

Metal Injection Moulding (MIM)

INVESTMENT OPPORTUNITY SCORECARD

September 2022

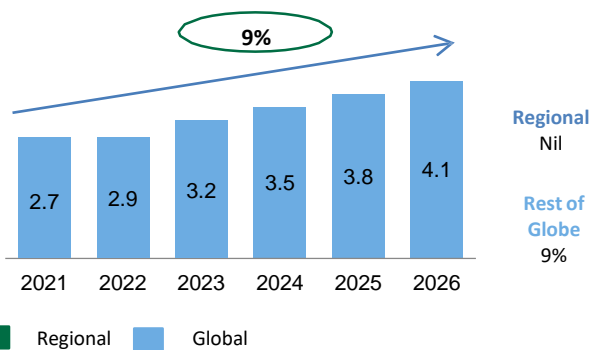


OPPORTUNITY DESCRIPTION: Opportunity to develop a Metal Injection Moulding plant which can produce relatively small, highly complex geometries in large quantities with excellent surface finish, high strength, and superior corrosion resistance,

DEMAND

MARKET SIZE, in Bn USD

CAGR



INVESTMENT HIGHLIGHTS

- Expected investment size of USD 30-50 Mn
- Plant capacity: Capacity will be decided basis parts/units across focus sectors.
- Investment model options: The investment model can be through a pure private sector model, banks and institutional investors can provide the upfront capital investment, or through a JV with a global metal injection Moulding company.

INVESTMENT OVERVIEW

VALUE PROPOSITION

- Metal Injection Moulding is becoming an integral process in metal forming.
- The surface finish of the end component depends on the function of the size and chemistry of powders and the conditions in which the brown part is sintered.
- As per the Saudi Arabia Vision 2030 will be a key vehicle to promote such industries in sectors across Automotive, Defense & Aerospace
- Increasing adoption of electric vehicles, along with a boom in data centers can lead to surge such critical processed to be localised.
- Metal Injection Moulding of titanium and titanium alloys is the current focus area of technology development amongst key participants in the ecosystem.
- This also opens localisation opportunities in 3D printing and binder jet

KEY DEMAND DRIVERS

- Automotive and defense segments will remain key Metal Injection Moulding demand contributors, accounting for about 60% of the current market demand.
- The automotive sector is recovering from the global industry slump and electric vehicle sales are also picking up, in the light of rising crude oil prices.
- The defense industry is experiencing an upshift, predominantly due to the rise in defense budgets in India, Japan, Taiwan, and China.
- Other emerging segments are aerospace medical which is also gaining traction in the market

MARKET OVERVIEW

GLOBAL TRENDS

- The Metal Injection Moulding demand was around USD 2.7 Bn in 2021 and expected to reach USD 4.1 Bn by 2026 growing at a CAGR of 9 % from 2021 to 2026.
- The demand for MIM will be driven by the automotive and aerospace and defense sectors in Europe, North America, and key Asian markets and by consumer electronics in China, Japan, South Korea, Taiwan, and India. The increasing demand for automotive, aerospace, defense and medical.
- Despite growth driven by government push, compliance obligations and customer awareness, the share of ICE vehicles will eclipse that of EVs in the next 5-10 years because of the high cost of EV technology, range anxiety, and the lack of charging infrastructure, which will have a high negative impact in the short and medium terms of the forecast period.



Metals

Metal Injection Moulding (MIM)

Public / متاح

High Potential

Moderate Potential

Low Potential

SUPPLY

SCALABILITY AND LOCALIZATION



- The KSA Automotive sector is a key pillar in the Vision 2030 program. There is a global shift towards EVs, representing an estimated 30% of vehicle sales in 2030
- Access to feedstock is a key advantage of establishing this project in the KSA
- The state-of-the-art Metal Injection Moulding unit will focus on Automotive & Defense sector in the KSA
- In the Defense sector the government is eager on improving their security posture. Technological advancement plays a crucial role, as countries are now heading toward 6th-generation fighter planes, drones, and nuclear-powered submarines and ships with longer durability and range on battle fields

