

Level Sensors & Transmitters  
INVESTMENT OPPORTUNITY  
Machinery & Equipment



# Machinery & Equipment

## Level Sensors & Transmitters

**OPPORTUNITY DESCRIPTION:** Establishing a facility for local manufacturing and assembly of level sensors & transmitters to meet growing demand of process monitoring and automation across multiple end users in the oil & gas, petrochemical, power, water, industrial, and commercial sectors

### DEMAND

#### MARKET SIZE

#### KSA & GCC LEVEL SENSORS & TRANSMITTERS MARKET (USD MN), 2018 TO 2026<sup>1</sup>



### INVESTMENT OVERVIEW

#### INVESTMENT HIGHLIGHTS

- In the absence of local manufacturing/ assembly capabilities, PAS OEMs rely on their global supply chain sensors & transmitters in KSA
- Expected Investment Size<sup>#</sup> : USD 35 to 45 Mn
- Job Creation<sup>\*\*</sup>: 300 to 350

<sup>#</sup>This opportunity is for a component that is manufactured with a range of other components such as chips, semiconductors, microsystems and multiple sensors types in a facility. No facility is expected to be constructed for manufacturing this component exclusively. Hence, the insights on capacity and investment are indicative - these would vary based on the decision an investor takes on the mix of components to manufacture

#### VALUE PROPOSITION

- Digitalization Push** – KSA is supporting a digitally-enabled industrial revolution for projects in mining, industry, logistics, and energy through a \$453 Bn fund; Vision to increase technical infrastructure readiness in industrial cities from 50% to 100% by 2025; A financing program of ~USD 800 Mn to convert 100 factories in phase 1 for industry 4.0 transformation<sup>4</sup>
- Export potential** – Setting up in KSA allows access to trade routes that account for 13% of world trade
- Infrastructure** - Special economic zones and Industrial townships provide world class infrastructure and competitive access to utilities

#### KEY DEMAND DRIVERS

- Expansion and investments across the oil & gas, petrochemicals, power and water sector will be the key demand drivers for process automation components such as level sensors and transmitters
- Proposed increase in crude oil output, refining capacity and gas output to 238bcm by 2030, a 3% CAGR increase in chemical output<sup>2</sup> and increased power generation capacity by an estimated ~35 to 45GW will entail robust demand for level sensors & transmitters as a part of automation requirements

#### RAW MATERIALS

- Stainless Steel for casing & process connections
- Copper Clad Laminate
- Bare PCB made of fiber glass epoxy resin or paper reinforced phenolic resin
- Chemicals for Etching (Ferric Chloride, Cupric Chloride, Alkaline Ammonia, Sulfuric Acid Hydrogen Peroxide)
- Plastics & Polymers

### MARKET OVERVIEW

#### GLOBAL TRENDS

- Global market size for Level Sensors & Transmitters is estimated to grow at 4.6% CAGR from USD 5.2 Bn to 6.5 Bn between 2021 - 2026<sup>3</sup>
- IoT-compatible field sensors are experiencing a demand pull with the increasing need for remote monitoring and control.
- Digital oil fields, condition monitoring, predictive analytics and asset performance monitoring across end users are driving the demand for field sensors & transmitters
- Combination sensors that can measure more than 2 process parameters are now gaining market traction owing to cost and operational efficiency

Source: <sup>1</sup> Team Analysis of published strategy documents, reports from SWCC & IKTV publication, independent market reports, UN Comtrade data, General Authority of Statistics data and industry interactions;

<sup>2</sup>Gulf Petrochemicals Association Reports (GPCA); <sup>3</sup>Market Reports (F&S), <sup>4</sup>Invest Saudi

<sup>#</sup>Expert interviews (assumptions), financial statements of peer companies, team analysis;

Note: CAGR – Compound Annual Growth Rate, GW – Giga Watt, IoT – Internet of Things, MT – Metric Tonne, OEM – Original Equipment Manufacturer USD – United States Dollar, SAR – Saudi Riyals, Mn – Million, Bn – Billion, PAS – Process Automation System, bcm – billion cubic meters .

Opportunity potential is defined basis current import dependency – High refers to >80%, medium >50 to 80% and low <=50%. \*Job Creation covers direct and indirect jobs



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## Level Sensors & Transmitters

### SUPPLY

#### SCALABILITY AND LOCALIZATION

Grade: Low Medium High

- The midstream and downstream processes of value chain offer immediate localization opportunities. However, localization can be enhanced further in the upstream by in-house/contract PCB assembly facilities that can support sensor/ transmitter and other electronics.
- Other field sensors (pressure, temperature, and flow) would be potential products to be developed in the same facility

