

Multi Disciplinary Project Team (MDPT)

Status update to CoM



Multi Disciplinary Project Team

For a sustainable and modern
Curacao Refinery

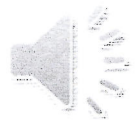
Future of Isla Refinery

September 11, 2015



Status report

1. Introduction
2. Structure MDPT
3. Status of Modernization
4. Socio-economic impact of Modernization
5. Heads of Agreement
6. Next steps Modernization
7. Status of Redevelopment
8. Forecast



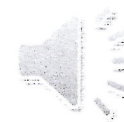
Important facts

- * 2012 The Hovensa Refinery in St. Croix is closed
- * 2012 The Valero Refinery (owned by Valero) in Aruba is closed
- * **Studies by Ecorys, Purvin & Gertz, Solomon, Shawn etc, result in:**
 - * May 2012 “Plan van Aanpak Isla Raffinaderij, Regering van Curaçao”
 - * Bullenbay area selected as site for new LNG terminal
- * 2015 Aruba Refinery ongoing negotiations to restart it.
- * 2015 Hovensa Refinery new lease not effected
- * December 31st, 2019 current Lease Agreement will expire



Background info: Economic Impact Curacao Refinery

- * Estimated between 11 – 13 % of GDP
- * Responsible for 17 % of FOREX (Isla Refinery only)
- * Good for 1.100 direct jobs (high skilled) in Refinery
- * Good for 2.000 – 3.000 indirect jobs (medium to high skilled)
- * Direct impact on Curacao as Bunker hub for ships (FOREX)
- * Direct impact on Airport as fuelling hub for airlines (FOREX)
- * Direct impact on Aqualectra & Curoil operations
- * Key to maintaining our standard of living



Structure of MDPT

Council of Ministers

Chairman Joint Committee
Werner Wiels

Team Modernization:

Project support

- Secretary
- Logistics

Communication

- PBS
- K. Salsbach

Project based Consultants (a.o.)

- KPMG
- Amec Foster Wheeler
- Poten & Partners
- E&Y

- MOU
- Scope of modernization
 - Reduce environmental impact
 - New units
 - New LNG terminal
 - Manpower master plan
 - Maximize use of local manpower
- Heads of Agreement
- Attract Investor(s)
- New Lease agreement

Team Redevelopment:

Hybrid and Fall Back scenario

- Create new opportunities to use refinery site
- Financing aspects
- Demolition of site
- Clean-up of site



Structure of MDPT

Council of Ministers

Chairman Joint Committee
Werner Wiels

Team Modernization:

Werner Wiels – Chairman
Maria Liberia-Peters
Jaime de Sola
Ruben Roosberg
Irvin Hanst
Ralph James
Errol Cova
Mary-Lou Santiago
Wilfred Kelly
Rudy Henriquez

Team Redevelopment:

Vernon Daal – Chairman
Anko van der Woude
Irvin Hanst
Zino Narvaez

Project support

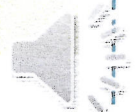
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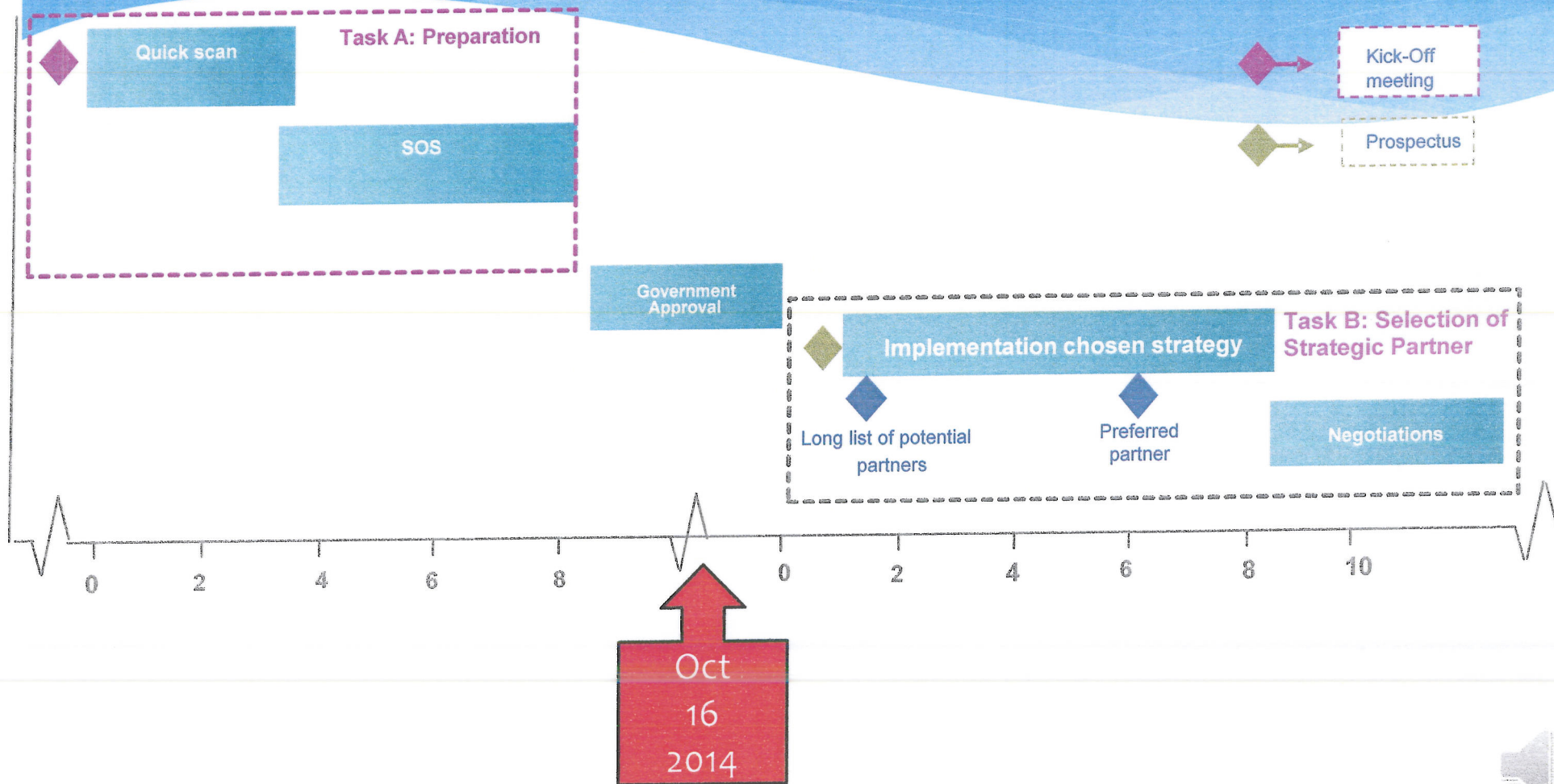




