

# IRPC Public Company Limited



## Opportunity Day: The First Quarter 2017 Result

16 May 2017

GETTING  
TO THE TOP  
AND STAYING  
THERE



**ROBECOSAM**  
Sustainability Award  
Bronze Class 2017

# Disclaimer

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# Agenda

1Q2017 Highlight 1



Operation & Financial Performance

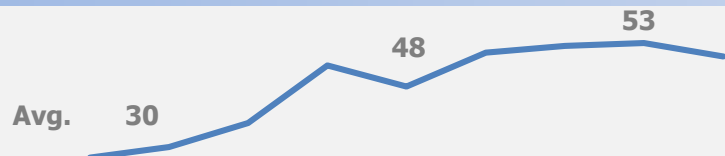
# Financial Highlight: 1Q17 Performance

Lower Sales & EBITDA from major turnaround

## Overview of Business

### Dubai

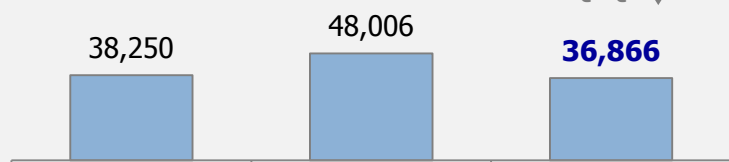
Unit: \$/bbl



### Net Sales

(net excise tax)

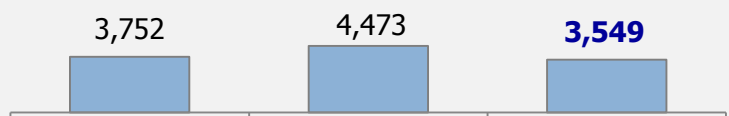
Unit: MB



YoY ▼ 4%  
QoQ ▼ 23%

### EBITDA

Unit: MB



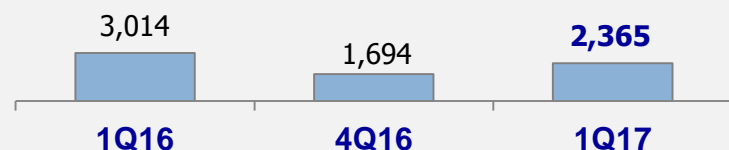
YoY ▼ 5%  
QoQ ▼ 21%

### EBITDA Margin (%)

Period	EBITDA Margin (%)
1Q16	8.81
4Q16	8.65
1Q17	8.89

### Net Income

Unit: MB



YoY ▼ 22%  
QoQ ▲ 40%

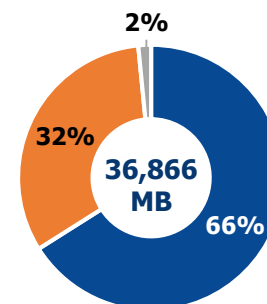
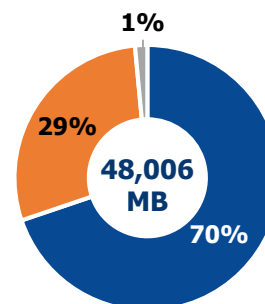
### Net Profit Margin (%)

Period	Net Profit Margin (%)
1Q16	7.08
4Q16	3.27
1Q17	5.92

4Q16

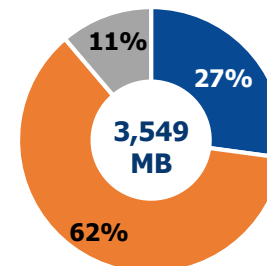
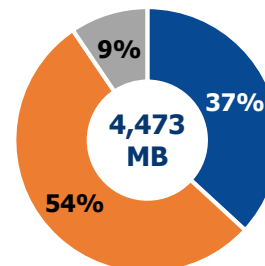
Net Sales  
(net excise tax)  
-23%

1Q17



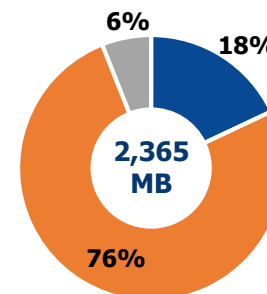
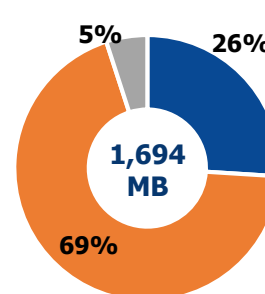
EBITDA

-21%



Net income

+40%



Petroleum Petrochemical Utilities and Others



# Highlight: 1Q17 Update

## IRPC's Achievement



❖ **Popular Stock Awards  
(Resources Category)  
by Stock News Daily and  
Stock Exchange of Thailand**



❖ **The Best Corporate  
in Asia 2016 :  
Asia's Outstanding Company  
In Corporate Governance**

