iktva
In-Kingdom Total Value Add

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iktva Localization Evolution

Improve reliability and develop globally

competitive industrial base

Manufacturing & Engineering

- Assembly and packaging
- Engineering capabilities

Service Suppliers

- Spare parts inventory
- Local service facility

Traders

- Shipping & customs clearance
- Expediting services
iktva Development

Benchmarked with other programs

Co-developed with the suppliers

3rd Party Assessment
iktva Formula

\[ \text{iktva} = \left( \frac{a+b+c+d+r}{E} \right) + x \]
iktva Scores

- 2015: 35%
- 2016: 37%
- 2017: 45%
- 2018: 52%
- 2019: 56%
iktva in Procurement

- Qualification & Registration
- Bid Evaluation
- Market Share Distribution
- Preference Policy
- Supplier Performance
iktva Action Plans

Execute iktva action plans with 100 major suppliers

- Offshore
- Oilfield Services
- Construction
- Industrial Equipment

iktva Action Plans

- Investments
- Offshore
- Oilfield Services
- Construction
- Industrial Equipment

- Indigenous capabilities
- Offshore Oilfield Services
- Construction Industrial Equipment
- Offshore Oilfield Services Construction Industrial Equipment
- Performing R&D activities
- Exporting from the local industrial base

Developing local SMEs

Halliburton

Heimark Projects and Industrial Park

Schlumberger

MCDERMOTT

Yokogawa

BAKER HUGHES a GE company
Investments Opportunities

170 Business Opportunities

468 Investments

25 Countries

Covering 10 Industrial Sectors

59 Investments Completed

49 Under Construction
Investments Opportunities - Environmental

Historical and Forecasted demand for Industrial Waste in (Tons)

Saudi Aramco’s Historical and Forecasted demand for Industrial Waste in (Tons) excluding Drilling and Workover waste.
Investments Opportunities - Environmental

Saudi Aramco Radioactive Source Inventory

Radioactive Source Inventory

There is a significant increase in the use of radioactive material in Saudi Aramco operations. This inventory requires services to ensure the safety of workers, the security of sources and compliance with Government requirements.

Increase in source inventory increases the workload to ensure safety, security and compliance.
Investments Opportunities - Environmental

Other Environmental Investment Opportunities:

- **Mobile Waste Management Technologies**: Automatic Tank Cleaning, Recover Hydrocarbons, portable waste analyzers.

- **Management of Special Types of Waste**: Circular Economy and conduct life cycle analysis on waste management.

- **Naturally Occurring Radioactive Material (NORM) Disposal**: Waste inventory to reach 15,000 Cubic Meter (M3).

- **Monitoring & Compliance Assessment Program**: Potential assessments are 90/year for company sanitary sewage treatment plants and 25/year for oily wastewater evaporation ponds.
Investments Opportunities - Nonmetallic in Oil & Gas, Automotive & Renewables

KSA Cumulative Demand of Solar Panel

- 2020: 26.44 Million
- 2021: 31.73 Million
- 2022: 38.07 Million
- 2023: 45.69 Million
- 2024: 54.82 Million
- 2025: 65.79 Million
- 2026: 78.94 Million
- 2027: 94.73 Million
- 2028: 113.68 Million
- 2029: 136.42 Million
- 2030: 163.70 Million

20%* growth rate

KSA □ Rest of GCC
Investments Opportunities - Nonmetallic in Oil & Gas, Automotive & Renewables

KSA Demand of UD Tape

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantity (Ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>2.15</td>
</tr>
<tr>
<td>2021</td>
<td>11.79</td>
</tr>
<tr>
<td>2022</td>
<td>28.26</td>
</tr>
<tr>
<td>2023</td>
<td>56.07</td>
</tr>
<tr>
<td>2024</td>
<td>72.54</td>
</tr>
<tr>
<td>2025</td>
<td>101.07</td>
</tr>
<tr>
<td>2026</td>
<td>141.50</td>
</tr>
<tr>
<td>2027</td>
<td>198.10</td>
</tr>
<tr>
<td>2028</td>
<td>277.34</td>
</tr>
<tr>
<td>2029</td>
<td>388.27</td>
</tr>
<tr>
<td>2030</td>
<td>543.58</td>
</tr>
</tbody>
</table>
**Investments Opportunities - Nonmetallic in Oil & Gas, Automotive & Renewables**

**Other Nonmetallic in Oil & Gas, Automotive & Renewables Investment Opportunities:**

<table>
<thead>
<tr>
<th>Product</th>
<th>Demand Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Fiber</td>
<td>Saudi demand to reach 700 MM Tons by 2030.</td>
</tr>
<tr>
<td>Hydrogen Tanks</td>
<td>Global demand to reach 2.5 MM Units by 2030</td>
</tr>
<tr>
<td>Polycarbonate Glazing</td>
<td>Global demand to reach 9,600 Tons by 2030.</td>
</tr>
<tr>
<td>Lithium Batteries</td>
<td>Global demand to reach 390 Gigawatt Hours by 2030.</td>
</tr>
<tr>
<td>Epoxy</td>
<td>Saudi demand to reach 12.7 Kilo Ton by 2030.</td>
</tr>
<tr>
<td>Solar Renewable Energy</td>
<td>Saudi demand to reach 41 Gigawatt (GW)/year by 2030.</td>
</tr>
<tr>
<td>Panel Frames Renewable Energy</td>
<td>Saudi demand to reach 2.07 MM Tons by 2030.</td>
</tr>
<tr>
<td>Wind Renewable Energy</td>
<td>Saudi demand to reach 16 Gigawatt GW)/year by 2030.</td>
</tr>
</tbody>
</table>
Investments Opportunities - Nonmetallic in Packaging