MODERNIZATION

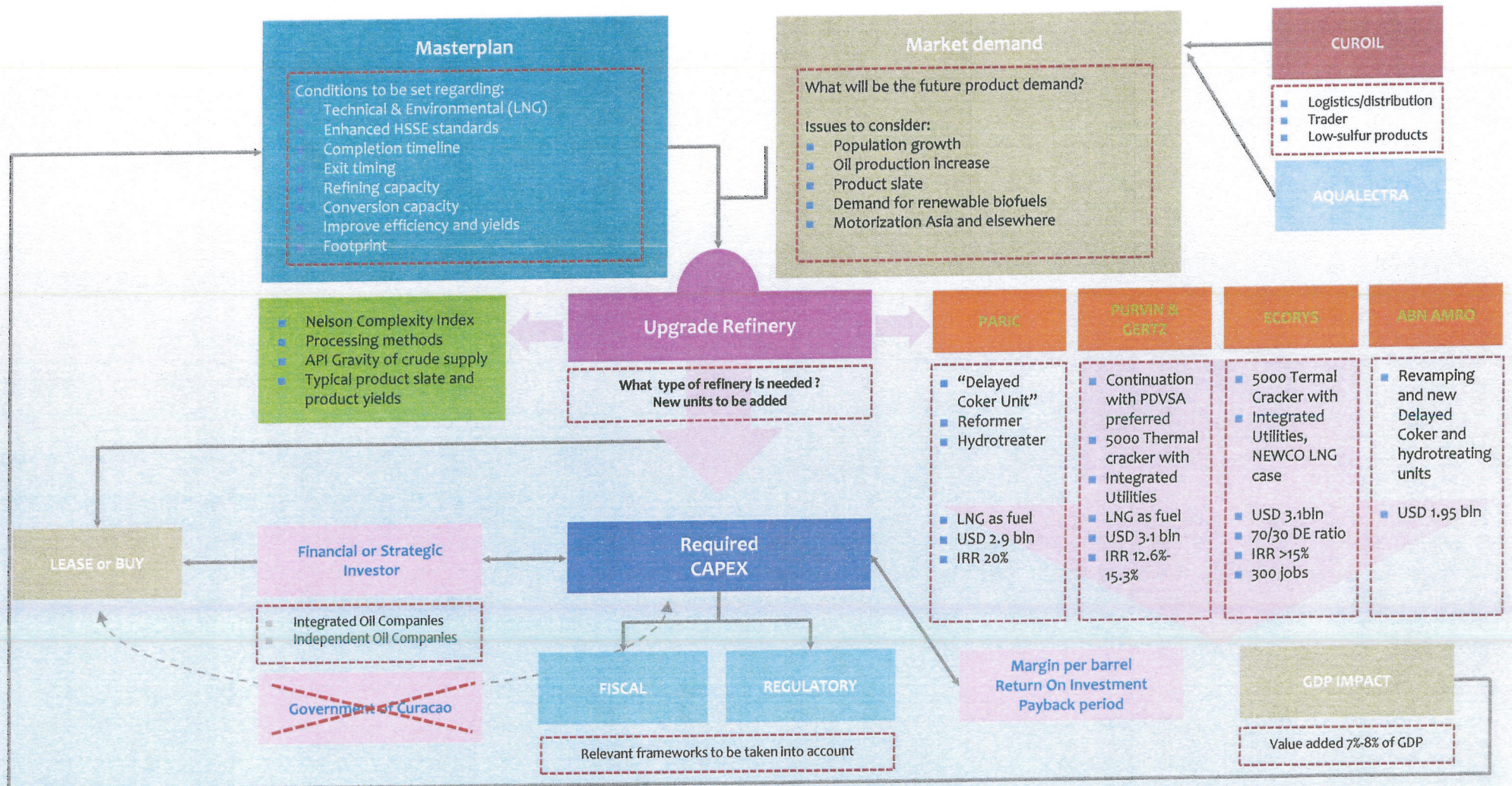


Approach Modernization: Original Timeline



Investment Considerations

Modernization Refinery



Status

- Quick Scan & Strategic Orientation Study (SOS) done
- LNG study updated by “Poten & Partners”
- Technical audit & remaining life study ongoing
- Teaser issued to spark interest of Investors in Refinery(good results obtained)
- **Prospectus for new Strategic Partner Refinery(Investor) in progress**
- **Prospectus for new LNG transshipment facility at Bullenbay in progress**
- New Gas Pipe line from Bullenbay to Refinery designed (for LNG supply)
- New stricter Environmental Regulations being prepared (AFW)



Status

- The MOU signed with PDVSA/RdK on May 30, 2014 expired on Nov 30, 2014
- Modernization Team (MT) started talks with PDVSA on June 25, 2014
- Regular talks and information exchange with Isla/PDVSA/MDPT/RdK
- Negotiation mandate issued by Government of Curaçao to MDPT
- Negotiations started with PDVSA
- HoA draft issued to PDVSA in November 2014 being negotiated

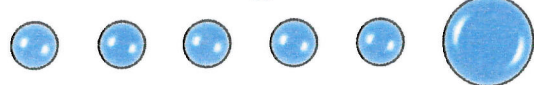
Preferred strategic option

Continue with PDVSA and make new lease agreement

Quicksan & SOS



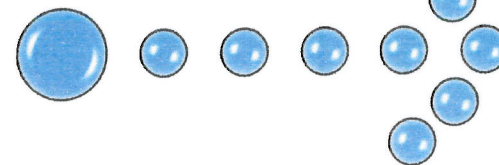
New Strategic Partner



Own input
Environmental issues



Negotiation
Sub
Committees



New
Lease



Objective of Modernization

- * Make refinery viable for 20 to 30 years
- * Reduce environmental impact by using LNG as fuel
 - Remove sulphur from products being produced
 - Comply with EURO 4 norms and future EURO 5
 - Increase salability of products
 - Improve refinery margins



Characteristics related to Modernization

- LNG as new clean fuel for the Refinery
- At least 12 new units for direct refinery operations
- At least 15 new units to deal with the environment
- Revamp of 5 existing units
- Demolition of at least 5 old units
- New buildings, roads, piping, training facilities
- Upgrading of utilities and power distribution



Specifics of Characteristics

New Process Units/Auxiliary Units

- * Delayed Coker
- * Naphtha Hydrotreater
- * Light Naphtha Isomerization
- * Continuous Catalytic Reformer (CCR)
- * Distillate Hydrotreater
- * FCC gasoline Hydrotreater
- * VGO Hydrotreater
- * Naphtha Splitter
- * FCC Gasoline Splitter
- * 2nd LVI Hydrofinisher
- * Hydrogen: 2 units
- * Nitrogen
- * Desalters: 3 units

Specifics of Characteristics

Off Sites & Environment

- * 2nd Sour Water Stripper
- * Slurry filter settler for Low Sulphur fuel system
- * Fuel gas system
- * Amine Regeneration unit # 4
- * Sulphur Recovery 2 new units with Tail Gas Recovery
- * Coke handling and storage: fully enclosed conveyor system with 2 domes of 30 day capacity each
- * Coke loading Jetty with radial ship loader
- * FCC 3rd stage separator
- * Waste water treatment

Specifics of Characteristics

Continued ...

- * Revamp existing plant and main oil catchers
- * Redistribution/Rationalization of storage and blending facilities
- * Blow down systems
- * Flares & Stacks
- * Inter-connecting piping and pipe tracks
- * Revamp of roads and bridges
- * Revamp of drainage system
- * Revamp sulphur storage & pelletizer
- * Revamp of Central Control Room

Specifics of Characteristics

Revamp of Existing Units

- * FCC
- * Distillate Hydrotreater
- * HF Alkylation
- * HV 7 column
- * LVI Hydrofinisher

Specifics of Characteristics

Major Demolition of Units

- * ADOS diluent recovery unit
- * Furfural extraction 2
- * Merox 1 & 2
- * SRU 1& 2
- * Platformer
- * Old Laboratory Building

Specifics of Characteristics

New Buildings/Training/Social facilities

- * Training facilities for own & construction personnel
- * Simulators: Generic & Specific
- * Expansion of Man Camp
- * Boarding/Lodging for construction personnel
- * New Laboratory Building
- * New Warehouse

* Plant air

Revamp electrical distribution system including
transformer stations & switch houses

LNG Import Terminals & Regasification Facilities



Using LNG: Less Environmental Impact

Natural gas significantly reduces emissions of sulfur oxides, nitrous oxides, carbon dioxide, heavy metals and particulates to levels that comply with environmental regulations

