



WORLD'S TOP 10
IN CHEMICAL SECTOR
& ONLY 1 COMPANY IN ASIA

Dow Jones Sustainability Indexes



FY/13 Opportunity Day

The Stock Exchange of Thailand
March 5, 2014

This presentation includes forward-looking statements that are subject to risks and uncertainties, including those pertaining to the anticipated benefits to be realized from the proposals described herein. This presentation contains a number of forward-looking statements including, in particular, statements about future events, future financial performance, plans, strategies, expectations, prospects, competitive environment, regulation and supply and demand.

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- ❑ **2013 Achievement**
 - ❑ **From Strategies to Execution**
 - ❑ **2013 Operating Results**
 - ❑ **Conclusion**

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Our 2013 Achievements in a Challenging Business Environment

Macro Economic Factors

- Chinese Economic Slow down
- THB Fluctuation
- Thailand's Political Uncertainty
- QE Tapering
- + US slowly Recover

2013 NP: 33,277 MB



Petrochemical Market Factors

- ± Oil Price Fluctuation
- + Stronger Petrochemical market

External Operation Factors

- Lower Ethane supply due to PTT's GSP#5 Unplanned S/D



Internal Operation Factors

- Unplanned S/D LDPE
- Oil Spills Incident



Our 2013 Achievements in a Challenging Business Environment

1. Plant Operational Performance

2013 Performance VS Target

Plant	Plant Reliability	Energy Efficiency
Refinery	●	●
Aromatics	●	●
Olefins	●	●
HDPE	●	●
LLDPE	●	●
LDPE	●	●
EO/EG	●	●
ME+FA	●	●
Phenol	●	●
BPA	●	●

Aim for improvement and achieving more challenging targets going forward

2. Excellence Programs Achievements

Excellence Programs	FY13 EBITDA Uplift	FY 13 Target
1. Operational Excellence Total 47 Projects achieved - 27 Energy saving Projects - 5 Plant reliability Projects - 15 Cost reduction, Yield improvement Optimization	19.3	28.0
2. Marketing Excellence - Customer Porfolio Management - Product Development - Pricing Excellence	155.9	113.0
3. Synergy Projects - Off Gas upgrading at Olefins - C3/C4 upgrading at Olefins - Heavy Aromatics - 3 Streams (Heavy gasoline, LGB, CB)	34.6	36.0
4. Opportunity Synergy Projects - Biodiesel Export to China (B-100 from TOL blend with Diesel from Refinery) - Due to I-4/1 TA, transfer excess offspec Raw Pygas (normally flare) to upgrade at ARO2 - Due to I-4/1 TA, transfer excess offspec C3C4 from PTTPE Cracker to Refinery C3C4 pool for	20.9	0.0
Total	230.7	177.0

Our 2013 Achievements in a Challenging Business Environment

3. Foundation for Growth

Core Uplift

- BV Project
- TOCGC Plant Improvement
- PX Expansion Project
- PTTPE Cracker Debottlenecking
- LLDPE Expansion
- Phenol 2

1-Step Adjacency

New Geography



- Signed HOA JV Manufacturing and JV Marketing and Trading



- Signed MOU to jointly explore potential collaboration e.g., PU and PC chains and Bio-based chemicals and strengthen sales & market in China

HVS Products



- Signed MOU to study downstream product that yield benefit and fits with PTTGC's strategy

4. Awards and Recognition

#18 in ICIS Top 100 Chemical Companies in 2013



#607 in Forbes Global 2000



Board of the year Awards 2013 for Distinctive Practices



DJSI World's Top 10 in Chemical Sector

GRI certification at level A+

UN Global Compact Advanced Level

SET Sustainability Report Awards 2013

Excellence in Labor Conditions



AMCHAM CSR Excellence Recognition 2013 Silver level in Creative partnership



Carbon Disclosure Project Leadership in environmental management

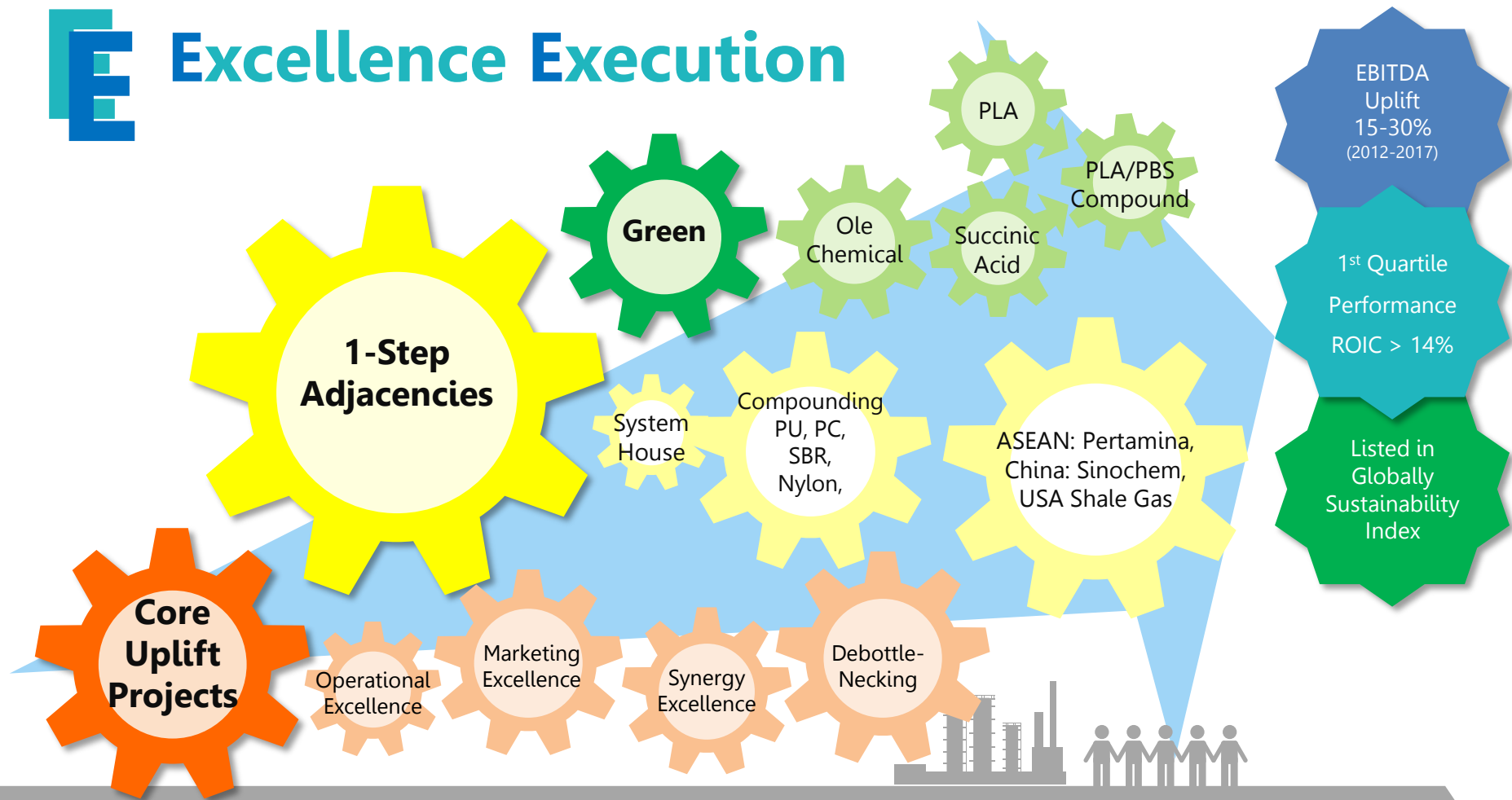
All grades of POL & EOB has been certified with Carbon Footprint Labeling Scheme

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 - **From Strategies to Execution**
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Taking PTTGC's Strategies into Execution

The Double E (2014 – 2018)

