Program	1
2	Value of the Program	4
3	Scope of the Program	5
4	Detailed Description of the Program	6
5	Costs and Subscription	8
A	PPENDIX	PAGE
Ą	Subscription Terms and Conditions	9
В	Contact Details	11
С	Illustrative Tables and Contents (Executive Report Global Commercial Analysis)	12

**PAGE** 

#### **SECTION 1.**



## Introduction to the Program

#### The Program

The ChemSystems PolyOlefins Planning Service (POPS) has provided the most detailed, accurate and insightful analysis, of the global polyethylene and polypropylene business since its first publication in the 1990s.

The service is regarded by many in the industry as the definitive analysis and forecast program for polyolefins. By means of an annual Executive Report, Quarterly Business Update reports, three special topic reports per year plus a tri-annual Technology analysis, the program delivers a comprehensive commercial analysis of the industry.

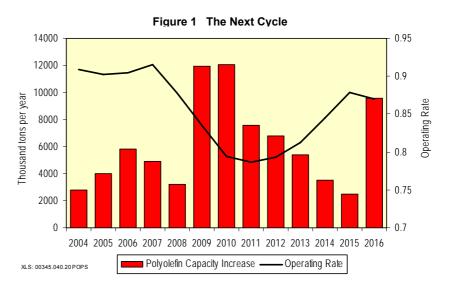
The analysis in the program is developed by Nexant's polyolefins consultants based on detailed research and field work for all global regions. The forecasts are developed using Nexant's ChemSystems Simulator, the state-of-the-art simulation model of the global petrochemical industry, ensuring that the forecasts are compatible with and integrated to forecasts of olefins and of competing commodity plastics. Subscriptions to the ChemSystems Simulator are also available allowing subscribers to develop private scenarios and forecasts.

#### **Key Industry Issues**

The polyolefins industry continues to be in a period of immense challenge. 2008 was unprecedented in many ways as the prices of feedstocks, namely ethylene and propylene, firstly climbed to hugely elevated levels by mid-year as world crude oil prices soared. This was then followed, in the second half of the year, by the most significant price fall ever experienced for polyolefins as demand collapsed. Indeed, many regions saw a significant contraction in polyolefin demand as converters held back from purchasing as prices fell and as the downstream industry cut inventories vigorously. Consequently, industry operating rates declined and many producers were forced to idle or temporarily shutdown units. By the start of 2009, many of the regional economies around the world had gone into recession and the financial crisis in the banking sector forced many governments to increase the supply of money in order to stimulate lending and economic recovery. Against this background, polyolefin producers have struggled financially and the rate of polyolefin capacity rationalisation has increased.

In addition to the poor demand picture, 2009 and 2010 are set to deliver the highest level of new plant capacity additions the industry has ever seen. Much of this is located in China and the Middle East and represents a significant competitive threat to the existing industry. Thus, the investment cycle, as often witnessed for the petrochemical industry, is likely to lead to very strong supply availability commencing in 2009. The current 2009 and 2010 outlook is therefore one of significantly declining operating rates with industry profitability expected to follow accordingly (see Figure 1).

However, better times will return as the industry comes out the other side of the next downturn. Throughout these periods, companies will be making important decisions on investments, marketing and product strategies. It is the purpose of the POPS program to serve as a valuable resource in these key decisions.



Below we outline several important issues for the polyolefins industry.

- There was significant de-stocking in the value chain and subsequent demand loss in 2008. When will the value chain re-stock and what will the impact on volume be? For example, when the automotive industry recovers, it can be anticipated that polypropylene demand will improve.
- In the short term, operating rates will fall significantly and profitability is set to further decline. In this context, and against a background of a fragile world economy, what degree of capacity rationalisation might be anticipated if industry margins and profitability are to recover?
- Middle East capacity development: How much and how soon? The Middle East is currently the main investment focus for many companies. While some of these have been delayed for a variety of reasons, they are now coming to fruition and this will have a strong impact on world trade. Moreover, the number of countries building new plants is also increasing (Figure 2).

35000 30000 25000 Thousand tons per year 20000 15000 10000 5000 1983 1989 1992 1995 2001 ■ Iran 🔲 Iraq 🔳 Israel 🔲 Kuwait 🖿 Qatar 🗀 Saudi Arabia 🗖 Turkey 🗖 UAE

Figure 2 Steam Cracker Capacity Growth in the Middle East

China: Demand growth for polyolefins has been very strong in recent years. The question remains as to what demand growth will look like in the coming years. There is also a strong indication for further significant increase in polyolefins capacity. While a significant proportion is likely to come from the two domestic producers, Sinopec and PetroChina, foreign joint ventures (existing and new) should also be prominent. A key issue is whether this additional capacity will lead to a declining import requirement or whether strong Chinese domestic demand growth will maintain imports at high levels. Our POPS reports will have the latest supply, demand and trade analysis.

