

# Abu Dhabi Oil Refining Co. (TAKREER)



## Zero Fuel Oil Production

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**TAKREER REFINERY - OVERVIEW**



**JOURNEY TOWARDS EXCELLENCE**



**BOTTOM OF THE BARREL UPGRADATION**



**STATE OF ART PROCESSES AND SCALE**



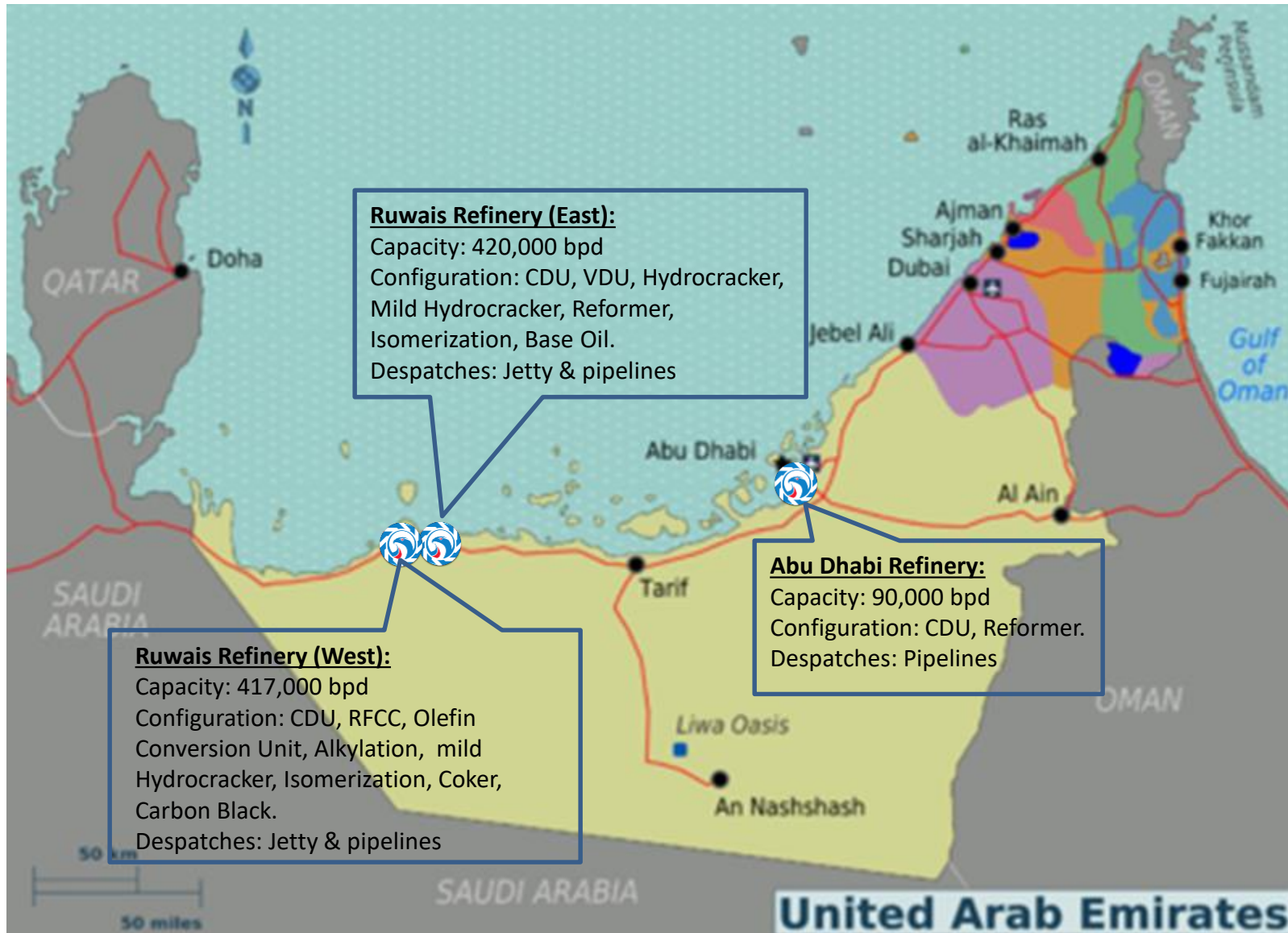
**CONCLUSION**



## TAKREER REFINERY OVERVIEW



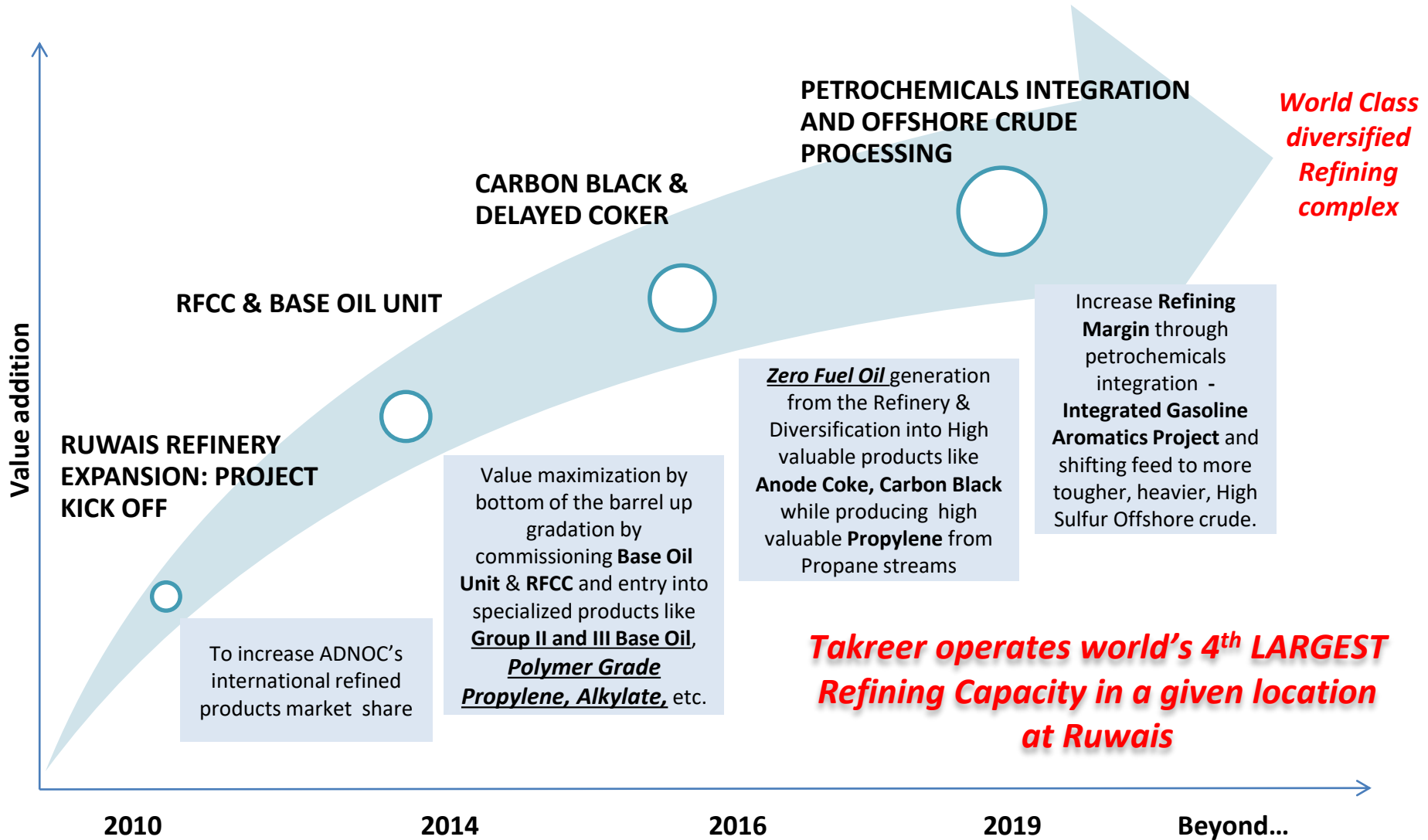
# TAKREER'S REFINING CAPACITY



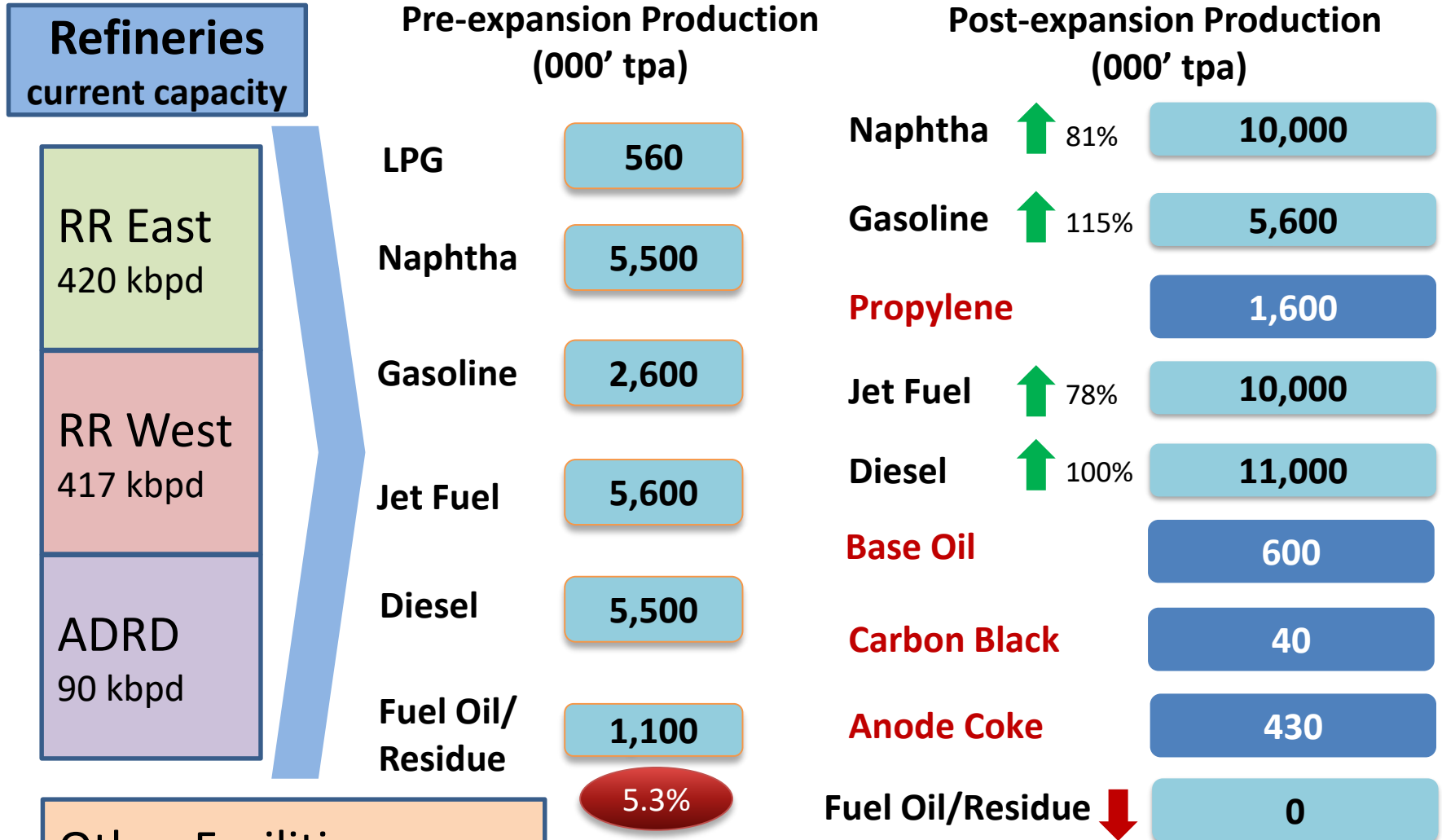
## JOURNEY TOWARDS EXCELLENCE



# TAKREER JOURNEY TOWARDS EXCELLENCE



# TAKREER'S REFINING CAPACITY



## Other Facilities:

Power – 660 MW  
Desal Water – 14 MM Gallons/day  
Waste Treatment (BeAAT) – 26 KMT/year