## Marketing



❖ **IRPC & UBE  
Entered into  
Purchase Agreement:  
Steam and Tank Service**

## Fitch Rating revised IRPC's Outlook to Stable



❖ **Fitch Rating  
revised Outlook  
To Stable and  
Affirms IRPC at 'A-(tha)'**

## PPE+PPC Project Progress : 94% as of April 2017

**COD target : June 2017**



**PPE**

**COD target : July 2017**



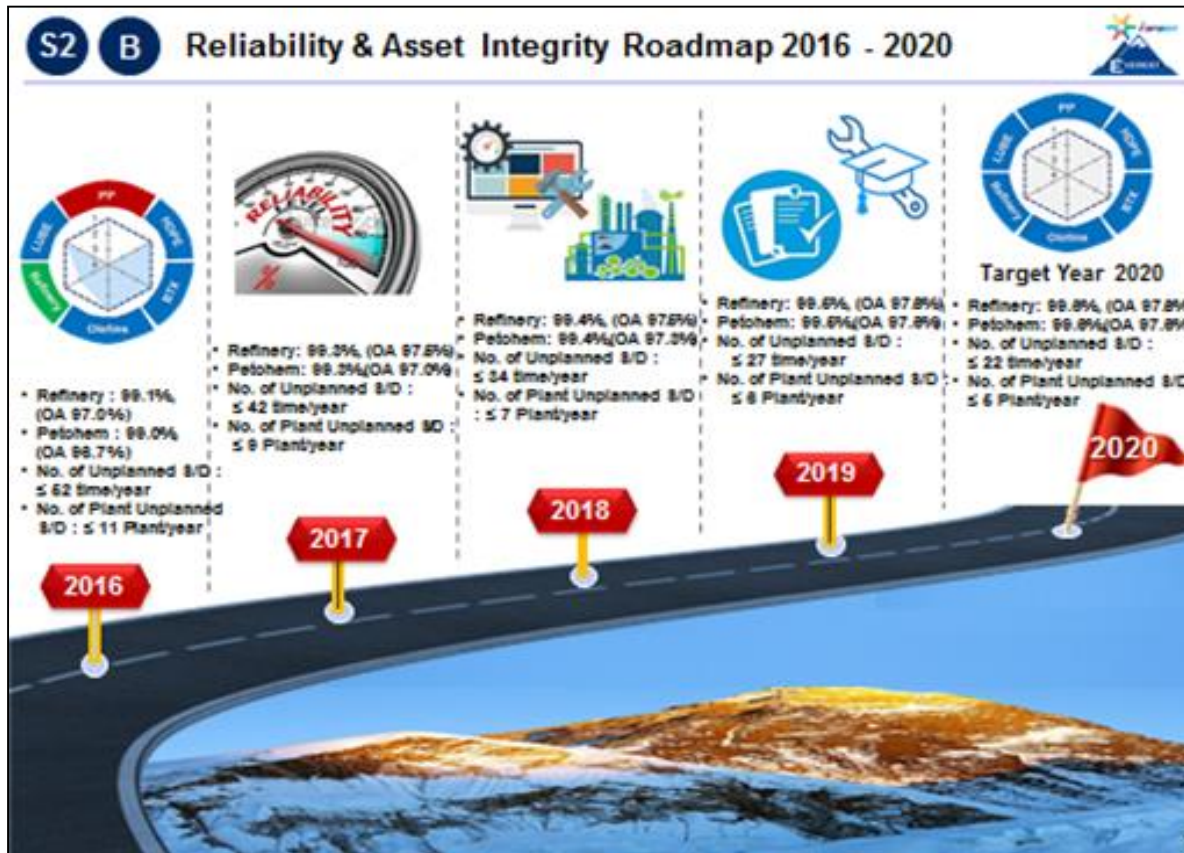
**PPC**

# Highlight : Everest Project in 1Q17



		Unit: MB	1Q17 (Target)	1Q17 Actual EBIT
	<b>Operations Area</b>			
	<ul style="list-style-type: none"> <li>Maximize energy efficiency and reduce loss in production units</li> <li>Improve efficiency and effectiveness of maintenance</li> <li>Reduce production unit downtime and minimize operating days lost</li> </ul>		347	207
	<b>Integrated Supply Chain</b>			
	<ul style="list-style-type: none"> <li>Optimize crude selection, product blending and hydrocarbon stock</li> <li>Enhance throughput &amp; yield by adjusting production unit parameter</li> </ul>		450	278
	<b>Commercial Area</b>			
	<ul style="list-style-type: none"> <li>Maximize commercial value generation from refined petroleum and petrochemical products</li> <li>Asset Port and Tank management</li> </ul>		225	60
	<b>Procurement Area</b>			
	<ul style="list-style-type: none"> <li>Optimize timing, duration and cost of turnaround</li> <li>Spend optimization with key expenditure categories</li> <li>Optimize small CAPEX spend for highest value expenditures</li> </ul>		87	53
	<b>Corporate Area - Non HR</b>			
	<ul style="list-style-type: none"> <li>Budget management</li> <li>Optimize planning and policies to ensure continued productivity enhancement</li> </ul>		76	16
	<b>Corporate Area - HR</b>			
	<ul style="list-style-type: none"> <li>Develop capabilities to sustain both performance and health</li> <li>Improve organizational health practices for top quartile outcomes</li> </ul>		184	67
<b>Total</b>			<b>1,370</b>	<b>681</b>

# Highlight: Expected Improvement after Turnaround



## • Reliability & Availability

- 2016 : 97.3% → 2017 : 98%
- Unplanned SD : 36 → 18 times
- Benefit ≈ 100-150 MB/yr

## • Capacity Increase (Both Refinery & Petrochemical)

- Benefit ≈ 100-120 MB/yr

## • Operational Efficiency System

- Lower Hydrocarbon loss: 0.52% → 0.50%  
(% loss from crude intake)
- Benefit ≈ 34 MB/yr

## • Increase Energy Efficiency

- EII : Energy Intensity Index 93.8% → 91.5%
- Benefit ≈ 150-200 MB/yr

# Agenda

1Q2017 Highlight

Operation & Financial Performance



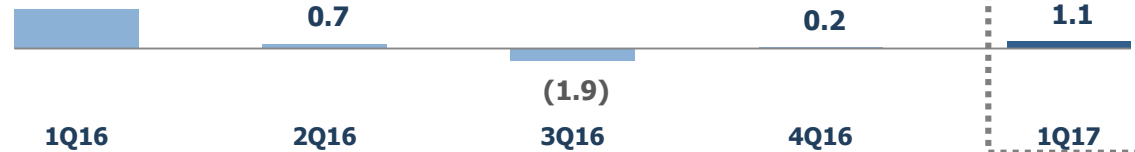


# Petroleum Performance : Refinery

## Naphtha spread improved but Fuel oil spread worsen after winter

### Naphtha - Dubai

\$/BBL

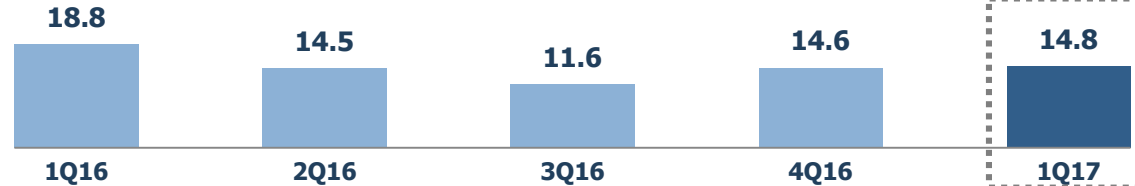


**QoQ** ▲ 450%

- + Higher demand from Crackers
- + Producers use Naphtha as feedstock instead of LPG due to higher LPG price

### ULG 95 - Dubai

\$/BBL

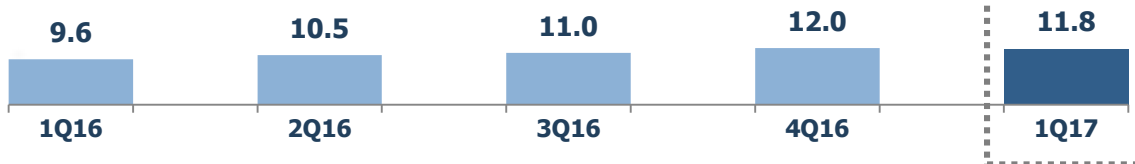


**QoQ** ▲ 1%

- + Low supply during maintenance season in late 1Q17
- High inventory in US & Europe
- Lower Indonesia demand

### Gas oil - Dubai

\$/BBL

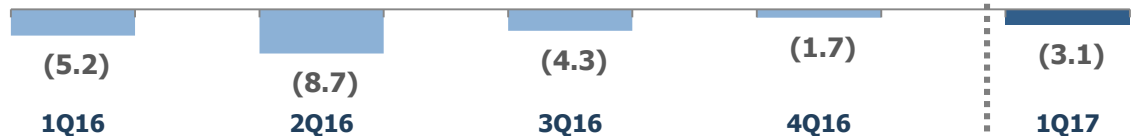


**QoQ** ▼ 2%

- High global inventory
- + Strong demand in Asia
- + Low supply during maintenance season

### HSFO - Dubai

\$/BBL



**QoQ** ▼ 82%

- Supply from Europe and Persian Gulf
- Lower demand after winter
- + Lower supply from Russia

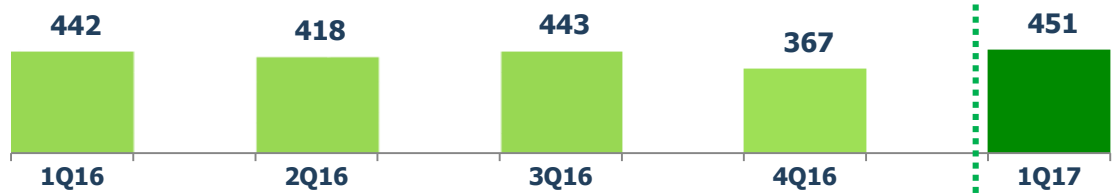
# Petroleum Performance: Lube Base Oil

## Better spread mainly from low supply

### Lube Base Oil Spread

#### 500SN – FO 180 3.5%S Spread

\$/TON



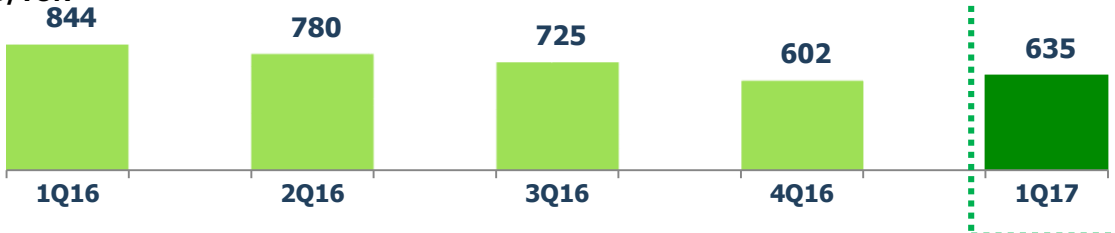
**500 SN : QoQ** ↑ 23%

**150 BS : QoQ** ↑ 5%

+ Tight supply from maintenance shutdown of Lube Base plants in Japan, Korea and Singapore