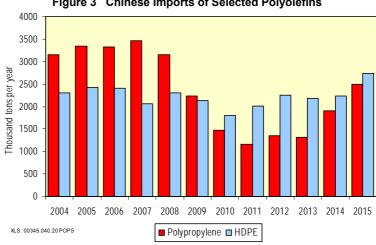


Figure 3 Chinese Imports of Selected Polyolefins

- Other regional issues include:
  - Role and position of India: With its strong GDP growth, domestic demand has been increasing sharply. In response, domestic companies have announced the development of new capacity, both existing and new producers. With tariffs coming down, will India become a good export opportunity or will the new capacity be sufficient to meet domestic demand growth or even allow for some exports?
  - Future of Western Europe and the United States: With imports of finished goods and commodity polyolefin grades on the increase, the challenges facing United States and West European producers during the next downturn are anticipated to be very difficult ones. What is the outlook then for United States and West European producers during the next downturn and how will the combination of demand and supply issues impact on industry operating rates?
  - The outlook for Eastern Europe: This region has the benefit of extensive petrochemical feedstocks. With growing demand, the report will look at a view of capacity development in the region and the result on trade flows.
- Technology development: Most of the focus has been in the single site/metallocene area but there are other developments that will impact the business, including Basell's SPHERIZONE technology and Univation's gasphase single reactor bimodal HMW HDPE. The Executive report will provide a detailed outlook for single site/metallocene products, developed for all regions to determine the global demand outlook for these products.

#### **SECTION 2.**



## Value of the Program

The POPS program is used by, amongst others, Business Managers, Corporate and Business Planners, Industry Analysts, and Investors to understand the dynamics of this global business so that they may improve business performance and shareholder returns.

#### Our 2009 POPS Program:

We update our commercial database annually. This is based on fieldwork, published statistics and other publicly available information. The fieldwork is conducted in each region and consists of discussions with a variety of industry participants including polyolefin resin producers, fabricators, end users, trading companies, compounders, and trade associations. These contacts will be in commercial, technical, R&D and various other roles in order to get a detailed and concise set of data and understanding of the key issues.

#### **Polyolefins Producers**

Most of the global and regional polyolefins producers subscribe to the POPS program, relying on it to provide detailed market analysts and forecasting. In the complex world of polymer substitution, a reliable source of market forecasts is valuable and provides competitive advantage.

#### **Polyolefin Consumers**

Processors and component manufacturers need a sound understanding of their suppliers and the polyolefin industry. POPS provides the global benchmark for supply and market development.

#### **Financial**

The financial community has a need to understand polymer markets both through its role in project financing of polyolefin projects and in trading of polyolefin company bonds. The introduction of polymers futures on the London Metals Exchange has brought banks into the polymer business as traders of polyolefin paper.

#### **SECTION 3.**



## Scope of the Program

The POPS program provides analysis of the technical and commercial polyethylene and polypropylene industries. The three polyethylenes: low density polyethylene (LDPE), linear low density polyethylene (LLDPE), and high density polyethylene (HDPE), and polypropylene (PP) are analysed with consumption for both conventional and metallocene grades. Production of LLDPE with co-monomers of butene, hexene and octene are presented. Consumption of polypropylene for homopolymer, random copolymer, impact copolymer and metallocene grades are presented.

Consumption of the four commodity polyolefins is analyzed by segmentation of the markets in each country into first level applications:

- Film food packaging, non-food packaging, retail bags, trash bags, shrink and film wrap, and others as appropriate to each polyolefin
- Fibre
- Blow moulding liquid food bottles, non food bottles, industrial drums, gas tanks, and others as appropriate to each polyolefin
- Injection moulding

   lids, caps and closures, housewares, tubs & containers, crates/totes, pails, and others as appropriate to each polyolefin
- Extrusion coating flex packaging and laminates, paper board, and others as appropriate to each polyolefin
- Rotomoulding
- Other extrusion uses wire & cable, sheet, and others as appropriate to each polyolefin
- Other applications including adhesives, coatings, and others as appropriate to each polyolefin

Consumption drivers for each country and trading region are discussed. The industry is global and trade from low cost producing regions to regions of high consumption is highly influential on regional balances and prices. Consequently the program analyses the industry in:

- North America
- South America, Central America and the Caribbean
- Western Europe
- Central Europe
- Eastern Europe
- The Middle East
- Africa
- Asia

Developments in the industry are discussed quarterly including consumption, production, pricing and trade, new capacity developments and company news.

