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Industrial Safety & Security

Security Workshop

Business Opportunities

13th January 2025

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iktva Program Overview (1/2)

The In-Kingdom Total Value Add (iktva) program is designed to drive increased investment, economic diversification, job creation, and workforce development within the Kingdom

Saudi Aramco aims to achieve 70% localization of all spending

iktva in Procurement

- **2000+** Service contracts
- **290+** Corporate purchase agreements

Business Opportunities

- **14** Sectors
- **+200** Business Opportunities
- **$28 bn** Annual Market Size

Anchor Projects

6 Anchor projects

- IMI
- SPARK
- Tuwaiq

Local Workforce Development

- **16** National training centers
- **90+** Programs

Catalyzing Supply Chains

Note: IMI = International Maritime Industries; SPARK = King Salman Energy Park

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iktva Program Overview (2/2)

Non-exhaustive

iktva Business Development Team Support

- Market Analysis
- Technical Engagement
- Operational Support and Advisory Services[1]

Government/Semi-government key enablers

- Financial Support
- Fiscal Incentives
- Land Solutions
- HR Development
- Regulatory Enablers

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Catalyzing Supply Chains

1. Includes broad range of support services provided by the team: user requirements, advisory on available financial and fiscal incentives, guidance on localization process in line with local regulations and standards, action plan development etc.

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Security Market Overview

KSA Industrial Security Market

$565MM

8% CAGR[1]

2025 KSA market size for opportunities in today's workshop

Five opportunities to be discussed today

1. Rigid Welded Mesh Fence
2. Deployable Crash Barrier
3. Physical Access Control Systems (ACS)
4. K9/Essentials
5. Revolving Lights
6. Security Badges

1. 5-year forecasted KSA CAGR (2024-2029), CAGR is calculated as ((Ending Value ÷ Beginning Value)^(1 ÷ Number of Years)) – 1

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Workshop Agenda

No.	Title of the Investment Opportunity	Presenter
-	Introduction	Mohammed Alotaibi
1	Rigid Welded Mesh Fence	Mohammed Aljawi
2	Deployable Crash Barrier	Mohammed Aljawi
3	Physical Access Control Systems (ACS)	Mohammed Aljawi
4	K9 Accessories	Abdulrhman Senan
5	Revolving Lights	Ibrahim Aldhafeeri
6	Security Badges	Ibrahim Aldhafeeri
-	Closing remarks	Ibrahim Aldhafeeri

Rigid Welded Mesh Fence

Mohammed Aljawi

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Opportunity profile – Rigid Welded Mesh Fence

1 KSA's infrastructure and industrial projects drive fencing demand

Product

Rigid Welded Mesh Fence

2 Rigid welded mesh fence market is moderate in scale with steady growth

$120MM Estimated 2024 KSA market size ($MM)

8% Forecasted KSA 5-year CAGR[1]

3 Attractive investment opportunities for the value chain

KSA value chain opportunities

Design | MFE | SME opps | Customer Services

KSA enablers

- Financial setup loans
- Corporate tax reduction
- KACST technical support

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1. CAGR is calculated as ((Ending Value ÷ Beginning Value)^(1 ÷ Number of Years)) – 1
Note: MFE = Manufacturing, Opps = Opportunities
Source: Aramco; Team analysis

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RWM fences are installed in highly sensitive facilities (not limited to oil and gas industries)

RWM fence

Product Details

- Aggressive Forced Entry Delay: 10 minutes minimum
- Panel Height/Width: 3 meters/3-3.5 meters
- Visibility Index: <45 degrees
- Components Property: Tamper-proof
- Toppings: Varies
- Other requirements apply

Catalyzing Supply Chains

Note: RWM = Rigid Welded Mesh
Source: Team analysis

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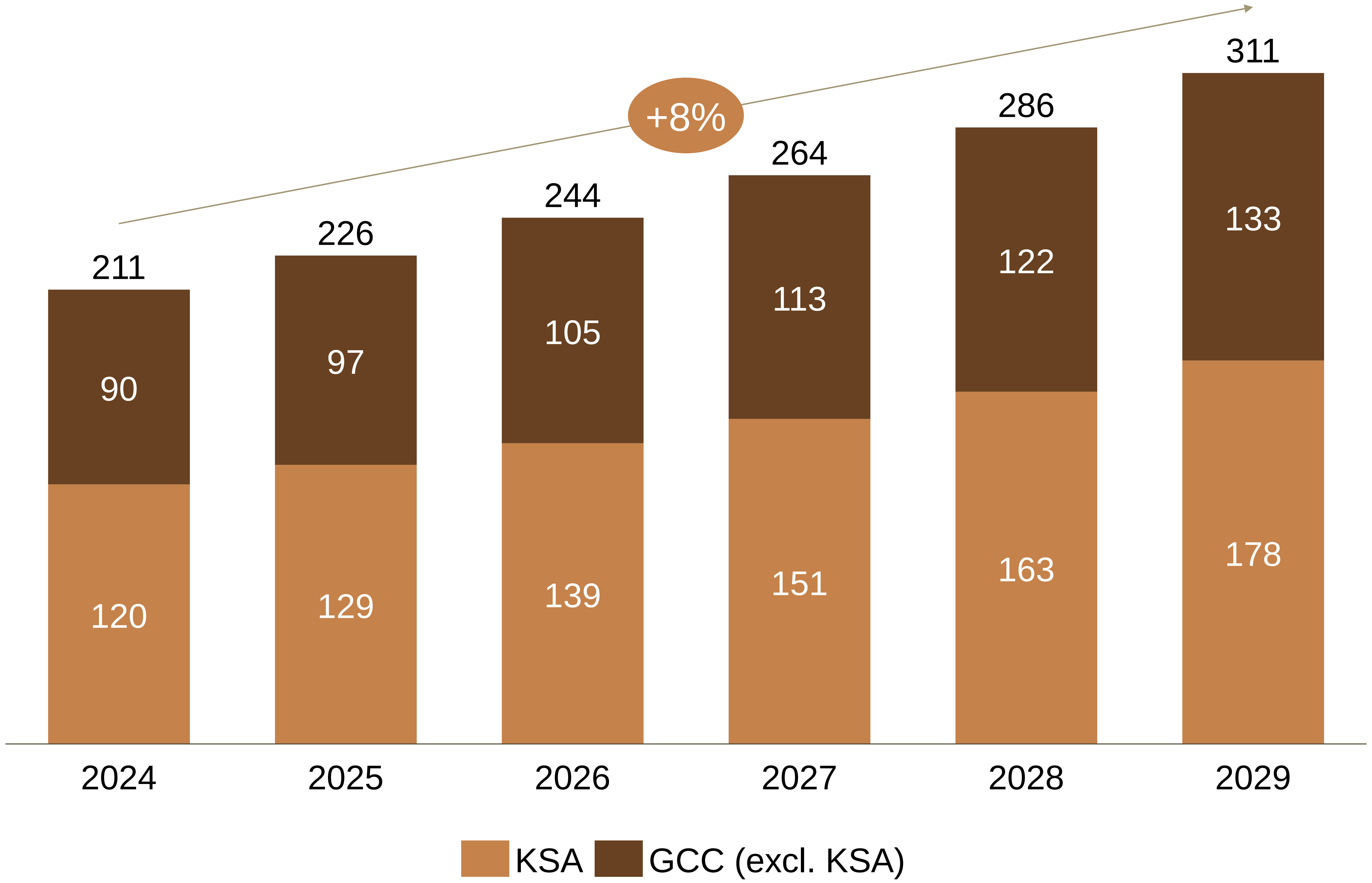
Rigid Welded Mesh Fence demand, customers, and drivers

