



Instrumentation Sector

Investment Opportunities

Disclaimer



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The Prospectus contains a more complete discussion of the factors that could affect the Company's future performance and the industries in which it operates. The Company undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. All subsequent written and oral forward-looking statements attributable to the Company or to persons acting on its behalf are expressly qualified in their entirety by the cautionary statements referred to above.



Agenda – Instrumentation Sector Investment Opportunities

No.	Title of the Investment Opportunity	Presenter
1	Gas Monitoring Equipment	Khaled AlGhadhban
2	Level Measurement Devices	Yasir Ghunaim
3	Instrumentation Cable	Odai Alhubail
4	Junction Box	Muhrah Alrumaihi
5	Integration of Analyzer Shelters	Alhanoof AlShammary
6	Custody Measurement Systems	Salem AlShahrani
7	Leak Detection Systems	Ali AlQahtani
8	Process Automation Systems (SME opportunities)	Mohammed AlAhmadi
9	Control Valves (SME opportunities)	Yaqoub AlRammah
10	Pressure Transmitters and Process Flowmeters	Omar Shukr
11	Temperature Transmitters	Abdullah AlYami
12	Instrument Manifold, Tubing and Fittings	Noora AlGhamdi



Gas Monitoring Equipment



Gas Monitoring equipment represents an attractive localization opportunity given the current supply gap and expected demand growth

The opportunity



Establish a state-of-the-art **manufacturing unit of Gas Monitoring** to serve the KSA and GCC.

The business case

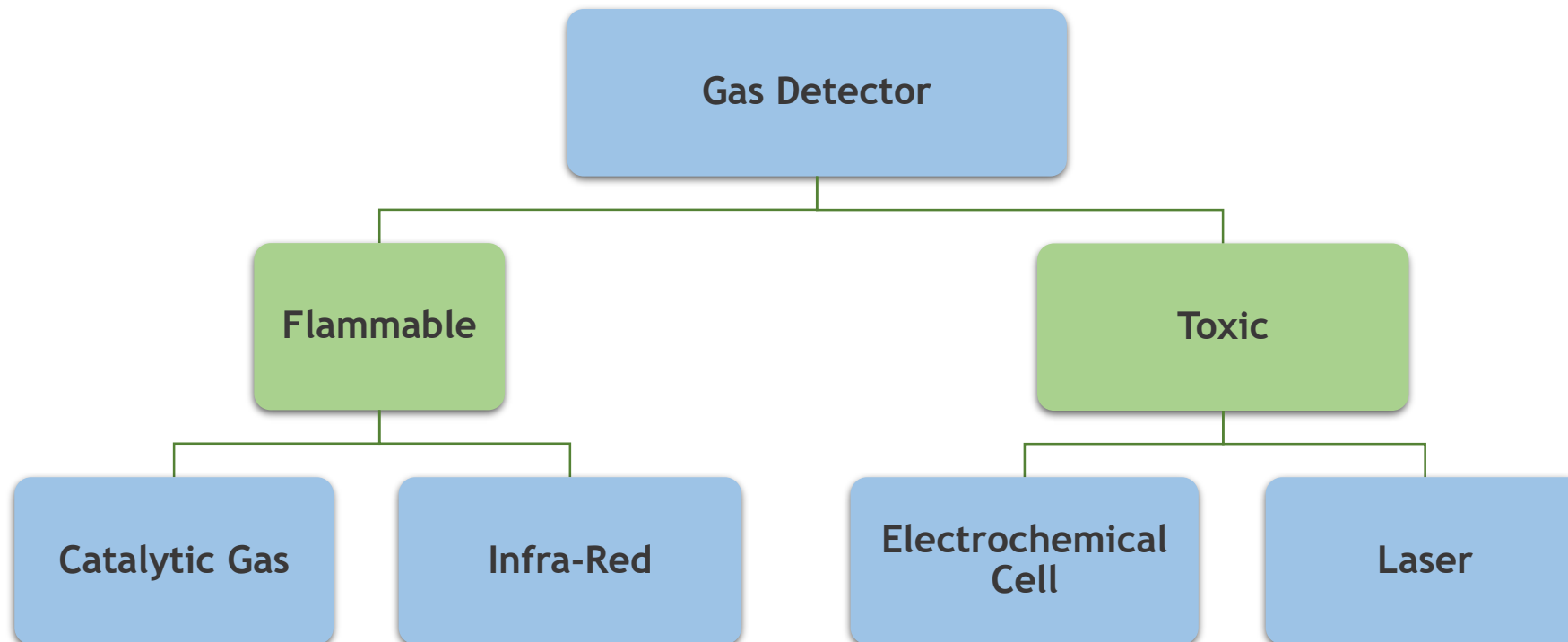


1. KSA demand for **Gas Monitoring Equipment** was estimated at **87 Millions USD** in **2019**.
2. Forecasted at **~5% annual growth** and estimated to reach **191 Millions USD** for **GCC** by **2025**.
3. Attractive **cost base** including low logistics, land, utilities, and labor costs.

Gas Monitoring equipment are used by utility companies, power plants and industrial plants

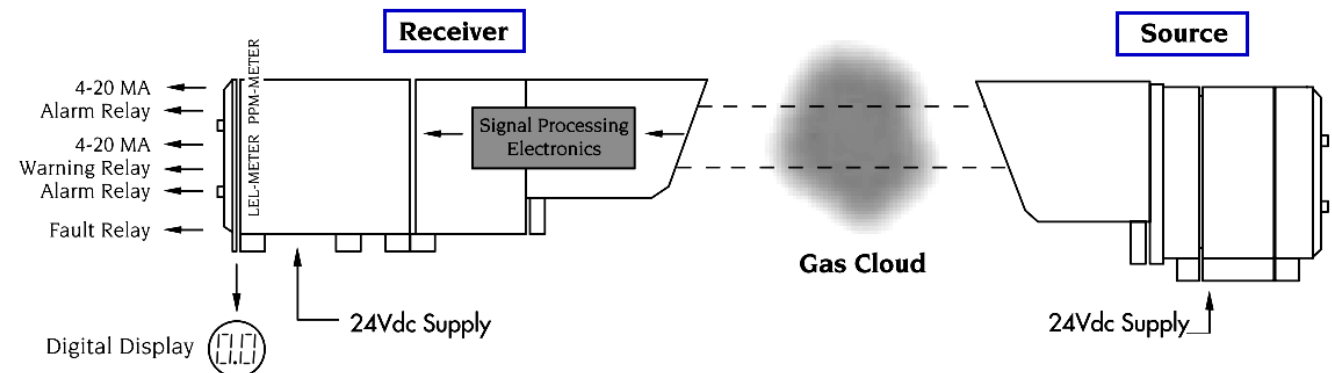
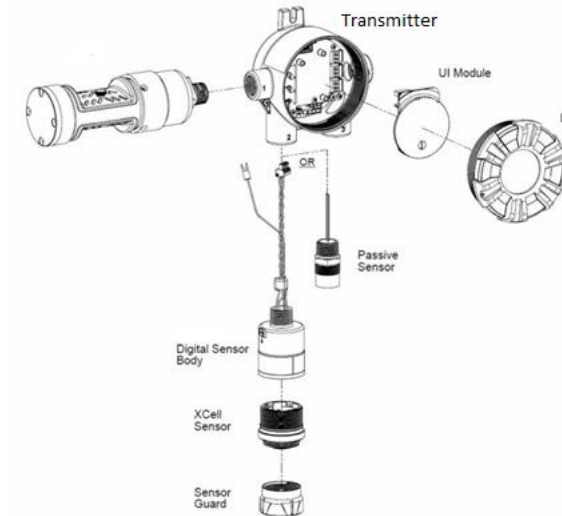
Key Gas Monitoring Equipment Technical Specification:

- Saudi Aramco Engineering Standards (SAES-J-505)
- Saudi Aramco Material Specifications (34-SAMSS-514)



There are opportunities to manufacture components for Gas Monitoring equipment

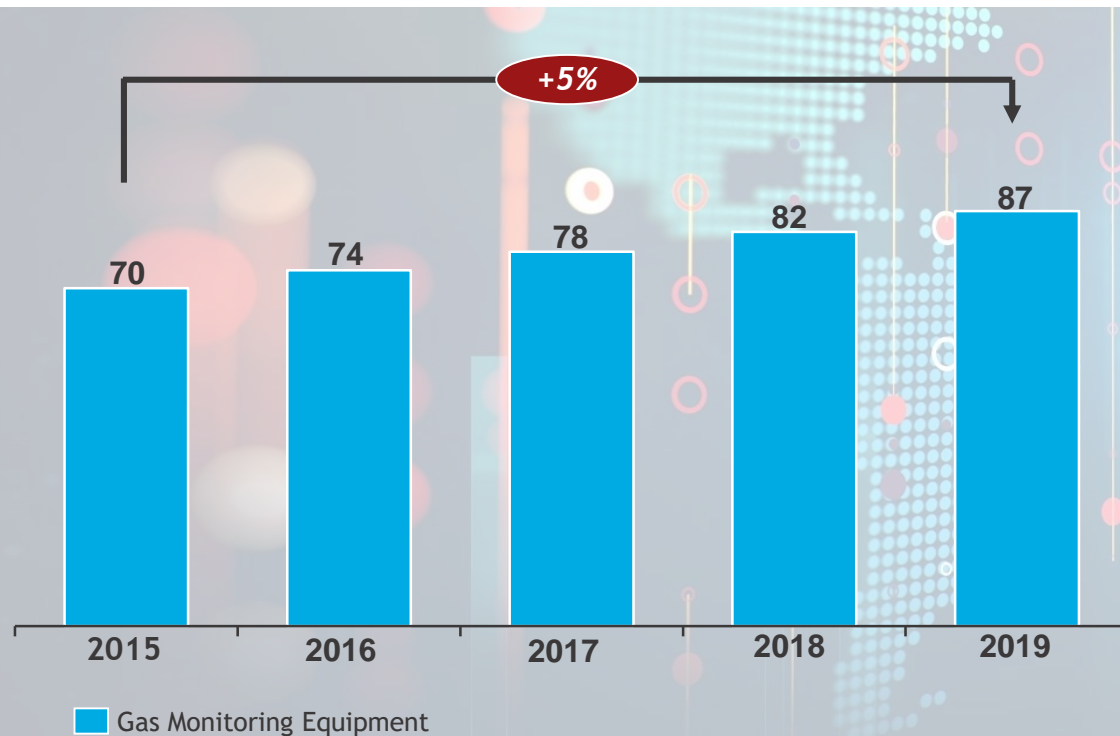
Gas Monitoring Equipment





Gas Monitoring Equipment demand in KSA has been growing and was estimated at 87 Millions in 2019

KSA historical demand for Gas Monitoring Equipment (Millions USD)



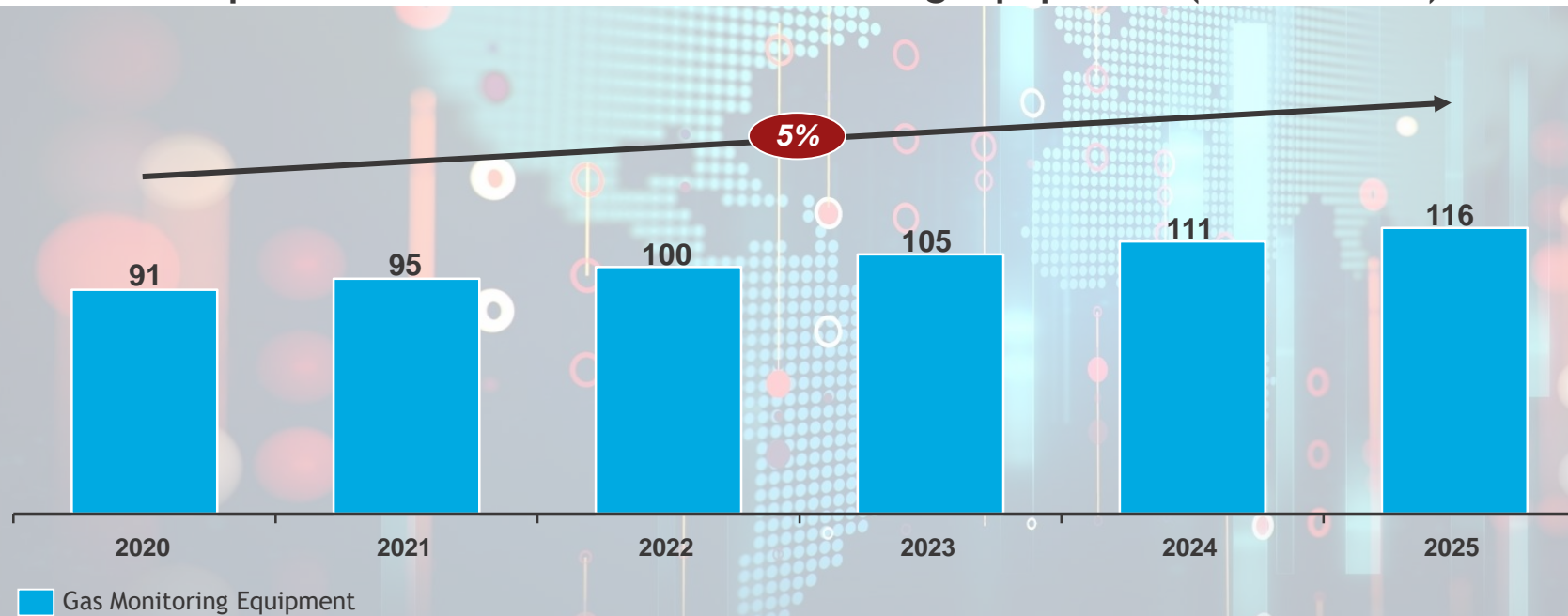
Currently, most of KSA demand of Gas Monitoring Equipment is imported

The current market for Gas Monitoring Equipment in 2019 for KSA was estimated at **87 Millions USD**

Gas Monitoring Equipment demand is driven by Oil and Gas Industry

The demand for Gas Monitoring Equipment in KSA is expected to reach around 116 Millions USD by 2025

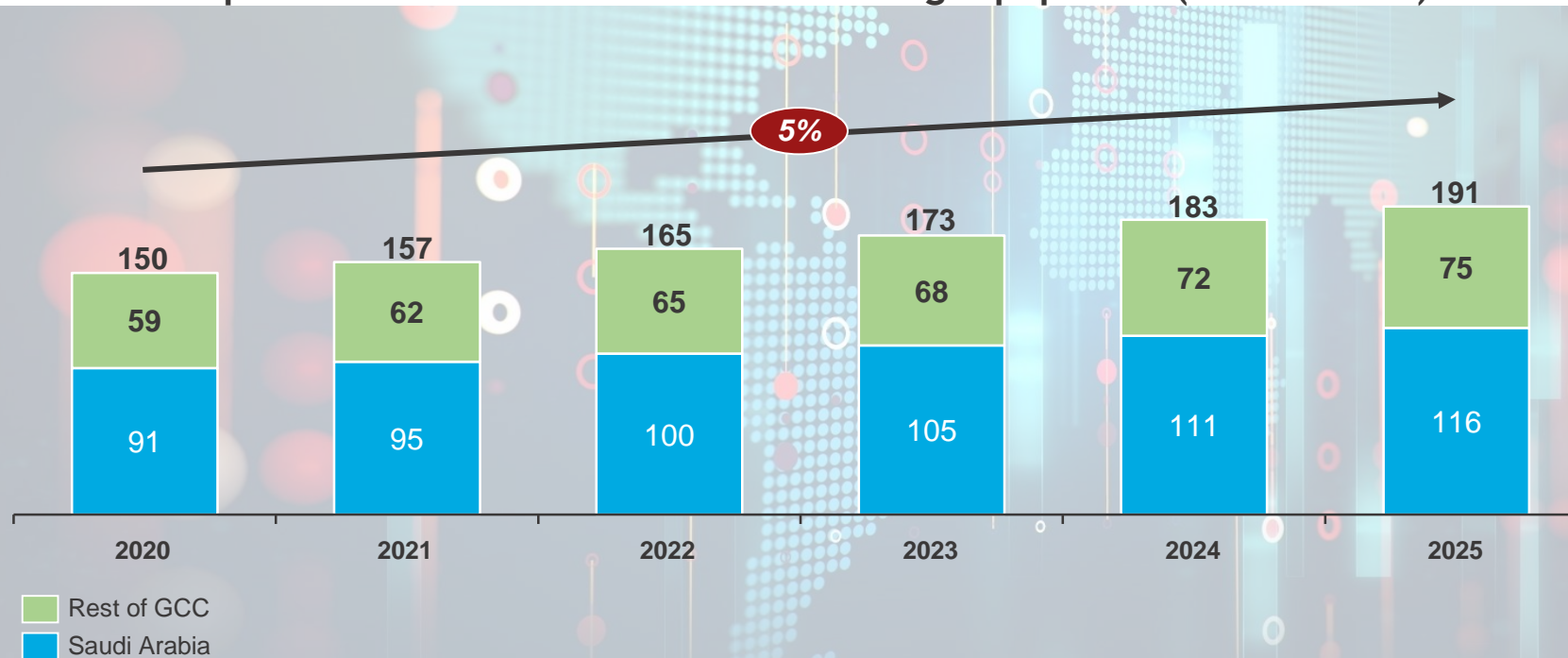
KSA expected market size for Gas Monitoring equipment (Millions USD)



Gas Monitoring Equipment demand is expected to rise 5% annually and reach 116 Millions USD by 2025

The demand for Gas Monitoring Equipment in the GCC is expected to reach 191 Millions USD by 2025

GCC expected market size for Gas Monitoring equipment (Millions USD)



Gas Monitoring Equipment demand for GCC will support demand growth



Local value chain gaps translate into opportunities to do business in KSA

Potential investment opportunities related to Gas Monitoring Equipment

Design	Manufacturing	SME Opportunities	Customer Services
<ul style="list-style-type: none"> Establish a Gas Monitoring equipment design and R&D center to develop designs for KSA requirements 	<ul style="list-style-type: none"> Establish a factory to manufacture Gas Monitoring equipment: <ol style="list-style-type: none"> Electrochemical cell Catalytic 	<ul style="list-style-type: none"> Small and Medium Enterprises can provide the following: <ol style="list-style-type: none"> Glasses Enclosure 	<ul style="list-style-type: none"> Establish technical support service center to serve requirements for Testing, Maintenance and Troubleshooting of Gas Monitoring equipment.



Level Measurement Devices



Level Transmitters represents an attractive localization opportunity given the current supply gap and expected demand growth

The opportunity



Establish a state-of-the-art **manufacturing unit of Level Transmitters** to serve the KSA and GCC.

The business case

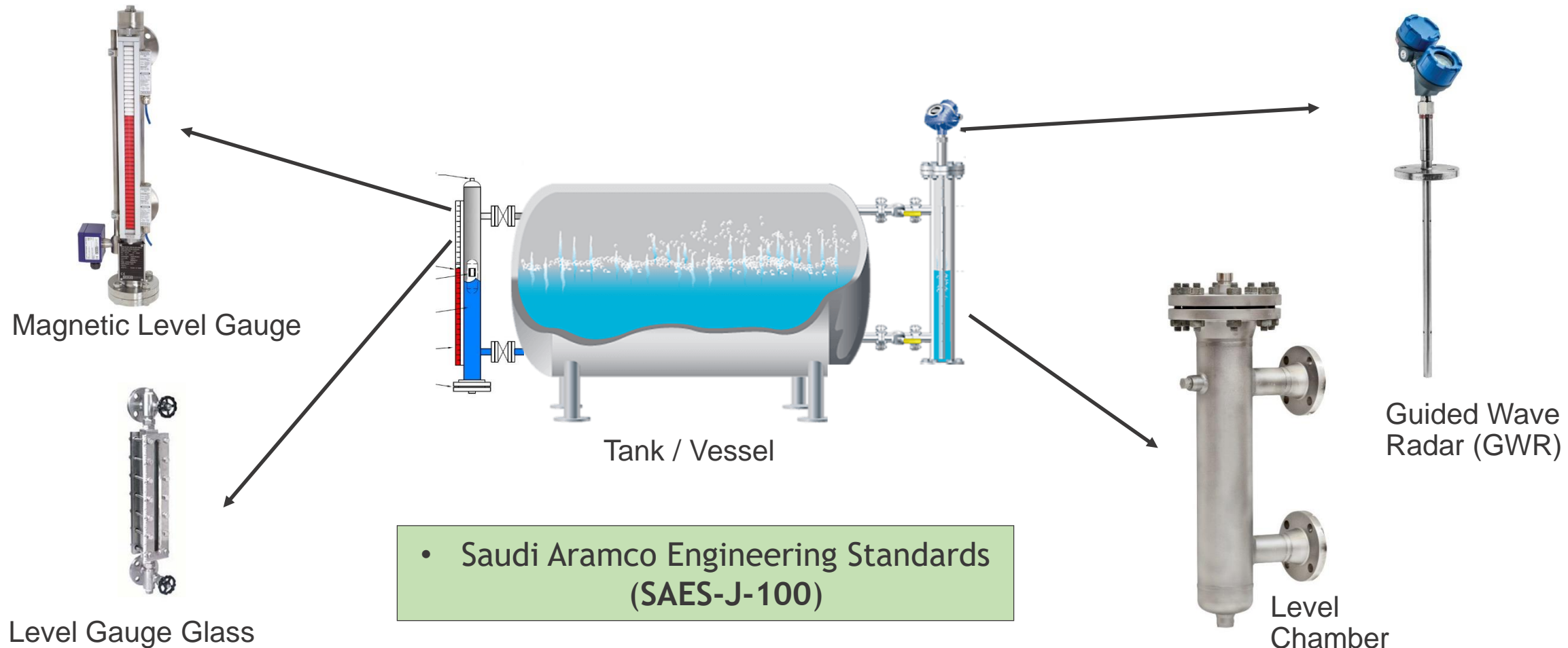


1. KSA demand for **Level Transmitters** was estimated at **96 Millions USD in 2019**
2. Forecasted at **~5% annual growth** and estimated to reach **211 Millions USD for GCC by 2025**.
3. Attractive **cost base** including low logistics, land, utilities, and labor costs



There are a lot of opportunities for OEM and SME to manufacture **Level Transmitters** and its Components

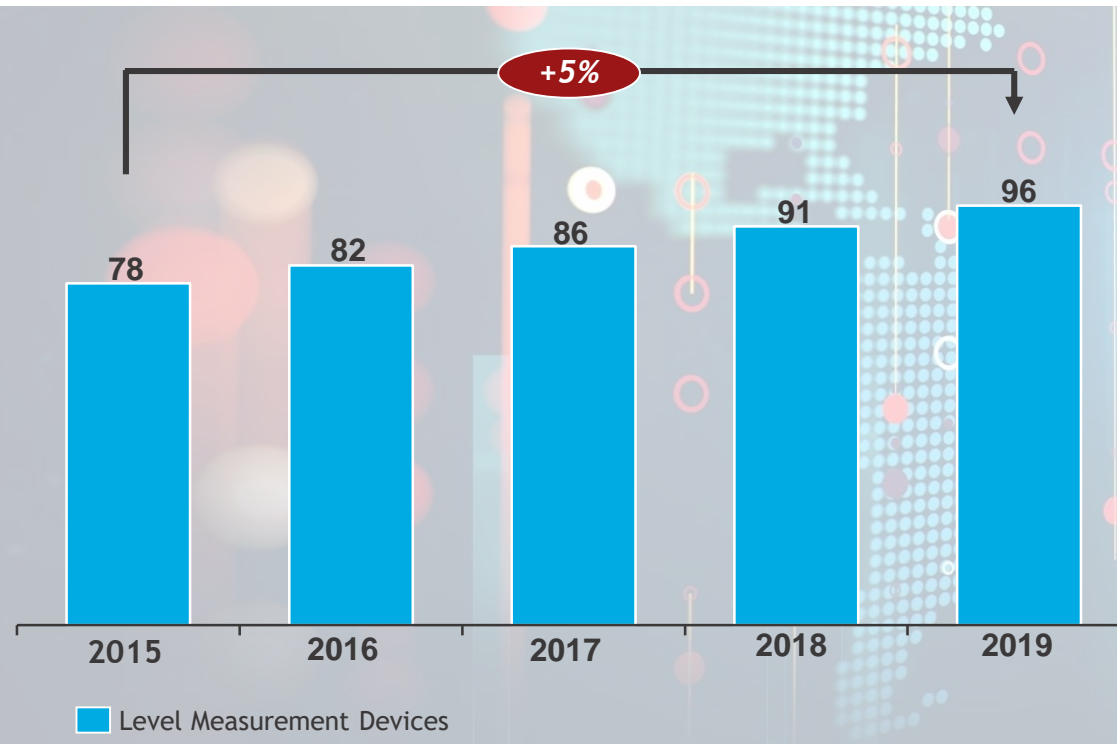
Typical Components





Level Measurement Devices demand in KSA has been growing and was estimated at 96 Millions in 2019