#### SECTION 4.



## Detailed Description of the **Program**

Our 2009 POPS program has been structured to meet the information and analysis needs of our subscribers and to reflect the changing nature of the industry. All of our reports and databases will be available electronically and in printed form. Subscription to the program is corporate, allowing as many employees access to the data and reports as required. POPS 2009 will provide timely topical data and valuable insights with commercial and technical information to support your company's competitive positioning in the industry. This will consist of the following:

- An Annual Executive Report covering commercial aspects of the global polyolefins business (LLDPE, LDPE, HDPE, polypropylene and second generation technology products (metallocene, bimodal, etc.). This will include global, regional and country-by-country supply, demand, net trade, production, and operating rates
- Quarterly Business Updates (QBUs) provide an executive level analysis of key developments in the polyolefins industry. The reports include data reflecting quarterly demand, trade and pricing for selected regions, an updated table of new capacity additions, and a listing and assessment of important industry events (mergers, acquisitions, outages, etc.). Special topics of interest and strategic importance to the polyolefins industry will also be analysed in each QBU (consolidation, restructuring, technology shifts, feedstock issues, etc.). These will be published in the month following the close of each quarter.

Our POPS 2009 program is aimed at providing in-depth coverage plus topical analysis and commentary information. Three **supplements** will be provided covering in-depth analysis of key issues and developments that will likely impact the polyolefins businesses. The three supplements included in our POPS 2009 program are:

- Supplement I Mid-Year Polyolefins Market Report: The near-term polyolefins market is currently changing extremely rapidly as the precise timing of commercial operation of new capacity is finalised and as economic data becomes available. With many companies entering the annual budgeting and planning cycle in September 2009, the purpose of this report will be to provide an updated polyolefins supply and demand view for the period 2005-2015, in September 2009. In order to be timely, the report will largely be data with a smaller commentary than the annual Executive Report.
- Supplement II Regional Cost Competitiveness: The polyolefin industry is now a global business with significant quantities of material now being traded around the world. One of the key success factors in the industry is to have a low cost base not only at a regional but also at a global level. This Supplement will provide a detailed analysis of the cost position of both polyethylene and polypropylene in key regions around the world. In particular, the report will take a detailed look at feedstock, variable, and fixed costs.
- Supplement III Global LDPE EVA Copolymer Review: This Supplement will provide a global review of the LDPE EVA copolymer market, looking at supply, demand and trade for the EVA copoloymers. The analysis will include an analysis of market drivers, capacity developments, and key commercial issues.

In addition to the print reports subscribers are provided with a CD containing the **Global Database**. Our database will include demand, supply (capacity by location and technology), production, net trade, and operating rate for each major country, while regional and global summaries will also be prepared. More specifically, our database will have a detailed demand analysis by processing category (film, injection molding, blow molding, pipe, fiber, etc.). It will also include estimates for both new (speculative) capacity additions by country/region that will be needed and the demand for second generation technology (single site/metallocene and non metallocene) for all of the polyolefins.

Support for the program is provided through our **Presentation/Consulting** service: Companies will be entitled to a half-day presentation of the program results along with a half day of discussion in smaller groups or workshops. Each presentation will be tailored to the individual company. Travel expenses are not included and will be invoiced at cost.

#### **SECTION 5.**



## **Costs and Subscription**

The cost of the 2009 POPS Program is US\$29,000. All amounts are net of all local taxes, duties, and other applicable charges. Companies will be invoiced upon authorization payable within 30 days of receipt of the invoice. POPS 2009 can be ordered using the form provided with this prospectus or online at our web site: <a href="https://www.chemsystems.com">www.chemsystems.com</a>.

#### **Technology Report:**

Our latest POPS Technology Report was published in August 2008. This report consists of an in-depth analysis of all key polyolefins technologies employed in the industry. The cost of the POPS Technology Review report is US\$15,000 and is priced separately from the main POPS program.