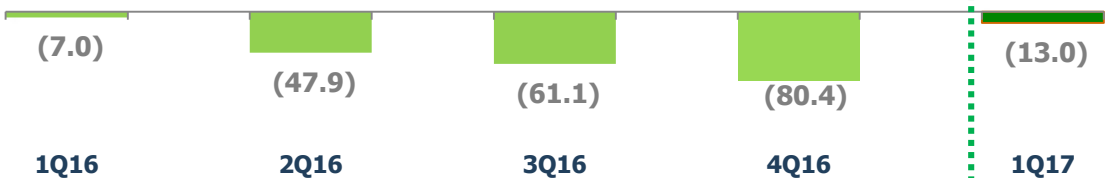
#### 150 BS – FO 180 3.5%S Spread

\$/TON



#### Asphalt – FO 180 3.5%S Spread

\$/TON



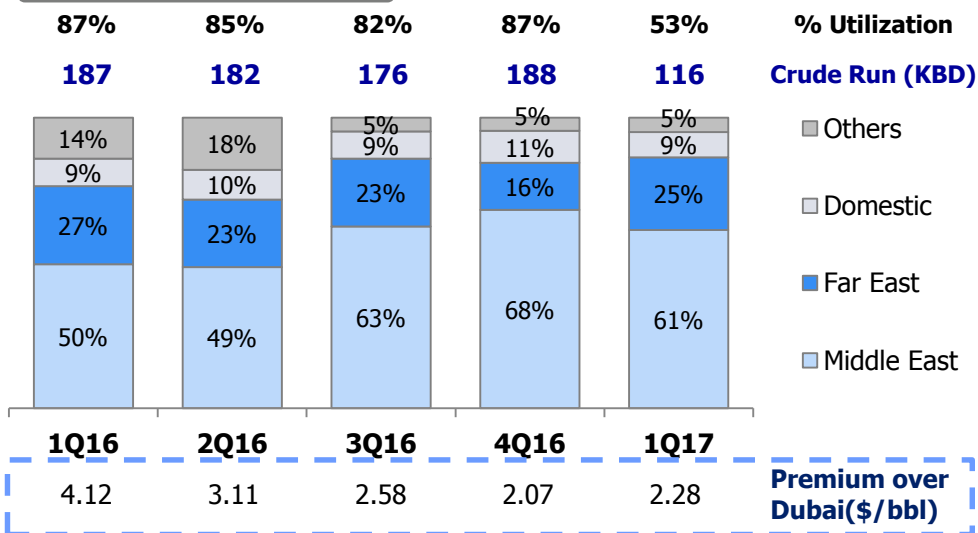
**QoQ** ↑ 84%

+ Lower supply during maintenance shutdown  
+ Higher demand from construction budget in Malaysia and Thailand

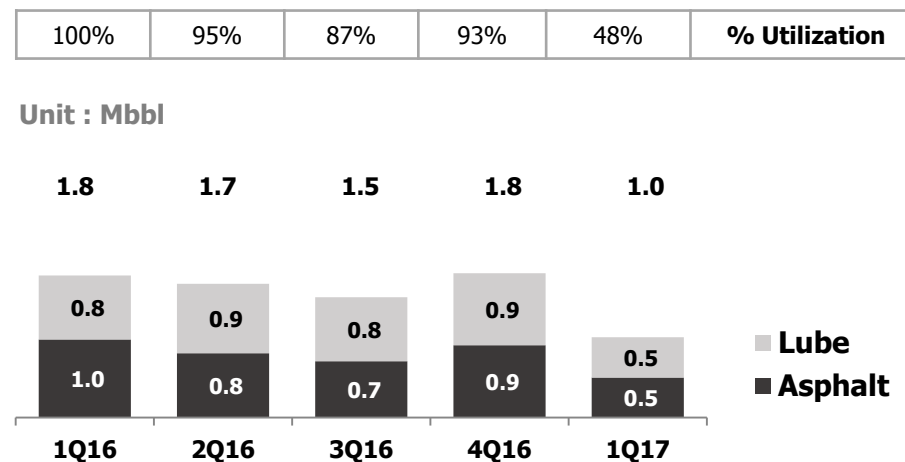
# Petroleum Production

53% Utilization rate; average 34 days of major turnaround in 1Q17

## Crude Intake

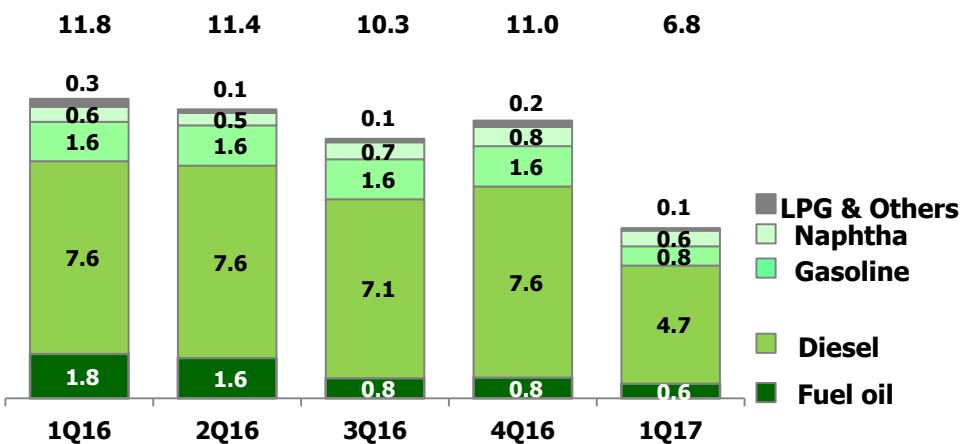


## Lube Base oil



## Refinery

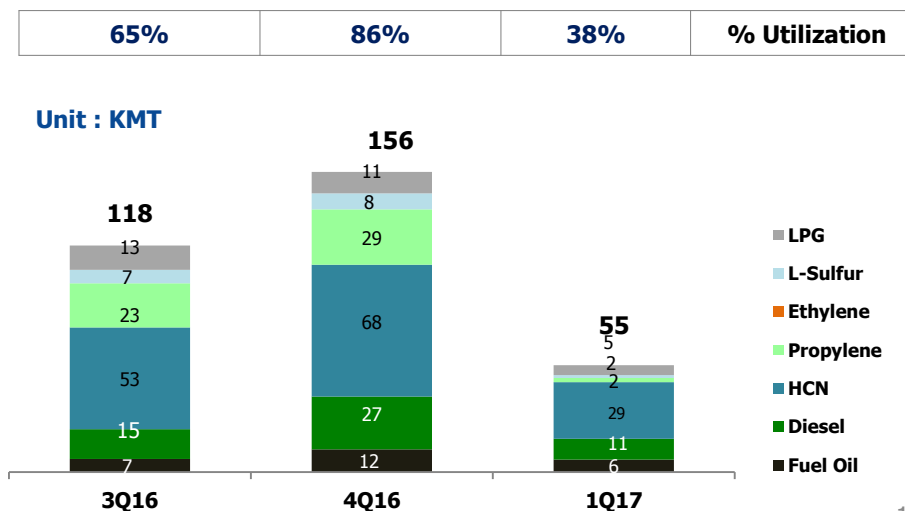
Unit : Mbbl



Remark: Excluding internal use quantity

## RDCC

Unit : KMT



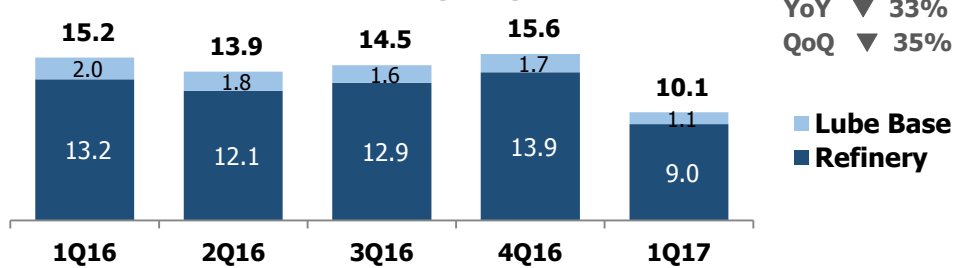
Remark: Excluding internal use quantity

# Petroleum Group : Sales & GRM

## Sales & GRM dropped mainly from major turnaround

### Sales Volume & Revenue

Sales volume (Mbbbl)

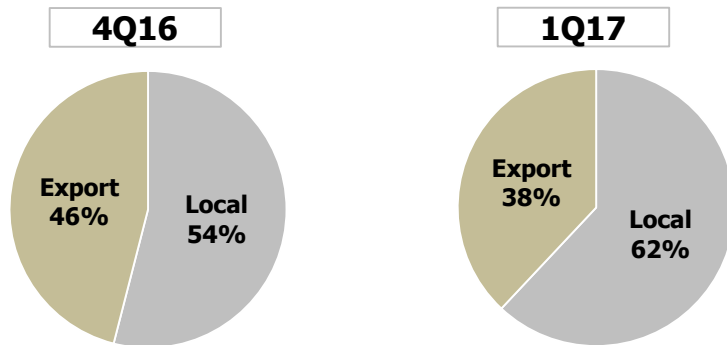


Revenue (MB)

20,981	23,354	24,221	29,792	21,405	Refinery
3,985	3,734	3,368	3,717	2,939	Lube Base
24,966	27,088	27,589	33,509	24,344	Petroleum
1Q16	2Q16	3Q16	4Q16	1Q17	