KSA historical demand for Level Measurement Devices (Millions USD)



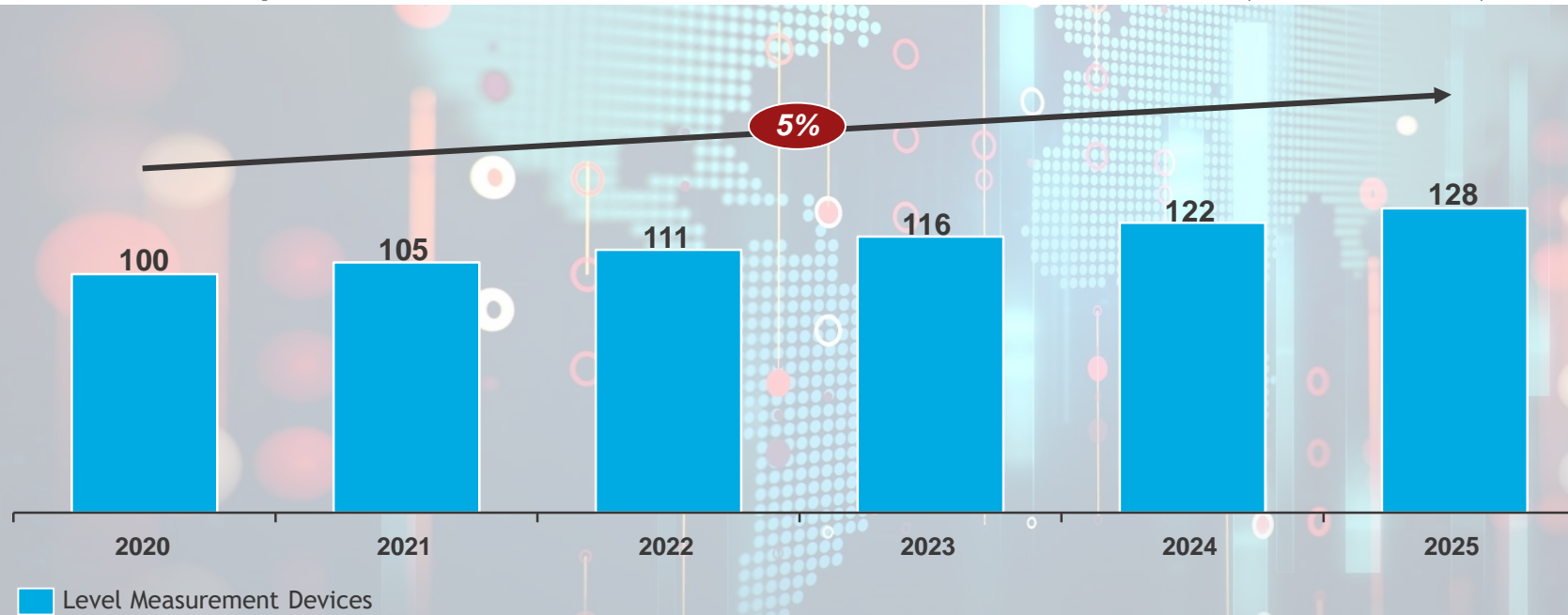
Currently, all of KSA demand of Level Transmitters is imported

The current market for Level Transmitters in 2019 for KSA was estimated at **96 Millions USD**

Level Measurement Devices demand is driven by Oil and Gas Industry

The demand for Level Measurement Devices in KSA is expected to reach around 128 Millions USD by 2025

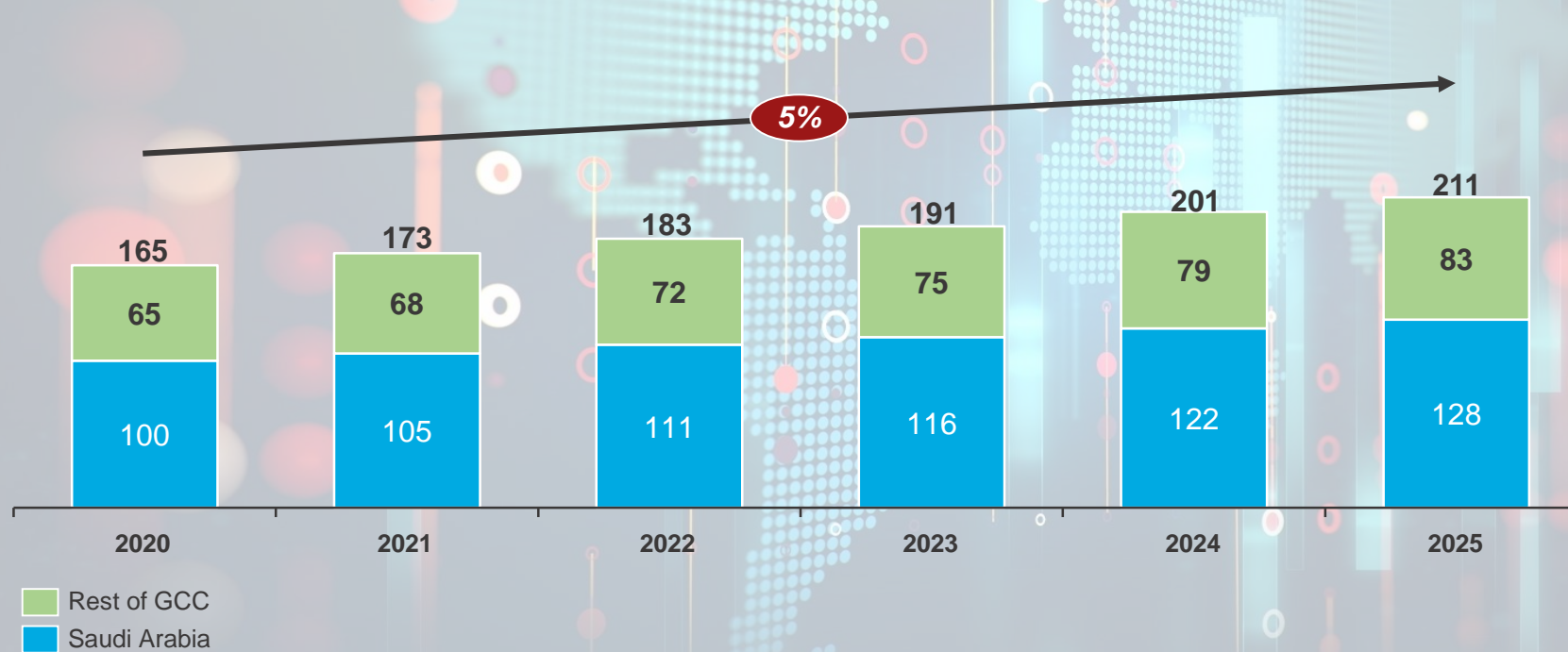
KSA expected market size for Level Measurement Devices (Millions USD)



Level Measurement Devices demand is expected to rise 5% annually and reach 128 Millions USD by 2025

The demand for Level Measurement Devices in the GCC is expected to reach 211 Millions USD by 2025

GCC expected market size for Level Measurement Devices (Millions USD)



Level Measurement Devices demand for GCC will support demand growth



Local value chain gaps translate into opportunities to do business in KSA

Potential investment opportunities related to Level Measurement Devices

Design	Manufacturing	SME Opportunities	Customer Services
<ul style="list-style-type: none"> Establish a Level Measurement Devices design and R&D center to develop designs for KSA requirements. 	<ul style="list-style-type: none"> Establish a factory to manufacture Level Measurement Devices: <ol style="list-style-type: none"> GWR. MLI. Level Gauge Glass. 	<ul style="list-style-type: none"> Small and Medium Enterprises can provide the following: <ol style="list-style-type: none"> O-rings. Packaging. Level Chamber. Valves and fittings. 	<ul style="list-style-type: none"> Establish technical support service center to serve requirements for Testing, Maintenance and Troubleshooting of Level Measurement Devices.



Instrumentation Cable



Instrumentation Cables represents an attractive localization opportunity given the current supply gap and expected demand growth

The opportunity



Establish a state-of-the-art **manufacturing unit of Instrumentation Cables** to serve the KSA and GCC.

The business case

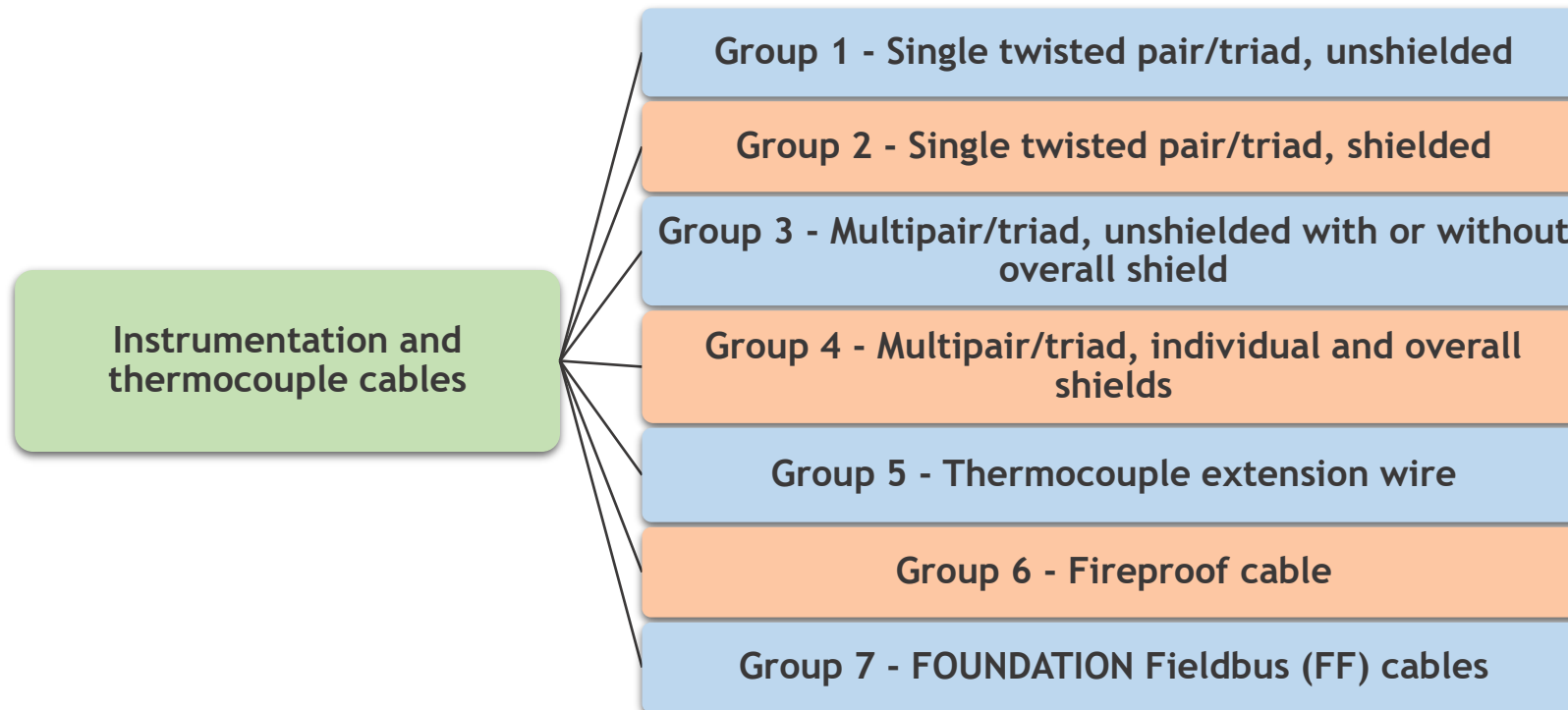


1. KSA demand for **Instrumentation Cables** were estimated at **98 Millions USD** in **2019**.
2. Forecasted at **~5% annual growth** and estimated to reach **216 Millions USD** for **GCC** by **2025**.
3. Attractive **cost base** including low logistics, land, utilities, and labor costs.

Instrument Cables are used by Oil and Gas industries

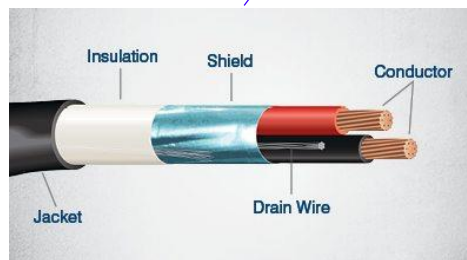
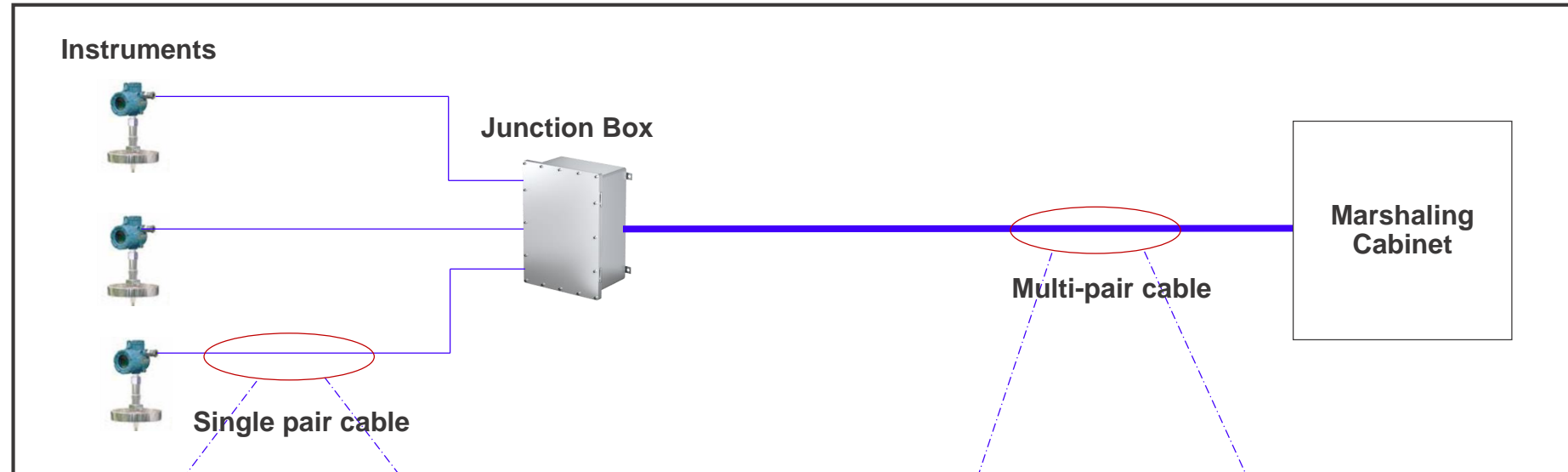
Key Instrument Cables Technical Specification:

- Saudi Aramco Engineering Standards (SAES-J-902)
- Saudi Aramco Material Specifications (34-SAMSS-913)

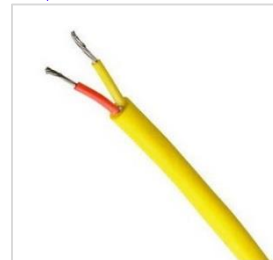


There are a lot of opportunities for SME to manufacture components for Instrument Cables

Components of Instrument Cables



Tray Cable (TC)



Thermocouple Cable

Single Pair Cable Types



Tray Cable (TC)



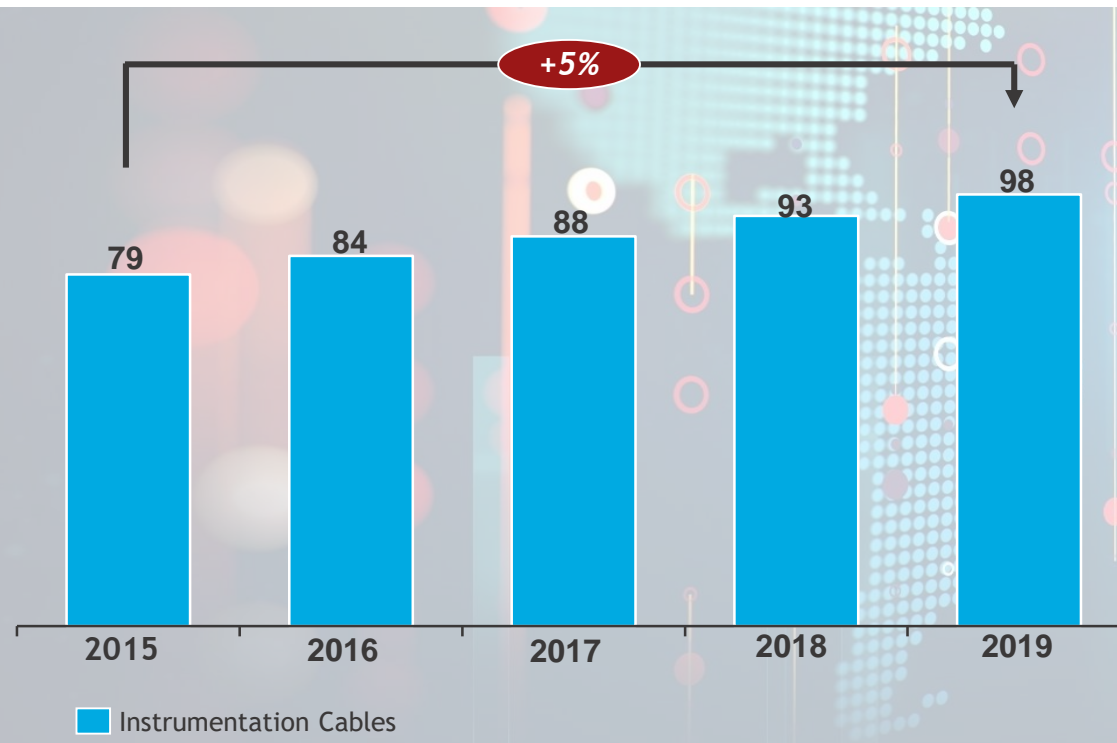
Thermocouple Cable

Multi-pair Cable Types



Instrumentation Cables demand in KSA has been growing and was estimated at 98 Millions in 2019

KSA historical demand for Instrumentation Cables (Millions USD)



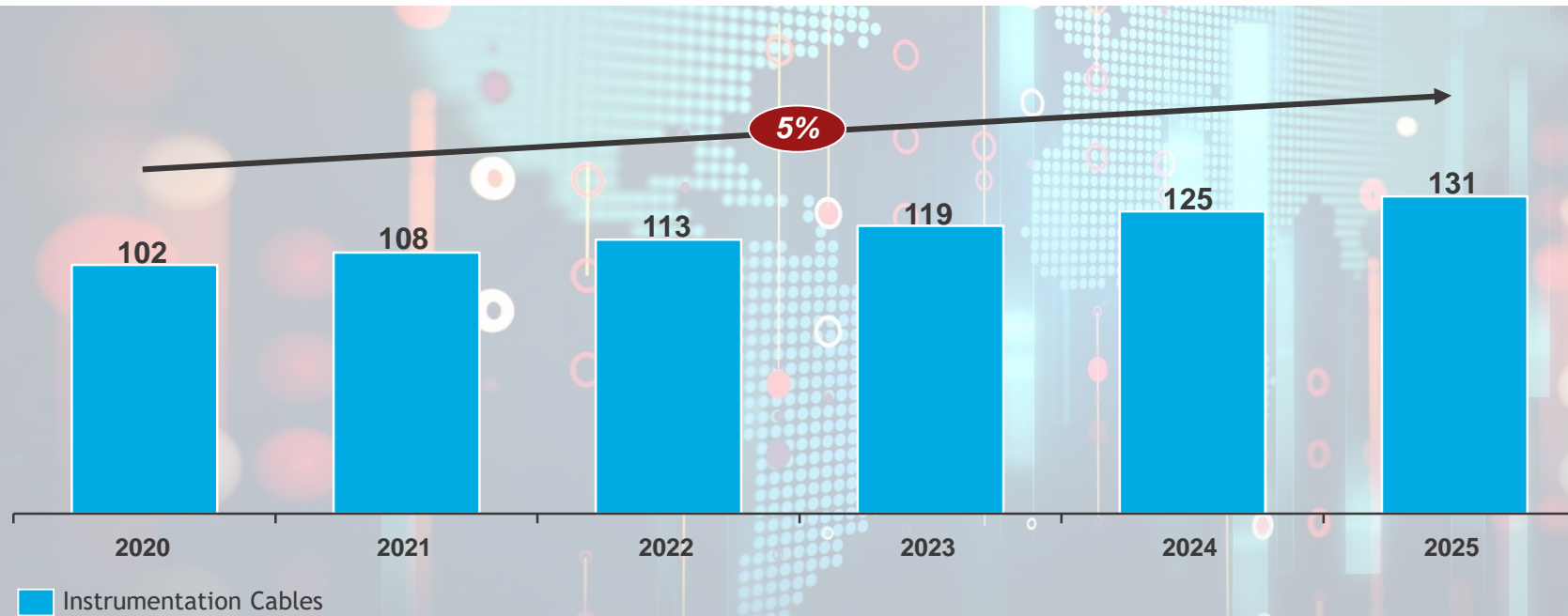
Currently, most of KSA demand of Instrumentation Cables is imported

The current market for Instrumentation Cables in 2019 for KSA was estimated at **98 Millions USD**

Instrumentation Cables demand is driven by Oil and Gas Industry

The demand for Instrumentation Cables in KSA is expected to reach around 131 Millions USD by 2025

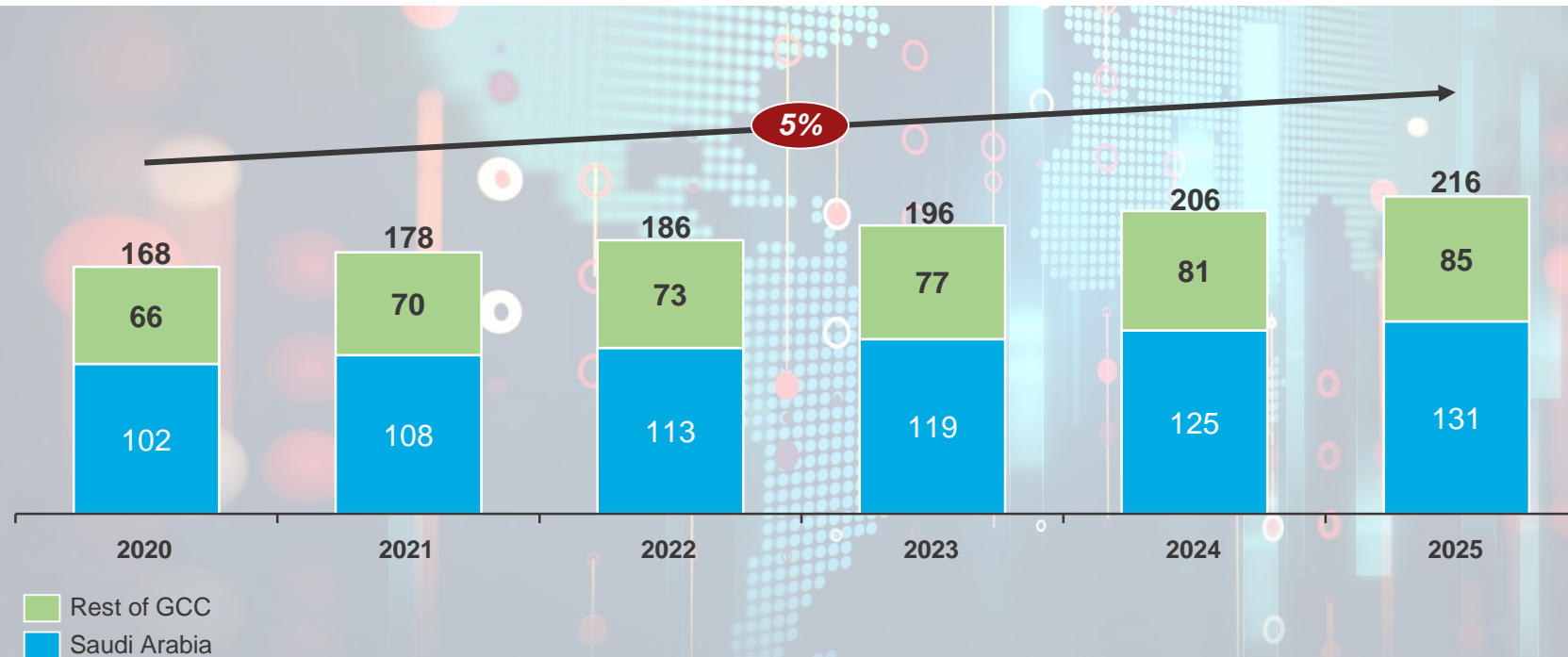
KSA expected market size for Instrumentation Cables (Millions USD)



Instrumentation Cables demand is expected to rise 5% annually and reach 131 Millions USD by 2025

The demand for Instrumentation Cables in the GCC is expected to reach 216 Millions USD by 2025

GCC expected market size for Instrumentation Cables (Millions USD)



Instrumentation Cables demand for GCC will support demand growth



Local value chain gaps translate into opportunities to do business in KSA

Potential investment opportunities related to Instrumentation Cables

Design	Manufacturing	SME Opportunities	Customer Services
<ul style="list-style-type: none"> Establish a Instrumentation Cable design and R&D center to develop designs for KSA requirements. 	<ul style="list-style-type: none"> Establish a factory to manufacture Instrumentation Cable. 	<ul style="list-style-type: none"> Small and Medium Enterprises can provide the following: <ol style="list-style-type: none"> Lab Testing. Certification. 	<ul style="list-style-type: none"> Establish technical support service center to serve requirements for on-site Testing, and Troubleshooting of Instrumentation Cable.