NO_x
EMISSIONS

92%
LOWER

CO_x
EMISSIONS

22%
LOWER

SO_x
EMISSIONS

99%
LOWER

PARTICULATES

98%
LOWER

HEAVY METALS

99%
LOWER

**GREENHOUSE
GAS**

20%
LOWER

Socio-Economic Impact

Modernization Manpower

At least 4.000 temporary jobs created for at least 3 years

- * Pipe fitters
- * Plant Mechanics
- * Machine Mechanics
- * Welders
- * Concrete workers
- * Refractory workers
- * Scaffolders, Insulators, Gritblasters, Painters
- * Electricians
- * Instrumentation
- * Industrial Cleaners
- * Firemen, Supervisors
- * Equipment Inspectors



Macro socio-economic impact

Refineria di Kòrsou

2019

Important events:

1. Government bonds will reach maturity

By 2019, all debt securities of the former Netherlands Antilles will have matured, whereas the bonds issued on October 2010 will start maturing as well

2. Refinery contract with PDVSA will expire

Current lease contract with PDVSA expires on December 31, 2019. The contract will be automatically extended for a period of 10 years, unless notice is given not to renew it

3. Expiration of Offshore regime

Curaçao's offshore regime will expire in 2019. An issue of concern for offshore companies as well as offshore banks

Curacao Diversity

Curaçao distinguishes itself from other Caribbean islands due to its more diversified economy which is mainly driven by the following pillars:

TOURISM

INTERNATIONAL
FINANCIAL SECTOR

OIL & PETROCHEMICAL PROCESSING

TRANSNATIONAL EDUCATION

LOGISTICS & PORTS

Close of Refinery

In case Refinery is shut down, Curaçao will lose an important economic pillar. Diversification will be lowered, leading to devastating macro socio-economic consequences

Macro socio-economic impact

- Curaçao will become as ordinary as the other Caribbean islands, with essentially a tourism-based economy, without much diversification
- The lease of the Refinery currently accounts for some 16% of FX income. Curaçao will forego income generated by the Refinery along with the major spin-off effects of such
- Adverse impact on local and international workforce, leading to higher unemployment (current employees refinery, current contractors, employees from other companies)
- Reduction in government income, due to lower income taxes and other social premiums
- Outflow of internationals, which might become unemployed
- Degradation of technical education on the Island, leading to an institutional gap. This might have an adverse impact on current technically skilled students and workers
- Refinery premises situated on the approx. 493 acres of land, will become obsolete/redundant. In case of a clean up for other uses, this will require a vast amount of investments, which Curaçao might not be able to afford

Macro socio-economic impact

2019

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- Refinery premises situated on the approx. 520 acres of land, will become obsolete/redundant. In case of a clean up for other uses, this will require a vast amount of investments, which Curaçao might not be able to afford



Heads of Agreement

- * DEFINITION of 'Heads of Agreement'

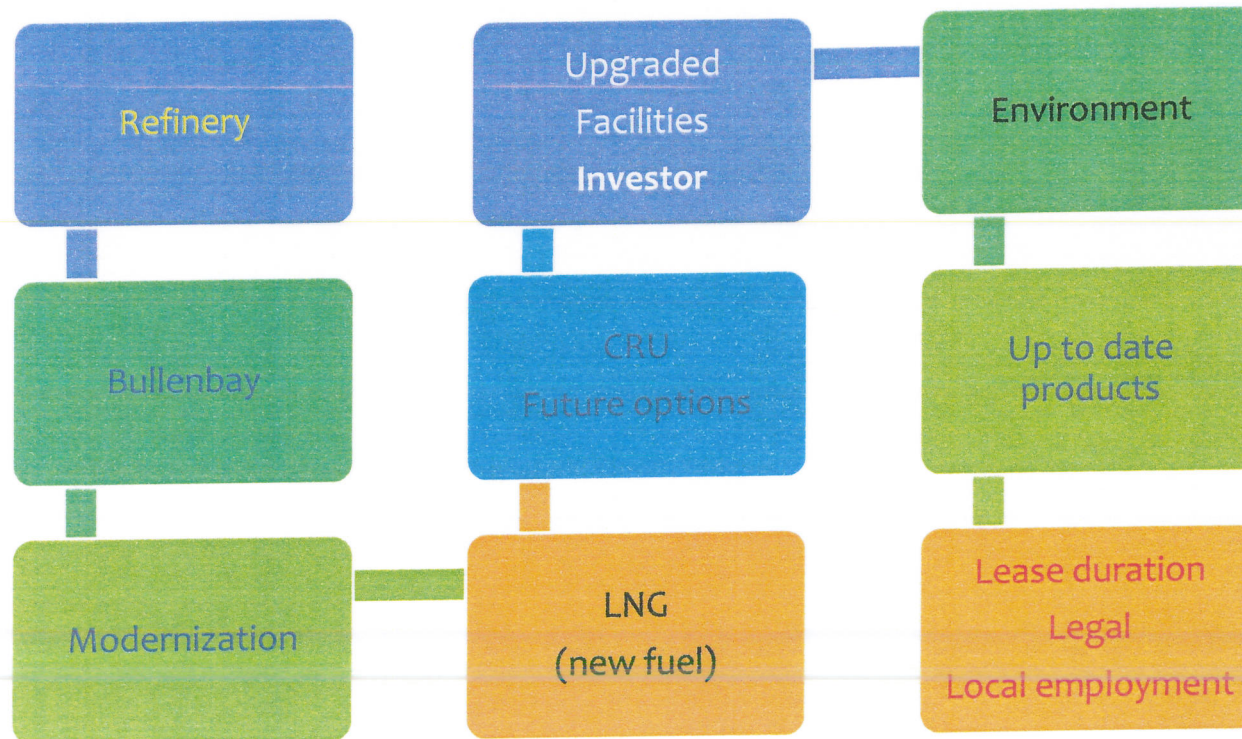
A non-binding document outlining the main issues relevant to a tentative partnership agreement.

The Heads of Agreement represents the first step on the path to a full legally binding agreement or contract, and serves as a guideline for the roles and responsibilities of the parties involved in a potential partnership before any binding documents are drawn up.



Negotiation Sub Committees

Reach “Heads of Agreement with PDVSA”



Next steps

Reach Heads of Agreement with PDVSA

- ❖ Modernization (data subject to change)
- ❖ Environmental impact reduction issues
- ❖ Select Third party Investor/Technical-Prospectus
- ❖ Select Investor/Constructor/Operator for new LNG transshipment facility at Bullenbay
- ❖ Total cost and financing issues to be negotiated
- ❖ Fiscal issues etc. (Government)- draft ready

❖ Workforce development (WFD)

- ❖ Training needs analysis for modernization
- ❖ Total manpower need analysis
- ❖ Set-up and start training of local personnel
- ❖ Create separate Foundation for the WFD



