

# The VTTV Oil Storage Terminal



# Who is VTTV



## VTT Vasiliko Ltd

- Cyprus registered company in the name of ...
- Private investment on private land
- Foreign investment of €300M = 1.7% Cyprus GDP
- VTTI B.V., the mother company, is a JV oil terminal business with global capacity of 8.0M m<sup>3</sup>
- VTTI B.V. shareholders:
  - VITOL – currently the world's largest energy trading company
  - MISC - leading international energy shipping company owned by Petronas

## VTTI

- Incorporate the highest standards on health, safety and environment
- Maintain international operating standards
- Intend to expand to 10M m<sup>3</sup> by end 2013





# Project location



Image © 2012 TerraMetrics  
Data SIO, NOAA, U.S. Navy, NGA, GEBCO  
Image © 2012 DigitalGlobe

# WHY CYPRUS?

## The international market & product flows

### The rationale for the project - 1

- To serve as a hub in the Eastern Mediterranean to capture the flows of...
  - ... **Fuel Oil from the Black Sea to the East;**
  - ... **Middle Distillates from the East to the West;**
  - ... **Gasoline from Europe to the East Med and the Red Sea.**



# WHY CYPRUS?

## Suez Canal ship flows

### The rationale for the project - 2

- To provide ship-to-ship operations in the Eastern Mediterranean

Currently 250 trans-shipments per year take place in the open sea around Cyprus. In 2011, 9.6 million metric tons were trans-shipped. This quantity is expected to increase dramatically when a safer alternative is available (marine jetty).

### Generally used oil tanker terminology

Tanker Type	Deadweight Tons	Approximate Capacity (Barrels)
Panamax	60,000 - 100,000	440,000 - 730,000
Aframax	80,000 - 120,000	850,000 - 880,000
Suezmax	120,000 - 200,000	880,000 - 1,500,000
VLCC	200,000 - 320,000	1,500,000 - 2,350,000
ULCC	320,000+	2,350,000+

In 2011 17,800 ships transited the Suez Canal from both directions of which 20% were petroleum products. The **Suezmax** was the largest ship capable of navigating through the Canal until 2010 when depth was increased to 66 ft to allow over 60% of all tankers to use the Canal, including ships that are 220,000 of dead weight tons in size.



