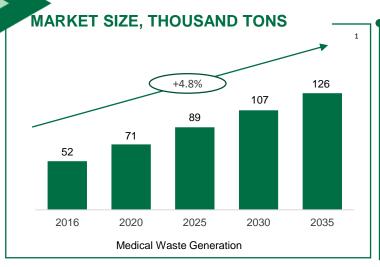


Waste Management

Medical Waste Treatment

OPPORTUNITY'S DESCRIPTION: Establish a medical waste management facility for collecting, transporting, treating and disposing the waste safely, efficiently and economically

DEMAND



INVESTMENT HIGHLIGHTS

- Expected investment size: USD 10-100 Mn
- Opportunity to setup in-house/external treatment facility for the medical waste.
- Opportunity to consider different operating models – pure private sector model or joint venture with local player.

INVESTMENT OVERVIEW

VALUE PROPOSITION

- Government enforcement to all medical facilities to contract with qualified medical waste management companies to collect and treat their generated waste.
- As part of Saudi Vision 2030, National Center for Waste Management (NCWM) was established to unify the waste sector roles, standards and requirements and streamline incentives to attract investments to the sector
- KSA is the largest spender on healthcare across the MENA region. In 2019, the budget allocated more than \$45.86 Bn² for Health and Social Development
- KSA is largest medical waste generator in the GCC region with more than 50%⁴ of the waste generated
- KSA is aiming to maintain 100% treatment and safe disposal of all medical waste
- Health sector transformation program aims to restructure the health to be a comprehensive, effective and integrated system that is based on the health of the individual and society. The program depends on the principle of value-based care.

KEY DEMAND DRIVERS

- Expansion in healthcare infrastructure due to high population growth and urbanization is expected to continue to increase demand for new medical waste treatment facilities
- KSA's health infrastructure consists of more than 500 governmental, semi governmental and private hospitals with a capacity of more 77,000 beds, in addition to more than 5,000 clinics. The rate of medical waste generated is 2.25 kg/bed/day*.
- The infrastructure is increasing further with four governmental medical cities and multiple giga and mega projects under construction in addition to upcoming facilities in the private sector
- Increasing visits to various health sectors in KSA (more than 130 million visits in 2020) will also drive the market⁵

MARKET OVERVIEW

MARKET READINESS AND COMPETITOR ANALYSIS

Very few players in the local market, which is largely under supplied

CURRENT KEY LOCAL PLAYERS







GLOBAL TRENDS

- The global market for the medical waste management was valued at 9.5 billion USD in 2019 and is expected to grow by 6.2% CAGR in the coming 6 years⁴
- The growth of the overall medical and healthcare industry is triggering the demand for these systems
- The rising prevalence of diseases such as cancer and other chronic disorders and increasing geriatric population & road accidents result in higher demand for these advanced medical solutions





SUPPLY

SCALABILITY AND LOCALIZATION

Grade: Low Medium High

- The strict and well-developed regulations for medical waste generators is supporting and easing the scale up and growth of treatment facilities in KSA as per the market demand
- Commitments to implement the highest standards and continues improvement in handling the medical waste from the government entities with strict monitoring procedures of the waste generation and the safe disposal by the medical facilities.
- Presence of multiple large cities in KSA with sizeable populations and medical facilities will provide the opportunity to scale up medical waste management business quickly

VALUE CHAIN ANALYSIS Collection & Transportation Final Disposal Generation **Treatment** Human organs Collection of Waste at the The Treatment of the **Designated Areas & Medical Waste to Medical Waste** Cemeteries Transport it to the Sanitize & Reduce **Treatment Facilities** the Size Collection of Waste at the Drug & **Designated Area & Pharmaceutical** 100% Incineration Landfills Transport it to the Wastes incineration facility

KEY STAKEHOLDERS









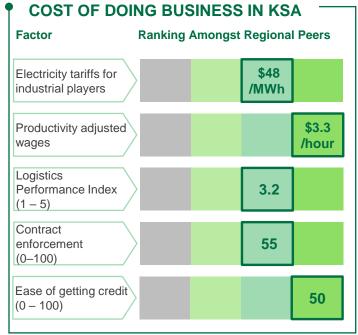




ENABLING FACTORS

ENABLERS

- Land for lease starting from \$ 0.26 per sqm/year
- HRDF covers 30-50% of Saudi employees monthly salaries (additional 10% for females) for 2 years, provided that it does not exceed USD 4,000
- 100% foreign direct ownership allowed
- Fully competitive investment environment is enforced in KSA at the highest regulatory and legal levels



Top

25%

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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