REDEVELOPMENT

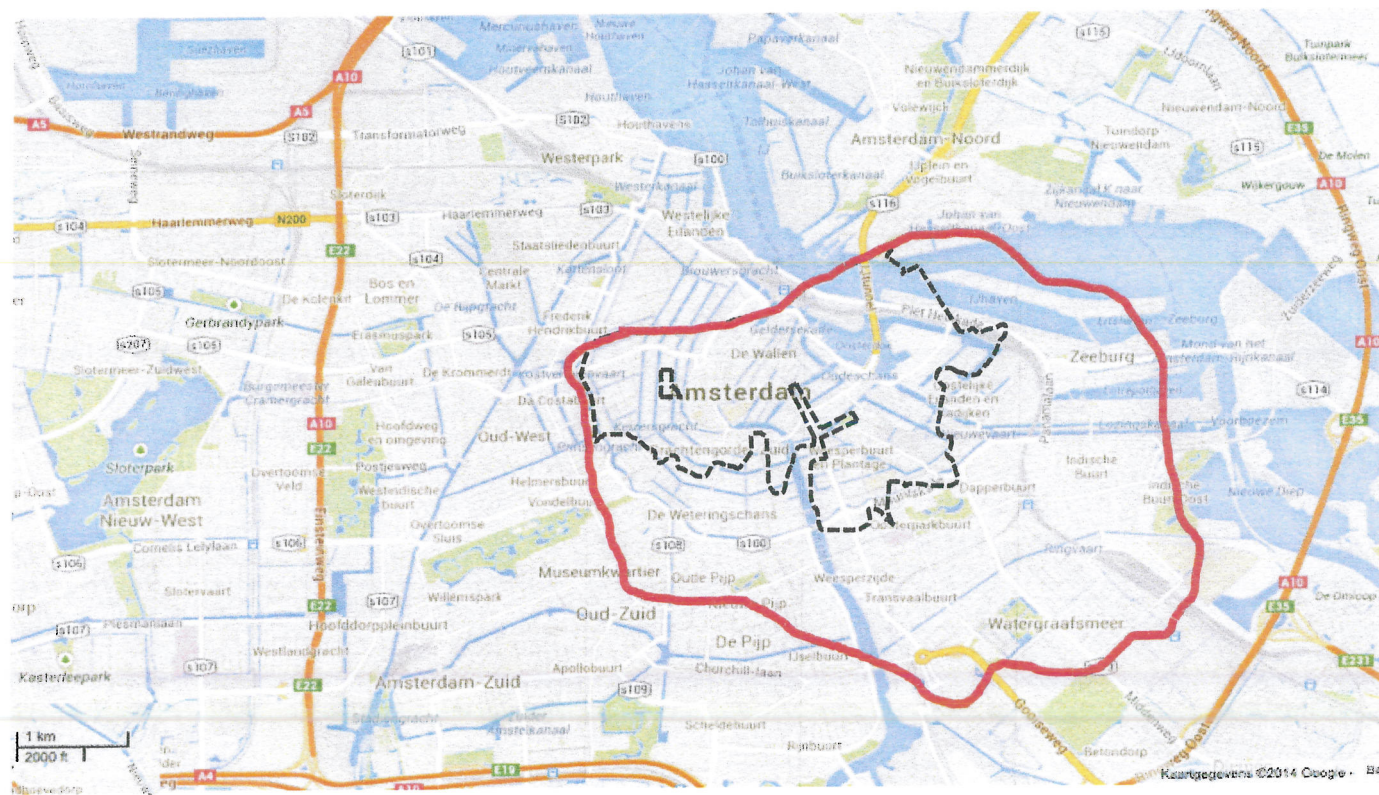


Status

- * Model for land development updated and finish
- * Six (6) Redevelopment Scenario's defined
- * Hybrid Scenario is best of both worlds
- * TOR being made to do a feasibility study of 60 hectares development at Ex- Marchena Yard.
- * Master plan for Bullenbay can also now be simulated
- * RdK to develop idle land for more revenue (Isla & BB)

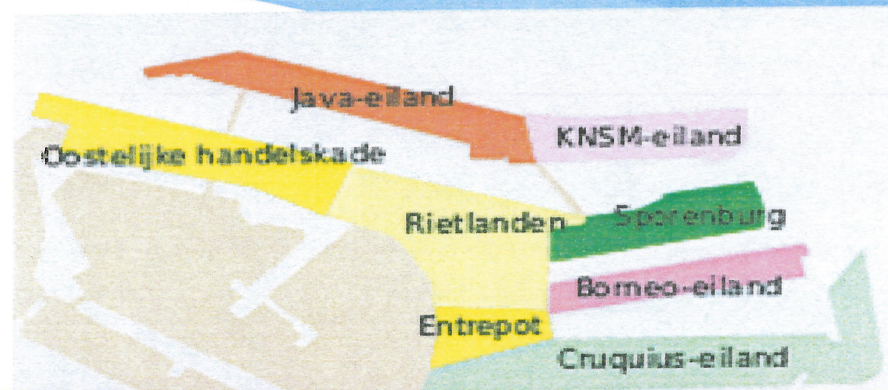
Isla projected onto Amsterdam, Netherlands

804 ha.