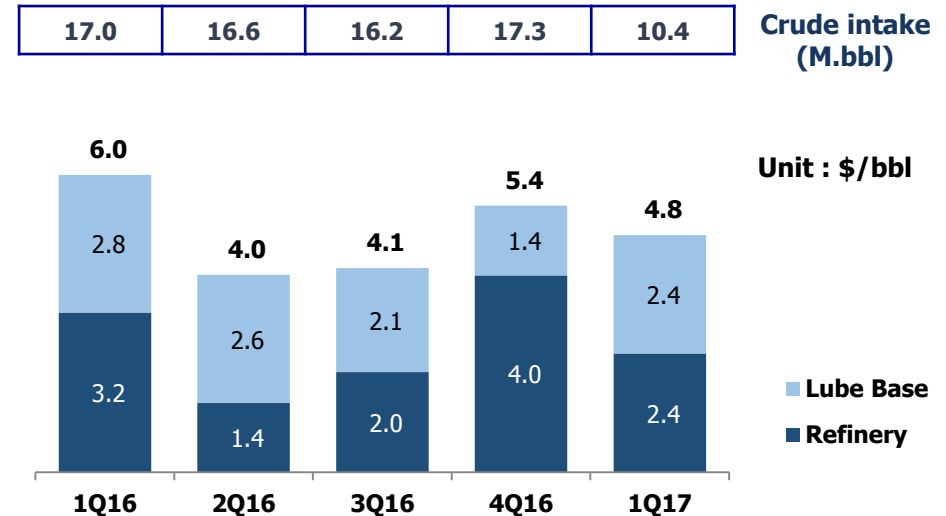
YoY ▼ 2%  
QoQ ▼ 27%

### Sales Distribution



Top 5 Export Destination in 1Q17 : Singapore, Cambodia, Laos, Malaysia, Myanmar

### Market GRM



- **1Q17 : Petroleum revenue decreased**  
27% QoQ due to 35% decrease in sales volume vs 8% avg. prices increase
- Sales Proportion in 1Q17: 62% domestic and 38% export
- **1Q17 Market GRM was \$4.8/bbl:** dropped \$0.6/bbl from 4Q16 from lower refinery spread; fuel oil and higher crude premium

# Petrochemical Performance: Olefins

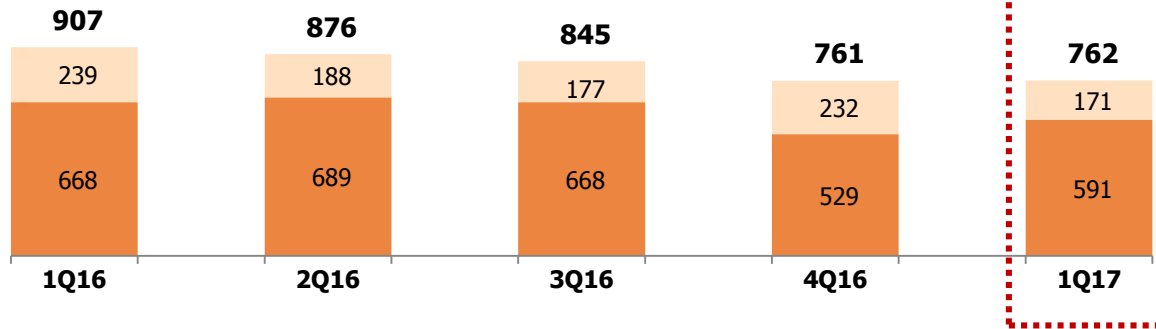
## Olefins spread maintained

Olefins

### HDPE-Ethylene –Naphtha Spread

\$/TON

■ Ethylene-NP ■ HDPE-Ethylene



#### QoQ - Flat

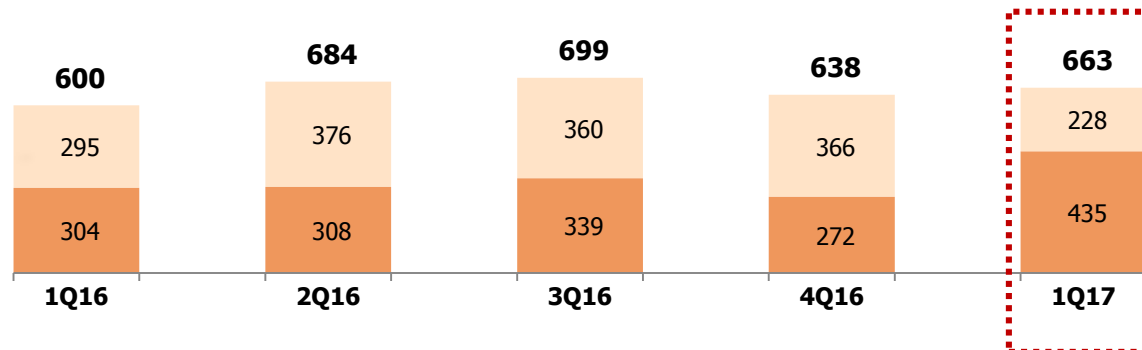
- + Product prices moved up at the same level as naphtha price

Aromatics

### PP-Propylene –Naphtha Spread

\$/TON

■ Propylene-NP ■ PP-Propylene



#### QoQ ↑ 4%

- + Tight supply during Asian maintenance shutdown
- + Strong demand in China and Vietnam

Styrenics



# Petrochemical Performance: Aromatics

## Higher Toluene spread but lower MX spread

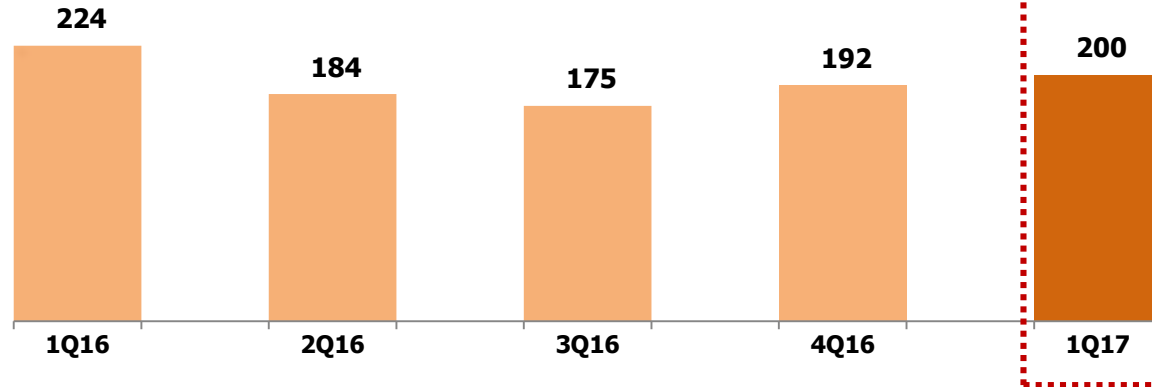
Olefins

Aromatics

Styrenics

### Toluene – Naphtha Spread

\$/TON

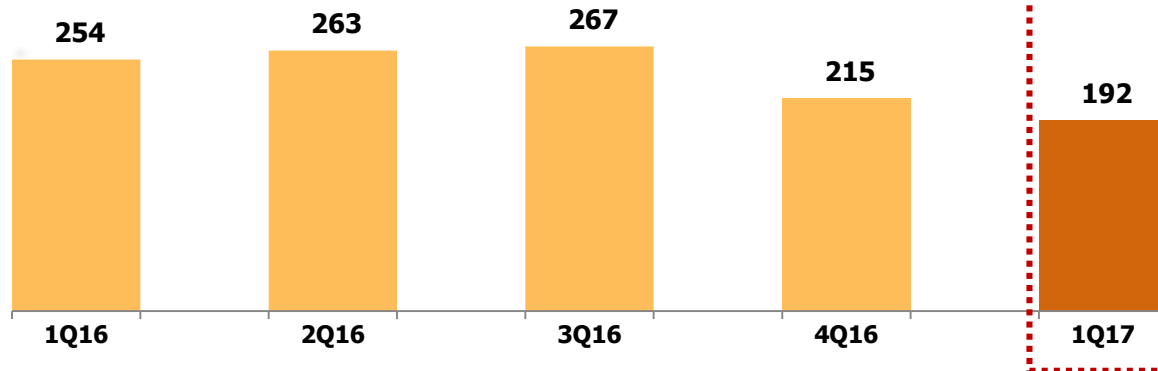


**QoQ** ▲ **4%**

+ Toluene spread increased from higher demand to produce benzene

### MX – Naphtha Spread

\$/TON



**QoQ** ▼ **11%**

– Supply glut from new producers in Korea and Singapore by 25% of the production in Asia