Forecasted KSA and rest of GCC Rigid Welded Mesh Fence market 2024-2029, ($MM)



Typical customers in KSA

- Oil & gas facilities
- Government and defense
- Industrial facilities
- Commercial and residential sites

Key KSA demand drivers

- Ongoing expansion of infrastructure projects fueling demand for high-quality RWM fences as a preferred perimeter barrier

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Source: Aramco; Team analysis

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Value chain and key localization opportunities

	Design	Manufacturing	SME Opportunities	Customer Services
Local saturation	Few players	Few players	Few players	Few players
Current KSA value chain	• Engineering and R&D to design and test fences	• Manufacturing of RWM fence	RWM fence sub-components: • Bolts/nuts • Post caps • Fixations • Tensioners	• Technical support center for installation supervision • Minor maintenance • Piloting
Key success factors	Opportunity	Opportunity	Opportunity	Opportunity
Technology	CAD software, simulation tools, testing facility, prototyping systems	Cutting machines, welding units, molding tools, assembly lines	Fastener tools, molding systems, threading machines, tensioning systems	Diagnostic tools, supervision software, maintenance kits
Labor	Design engineers, R&D specialists, test technicians	Machine operators, welders, production engineers	Component specialists, mold technicians, fabricators	Support technicians, supervisors, service engineers

Catalyzing Supply Chains

Note: RWM = Rigid Welded Mesh
Source: Aramco; Team analysis

Deployable Crash Barrier

Mohammed Aljawi

Opportunity profile – Deployable Crash Barrier

1
KSA in need of crash barriers to meet industrial projects demand

Product

Deployable Crash Barrier

2
Deployable crash barrier market is moderate in scale with steady growth

$174MM Estimated 2024 KSA market size ($MM)

6% Forecasted KSA 5-year CAGR

3
Attractive investment opportunities for the value chain

KSA value chain opportunities

Design | MFE | SME opps | Customer Services

KSA enablers

- Financial setup loans
- Corporate tax reduction
- KACST technical support

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Catalyzing Supply Chains

Notes: MFE = Manufacturing
Source: Aramco; Team analysis

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Deployable barriers are installed in highlight sensitive facilities in general

Key Deployable Barrier Typical Technical info & Specification

Product Details

- Performance & Certification: Rated to M50-P1
- Operation/Durability: Operates under excessive heat
- Safety: Sensors/indicators & emergency deployment
- Integration: Integrates with other security devices at gates
- Minimum Height: 90CM or above
- Other requirements apply