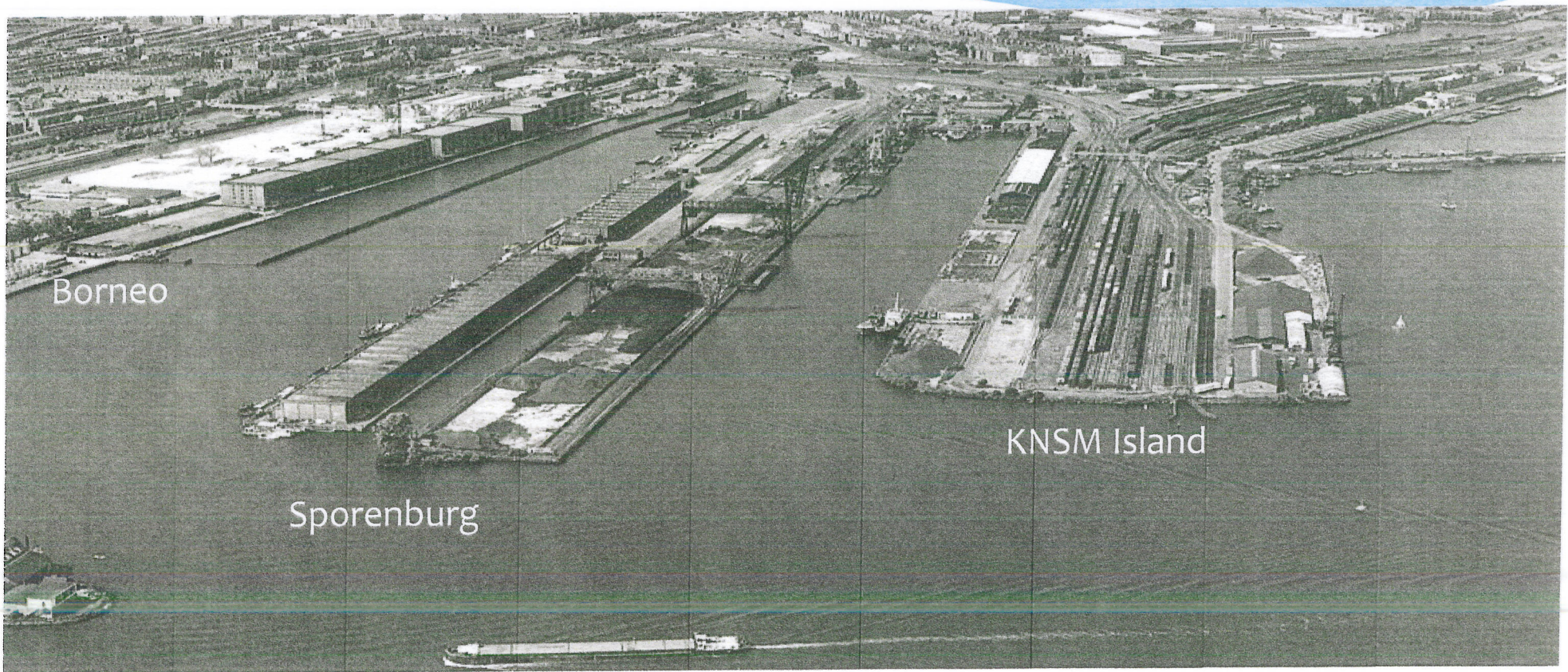


For a sustainable and modern Curaçao Refinery

Oostelijk Havengebied, Amsterdam



Oostelijk Havengebied, Amsterdam



Oostelijk Havengebied, Amsterdam

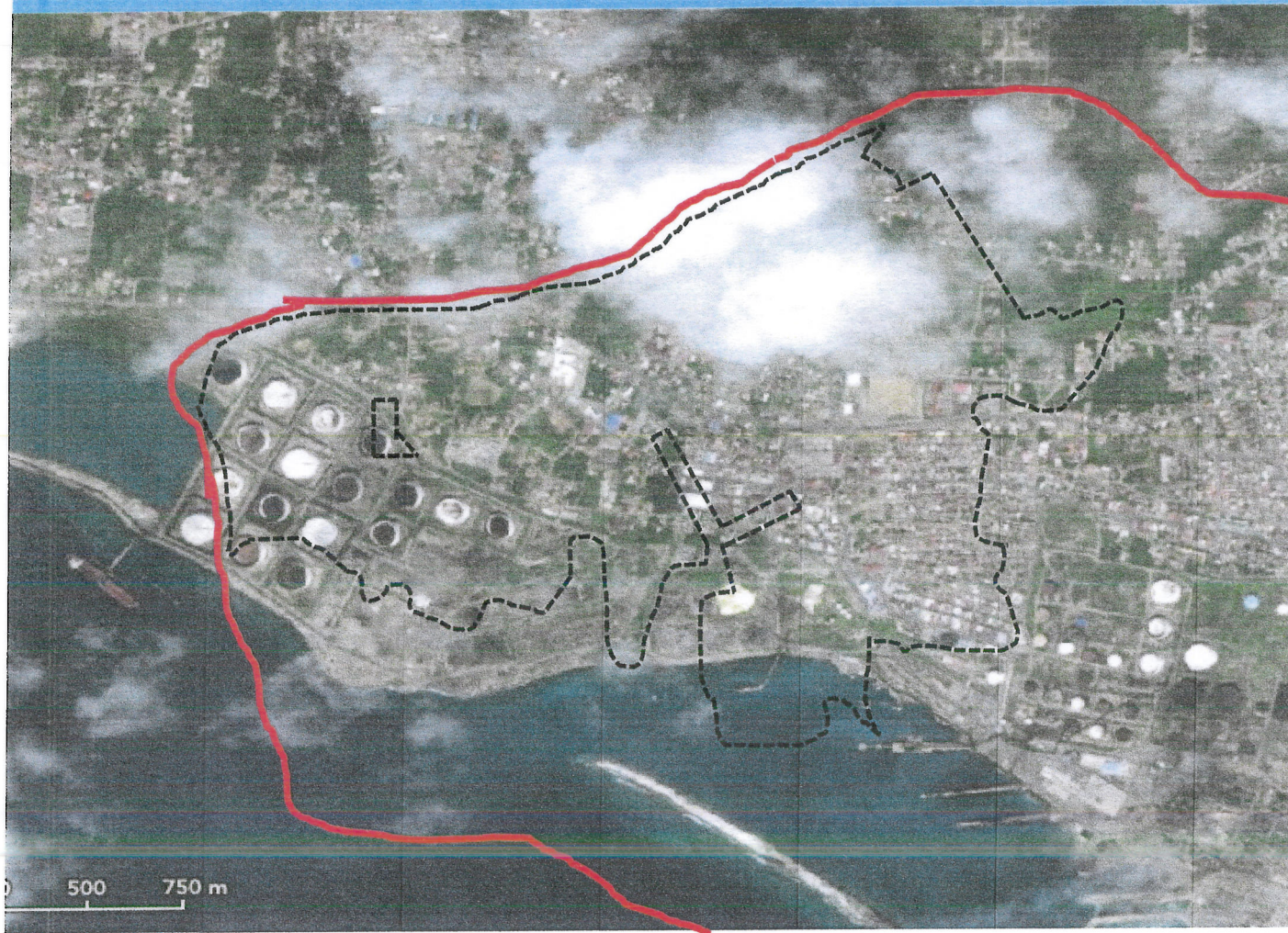


Borneo

Sporenburg

KNSM-Island

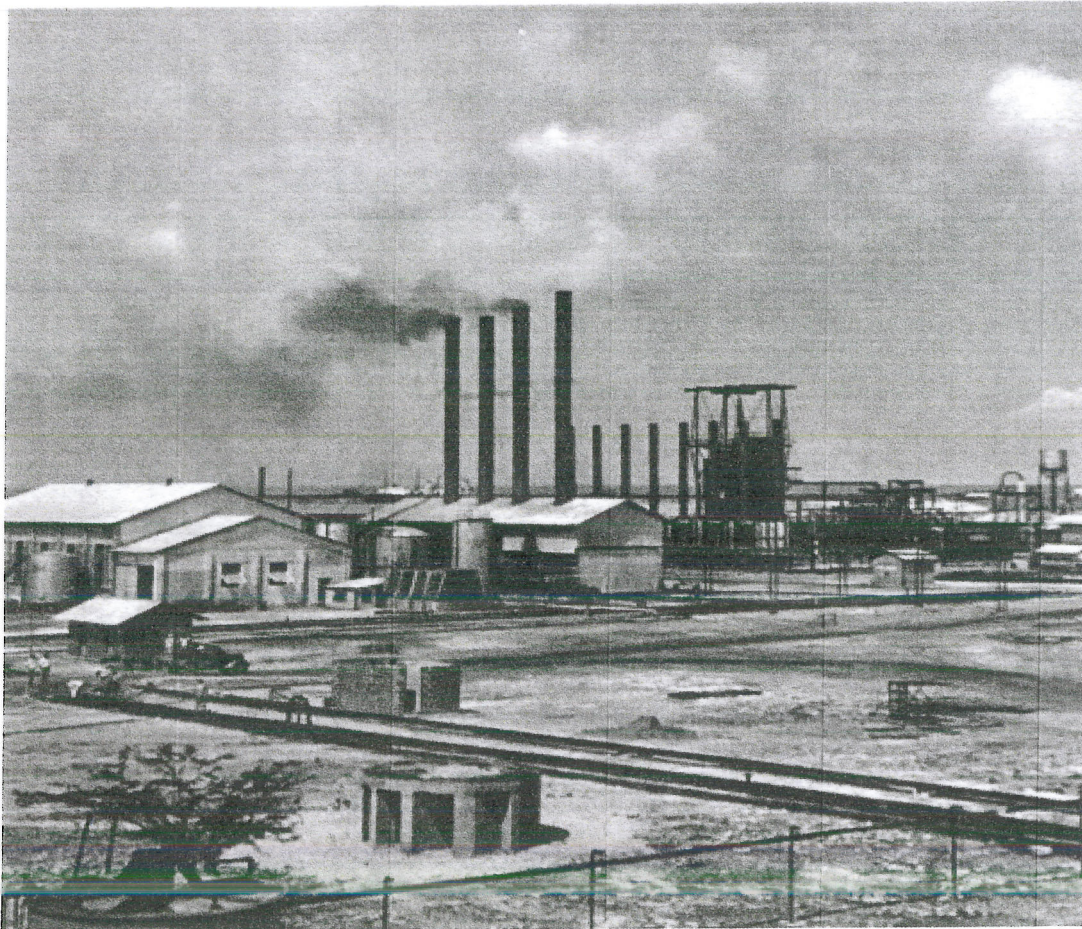
Isla projected onto Lago, Aruba



Sasaki Plan, Aruba