E Excellence Execution

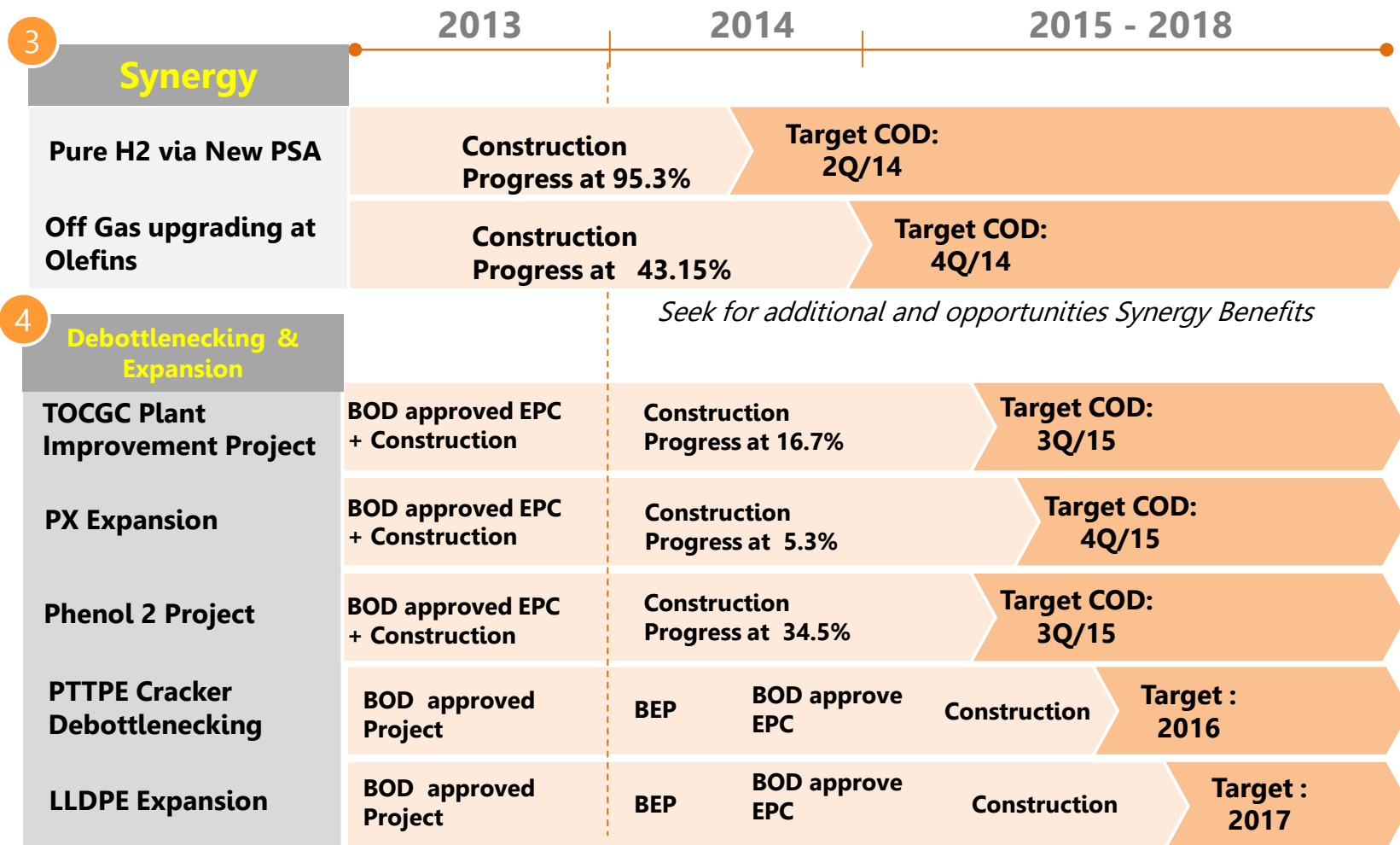
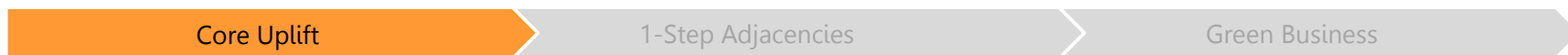


Execution of Core uplift Projects according to Target



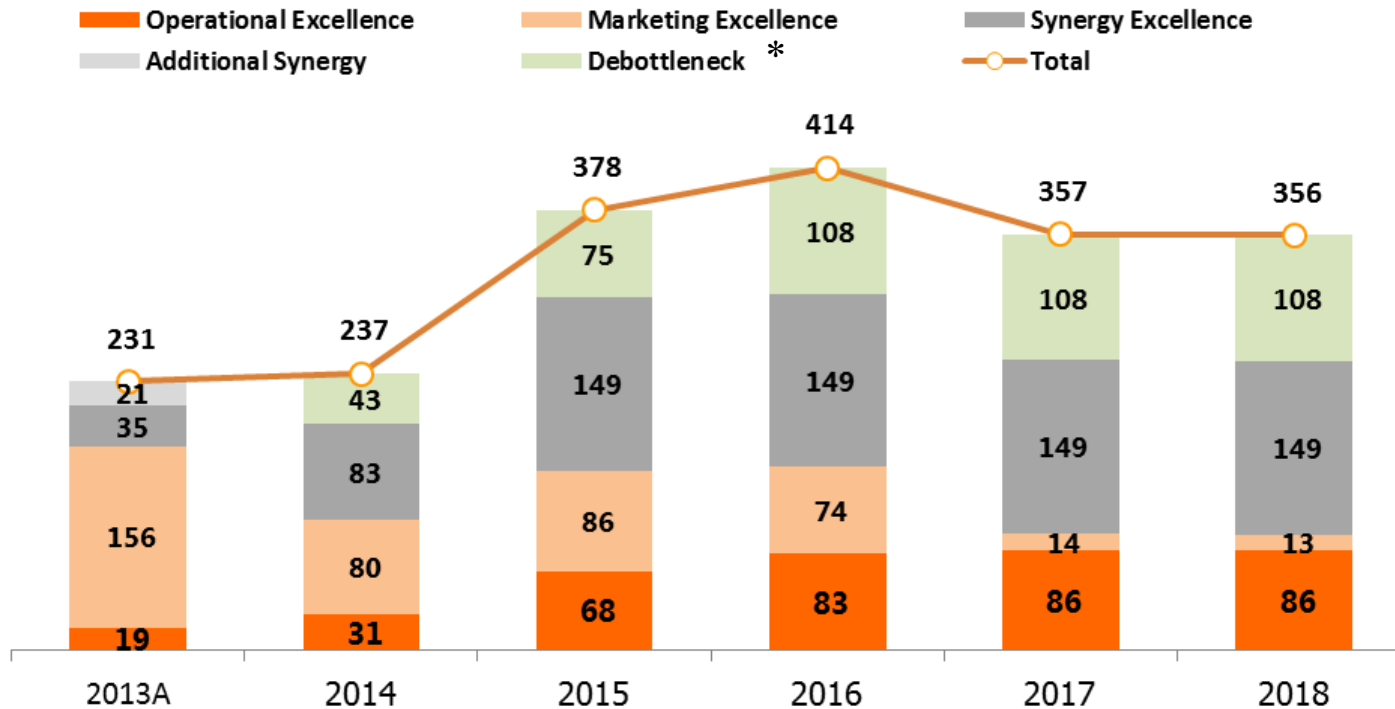
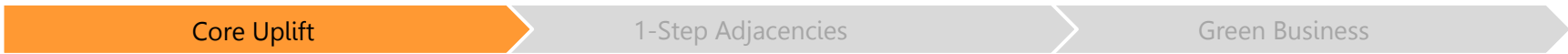
	2014	2015 - 2018
1 Operational Excellence	EBITDA Uplift <ul style="list-style-type: none"> 42 projects to be executed 	Continuous improvement programs to realize value <ul style="list-style-type: none"> Plant Reliability Improvement, Energy Improvement Safety / incident rate Improvement Other Improvement (Cost saving, Equipment replacement for value added)
2 Marketing Excellence	2014 New Initiatives <ul style="list-style-type: none"> - Develop new products (launch 8 grades; 4 improvement grades & 4 new grades) - Increase specialty product volumes (HVP grade) - Expand PE product into domestic market - Manage PE strategic pricing by Segment 	Continue on Marketing strategy <ul style="list-style-type: none"> Product development Customer value Strategic pricing Build global reach Sales force effectiveness
	<ul style="list-style-type: none"> Established Marketing Academy Roadmap Develop CRM Roadmap 	<ul style="list-style-type: none"> Conduct Customized Training & Established Evaluation System Expand CRM utilization to all BUs