# Petrochemical Performance : Styrenics

Spread increased due to tight supply from Asia's maintenance period

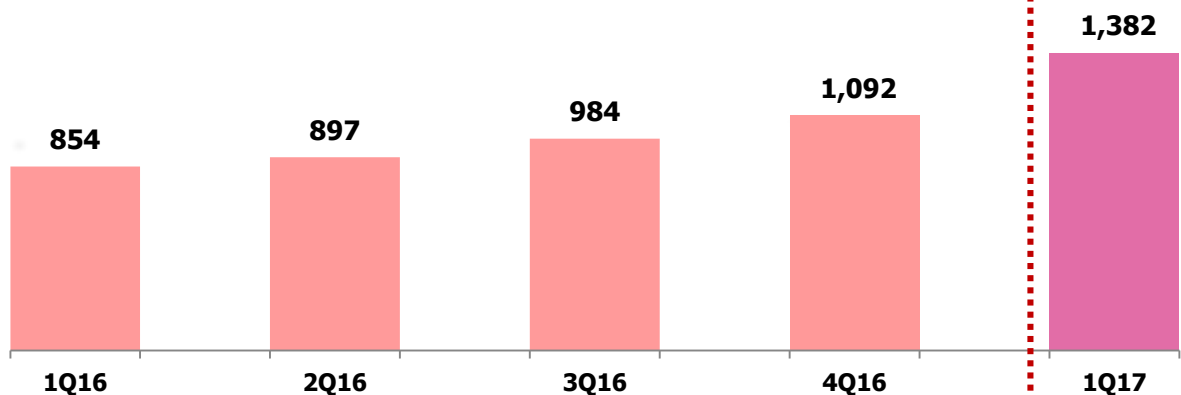
Olefins

Aromatics

Styrenics

## ABS –Naphtha Spread

\$/TON

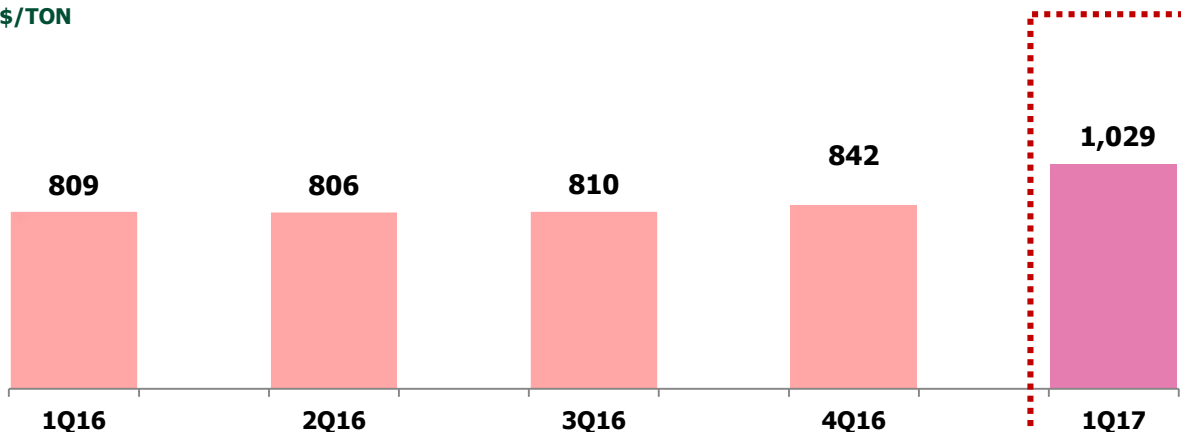


**QoQ** **27%**

- + Tight supply due to maintenance shutdown in Asia
- + higher demand from China

## PS –Naphtha Spread

\$/TON



**QoQ** **22%**

- + Lower supply because of maintenance shutdown in Asia

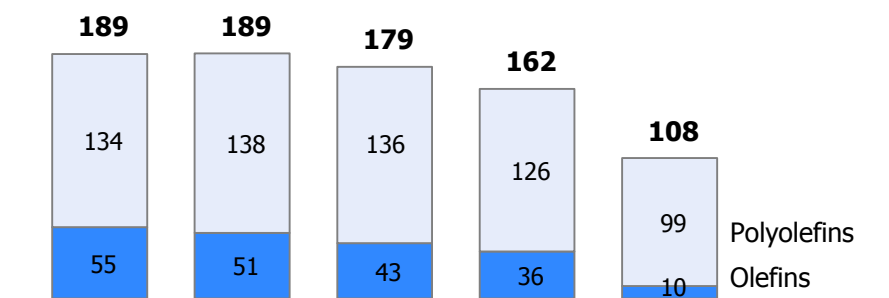
# Petrochemical Group : Production

54% Olefins & 63% Aromatics & Styrenics utilization rate during major TA

## Olefins

- **1Q17:** 54% utilization rate of Olefins was low due to major planned turnaround

Unit : KMT

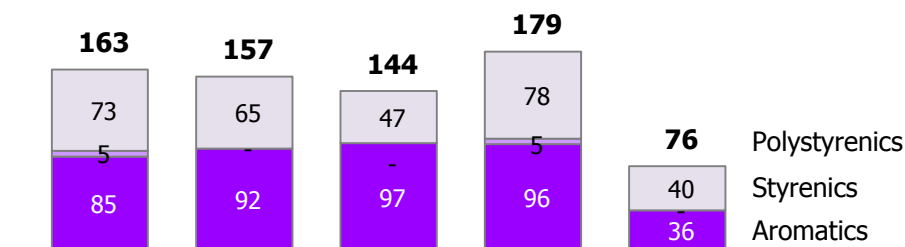


1Q16	2Q16	3Q16	4Q16	1Q17	
94%	95%	88%	84%	54%	%Utilization
88%	91%	89%	82%	67%	Polyolefins
99%	99%	87%	85%	42%	Olefins

## Aromatics & Styrenics

- **1Q17:** 63% utilization rate: 47% Aromatics', 69% Styrenics' and 78% Polystyrenics'

Unit : KMT



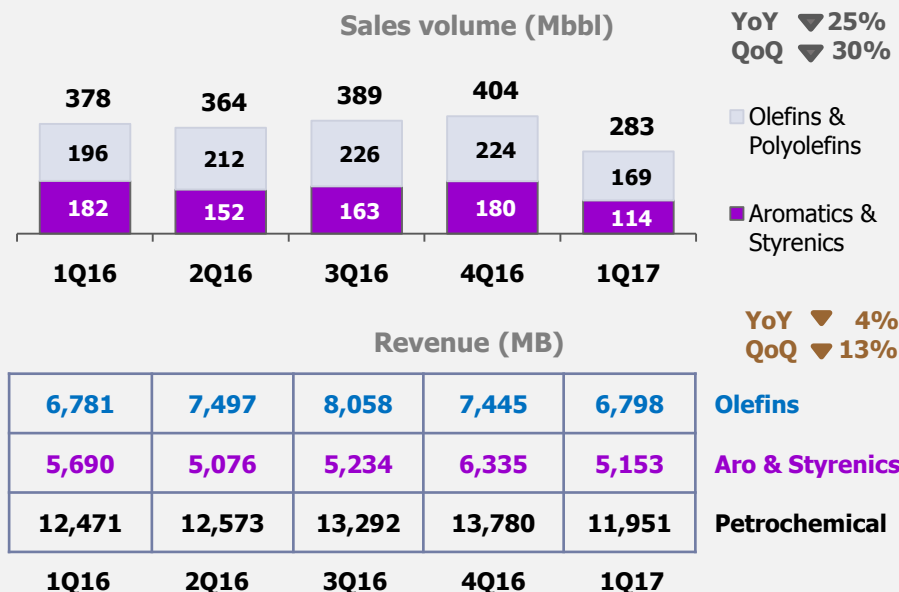
1Q16	2Q16	3Q16	4Q16	1Q17	
99%	90%	80%	93%	63%	%Utilization
92%	87%	77%	80%	78%	Polystyrenics
97%	78%	49%	105%	69%	Styrenics
106%	98%	100%	98%	47%	Aromatics

Remark : - Utilization rate calculated based on the main products  
- volume excluded internal use