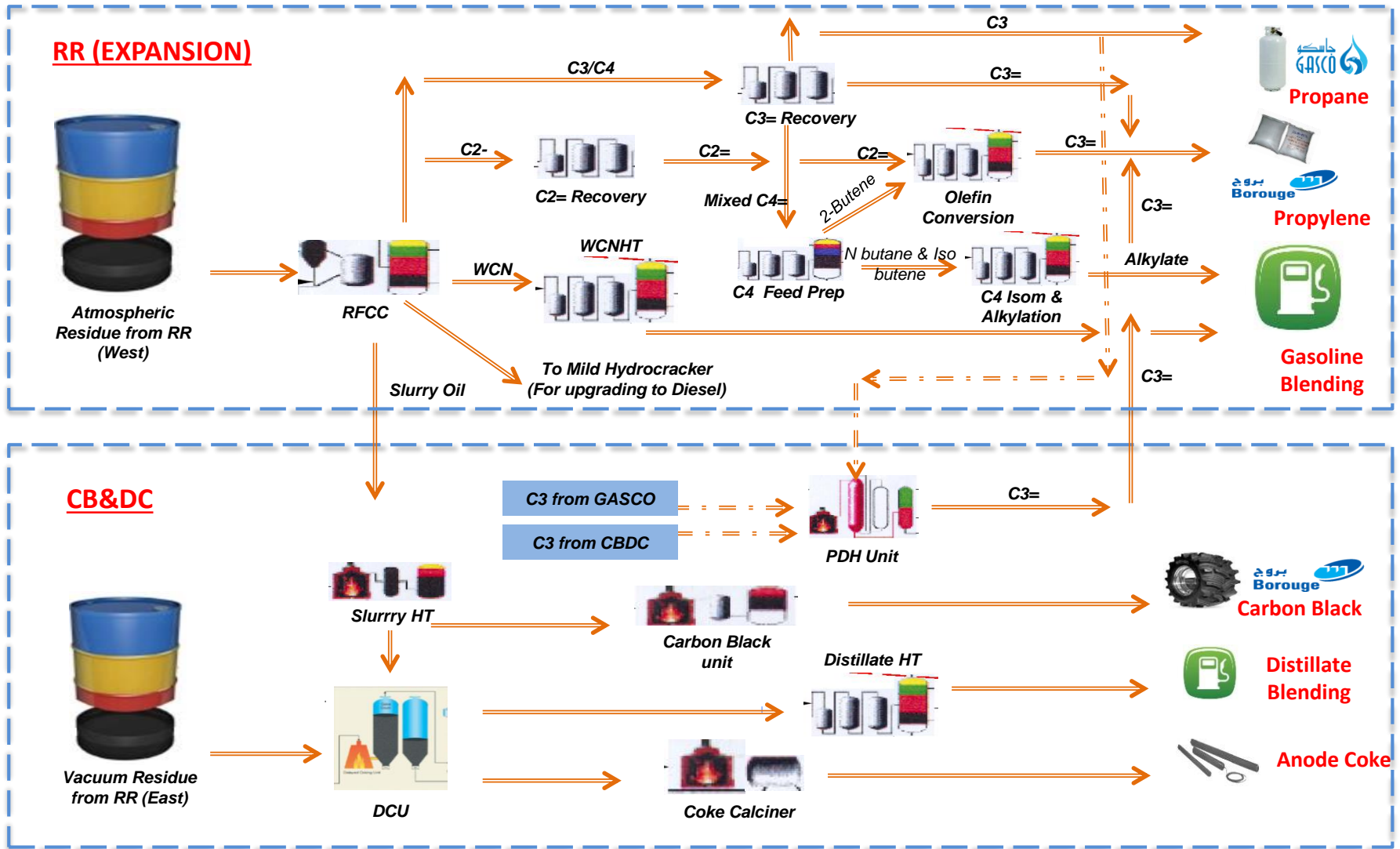
Refinery Expansion and Fuel Oil reduction  
resulted in increase of more than **USD 10 billion**  
per annum in Gross Product Worth

