وزارة التجـــــــارة والصناعـــــــة
Ministry of Commerce and Industry
State of Qatar • دولـــة قطـــر

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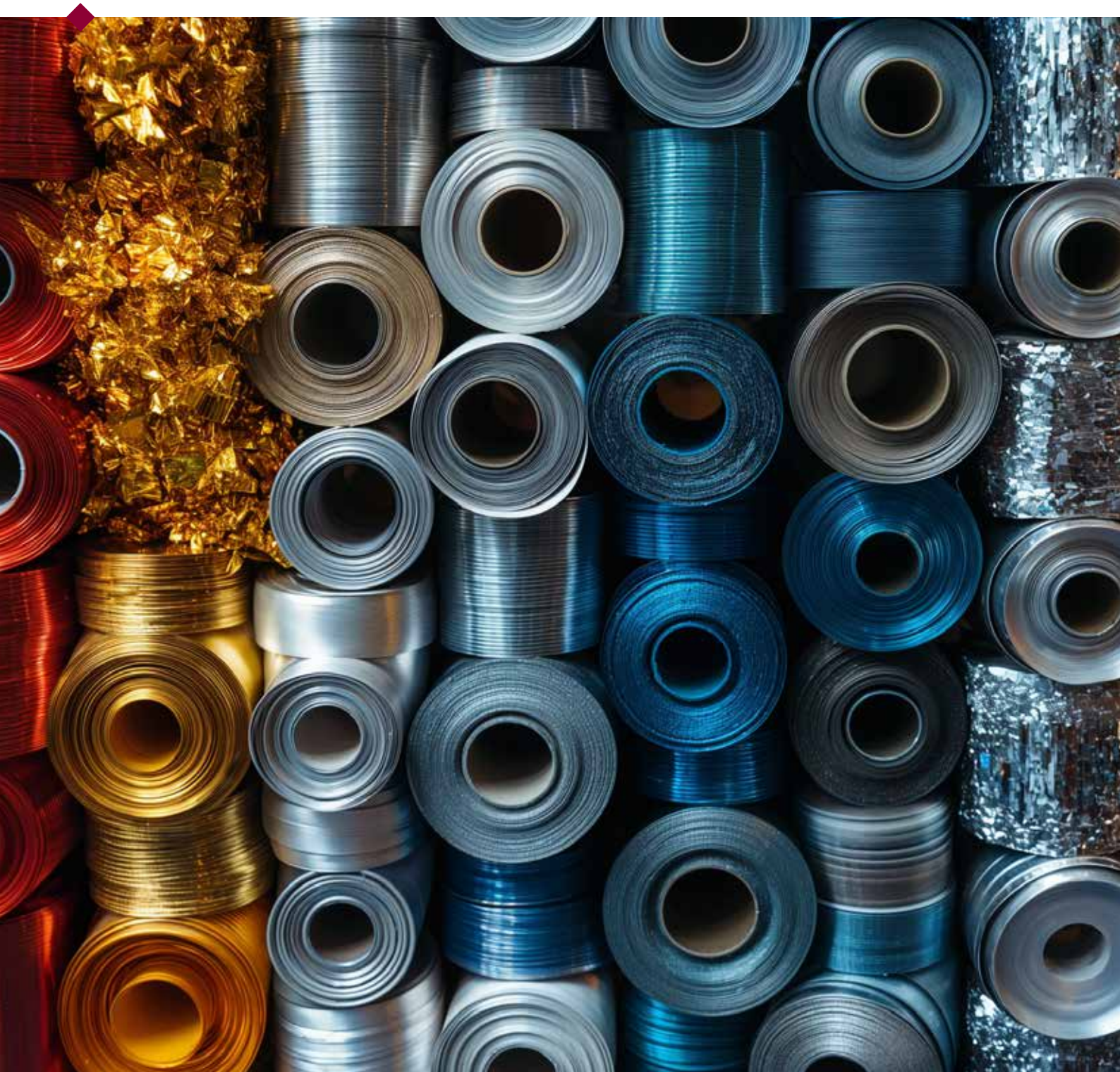
Investment Opportunities



01

Why Qatar?

Why Qatar?

High economic growth
6% average GDP growth in the last 15 years

Resilient economy
1st in the GCC for Economic Resilience (FM Global Resilience Index 2023)

Stable and resilient economy

Strong fiscal position
S&P: AA, Fitch: AA, Moody's: Aa2

Robust capital and financial foundation
1st in the GCC for financial markets (Global Opportunity Index, 2023)

Leading LNG exporter the cleanest hydrocarbon fuel, 3rd globally (GECF & IGF, 2023)

Assured energy security, all electricity domestically produced (0% imports, IEA 2023)

Access to natural resources

Largest blue ammonia plant globally start production by 2026

Large scale solar power plant, Qatar's 800 MW Al Kharsaah Solar Plant

Strong investor confidence, 4th globally for FDI Confidence in Emerging markets (Kearney, 2023)

Access to competitive market landscape 3rd in the GCC for market opportunities (EIU, 2023)

Robust supporting environment

Favourable regulatory environment, 70+ taxation and investment protection agreements, strong and efficient legal framework

Competitive tax regime 2nd globally for tax policies (IMD World Competitiveness Ranking, 2023)

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Home to renowned research centres and world leading higher education institutions

Strong talent attractiveness, 1st globally for talent attractiveness of international students (INSEAD, 2022)

World class talent and knowledge ecosystem

Openness for foreign talent 3rd globally for external openness (Global Talent Competitiveness Index, 2023)

Global hub for talent, Five-year residence permits for entrepreneurs and specialized talents

$8.5 trillion in combined GDP within 3,000 km of Qatar

World leading digital infrastructure 1st in the GCC (AI Readiness Index 2023), 2nd globally Internet Speed (Internet Speed Index 2023)

Future ready infrastructure and global connectivity

Direct connections to 180+ markets by air and sea via world-leading Hamad International Airport and Hamad Port

Safe and secure, 2nd globally for safety and security (Number Quality of Life Index 2024)

One of the world's most welcoming countries, visa-free for 100+ nationalities

Feel at home in a global community

Home to one of the best healthcare and education systems in the region

Hub for global sporting arts and cultural events

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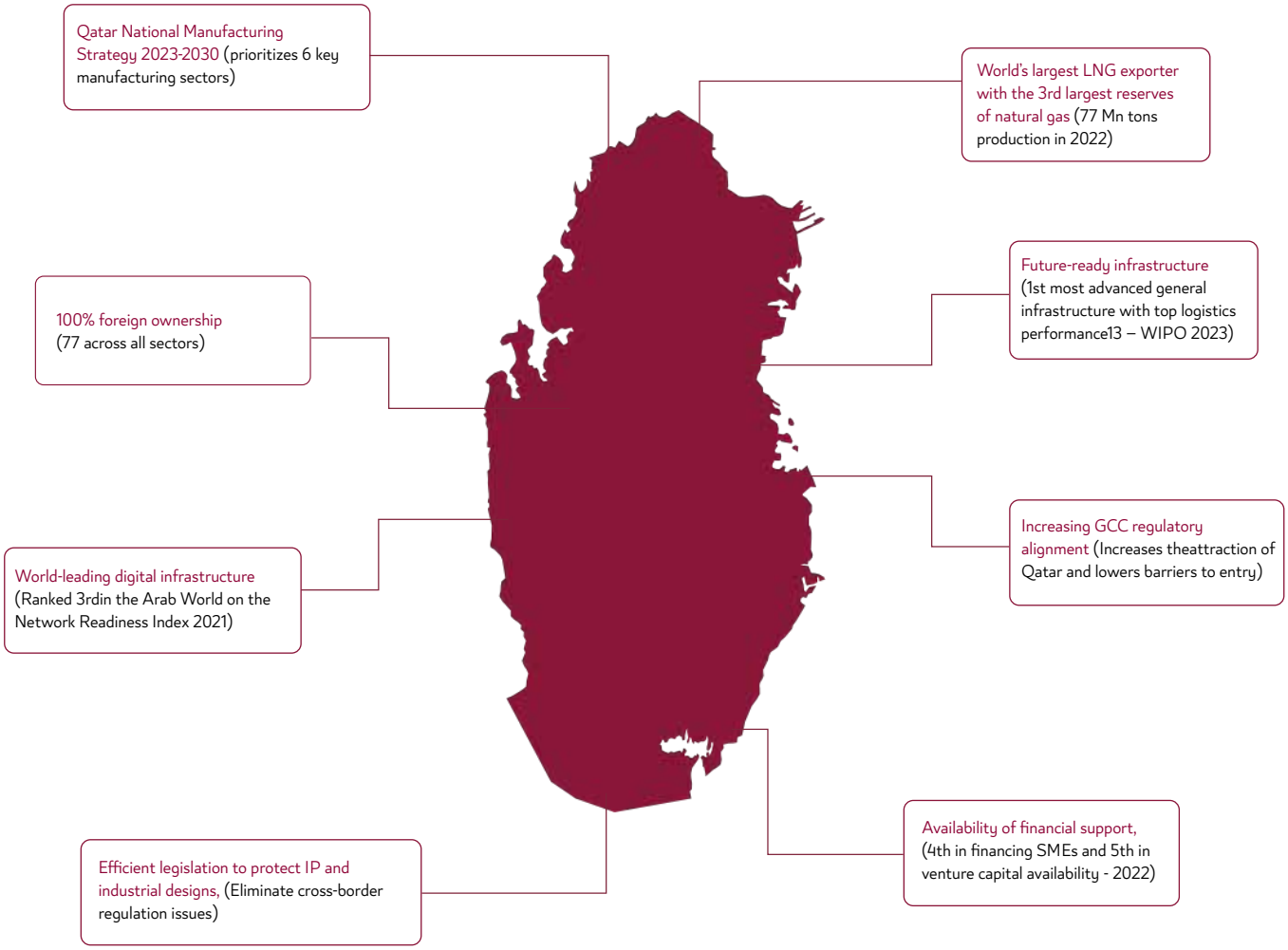
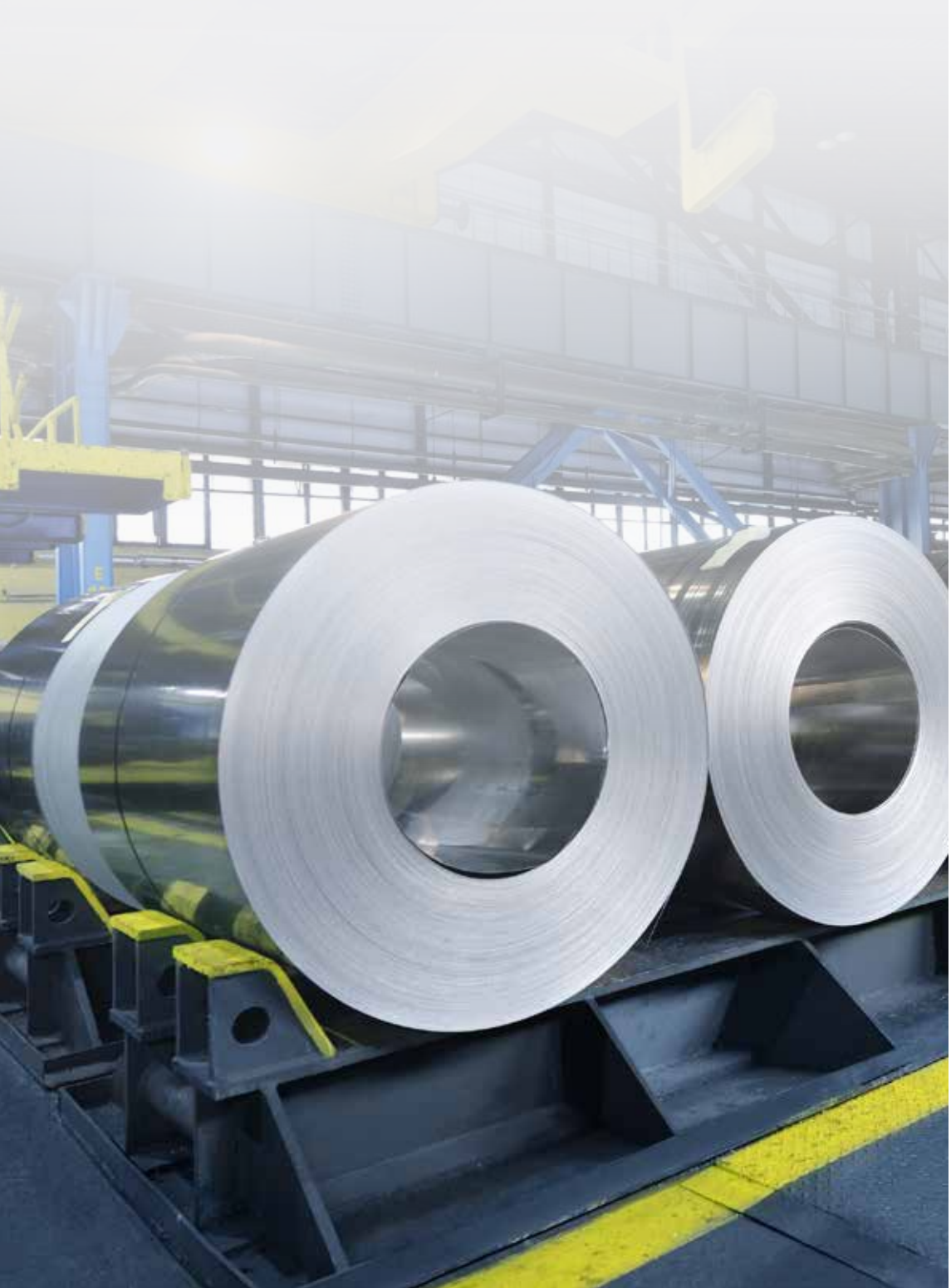
Why Make in Qatar ?