### **Subscription Terms and Conditions**

This Subscription Agreement (this "Agreement") is by and between the undersigned (the "Subscriber") and Nexant, Inc. ("Nexant"). Pursuant to this Agreement, Subscriber will purchase the ChemSystems PolyOlefins Planning Program (POPS) (the "Subscribed Report") for the 2009 subscription year (the "Subscription Year"), produced by Nexant in accordance with the following terms and conditions.

- 1. Subscribers to the Subscribed Report will receive three (3) copies in published form and access to the Subscribed Report via a password-protected area from www.chemsystems.com. All rights and limitations described above apply equally to hard copy and electronic versions of the reports. Nexant will provide up to eight hours in a single day of consulting services, at cost to be invoiced separately, provided by a senior study manager consisting of a half-day summary presentation of the Subscribed Report and a half-day of individual/small-group focused meetings organized by the Subscriber. Travel expenses are not included and will be invoiced at cost. All amounts invoiced are net of all local taxes, duties, and other applicable charges. Additional published copies of the Subscribed Report are available at US\$1,000.00 (one thousand U.S. dollars) each.
- 2. While the information supplied by Nexant to Subscriber in connection with the Subscribed Report will represent an original effort by Nexant, based on its own research, it is understood that portions of the reports will involve the collection of information available from third parties, both published and unpublished. Nexant does not believe that such information will contain any confidential technical information of third parties but cannot provide any assurance that any third party may, from time to time, claim a confidential obligation to such information.
- 3. The information disclosed in the Subscribed Report is for the sole and confidential use of Subscriber and any 51 percent or greater owned affiliates and subsidiaries of the Subscriber ("Affiliates") except those Affiliates which are engaged in the business of marketing research, management consulting, or publishing or are subsidiaries of such firms ("Permitted Users"). However, the Permitted Users may use such information in their own research and commercial activities, including loaning the data on a confidential basis to third parties for temporary and specific use for the sole benefit of the Subscriber. Breach of this covenant of use shall entitle Nexant to terminate this Agreement immediately with no obligation

- to return any portion of the Subscription Fee. It is the responsibility of the Subscriber to notify Nexant from time to time of the Permitted Users who will require access to the information disclosed in the Subscribed Report in accordance with Clause 4 below.
- 4. Subscriber further agrees that it will use reasonable efforts to keep the Subscribed Report for its sole use; however, this restriction shall not apply to information which is or becomes generally available to the public in a printed publication, which is already in the possession of subscriber, or which is received by Subscriber in good faith from a third party without an obligation of confidentiality.
- 5. Subscriber shall not republish any portion of the Subscribed Report except within its own organization or that of its 51 percent or greater owned affiliates. Subscriber further agrees to refrain from any general publication of the Subscribed Report, either directly or through its affiliates, so as to constitute passage of title into the public domain or otherwise jeopardize common law or statutory copyright in the Subscribed Report.
- 6. In consideration of the Subscribed Report, Client will be billed by and shall pay to Nexant a total subscription fee of US\$29,000.00 (twenty-nine thousand U.S. dollars), the Base Subscription Fee. If Client selects to also purchase the POPS Technology Report (2008), Client will be billed by and shall pay to Nexant an additional subscription fee of US\$15,000.00 (fifteen thousand U.S. dollars). Client shall be invoiced upon signature of this Agreement. Amounts are due upon receipt of invoice and payable within thirty (30) days. Late payments shall accrue interest at the rate of 1.5% per month. Fees quoted do not include any applicable sales tax, or use or value added tax, all of which are for the account of Client.
- 7. The obligations of paragraphs 3 and 4 shall terminate five (5) years from receipt of reports.
- 8. Unless specified otherwise, there are no warranties of any kind for reports and consulting services provided under this Agreement. Nexant's total liability under this Agreement is limited to the total amount paid to Nexant for the reports.
- A person who is not a party to this Agreement shall have no right under this Agreement.
- 10. This Agreement will be governed by the laws of the State of New York, United States of America.
- 11. By signing below, Nexant and Subscriber agree that this is the complete agreement between them regarding the Subscribed Report. No change, modification, extension, termination or waiver of this Agreement, or any of the provision herein, shall be valid unless made in writing and signed by duly authorized representatives of the parties.

#### APPENDIX A.

If the foregoing terms are acceptable, please sign below to confirm subscriber's agreement and return to Nexant.