Junction Box

Junction Boxes represents an attractive localization opportunity given the current supply gap and expected demand growth



The opportunity



Establish a state-of-the-art **manufacturing unit** of **Junction Boxes** to serve the KSA and GCC.

The business case



1. KSA demand for **Junction Boxes** were estimated at **47 Millions USD** in **2019**.
2. Forecasted at **~5% annual growth** and estimated to reach **102 Millions USD** for **GCC** by **2025**.
3. Attractive **cost base** including low logistics, land, utilities, and labor costs.

Junction Boxes are used by Oil and Gas Industries

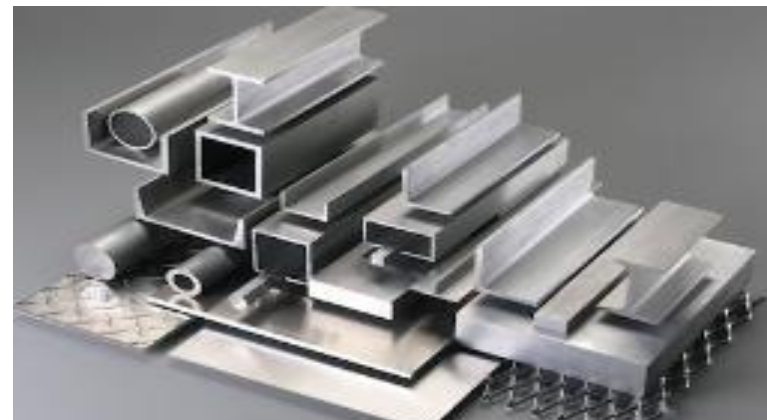
Key Junction Boxes Technical Specification:

- International Electrotechnical Commission (IEC 60079-7 Certificate)
- International Electrotechnical Commission (IEC 60529 Certificate)
- National Electrical Manufacturers Association (NEMA 250)

There are a lot of opportunities for SME to manufacture components for Junction Boxes



JUNCTION BOX

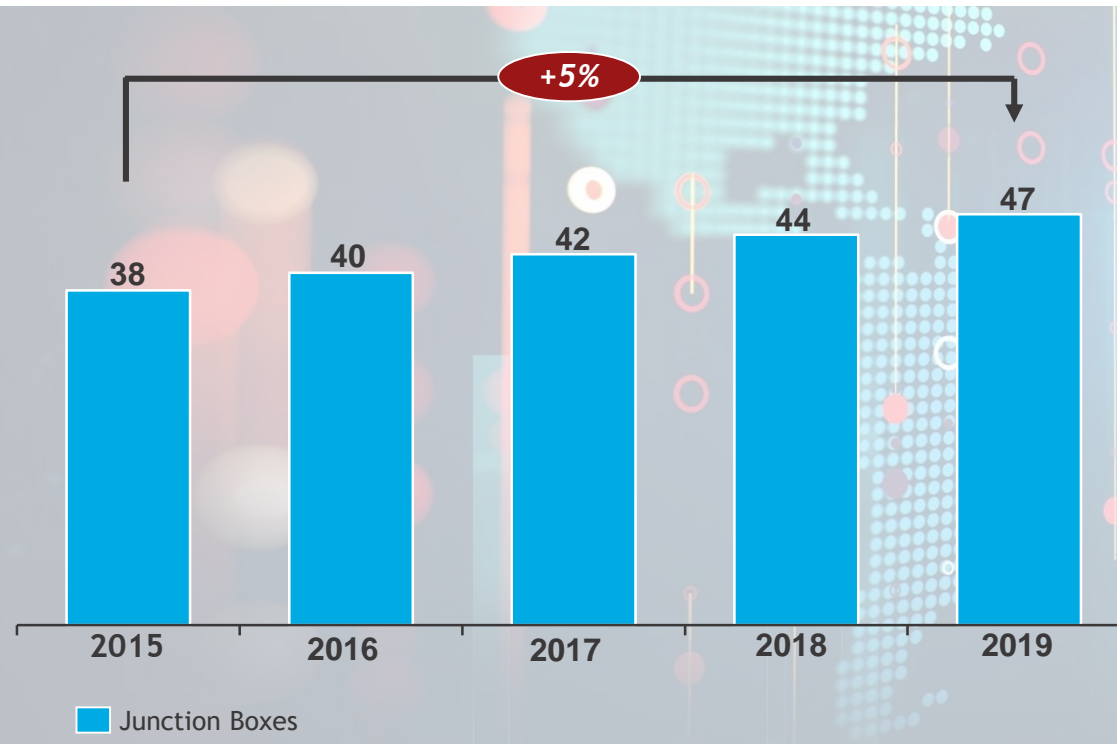


STEEL



Junction Boxes demand in KSA has been growing and was estimated at 47 Millions USD in 2019

KSA historical demand for Junction Boxes (Millions USD)



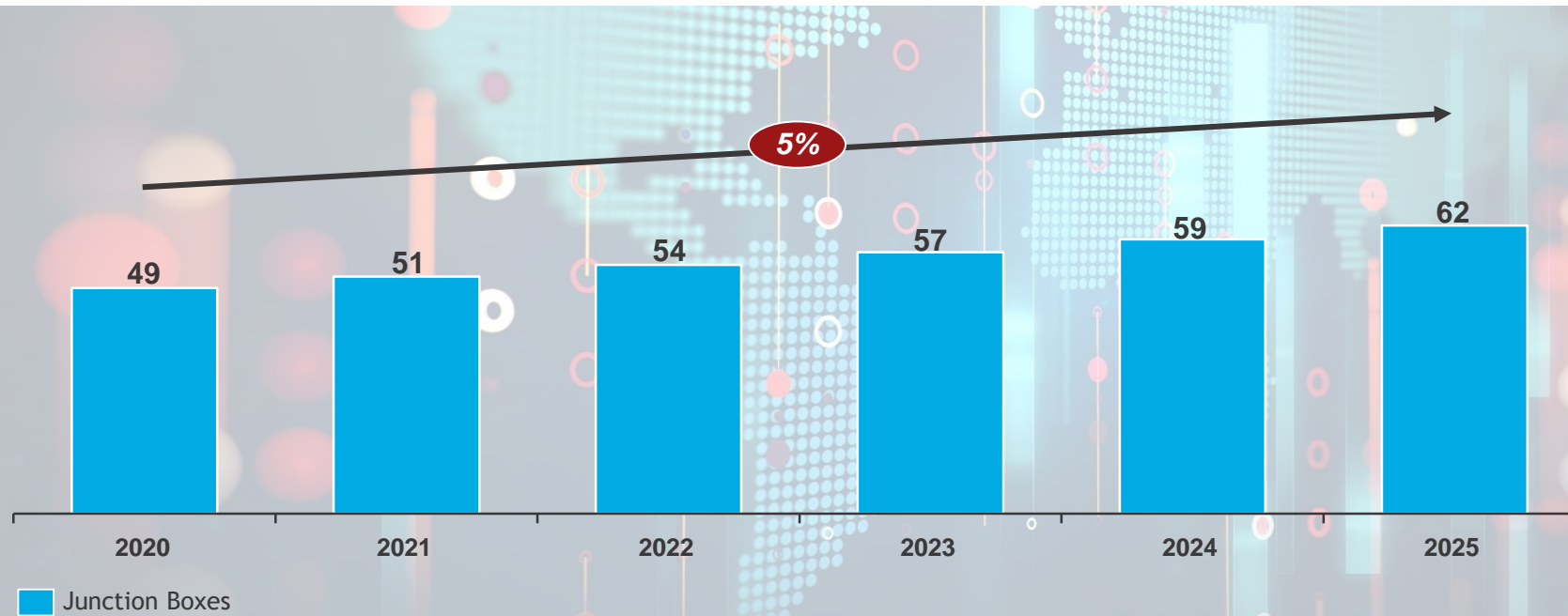
Currently, most of KSA demand of Junction Boxes is imported

The current market for Junction Boxes in 2019 for KSA was estimated at **47 Millions USD**

Junction Boxes demand is driven by Oil and Gas Industry

The demand for Junction Boxes in KSA is expected to reach around 62 Millions USD by 2025

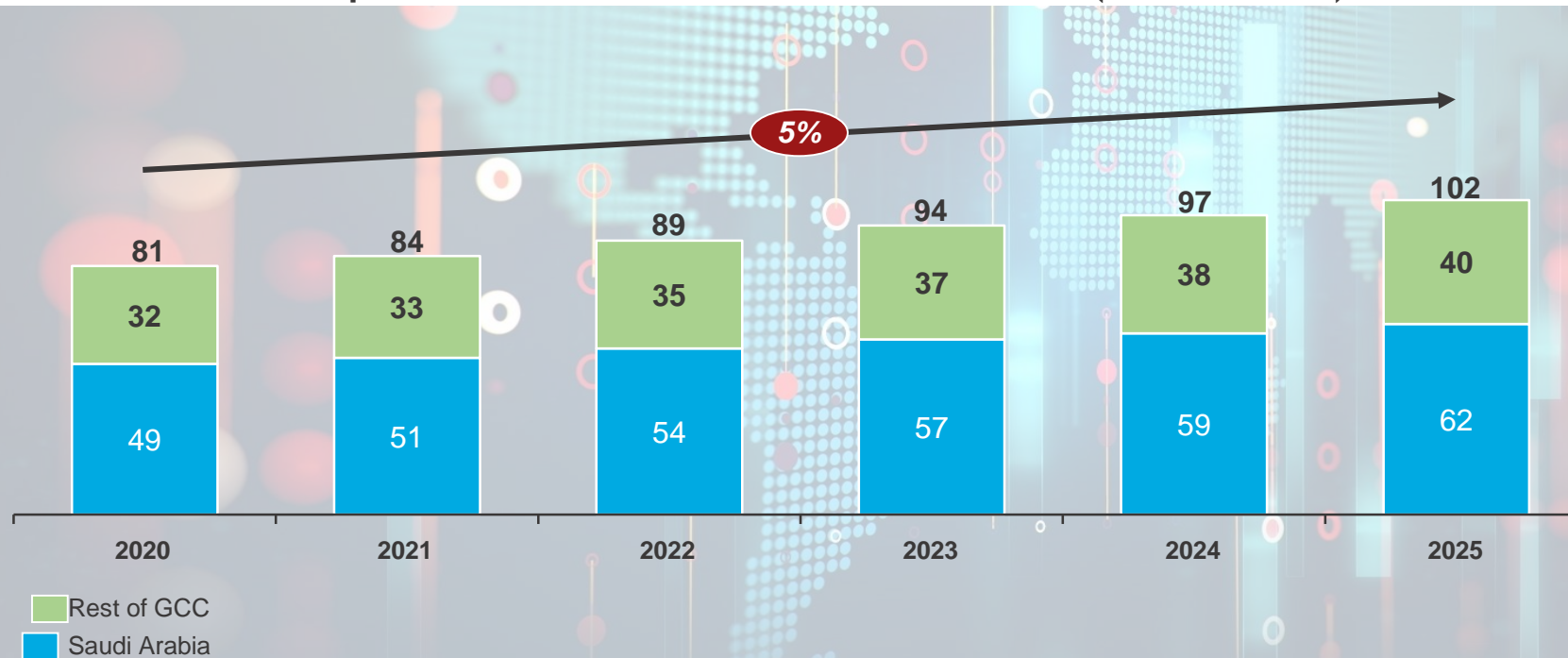
KSA expected market size for Junction Boxes (Millions USD)



Junction Boxes demand is expected to rise 5% annually and reach 62 Millions USD by 2025

The demand for Junction Boxes in the GCC is expected to reach 102 Millions USD by 2025

GCC expected market size for Junction Boxes (Millions USD)



Junction Boxes demand for GCC will support demand growth



Local value chain gaps translate into opportunities to do business in KSA

Potential investment opportunities related to Junction Boxes

Design	Manufacturing	SME Opportunities	Customer Services
<ul style="list-style-type: none"> Establish a Junction Box design and R&D center to develop designs for KSA requirements. 	<ul style="list-style-type: none"> Establish a factory to manufacture Junction Boxes. 	<ul style="list-style-type: none"> Small and Medium Enterprises can provide the following: <ol style="list-style-type: none"> Hinge. Closure clips. Fittings. Breathers. Plugs. Certification. 	<ul style="list-style-type: none"> Establish technical support service center to serve requirements for Testing and Maintenance of Junction Boxes.



Integration of Analyzer Shelters



Integration of Analyzer Shelters represents an attractive localization opportunity given the current supply gap and expected demand growth

The opportunity



Establish a state-of-the-art **manufacturing unit of Integration of Analyzer Shelters** to serve the KSA and GCC.

The business case



1. KSA demand was estimated at **92 Millions USD in 2019**
2. Forecasted at **~5% annual growth** and estimated to reach **203 Millions USD for GCC by 2025**.
3. Attractive **cost base** including low logistics, land, utilities, and labor costs



Manufacture/integrate analyzer shelters or components for Process Analyzer systems and related services

Analyzer Shelters



Components / Subcomponents / Parts



HVAC



CHILLER



SAMPLING
SYSTEM



CABINET



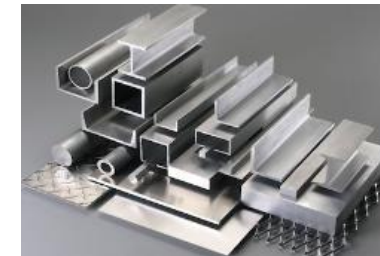
3-SIDED
SHELTER



ANALYZER
HOUSE



ELECTRICAL



STEEL

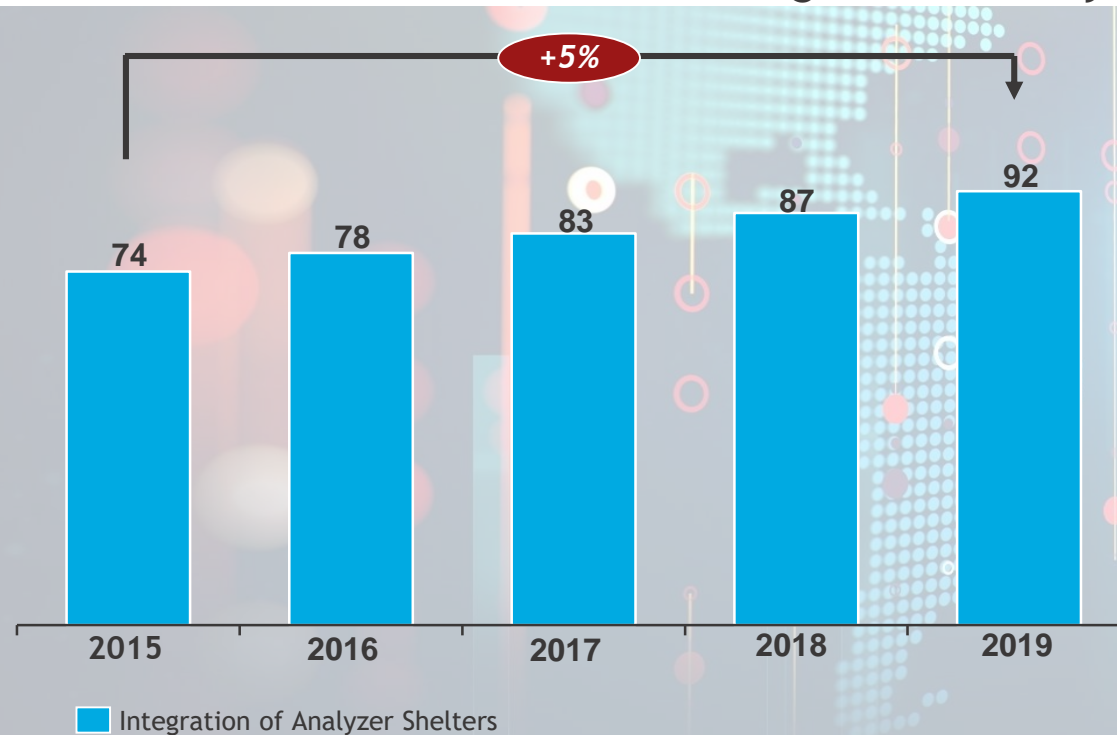


JUNCTION BOX



Integration of Analyzer Shelters demand in KSA has been growing and was estimated at 92 Millions in 2019

KSA historical demand for Integration of Analyzer Shelters (Millions USD)



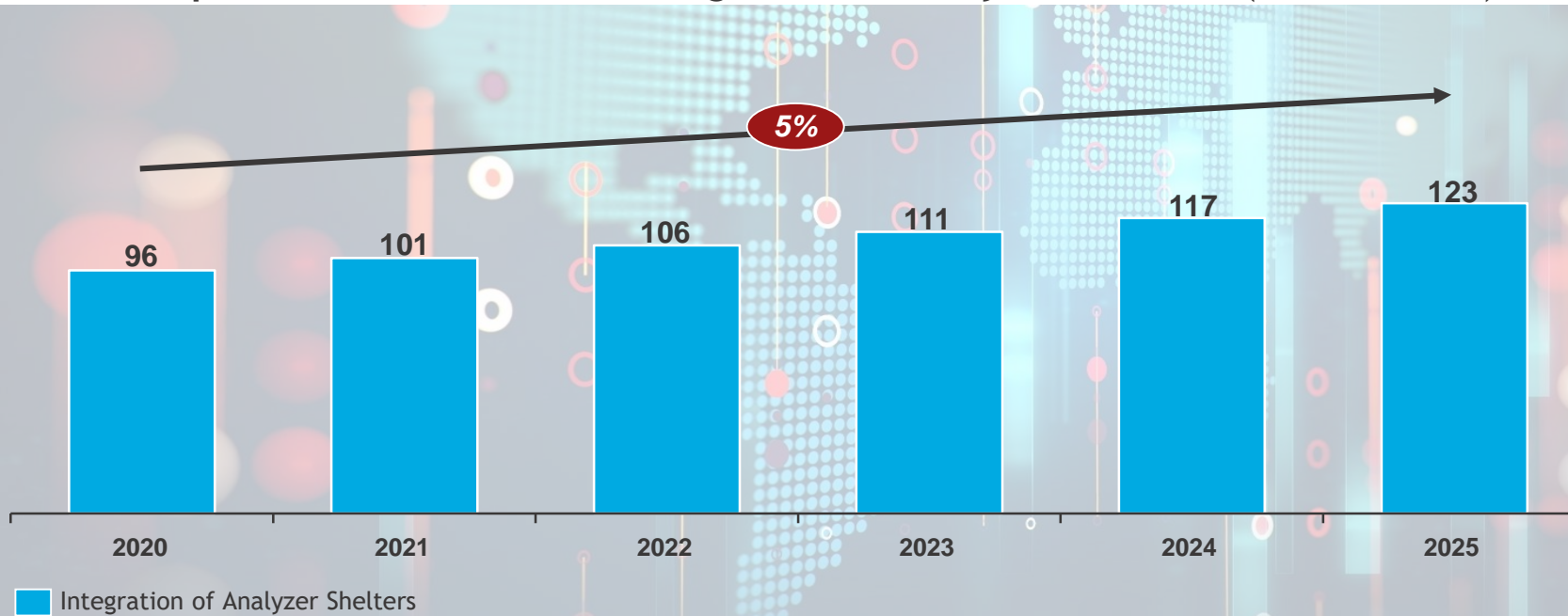
Currently, most of KSA demand of Integration of Analyzer Shelters is imported

The current market for Integration of Analyzer Shelters in 2019 for KSA was estimated at **92 Millions USD**

Integration of Analyzer Shelters demand is driven by Oil and Gas Industry

The demand for Integration of Analyzer Shelters in KSA is expected to reach around 123 Millions USD by 2025