IMPORT DEPENDENCY

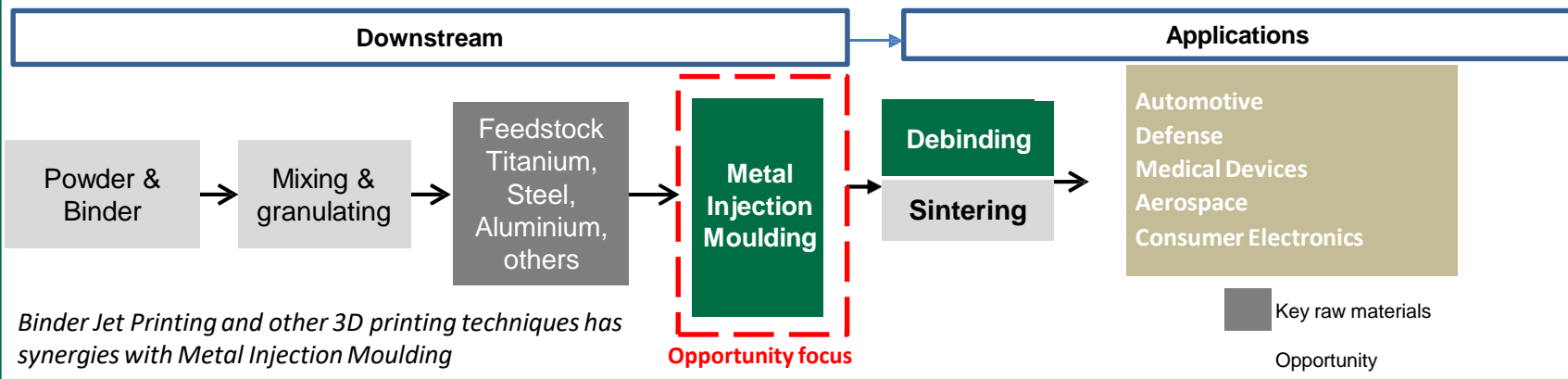
- The product is in nascent stage, but global surge in demand across Automotive, Defense and consumer electronics is a key driver.
- This project offers good export potential and development of local ecosystems within the Automotive and Defense sectors

ENABLING FACTORS

ENABLERS

- Jubail Industrial City and Ras Al-Khair Industrial City provide easy access to utilities and a world class infrastructure
- Increased focus on the development of lightweight -
- Up to 75% of project financing by Saudi Industrial Development Fund (SIDF).
- 2-year grace period for the repayment of loans.

VALUE CHAIN ANALYSIS



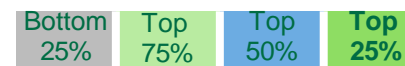
COST OF DOING BUSINESS IN KSA

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
Customs Clearance Index (1 – 5)	2.7
Ease of getting credit (0 – 100)	50

KEY STAKEHOLDERS



Sources for Cost of Doing Business: EIU, World Bank



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

DISCLAIMER

- This report must be used only to access information, and the information must not be construed, under any circumstances, explicitly or implicitly, as an offer to sell or a solicitation to buy or sell or trade in any opportunity herein mentioned.
- Ministry of Investment (MISA) has no undertaking to update these materials after the date, with the understanding that such information may become outdated or inaccurate.
- Mentioned information in this report is obtained from reliable sources but its accuracy and reliability are in no way guaranteed. No guarantee of any kind is tacit or explicit when projections of future conditions are attempted. MISA has used public/or confidential data and assumptions and has not independently verified the data and assumptions used in the analyses. Changes in underlying data or operating assumptions will clearly impact the analyses and conclusions.
- The financial evaluations, projected market and financial information, and conclusions contained in these materials are based upon standard methodologies, are not definitive projections, and are not guaranteed by MISA
- The content of this report must not be construed as an implied promise or guarantee for profit or limited loss express or implied by or from MISA or any of its officers, directors, employees and affiliates. All mentioned investments in this report are subject to risk, which should be considered prior to making any investment decisions
- MISA shall have no liability whatsoever to any third party, and hereby any third party waives any rights and claims it may have at any time against MISA with regard to this report, any services or other materials, including the accuracy or completeness thereof.

CONNECT WITH US FOR MORE DETAILS:

Metals@misa.gov.sa

investsaudi.sa



@investsaudi