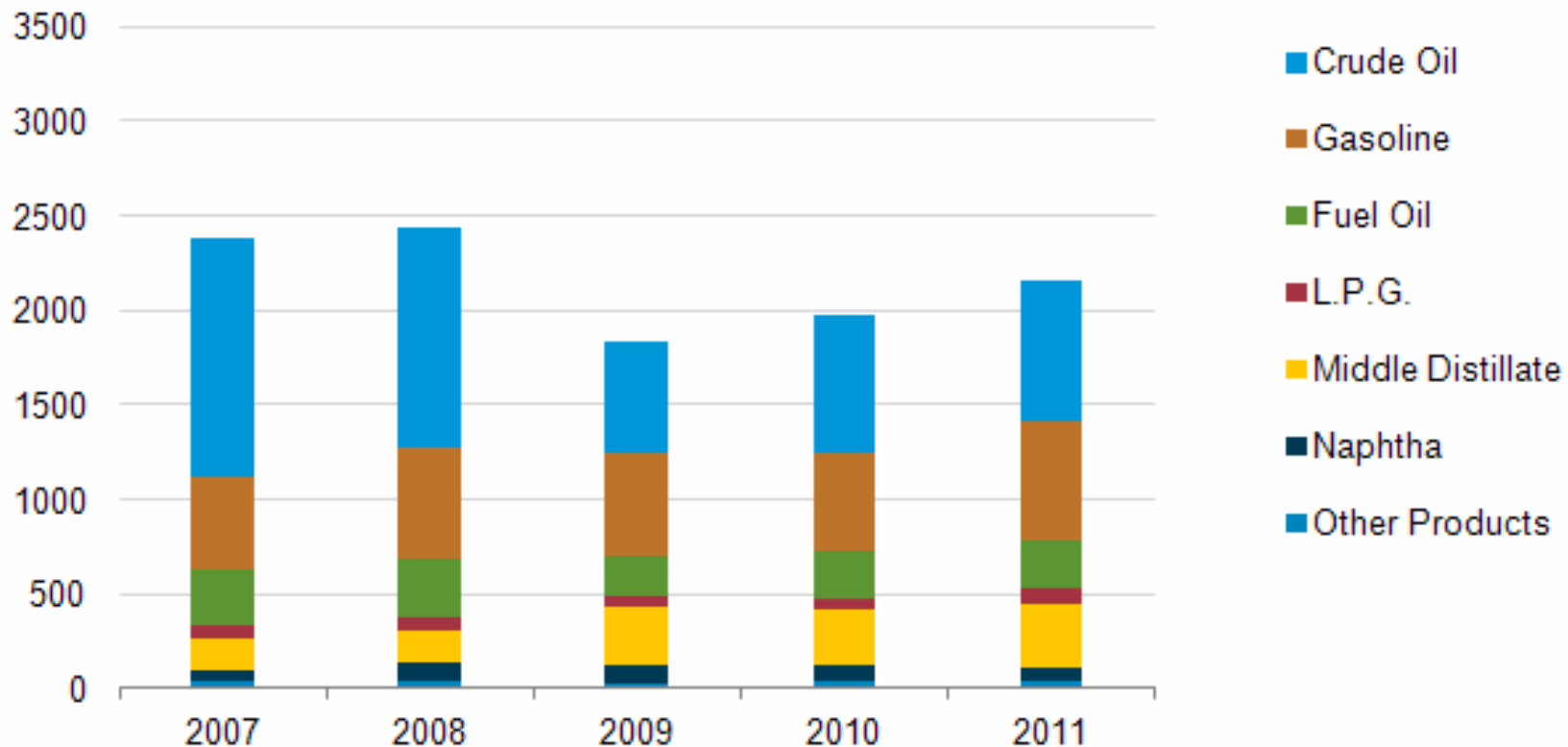
# WHY CYPRUS?

## The Suez Canal product flows



### Volume of crude oil and petroleum products transported through the Suez Canal (both directions), 2007-2011

thousand barrels per day



# WHY CYPRUS?

## The local market

### The rationale for the project - 3

- To serve as an option for the local Cypriot market requirements

The aged storage facilities at Larnaca do not provide efficient logistics for local marketers and are still slated to be relocated for Larnaca town development.

- To serve as an option for the storage of Cyprus' compulsory stocks.