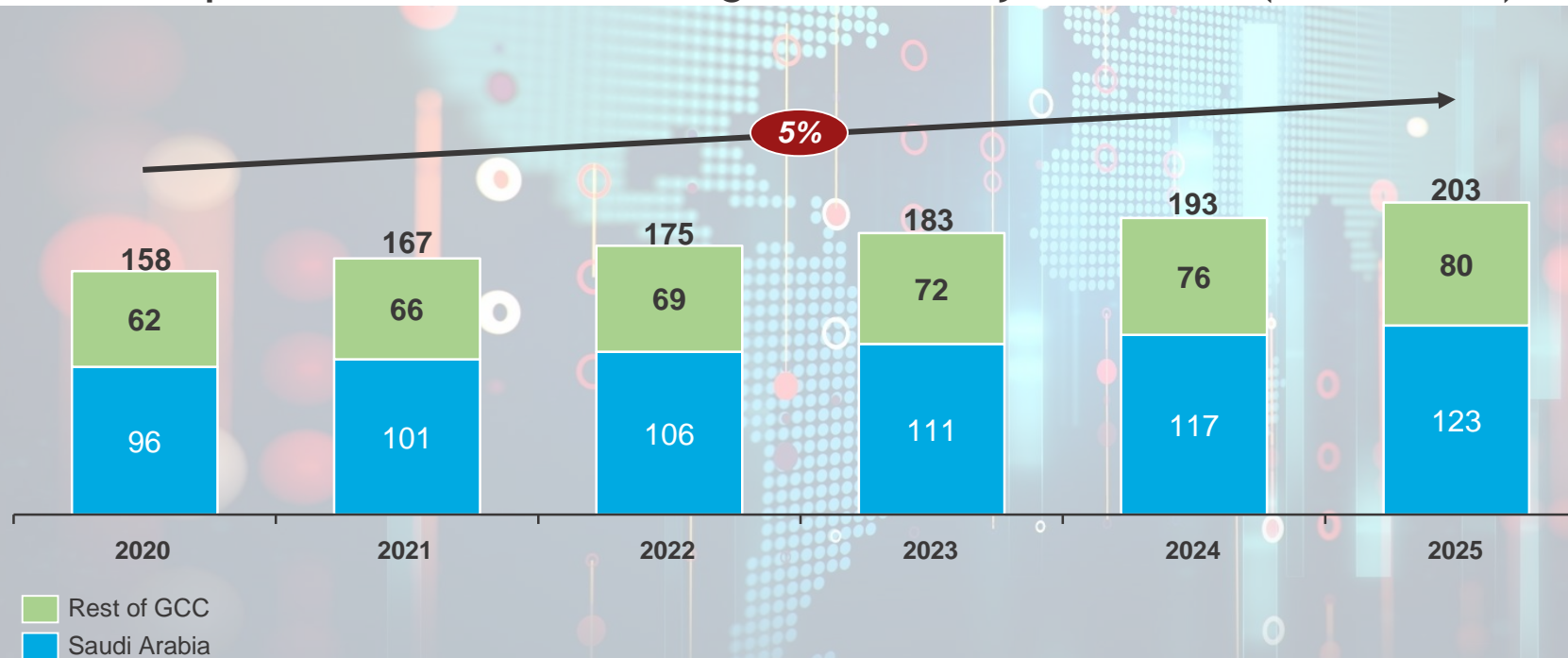
KSA expected market size for Integration of Analyzer Shelters (Millions USD)



Integration of Analyzer Shelters demand is expected to rise 5% annually and reach 123 Millions USD by 2025

The demand for Integration of Analyzer Shelters in the GCC is expected to reach 203 Millions USD by 2025

GCC expected market size for Integration of Analyzer Shelters (Millions USD)



Integration of Analyzer Shelters demand for GCC will support demand growth



Local value chain gaps translate into opportunities to do business in KSA

Potential investment opportunities related to Integration of Analyzer Shelters

Design	Manufacturing	SME Opportunities	Customer Services
<ul style="list-style-type: none"> Design to be done by a local manufacturer lead team. 	<ul style="list-style-type: none"> Establish a factory: to manufacture and integrate analyzer shelters. 	<ul style="list-style-type: none"> Small-Medium Size Enterprise: to provide: <ul style="list-style-type: none"> a. Raw Material: <ul style="list-style-type: none"> <input type="checkbox"/> Steel. b. Services: <ul style="list-style-type: none"> <input type="checkbox"/> Coating. <input type="checkbox"/> Cutting. <input type="checkbox"/> Paintings. 	<ul style="list-style-type: none"> Establish technical support service center to provide consultations, spare parts, onsite & off-site support and troubleshooting activities of Analyzer Shelters.



Custody Measurement Systems



Custody Measurement Systems represents an attractive localization opportunity given the current supply gap and expected demand growth

The opportunity



Establish a state-of-the-art **manufacturing facilities** for **Custody Measurement Systems** to serve the KSA and GCC.

The business case

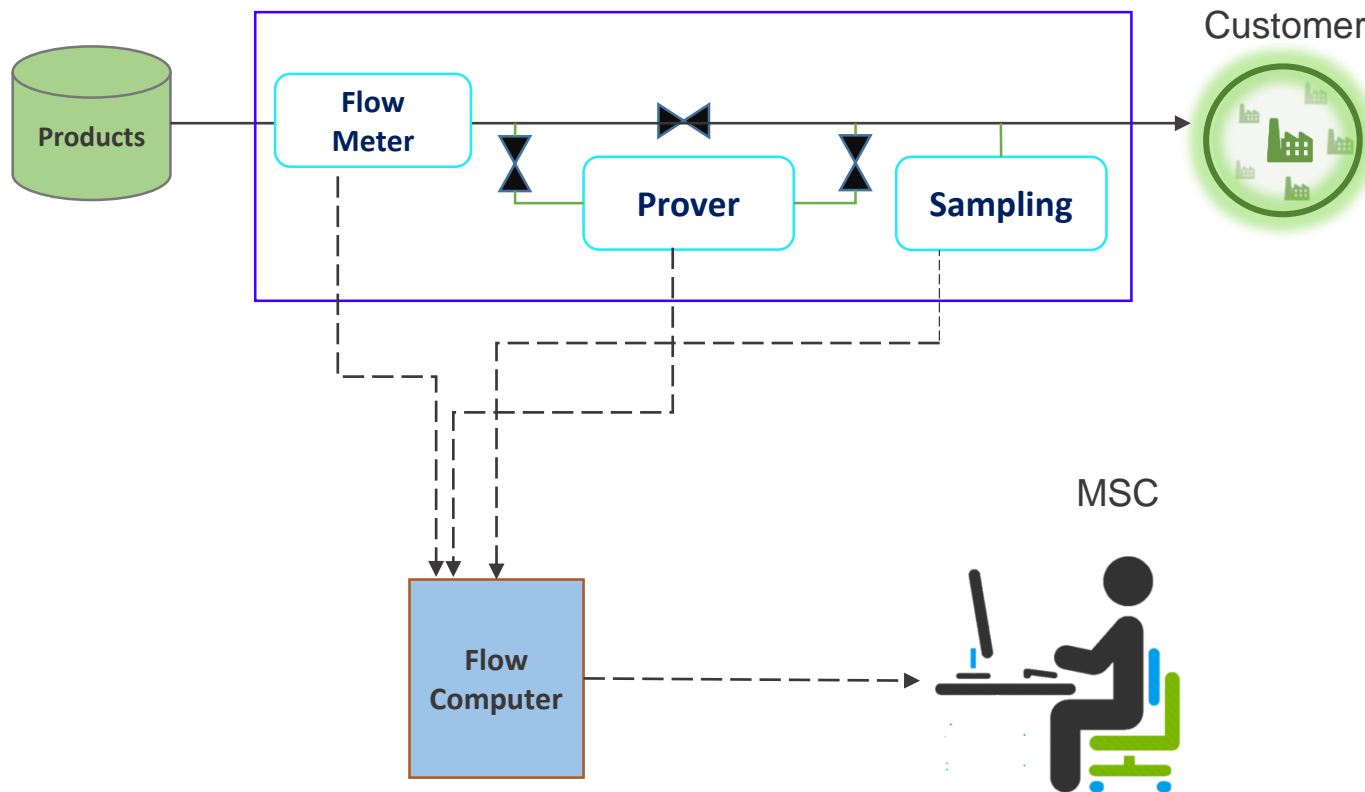


1. KSA demand was estimated at **176 Millions USD** in **2019**.
2. Forecasted at **~5% annual growth** and estimated to reach **388 Millions USD** for **GCC** by **2025**.
3. Attractive **cost base** including low logistics, land, utilities, and labor costs.

Components of Custody Measurement Systems – Liquid

Components of Custody Measurement System (Liquid)

Custody Measurement System Components



Flow Meter (Turbine. Ultrasonic, Coriolis. PD etc,)

Proving system (Bi-directional, SVP, Master Meter etc)

Automatic Sampling System

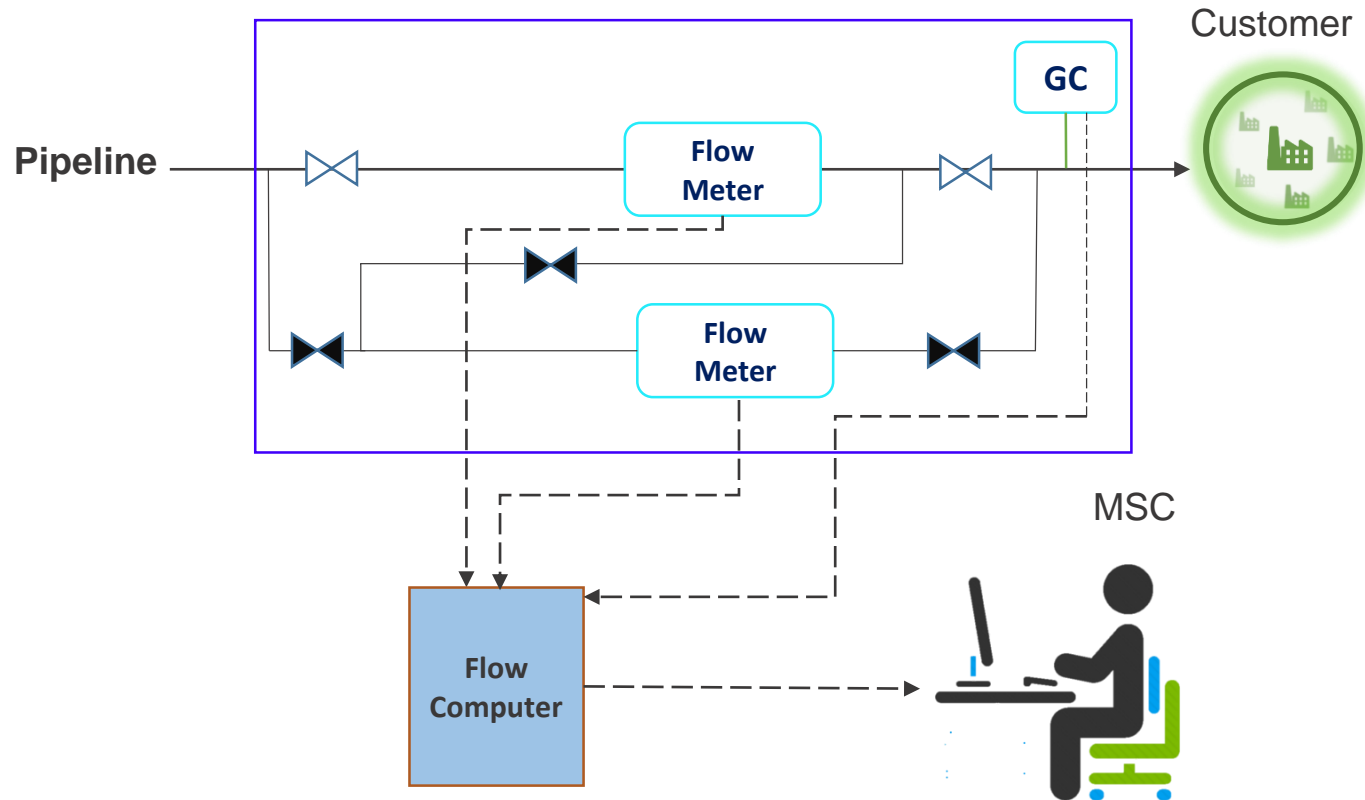
Flow computer (Panel & Field Mounted And Preset Controller)

Metering Supervisory Computer

Components for Custody Measurement Systems- Gas

Components of Custody Measurement System (Gas)

Custody Measurement System Components



Flow Meter (Orifice. Ultrasonic, Coriolis. etc,)

Gas Chromatograph

Flow computer (Panel & Field Mounted)

Metering Supervisory Computer



Custody Measurement Systems are used by Oil and Gas Industries

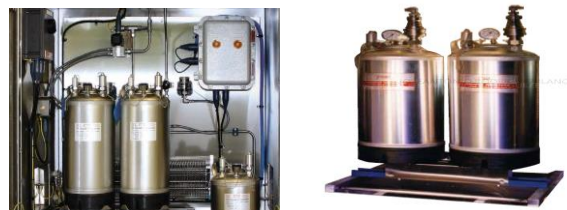
Key Custody Measurement System Technical Specification:

Provers



• 34-SAMSS-119

Automatic Sampling Systems



• 34-SAMSS-525

Flow Meters



Coriolis Ultrasonic Turbine

• 34-SAMSS-112 / 117

Flow Computers



• 34-SAMSS- 841 / 846

Preset Controllers



• 34-SAMSS-847

Gas Chromatograph

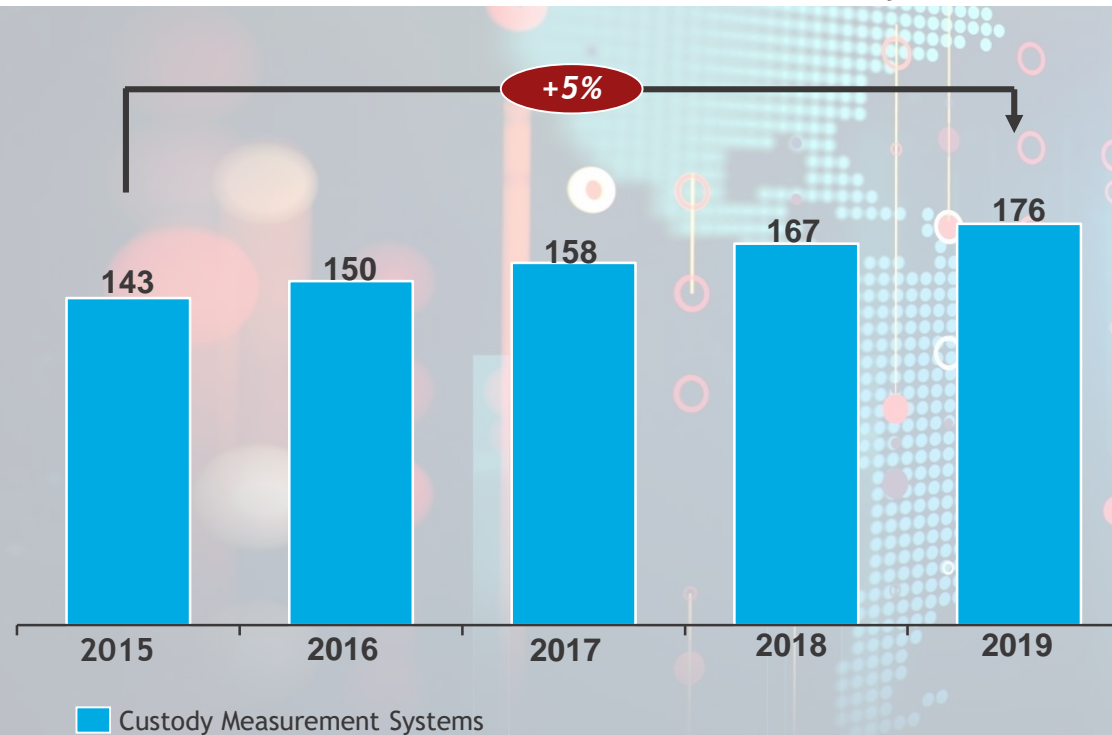


• 34-SAMSS-510



Custody Measurement Systems demand in KSA has been growing and was estimated at 176 Millions in 2019

KSA historical demand for Custody Measurement Systems (Millions USD)



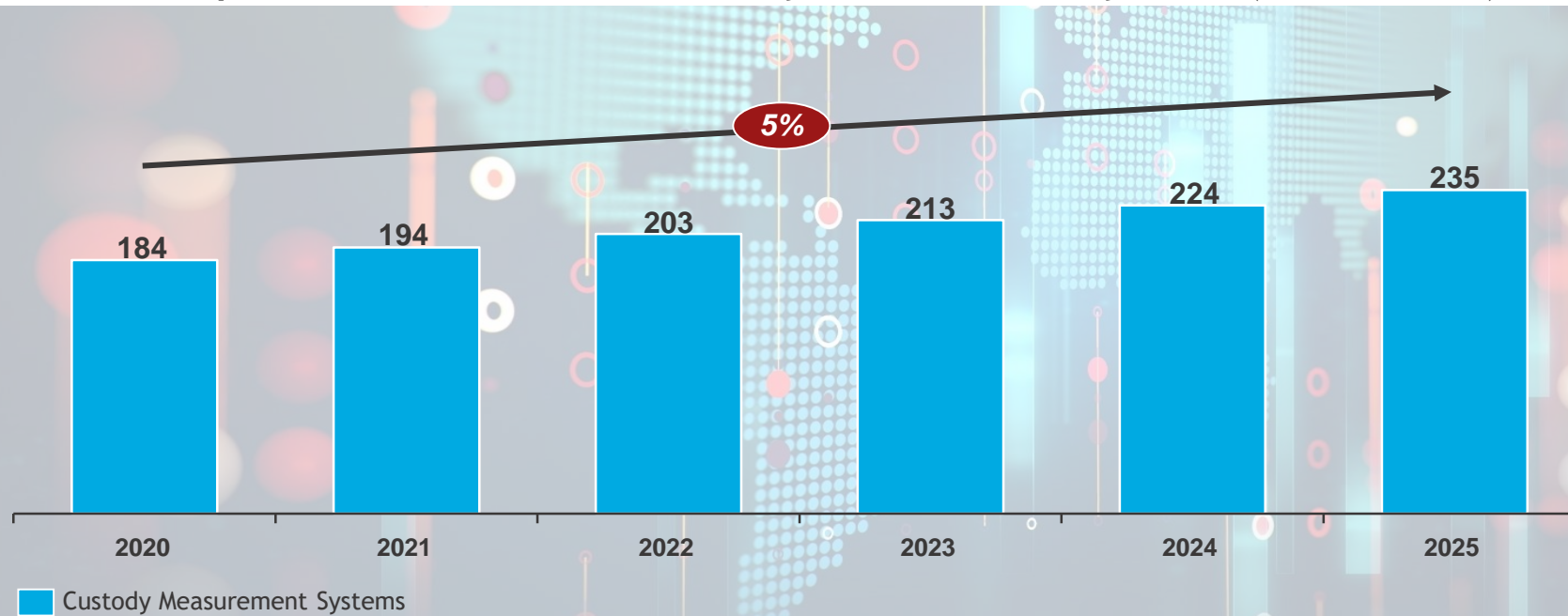
Currently, most of KSA demand of Custody Measurement Systems is imported

The current market for Custody Measurement Systems in 2019 for KSA was estimated at **176 Millions USD**

Custody Measurement Systems demand is driven by Oil and Gas Industries

The demand for Custody Measurement Systems in KSA is expected to reach around 235 Millions USD by 2025

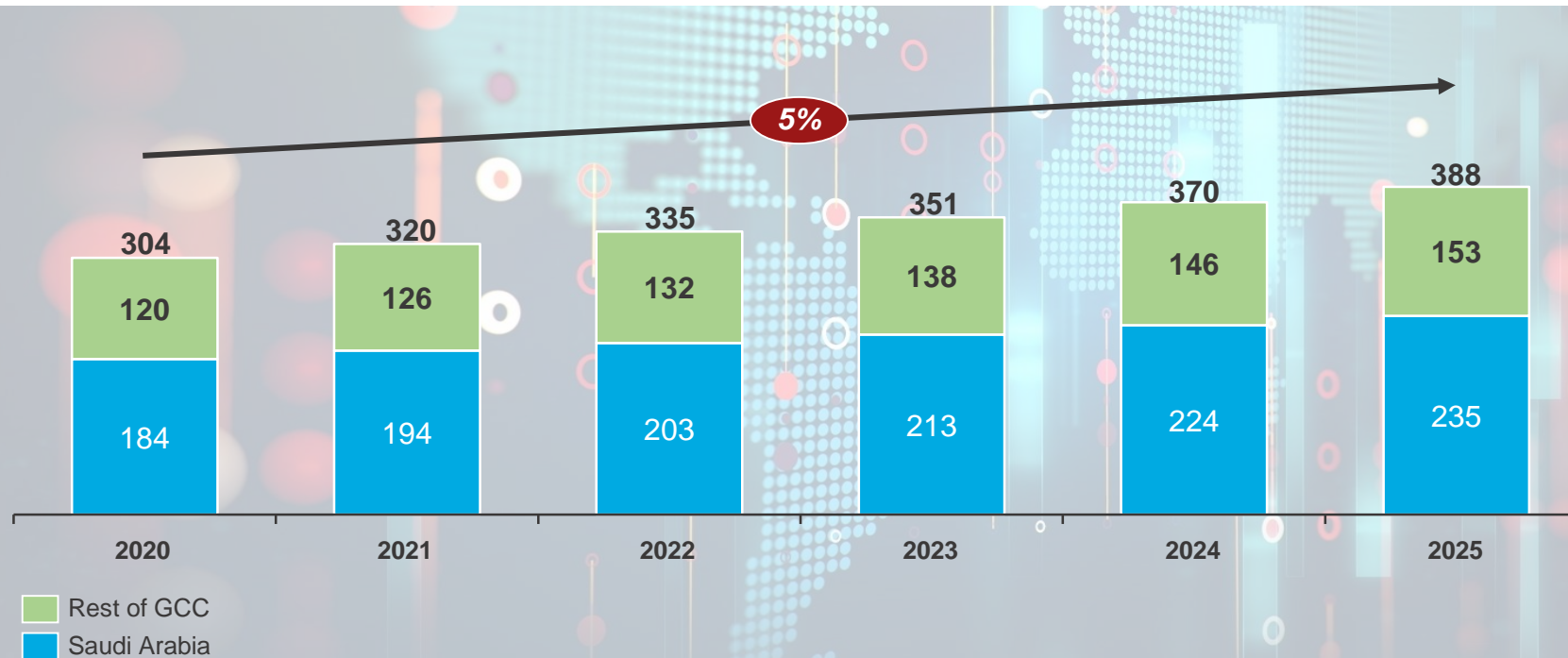
KSA expected market size for Custody Measurement Systems (Millions USD)



Custody Measurement Systems demand is expected to rise 5% annually and reach 235 Millions USD by 2025

The demand for Custody Measurement Systems in the GCC is expected to reach 388 Millions USD by 2025

GCC expected market size for Custody Measurement Systems (Millions USD)



Custody Measurement Systems demand for GCC will support demand growth



Local value chain gaps translate into opportunities to do business in KSA

Potential investment opportunities related to Custody Measurement Systems

Design	Manufacturing	SME Opportunities	Customer Services
<ul style="list-style-type: none"> Establish Custody Measurement Components and R&D center to develop designs for KSA requirements. 	<ul style="list-style-type: none"> Establish a factory to manufacture/integrate Custody Measurement System Components: <ol style="list-style-type: none"> Flow Meters. Preset Controllers. Flow Computers. Pipe Provers. Automatic Sampling Systems. 	<ul style="list-style-type: none"> Small and Medium Enterprises can provide the following: <ol style="list-style-type: none"> Meter Body. Printing Circuit Board. Prover Flow Tubes (Stainless Steel). Piping and Flanges (Carbon Steel). Meter Flow Tubes (Stainless Steel). Case and Enclosure. Meter/Prover Calibration Labs. 	<ul style="list-style-type: none"> Establish technical support service center to serve requirements for calibrating, Testing, Maintenance and Troubleshooting of Custody Flowmeters, Flow Computers and Provers.