Execution of Core uplift Projects according to Target



Note: Progress as of Jan. 2014

Excellence Programs Target



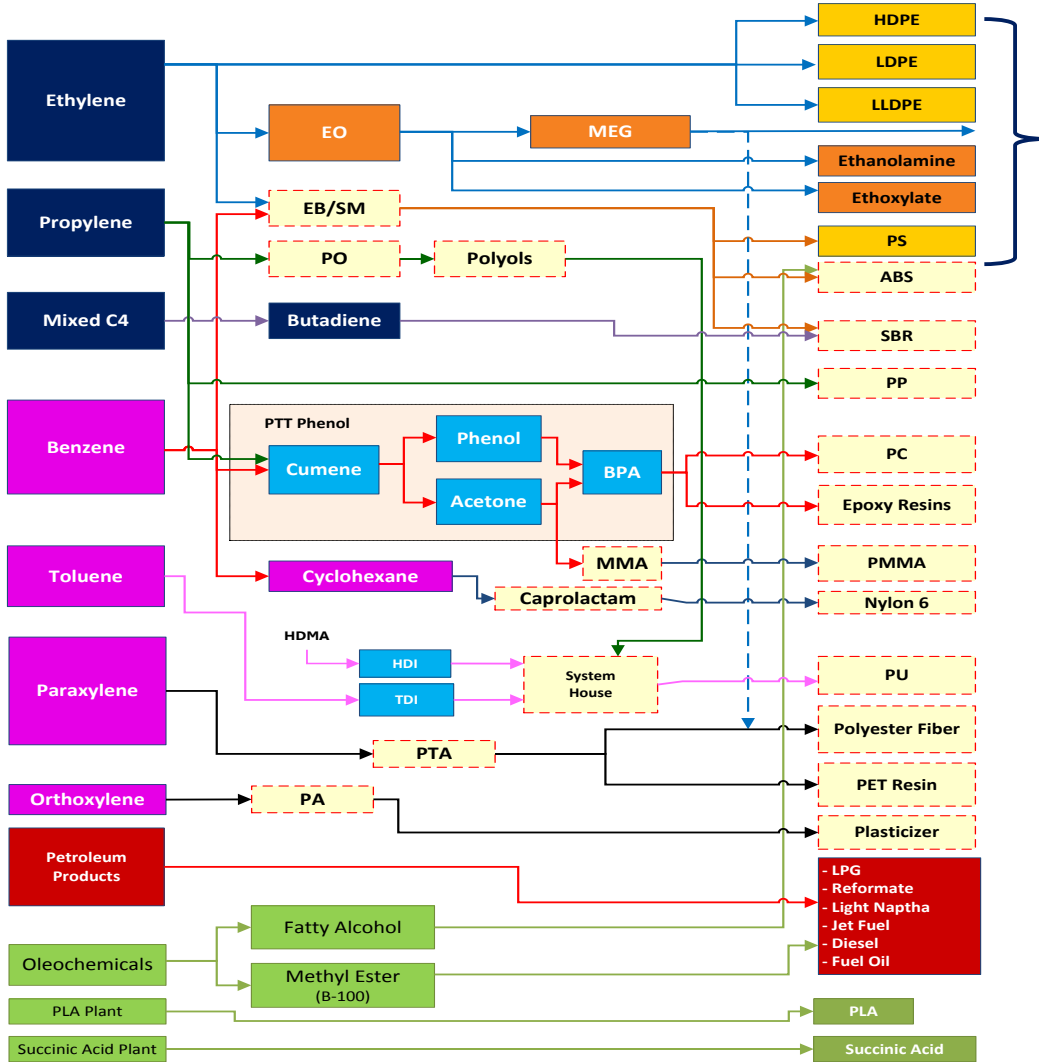
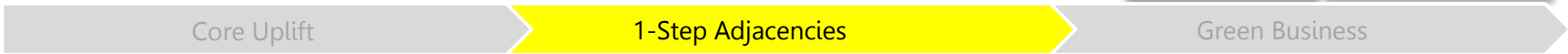
* Debottleneck EBITDA uplift includes
 1Q/14 BV project starts up
 3Q/15 TOCGC Plant Improvement Project
 4Q/15 PX Expansion starts up

Not Including PTTPE Cracker Debottlenecking and LLDPE Expansion

Execution > 5 Growth Projects in the next 5 years

Possible downstream Investment

New Products New Geographies



 Potential Product Opportunities

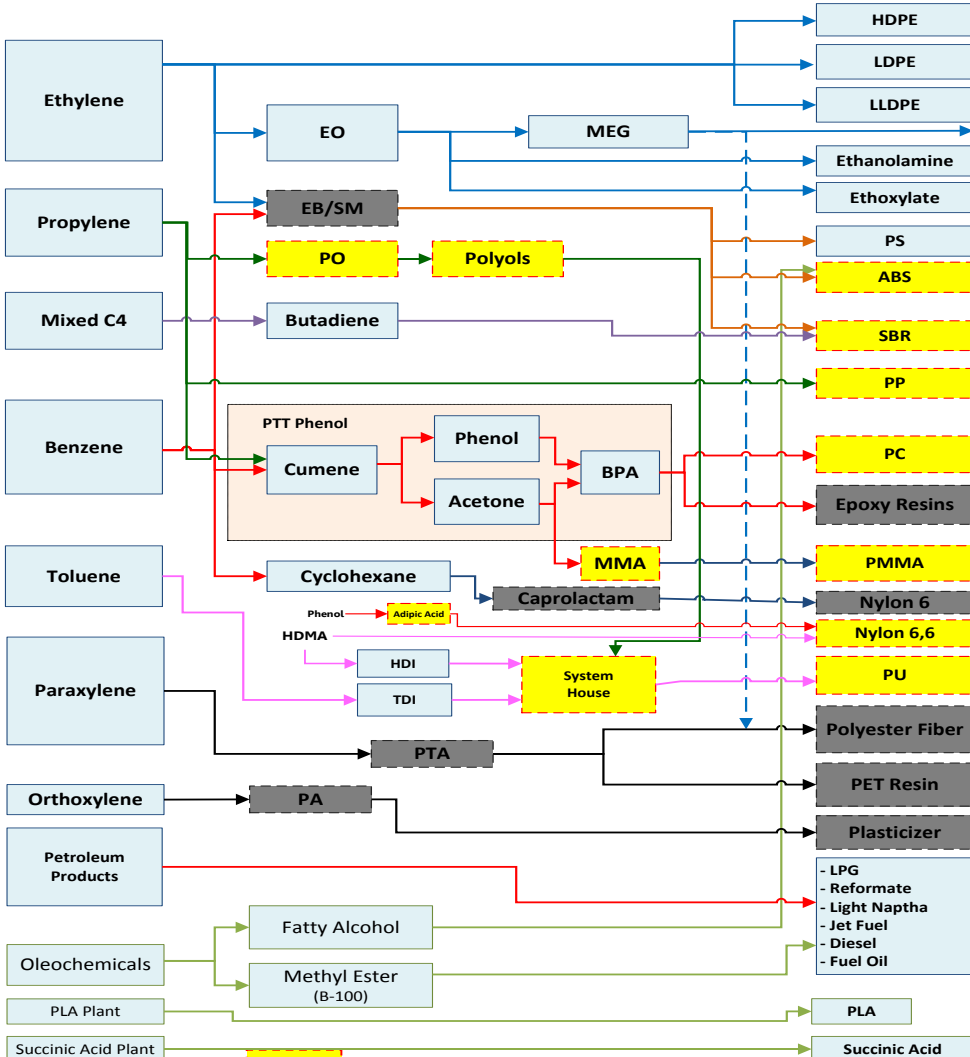
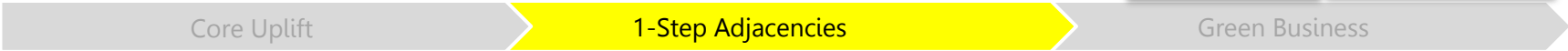
Products Applications