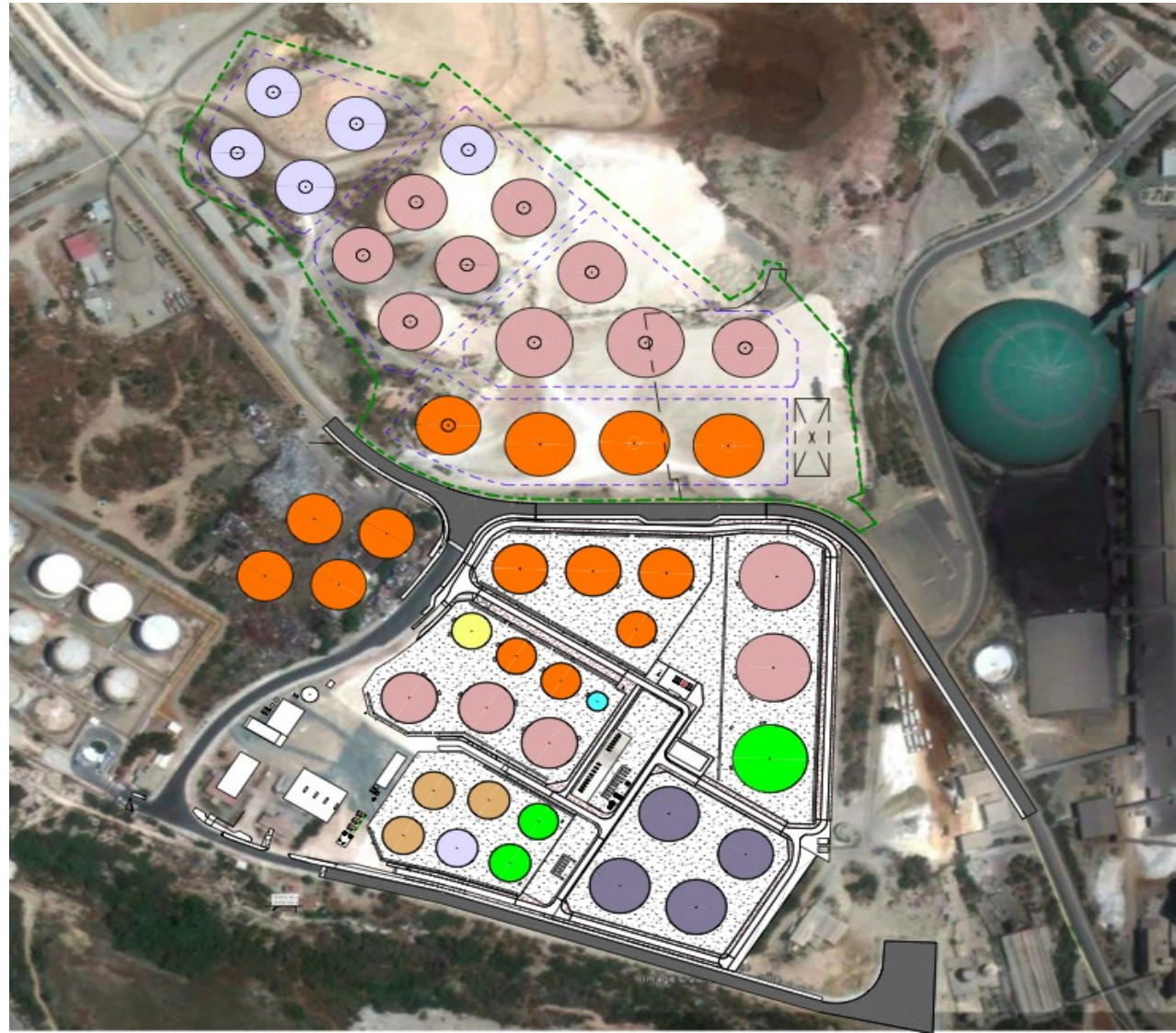
Currently held in Cyprus, Greece and the Netherlands





## Cyprus Compulsory Stocks

- Compulsory stocks for 90 days est. ~500k m<sup>3</sup>
- T/C land north of VTTV site
- Low cost solution ~€100m
- Quick solution, 1 year from securing licenses
- Eases construction of the Gas liquefaction plant in the Energy Centre





# WHY CYPRUS?

## The business environment

### The rationale for the project - 4

- A favourable geographical location
- A EU Member State (also employing the concept of bonded warehousing for hydrocarbons in storage)
- Deep sea water close to shore to accommodate large ships
- A modern economy
- Good services provision
- Highly-educated and English-speaking workforce

### Improvements for consideration by the Republic of Cyprus

- Permitting and licensing processes simplification
- 'One-stop shop'