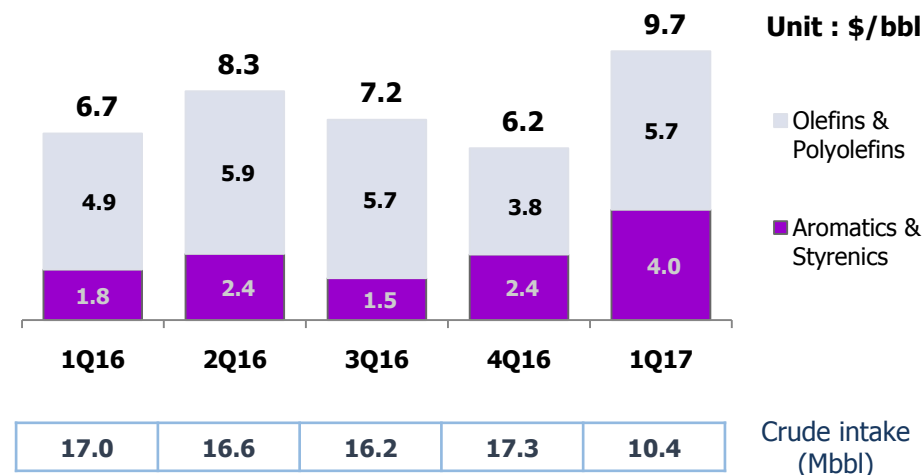
# Petrochemical Group : Sales & PTF

## Low Sales volume but Superior MKT PTF per bbl

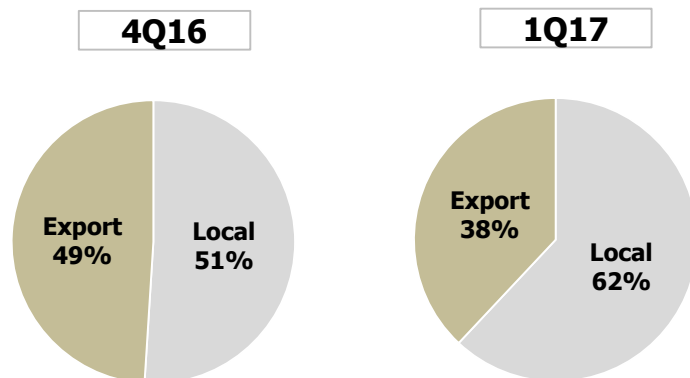
### Sales Volume and Revenue



### Market PTF (\$/bbl)



### Sales Distribution



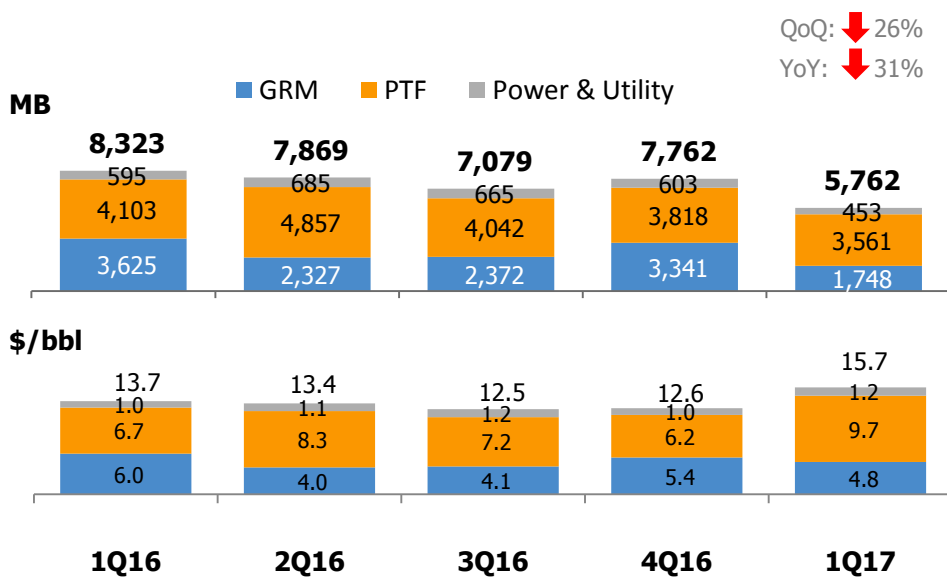
Top 5 Export Destination in 1Q17: Hong Kong, Singapore, Japan, Australia, China

- **1Q17 : Petrochemical revenue decreased**  
13% QoQ due to 30% volume decrease vs  
17% avg. price increase
- Sales Proportion: 62% domestic and 38% export
- **1Q17 Market PTF was \$9.7/bbl**, increased  
\$3.5/bbl from 4Q16 due to better product spread

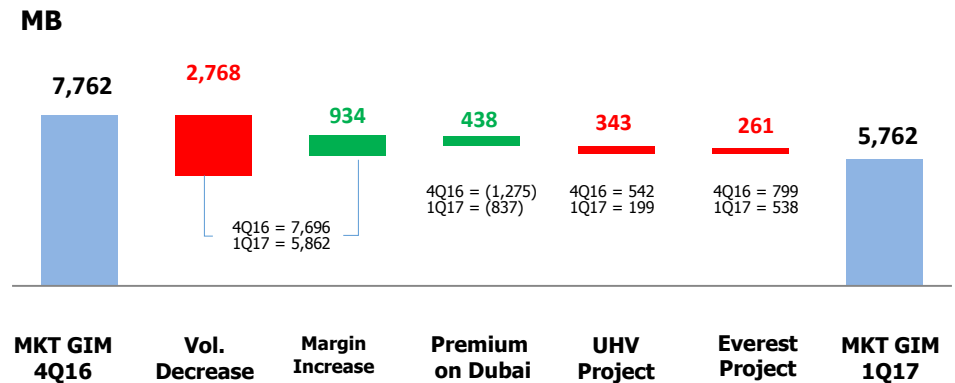
# Gross Integrated Margin (GIM)

## Volume decrease effect to GIM

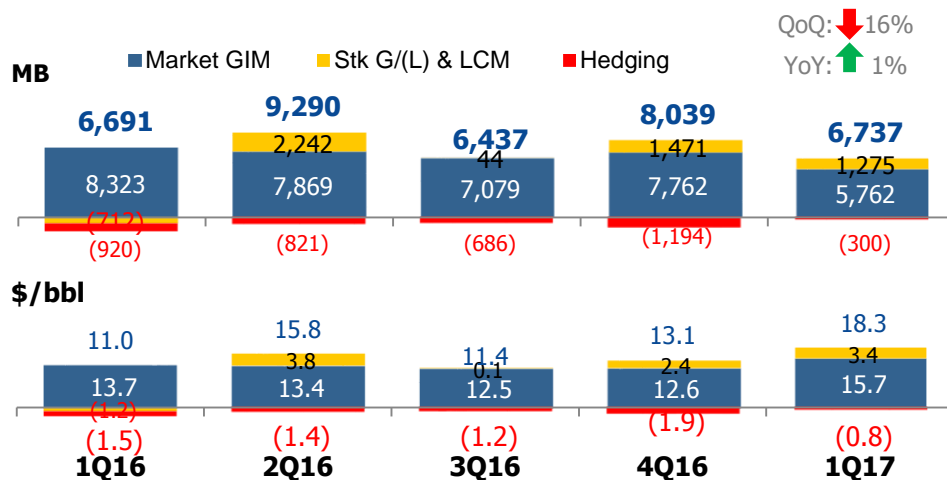
### Market GIM



### MKT GIM: ↓2,000 MB



### Accounting GIM



### Market GIM

- Market GIM was 5,762 MB, lower by 2,000 MB, 26% QoQ
  - Volume decrease from TA
  - + margin increase & Premium on Dubai decrease

### Accounting GIM

- Accounting GIM was 6,737 MB, lower by 16% QoQ due to a drop of market GIM
- QoQ Net stock gain (incl. hedging) was 975 MB (\$2.7/bbl), increased by 698 MB (\$2.2/bbl) compared to net stock gain of 277 MB in 4Q16 (\$0.5/bbl)



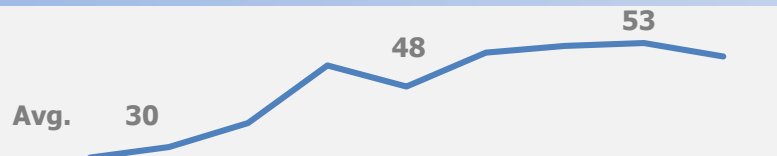
# 1Q17 Performance

Lower Sales & EBITDA from major turnaround

## Overview of Business

### Dubai

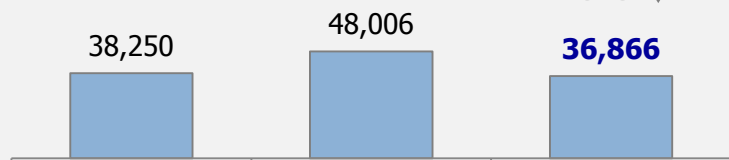
Unit: \$/bbl



### Net Sales

(net excise tax)