Execution > 5 Growth Projects in the next 5 years

1st Screen for Further Feasibility Study

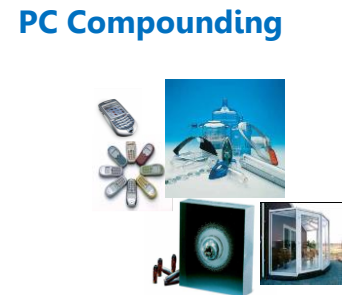
New Products New Geographies



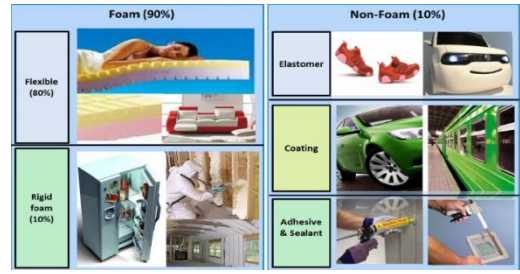
1st Screen for Further Feasibility Study
Not qualify for 1st Screen

Commodity Compounding
 Using additives and modifiers to result with a particular color, texture, strength, and etc.

New Application Compounding
 Blending two or more types of polymers together



PU Chain System House HDI Derivatives

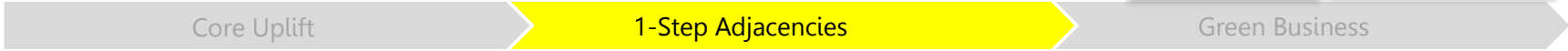


Bio-plastics Compounding

Execution > 5 Growth Projects in the next 5 years

Expanding to New Geographies

New Products **New Geographies**



2013 2014 2015 - 2018



Signed JV Marketing & Trading **Incorporation Marketing and Trading JV Target May'14** **Distribution of PTTGC's products in Indonesia**

Signed HOA JV Manufacturing **Finalize Site Location and Setup JV Company** **COD New Cracker + Downstream Petrochemical Target: 2018**

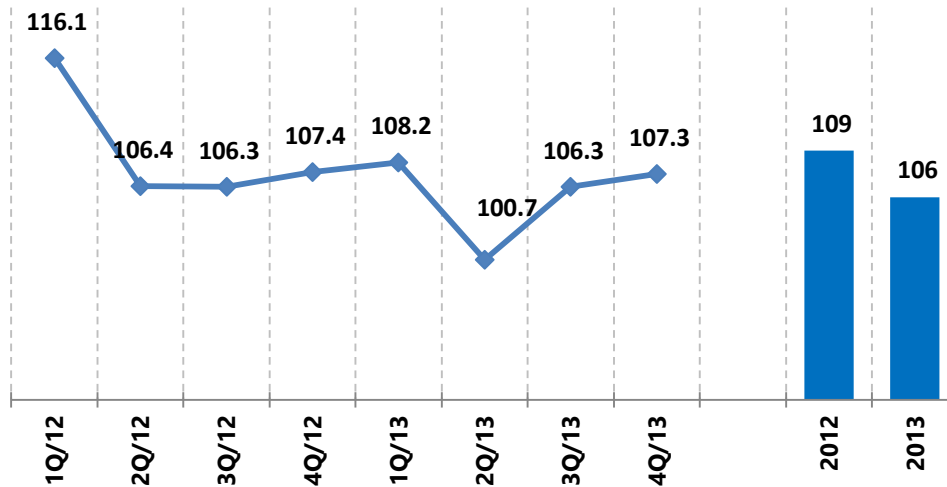


Cooperation on Trading activities in China **Study of possible of downstream Petrochemical** **Study for Backward Integration**

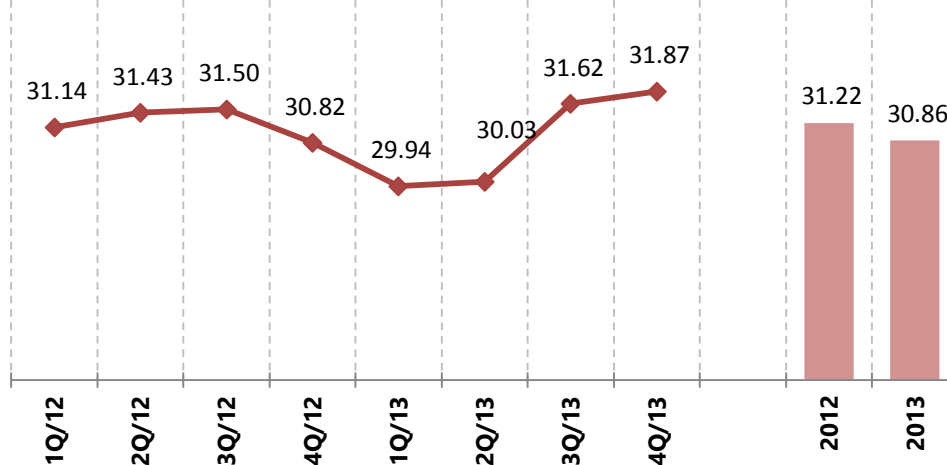


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Dubai Crude (\$/BBL)