# Tank Farm

## Phase 1

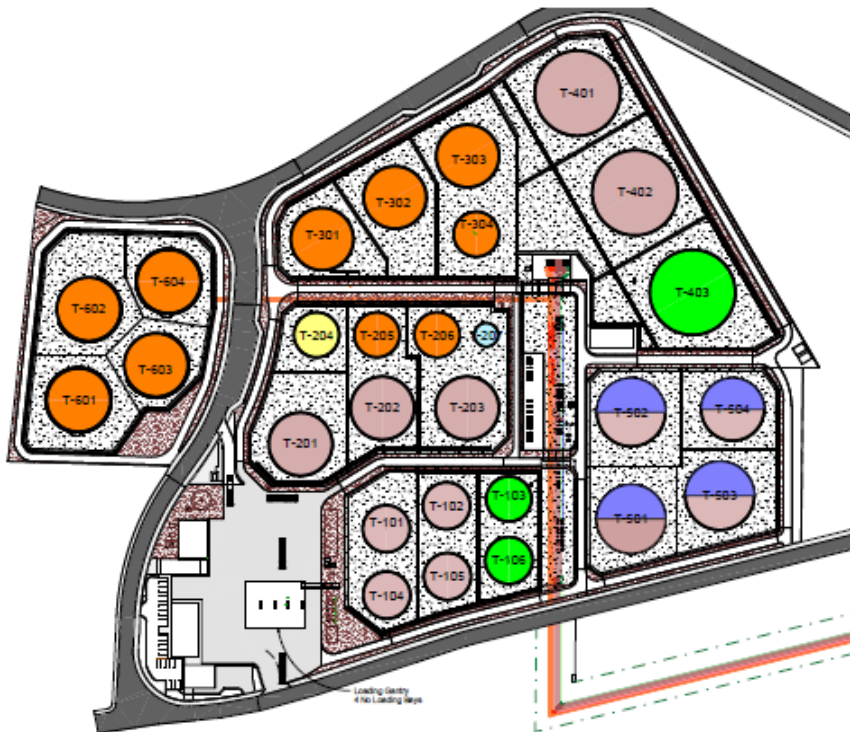
- 20 tanks of total capacity 357K m<sup>3</sup>
- Access to deep water Marine Jetty
- Access to road tanker loading facilities (gantry)
- Gasoline, Diesel, Jet fuel, Gasoil, MTBE

## Phase 2

- 8 tanks of total capacity of 186K m<sup>3</sup>
- Gasoline, Diesel, Gasoil/Fuel oil

## Phase 3 (under evaluation)

- 12 tanks of total capacity 315K m<sup>3</sup>
- Fuel oil



- gasoline
- gasoil
- jet-A1
- HFO
- MTBE
- FAME

Tank Schedule by Main Product		
Tank no.	Product	Capacity (m <sup>3</sup> )

T-207	FAME	2036
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T-201	Gasoil	20612
T-202	Gasoil	20612
T-203	Gasoil	20612
T-401	Gasoil	40682
T-402	Gasoil	40682
		143200

T-105	Gasoil 0.1%	11310
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T-501	Gasoil - HFO	25977
T-502	Gasoil - HFO	25977
T-503	Gasoil - HFO	25977
T-504	Gasoil - HFO	21715
		99646

T-205	Gasoline	10387
T-206	Gasoline	10387
T-301	Gasoline	20910
T-302	Gasoline	20910
T-303	Gasoline	20910
T-601	Gasoline	21436
T-602	Gasoline	21436
T-603	Gasoline	21436
T-604	Gasoline	21436
		169251

T-304	Gasoline - MTBE	10387
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T-103	JET-A1	10387
T-403	JET-A1	40682
		51069

T-106	JET-A1/Gasoil 0.1%	11310
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T-204	MTBE	10387
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T-101	ULSD	11310
T-102	ULSD	11310
T-104	ULSD	11310
		33929
		542524