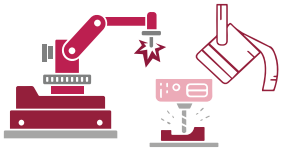
Key Manufacturing Partners

02

Aluminium



Basic Metals & Fabricated Metals



Assessment highlights

- The basic metals recorded a substantial growth at a CAGR of 8.2% from QR 3.8Bn in 2016 to QR 5.7Bn in 2021.
- From 2016 to 2021, the fabricated metals grew at a CAGR of 6% from QR 3Bn in 2016 to QR 4.5Bn in 2021.
- Basic & fabricated metals had 171 manufacturing establishments that together employed a workforce of 26,794 personnel in 2021.
- The construction sector drives the growth of fabricated metal products.
- Qatar heavily depends on imports for procuring raw materials (e.g., steel sheets, angels, channels, and rods) that are required by the fabricated metal sub-sector.
- There exists limited domestic production of rolling, casting, or forging of aluminum
- Export competitiveness is very low owing to the high cost of the domestic production of fabricated metals.
- Structural metal products emerge as the largest segment, constituting 44% of the fabricated metals in investment terms, followed by the forging and pressing segment, which has a 41% share.
- In terms of challenges, the market of basic & fabricated metals is likely to remain significantly competitive and price-sensitive due to the large market size, fragmented customer base, and localized nature of the products.

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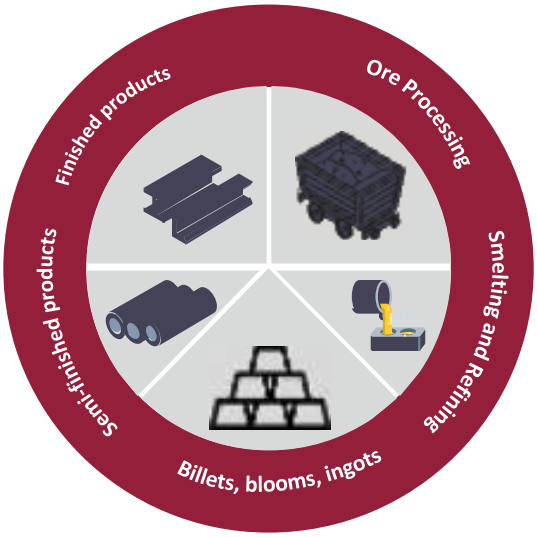
Value chain of Basic & fabricated metals

Fabricated metals

5. Semi-finished products are the key raw materials for the fabrication of basic metals



1. Ores containing metals are extracted and processed to yield metal concentrates

2. Metals concentrated are smelted and refined in furnaces to yield crude metals

3. Crude metal undergoes casting and rolling into billets, blooms, and ingots

4. Crude metal is processed to yield semi-finished products such as angles, channel sections, plates, profiles, etc.

Source: GOIC analysis

Basic & fabricated metals main categories

Basic Iron and Steel	Basic precious and non-ferrous metals	Casting	Structural metal products	Metalworking	Other
Primary Products of Iron	Precious metals	Iron and steel	Structural steel fabrication	Forging	Cutlery
Pure Iron	Non-ferrous Metals	Non-ferrous metals	Prefabricated buildings	Pressing	Treatment coating of metals
Sheets, strides, rods and others	Aluminium oxide	Others	Architectural aluminium fabrication	Stamping	Steam generators
	Non-ferrous Metals articles		Architectural steel fabricated	Rolling	Other
	Others			Others	

Domestic production available

Source: ISS, GOIC analysis

Global Overview

Sub-sector facts

- Total aluminum consumption is expected to grow by 33.3 Mt in the following decade, going from 86.2 Mt in 2020 to 119.5 Mt in 2030
- Around 75% of this demand growth is forecast to come from the transportation (35%), electrical (16%), construction (14%), and packaging (10%) sectors combined.
- Transportation will be the fastest-growing sector in terms of absolute aluminum demand in the next decade. Consumption from this sector will grow by 11.8 Mt, going from 19.9 Mt in 2020 to 31.7 Mt in 2030, with 33% of this growth coming from China, 22% from North America, and 19% from Europe.
- The Packaging sector is expected to grow by 3.3 Mt in the following decade, going from 7.2 Mt in 2020 to 10.5 Mt in 2030, with 26% of this growth expected to come from North America, 23% from China, and 17% from Europe.
- The utilization of secondary aluminum can decrease direct emissions from aluminum production by up to 95% compared with primary aluminum production

Sub-sector opportunities/upsides

- The adoption of renewable energies and electric vehicles (EVs), as well as the implementation of sustainable solutions in the Packaging and Construction sectors will represent major opportunities for the aluminum industry.
- The secondary aluminum stream (recycled) is becoming an even more important component of aluminum production and is attractive because of its economic and environmental benefits, which can significantly improve the sustainability of the aluminum fabrication industry.

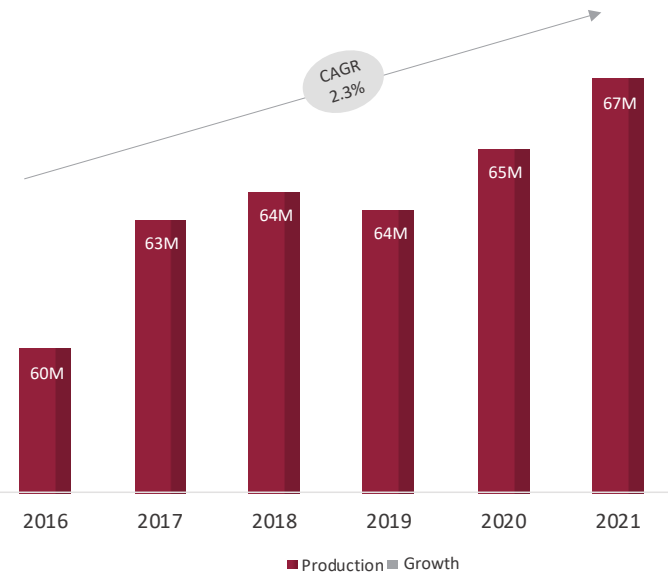
Sub-sector threats/downsides

- The energy-intensive requirements in aluminum production (about 35% of the cost of the aluminum ingot) could swing the profitability of the product.
- Global inventories are rapidly declining and environmental closures will continue the possibility of supply constraints.

Source: GOIC analysis

Figure1

Global Aluminium production– Mn metric tons (MMT)

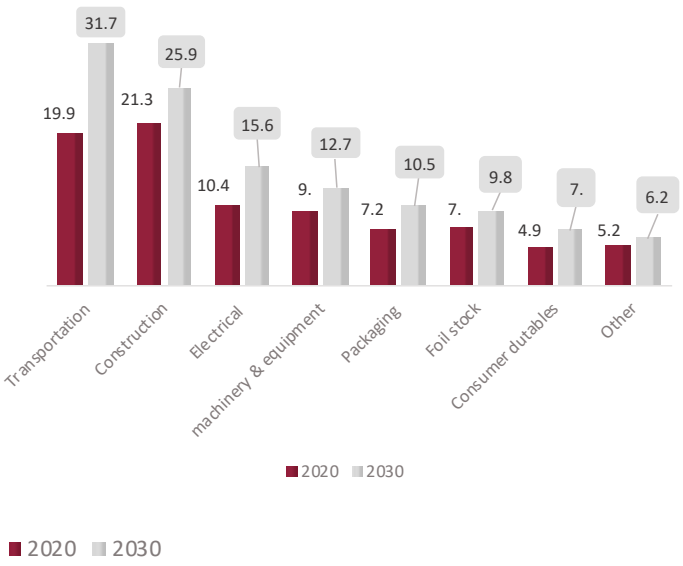


Source: International Aluminum Institute, GOIC analysis

- The global primary aluminum production grew from 60 Mt in 2016 to 67 Mt in 2021 at a CAGR of 2.3%
- The demand for primary aluminum is projected to reach 119.5 Mt in 2030, an increase of 33.3 Mt from 86.2 Mt in 2020
- China is leading the growing demand with a share of 37% followed by Asia ex. China (26%), North America (15%), and Europe (14%)
- China is expected to continue to have the biggest consumption by a large margin, nearly 50% of the global consumption
- In value terms, the market size of aluminum is forecasted to reach $242 Bn in 2027, going from $164 Bn in 2019 at a CAGR of 5.7%