Source: Team analysis

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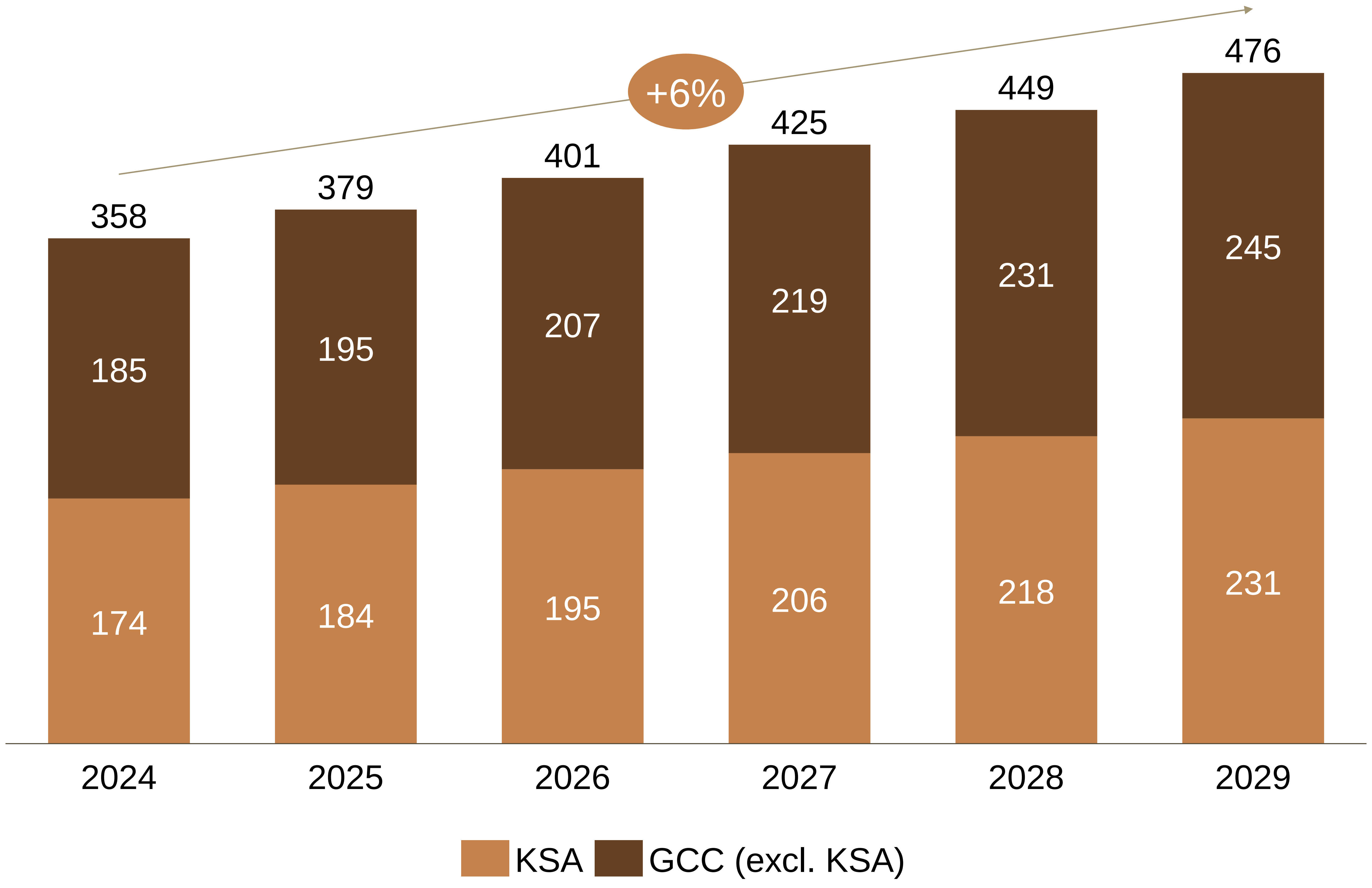
Deployable Crash Barrier demand, customers, and drivers

Forecasted KSA and rest of GCC Deployable Crash Barrier market 2024-2029, ($MM)



Catalyzing Supply Chains

Typical customers in KSA

- Government and defense
- Airports
- Commercial facilities
- Oil & gas facilities

Key KSA demand drivers

- Sustained demand for secure vehicle access control at critical infrastructure and gated communities
- Ongoing infrastructure and security-focused developments expanding the need for proven deployable crash barrier solutions

Source: Aramco; Team analysis

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Value chain and key localization opportunities

	Design	Manufacturing	SME Opportunities	Customer Services
Local saturation	Few players	Few players	Few players	Few players
Current KSA value chain	• Engineering and R&D center to design and test hydraulic, electrical or other types of crash barriers	• Manufacturing of crash barriers and associated components	Barrier components: • Traffic lights • Valves/pumps • Pressure/level indicators • Motors	• Technical support for installation supervision • Maintenance services • Piloting & testing
Key success factors	Opportunity	Opportunity	Opportunity	Opportunity
Technology	CAD software, simulation tools, hydraulic testers, prototyping machines	Cutting tools, welding units, coating systems, CNC machines	Motor assembly, valve manufacturing, pressure testing, molding machines	Diagnostic tools, supervision software, piloting systems, maintenance kits
Labor	Design engineers, R&D specialists, test technicians	Welders, machine operators, production engineers	Component specialists, machinists, motor technicians, fabricators	Service technicians, maintenance engineers, supervisors, installers

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Note: CAD = Computer-aided design; CNC = Computer Numerical Control
Source: Aramco; Team analysis

Physical Access Control Systems (ACS)

Mohammed Aljawi

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Opportunity profile – Physical Access Control Systems (ACS)

1

ACS demand in KSA is driven by government security mandates

Product

Access Control Systems

2

ACS market is moderate in scale with steady growth

$156MM Estimated 2024 KSA market size ($MM)

10% Forecasted KSA 5-year CAGR

3

Attractive investment opportunities for the value chain

KSA value chain opportunities

Design | MFE | SME opps | Customer Services

KSA enablers

- Financial setup loans
- Corporate tax reduction
- KACST technical support

Catalyzing Supply Chains

Note: MFE= Manufacturing, ACS = Access Control Systems
Source: Aramco; Team analysis

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Drop arms (Along with the associated systems) are installed in most secured facilities

Typical technical specification for physical access control systems (ACS)

Product Details

- Certification: Tested against ingress protection ratings
- Operation: Operates automatically/manually
- Safety: Equipped with indicators and sensors
- Integration: Integrates with other security devices at gates
- Other requirements apply