THB/USD*



*Source: BOT Selling Rate

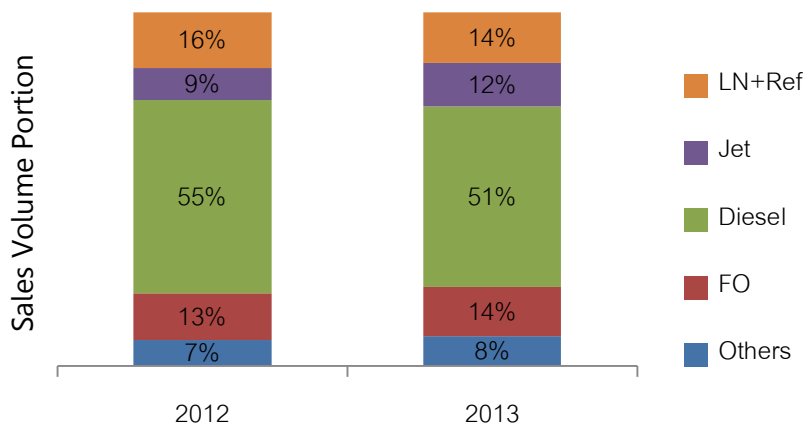
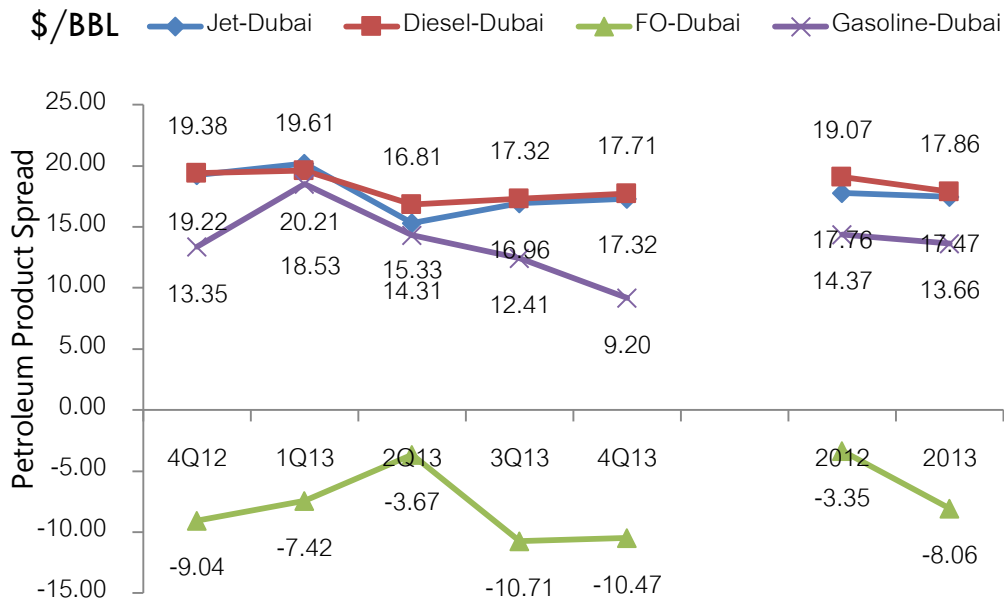
- Dubai crude reduced from average at 109 \$/BBL in 2012 to average 106 \$/BBL in 2013 from higher non-OPEC supply despite the unrests in oil producing countries.
- However, Dubai crude opened at around 106 \$/BBL and closed at around 108 \$/BBL in 2013, contribute to Stock Gain Net NRV of 3,029 MB
- FX Loss amounting to 2,272 MB, from Baht depreciation, which was led by the US FED's signal on QE tapering, in addition with Thailand's Political unrest.
- Most Products Price/spreads increased
 - Diesel-Dubai 17.86 USD/BBL -6% YoY
 - FO - Dubai -8.06 USD/BBL -140% YoY
 - PX-Cond 557 USD/Ton +3% YoY
 - BZ-Cond 380 USD/Ton +45% YoY
 - HDPE 1,488 USD/Ton +8% YoY
 - MEG 1,202 USD/Ton +2% YoY

Overall utilization rate of major businesses

	2012	2013	% +/-
Refinery			
CDU Utilization (%)	100	91	-9%
Aromatics			
BTX Utilization (%)	86	90	4%
Olefins			
Utilization (%)	88	90	2%
Polymers			
Utilization (%)	97	99	2%
EO Based			
MEG Utilization (%)	88	94	6%
Green			
ME Utilization (%)	101	127	26%
FA Utilization (%)	93	118	27%
Phenol			
Phenol Utilization (%)	119	126	6%

Refinery Performance

Lower U-Rate and GRM



Note: In 2013, Refinery had Planned Turnaround of 38 days

Petroleum Product Spread

\$/BBL	2012	2013	YoY % + /(-)
Dubai	109.08	105.52	-3%
Gasoline-Dubai	14.37	13.66	-5%
Jet-Dubai	17.76	17.47	-2%
Diesel-Dubai	19.07	17.86	-6%
FO-Dubai	-3.35	-8.06	-140%

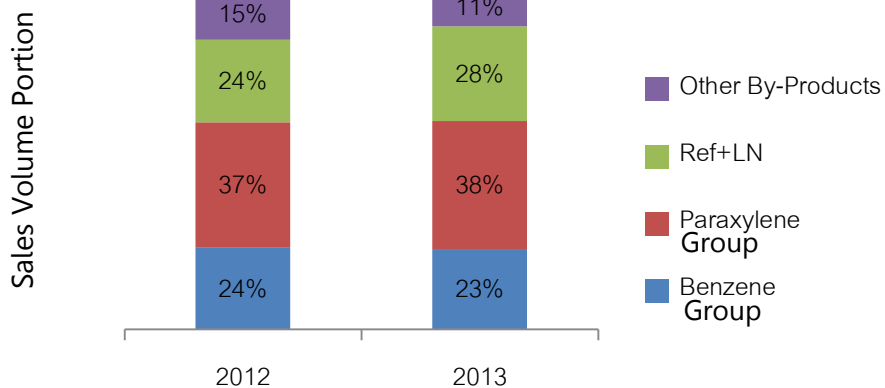
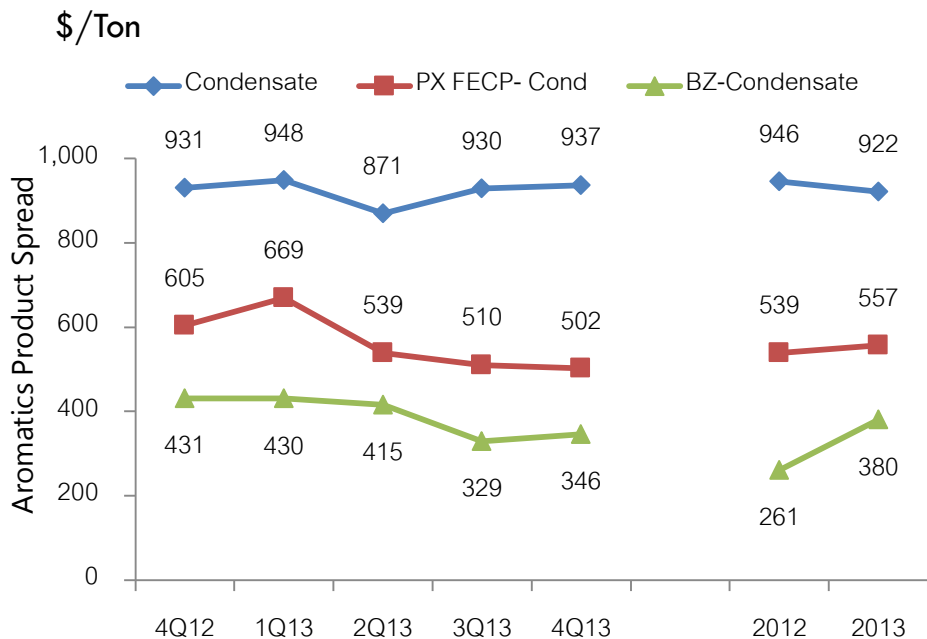
Petroleum Sales Volume

	2012	2013	YoY % + /(-)
CDU Utilization Rate	100%	91%	-9%
Sales ('000 BBL)			
Jet	6,293	7,472	19%
Diesel	38,799	31,005	-20%

\$/BBL	2012	2013	YoY % + /(-)
Market GRM	4.71	3.52	-25%
CDU GRM	5.84	4.37	-25%
CRS GRM	2.97	2.87	-3%
Stock (+/-) net NRV	-0.3	0.84	N/A

Aromatics Performance

Higher U-Rate and higher P2F from outperform BZ



Aromatics Product Spread

\$/Ton	2012	2013	YoY % + /(-)
Condensate	946	922	-3%
PX- Cond	539	557	3%
BZ-Cond	261	380	45%