Figure 2

Global aluminum semi-finished consumption sector-wise– Mn metric tons (MMT)

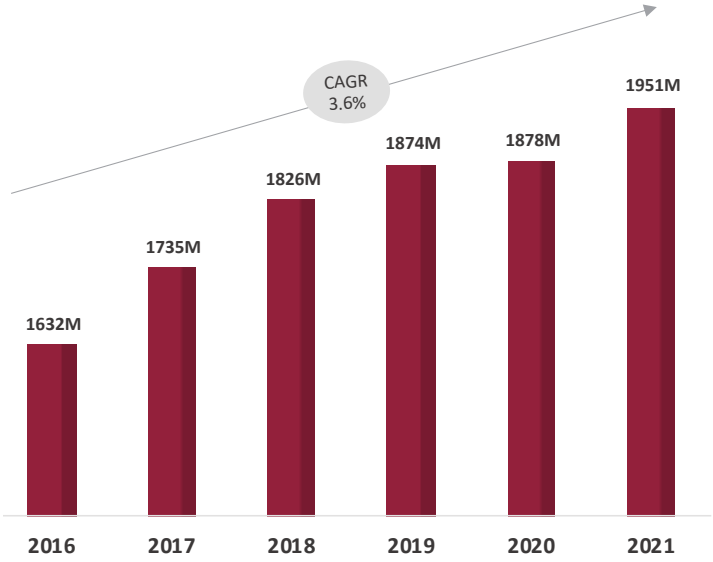


- Decarbonization policies have positive impacts on the aluminum demand.
- The consumption of semi-finished aluminum by all sectors is expected to witness an average growth of 38% from 2020 to 2030.
- Transportation sector is expected to be the fastest growing sector, which is projected to grow from 19.9 Mt in 2020 to reach 31.7 Mt indicating a substantial growth of 60%.
- Construction sector is expected to have a steady growth wherein the consumption has grown from 21.3 Mt in 2020 to an estimated 25.9 Mt in 2030.

Source: International Aluminum Institute, GOIC analysis

Figure 3

steel production– Mn metric tons (MMT)



- The global crude steel production witnessed a moderate pace of growth of about 3.6% over the past 5 years.
- The production increased by 319 Mt, going from 1,632 Mt in 2016 to 1,951 Mt in 2021.
- With 1,064 Mt production capacity, China is the dominant country by far, followed by India (100 Mt), Japan (83.2 Mt), and the USA (72.7 Mt)
- The production of crude steel will likely continue to grow by 2.2% in 2023 after increasing by 2.7% in 2021

Source: World Steel Association, GOIC analysis

Regional Overview

Sub-sector facts

- The GCC region experienced a modest production growth in aluminum, reaching 6 Mt in 2021, an increase of 3% from 2016.
- The output surpassed the 6 Mt milestone for the first time in a year that witnessed historical odds and challenges due to the unprecedented COVID-19 outbreak.
- Five primary aluminum producers in the GCC collectively produced 6 Mt of high-quality aluminum in 2020 for domestic and overseas markets, registering an increase of 353,554 tons or 6 percent from 5 Mt in 2019.
- Analyzing the top five key players in GGC for aluminum production, Emirates Global Aluminum (EGA) leads GCC producers with 2.5 Mt in 2020, followed by Aluminum Bahrain (1.5 Mt), Ma'aden (1 Mt), Qatalum (655 Kt), and Sohar Aluminum (396 Kt)

Source: GOIC analysis

Sub-sector opportunities/upsides

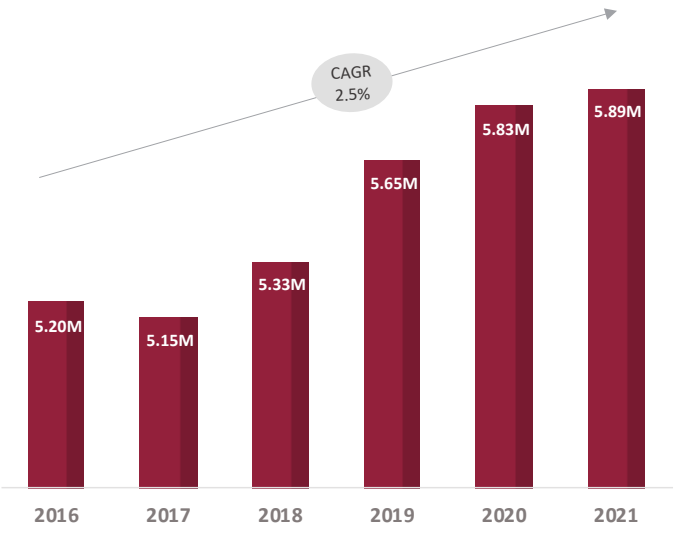
- The construction activities coupled with a rise in automotive manufacturing in the GCC region are forecasted to boom throughout 2020-2027; this growth is expected to boost the downstream market of aluminum at a CAGR of 3.1%.
- Benefitting from sustainability initiatives, the attractiveness of low-carbon aluminum will witness unprecedented momentum.

Sub-sector threats/downsides

- Uncertainty surrounding China's aluminum industry will affect the demand-supply, and the price of the global aluminum, and therefore GCC smelter.
- The disruptive global business climate (e., devaluation of currencies against the US dollar) will highly influence the supply and demand of global aluminum.

Figure 4

Total production of aluminum in GCC in Mn metric ton (MMT) (2016-2021)



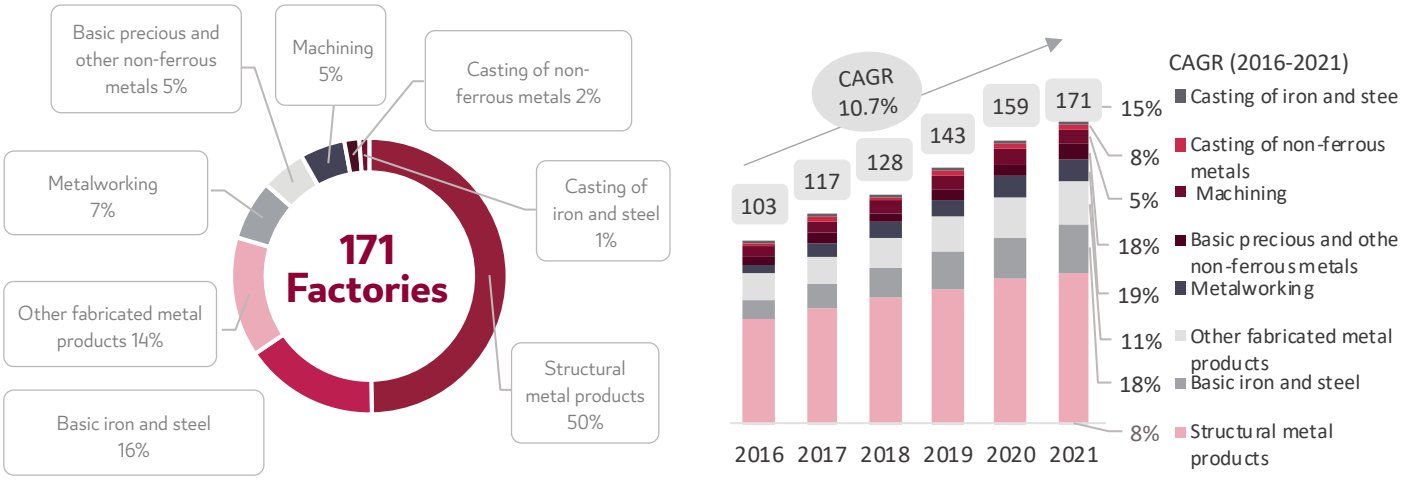
Source: International Aluminum Institute, GOIC analysis

- The production of primary aluminum in GCC slightly increased over the past 6 years indicating a CAGR of 2.5%
- The production growth by 1 Mt increasing from 5 Mt in 2016 to 6 Mt in 2021
- UAE is expected to continue to lead the GCC producers with 2 Mt in 2020 followed by Aluminum Bahrain's (1.5 Mt), Ma'aden (1 Mt), Qatalum (655 Kt), and Sohar Aluminum (396 Kt)
- KSA is the only gulf country that has an access to its own bauxite reserves, therefore has a unique potential to play a leadership role in aluminum production and consumption

Current Status in Qatar

Figure 5

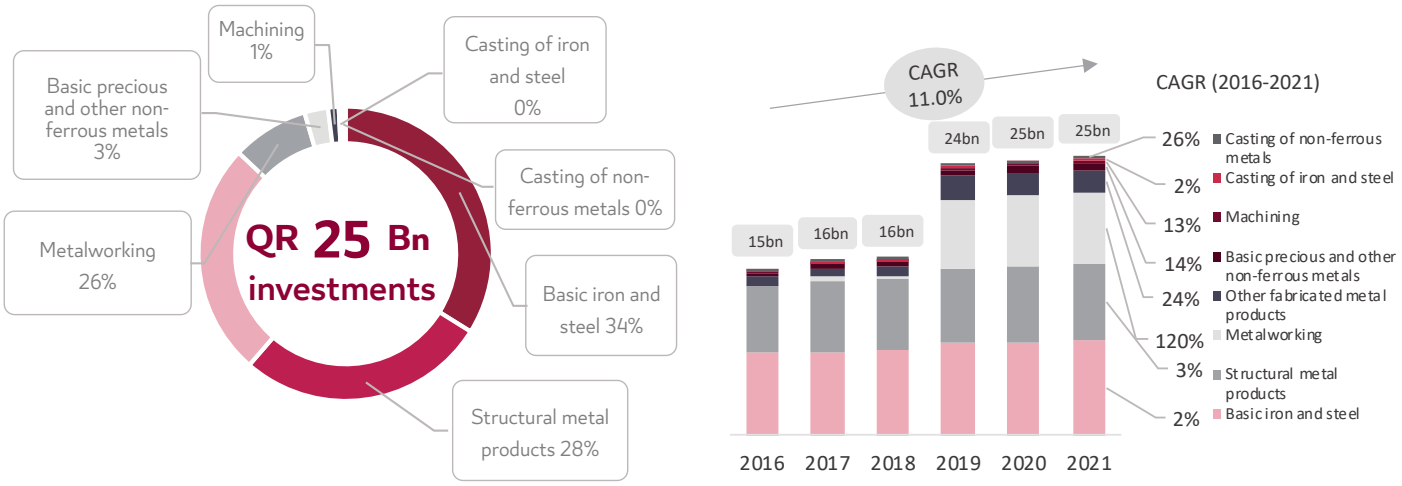
basic and fabricated current status in Qatar in terms of the number of factories, investments, and employees in 2021



- The number of factories rose by almost 8% from the previous year to reach 171 factories in 2021.
- Structural metals products had the largest share by far accounting 50% of the total number of factories, followed by basic iron and steel (16%) and other fabricated metals (14%).