## BOTTOM OF THE BARREL UPGRADATION



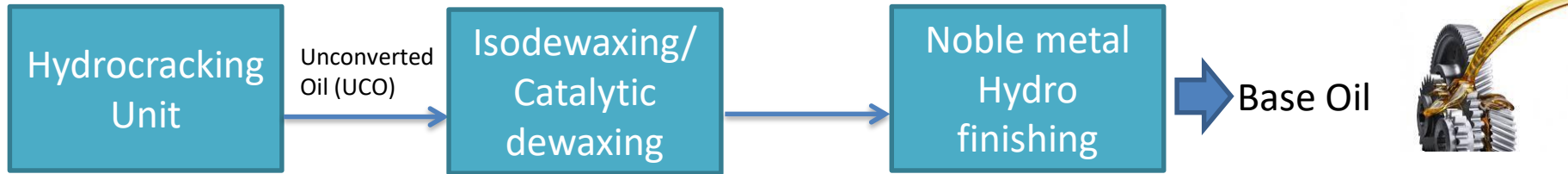


# BOTTOM OF THE BARREL STRATEGY – HEART OF REFINERY & PETROCHEMICAL INTEGRATION

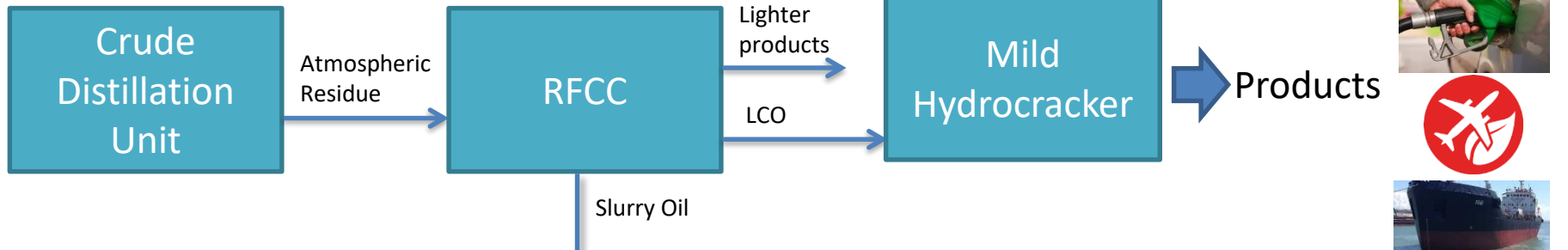