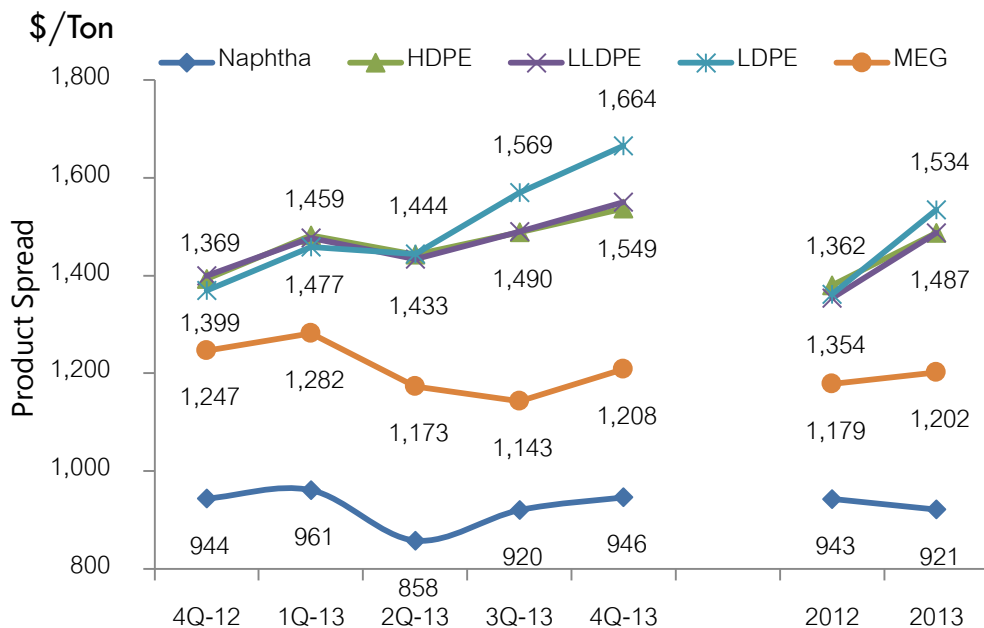
Aromatics Sales Volume

	2012	2013	YoY % + /(-)
BTX Utilization Rate	86%	90%	4%
BTX Sales Volume ('000 Ton)	1,803	1,871	4%

	2012	2013	YoY % + /(-)
Market P2F (\$/Ton)	257	297	16%
Stock Gain/(Loss) (\$/Ton)	12.6	17.5	N/A

Olefins and Derivatives Performance

HDPE Price Significantly Increase



Olefins&Derivatives Volume

	2012	2013	YoY % + /(-)
Utilization Rate			
Olefins	88%	90%	2%
HDPE	99%	104%	5%
LLDPE	100%	100%	0%
LDPE	88%	70%	-18%
EO	101%	106%	6%
MEG	88%	94%	6%
Sales Volume ('000 Ton)			
HDPE	778	834	7%
LLDPE	396	397	0%
LDPE	273	218	-20%
MEG	350	372	6%

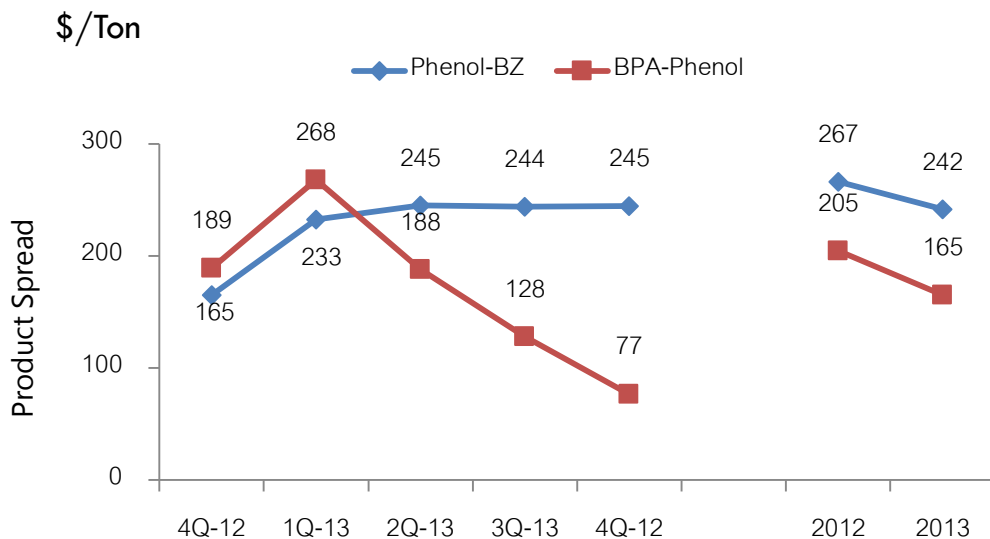
Olefins & Derivatives Price

Sales Volume Portion	\$/Ton	2012	2013	YoY % + /(-)
Naphtha		943	921	-2%
HDPE		1,380	1,488	8%
LLDPE		1,354	1,487	10%
LDPE		1,362	1,534	13%
MEG		1,179	1,202	2%