Leak Detection Systems



Leak Detection Systems represents an attractive localization opportunity given the current supply gap and expected demand growth

The opportunity



Establish a state-of-the-art **manufacturing unit of Leak Detection Systems** to serve the KSA and GCC.

The business case



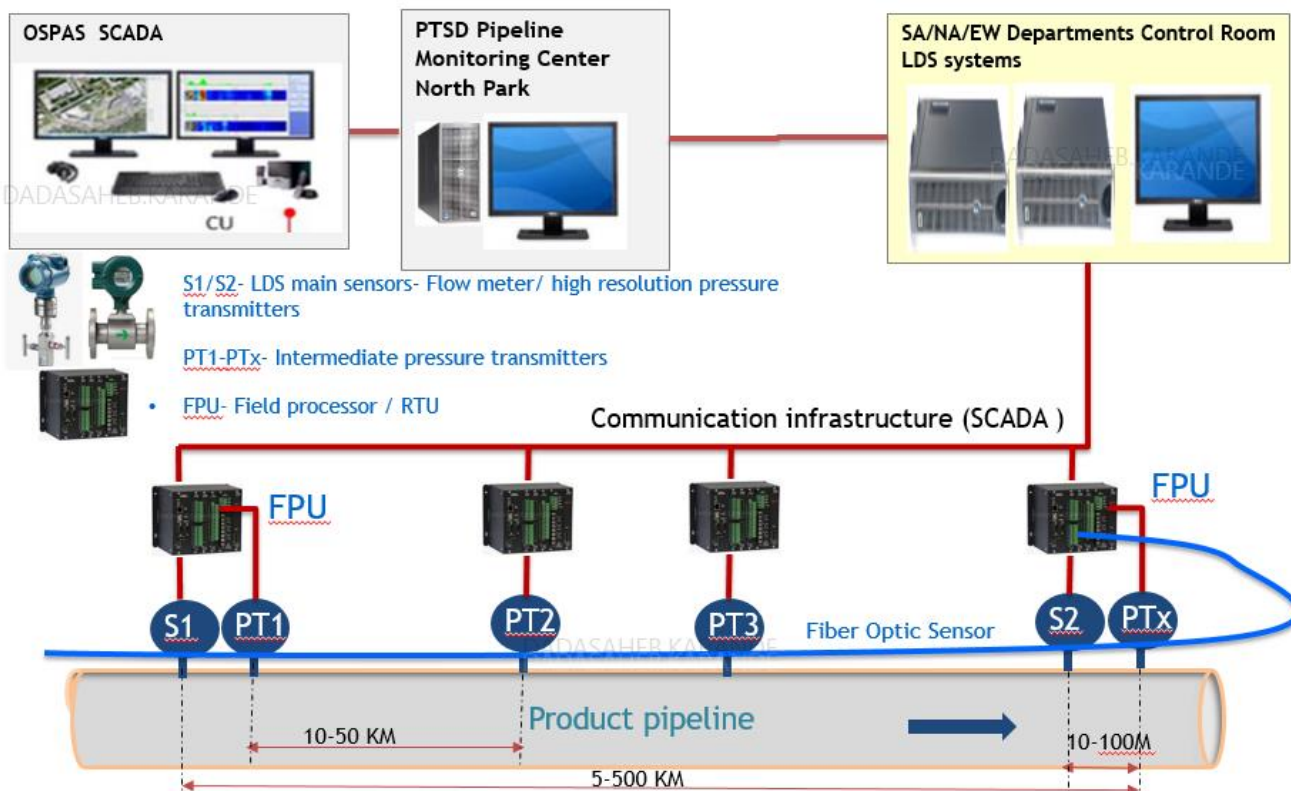
1. KSA demand for **Leak Detection Systems** was estimated at **29 Millions USD** in **2019**.
2. Forecasted at **~5% annual growth** and estimated to reach **63 Millions USD** for **GCC** by **2025**.
3. Attractive **cost base** including low logistics, land, utilities, and labor costs.

Leak Detection Systems are used by Oil & Gas Industries

Key Leak Detection Systems Technical Specification:

- SAES-Z-003 Leak Detection System
- API PUBL 1130 Computational Pipeline Monitoring
- API PUBL 1149 Pipeline Variable Uncertainties & their Effect on Leak Detectability

There are a lot of opportunities for SME to manufacture components for Leak Detection Systems



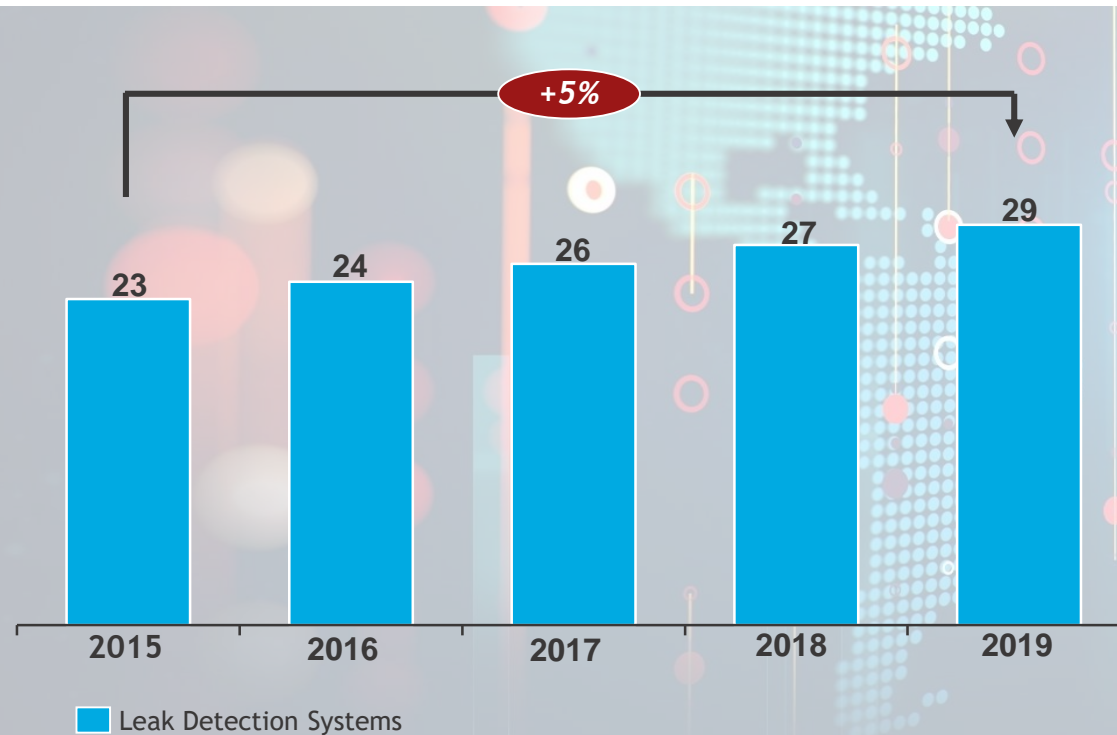
Components of Leak Detection Systems

- LDS sensors- Pressure sensors, Flow meters, Fiber Optic cable
- Field Processor- RTU, CPU
- Server
- Network components
- Operator workstation



Leak Detection Systems demand in KSA has been growing and was estimated at 29 Millions in 2019

KSA historical demand for Leak Detection Systems (Millions USD)



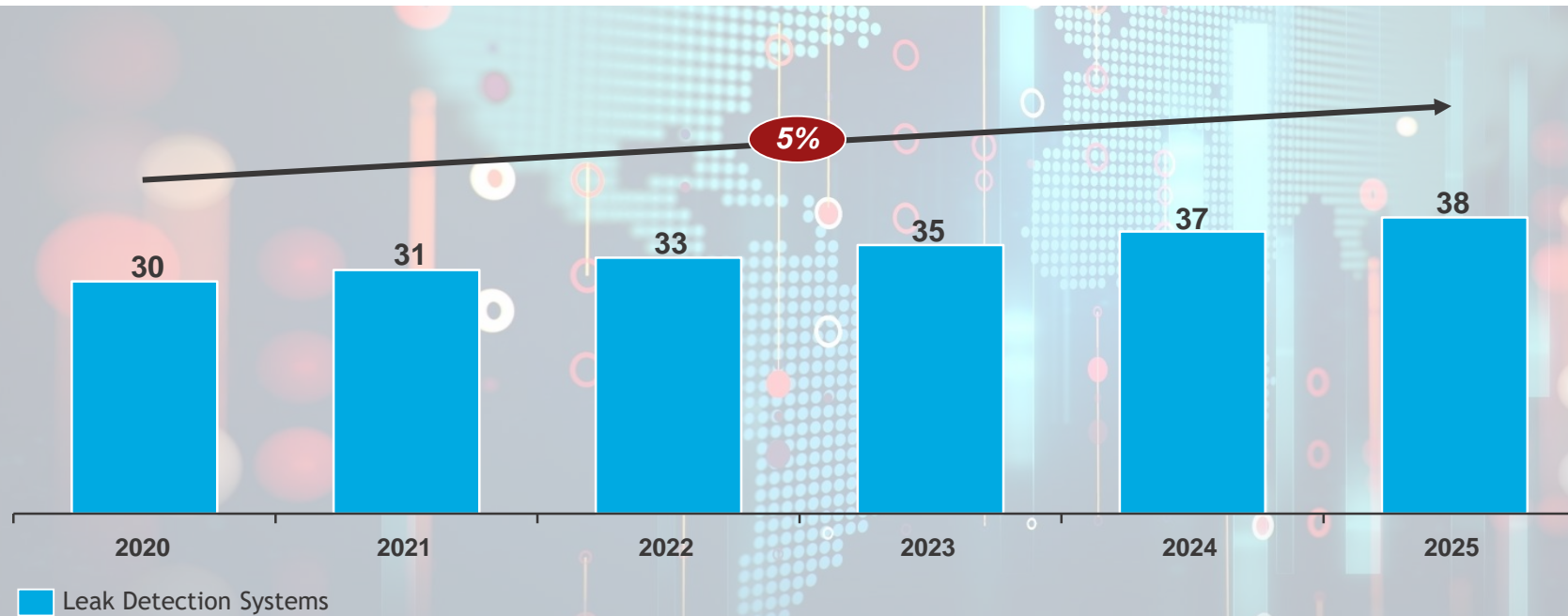
Currently, most of KSA demand of Leak Detection Systems is imported

The current market for Leak Detection Systems in 2019 for KSA was estimated at **29 Millions USD**

Leak Detection Systems demand is driven by Oil and Gas Industry

The demand for Leak Detection Systems in KSA is expected to reach around 38 Millions USD by 2025

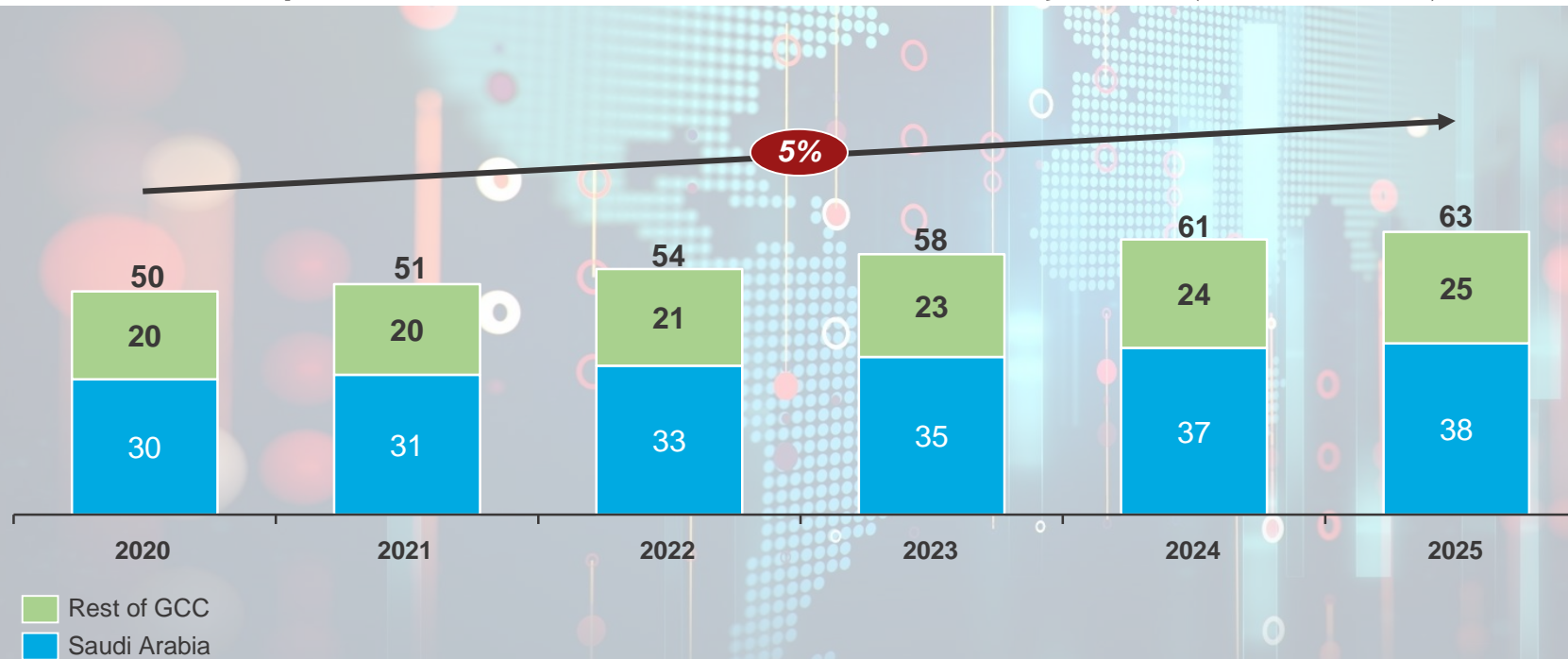
KSA expected market size for Leak Detection Systems (Millions USD)



Leak Detection Systems demand is expected to rise 5% annually and reach 38 Millions USD by 2025

The demand for Leak Detection Systems in the GCC is expected to reach 63 Millions USD by 2025

GCC expected market size for Leak Detection Systems (Millions USD)



Leak Detection Systems demand for GCC will support demand growth



Local value chain gaps translate into opportunities to do business in KSA

Potential investment opportunities related to Leak Detection Systems

Design	Manufacturing	SME Opportunities	Customer Services
<ul style="list-style-type: none"> Establish a Leak Detection Systems design and R&D center to develop designs for KSA requirements. 	<ul style="list-style-type: none"> Establish a factory to manufacture Leak Detection Systems. 	<ul style="list-style-type: none"> Small and Medium Enterprises can provide the following: <ol style="list-style-type: none"> LDS sensors- Pressure sensors, Flow meters, Fiber Optic cable. Field Processor- RTU, CPU. Servers. Network components. 	<ul style="list-style-type: none"> Establish technical support service center to serve requirements for Testing, Maintenance and Troubleshooting of Leak Detection Systems.



Process Automation Systems (SME opportunities)



Process Automation Systems represents an attractive localization opportunity given the current supply gap and expected demand growth

The opportunity



Establish a state-of-the-art **manufacturing unit of Process Automation Systems** to serve the KSA and GCC.

The business case

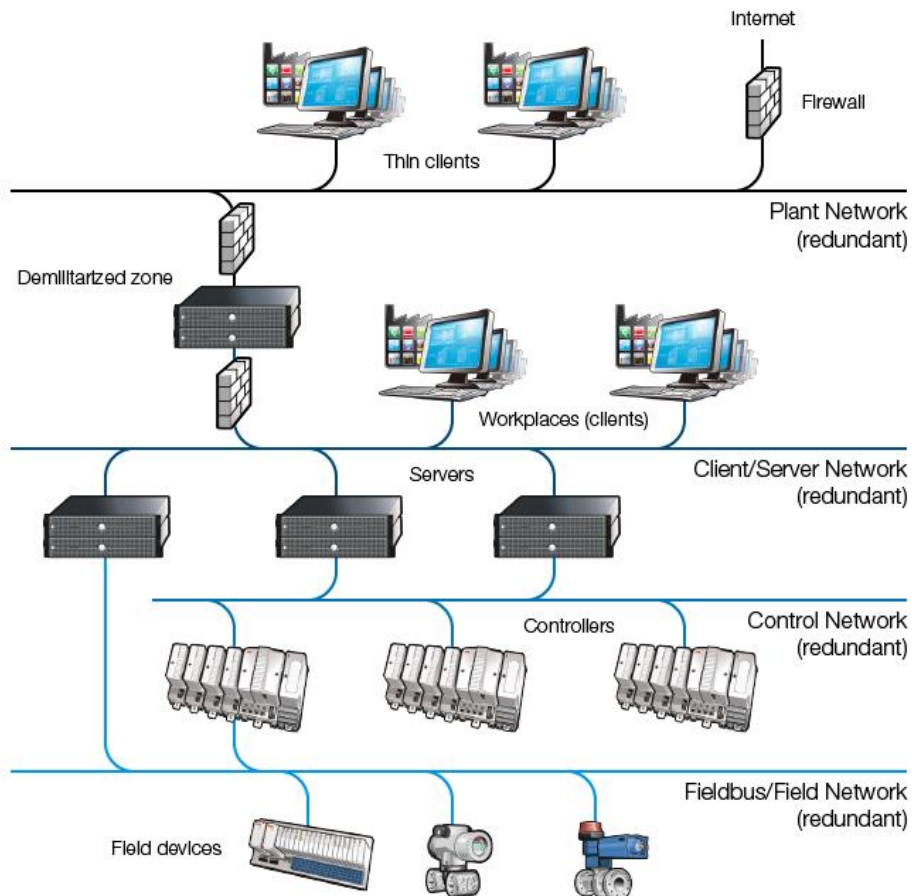


1. KSA demand for **PAS** was estimated at **249 Millions USD** in **2019**.
2. Forecasted at **~5% annual growth** and estimated to reach **549 Millions USD** for **GCC** by **2025**.
3. Attractive **cost base** including low logistics, land, utilities, and labor costs.



Process Automation Systems are used by Oil & Gas industries and Power Plants

Key Process Automation Systems Technical Specification:



- SAES-Z-001 (Process Control Systems)
- 23-SAMSS-010 (Distributed Control System)
- SAES-J-902 (Electrical Systems for Instrumentation)

- NEMA ICS 6 (Industrial Control and Systems: Enclosures)
- NFPA 70 (National Electrical Code)

There are a lot of opportunities for SME to manufacture components for Process Automation Systems



Components of Process Automation Systems

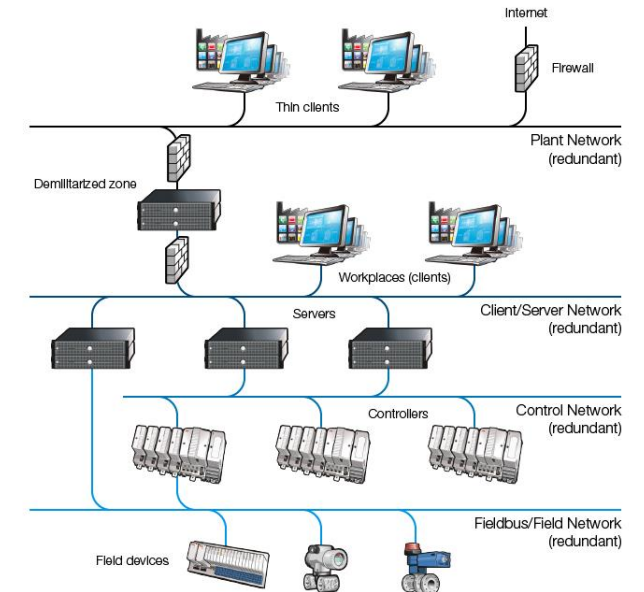
Cabinets



Controllers / Input/output cards



Human Machine Interface and Plant Network



There are a lot of opportunities for SME to manufacture components for Process Automation Systems

Components of Process Automation Systems

Field Termination Assembly



24 VDC Bulk Power Supply



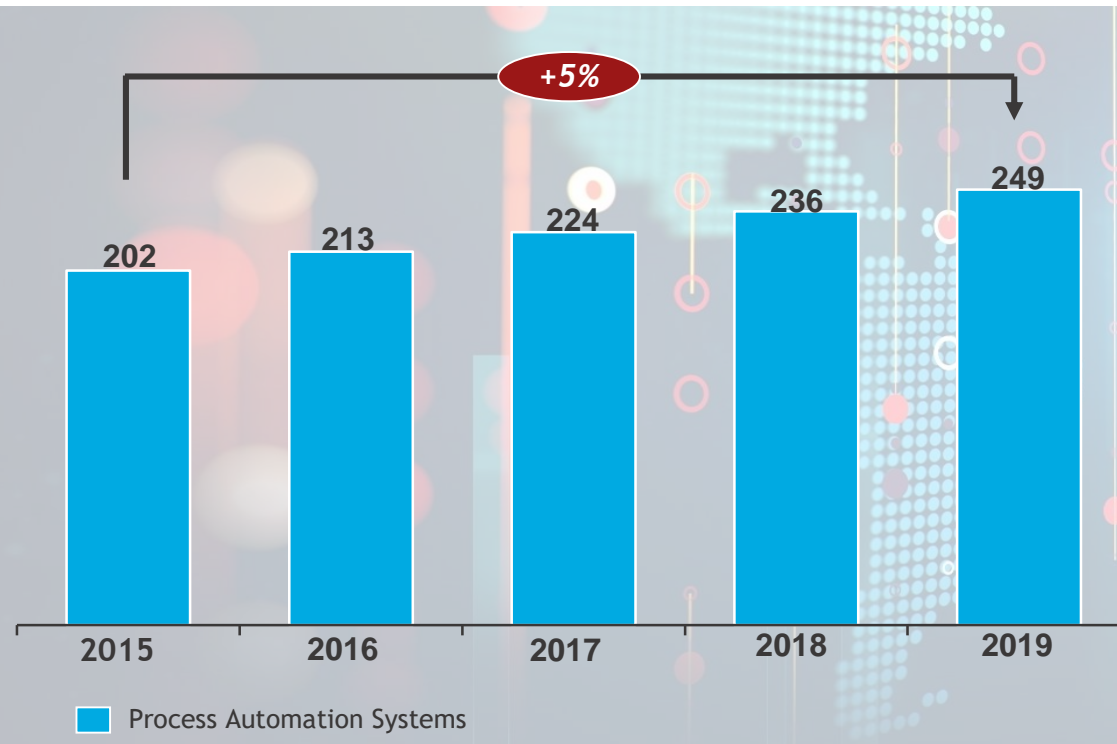
Pre-fabricated System Cables





Process Automation Systems demand in KSA has been growing and was estimated at 249 Millions in 2019

KSA historical demand for Process Automation Systems (Millions USD)