Figure 6

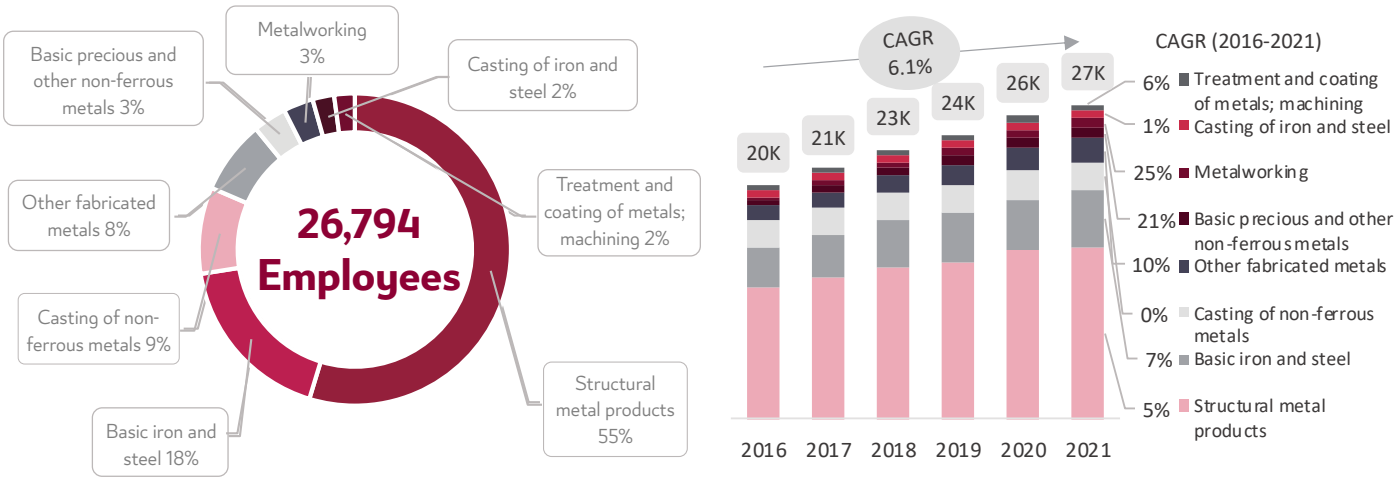
basic and fabricated current status in Qatar in terms of the number of factories, investments, and employees in 2021



- The total investment in basic and fabricated metals grew by 11.0%, from QR 15Bn in 2016 to QR 25Bn in 2021.
- Metalworking (e.g., forging, pressing, etc) segment reordered the fastest growth of more than 120% from 2016.
- Three segments which are basic iron and steel, structural metals products, and metalworking together constitute more than 87% of the sub-sector in investment terms.

Figure 7

basic and fabricated current status in Qatar in terms of the number of factories, investments, and employees in 2021



- Basic and Fabricated employed a workforce nearly of 27,000 personnel in 2021, recorded a growth of 6.1% from 2016.
- Structural metals products employed more than the half (55%) of the total workforce in the sub-sector.

Source: Companies Website, EY, GOIC analysis

03

Investment Opportunities - Aluminum Industries Cluster Design Project

Rolling Mill & Coating Factory

◆ Rolling Mill & Coating Factory

Opportunity Description:

Establishing a molten Aluminium rolling mill factory with coil coating processes facility. Products include:

- Products: Aluminium plates, sheets, and strips, with thickness exceeding 0.2mm (HS: 760611, 760611)
- Coated Aluminium coil

1. Primary Aluminium:

The production process begins when molten Aluminium from Qatalum arrives in specialized crucibles maintained at temperatures above 700°C.

2. Aluminium panels and sheets:

Molten Aluminium is poured between two cooled, counter-rotating cylinders, where it is rapidly cooled and formed into thin sheets and plates with a thickness of up to 0.2 mm.

3. Coated Aluminium coil:

After producing Aluminium sheet coils, they are coated within the facility. This coating process enhances their value, enabling both local sales and higher-value exports.

4. Application:

Products from the Aluminium rolling mill and coating plant are used in various applications, including automobile body manufacturing, insulation panels, and packaging.

1.06 billion
Investment Value (QAR)

100,000
Capacity (Ton)

125,000
Land Area (m^2)

232
Number of Employees

Value Chain

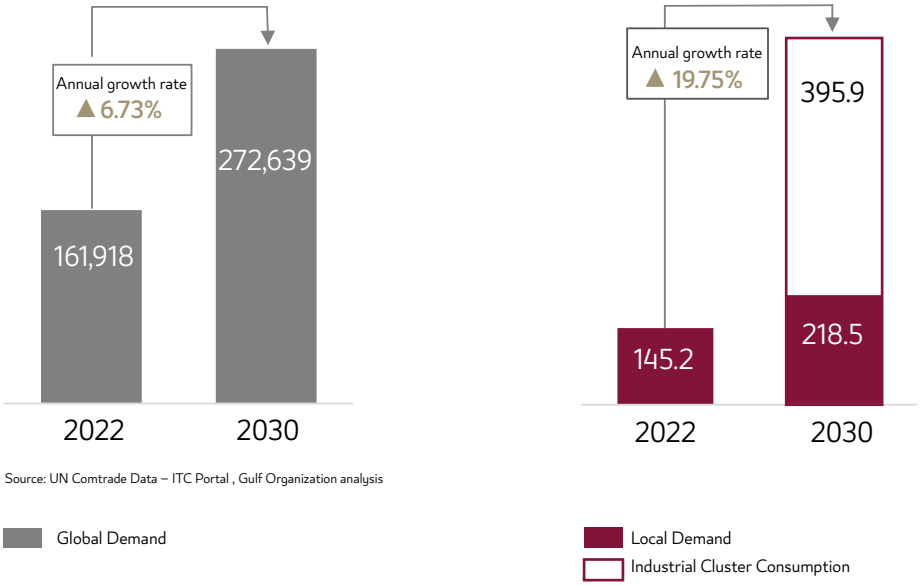
Raw material	Opportunity focus		Final product
1. Primary Aluminium	2. Aluminium plates and sheets	3. Coated Aluminium coils	3. Applications

Investment Justifications

- **Aluminium production:**
  Qatar produces over 650,000 metric tons of Aluminium annually.
- **Energy cost:**
  Electricity prices are competitive due to the abundance of natural gas.
- **Strategic location:**
  Qatar is located in the heart of the Gulf, facilitating market access.
- **Advanced infrastructure:**
  Efficient logistics, advanced ports, and airports.
- **Flexible financing:**
  Funding covers up to 60% of project costs at low interest rates

Market Indicators

Figure 8 Growth in global and local demand



Source: UN Comtrade Data – ITC Portal , Gulf Organization analysis

Figure 9 : Target market

Disclaimer

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Aluminium Powder Factory

◆ Aluminium Powder Factory

Opportunity Description:

Establish of a factory to produce Aluminium powder, flakes, and paste, which is divided based on the HS code:

- Powders of non-lamellar structure (HS: 760310)
- Powders of lamellar structure; flakes (HS: 760320)

1. Primary Aluminium:

The production process begins when molten Aluminium from Qatalum arrives in specialized crucibles maintained at temperatures above 700°C.

2. Aluminium powder:

Molten Aluminium is atomized through a plasma jet, fragmenting it into very fine droplets suitable for producing Aluminium powder.

3. Aluminium flakes and paste:

Grinding powder through dry ball milling produces Aluminium flakes, while wet ball milling produces Aluminium paste.

4. Application:

Factory's products are used in construction materials, power systems, paints and coatings, printing inks, and cosmetics.

74 million
Investment Value (QAR)

10,000
Capacity (Ton)

12,500
Land Area (m^2)

44
Number of Employees

Value Chain

Raw material	Opportunity focus		Final product
1. Primary Aluminium	2. Aluminium powder	3. Aluminium flakes and paste	3. Applications

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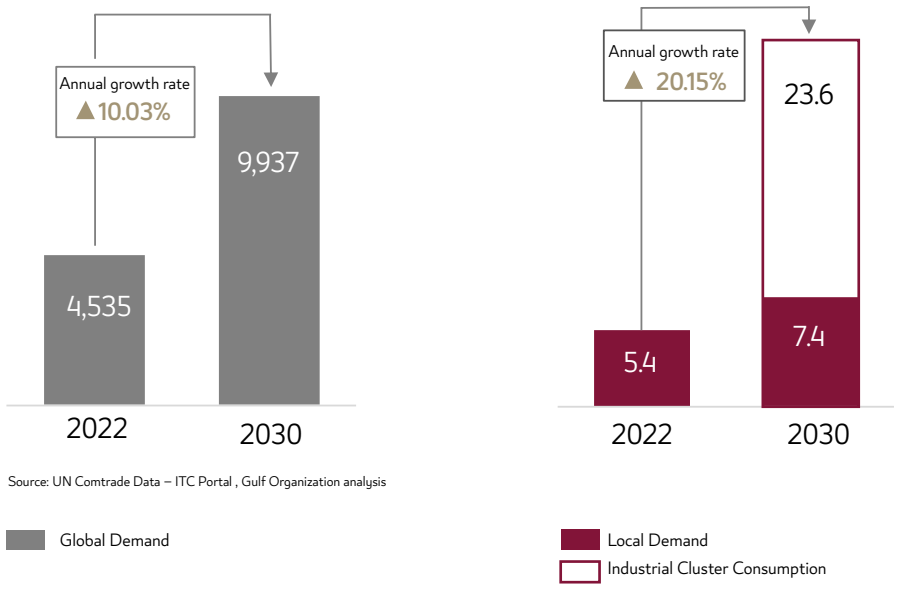
Investment Justifications

- **Aluminium production:**
  Qatar produces over 650,000 metric tons of Aluminium annually.
- **Energy cost:**
  Electricity prices are competitive due to the abundance of natural gas.
- **Strategic location:**
  Qatar is located in the heart of the Gulf, facilitating market access.
- **Advanced infrastructure:**
  Efficient logistics, advanced ports, and airports.
- **Flexible financing:**
  Funding covers up to 60% of project costs at low interest rates

Market Indicators

Figure 10 Growth in global and local demand



Source: UN Comtrade Data – ITC Portal , Gulf Organization analysis

Figure 11 : Target market

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Electric Vehicles Parts Factory

◆ Electric Vehicles Parts Factory

Opportunity Description:

Establish a factory for casting electric vehicle parts including:

- Electrical transformer box
- Electric motor box
- Transmission box
- Battery box and covers
- Heat sink
- Some of vehicle body parts

1. Primary Aluminium:

The production process begins when molten Aluminium from Qatalum arrives in specialized crucibles maintained at temperatures above 700°C.

2. Electric vehicle parts :

The process involves casting molten Aluminium into molds using the die-casting method to fabricate electric vehicle components. These castings undergo thermal treatment and machining operations to achieve the desired products.

3. Application:

Cast Aluminium parts are used in electric vehicles due to their strength and lightweight properties which reduces energy consumption and carbon emissions.

