

# LUBEHUB

Lubricants Value Park

**LUBEREF**  
[www.luberef.com](http://www.luberef.com)

**ROYAL COMMISSION  
FOR JUBAIL AND YANBU**  
[www.rcjy.gov.sa](http://www.rcjy.gov.sa)

# CONNECTING VALUES



الهيئة الملكية للجبيل وينبع  
Royal Commission for Jubail & Yanbu





# About the Saudi Aramco Base Oil Company – Luberef

Saudi Aramco Base Oil Company – Luberef is a leading producer and supplier of base oils in Saudi Arabia and exports its products across the world. It has two refineries in Jeddah and Yanbu processing 100% Arabian crude. Luberef is committed to providing its customers with a reliable supply of consistently high quality base oils.



## LEADER

Luberef is one of the world’s leading suppliers of high quality base oils



## PROVIDER

Luberef delivers consistent quality and supply reliability from single-source Arabian crude



## PARTNER

Luberef can help you create value in a changing world of perpetual motion

Seen here is the Lubehub refinery in Yanbu



# About the Lubehub Lubricants Value Park

1 Direct piped feed of Luberef base oils



2 Access to a world-class Yanbu ecosystem



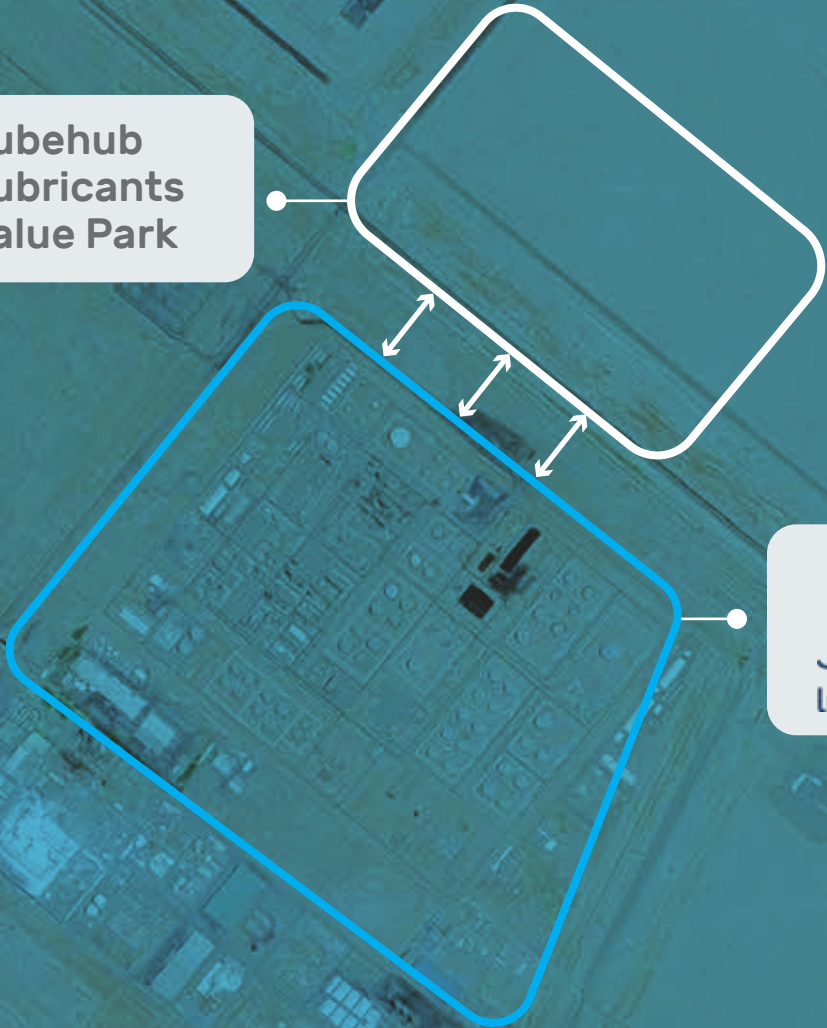
3 Access to fast-growing markets in the Middle East and Africa