#### **AUTHORISATION**

AGREED TO	AND ACCEPTED:	AGREED TO AND ACCEPTED:		
SUBSCRIBE	R:	NEXANT, INC.		
Name:		Name:		
Title:		Title:		
Address:		Address:		
Phone:		Phone:		
Fax:		Fax:		
Email:		Email:		
Date:		Date:		
Signature:		Signature:		
2009 POPS I	Program	US\$29,000		
POPS Techn	ology Report 2008	US\$15,000 (check here to purchase report)		
Additional Pri	inted Copies	@ US\$1,000 per set		
Total Cost:		US\$		
If your compa	any requires a purchase order number, ple	ease provide	the number below:	
	Purchase Order Number:			
	-		<del></del>	

NEXANT, INC., *CHEMSYSTEMS* POPS PROGRAM 44 SOUTH BROADWAY, 4th Floor WHITE PLAINS, NY 10601-4425, U.S.A. FAX: 1-914-609-0399 APPENDIX B. Contact Details

EUROPE Nexant Ltd.

Griffin House

161 Hammersmith Road London, W6 8BS United Kingdom Attn: David Alston

POPS Executive

Tel: + 44 (20) 7950 1544 Fax: + 44 (20) 7950 1550 Email: dalston@nexant.com

AMERICAS Nexant, Inc.

44 South Broadway

White Plains, NY 10601-4425

U.S.A.

Attn: Heidi Junker Coleman

Multiclient Programs Administrator
Tel: + 1 (914) 609 0381
Fax: + 1 (914) 609 0399
e-mail: hcoleman@nexant.com

ASIA Nexant Asia Ltd

22nd Floor, Rasa Tower 1 555 Phahonyothin Road

Kwaeng Chatuchak, Khet Chatuchak

Bangkok 10900

Thailand

Attn: Maoliosa Denye

ChemSystems Marketing Manager

Tel: + 66 2 793 4626 Fax: + 66 2 937 5145 Email: mdenye@nexant.com

## Illustrative Table of Contents (Executive Report Global Commercial Analysis)

#### APPENDIX C.

Se	Section			Page
1	Globa	al Overvie	ew .	1-1
	1.1	Introdu	ıction	1-1
	1.2	Busines	ess Summary	1-3
		1.2.1	Economic Outlook	1-4
		1.2.2	Demand	1-5
		1.2.3	Supply	1-6
		1.2.4	Trade	1-7
	1.3	Market	Dynamics Forecasting Methodology	1-9
		1.3.1	Capacity Availability and Forecasting	1-9
		1.3.2	End-Use Consumption Forecasting	1-9
		1.3.3	Monomer Consumption Forecasting	1-12
		1.3.4	Production and Trade Forecasting	1-13
	Appei	ndix A - G	Global Review	A-1
2	North	America		2-1
	2.1	Region	nal Summary	2-1
		2.1.1	Regional Economics	2.1
		2-1.2	Supply	2-2
		2.1.3	Consumption	2-3
		2.1.4	Trade	2-3
	2.2 Canada			2-4
		2.2.1	Economic Overview	2-4
		2.2.2	Supply and Project Overview	2-5
		2.2.3	Market Overview and Key Drivers	2-5
	2.3	Mexico		2-6
		2.3.1	Economic Overview	2-6
		2.3.2	Supply and Project Overview	2-7
	2.3.3 Market Overview & Key Drivers		2-7	
	2.4			2-8
		2.4.1	Economic Overview	2-8
		2.4.2	Supply and Project Overview	2-9
		2.4.3	Market Overview and Key Drivers	2-10
	Appei	ndix B - N	North America	B-1
3	South	3-1		
	3.1	Region	nal Summary	3-1
		3.1.1	Regional Economics	3-1
		3.1.2	Supply	3-2
		3.1.3	Consumption	3-3
		3.1.4	Trade	3-4
	3.2	Argenti	ina	3-5
		3.2.1	Economic Overview	3-5
		3.2.2	Supply and Project Overview	3-5
		3.2.3	Market Overview and Key Drivers	3-6