	2012	2013	YoY % + /(-)
Adj. EBITDA Margin	27%	27%	-

Phenol Performance

Increasing U-Rate but lower Spread

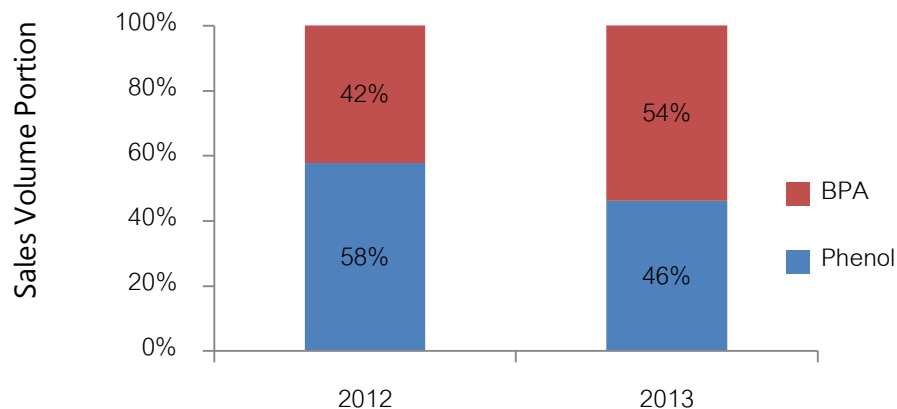


Phenol Product Spread

\$/Ton	2012	2013	YoY % + /(-)
Phenol-BZ	267	242	-9%
BPA-Phenol	205	165	-19%

Phenol Sales Volume

KTon	2012	2013	YoY % + /(-)
Phenol	151	128	-15%
BPA	110	149	35%



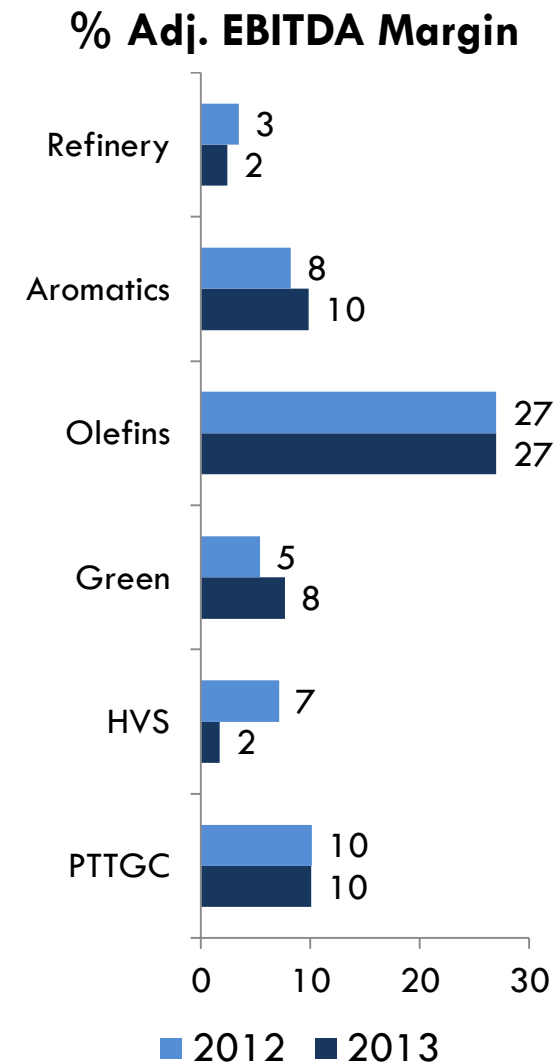
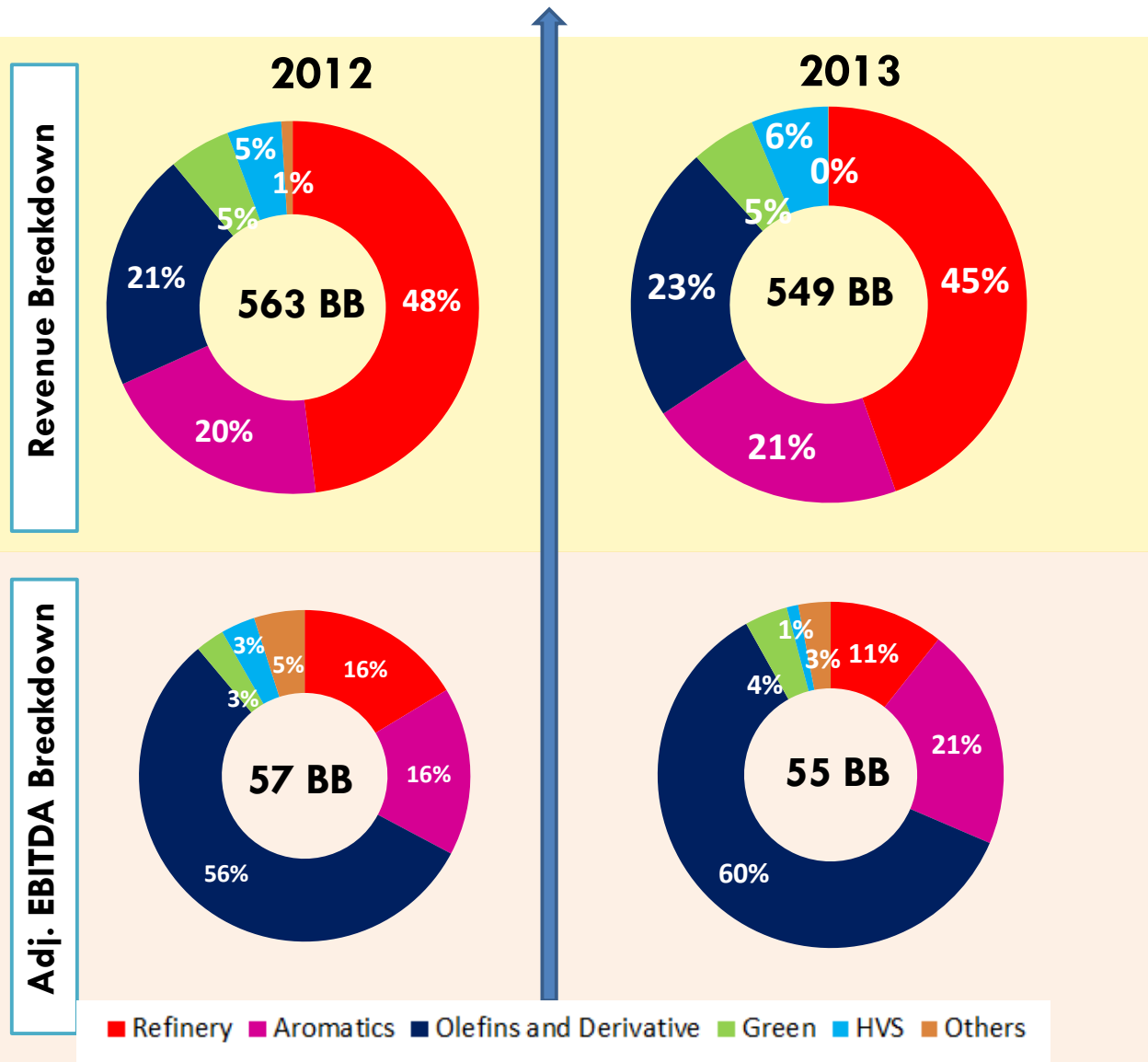
Phenol BPA Utilization Rate

%	2012	2013	YoY % + /(-)
Phenol	119%	126%	7%
BPA	74%	100%	26%

Overview of Business Units' Performance



Olefins and Olefins Derivatives is still the major contributor



2013 P&L Statement

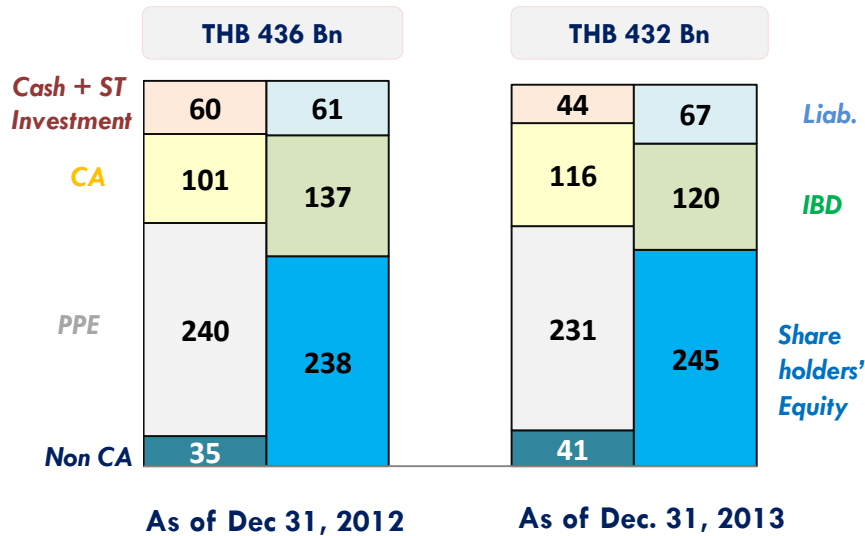
Slightly Soften from 3 Incident

		FY/12		FY/13		YoY		4Q/13	
		THB Mn	%	THB Mn	%	THB Mn	%	THB Mn	%
1	Sales Revenue	562,811	100	549,189	100	(13,622)	(2)	154,599	100
2	Feedstock Cost	(468,595)	(83)	(444,890)	(81)	23,705	5	128,428	83
3	Product to Feed Margin	94,216	17	104,299	19	10,083	11	26,172	17
4	Variable Cost	(17,148)	(3)	(26,610)	(5)	(9,462)	(55)	(7,407)	(5)
5	Fixed Cost	(15,554)	(3)	(16,992)	(3)	(1,438)	(9)	(4,785)	(3)
6	Stock Gain/(Loss) & NRV	175	0	3,029	1	2,854	1,631	1,326	1
7	Gain/(Loss) Hedging Commodity	659	0	1,626	0	967	147	499	0
8	Other Income	5,552	1	5,581	1	29	1	1,660	1
9	SG&A	(10,732)	(2)	(12,571)	(2)	(1,839)	(17)	(3,375)	(2)
10	EBITDA	57,168	10	58,362	11	1,194	2	14,089	9
11	Depreciation & Amortization	(16,647)	(3)	(16,670)	(3)	(23)	(0)	(4,381)	(3)
12	EBIT	40,521	7	41,692	8	1,171	3	9,708	6
13	Financing Expenses (Net Interest Earned)	(5,523)	(1)	(4,525)	(1)	998	18	(1,146)	(1)
14	FX Gain/(Loss)	911	0	(2,272)	(0)	(3,183)	(349)	(794)	(1)
15	Shares of gain/(loss)from investments	(44)	(0)	(78)	(0)	(34)	(77)	16	0
16	Corporate Income Tax	(1,416)	(0)	(1,976)	(0)	(560)	(40)	(557)	(0)
17	Net Profit After Income Tax	34,449	6	32,841	6	(1,608)	(5)	7,227	5
	Portion of Net Profit:								
18	Shareholders	34,001	6	33,277	6	(724)	(2)	7,421	5
19	Minorities	448	0	(436)	(0)	(884)	(197)	(194)	(0)
20	Adjusted EBITDA	56,993	10	55,333	10	(1,660)	(3)	12,763	8