137 million
Investment Value (QAR)

15,000
Capacity (Ton)

20,000
Land Area (m^2)

150
Number of Employees

Value Chain

Raw material	Opportunity focus	Final product
1. Primary Aluminium	2. Electric vehicle parts	3. Applications

Investment Justifications

- **Aluminium production:**
  Qatar produces over 650,000 metric tons of Aluminium annually.
- **Energy cost:**
  Electricity prices are competitive due to the abundance of natural gas.
- **Strategic location:**
  Qatar is located in the heart of the Gulf, facilitating market access.
- **Advanced infrastructure:**
  Efficient logistics, advanced ports, and airports.
- **Flexible financing:**
  Funding covers up to 60% of project costs at low interest rates

Market Indicators

Figure 12 Growth in global and local demand

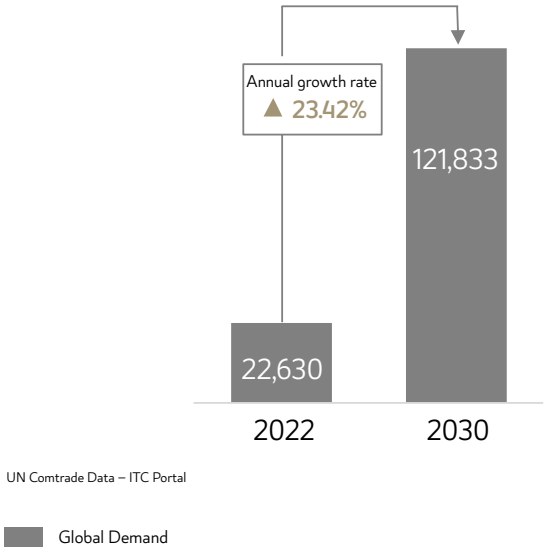

Figure 13 : Target market

Export 100%

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Wheel Casting Factory

Wheel Casting Factory

Opportunity Description:

Establish a wheel casting factory for cars and trucks :

- Cast Aluminium alloy wheels (HS code: 87087002)

1. Primary Aluminium:

The production process begins when molten Aluminium from Qatalum arrives in specialized crucibles maintained at temperatures above 700°C.

2. Aluminium wheels:

The process involves casting molten Aluminium into molds using low pressure vacuum casting (LPVC) to form Aluminium wheels. These castings undergo thermal treatment and machining operations to achieve the desired products.

3. Application:

Aluminium wheels are used as an alternative to iron due to their lightweight, aesthetic appeal, and superior thermal dispersion in vehicles on the road.

150 million
Investment Value (QAR)

20,000
Capacity (Ton)

30,000
Land Area (m^2)

171
Number of Employees

Value Chain

Raw material	Opportunity focus	Final product
1. Primary Aluminium	2. Aluminium wheels	3. Applications

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Investment Justifications

- **Aluminium production:**
  Qatar produces over 650,000 metric tons of Aluminium annually.
- **Energy cost:**
  Electricity prices are competitive due to the abundance of natural gas.
- **Strategic location:**
  Qatar is located in the heart of the Gulf, facilitating market access.
- **Advanced infrastructure:**
  Efficient logistics, advanced ports, and airports.
- **Flexible financing:**
  Funding covers up to 60% of project costs at low interest rates

Market Indicators

Figure 14 Growth in global and local demand

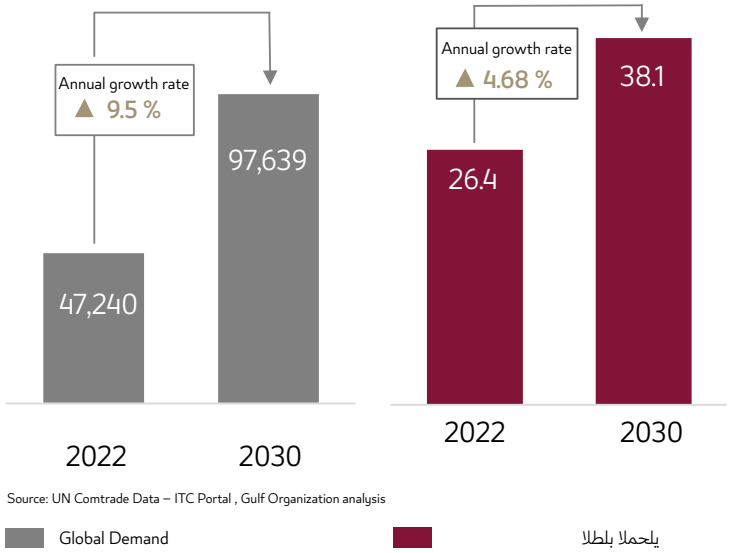

Figure 15 : Target market

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Architectural Casting Factory

Architectural Casting Factory

Opportunity Description:

Establish a factory for casting Aluminium parts and components used in construction, classified under (HS: 7610):

- Façade
- Curtain wall systems
- Electrical distribution boxes
- Lighting structures
- Door & window components
- Other structural components

1. Primary Aluminium:

The production process begins when molten Aluminium from Qatalum arrives in specialized crucibles maintained at temperatures above 700°C.

2. Cast architectural parts :

The process involves casting molten Aluminium into molds using to form Aluminium structures using various casting processes (such as sand casting, gravity casting, and pressure casting), then undergoing thermal treatment and machining to produce products.

3. Application:

Cast Aluminium parts are used in the construction sector due to their strength, lightweight , attractive appearance, and resistance to corrosion and rust.

49 million
Investment Value (QAR)

5,000
Capacity (Ton)

20,000
Land Area (m^2)

89
Number of Employees

Value Chain

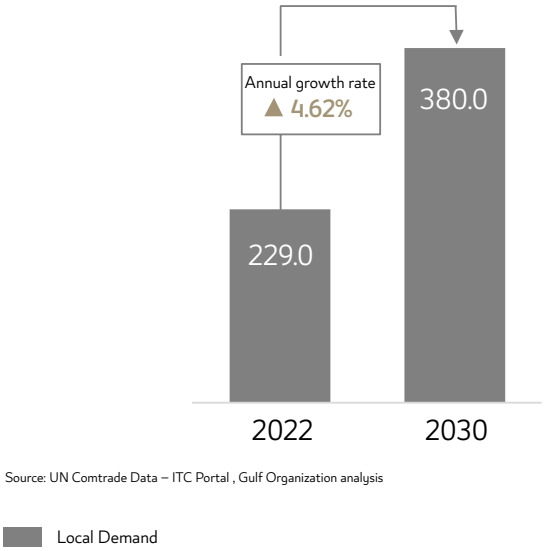
Raw material	Opportunity focus	Final product
1. Primary Aluminium	2. Cast architectural parts	3. Applications

Investment Justifications

- **Aluminium production:**
  Qatar produces over 650,000 metric tons of Aluminium annually.
- **Energy cost:**
  Electricity prices are competitive due to the abundance of natural gas.
- **Strategic location:**
  Qatar is located in the heart of the Gulf, facilitating market access.
- **Advanced infrastructure:**
  Efficient logistics, advanced ports, and airports.
- **Flexible financing:**
  Funding covers up to 60% of project costs at low interest rates.

Market Indicators

Figure 16 Growth in global and local demand



Source: UN Comtrade Data – ITC Portal , Gulf Organization analysis

Figure 17 : Target market

Local 100%

Disclaimer

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Aluminium Circles & Slug Factory

◆ Aluminium Circles & Slug Factory

Opportunity Description:

Establish a factory for punching Aluminium sheets and coils to produce Aluminium circles and slug

- Circles & slug of Aluminium and Aluminium alloys with a thickness greater than 0.2 mm (HS: 760691, 760692)

1. Aluminium coils:

The planned rolling mill factory in the industrial cluster will supply coated and uncoated Aluminium coils with thicknesses exceeding 0.2 mm.

2. Aluminium circles and slug

Aluminium sheet and plates are punched to varying thicknesses to produce both coated and uncoated Aluminium slug and circles. The final product is also treated to enhance its physical properties.

3. Application:

Aluminium circles and slug are used in various application including packaging and Aluminium cans and automobile parts.

57 million
Investment Value (QAR)

10,000
Capacity (Ton)

5,000
Land Area (m^2)

35
Number of Employees

Value Chain

Raw material	Opportunity focus	Final product
1. Primary Aluminium	2. Aluminium circles and slug	3. Applications

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Investment Justifications

- **Aluminium production:**
  Qatar produces over 650,000 metric tons of Aluminium annually.
- **Energy cost:**
  Electricity prices are competitive due to the abundance of natural gas.
- **Strategic location:**
  Qatar is located in the heart of the Gulf, facilitating market access.
- **Advanced infrastructure:**
  Efficient logistics, advanced ports, and airports.
- **Flexible financing:**
  Funding covers up to 60% of project costs at low interest rates.

Market Indicators

Figure 18 Growth in global and local demand

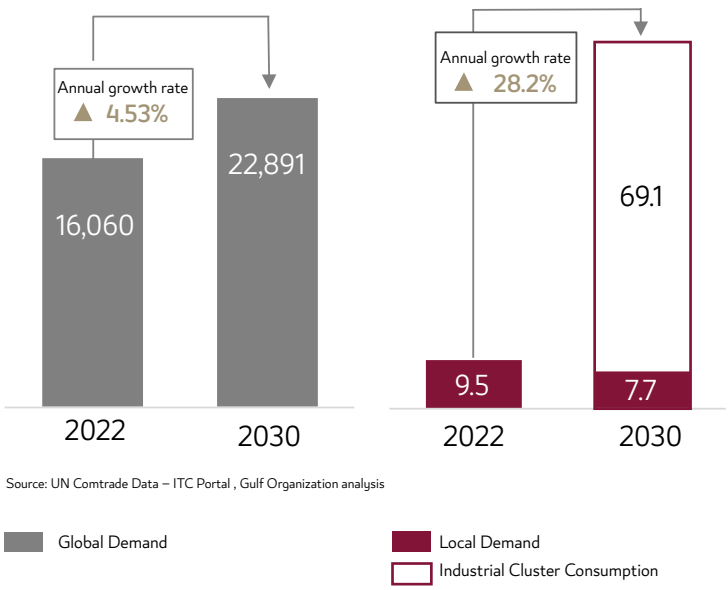

Figure 19 : Target market

Disclaimer

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Impact Extrusion Factory

Impact Extrusion Factory

Opportunity Description:

Establish an impact extrusion factory to produce a variety of products including:

- Collapsible tubular containers (HS: 761210)
- Aluminium containers for compressed or liquefied gas (HS: 7613xx)

1. Aluminium slug:

The planned Aluminium circles and slug factory in the industrial cluster will supply Aluminium circles and slug.

2. Cold-extruded containers:

Aluminium slug are cold-extruded to produce collapsible tubular in various sizes, as well as Aluminium containers for compressed or liquefied gas.

3. Application:

The factory's main products include paint cans, pharmaceutical tubes, toothpaste tubes, and other items used in various sectors such as packaging, automotive parts, and electronics.