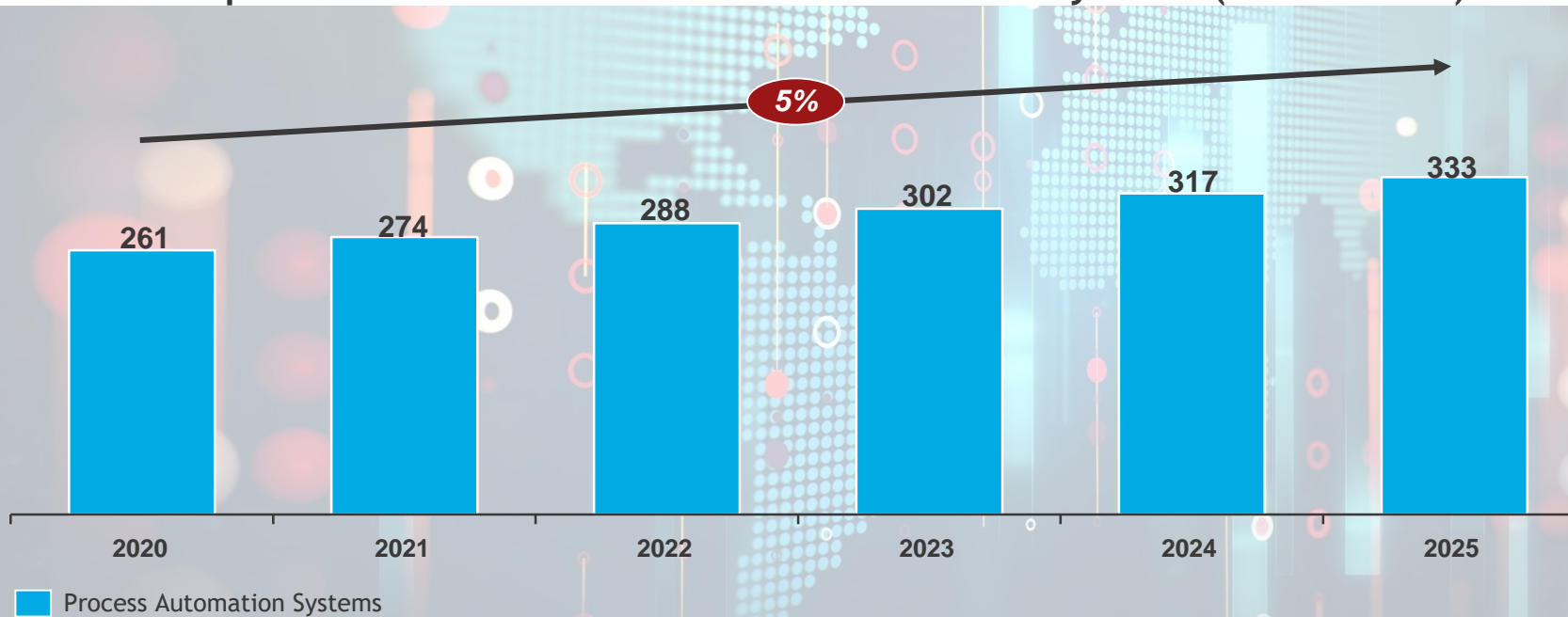
Currently, most of KSA demand of components for Process Automation Systems is imported

The current market for Process Automation Systems in 2019 for KSA was estimated at **249 Millions USD**

Process Automation Systems demand is driven by Oil and Gas Industry and Power Plants

The demand for Process Automation Systems in KSA is expected to reach around 333 Millions USD by 2025

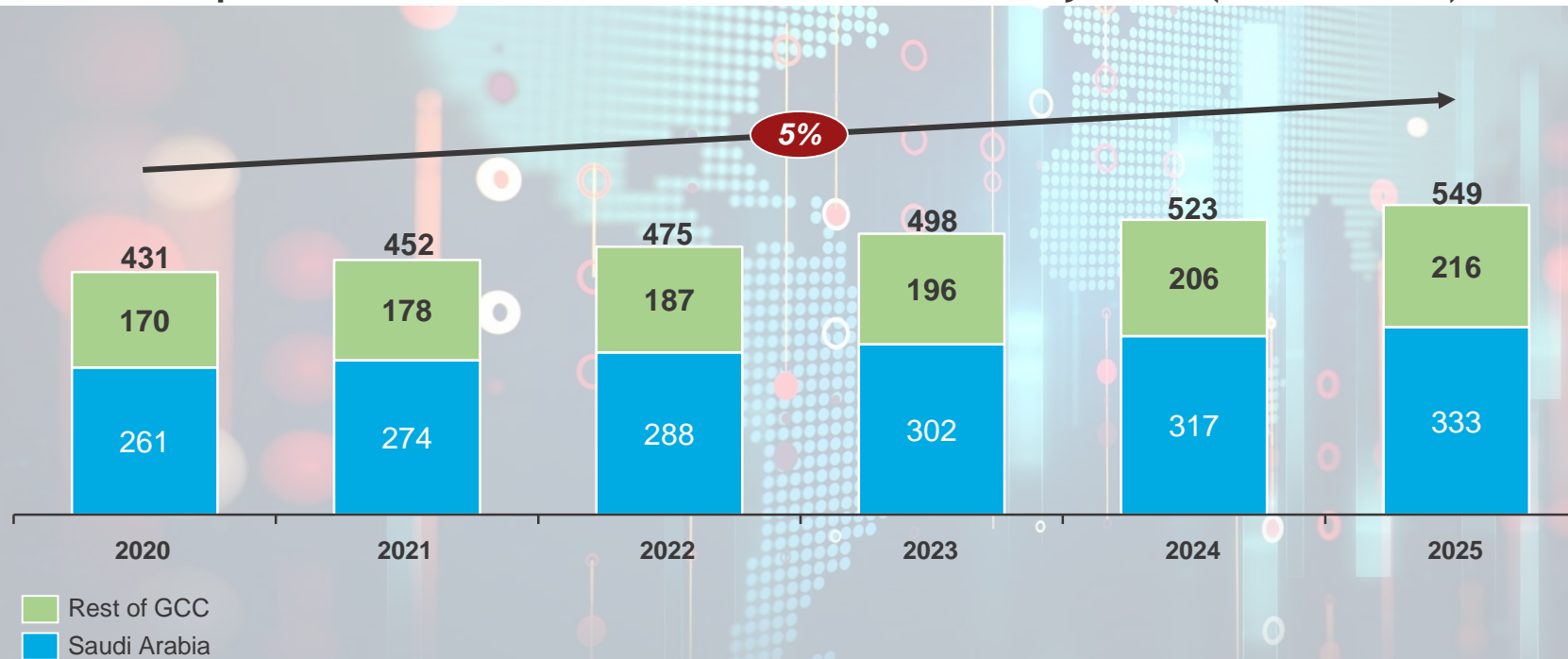
KSA expected market size for Process Automation Systems (Millions USD)



Process Automation Systems demand is expected to rise 5% annually and reach 333 Millions USD by 2025

The demand for Process Automation Systems in the GCC is expected to reach 549 Millions USD by 2025

GCC expected market size for Process Automation Systems (Millions USD)



Process Automation Systems demand for GCC will support demand growth



Local value chain gaps translate into opportunities to do business in KSA

Potential investment opportunities related to Process Automation Systems

Design	Supplier Development	SME Opportunities	Customer Services
<ul style="list-style-type: none"> Establish a PAS design and R&D center to develop designs for KSA requirements. 	<ul style="list-style-type: none"> OEMs could increase the supply chain of PAS by supporting SME in the development and manufacturing of certain components for PAS. 	<ul style="list-style-type: none"> Small and Medium Enterprises can provide the following: <ol style="list-style-type: none"> System Cabinets. Bulk Power Supplies. Pre-fabricated Cables. Field Termination Assemblies. 	<ul style="list-style-type: none"> Establish technical support service center to serve requirements for Testing, Maintenance and Troubleshooting of PAS.



Control Valves (SME opportunities)



Control Valves represents an attractive localization opportunity given the current supply gap and expected demand growth

The opportunity



Establish a state-of-the-art **manufacturing unit** of **Control Valves** to serve the KSA and GCC.

The business case

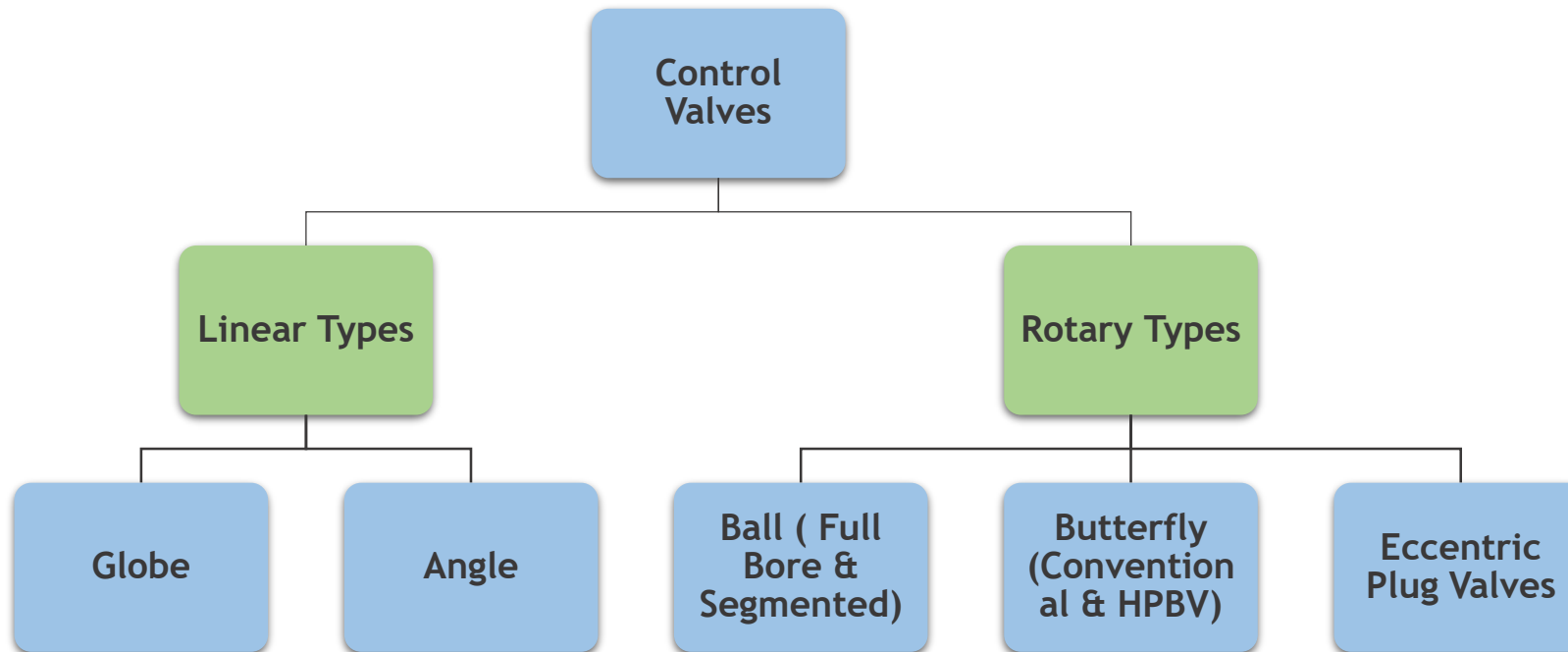


1. KSA demand for **Control Valves** was estimated at **189 Millions USD** in **2019**.
2. Forecasted at **~5% annual growth** and estimated to reach **417 Millions USD** for **GCC** by **2025**.
3. Attractive **cost base** including low logistics, land, utilities, and labor costs.

Control Valves are used by Oil and Gas industries

Key Control Valves Technical Specification:

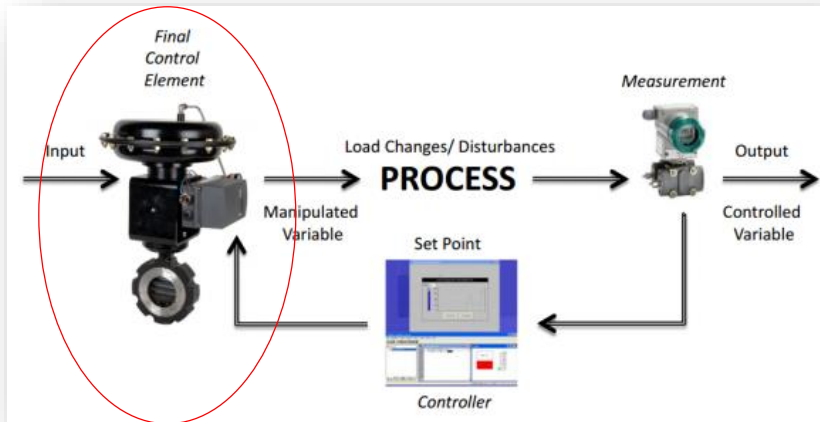
- Saudi Aramco Engineering Standards (SAES-J-700)
- Saudi Aramco Material Specifications (34-SAMSS-711)





There are a lot of opportunities for manufacturing

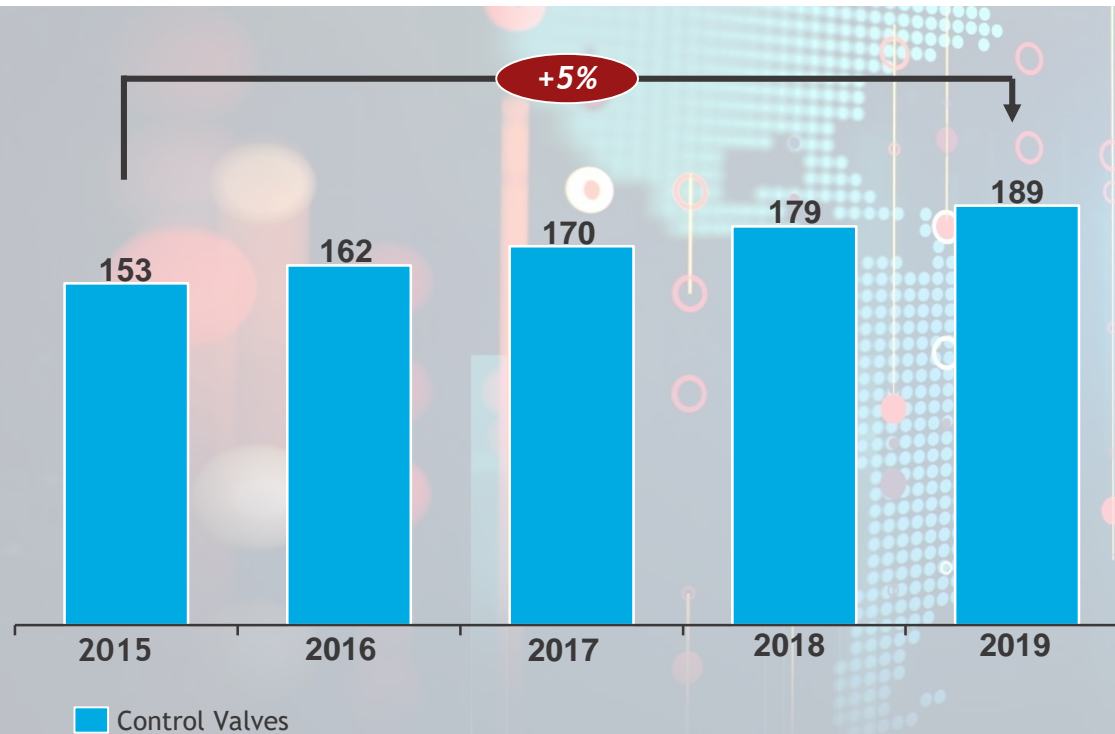
Components of Control Valves





Control Valves demand in KSA has been growing and was estimated at 189 Millions in 2019

KSA historical demand for Control Valves (Millions USD)



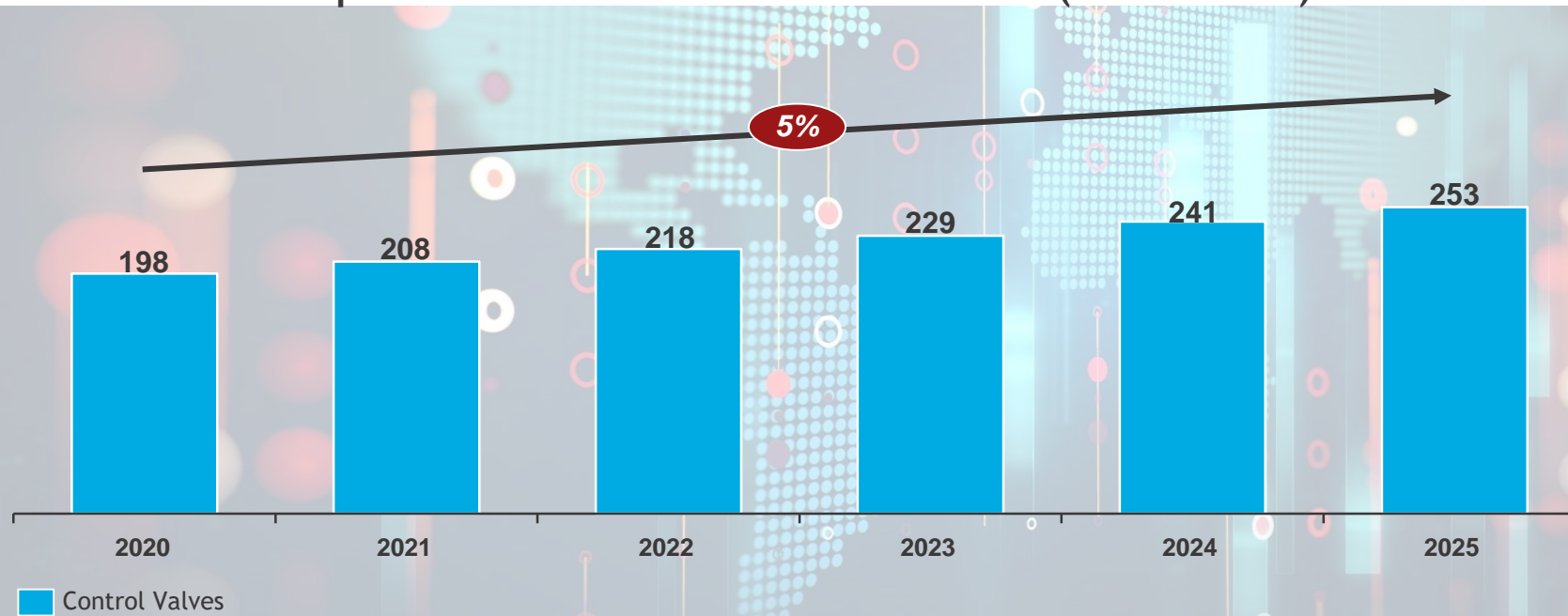
Currently, most of KSA demand of components for Control Valves is imported

The current market for Control Valves in 2019 for KSA was estimated at **189 Millions USD**

Control Valves demand is driven by Oil and Gas Industry

The demand for Control Valves in KSA is expected to reach around 253 Millions USD by 2025

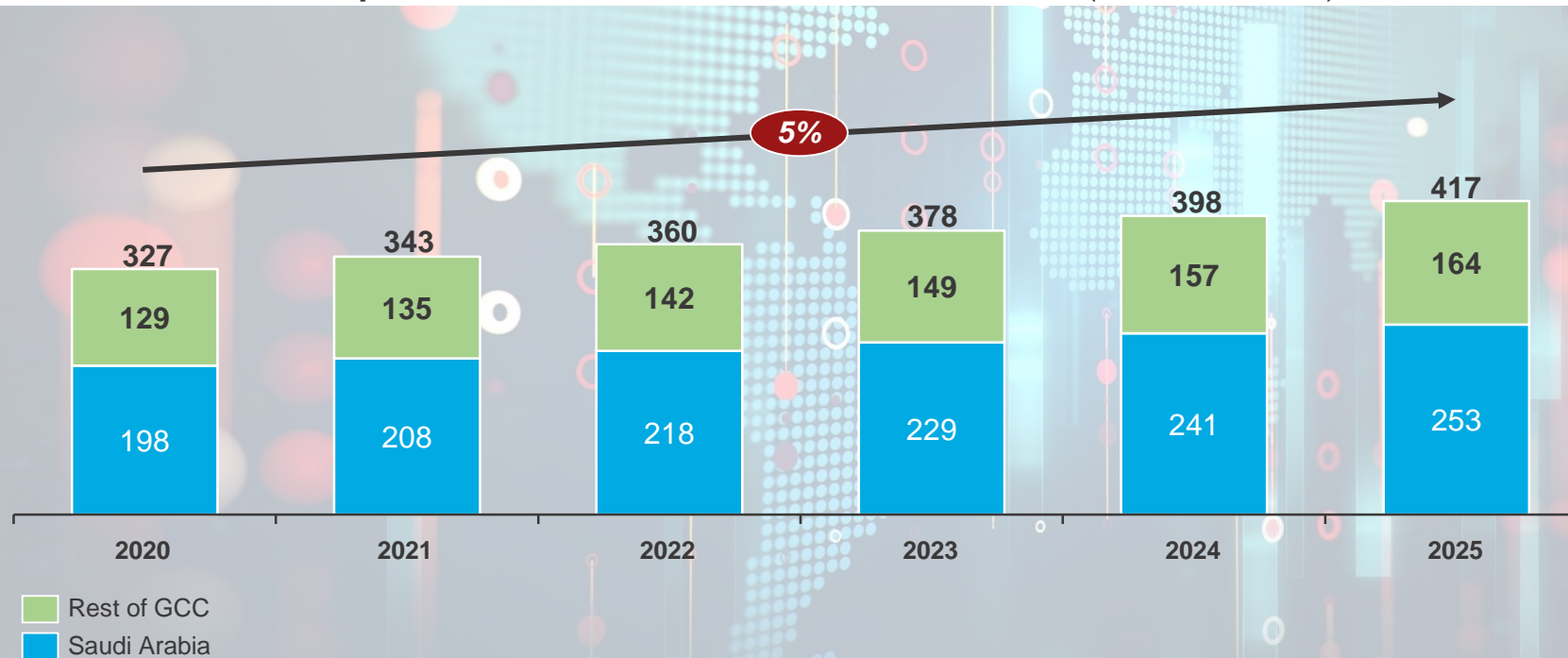
KSA expected market size for Control Valves (Millions USD)



Control Valves demand is expected to rise 5% annually and reach 253 Millions USD by 2025

The demand for Control Valves in the GCC is expected to reach 417 Millions USD by 2025

GCC expected market size for Control Valves (Millions USD)



Control Valves demand for GCC will support demand growth



Local value chain gaps translate into opportunities to do business in KSA

Potential investment opportunities related to Control Valves

Design	Supplier Development	SME Opportunities	Customer Services
<ul style="list-style-type: none"> Establish a Control Valves design and R&D center to develop designs for KSA requirements. 	<ul style="list-style-type: none"> Establish a factory to manufacture: <ol style="list-style-type: none"> Control valves with focus on casting & forging activities. Positioners Types: <ol style="list-style-type: none"> SMART, Electro-Pneumatic. Pneumatic. Hydraulic. Solenoid Valve. 	<ul style="list-style-type: none"> Small and Medium Enterprises can provide the following <ol style="list-style-type: none"> Filter Regulator. Volume tank (Accumulator). Volume booster. 	<ul style="list-style-type: none"> Establish technical support service center to serve requirements for Testing, Maintenance and Troubleshooting of Control Valves.



Pressure Transmitters and Process Flowmeters



Pressure Transmitters & Process Flowmeters represents an attractive localization opportunity given the current supply gap and expected demand growth

The opportunity



Establish a state-of-the-art manufacturing unit of **Pressure Transmitters & Process Flowmeters** to serve the KSA and GCC.

The business case



1. KSA demand for **Pressure Transmitters & Process Flowmeters** was estimated at **173 Millions USD** in **2019**.
2. Forecasted at **~5% annual growth** and estimated to reach **381 Millions USD** for **GCC** by **2025**.
3. Attractive **cost base** including low logistics, land, utilities, and labor costs.