Catalyzing Supply Chains

Source: Team analysis

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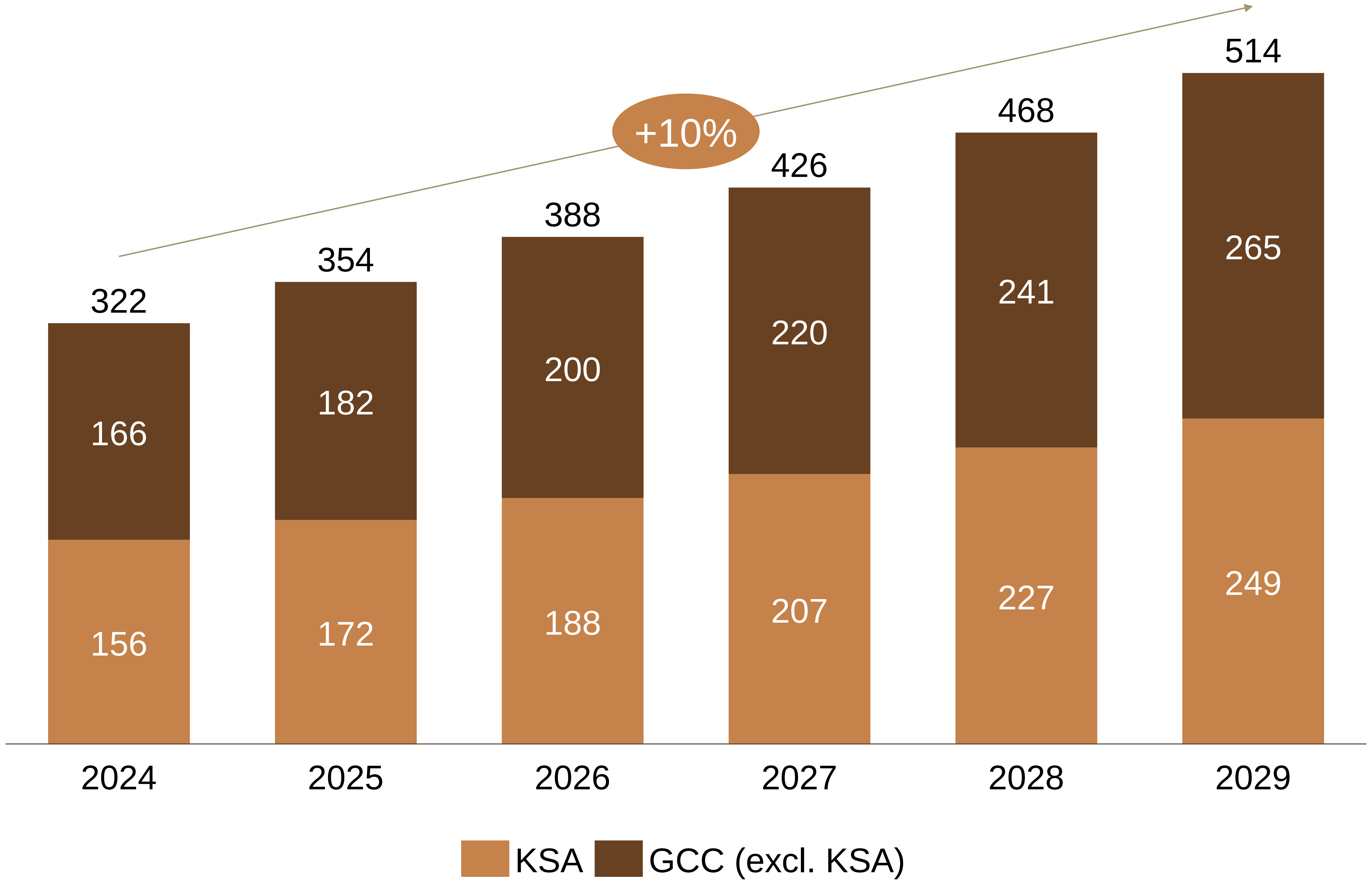
Physical Access Control Systems (ACS) demand, customers, and drivers

Forecasted KSA and rest of GCC Physical Access Control Systems (ACS) market 2024-2029, ($MM)



Typical customers in KSA


Government and defense


Airports


Commercial facilities


Oil & gas facilities

Key KSA demand drivers

- Government mandates (HCIS) for enhanced security of industrial infrastructure, driving demand for reliable drop arms and other robust physical access solutions

Catalyzing Supply Chains

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Source: Aramco; Team analysis

Value chain and key localization opportunities

	Design	Manufacturing	SME Opportunities	Customer Services
Local saturation	Few players	Few players	Few players	Few players
Current KSA value chain	• Engineering and R&D center to design and test physical ACS	• Manufacturing of drop arms and associated ACS (speed gates, card readers, controllers)	ACS subcomponents: • ABS[1] • Sensors	Supporting services: • Installation supervision • Maintenance services • Piloting & testing
Key success factors	Opportunity	Opportunity	Opportunity	Opportunity
Technology	CAD tools, simulation software, prototyping machines, testing facilities	CNC machines, molding tools, assembly lines, coating systems	Injection molding, glass processing, sensor calibration, machining tools	Diagnostic tools, maintenance kits, supervision software, tracking systems
Labor	R&D specialists, design engineers, testers	Machine operators, production engineers, fabricators	Component specialists, machinists, sensor technicians, mold operators	Field technicians, maintenance engineers, installers, supervisors

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1. ABS is used for protective housings, card reader shells, keypad enclosures, lock bodies

Note: CAD = Computer-aided design; CNC = Computer Numerical Control, ACS = Access Control Systems, ABS = Acrylonitrile Butadiene Styrene

Source: Aramco; Team analysis

K9 Accessories

Abdulrahman Senan

Opportunity profile – K9 accessories

1
Accessories market is driven by demand from K9's and domestic dogs

Product

K9 accessories

2
K9 accessories market is niche in size with steady growth

$45MM — Estimated 2024 KSA market size ($MM)