# Road Tankers' Gantry 3D



# Tanks & Pipelines 3D





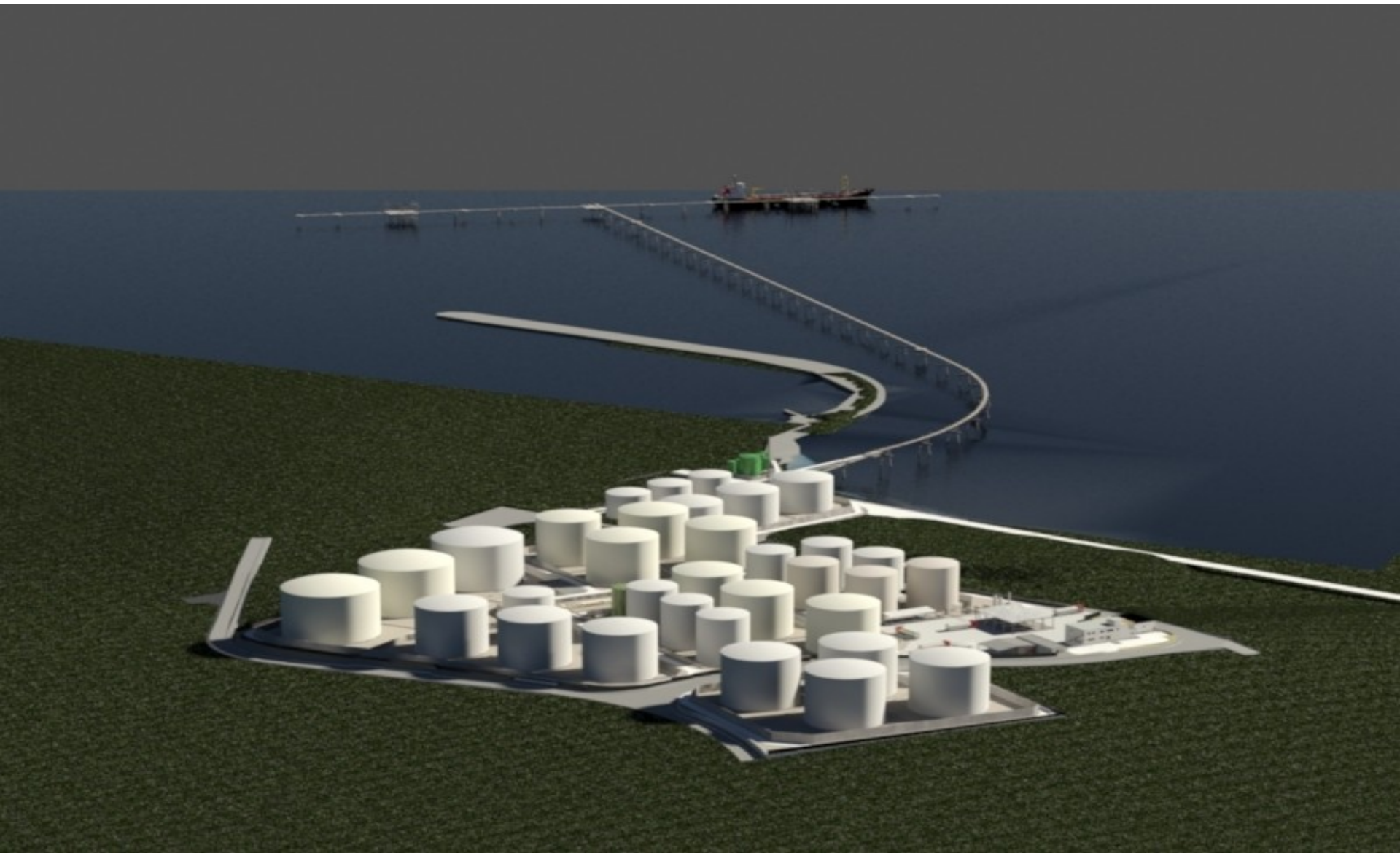
# Marine Jetty



- 4 berths handling all oil products
- 2 loading arms per berth per product
- Loading arms capable of loading / discharging 1250m<sup>3</sup>/h per product
- Jetty extends off-shore 1200m
- Berths 1 & 2: Draft 18.1m (50K – 160K DWT)
- Berths 3 & 4: Draft 13.2m (10K – 50K DWT)



# Marine Jetty 3D





# The VTTV terminal: It's happening...



The VTTV terminal: It's happening...



July 2011



# What's in it for Cyprus



## Economic

- Only major infrastructure project currently investing in Cyprus with 100% equity funds
- >500 jobs created during construction and 40 full time jobs once operational (1Q14)
- Additional job creation in service provision to support terminal and shipping activities
- Substantial revenues to Cyprus >€18M per year through taxes, customs duties, port fees etc.

## Synergies

- Share of infrastructure with other energy developments in the area (VOT, LNG etc.)
- Economies of scale from sharing Vasiliko Port facilities and services with others.

## Commercial

- Import / export / trans-shipment of oil products from / to the international market making Cyprus a strategic energy hub
- Trade with Eastern Med. Middle East and European markets
- Partnerships to provide storage options for the inland market and strategic stocks
- Boosts confidence for foreign investments and commercial activities in Cyprus