#### IMPORT DEPENDENCY

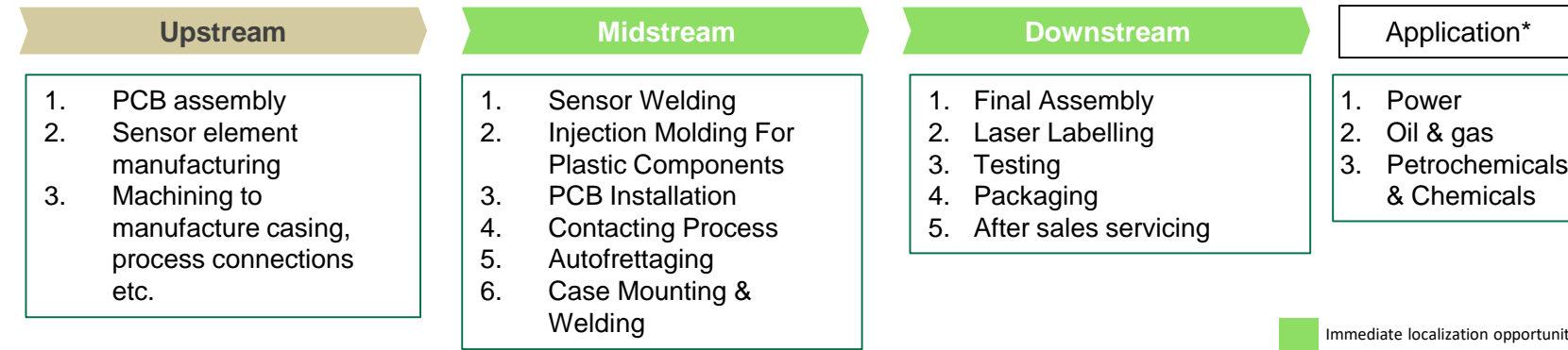
- 88% of Level Sensors & Transmitters imports are from high-cost countries<sup>4</sup>
- Top high-cost countries include USA, Netherlands, Germany, Hungary, Italy, and UAE which account for 55% of total imports
- Manufacturing entities in KSA can compete with high-cost countries exports creating a strong case for import substitution

### ENABLING FACTORS

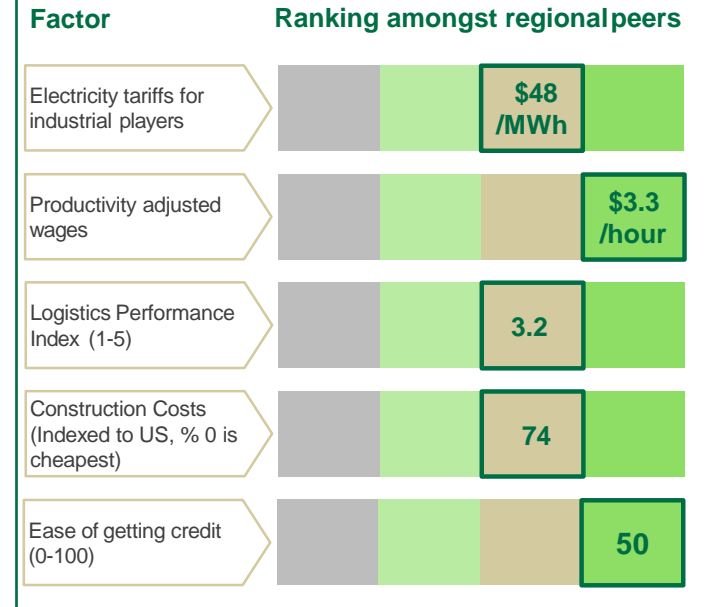
#### ENABLERS & INCENTIVES

- Customs duties** exemption on imported machinery, equipment, raw materials and spare parts utilized for industrial purpose
- Access to **local content initiatives and programs** at demand centers
- HRDF **covers monthly salaries of up to 30%** for Saudi employees (extra 10% for females) for 2 years
- Expat worker **levy waived off** for industrial manufacturers
- Tax rebates** on exports, raw material imports, and **50% tax credit** on Saudi national worker's payroll & training costs for 10 years
- 2-year **grace period** for the repayment of loans
- Unprecedented access to a **diversified value chain** - especially raw materials (steel, aluminum, polymers, and industrial minerals)

#### VALUE CHAIN



#### COST OF DOING BUSINESS IN KSA



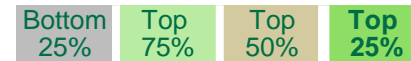
#### KEY STAKEHOLDERS



Source: <sup>4</sup>ITC Trademap, UN Comtrade, Team Analysis

Note: HRDF - Human Resources Development Fund, PCB – Printed Circuit Board, Scalability & Localization Grade is defined as

1. high – if the set up can support localization of multiple product categories,  
 2. medium – if multiple products within a category can be localized and  
 3. low – if it supports localization of a single product only. \*Only key applications are highlighted



# 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	Business 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	Global trends	Latest business developments within the sector/product category
7	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
8	Import dependency	An overview of the countries from which Saudi Arabia is importing the product and their value/volume and share in total imports
9	Value chain analysis	The process or activities that would potentially need to be carried out to deliver the underlying product or service
10	Key stakeholders	Government institutions, organizations, and/or authorities that participate or influence the market for the underlying product/service
11	Enablers	Factors that enable investment in the underlying opportunity
12	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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