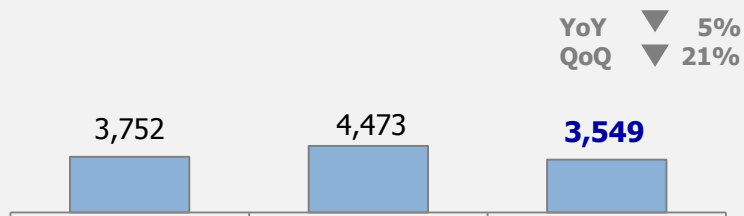
Unit: MB



YoY ▼ 4%  
QoQ ▼ 23%

### EBITDA

Unit: MB



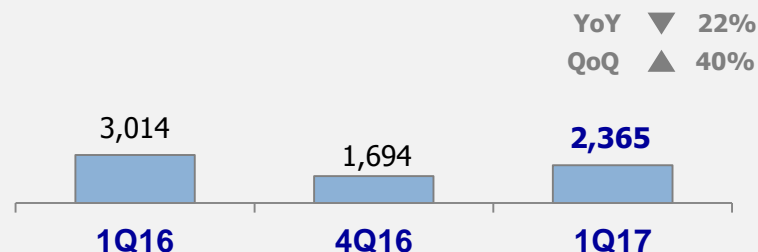
YoY ▼ 5%  
QoQ ▼ 21%

### EBITDA Margin (%)

Period	EBITDA Margin (%)
1Q16	8.81
4Q16	8.65
1Q17	8.89

### Net Income

Unit: MB



YoY ▼ 22%  
QoQ ▲ 40%

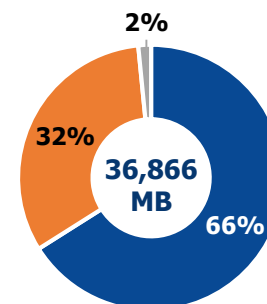
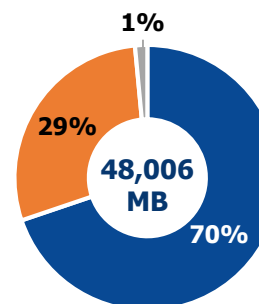
### Net Profit Margin (%)

Period	Net Profit Margin (%)
1Q16	7.08
4Q16	3.27
1Q17	5.92

4Q16

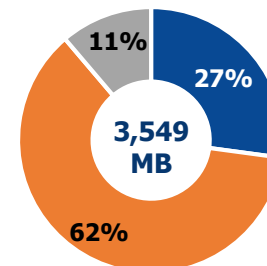
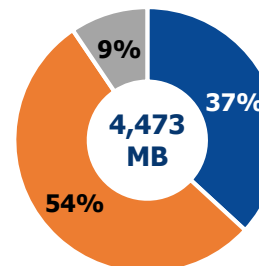
Net Sales  
(net excise tax)  
-23%

1Q17



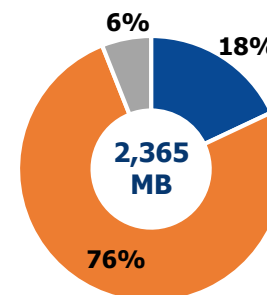
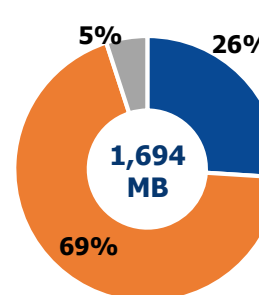
### EBITDA

-21%



### Net income

+40%



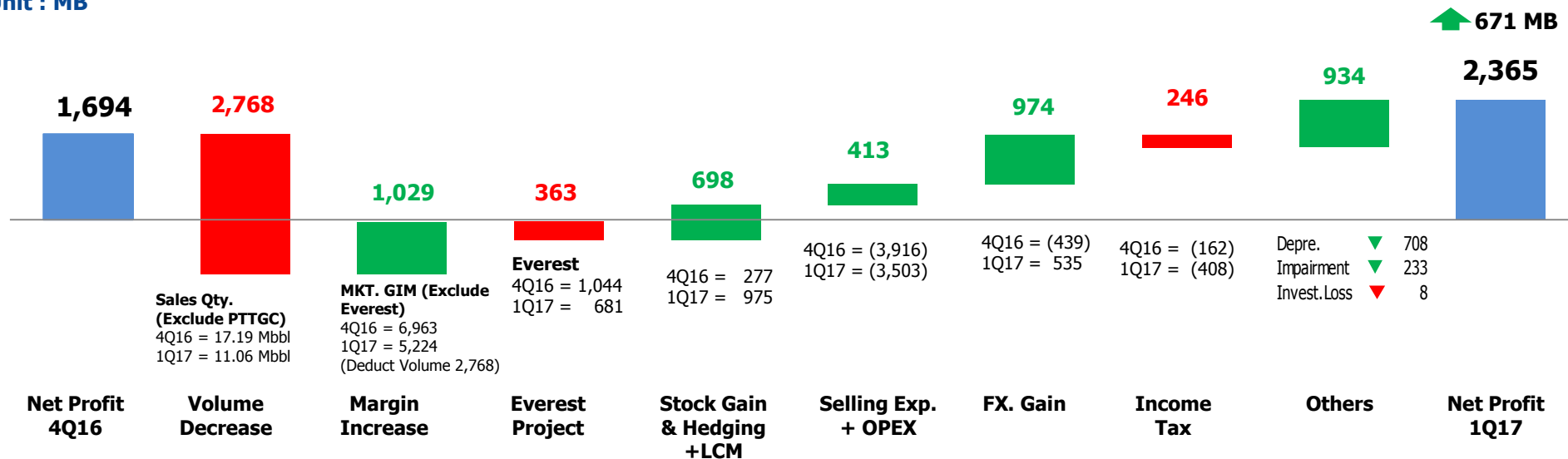
Petroleum Petrochemical Utilities and Others