6% — Forecasted KSA 5-year CAGR

3
Attractive investment opportunities for the value chain

KSA value chain opportunities

Design | MFE | SME opps | Customer Services

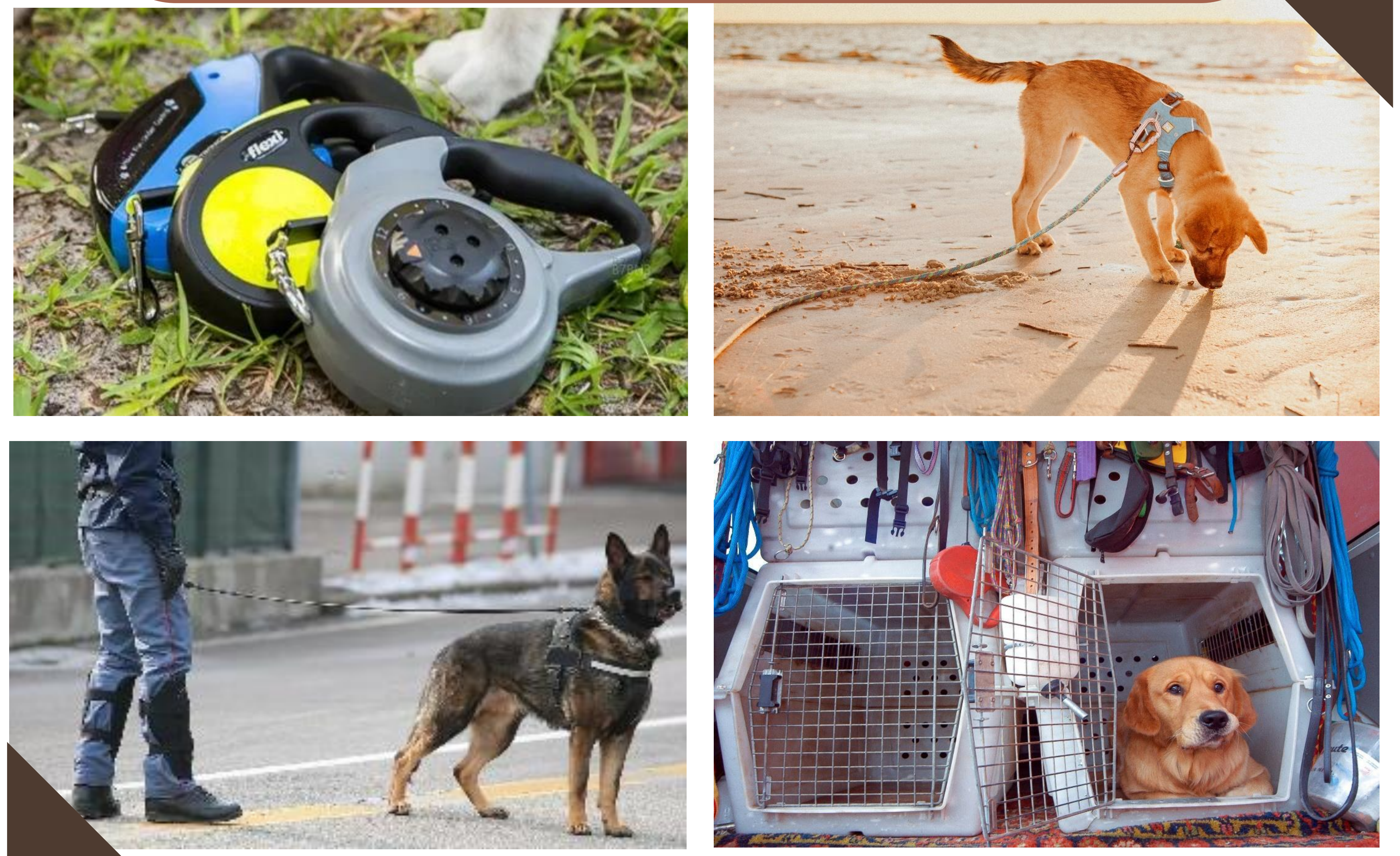
KSA enablers

- Financial setup loans
- Corporate tax reduction
- KACST technical support

Notes: MFE = Manufacturing
Source: Aramco; Team analysis

Accessories are utilized for the training, development, and security of K9's and domestic dogs

K9 accessories



Product Details

- A comprehensive range of durable K9 accessories
- Products include:
- ✓ Combs (grooming)
- ✓ Leashes
- ✓ Harness & Collar
- ✓ Beds & Crates
- ✓ Leg bag & equipment bag

- International standards apply

Source: Team analysis

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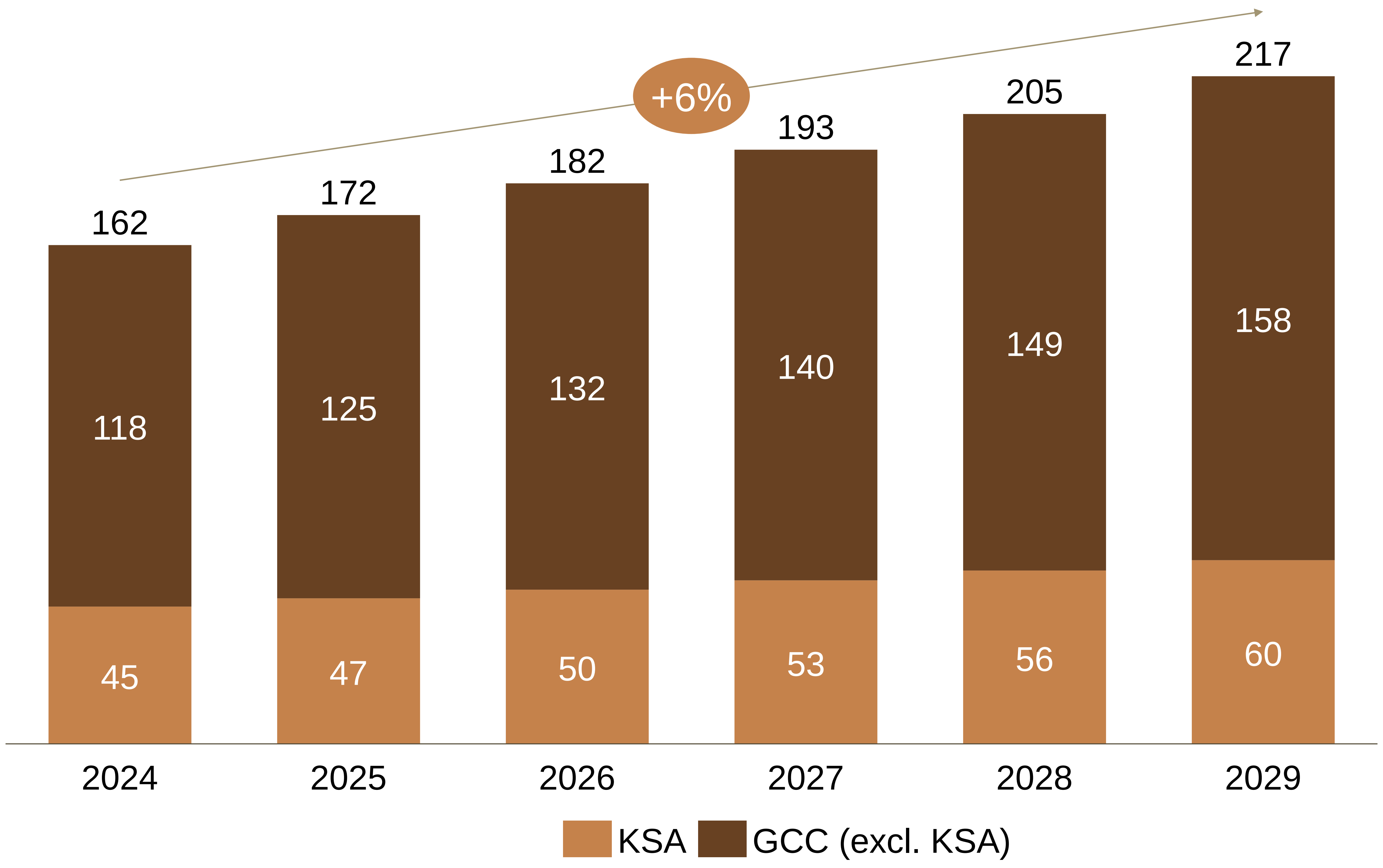
K9 accessories demand, customers, and drivers