Pressure Transmitters & Process Flowmeters are used by Oil and Gas industries

Pressure Transmitter & Process Flowmeters

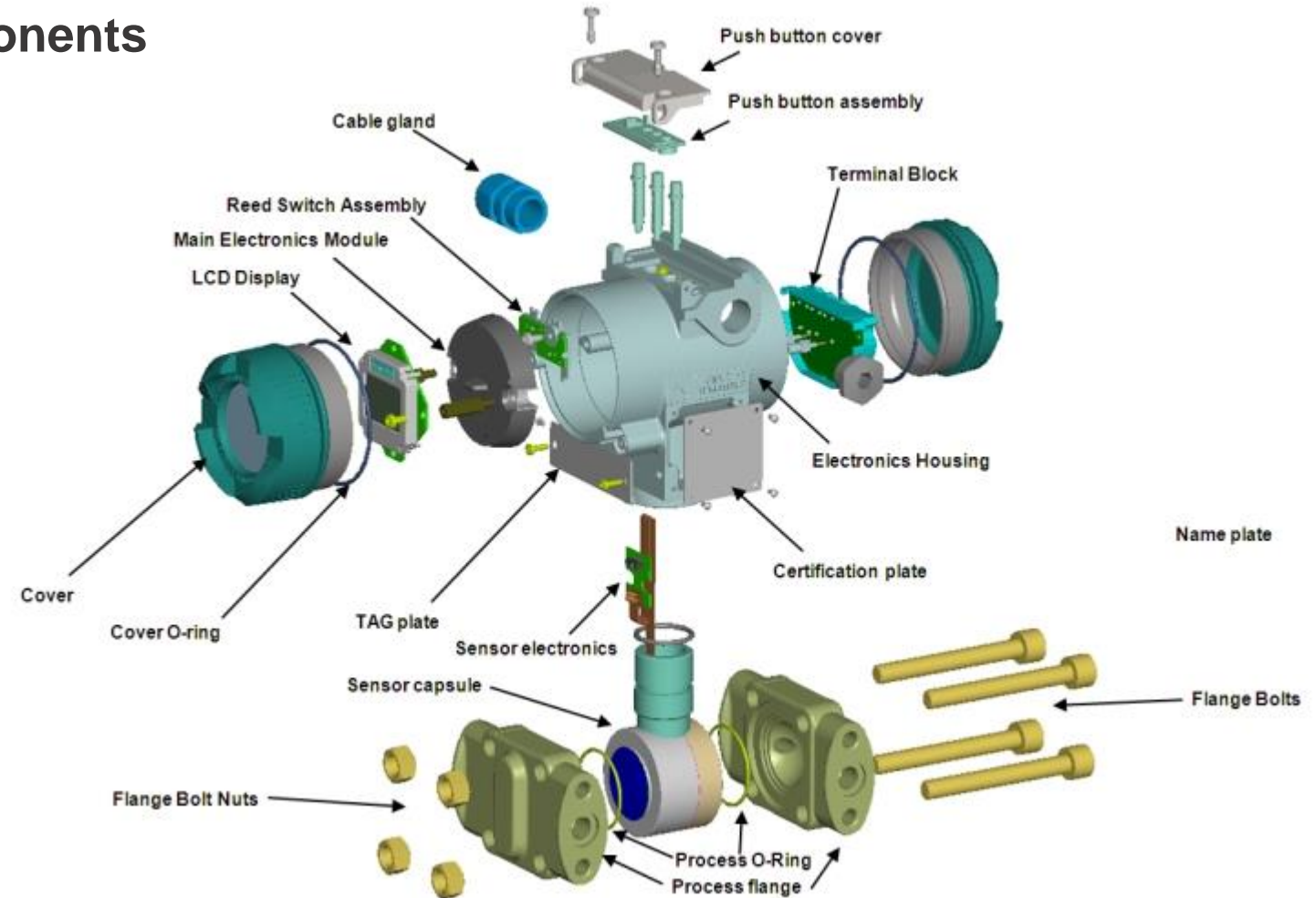
Saudi Aramco Engineering Standards (SAES-J-100)

- ✓ Pressure transmitters and differential pressure transmitters are the most universal measurement devices in a plant
- ✓ They consist of a flexible sensing element that responds to pressure changes.
- ✓ Bourdon tubes, diaphragms, and bellows are the common sensing elements
- ✓ A transducer uses the element displacement to produce an electronic outputs (4-20mA or FF digital signals)
- ✓ Variable capacitance, bonded strain gauge, and Piezoelectric gauge are common for the transducer.



There are a lot of opportunities for SME to manufacture components for **Pressure Transmitters**

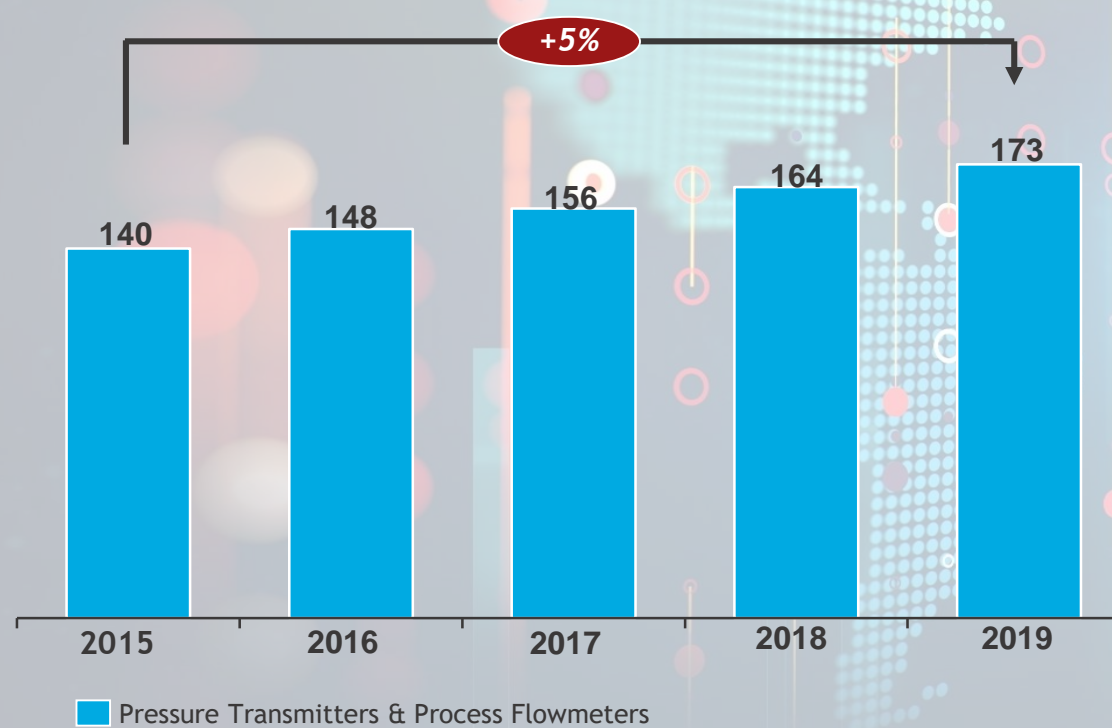
Typical Components





Pressure Transmitters & Process Flowmeters demand in KSA has been growing and was estimated at 173 Millions in 2019

KSA historical demand for Pressure Transmitters & Process Flowmeters (Millions USD)



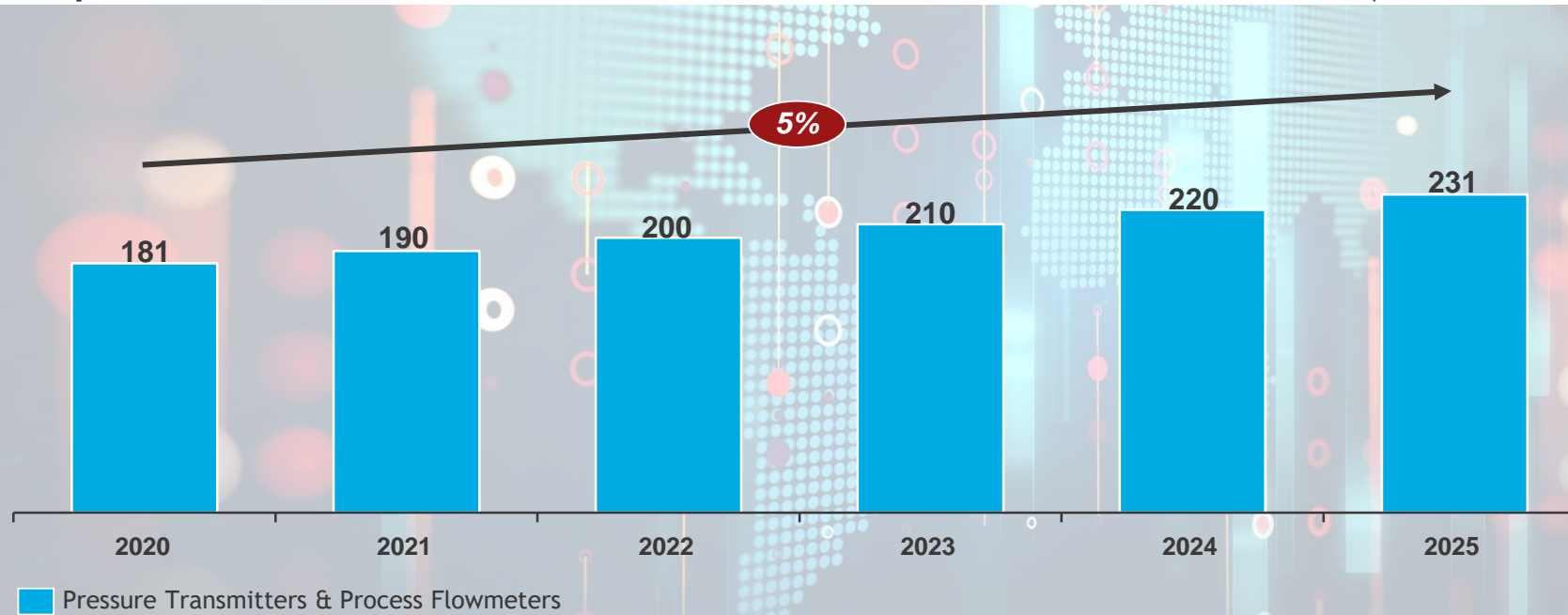
Currently, most of KSA demand of Pressure Transmitters & Process Flowmeters is imported

The current market for Pressure Transmitters & Process Flowmeters in 2019 for KSA was estimated at **173 Millions USD**

Pressure Transmitters & Process Flowmeters demand is driven by Oil and Gas Industry

The demand for Pressure Transmitters & Process Flowmeters in KSA is expected to reach around 231 Millions USD by 2025

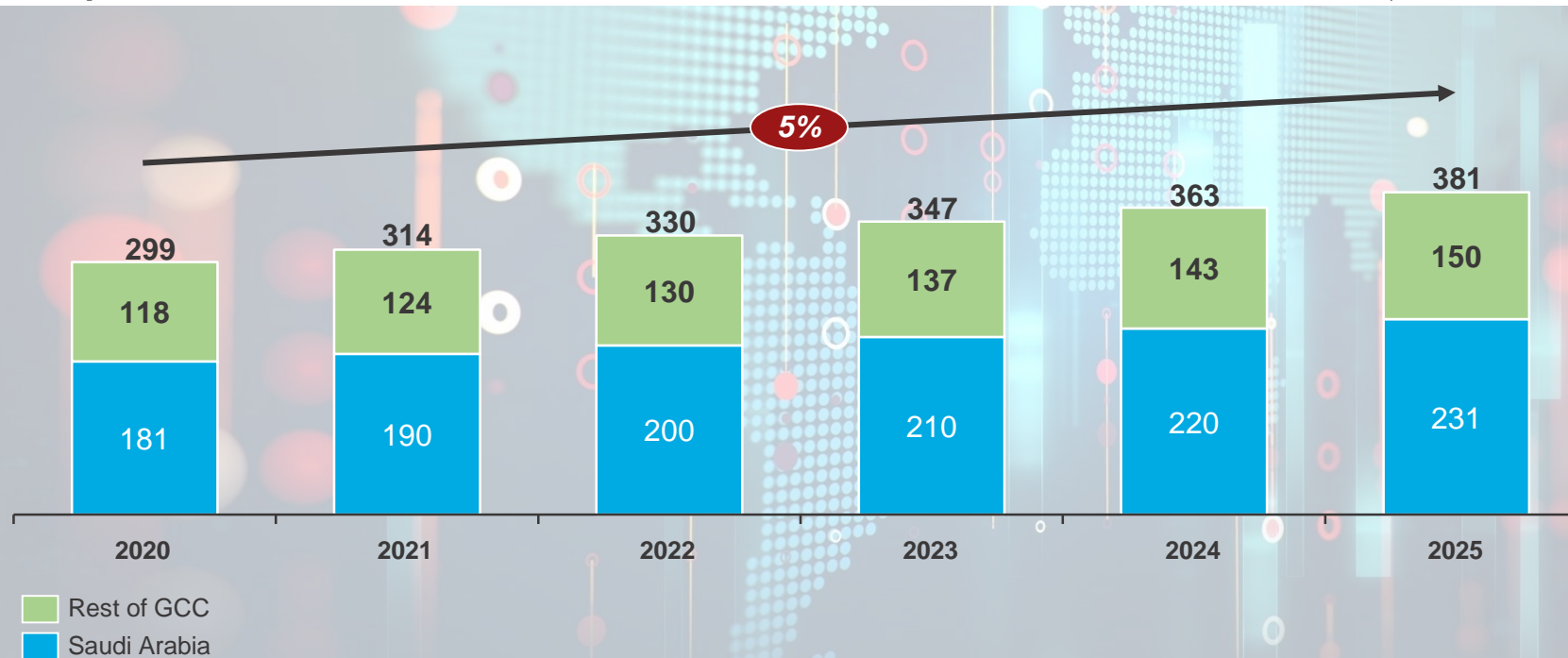
KSA expected market size for Pressure Transmitters & Process Flowmeters (Millions USD)



Pressure Transmitters & Process Flowmeters demand is expected to rise 5% annually and reach 231 Millions USD by 2025

The demand for Pressure Transmitters & Process Flowmeters in the GCC is expected to reach 381 Millions USD by 2025

GCC expected market size for Pressure Transmitters & Process Flowmeters (Millions USD)



Pressure Transmitters & Process Flowmeters demand for GCC will support demand growth



Local value chain gaps translate into opportunities to do business in KSA

Potential investment opportunities related to Pressure Transmitters & Process Flowmeters

Design	Manufacturing	SME Opportunities	Customer Services
<ul style="list-style-type: none"> Establish a Pressure Transmitter and Process Flowmeters design and R&D center to develop designs for KSA requirements. 	<ul style="list-style-type: none"> Establish a factory to manufacture: <ol style="list-style-type: none"> Transmitter. Orifice plate. Venturi tubes. 	<ul style="list-style-type: none"> Small and Medium Enterprises can provide the following: <ol style="list-style-type: none"> O-rings. Packaging. Screw. Bolts and Nuts. 	<ul style="list-style-type: none"> Establish technical support service center to serve requirements for Testing, Maintenance and Troubleshooting of Pressure Transmitters and Process Flowmeters.



Temperature Transmitters



Temperature Transmitters represents an attractive localization opportunity given the current supply gap and expected demand growth

The opportunity



Establish a state-of-the-art **manufacturing unit** of **Temperature Transmitters** to serve the KSA and GCC.

The business case



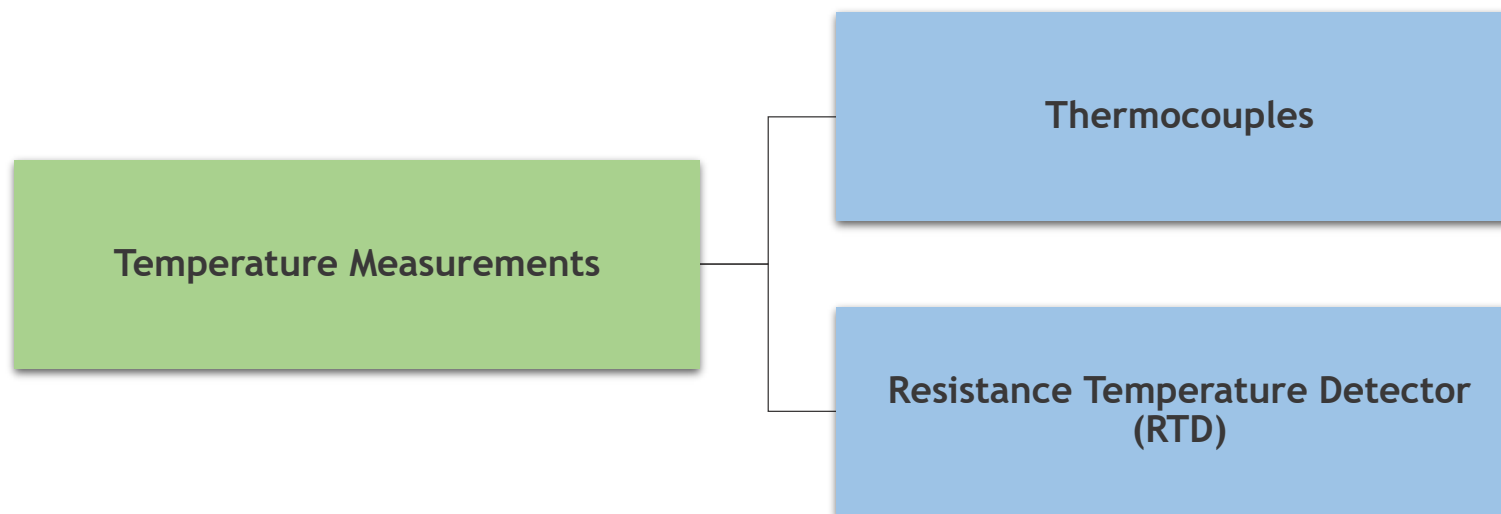
1. KSA demand for **Temperature Transmitters** was estimated at **58 Millions USD** in **2019**.
2. Forecasted at **~5% annual growth** and estimated to reach **127 Millions USD** for **GCC** by **2025**.
3. Attractive **cost base** including low logistics, land, utilities, and labor costs.



Temperature Transmitters are used by Oil and Gas industries

Key Temperature Transmitters Technical Specification:

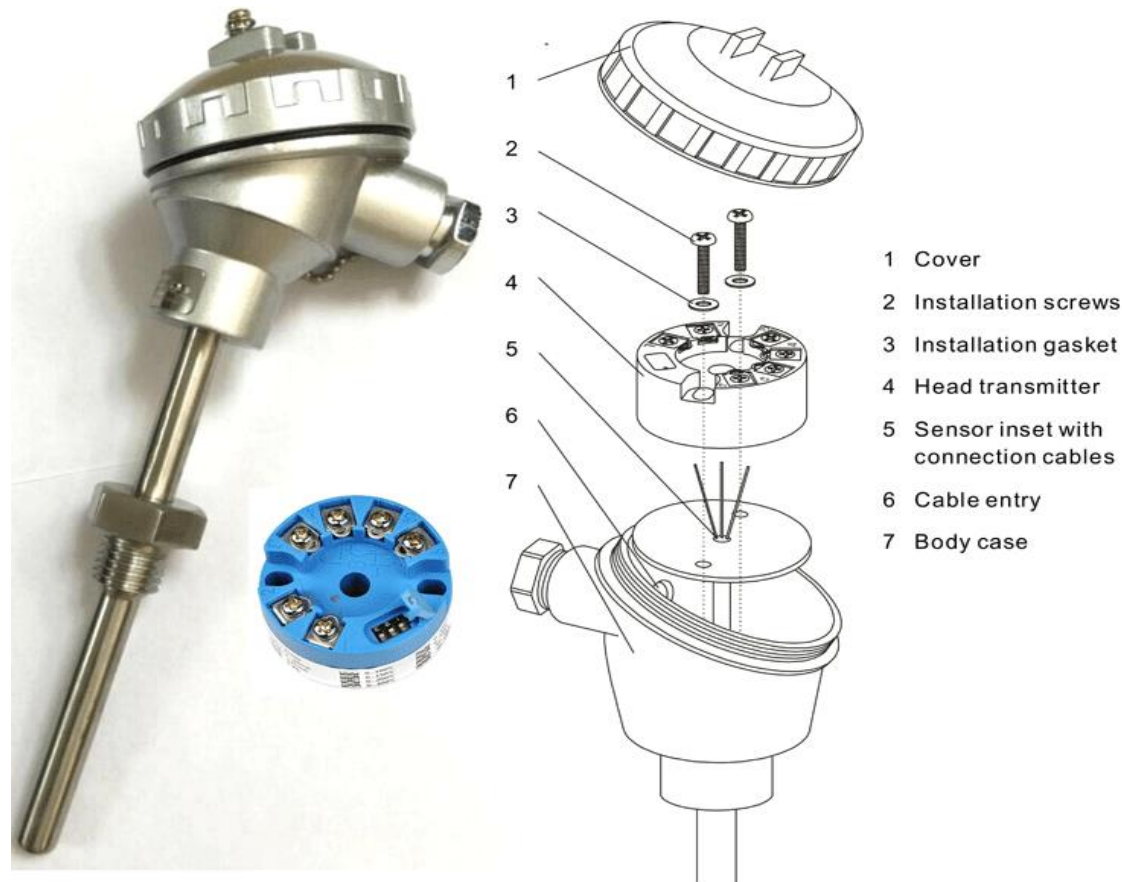
- Saudi Aramco Engineering Standards (SAES-J-100)
- Saudi Aramco Material Specifications (34-SAMSS-913)



There is an opportunity for SMEs to manufacture components of Temperature Transmitters

Temperature measurement components

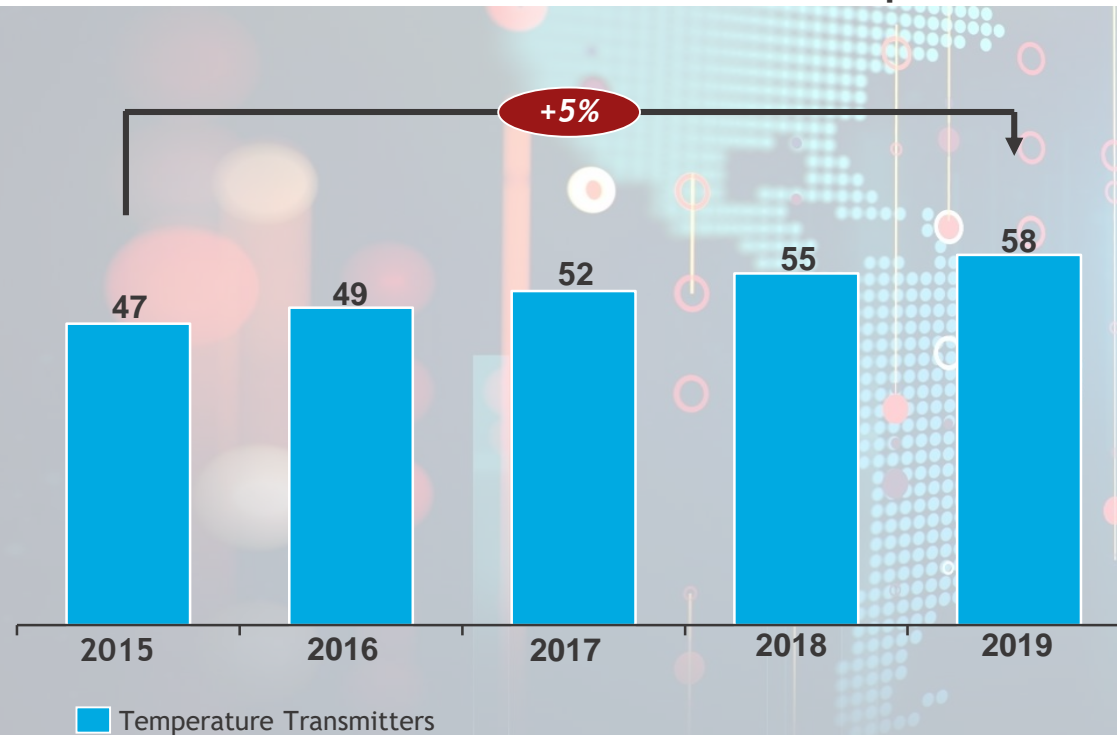
Installation Diagram





Temperature Transmitters demand in KSA has been growing and was estimated at 58 Millions in 2019