KSA & GCC Demand of Rigid Barrier Packaging

- **KSA**
- **Rest of GCC**

<table>
<thead>
<tr>
<th>Year</th>
<th>KSA (K Ton)</th>
<th>Rest of GCC (K Ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>180</td>
<td>252</td>
</tr>
<tr>
<td>2021</td>
<td>186</td>
<td>259</td>
</tr>
<tr>
<td>2022</td>
<td>197</td>
<td>265</td>
</tr>
<tr>
<td>2023</td>
<td>203</td>
<td>272</td>
</tr>
<tr>
<td>2024</td>
<td>209</td>
<td>279</td>
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<tr>
<td>2025</td>
<td>215</td>
<td>286</td>
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<tr>
<td>2026</td>
<td>222</td>
<td>293</td>
</tr>
<tr>
<td>2027</td>
<td>235</td>
<td>300</td>
</tr>
<tr>
<td>2028</td>
<td>235</td>
<td>307</td>
</tr>
<tr>
<td>2029</td>
<td>242</td>
<td>315</td>
</tr>
<tr>
<td>2030</td>
<td>242</td>
<td>323</td>
</tr>
</tbody>
</table>

**2.5% Growth Rate**

- **KSA**
- **Rest of GCC**
**Investments Opportunities - Nonmetallic**

<table>
<thead>
<tr>
<th>Other Nonmetallic in Packaging Investment Opportunities:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plastic Pales:</strong> Saudi demand to reach 92K Tons by 2030.</td>
</tr>
<tr>
<td><strong>Plastic Storage Containers:</strong> Saudi demand to reach 59K Tons by 2030.</td>
</tr>
<tr>
<td><strong>Crates:</strong> Saudi demand to reach 6K Tons by 2030.</td>
</tr>
<tr>
<td><strong>Transport Boxes:</strong> Saudi demand to reach 7.2K Tons by 2030.</td>
</tr>
<tr>
<td><strong>Plastic Corrugated Boxes:</strong> Saudi demand to reach 15.4K Tons by 2030.</td>
</tr>
<tr>
<td><strong>Pharma Bottles:</strong> Saudi demand to reach 70K Tons by 2030.</td>
</tr>
<tr>
<td><strong>Food Packaging:</strong> Saudi demand to reach 54K Tons by 2030.</td>
</tr>
<tr>
<td><strong>Stand Up Pouches:</strong> Saudi demand to reach 59K Tons by 2030.</td>
</tr>
<tr>
<td><strong>Product Packaging:</strong> Saudi demand to reach 41K Tons by 2030.</td>
</tr>
<tr>
<td><strong>Expandable Polystyrene:</strong> Saudi demand to reach 66K Tons by 2030.</td>
</tr>
</tbody>
</table>
Investments Opportunities - Other Sectors

Industrial Investment Program (IIP):

Green Energy Services:
Develop a national champion to provide and market green products such as mangroves, algae, biofuel, animal feedstock and pharmaceutical.

Tail Gas Treatment:
Establish Sulfur Recovery Unit upgrade facilities for SO2 emission compliance.

Energy Storage:
Establish industry leading national champions in Energy Storage applications to serve the Kingdom and compete in the global marketplace.

Integrated Waste Management:
Establish a national integrated waste management company, catering to both municipal and industrial waste streams, to reduce reliance on landfill and optimize resources recovery in the Kingdom.
Industrial Parks

SPARK
Area (Sq km): 50
Targeted Industry: Oilfield equipment, IR 4.0, electrical, non metallic, static & rotating, chemicals, logistics and industrial services

Sadara PlasChem
Area (Sq km): 12
Targeted Industry: Oilfield chemicals, elastomers & chemical derivatives and conversions

Ras Al Khair Maritime Cluster
Area (Sq km): 22
Targeted Industry: Ship building, rig manufacturing, casting and forging, metals and enabling equipment

PetroRabigh PlusTech
Area (Sq km): 2.4
Targeted Industry: Plastic, processing, assembling, technology, industrial services and logistics

Jazan Economic City
Area (Sq km): 15.2
Targeted Industry: Heavy industry, medium industry, light industry and logistics
Workforce Development

Objective:

- Accelerate Job Creation
- Build Training Expertise
- Support Local Content
- Support Industry Growth

 Achievements:

- Established 16
- Graduated 24K Trainees
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In-Kingdom Total Value Add

For more information, please visit https://iktva.sa/