Sasaki Plan, Aruba



The Eagle Aruba, west of Oranjestad early 50's








The Eagle , Sasaki Aruba, 2014

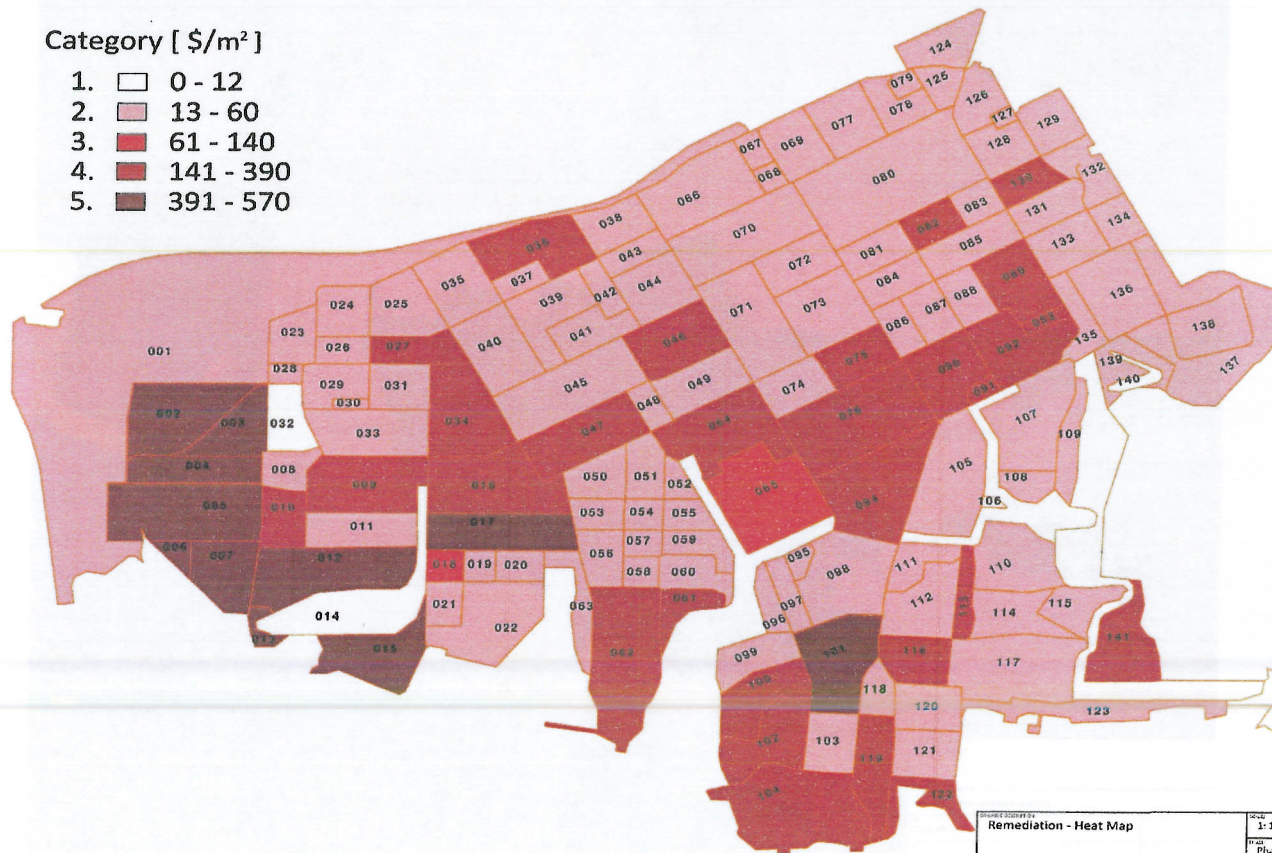
Scheme of Pipeline Infrastructure



Level of Contamination

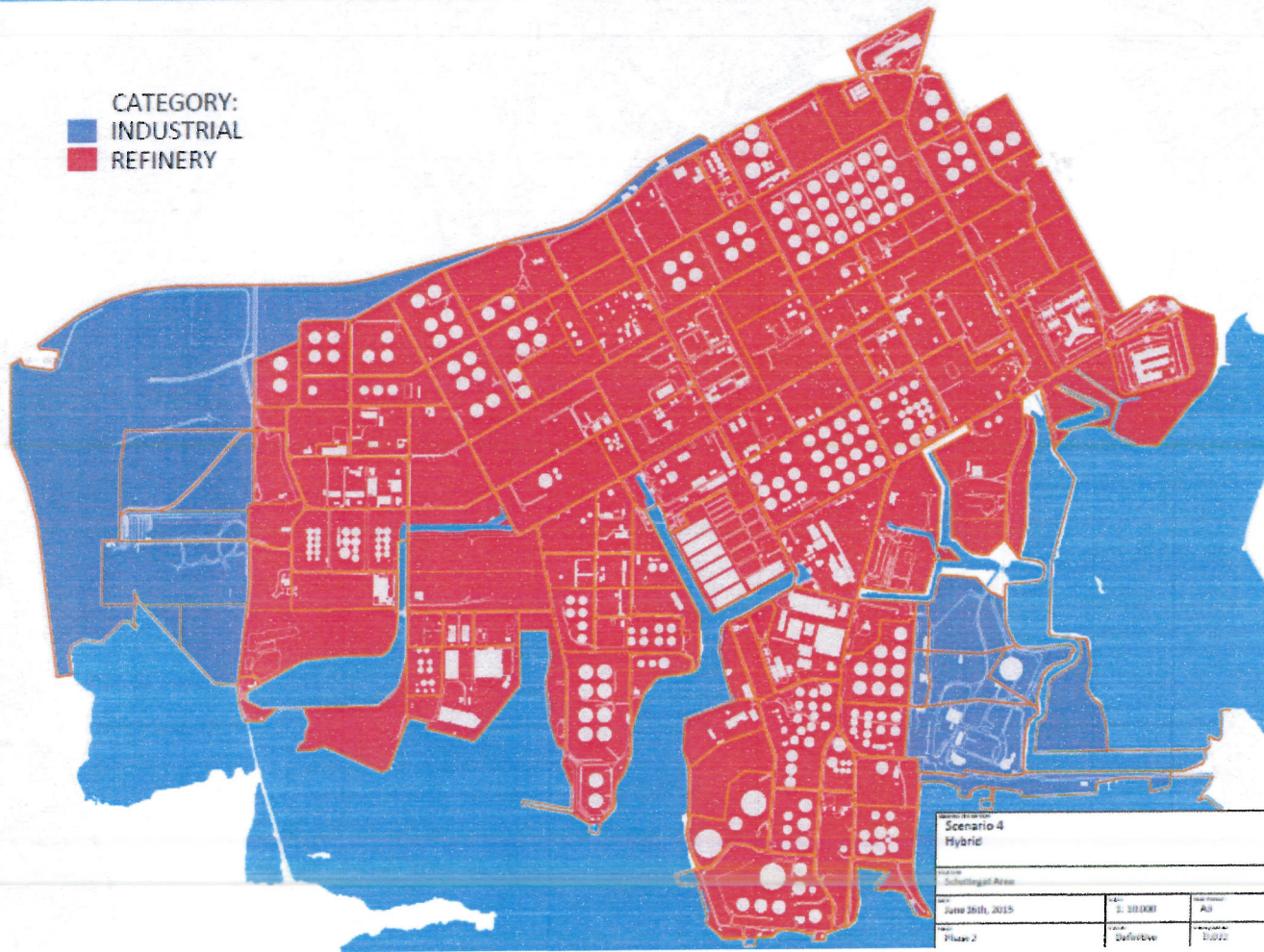
Category [\$/m²]

1.  0 - 12
2.  13 - 60
3.  61 - 140
4.  141 - 390
5.  391 - 570



Scenario: 'Hybrid'