4 Attractive investor incentives available



Lubehub Lubricants Value Park

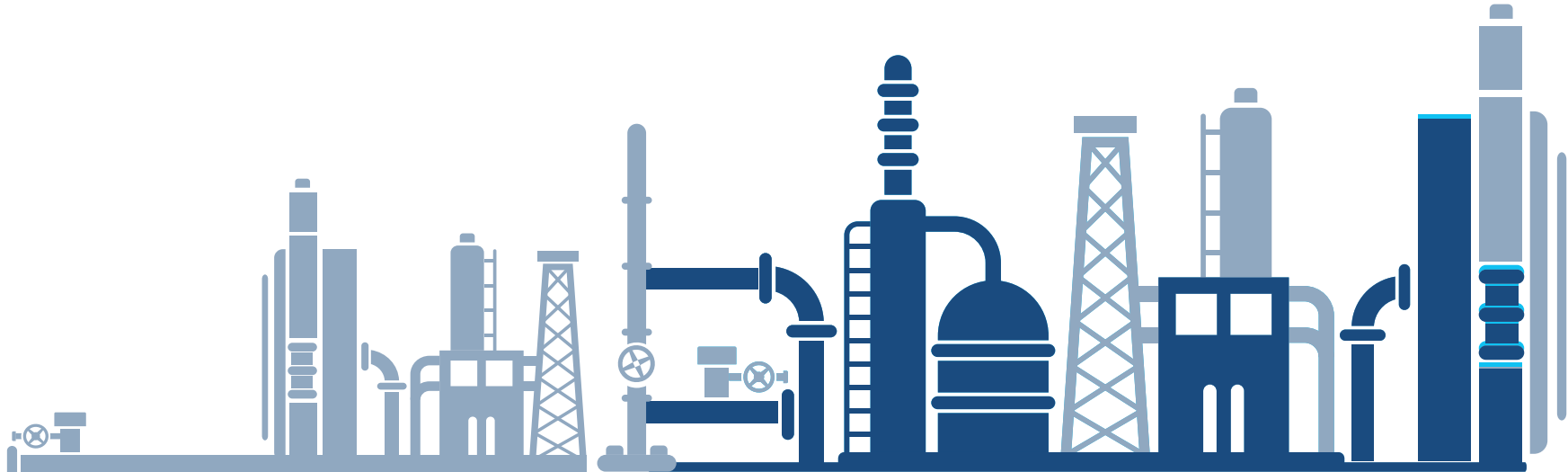




# The Value Park will have a direct piped supply of Luberef base oils



# LUBEREF



Refined from 100% Arabian crude



# The Value Park benefits from the world-class Yanbu ecosystem

1

GLOBAL

refining hub

1 million

Barrels per day

2

WORLD SCALE

chemicals assets

3.5 million

Tons per year olefins

3

FUTURE HOME

to Aramco-SABIC crude oil to chemicals

9 million

Tons per year chemicals

4

WORLD CLASS

infrastructure and logistics

Largest

Shipping port on the Red Sea

5

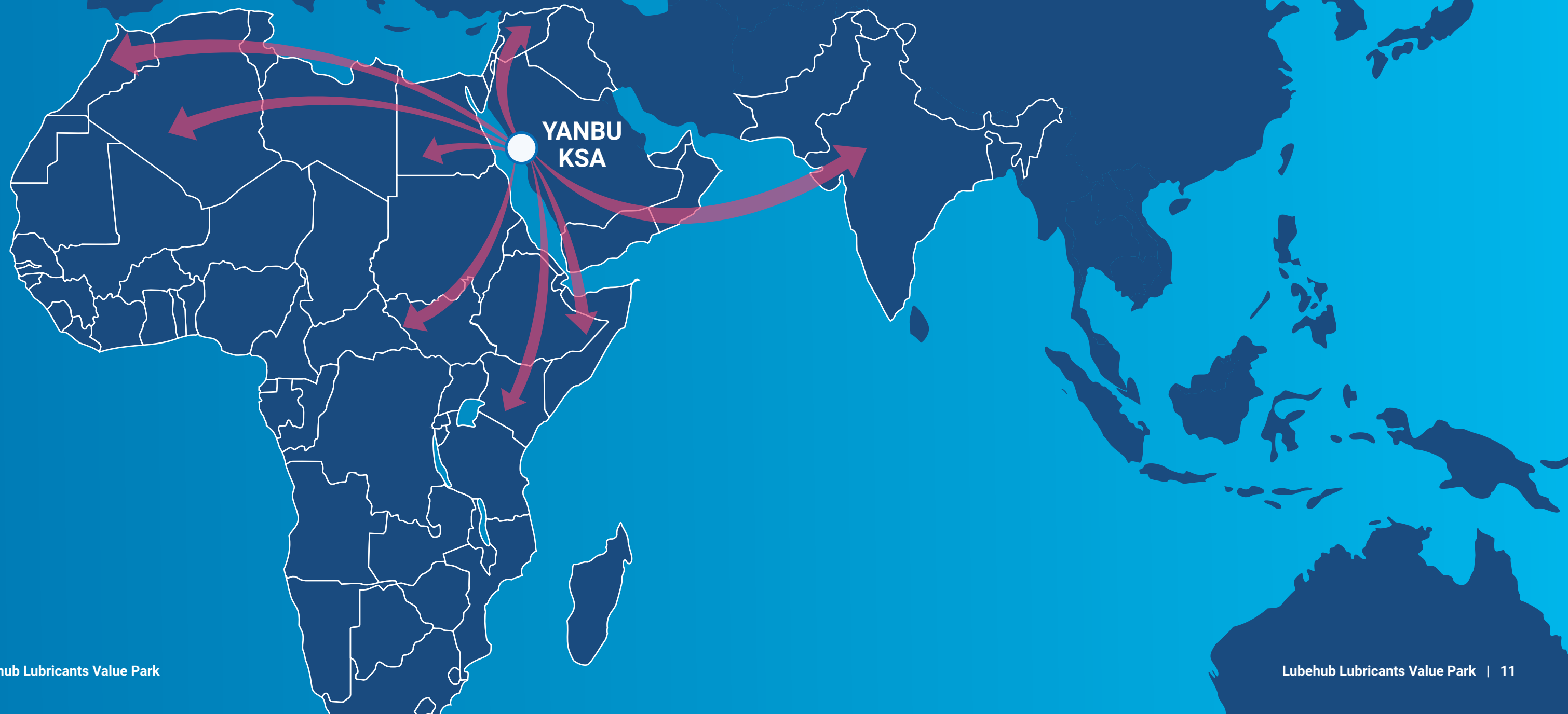
RAPID GROWTH

18%

Annual growth of private investments



# Yanbu is at a strategic location to serve the Middle East, Africa and South Asia





# Incentives & Opportunities



# A wide range of incentives are available for investors

1



## FINANCING INCENTIVES

- ◆ Export credit financing, guarantee, insurance
- ◆ Energy and utilities incentives
- ◆ Financial incentives for R&D
- ◆ Loan programs

2



## TRADE INCENTIVES

- ◆ Custom duty drawback, exemption
- ◆ Tax credit, exemption

3



## EMPLOYMENT INCENTIVES

- ◆ Employment funding





# 7 investment opportunities



## Finished Lubricants



Finished  
Lubricant blending



Transformer  
oil



Metalworking  
fluid



## Speciality Oils



White oil &  
Petroleum jelly



Rubber  
process oil



Drilling  
fluid



## Lubricant Additives



Additive  
blending





## Investment opportunity

### Finished lubricants blending



## Opportunity description

- ◆ Construction of a blending plant to produce finished lubricants for use in a variety of automotive and industrial applications
- ◆ Blended lubricants are prepared by blending base oils with a variety of additives depending on what the final application will be
- ◆ Luberef Yanbu produces Group II base oils and brightstock that can be used to produce a wide variety of lubricants
- ◆ Two major additive blenders are located within the Yanbu ecosystem