Α	APPENDIX C.  3.3 Brazil		Illustrative Tables and Contents (Executive Report Global Commercial Analysis)			
				3-7		
		3.3.1	Economic Overview	3-7		
		3.3.2	Supply and Project Overview	3-7		
		3.3.3	Market Overview and Key Value Drivers	3-8		
	3.4	Venezı		3-9		
		3.4.1	Economic Overview	3-9		
		3.4.2	Supply and Project Overview	3-9		
		3.4.3	Market Overview and Key Drivers	3-10		
	3.5	Other S	South America	3-11		
		3.5.1	Economic Overview	3-11		
		3.5.2	Supply and Project Overview	3-11		
		3.5.3	Market Overview and Key Drivers	3-11		
	3.6	Centra	al America and the Caribbean	3-12		
		3.6.1	Economic Overview	3-12		
		3.6.2	Supply and Project Overview	3-12		
		3.6.3	Market Overview and Key Drivers	3-12		
	Appe	ndix C - S	South America	C-1		
4	West	ern Europ	pe	4-1		
	4.1	Region	nal Economics	4-1		
	4.2	Supply	oly			
4.3 Consumption				4-5		
		4.3.1	Second Generation	4-6		
	4.4	Trade		4-8		
	Appendix D - Western Europe		Western Europe	D-1		
5		al Europe		5-1		
	-		nal Summary	5-1		
		5.1.1	Economic Overview	5-1		
		5.1.2	Supply	5-2		
		5.1.3	Consumption	5-4		
		5.1.4	Trade	5-7		
	5.2	Bulgari	ria	5-9		
		5.2.1	Economic Overview	5-9		
		5.2.2	Supply and Project Overview	5-9		
		5.2.3	Market Overview and Key Drivers	5-9		
	5.3	Czech	Republic	5-11		
		5.3.1	Economic Overview	5-11		
		5.3.2	Supply and Project Overview	5-11		
		5.3.3	Market Overview and Key Drivers	5-11		
	5.4	Southe	ern Central Europe	5-13		
		5.4.1	Economic Overview	5-13		
		5.4.2	Supply and Project Overview	5-13		
		5.4.3	Market Overview and Key Drivers	5-13		



5.5

Hungary

5.5.1

5.5.2

5.5.3

**Economic Overview** 

Supply and Project Overview

Market Overview and Key Drivers

5-15

5-15

5-15

APPENDIX C.		OIX C.	Illustrative Tables and Contents (Executive	Illustrative Tables and Contents (Executive Report Global Commercial Analysis		
	5.6	Poland		5-17		
		5.6.1	Economic Overview	5-17		
		5.6.2	Supply and Project Overview	5-17		
		5.6.3	Market Overview and Key Drivers	5-17		
	5.7	Romani		5-19		
		5.7.1	Economic Overview	5-19		
		5.7.2	Supply and Project Overview	5-19		
		5.7.3	Market Overview and Key Drivers	5-19		
	5.8	Slovakia	a	5-21		
		5.8.1	Economic Overview	5-21		
		5.8.2	Supply and Project Overview	5-21		
		5.8.3	Market Overview and Key Drivers	5-21		
		Append	dix E - Central Europe	E-1		
6	Easte	rn Europe		6-1		
	6.1	Regiona	al Summary	6-1		
		6.1.1	Economic Overview	6-1		
		6.1.2	Supply	6-2		
		6.1.3	Consumption	6-4		
		6.1.4	Trade	6-5		
	6.2	Russia		6-6		
		6.2.1	Economic Overview	6-7		
		6.2.2	Supply and Project Overview	6-8		
		6.2.3	Market Overview and Key Drivers	6-9		
	6.3	Commo	onwealth of Indepenent States	6-10		
		6.3.1	Economic Overview	6-11		
		6.3.2	Supply and Project Overview	6-12		
		6.3.3	Market Overview and Key Drivers	6-13		
		Append	dix F- Eastern Europe	F1		
7	Middle	e East		7-1		
	7.1	Regiona	al Overview	7-1		
		7.1.1	Regional Economies	7-1		
		7.1.2	Supply	7-4		
		7.1.3	Consumption	7-7		
		7.1.4	Trade	7-10		
	7.2	Iran		7-11		
		7.2.1	Economic Overview	7-11		
		7.2.2	Supply and Project Overview	7-11		
		7.2.3	Market Overview and Key Drivers	7-15		
	7.3	Iraq		7-17		
		7.3.1	Economic Overview	7-17		
		7.3.2	Supply and Project Overview	7-17		
		7.3.3	Market Overview and Key Drivers	7-17		
	7.4	Israel		7-18		
		7.4.1	Economic Overview	7-18		