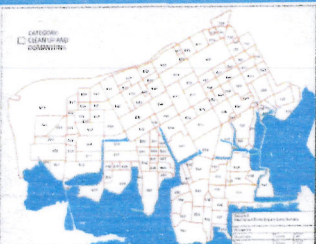
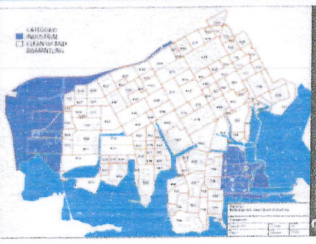
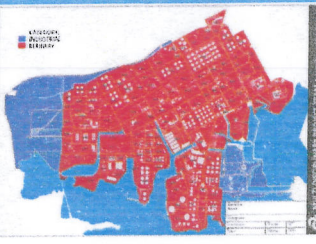
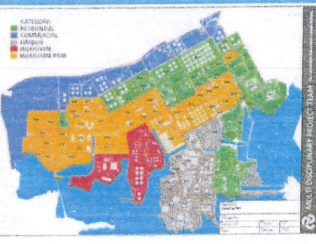
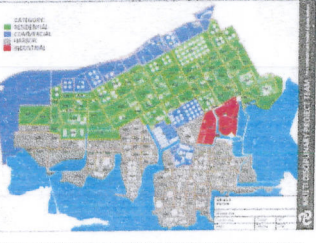
CATEGORY:
INDUSTRIAL
REFINERY



WIN-WIN



Summary scenarios under review

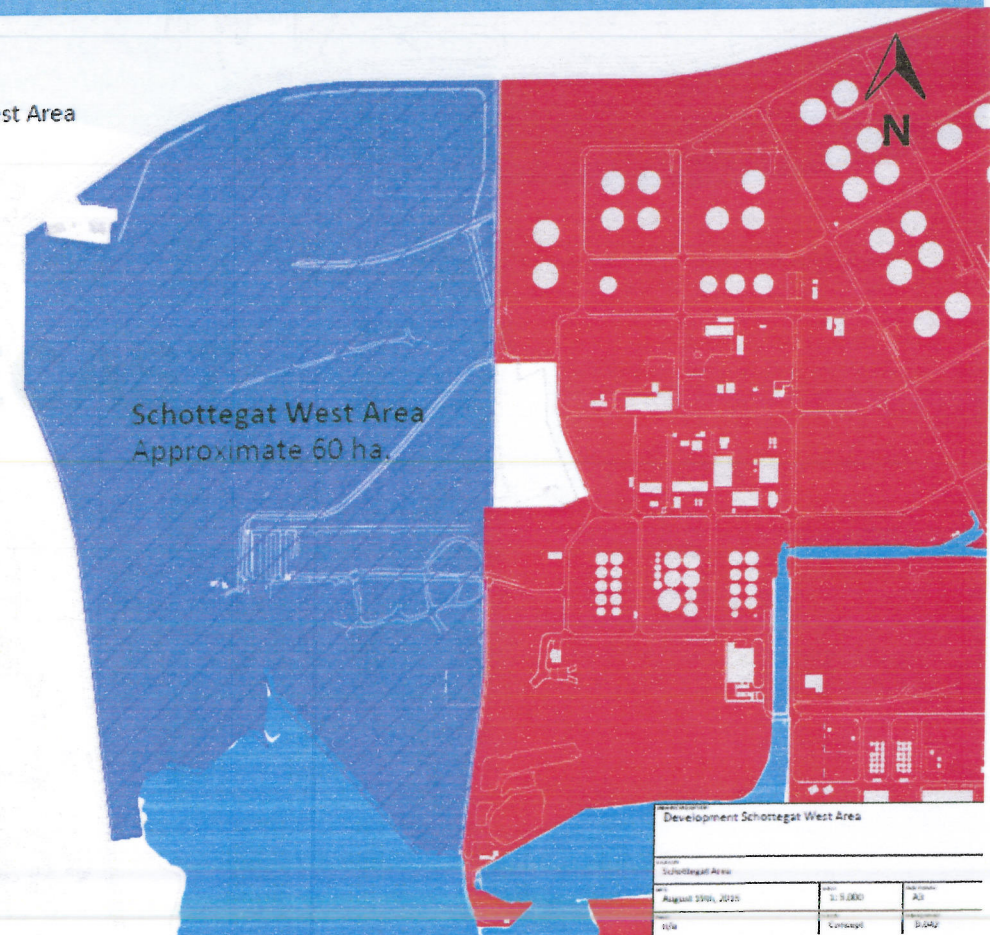
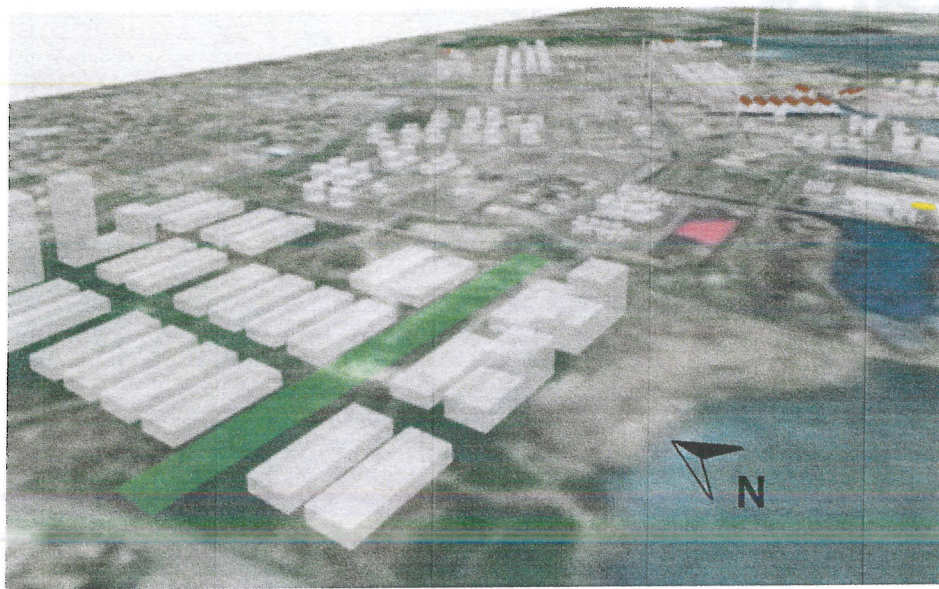
High-level financial insights (Note that scenarios are still under construction, differences may result due to new insights and validation of assumptions)

Scenarios	2. Refinery shut-down, Clean-up + dismantling	3. Refinery shut-down, clean + dism& redevelopment	4. Hybrid scenario	5. Industrial Park scenario	6. Maritime scenario
Land map					
Annual revenues RDK	Temp/5y-Avg: none Perm/End: none	Temp/10y-Avg: US\$ 10m Perm/End: US\$ 12m	Temp/25y-Avg: US\$ 26m Perm/End: US\$ 29m	Temp/25y-Avg: US\$ 39m Perm/End: US\$ 65m	Temp/25y-Avg: US\$ 39m Perm/End: US\$ 68m
Total capital required RDK	Capital: US\$ 727m Dividends: none	Capital: US\$ 680m Dividends: none	Capital: US\$ 20m Dividends: US\$ 18m	Capital: US\$ 256m Dividends: US\$ 44m	Capital: US\$ 310m Dividends: US\$ 45m
Total Project investment	Investment: US\$ 0.7B	Investment: US\$ 4.0B	Investment: US\$ 6.4B	Investment: US\$ 8.8B	Investment: US\$ 11.1B
Total annual GDP contribution	Temp/5y-Avg: US\$ 170m Perm/End: none	Temp/10y-Avg: US\$ 520m Perm/End: US\$ 298m	Temp/25y-Avg: US\$ 302m Perm/End: US\$ 518m	Temp/25y-Avg: US\$ 413m Perm/End: US\$ 904m	Temp/25y-Avg: US\$ 524m Perm/End: US\$ 809m
Total annual Job contribution	Temp/5y-Avg: 2.400FTE Perm/End: none	Temp/10y-Avg: 2.600FTE Perm/End: 4.300FTE	Temp/25y-Avg: 4.200FTE Perm/End: 7.000FTE	Temp/25y-Avg: 5.700FTE Perm/End: 12.700FTE	Temp/25y-Avg: 7.200FTE Perm/End: 11.200FTE
Total annual FOREX contribution	Temp/5y-Avg: US\$ 61m Perm/End: none	Temp/10y-Avg: US\$ 167m Perm/End: US\$ 117m	Temp/25y-Avg: US\$ 108m Perm/End: US\$ 147m	Temp/25y-Avg: US\$ 138m Perm/End: US\$ 328m	Temp/25y-Avg: US\$ 187m Perm/End: US\$ 303m