75 million
Investment Value (QAR)

4,000
Capacity (Ton)

15,000
Land Area (m^2)

64
Number of Employees

Value Chain

Raw material	Opportunity focus	Final product
1. Primary Aluminium	2. Cold-extruded containers	3. Applications

Investment Justifications

- **Aluminium production:**
  Qatar produces over 650,000 metric tons of Aluminium annually.
- **Energy cost:**
  Electricity prices are competitive due to the abundance of natural gas.
- **Strategic location:**
  Qatar is located in the heart of the Gulf, facilitating market access.
- **Advanced infrastructure:**
  Efficient logistics, advanced ports, and airports.
- **Flexible financing:**
  Funding covers up to 60% of project costs at low interest rates.

Market Indicators

Figure 20 Growth in global and local demand

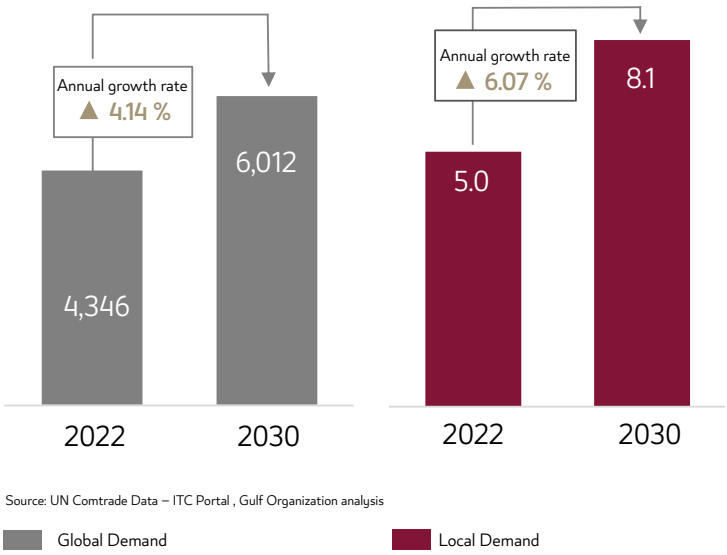

Figure 21 : Target market

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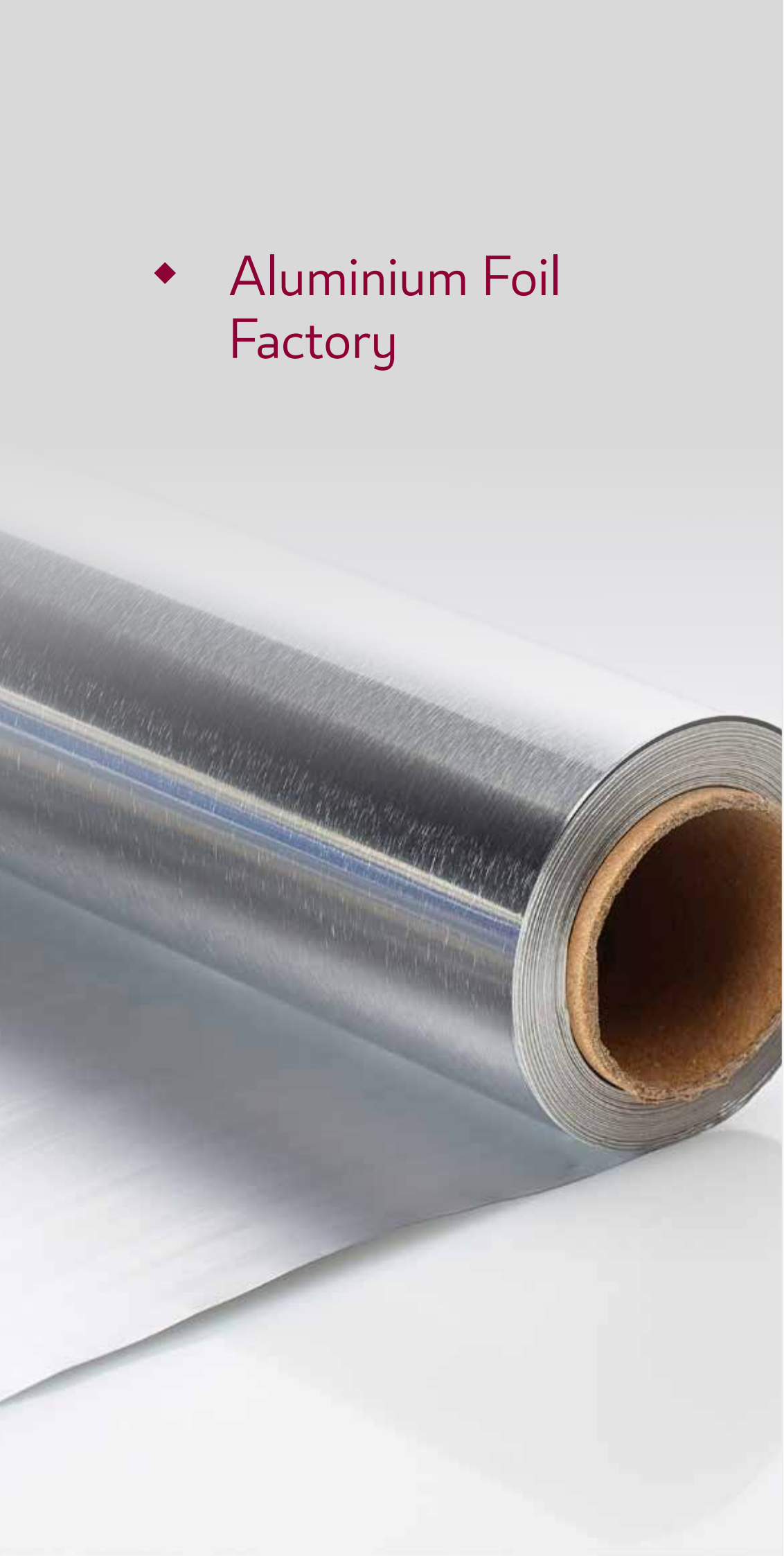
Aluminium Foil Factory



◆ Aluminium Foil Factory

Opportunity Description:

Establish a cold rolling factory to produce Aluminium foil:

- Aluminium foil of a thickness not exceeding 0.2 mm (HS: 7607)

1. Aluminium coils:

The planned rolling mill factory in the industrial cluster will supply coated and uncoated Aluminium coils with thicknesses exceeding 0.2 mm.

2. Aluminium foil:

Cold rolling of Aluminium coils to produce Aluminium foil with a maximum thickness of 0.2 mm for various packaging applications.

3. Application:

Aluminium foils are used in various sectors such as food and medical packaging, thermal insulation, solar panels, and electronics due to their enhanced properties and high flexibility.

256 million
Investment Value (QAR)

25,000
Capacity (Ton)

50,000
Land Area (m^2)

88
Number of Employees

Value Chain

Raw material	Opportunity focus	Final product
1. Primary Aluminium	2. Aluminium foil	3. Applications

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Investment Justifications

- **Aluminium production:**
  Qatar produces over 650,000 metric tons of Aluminium annually.
- **Energy cost:**
  Electricity prices are competitive due to the abundance of natural gas.
- **Strategic location:**
  Qatar is located in the heart of the Gulf, facilitating market access.
- **Advanced infrastructure:**
  Efficient logistics, advanced ports, and airports.
- **Flexible financing:**
  Funding covers up to 60% of project costs at low interest rates.

Market Indicators

Figure 22 Growth in global and local demand

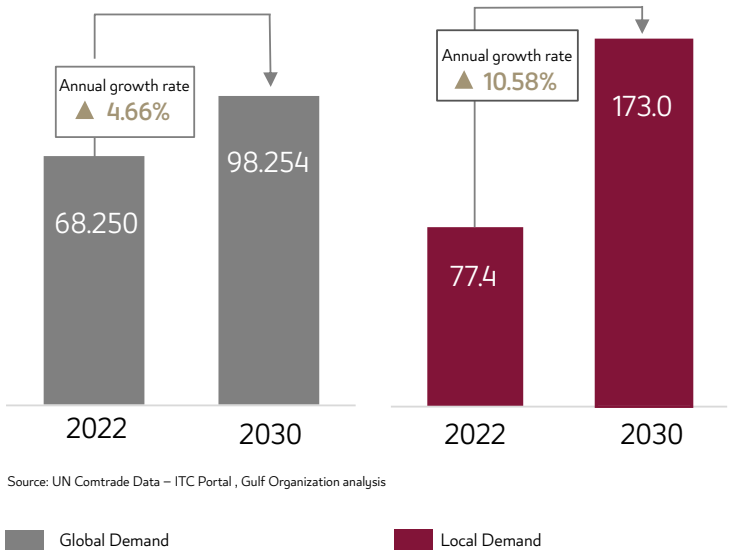

Figure 23 : Target market

Disclaimer

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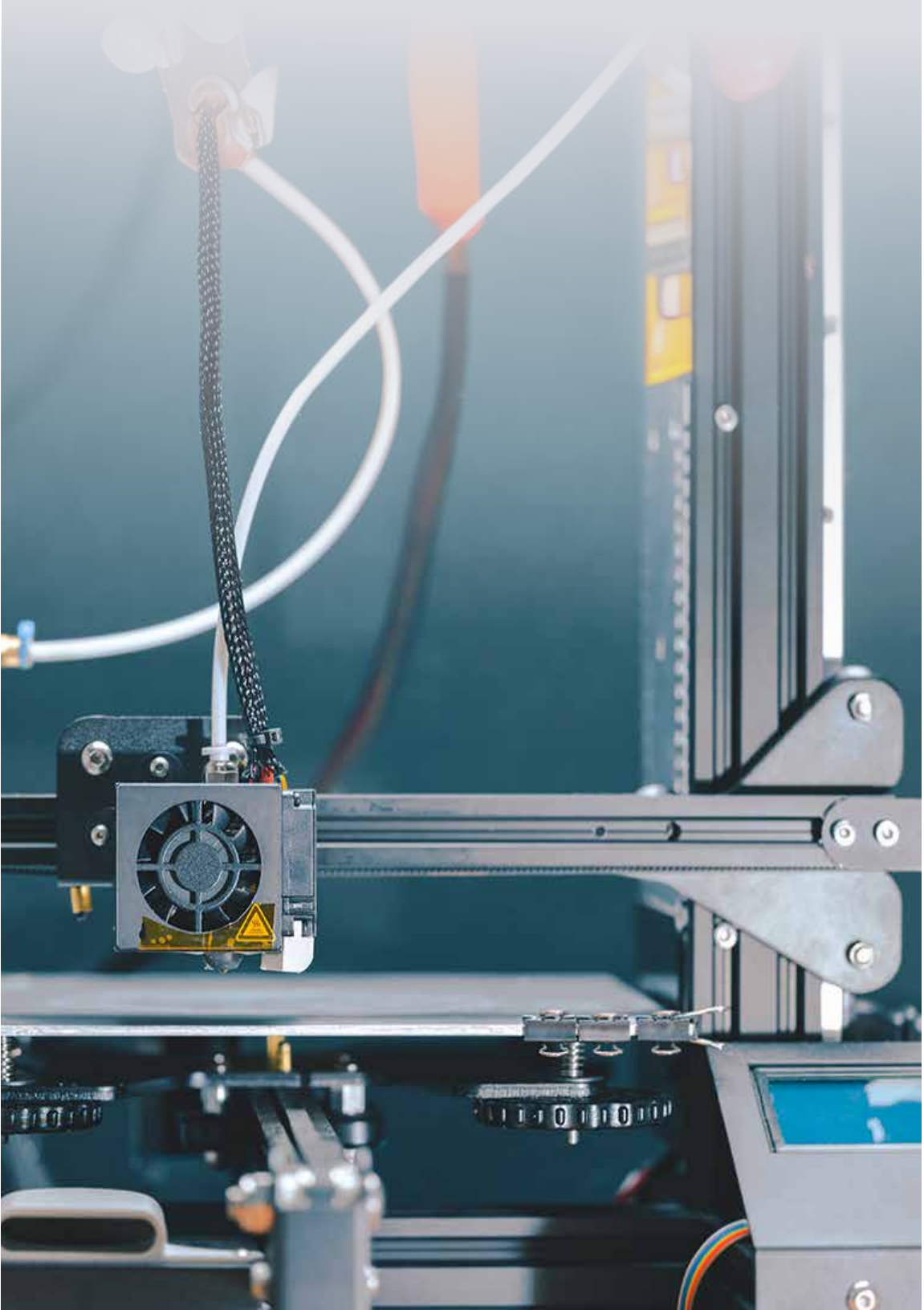
Metal 3D Printing