7.4.2

7.4.3

Supply and Project Overview

Market Overview and Key Drivers

7-18

	APPEND	OIX C.	Illustrative Tables and Contents (Executive	e Report Global Commercial Analysis)
7.5	Kuwait			7-19
	7.5.1	Economic Overv	ew	7-19
	7.5.2	Supply and Proje		7-19
	7.5.3	Market Overview		7-20
7.6	Qatar		a, 2	7-21
7.0	7.6.1	Economic Overv	ew	7-21
	7.6.2	Supply and Proje		7-22
	7.6.3	Market Overview		7-23
7.7	Saudi A			7-24
	7.7.1	Economic Overv	ew	7-24
	7.7.2	Supply and Proje		7-25
	7.7.3	Market Overview		7-28
7.8	Turkey			7-29
	7.8.1	Economic Overv	ew	7-29
	7.8.2	Supply and Proje		7-29
	7.8.3	Market Overview		7-30
7.9		Arab Emirates		7-31
	7.9.1	Economic Overv	ew	7-31
	7.9.2	Supply and Proje		7-31
	7.9.3	Market Overview		7-32
7.10				7-33
	7.10.1	Oman		7-33
	7.10.2	Bahrain		7-34
	7.10.3	Jordan		7-35
	7.10.4	Syria		7-36
	7.10.5	Lebanon		7-37
	7.10.6	Yemen		7-38
Appe	ndix G - M	iddle East		G-1
Africa	ì			8-1
8.1	Regiona	al Summary		8-1
	8.1.1	Regional Econor	nies	8-1
	8.1.2	Supply		8-2
	8.1.3	Consumption		8-3
	8.1.4	Trade		8-6
8.2	Algeria			8-7
	8.2.1	Economic Overv	ew	8-7
	8.2.2	Supply and Proje	ct Overview	8-8
	8.2.3	Market Overview	and Key Drivers	8-8
8.3	Egypt			8-9
	8.3.1	Economic Overv	ew	8-9
	8.3.2	Supply and Proje	ct Overview	8-9
	8.3.3	Market Overview	and Key Drivers	8-10
8.4	Libya			8-11
	8.4.1	Economic Overv	ew	8-11
	8.4.2	Supply and Proje	ct Overview	8-11

8.4.3

8

Market Overview and Key Drivers

APPENDIX C.		IX C.	Illustrative Tables and Contents (Executive Report Global Commercial Analysis)		
	8.5 Nigeria			8-13	
	0.0	8.5.1	Economic Overview	8-13	
		8.5.2	Supply and Project Overview	8-13	
		8.5.3	Market Overview and Key Drivers	8-14	
	8.6		lic of South Africa	8-15	
		8.6.1	Economic Overview	8-16	
		8.6.2	Supply and Project Overview	8-16	
		8.6.3	Market Overview and Key Drivers	8-17	
	8.8 Other Af			8-18	
		8.7.1	Morocco	8-18	
		8.7.2	Tanzania	8-19	
		8.7.3	Tunisia	8-20	
		8.7.4	Uganda	8-21	
		8.7.5	Zimbabwe	8-21	
		8.7.6	Sudan	8-23	
	Appen	dix H - A	ıfrica	H-1	
9	Japan			8-1	
	9.1 Economic Overview		mic Overview	9-1	
	9.2	Market Overview and Key Drivers		9-2	
		9.2.1	Supply	9-3	
		9.2.2	Consumption	9-4	
		9.2.3	Trade	9-6	
	Appen	dix I - Ja	pan	I-1	
10	Asia			10-1	
	10.1	Region	nal Overview	10-1	
		10.1.1	Regional Economies	10-1	
		10.1.2	Supply	10-2	
		10.1.3	Consumption	10-2	
		10.1.4	Trade	10-5	
	10.2	Austral	ia	10-6	
		10.2.1	Economic Overview	10-6	
		10.2.2	Supply and Project Overview	10-6	
		10.2.3	Market Overview and Key Drivers	10-6	
	10.3	China		10-8	
		10.3.1	Economic Overview	10-8	
		10.3.2	Supply and Project Overview	10-8	
		10.3.3	Market Overview and Key Drivers	10-13	
	10.4	India		10-17	
		10.4.1	Economic Overview	10-17	
		10.4.2	Supply and Project Overview	10-17	
		10.4.3	Market Overview and Key Drivers	10-19	