### About Investment



#### Products

Engine oil  
Hydraulic fluid  
Transmission fluid  
Gear oil  
Greases



#### Raw materials

Luberef base oils  
Additives



#### Utilities

Electricity  
Water



#### Technology

Blending

### Market size

## 4.1 million tons

Middle East and Africa (2018)

### Growth rate

## 2-3% per year

Middle East and Africa (2019-23)

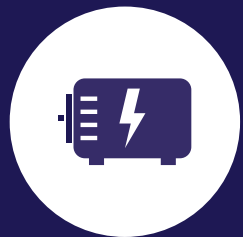
### Capacity (Typical plant)

## 30-80 kta

### Capex range

## \$30-80 million





# Investment opportunity

## Transformer oil



## Opportunity description

- ◆ Construction of a blending and processing facility to produce transformer oil
- ◆ Mineral base oils are processed to remove impurities, particles, and water to strengthen dielectric properties of the oil and reduce the flammability and oxidizing/corrosive properties
- ◆ Transformer oil performance requirements are standardized under the ASTM D3487 and IEC 60296 codes
- ◆ Luberef Yanbu produces 70N Group II base oil as feedstock

### About Investment



#### Products

Paraffinic transformer oil/dielectric Fluid



#### Raw materials

Luberef base oils



#### Utilities

Electricity  
Water



#### Technology

Removal of impurities  
Blending

### Market size

## 150 kilotons

Middle East and Africa (2018)

### Growth rate

## 2-3% per year

Middle East and Africa (2019-23)

### Electricity generation

## 80 GW

New capacity to be added in KSA by 2040

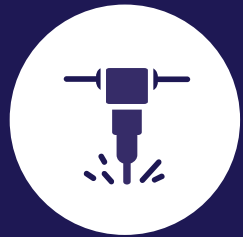
### Investment

## \$260 billion

Projected MENA region power sector investment in 2018-22

Source: Vision 2030, Middle East Electricity by UAE Ministry





# Investment opportunity

## Metalworking fluid

## Opportunity description

- ◆ Opportunity to set up a processing and blending facility for producing metalworking fluids for various industrial applications
- ◆ Metalworking fluids are generally produced by blending and emulsifying base oil or water with chemical additives suited to specific applications
- ◆ Some chemical additives are corrosion inhibitors, anti-mist agents, alkanolamines, biocides, stabilizers, dispersants, anti-foamers, dyes

### About Investment



#### Products

Various types of metalworking fluids



#### Raw materials

Luberef base oils  
Additives



#### Utilities

Electricity  
Water



#### Technology

Blending

### Market size

## 120 kilotons

Middle East and Africa (2018)

### Growth rate

## 1-2% per year

Middle East and Africa (2019-23)

### KSA manufacturing

## 50% growth

Planned increase of the machinery and equipment manufacturing sector in KSA as part of the National Industrial Strategy (NIS)

### Industry growth

## 5.2% per year

Current growth rate of manufacturing industries in KSA

Source: Saudi Industrial Development Fund,  
National Industrial Strategy, Market Intelligence





# Investment opportunity

## White oil



## Opportunity description

- ◆ Production of cosmetic, food, and pharmaceutical grade white oils which are further utilized to produce many common cosmetics such as lotions and creams
- ◆ In addition white oils are used for myriad purposes including polymers, textiles, additives, and food & beverage
- ◆ White oil can be produced from Luberef's lighter base oils either through further hydro-processing or sulfuric acid treatment

### About Investment



#### Products

White oil  
Cosmetic grade  
white oil



#### Raw materials

Luberef base oils  
Hydrogen (treat gas)