# BOTTOM OF THE BARREL STREAMS ARE CONVERTED TO HIGH VALUABLE PRODUCTS – Processes involved

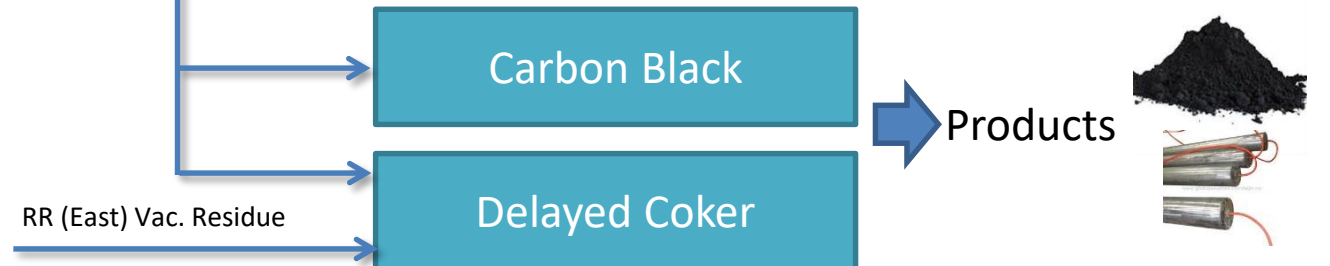
## Base Oil Unit



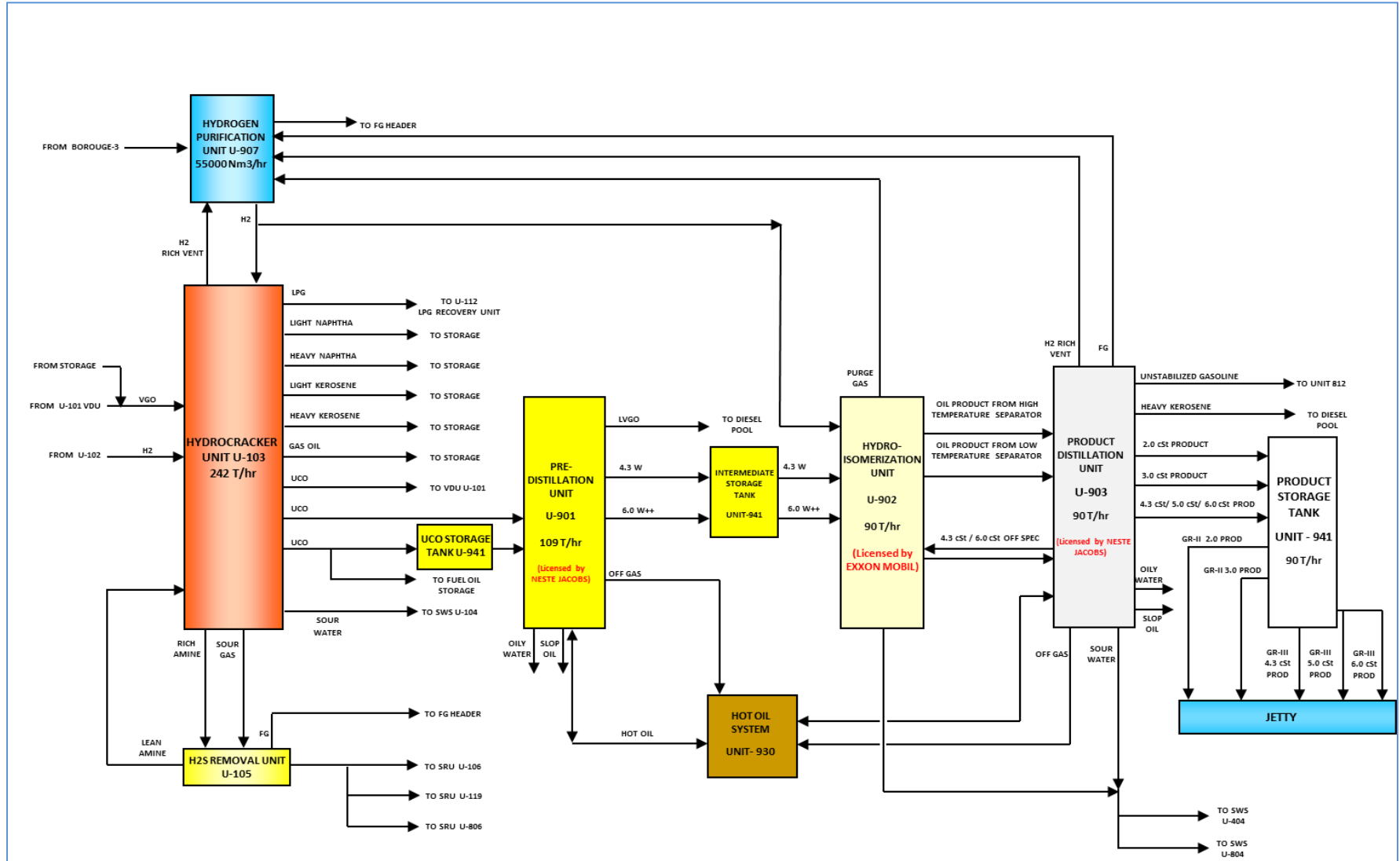
## Residual FCC (RFCC)