# Notification of Net Income: 1Q17 vs 4Q16 & 1Q17 vs 1Q16

Volume decrease from major TA → lower NI, be offset by net stock gain & FX gain

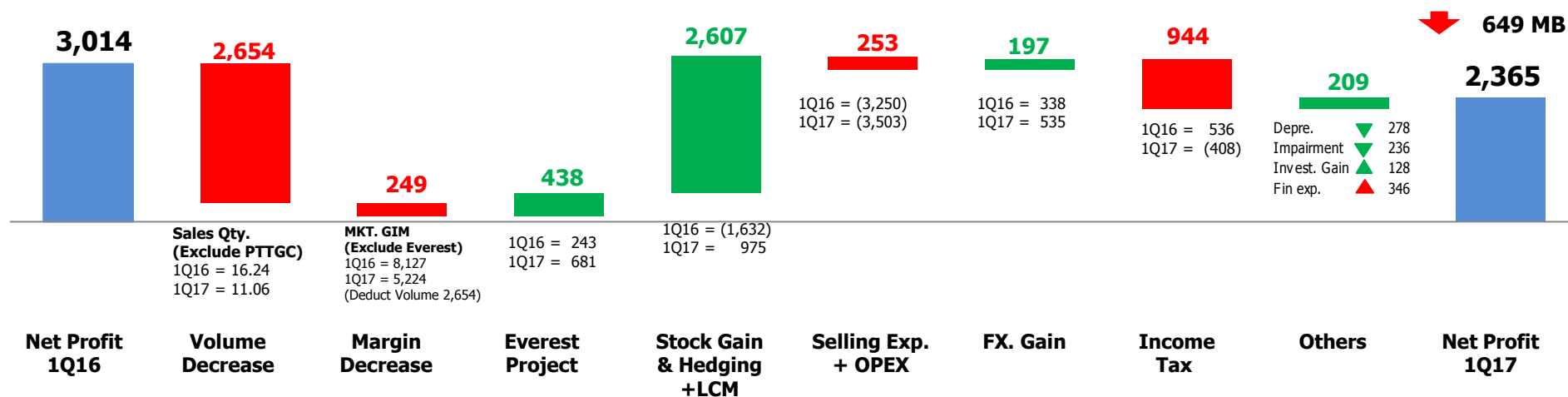
## Net Income: 1Q17 vs 4Q16

Unit : MB



## Net Income: 1Q17 vs 1Q16

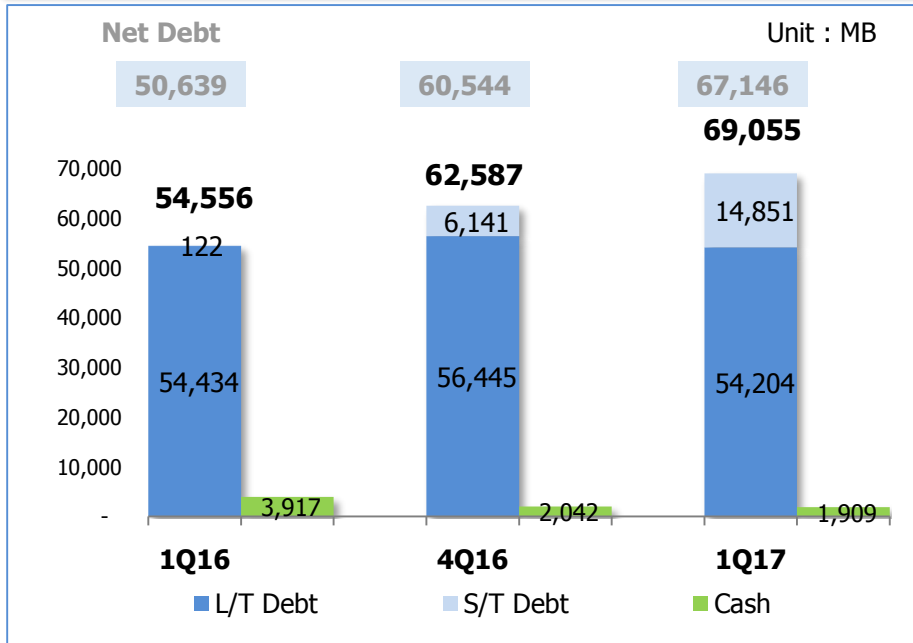
Unit : MB



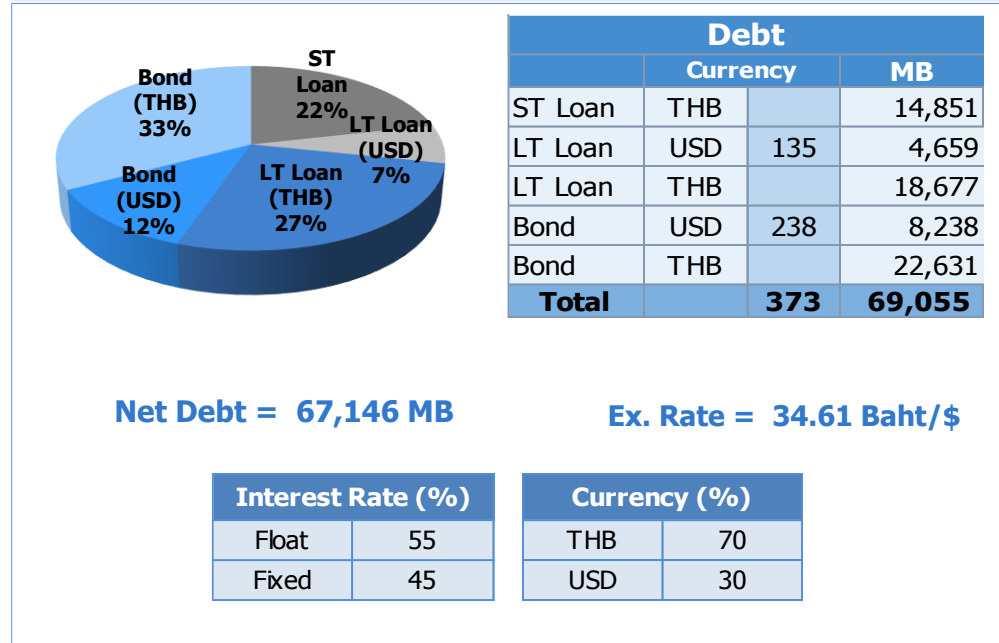
# Debt Portfolio

2017 debt maturity secured by 8 year new loan and syndicated loan

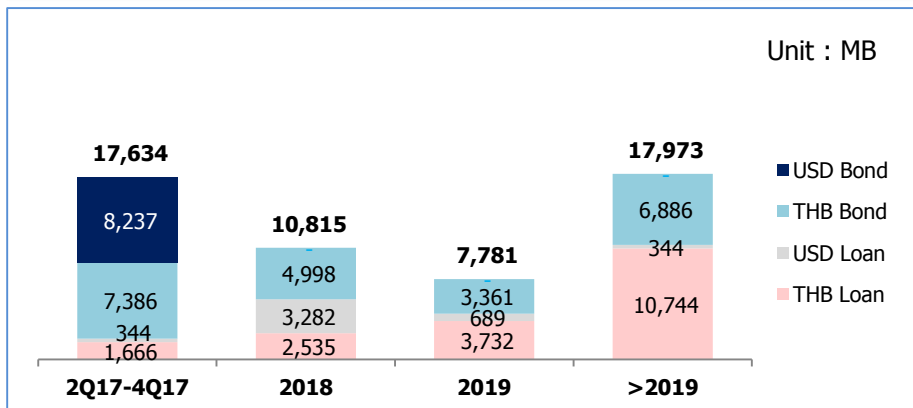
## Debt Profile



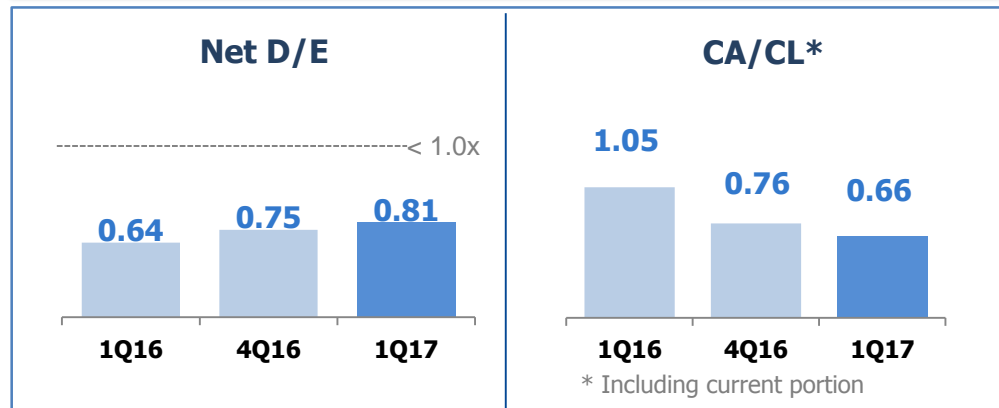
## Debt Structure



## Maturity of Long-term Debt



## Financial Ratios



# IRPC Strategic Roadmap to 2020

To capture benefits and growth after investment to reach 1<sup>st</sup> Quartile ROIC



**BIG**

Revenue Growth of 5%  
EBITDA Growth of 10%



**LONG**

Member of DJSI  
Emerging Markets  
Universe



**STRONG**

1<sup>st</sup> Quartile ROIC in  
Petroleum &  
Petrochemical Industry



Operational Efficiency Improvement  
Asset Utilization Enhancement  
Product and Service Improvement  
Capacity and Products Expansion

## Project Completion

Capacity	Before	After
<b>CHP I</b>		
- Electricity	108 MW	328 MW
- Steam	200 T/hr	620 T/hr
<b>PRP</b>	312 KTA	412 KTA
<b>EBSM</b>	200 KTA	260 KTA



## Margin Improvement



- Operational Excellence
- Commercial Excellence
- Procurement & HR Excellence

**Benefit +134 MUSD**



## Incremental Margin Organization Health

- Capability Building
- Owner mindset & Performance Orientation
- Cultural Changes

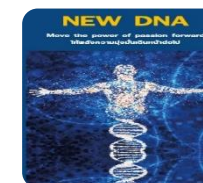
Capacity	Before	After
<b>Propylene (UHV)</b>	412 KTA	732 KTA

## Fully Integrated PP

Capacity	Before	After
<b>PP (PPE&amp;PPC)</b>	475 KTA	775 KTA

**E4E**  
Everest forever

*Beyond Everest*



**2020**  
ROIC 14%

2010

2014

2016

2017



INDIVIDUAL OWNERSHIP
SYNERGY
PERFORMANCE EXCELLENCE
INNOVATION
RESPONSIBILITY FOR SOCIETY
INTEGRITY & ETHICS
TRUST & RESPECT





# Thank You



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