#### Utilities

Electricity  
Water



#### Technology

Hydro processing  
Refining and  
purification  
Blending

### Market size

## 70 kilotons

Middle East and Africa (2018)

### Growth rate

## 2-4% per year

Middle East and Africa (2019-23)

### Cosmetics market

## \$11 billion

Projected size of MENA  
region cosmetics market by 2023

### New population

## 1.7 billion

New population  
projected in Africa by 2050

Source: Euromonitor International,  
United Nations, Market Intelligence





# Investment opportunity

## Rubber process oil



## Opportunity description

- ◆ Construction of a facility for production of Treated Distillate Aromatic Extract (TDAE) rubber processing oil
- ◆ Rubber process oils are used as softeners in producing rubber
- ◆ They help to reduce modulus and hardness and to increase elongation of natural and synthetic rubber compounds
- ◆ The key application for rubber process oils is the manufacture of tires
- ◆ Luberef produces bright stock extract as a feedstock
- ◆ VGO is available from the Yanbu ecosystem

### About Investment



#### Products

Treated distillate aromatic extract



#### Raw materials

Luberef bright stock extract  
Solvents  
VGO



#### Utilities

Electricity  
Water



#### Technology

Solvent extraction  
Blending

### Market size

## 95 kilotons

Middle East and Africa (2018)

### Growth rate

## 2-4% per year

Middle East and Africa (2019-25)

### Rubber production

## \$1.2 billion

Upcoming large-scale plant in Jubail for premium rubber tire production

## 22 million tires

Expected production of passenger and truck tires

### KSA trained talent

HIEI at Yanbu: Higher Institute of Elastomers Industries will provide workforce for this plant

Source: KSA National Industrial Clusters Development Program, Saudi Arabian General Investment Authority, Market Intelligence





# Investment opportunity

## Oil-well drilling fluid



## Opportunity description

- ◆ Construction of a processing and production facility for drilling fluid by utilizing Luberef's drilling fluid feedstock
- ◆ To produce drilling fluid, input materials (base oil and additives) are blended and mixed together in an emulsified form in different concentrations – depending on end-usage requirements
- ◆ Specialty chemicals like barite, bentonite and others are added to enhance properties such as viscosity, friction, stability, emulsification, foaming, and abrasion

### About Investment



#### Products

Oil based oil-well drilling fluid



#### Raw materials

Luberef drilling fluid feedstock  
Additives (Barite, Bentonite, Calcium Chloride, emulsifier, etc.)



#### Utilities

Electricity  
Water



#### Technology

Blending

### Market size

## \$2.5 billion

Middle East and Africa (2018)

### Growth rate

## 3-5% per year

Middle East and Africa (2019-25)

### Drilling fluid

## Exploration 7x

Projected increase in KSA's exploration spending in 2035 vs 2015

Source: Vision 2030, Market Intelligence





# Investment opportunity

## Lubricant additives



## Opportunity description

- ◆ Opportunity to set up a blending facility to produce additive packages
- ◆ Lubricant additives are chemicals that modify lubricating capabilities of base oils and provide further enhanced properties (such as lower/higher abrasion, pour point depression, anti-foaming, VI modification, etc.)
- ◆ They reduce the overall cost of oil for a given application, extend the lifetime of industrial machinery, and increase energy efficiency
- ◆ Luberef base oil can be blended with imported additive chemicals to produce finished additive packages

### About Investment



#### Products

Variety of additive packages for different lubricants



#### Raw materials

Luberef base oils  
Additive chemicals



#### Utilities

Electricity  
Water



#### Technology

Blending

### Market size

# 375 kilotons

Middle East and Africa (2018)

### Growth rate

# 1-2% per year

Middle East and Africa (2019-25)

### Priority chemical

# NIDL

Lubricant oil additives are one of the priority specialty chemical segments under the National Industrial Strategy

Source: Vision 2030, National Industrial Development and Logistics Program, Market Intelligence