Metal 3D Printing

Opportunity Description:

Establish an accredited metal 3D printing factory to manufacture the following:

- Aviation spare parts (electronic components, air system components, other cabin interior parts)
- Spare parts for oil and gas equipment

1. Aluminium powder :

The planned Aluminium powder factory in the industrial cluster will supply customized Aluminium powder for 3D printing.

2. Printed metal parts and shapes:

Customized Aluminium powder is used for printing complex shapes and parts by additive manufacturing techniques. This factor's distinction lies in international accreditations, allowing supply of spare parts for aviation , for oil and gas equipment in Qatar and region.

3. Application:

3D printing provides spare parts within a short timeframe and in small quantities for critical sectors such as aviation, automotive, and oil and gas.

22 million
Investment Value (QAR)

20,000
Capacity (Ton)

2,000
Land Area (m^2)

28
Number of Employees

Value Chain

Raw material	Opportunity focus	Final product
1. Primary Aluminium	2. Printed metal parts and shapes	3. Applications

Investment Justifications

- **Aluminium powder production:**
  Printing Aluminium powder will be produced at atomization plant.
- **Local market for aircraft parts:**
  Qatar Airways consistently demands spare parts for its aircraft fleet.
- **Local Oil & Gas Equipment Market:**
  Qatar's oil and gas sector consistently demands spare parts.
- **Energy cost:**
  Electricity prices are competitive due to the abundance of natural gas.
- **Flexible financing:**
  Funding covers up to 60% of project costs at low interest rates.

Market Indicators

Figure 24 Growth in global and local demand

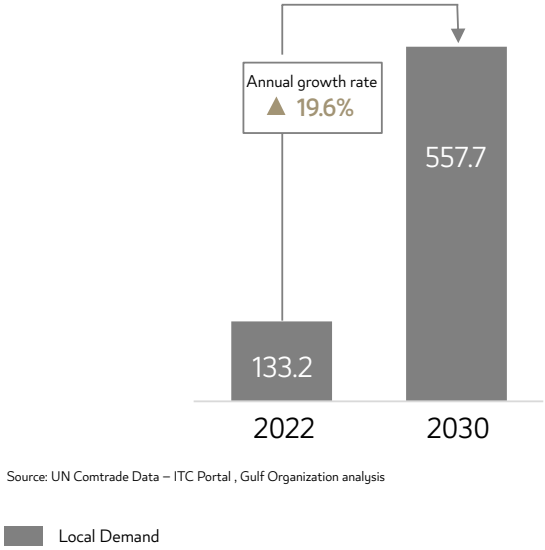


Figure 25 : Target market

Local 100%

Disclaimer

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Aluminium Chloride Factory

Aluminium Chloride Factory

Opportunity Description:

Establish of a factory to produce Aluminium chloride ($AlCl3$) : :

- Aluminium chloride powder (HS: 282732)

1. Aluminium powder:

Complete metal dissolution is achieved via a plasma torch, followed by atomization through a plasma jet to produce fine droplets.

2. Hydrochloric acid:

Hydrochloric acid is produced at Qatar Vinyl Company in in the industrial city of Mesaieed.

3. Aluminium chloride:

The Aluminium powder reacts with hydrochloric acid to produce Aluminium chloride.

4. Application:

Aluminium chloride is used in pharmaceuticals, chemicals, petrochemicals, and agricultural chemicals.

51 million
Investment Value (QAR)

5,000
Capacity (Ton)

10,000
Land Area (m^2)

49
Number of Employees

Value Chain

Raw material		Opportunity focus	Final product
1. Aluminium powder	2. Hydrochloric acid	3. Aluminium chloride	4. Applications

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Investment Justifications

- **Aluminium production:**
  Qatar produces over 650,000 metric tons of Aluminium annually.
- **Hydrochloric acid production:**
  Hydrochloric acid is produced at Qatar Vinyl Company.
- **Strategic location:**
  Qatar is located in the heart of the Gulf, facilitating market access.
- **Advanced infrastructure:**
  Efficient logistics, advanced ports, and airports.
- **Flexible financing:**
  Funding covers up to 60% of project costs at low interest rates.

Market Indicators

Figure 26 Growth in global and local demand

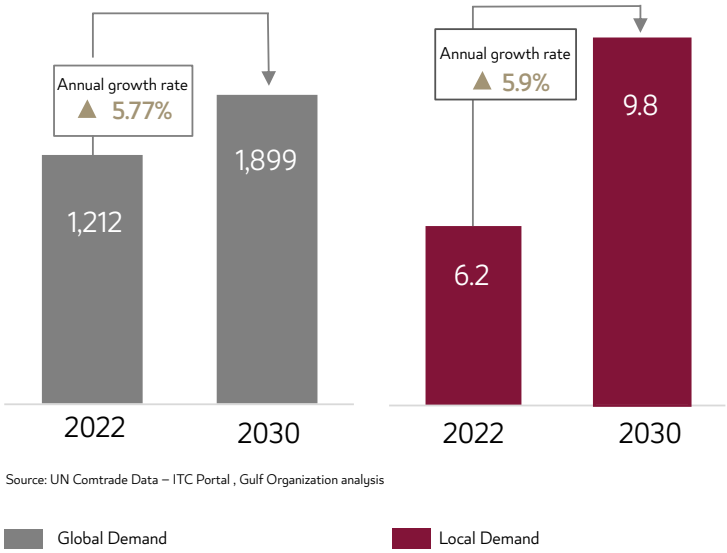

Figure 27 : Target market

Disclaimer

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Volumetric Precasts

Volumetric Precasts

Value Proposition

Establish a small-scale facility, integrated with an established cement factory, dedicated to manufacturing precast volumetric elements for prefabricated structural components for commercial and residential buildings in Qatar

Investment Rationale

Existing Capabilities

Production of volumetric precast elements can be localized by already existing players in the building materials, which requires limited capital expenditures

Alignment with National Vision

Opportunity is in line with national development strategies and Ashghal's vision also

Great export potential

Volumetric precast elements can be easily transported by land to nearby countries such as Saudi Arabia – the regional leader in product consumption, driven by multiple regional and state-level initiatives

Facility Overview

Product	Concrete Volumetric Precast elements for commercial and residential buildings
HS Codes	681091
CAPEX	$21 million
Capacity	13,.000 metric tonnes

Value Chain Overview

Raw material	Manufacturing (Opportunity Focus)		Product
1. Cement, sand, additives & reinforcement	2. Mixing, Molding & Curing	3. Finishing & Assembly	4. Applications

1. Cement, sand, additives & reinforcement form, besides water, the raw material for volumetric concrete, all of which are available locally in Qatar and can be sourced at from companies like Qatar Ready Mix

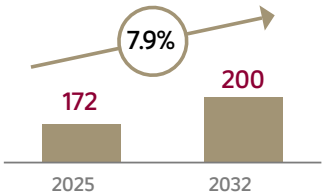
2 3 Key steps of Manufacturing process include mixing raw material, molding the mix into pre-designed molds, cure the concrete to achieve desired strengths and durability, and lastly (optionally) assembly of units.

4 Applications focus of this study is predominantly on the use of targeted precast volumetric concrete in construction, precisely buildings, residential and commercial.

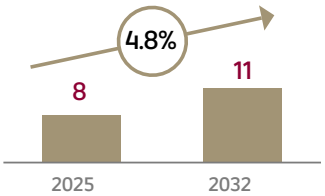
Target Revenue Structure By Market: ~97% local market | ~3% regional export

Globally, a key driver of the demand for Precast Volumetric Elements is the global direction toward avoiding on-site constraints to reach efficiencies. Locally, demand will continue to increase as the use of pre-volumetric concrete in construction optimizes the workforce and offers more sustainable solutions (QNV). Additionally, it provides flexible and rapid housing options that can be expanded, reconfigured, or relocated as needed for construction and O&G sites.

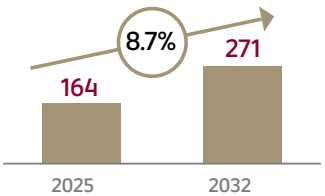
Local Demand
USD Million



Regional Demand
USD Billion



Global Demand
USD Billion



Steel Seamless Tubes

Steel Seamless Tubes

Value Proposition

Establish a mid-sized facility focused on manufacturing of Seamless Tubes of large and medium diameter to serve the Oil and Gas (O&G) industry needs locally and regionally

Investment Rationale

Import Substitution

Qatar demand is driven by local energy national champions, which is currently fulfilled through imports of seamless tubes, providing an investor with first-mover advantage opportunity locally

Regional Export Potential

While regional manufacturing is concentrated in Saudi Arabia, other countries in Middle East and Africa largely depend on imports on tubes for O&G applications

Qatar Advantages

Qatar offers to investors developed industrial zones for manufacturing facility establishment, low energy and utility costs, proximity to global O&G majors, concentrated in the region

Facility Overview

Product	Seamless steel pipes, tubes and casings of 4.5 - 14" made of various alloys of steel
HS Codes	730424; 730429; 730411; 730419
CAPEX	$200 million
Capacity	250,000 metric tonnes

Value Chain Overview

Raw material	Manufacturing (Opportunity Focus)		Product
1. Steel Round Billets	2. Piercing, Rolling & Sizing	3. Treatment & Finishing	4. Applications

1. Steel round billets would need to be imported to Qatar as there is no local production; round billets are available regionally, for instance in Oman

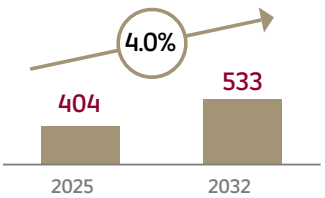
2, 3. Key steps of Manufacturing process include heating of round billets, which is very energy intensive process; beneficially for an investor, Qatar provides one of the cheapest energy costs globally

4. Applications of targeted seamless tubes is driven by O&G market, as a product integral for the region's continuous hydrocarbon production expansion and maintenance of current operations

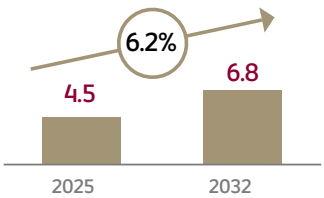
Target Revenue Structure By Market: ~75% local market | ~25% regional export

Locally, the demand for seamless tubes is mostly driven by expansion and maintenance of upstream natural gas operations, as Qatar is a global leader in natural gas production and LNG distribution. Globally, a key driver for seamless tubes is the global O&G market, which is expected to grow at an 11% CAGR.