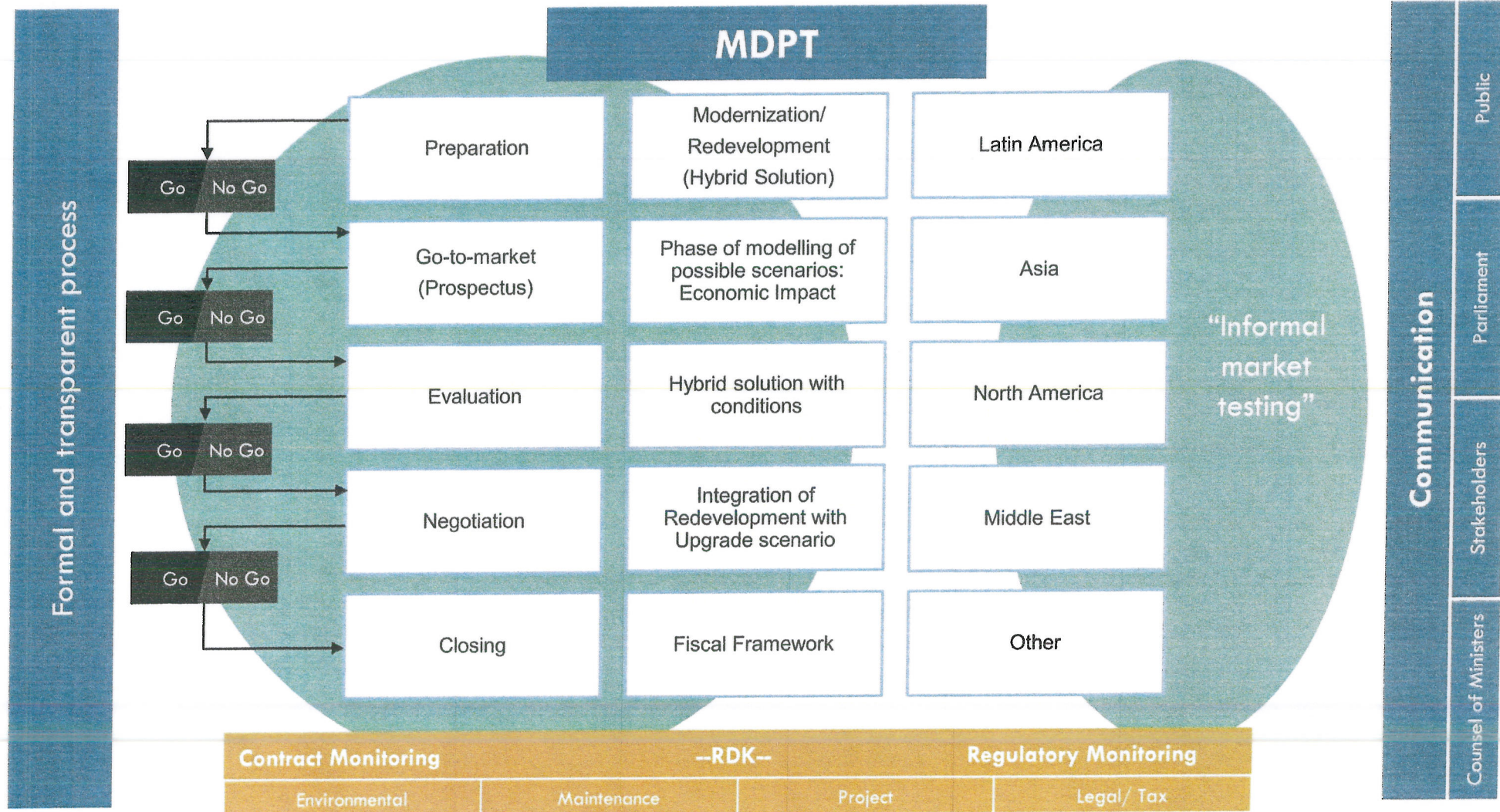
Scenario 1 covering a shut-down of the refinery without any economic activities will have no contributions to the above KPI's

ISLA West Development

CATEGORY:
 Schottegat West Area
 Boundaries
 REFINERY

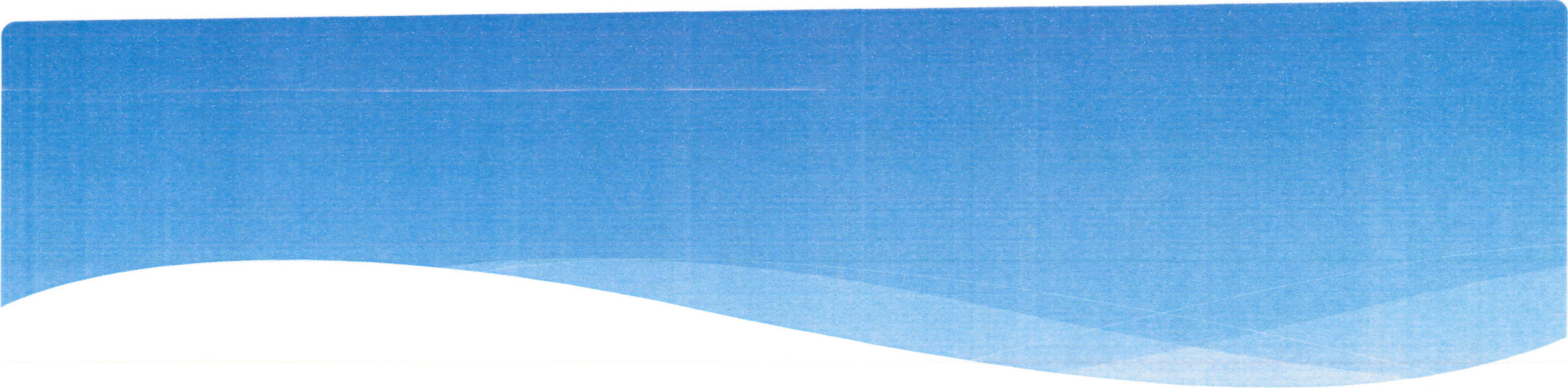


Strategic Partnership



Forecast

- * High level of confidence in keeping Refinery open
- * Duration of new Lease contract 20 - 30 years for modernized Refinery
- * LNG will be used as the new fuel for the Refinery, CRU and Aqualectra
- * **Inform PDVSA that current lease will not be extended after December 31, 2019 under the same conditions.**
- * Massive training effort for local personnel to start
- * Soil remediation to start before 2017 (Approx. 60 Hectares)
- * Reuse of non-vital open areas/facilities highly feasible



Questions & Answers