KSA historical demand for Temperature Transmitters (Millions USD)



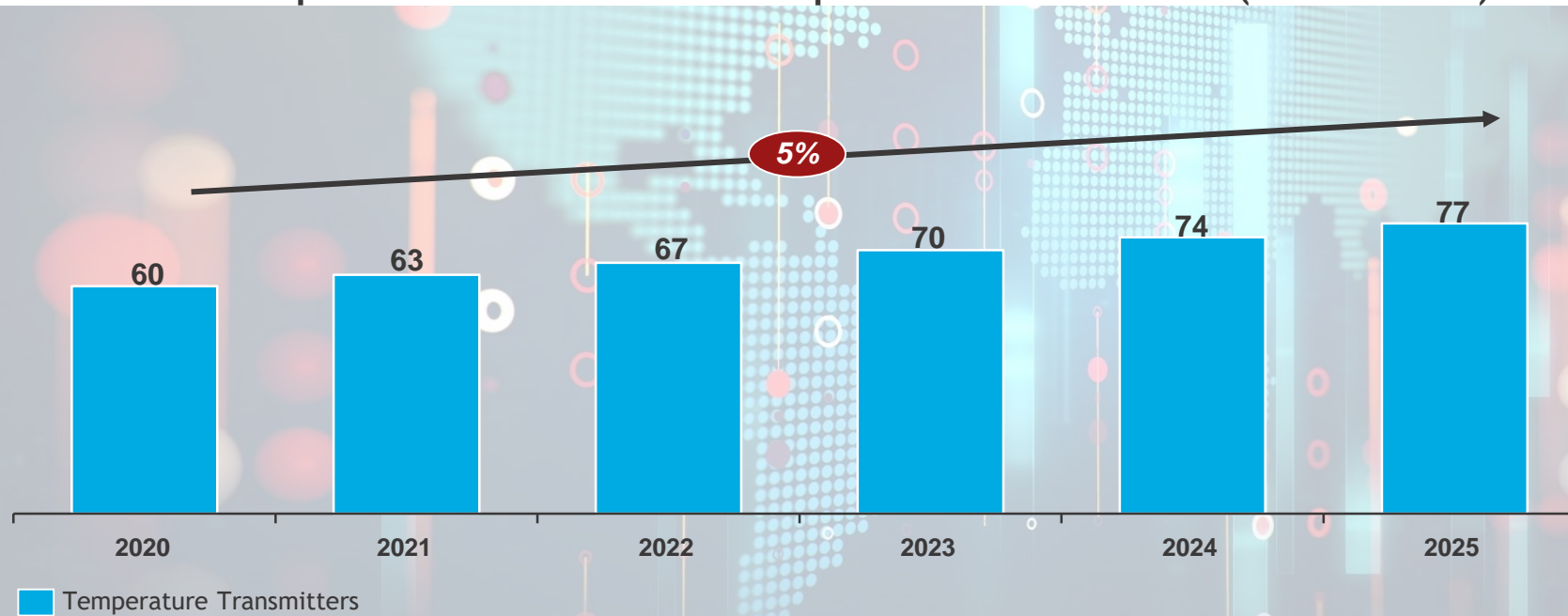
Currently, most of KSA demand of Temperature Transmitters is imported

The current market for Temperature Transmitters in 2019 for KSA was estimated at 58 Millions USD

Temperature Transmitters demand is driven by Oil and Gas Industry

The demand for Temperature Transmitters in KSA is expected to reach around 77 Millions USD by 2025

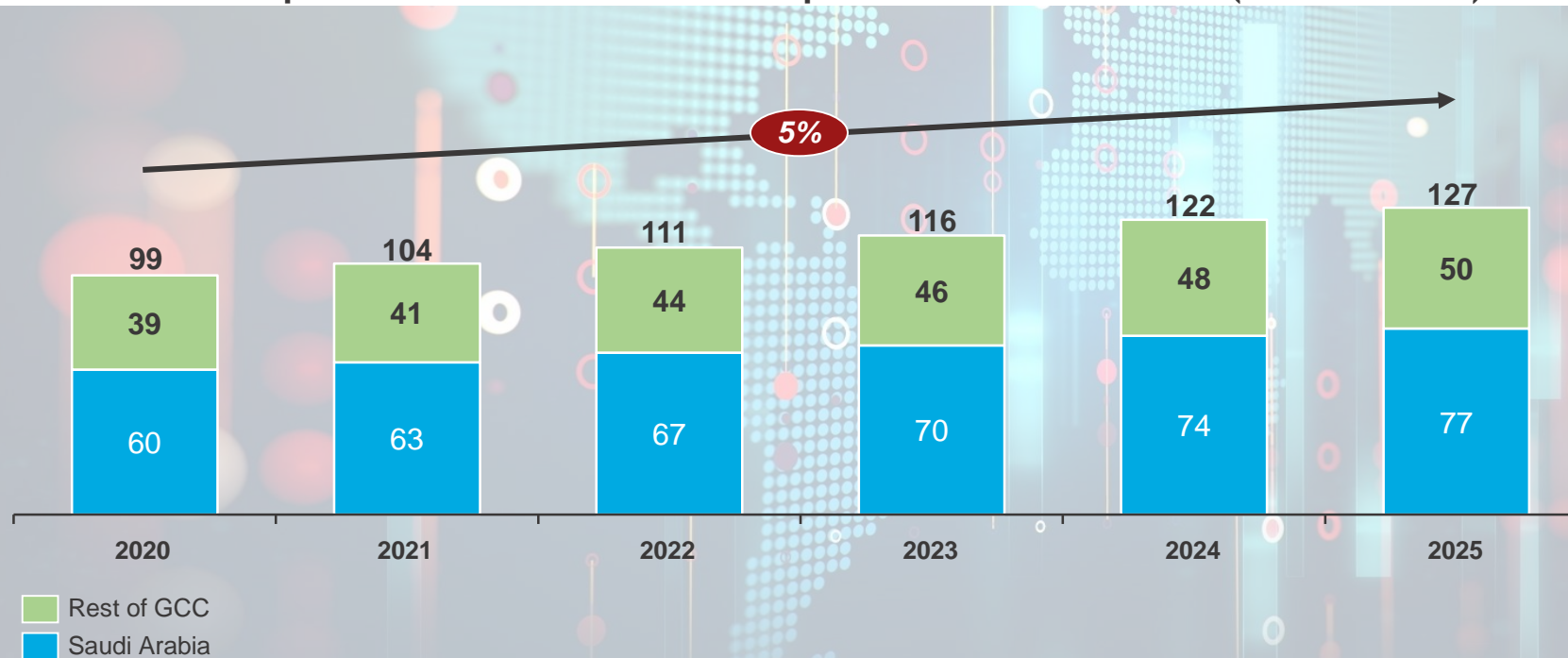
KSA expected market size for Temperature Transmitters (Millions USD)



Temperature Transmitters demand is expected to rise 5% annually and reach 77 Millions USD by 2025

The demand for Temperature Transmitters in the GCC is expected to reach 127 Millions USD by 2025

GCC expected market size for Temperature Transmitters (Millions USD)



Temperature Transmitters demand for GCC will support demand growth



Local value chain gaps translate into opportunities to do business in KSA

Potential investment opportunities related to Temperature Transmitters

Design	Manufacturing	SME Opportunities	Customer Services
<ul style="list-style-type: none"> Establish a Temperature Transmitters design and R&D center to develop designs for KSA requirements. 	<ul style="list-style-type: none"> Establish a factory to manufacture Temperature measurement components: <ol style="list-style-type: none"> Thermowell. RTD. Thermocouple. Transmitter. 	<ul style="list-style-type: none"> Small and Medium Enterprises can provide the following: <ol style="list-style-type: none"> Enclosure. Packaging. Instrument Cables. 	<ul style="list-style-type: none"> Establish technical support service center to serve requirements for Testing, Maintenance and Troubleshooting of Temperature Transmitters.



Instrument Manifold, Tubing and Fittings



Instrument Manifold, Tubing and Fittings represents an attractive localization opportunity given the current supply gap and expected demand growth

The opportunity



Establish a state-of-the-art **manufacturing unit of Instrument Manifold, Tubing and Fittings** to serve the KSA and GCC.

The business case



1. KSA demand for **Instrument Manifold, Tubing and Fittings** was estimated at **124 Millions USD** in **2019**.
2. Forecasted at **~5% annual growth** and estimated to reach **274 Millions USD** for **GCC** by **2025**.
3. Attractive **cost base** including low logistics, land, utilities, and labor costs.

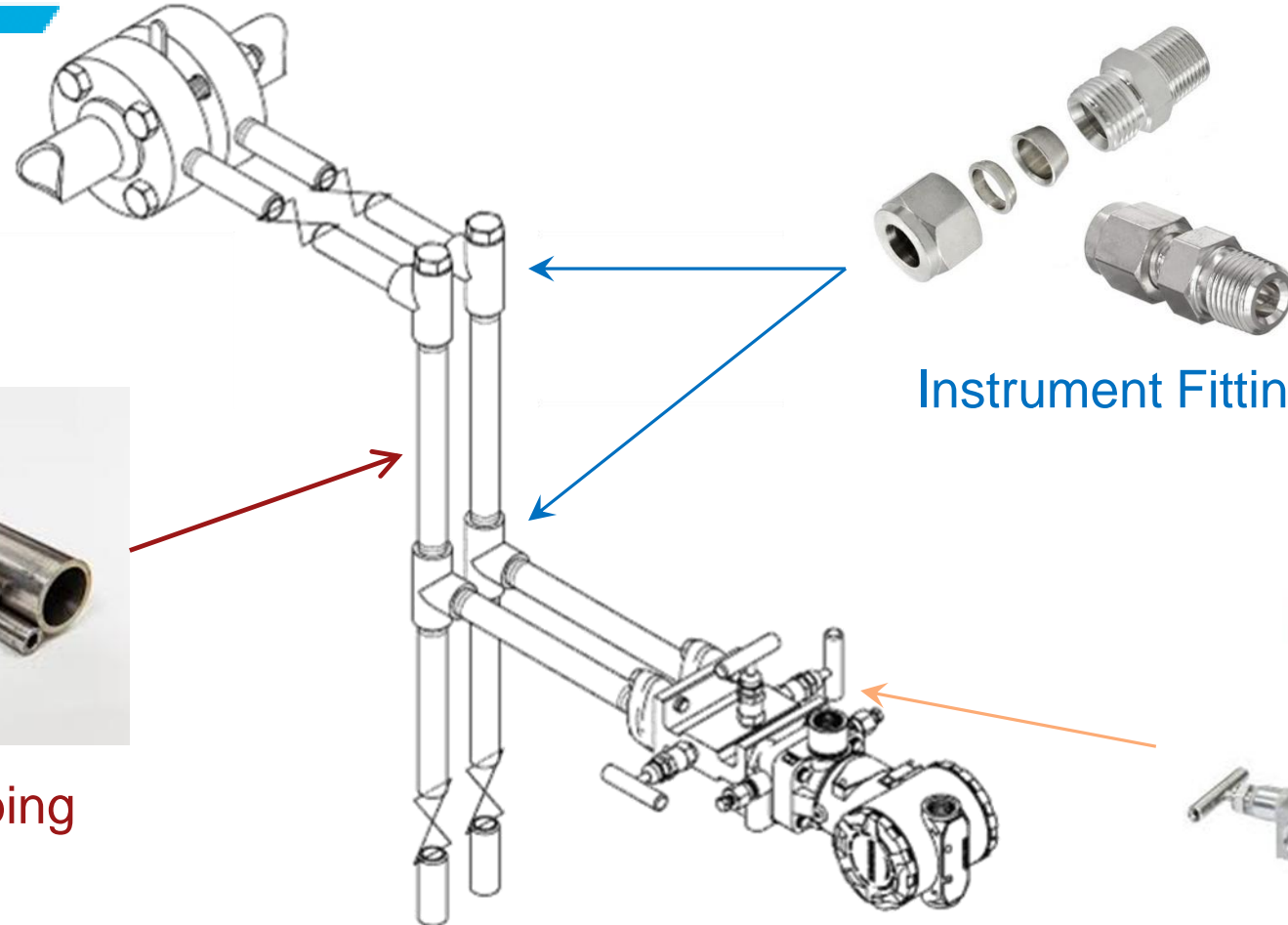


There are a lot of opportunities for SME to manufacture components for Manifold, Instrument Tubing and Fittings

Components



Instrument Tubing



Instrument Fittings

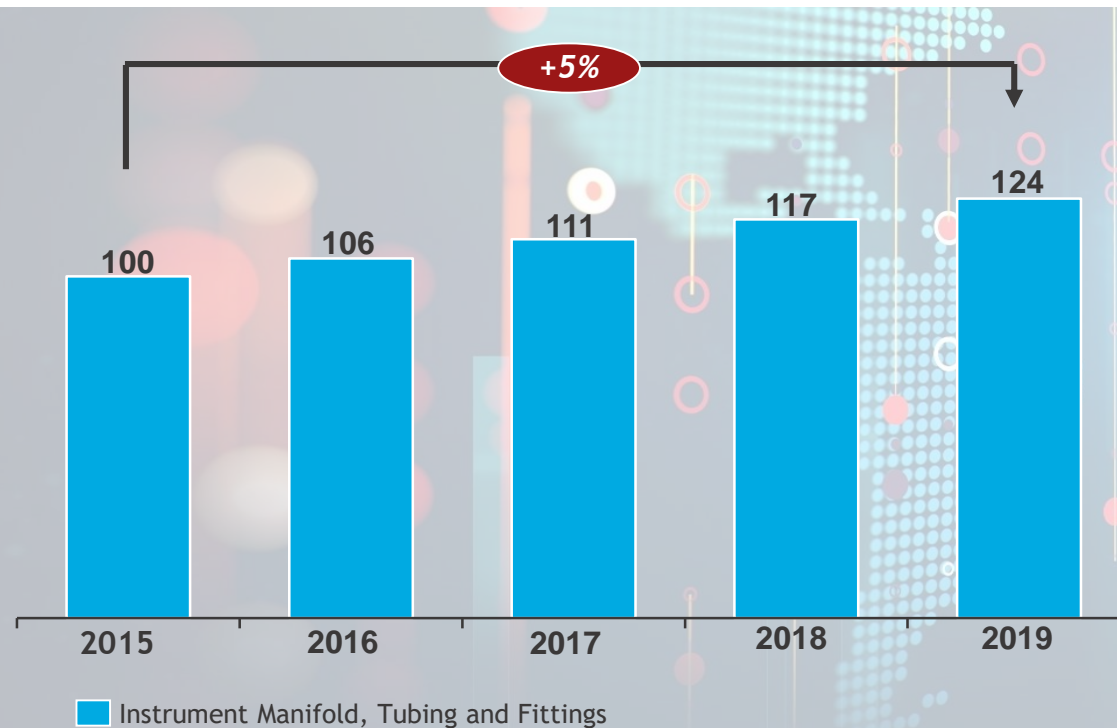


Manifold (3 or 5
ways valve)



Instrument Manifold, Tubing and Fittings demand in KSA has been growing and was estimated at 124 Millions in 2019

KSA historical demand for Instrument Manifold, Tubing and Fittings (Millions USD)



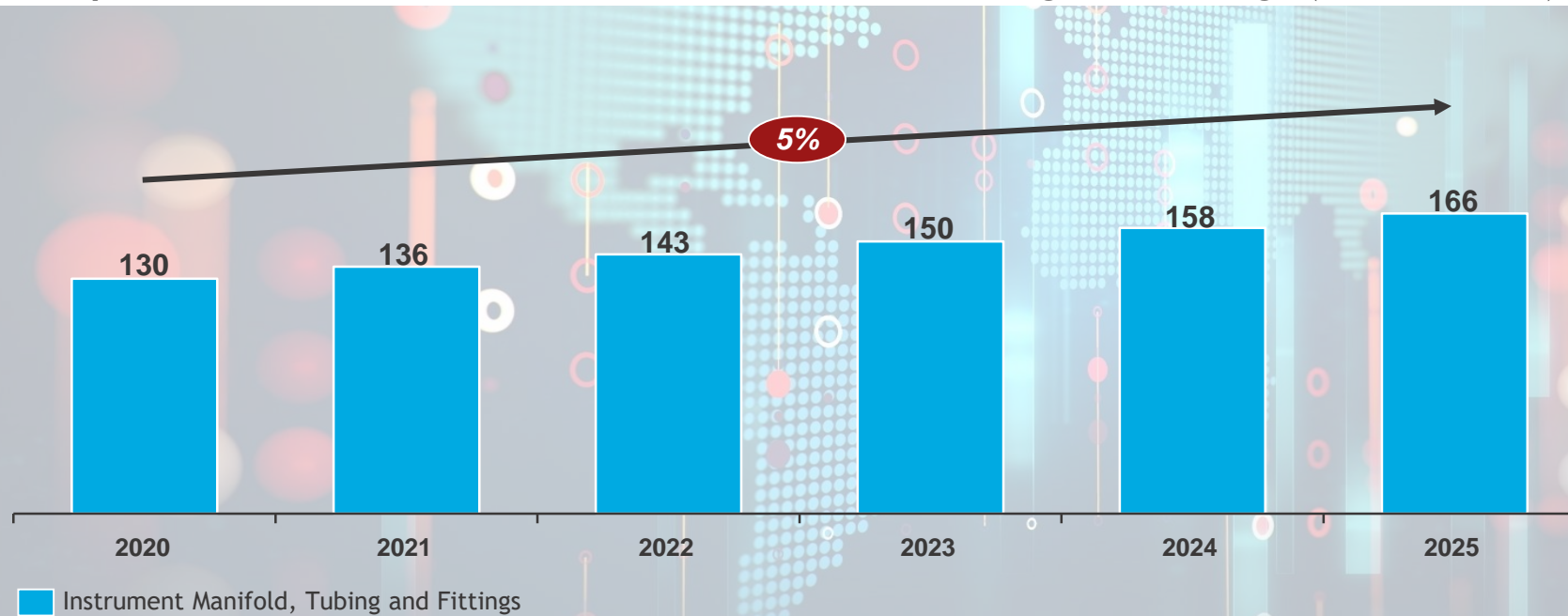
Currently, most of KSA demand of Instrument Manifold, Tubing and Fittings is imported

The current market for Instrument Manifold, Tubing and Fittings in 2019 for KSA was estimated at **124 Millions USD**

Instrument Manifold, Tubing and Fittings demand is driven by Oil and Gas Industry

The demand for Instrument Manifold, Tubing and Fittings in KSA is expected to reach around 166 Millions USD by 2025

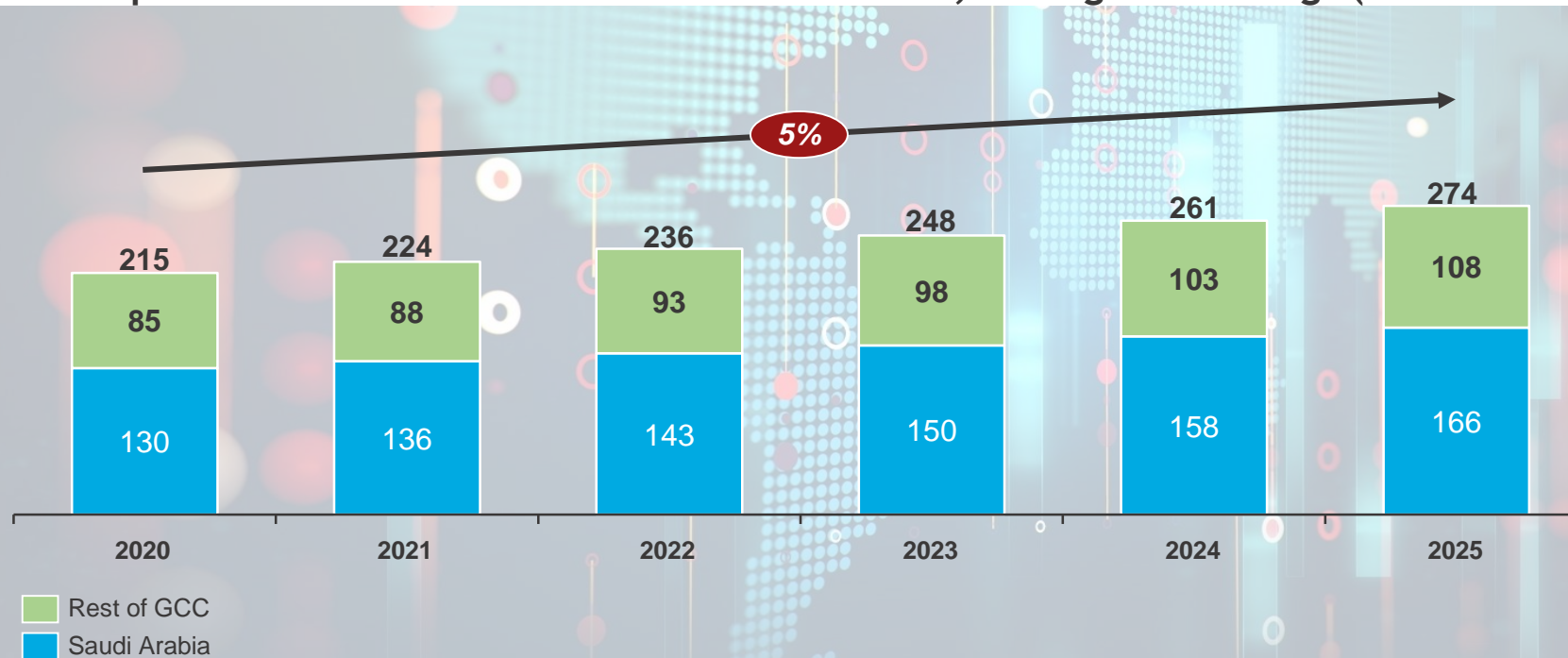
KSA expected market size for Instrument Manifold, Tubing and Fittings (Millions USD)



Instrument Manifold, Tubing and Fittings demand is expected to rise 5% annually and reach 166 Millions USD by 2025

The demand for Instrument Manifold, Tubing and Fittings in the GCC is expected to reach 274 Millions USD by 2025

GCC expected market size for Instrument Manifold, Tubing and Fittings (Millions USD)



Instrument Manifold, Tubing and Fittings demand for GCC will support demand growth



Local value chain gaps translate into opportunities to do business in KSA

Potential investment opportunities related to Instrument Manifold, Tubing and Fittings

Design	Manufacturing	SME Opportunities	Customer Services
<ul style="list-style-type: none"> • Design by centralized team in KSA 	<ul style="list-style-type: none"> • Establish a factory to manufacture components including: <ol style="list-style-type: none"> a. Tubing. b. Fitting. c. manifold . 	<ul style="list-style-type: none"> • Small-Medium Size Enterprise: SMEs to manufacture support components such as <ol style="list-style-type: none"> a. cover cap. b. Packaging. 	<ul style="list-style-type: none"> • Establish technical support service center to serve the following requirements: <ol style="list-style-type: none"> a. Technical consultation. b. Spare parts. c. Maintenance and troubleshooting. d. Testing and Certification.

Please direct all inquiries for the
Instrumentation Sector Investment Opportunities
investment to:

أرامكو السعودية
saudi aramco



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