Forecasted KSA and rest of GCC dog accessories market 2024-2029, ($MM)



Typical customers in KSA

- Security and law enforcement agencies
- Professional dog handlers and trainers
- Pet owners

Key KSA demand drivers

- Heightened security concerns and large-scale projects driving demand for security and K9 units increasing demand for accessories
- Increasing trend for domestication of dogs leading to growing demand for dog accessories

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Note: Market size figure presented for dog accessories market K-9 accessories can also be used by regular pet dogs
Source: Aramco; Team analysis

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Value chain and key localization opportunities

	Design	Manufacturing	SME Opportunities	Customer Services
Local saturation	Few players	Few players	Few players	Few players
Current KSA value chain	• R&D center specialized in designing and testing dog gears and accessories	• Manufacturing of accessories such as combs, tennis balls, leg beds, dog equipment bags	• Manufacturing of custom gears for local use (e.g, custom dog crates) • Sales and after sales service for minor repairs & servicing	Supporting after sale services: • Repairs • Servicing • Specialized cleaning services
Key success factors	Opportunity	Opportunity	Opportunity	Opportunity
Technology	CAD tools, prototyping machines, testing facilities	CNC machines, industrial sewing machines	Polishing tools, spray booths, basic inspection and testing tools	Diagnostic tools for accessories, routine maintenance, cleaning equipment
Labor	R&D specialists, design engineers, material experts	Skilled sewing operators, fabric and leather specialists	Skilled fabricators, service staff with skills in quick fixes (e.g, stitching)	Maintenance staff, service personnel with product knowledge

Catalyzing Supply Chains

Source: Aramco; Team analysis

Revolving Lights

Ibrahim Aldhafeeri

Opportunity profile – Revolving Lights

1

Revolving lights demand is driven by ongoing industrial expansion

Product

Revolving lights

2

Revolving Lights market is niche with steady forecasted growth

$2.9MM Estimated 2024 KSA market size ($MM)

6% Forecasted KSA 5-year CAGR

3

Attractive investment opportunities for the value chain

KSA value chain opportunities

- Design
- MFE
- SME opps
- Customer Services

KSA enablers

- Financial setup loans
- Corporate tax reduction
- KACST technical support

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Catalyzing Supply Chains

Notes: MFE = Manufacturing
Source: Aramco; Team analysis

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Revolving Lights serve multiple sectors within the region

