

# OPEN DIE FORGING

INVESTMENT OPPORTUNITY SCORECARD

MINING & METALS



# MINING & METALS

## OPEN DIE FORGING

Public / متاح

High Potential

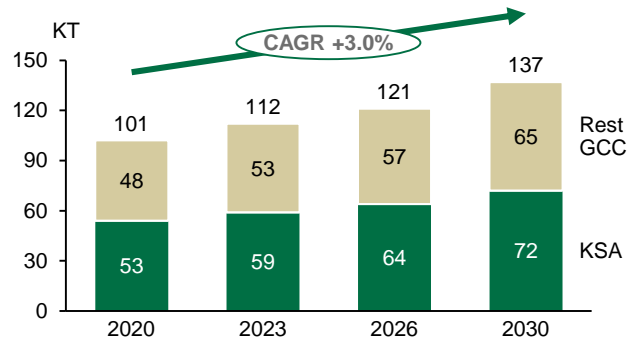
Moderate Potential

Low Potential

**OPPORTUNITY'S DESCRIPTION:** Establish a forging and fabrication shop to provide open-die forging components used in the energy sector

### DEMAND

#### GLOBAL MARKET SIZE, KT



#### INVESTMENT HIGHLIGHTS

- Investment model: 100% private sector investment
- Investors have opportunity to leverage Saudi Aramco's commitment to facilitate and support localization of forging by connecting fabricators with large-scale local consumers

### INVESTMENT OVERVIEW

#### VALUE PROPOSITION

- Mining and Metals Industry set to become the "third pillar" of the Saudi industrial base due to KSA's rich deposits of minerals
- KSA's geographical advantage and trade agreements with neighboring countries make exporting favorable
- First mover advantage given limited presence of large-scale local fabrication and lack of any next generation forging player in KSA
- KSA is working to develop sustainable and globally competitive value-added semi-finished and finished metal industries (downstream) that support the Kingdom's goals of diversification

#### KEY DEMAND DRIVERS

- Saudi Arabia account for 53% of the open-die forging market in GCC
- Demand for forged metal components such as ball valves, wellhead equipment, electric motors, turbines, and pumps from the energy industry are predicted to grow at a stable pace over next 5 – 10 years
- High utilization of forged components in pumps is mainly due to increasing exploration and production activities in the oil and gas sector, and is expected to keep growing

### MARKET OVERVIEW

#### GLOBAL TRENDS

- Demand for open-die forgings grew at 4.8% p.a. from 2017 to 2020 with the strongest demand coming from North America, followed by Asia, Europe, and the rest of the world (ROW.)
- Main end-market industry applications for open die forgings include aerospace, automotive, power generation (including renewables and nuclear), industrial processing and oil and gas sectors
- In terms of end-application, highest demand was in stainless steel forgings (oil and gas industry), value-added alloy steel forgings and alloy tool steel forgings



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## SUPPLY

### SCALABILITY AND LOCALIZATION

Grade: Low Medium High

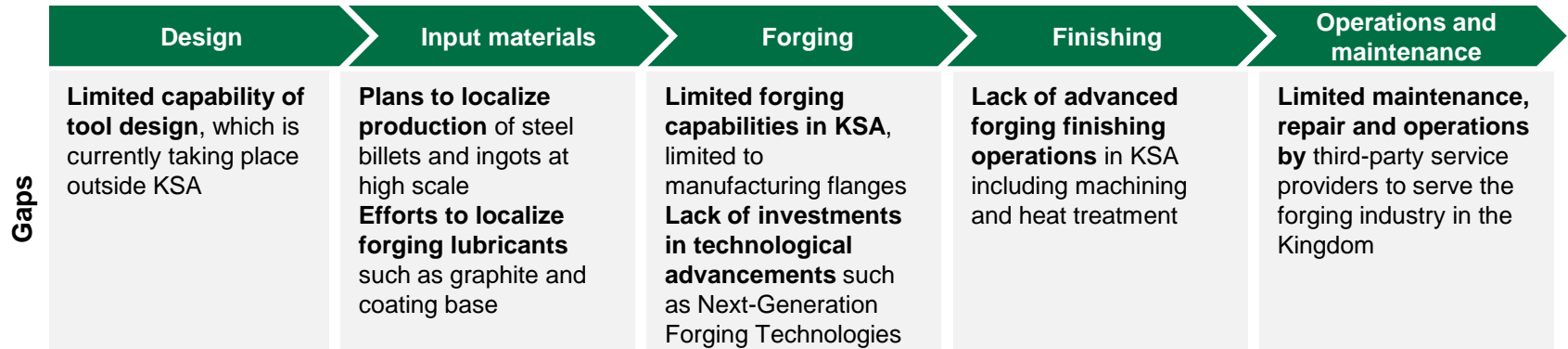
- Low cost of construction, relatively lower labor wages and utility fees to support low capital and operating expense will enable the investor to extend geographic footprint within the region
- Easy and consistent availability of key raw materials for open die forging such as metals (iron, steel and aluminum) and commonly used die materials (chromium, tungsten and steel) in the Kingdom

### IMPORT DEPENDENCY

- In 2018, KSA imported ~39 KT of Forging valued at ~USD 251 Mn
- Forgings in KSA are mostly imported from China, USA, EU and the UK

Source: GASTAT

### VALUE CHAIN ANALYSIS



### KEY STAKEHOLDERS



## ENABLING FACTORS

### ENABLERS

- Up to 75% of project financing by Saudi Industrial Development Fund (SIDF), with two-year grace period for the repayment of loans
- HRDF covers monthly salaries for 30-50% of Saudi employees (extra 10% for females) for 2 years, provided it does not exceed USD 4,000

### COST OF DOING BUSINESS IN KSA

Factor	Ranking Amongst Regional Peers
Electricity tariffs for industrial players	\$48 /MWh
Productivity adjusted wages	\$3.3 /hour
Logistics Performance Index (1 – 5)	3.2
Construction costs (Indexed to US, % 0 is cheapest)	74
Ease of getting credit (0 – 100)	50

# DEFINITIONS

#	SCORECARD SECTION	DEFINITIONS
1	Market size	Size of market in value/volume in KSA and/or Region (MENA/GCC) covering future projections based on available estimates from published /government sources
2	Demand drivers	A select number of factors that will influence future demand for the related product/service
3	Investment highlights	An overview of key financial metrics summarizing the investment opportunity along with the expected return based on the suggested investment size
4	Value proposition	Summary of key differentiators that position KSA as a strategic choice over other regional/global peers
5	Market readiness	An overview of KSA market structure, market maturity and level of participation by local and global players
6	Competitor analysis	List of the local & international players manufacturing the underlying product in Saudi Arabia and their market share
7	Global trends	Latest business developments within the sector/product category
8	Scalability and localization	Ease of scaling the business across the value chain or into new adjacent products or geographies that would maximize the opportunity's investment returns and the ability and potential to locally manufacture the product and its components
9	Import dependency	An overview of the countries from which Saudi Arabia is importing the product and their value/volume and share in total imports
10	Value chain analysis	The process or activities that would potentially need to be carried out to deliver the underlying product or service
11	Key stakeholders	Government institutions, organizations, and/or authorities that participate or influence the market for the underlying product/service
12	Enablers	Factors that enable investment in the underlying opportunity
13	Cost of doing business in KSA	Key factors that position KSA as a competitive destination for investment in the region. Productivity adjusted wages do not include cost of \$1.23/hour towards annual recurring charges including work permit, resident identity (iqama) and health insurance

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