10.5

Indonesia

10.5.1

**Economic Overview** 

10.5.2 Supply and Project Overview

10.5.3 Market Overview and Key Drivers

10-20

10-20

10-21

#### Illustrative Tables and Contents (Executive Report Global Commercial Analysis)

	10.6	Malaysia	ı	10-23
		10.6.1	Economic Overview	10-23
		10.6.2	Supply and Projects Overview	10-24
		10.6.3	Market Overview and Key Drivers	10-24
	10.7	New Zea	-	10-25
		10.7.1	Economic Overview	10-25
		10.7.2	Supply and Project Overview	10-25
		10.7.3	Market Overview and Key Drivers	10-25
	10.8	Philippin	es	10-26
		10.8.1	Economic Overview	10-26
		10.8.2	Supply and Project Overview	10-26
		10.8.3	Market Overview and Key Drivers	10-27
	10.9	Singapoi	re	10-28
		10.9.1	Economic Overview	10-28
		10.9.2	Supply and Project Overview	10-28
		10.9.3	Market Overview and Key Drivers	10-29
	10.10	South Ko	orea	10-30
		10.10.1	Economic Overview	10-30
		10.10.2	Supply and Project Overview	10-31
		10.10.3	Market Overview and Key Drivers	10-31
	10.11	Taiwan		10-33
			Economic Overview	10-33
		10.11.2	Supply and Project Overview	10-34
		10.11.3	,	10-34
	10.12	Thailand		10-36
			Economic Overview	10-36
			Supply and Project Overview	10-37
			Market Overview and Key Drivers	10-37
	10.13	Other As		10-38
			Pakistan	10-39
			Vietnam	10-41
			Bangladesh	10-43
			Sri Lanka	10-44
	A nn a na		Other Asia	10-45
	Appendix J – Asia			J-1
Fig	ure			Page
1.1	World E	Economic	Performance	1-4
1.2	.2 World Economic Performance and Outlook		1-4	
1.3	Global	Polyolefin	n Demand	1-5
1.4	Polyeth	ylene De	mand Growth	1-6
1.5	Polypro	pylene D	emand Growth	1-7
	Polyolefins Capacity Growth (1999-2008)			1-8
1.7				1-10
			mption Drivers	1-12
		Considera	•	1-13
			e e e	. 19

APPENDIX C.	Illustrative Tables and Contents (Executive Report Global Commercial Analysis)	
_		
2.1 North American GDP Outlook	2-1	
2.2 North American Polyolefin Net Trad	de 2-3	

2.1	North American GDP Outlook	2-1
2.2	North American Polyolefin Net Trade	2-3
2.3	Exchange Rates	2-4
2.4	Crude Oil Price Scenarios	2-8
2.5	United States Refined Product Price Projections	2-9
2.6	Changes in Polyethylene Inventory	2-11
3.1	South America, Central America and Caribbean GDP Outlook	3-1
3.2	South American Polyolefin Net Trade	3-4
4.1	Western Europe GDP Outlook	4-1
4.2	West European Net Trade	4-8
5.1	Polyolefins Production by Producer- 2005	5-3
5.2	LDPE Consumption	5-5
5.3	LLDPE Consumption	5-6
5.4	HDPE Consumption	5-6
5.5	Polypropylene Consumption	5-7
5.6	Regional Net Polyolefins Trade	5-8
5.7	Regional Net Polyolefin Trade	5-8
6.1	Impact of Crude Oil Price Changes on GDP of Major Middle Eastern Oil Exporting Countries(1)	6-2
6.2	Read GDP - Major Middle Eastern Countries	6-3
6.3	Polyolefin Capacity Addition in Middle East	6-4
6.4	LDPE Consumption and Growth in Major Middle Eastern Markets	6-6
6.5	LLDPE Consumption and Growth in Major Middle Eastern Markets	6-7
6.6	HDPE Consumption and Growth in Major Middle Eastern Markets	6-8
6.7	Polypropylene Consumption and Growth in Middle Eastern Markets	6-9
6.8	Middle Eastern Polyolefin Net Trade	6-10
7.1	Real GDP - Major African Countries	7-1
7.2	LDPE Consumption and Growth in Major African Markets	7-3
7.3	LLDPE Consumption and Growth in Major African Markets	7-4
7.4	HDPE Consumption and Growth in Major African Markets	7-4
7.5	Polypropylene Consumption and Growth in Major African Markets	7-5
7.6	African Polyolefin Net Trade	7-6
8.1	Japanese GDP Outlook	8-1
8.2	Japanese Net Trade	8-6
9.1	GDP - Major Asian Countries	9-1
9.2	LDPE Consumption and Growth in Major Asian Markets	9-3
9.3	LLDPE Consumption and Growth in Major Asian Markets	9-3
9.4	HDPE Consumption and Growth in Major Asian Markets	9-4
9.5	Polypropylene Consumption and Growth in Major Asian Markets	9-4
9.6	Asian Polyolefin Net Trade	9-5
9.7	Imports of Scrap and Recycled Polymer	9-12
9.8	Sources of Imported Scrap and Recycled Polymer	9-13