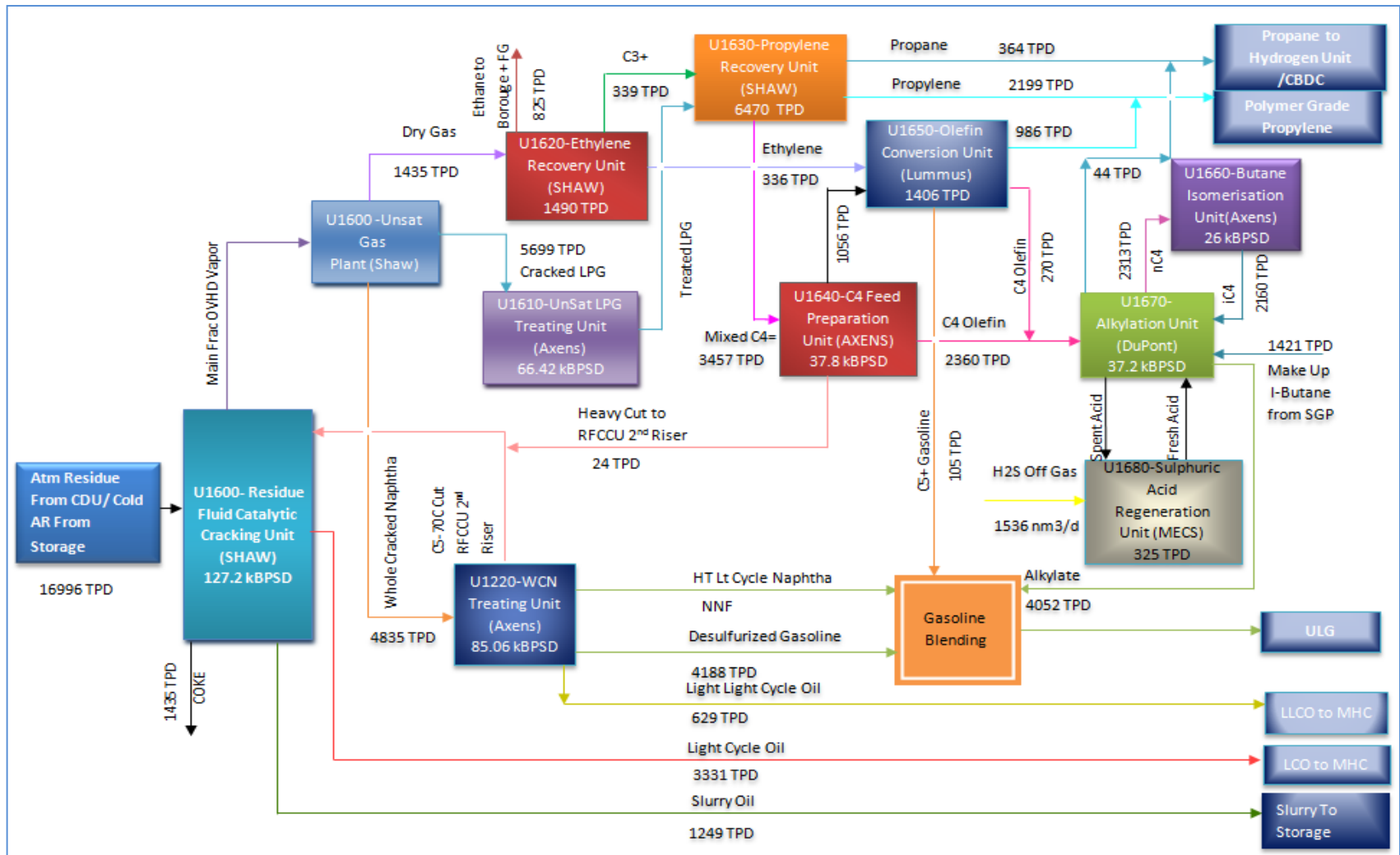
## Carbon Black & Delayed Coker



# BLOCK FLOW DIAGRAM OF BASE OIL UNITS

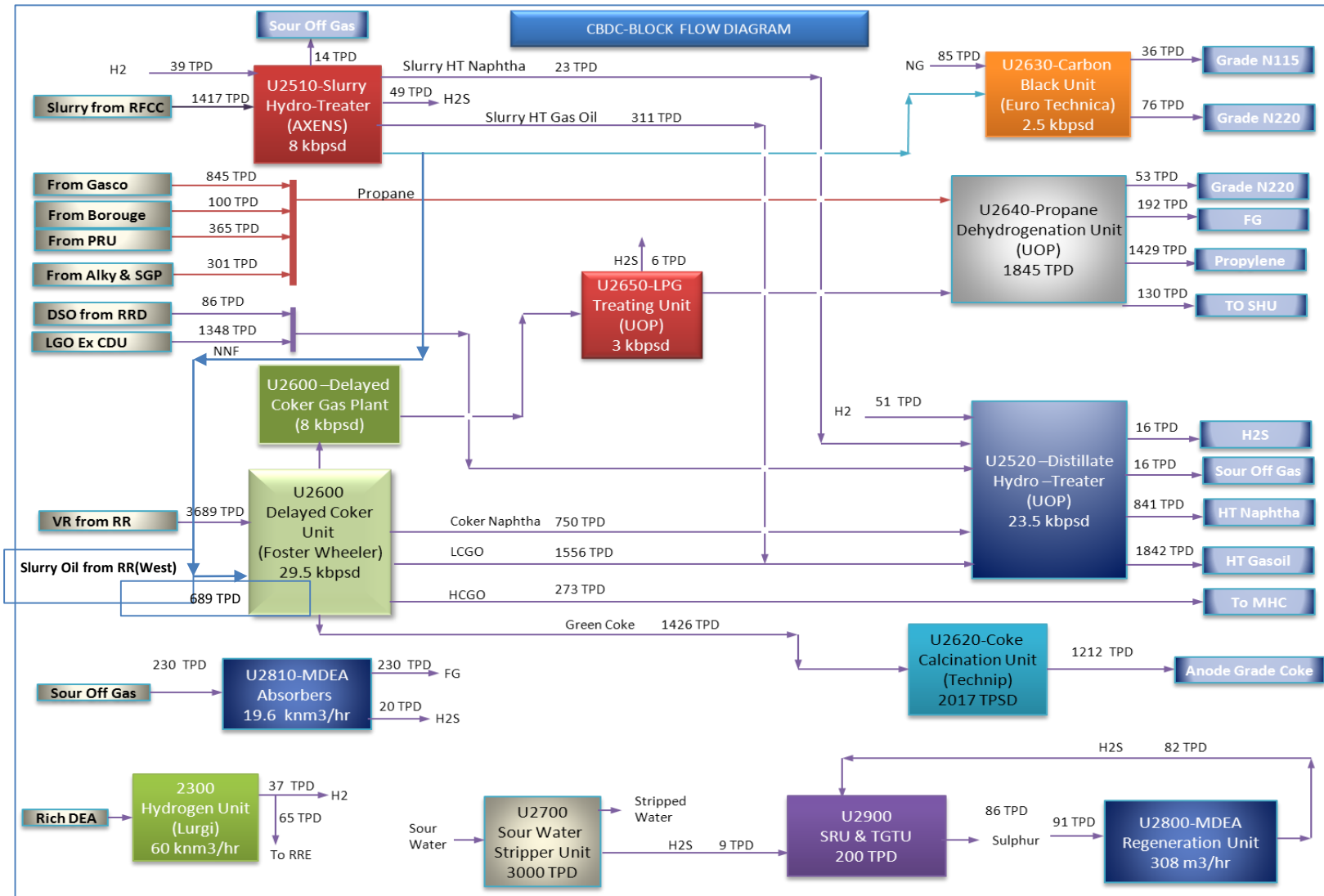


# BLOCK FLOW DIAGRAM OF RFCC UNITS



[Back](#)

# BLOCK FLOW DIAGRAM OF CBDC UNITS



## STATE OF ART PROCESSES AND SCALE



# RUWAIS REFINERY EXPANSION HAS STATE OF THE ART TECHNOLOGIES

<b>BASE OIL UNIT</b>	Latest technology minimizing CAPEX & OPEX, improve catalyst life, quality base oil, higher Viscosity Index, low pour point, higher yields, producing Grp. II and III base oil stocks
<b>RFCC</b>	World's Largest unique Petrорiser to boost Propylene Yield
<b>SLURRY HYDROTREATER</b>	First Licensed Unit in the world
<b>CARBON BLACK</b>	Produces N-220 (UV Grade) & N-115 (Semi Conductive grade) carbon black
<b>DELAYED COKER &amp; CALCINER</b>	Converts low value VR from RR-E and Slurry Oil to High Value Anode Grade Calcined coke
<b>PROPANE DEHYDROGENATION</b>	Converts Propane from RRE, RRW, GASCO, BOROUGE to Polymer Grade Propylene
<b>ARDS (POCP)</b>	12 reactors to de-sulphurize Atmospheric Residue from Upper Zakum crude and feed to RFCC

## CONCLUSION





Ruwais Refinery expansion project has helped ADNOC achieve its Strategic Objectives through:

- Value Maximization and improve profitability:
  - Reduction of Fuel Oil production
  - Production of quality feedstock for petrochemicals, Lube Oil & Coke
- Achieve improved performance & efficiency through optimal use of assets and natural resources – re-routing of heavier residues to upgrading units and processing of relatively distress crude oil in future
- Enhance technical knowhow of work force through use of state of art process & technology
- Contribute to Nation's Development

Thank You