Revolving lights

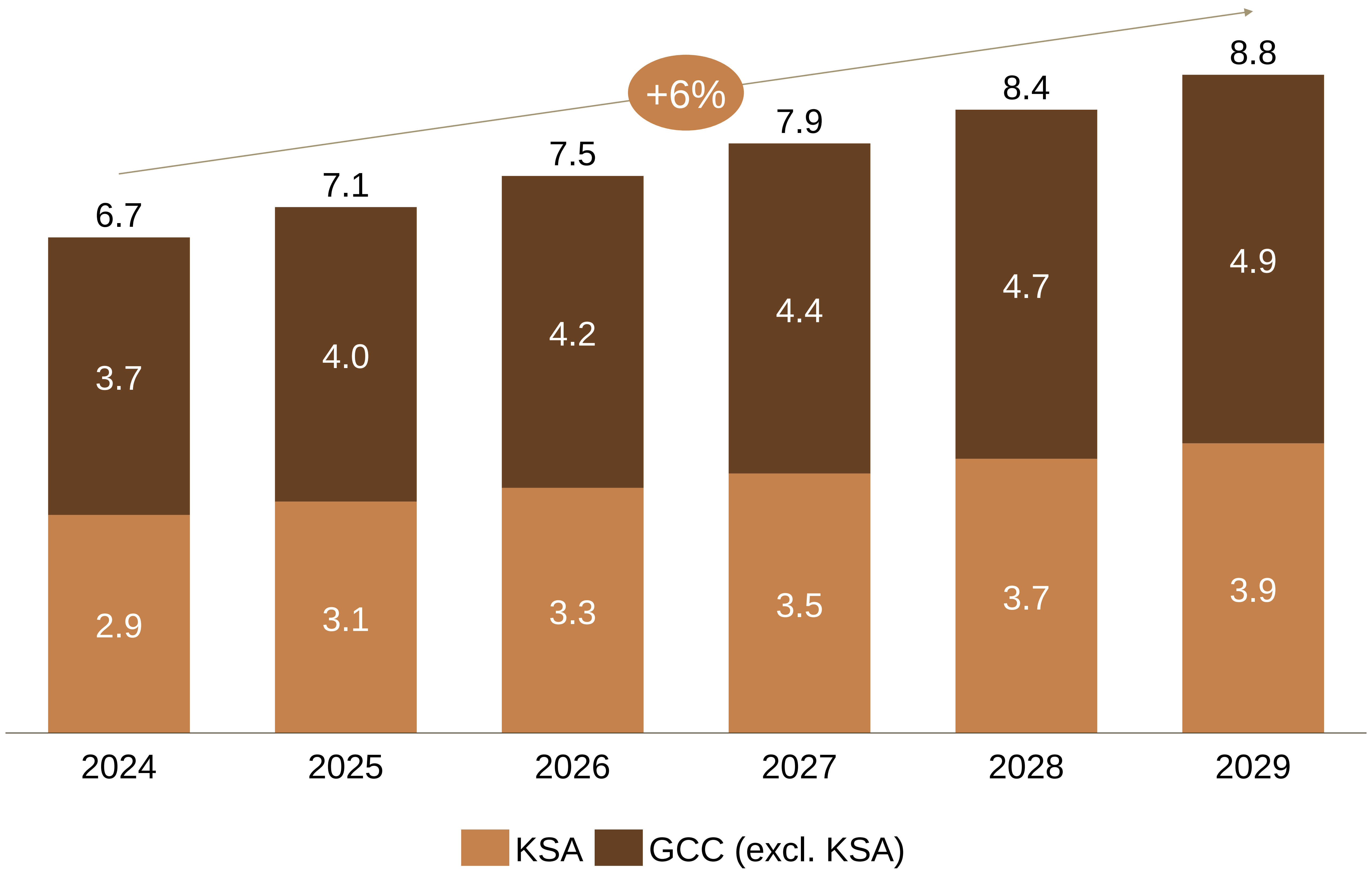
Product Details

- Used for security, safety or law enforcement vehicles
- International standards apply
- Programmable and customizable configuration with PC software
- The voltage is 12 – 14 volts
- The ability to work in extreme environments

Source: Team analysis

Revolving Lights demand, customers, and drivers

Forecasted KSA and rest of GCC Revolving Lights market 2024-2029, ($MM)



Typical customers in KSA

- Law enforcement
- Industrial security
- Construction vehicles
- Long vehicles (Logistics)
- Private security firms

Key KSA demand drivers

- Ongoing expansion of infrastructure, industrial operations, and logistics fleets increasing the need for reliable safety signaling solutions

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Source: Aramco; Team analysis

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Value chain and key localization opportunities

	Design	Manufacturing	SME Opportunities	Customer Services
Local saturation	Few players	Few players	Few players	Few players
Current KSA value chain	• Engineering and R&D for revolving security, safety and emergency lights design	• Manufacturing of revolving lights	Manufacturing of components: • Motors • Boards • Lenses • Enclosure • Adapters	• Permanent installation services • Maintenance services
Key success factors	Opportunity	Opportunity	Opportunity	Opportunity
Technology	CAD software, simulation tools, prototyping machines, testing facilities	Injection molding, CNC machines, lens cutters, assembly lines	Motor winding machines, PCB assembly, lens molding	Diagnostic tools, installation kits, testing systems, maintenance software
Labor	R&D engineers, design specialists, CAD operators	Machine operators, assemblers, welders, production engineers	Component specialists, machinists, board technicians	Installation technicians, field engineers, maintenance workers

Catalyzing Supply Chains

Note: CAD = Computer-aided design; CNC = Computer Numerical Control, PCB = Printed Circuit Boards
Source: Aramco; Team analysis

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Security Badges

Ibrahim Aldhafeeri

Opportunity profile – Security Badges

1
Security badges demand in KSA is driven by growing security concerns

Product

Security badges

2
Security Badges market is niche in size with steady growth

$27MM Estimated 2024 KSA market size ($MM)

11% Forecasted KSA 5-year CAGR

3
Attractive investment opportunities for the value chain

KSA value chain opportunities

Design | MFE | SME opps | Customer Services

KSA enablers

- Financial setup loans
- Corporate tax reduction
- KACST technical support

Notes: MFE = Manufacturing

Source: Aramco; Team analysis

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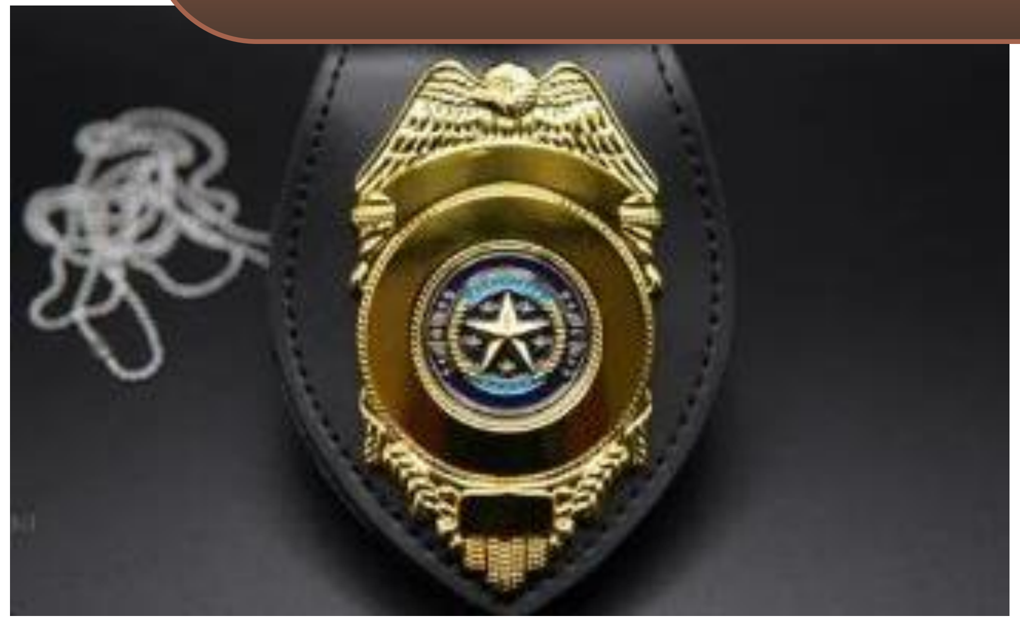
Badges are demanded for a variety of functions