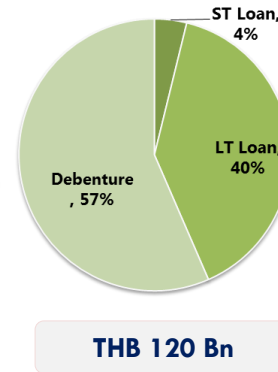
Note: Adjusted EBITDA = EBITDA – Stock Gain/(Loss) & NRV

Strong Financial Position

Statements of Financial Position



Loan Type



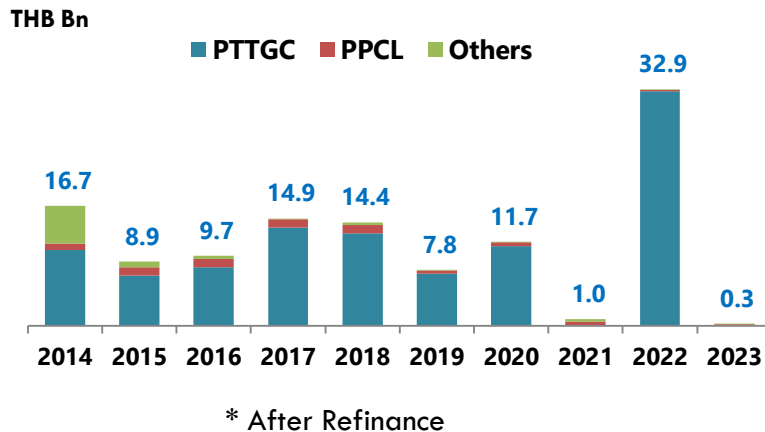
Interest Rate	Currencies
63 % Fixed	53 % THB
37 % Float	47 % USD & Others

- Cost of long term debts ~ 4.88% (Include W/H Tax)
- Average loan life after refinancing - 5.08 Years

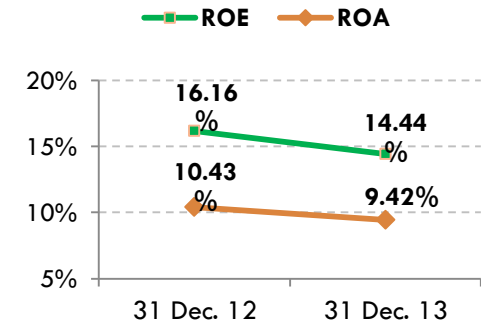
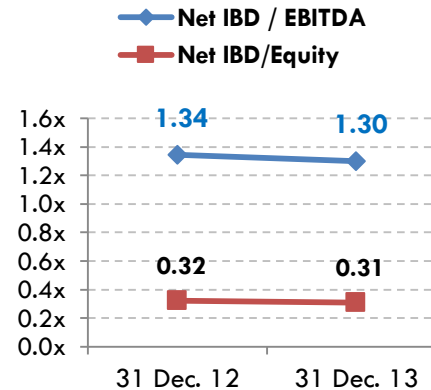
Treasury policy

Net IBD to Equity ratio of $\leq 0.7x$
 Net IBD to EBITDA ratio of $\leq 2.4x$

Maturity of Financial Debt* as at Dec. 31, 2013



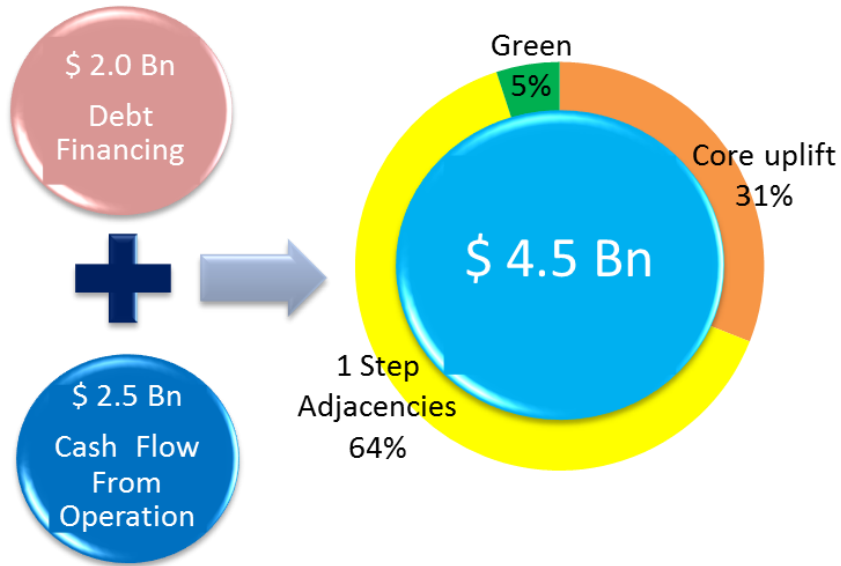
Key Financial Ratios



CAPEX to Support Growth

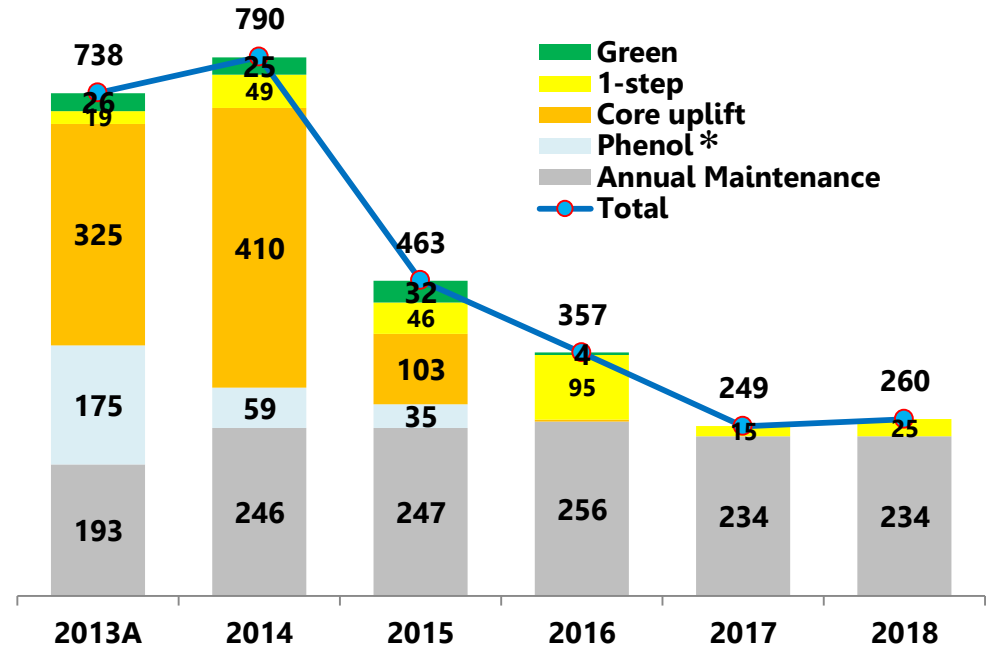
5 Years Investment CAPEX

\$ 1.0 Bn Secured from USD Bond Issued in Sep 2012



Approved CAPEX Plan 2014 -2018

Unit: USD mn



* Including the 40% acquisition of Phenol and Phenol 2 Project

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Conclusion

Year of Excellence Execution

- **Expect to be the starting point for Uptrend of Petrochemical industry, especially for Olefins & Olefins Derivatives**
- **Expect better Plant Utilization Rate, especially for Olefins and Olefins derivatives from increasing gas supply from PTT**
- **Focus on Excellence Execution**

**Core
Uplift**

- **Operational and Marketing Excellence**
- **Synergy Projects**
- **Debottlenecking/Expansion Projects**
 - TOCGC Plant Improvement Project
 - PX Expansion
 - Phenol 2
 - PTTPE Cracker Debottlenecking
 - LLDPE Expansion

1-Step

- **To Finalize Site Location and Setup JV Company with Pertamina**
- **Strengthen cooperation between PTTGC and Sinochem**

Thank You

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