Security badges



Product Details

- Security badges enable access control, identification, tracking, and authentication for personnel in secure areas and systems
- Material: Metal
- Type: Chest and Cap
- Color: Gold and Silver

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Source: Aramco; Team analysis

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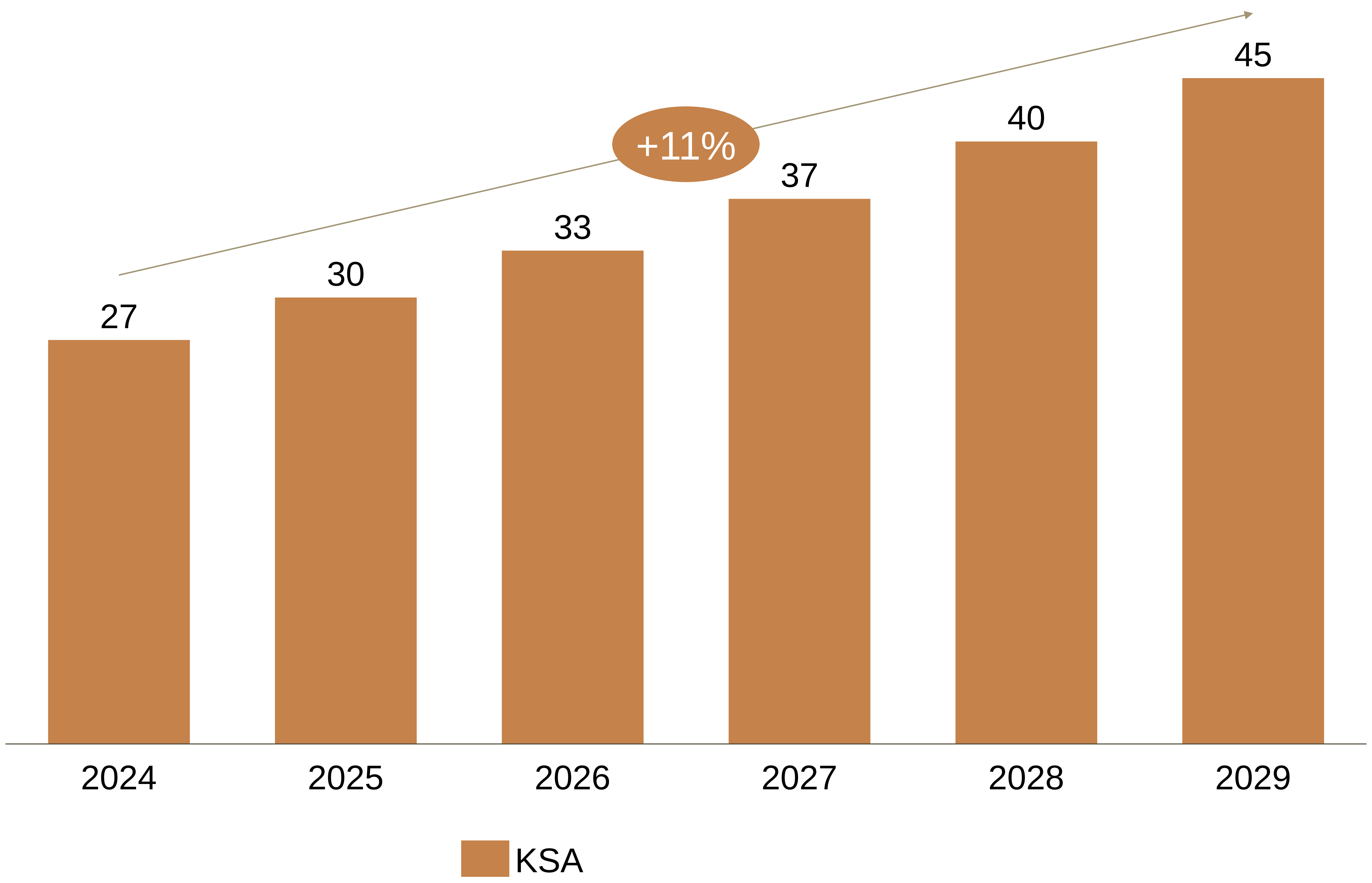
Security Badges demand, customers, and drivers

Forecasted KSA Security Badges market 2024-2029, ($MM)



Typical customers in KSA

- Law enforcement
- Industrial security
- Private security firms

Key KSA demand drivers

- Growing government and enterprise focus on tighter access control and advanced ID verification due to evolving security threats while having lack of local manufacturers

Catalyzing Supply Chains

Note: Market size figured presented only for KSA due to niche size of the market
Source: Aramco; Team analysis

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Value chain and key localization opportunities

	Design	Manufacturing	SME Opportunities	Customer Services
Local saturation	Few players	Few players	Few players	No players
Current KSA value chain	• Engineering and R&D for different types of high-quality badges	• Manufacturing of security badges	Manufacturing of components: • Leather • Metal • Engraving machines • Other raw materials	• Custom engraving services • Warranty/replacement services
Key success factors	Opportunity	Opportunity	Opportunity	Opportunity
Technology	CAD software, prototyping machines, laser design tools	Stamping machines, engraving tools, CNC equipment, molding systems	Leather cutters, stamping presses, molding tools, metal fabrication	Laser engravers, diagnostic tools, engraving software
Labor	R&D engineers, design specialists, CAD operators	Machine operators, metalworkers, engravers, assemblers, production technicians	Leather specialists, machinists, mold operators, metalworkers	Engraving technicians, repair specialists, customer support

Catalyzing Supply Chains

Note: CAD = Computer-aided design; CNC = Computer Numerical Control, PCB = Printed Circuit Boards

Source: Aramco; Team analysis

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Website: https://iktva.sa/english/opportunities/opportunity-submission-form

Email: local-content@Aramco.com

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Thank You

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Static & Rotating Equipment Workshop