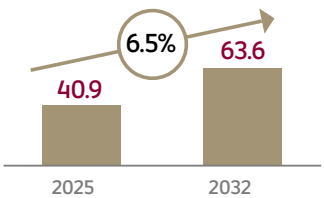
Local Demand
USD Million



Regional Demand
USD Billion



Global Demand
USD Billion



Steel Sections

Steel Sections

Value Proposition

Establish a mid-sized facility focused on manufacturing of steel sections using semi-ready raw materials in the State of Qatar to serve the construction industry locally and regionally

Investment Rationale

Import Substitution

Steel structures in construction applications are currently majorly imported to Qatar

Limited local production

The Qatari market is mainly made up of conventional players with limited adaptation of emerging technologies in their production

Regional export potential

The regional demand for steel sections in expected to increase with upcoming construction projects, especially for the Gulf Railway

Facility Overview

Product	Steel Sections including beams, angles, channels, and flat bars
HS Codes	73089090
CAPEX	$100 million
Capacity	250,000 metric tonnes

Value Chain Overview

Raw material	Manufacturing (Opportunity Focus)		Product
1. Steel Billets	2. Heating & Rolling	3. Cooling, Treatment & Finishing	4. Applications

1. Steel billets available locally to be sourced from Qatar Steel; other forms of steel can also be used as raw material such as slabs and blooms

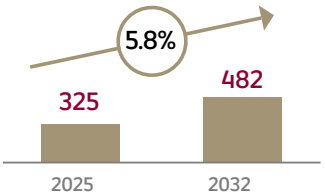
2, 3. Key steps of Manufacturing process include heating of billets, which is very energy intensive process; beneficially for an investor, Qatar provides one of the cheapest energy costs globally

4. Applications of targeted steel sections is mainly driven by the construction market, as a product integral for the local and regional continuous construction in residential, commercial and infrastructure buildings

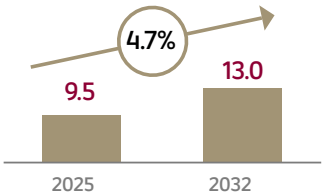
Target Revenue Structure By Market: ~70% local market | ~30% regional export

Globally, construction is the largest industry for steel sections consuming over 50% of the global demand, especially in emerging markets. Locally, the demand for steel tubes is mostly driven by infrastructure development and the expansion and maintenance of Qatar Metro and O&G North field.

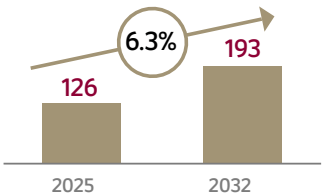
Local Demand
USD Million



Regional Demand
USD Billion



Global Demand
USD Billion



04

Plastics

Plastics

Summary

Assessment highlights

- Qatar's polyethylene production is associated with low production costs and a large share of world production (~4%).
- Local plastic product manufacturers include a rapidly growing base of 116 factories, with a CAGR of 12% in the last five years, mainly producing end products for the construction, building, and packaging markets.
- Imports of plastic products constitute a large share of local demand, so many opportunities exist for manufacturers to close this gap.
- Packaging is the leading sector for global plastic production, followed by building, construction, and textiles
- Recycled plastic only accounts for 6% of global total plastic production but is rapidly increasing

Sub-sector structure

Value chain of polymer and plastic production

- The majority of plastics are produced from petroleum; only about 0.5% is derived from bio-based sources
- Packaging, building, and construction are the largest end-use markets for plastics.

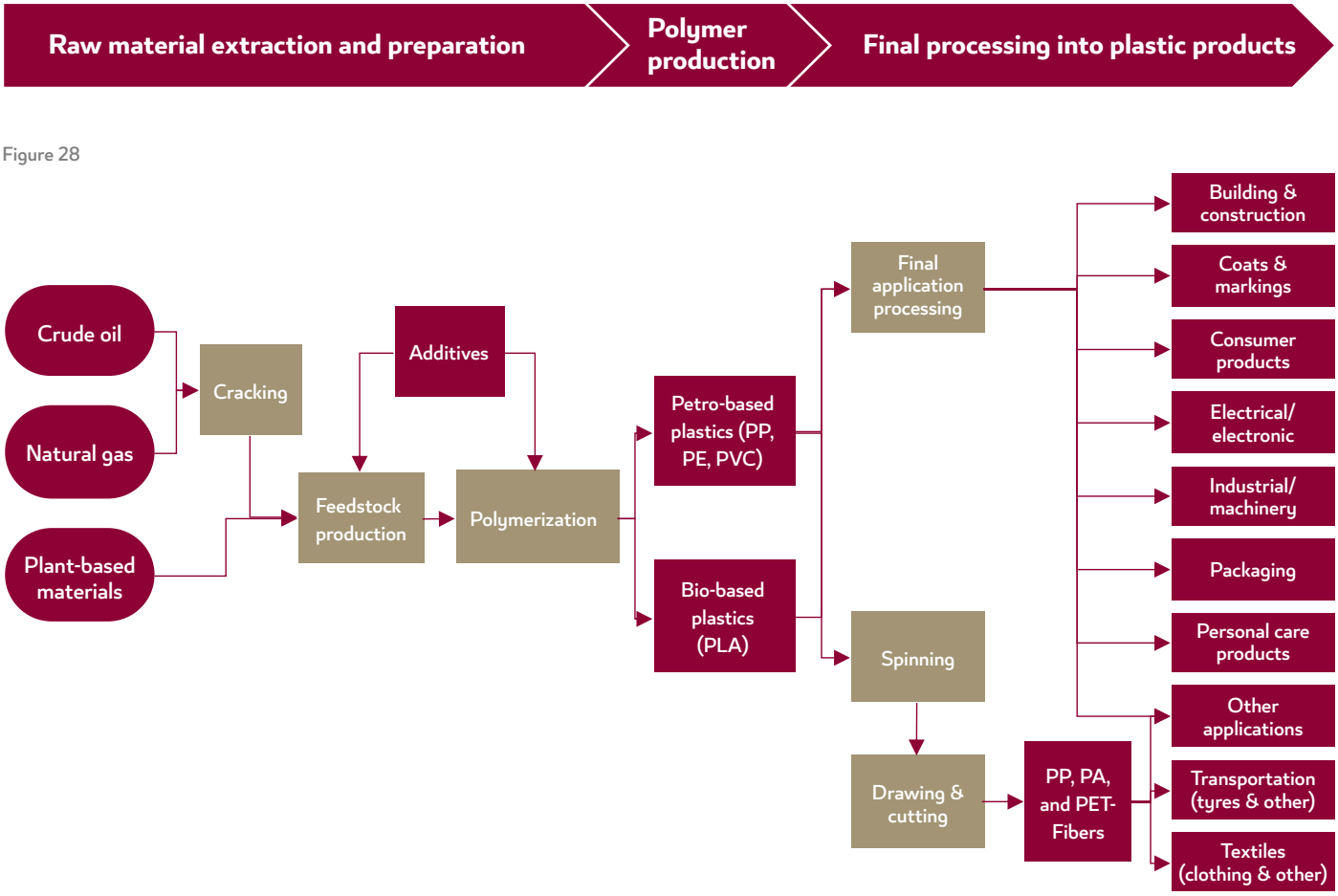


Figure 28

Source: Mapping of global plastic value chain and plastic losses to the environment (Ryberg et al. 2018)

Plastic and rubber main manufacturing categories

Plastic products

- Semi-finished products
- Pipes, hoses, and fittings
- Building supplies
- Packaging products
- Household appliances
- Rotomold products
- Floor coverings
- Other plastic products

Rubber tyres & tubes

- External & internal tires
- Hollow or semi-solid tires
- Internal tubes
- Tyre parts
- Re-manufacture of tyres
- Replacement of external tyre surfaces

Other rubber products

- Plates & rods
- Pipes & hoses
- Conveyor belts
- Sanitary or pharmaceutical
- Other rubber products

Global Overview

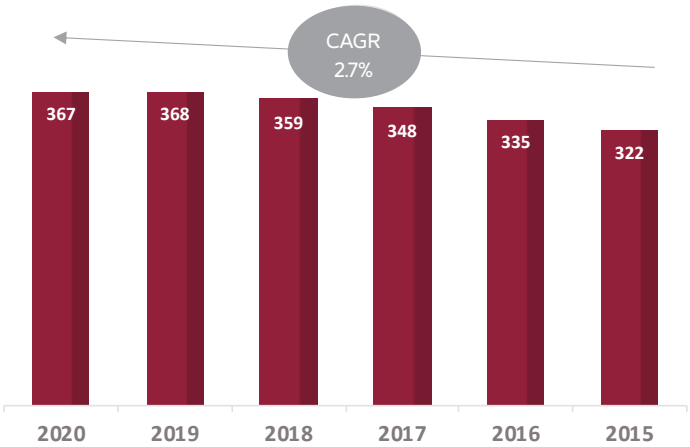
- Packaging is the leading sector for plastic production (35-40%), followed by building and construction (15-20%) and textiles (10-15%).
- The oil demand for plastics per capita is expected to overtake the oil demand for road passenger transport by 2050.
- The production of secondary plastics from recycling has quadrupled in the last 20 years, although it only accounts for 6% of total plastic production.
- Russia's war on Ukraine coupled with a 20% jump in oil prices is causing manufacturers to fear a shift of consumers away from plastic products.
- By value, the most important categories within the industry are plastics used in transportation equipment, packaging, and construction.
- Polyethylene, primarily used in the packaging sector, held the largest market revenue share of more than 25.0% of the overall demand in 2021.
- Asia-Pacific, including China, accounted for over 44% of global revenue in 2021.
- New requirements for plastic waste trade are expected to increase domestic processing and recycling and shift exports to new countries following China's ban on plastic waste imports in 2017.

- The growth of e-commerce is driving demand and new types of plastic packaging (oMnichannel, convergence of primary and secondary packaging)
- International initiatives are starting to target improved trade cooperation and harmonizing product policies (eco-design, eco-labeling, green public procurement) to address plastic pollution effectively.
- The environmental impact of packaging is driving increased regulation and a circular economy approach to plastic design, manufacturing, use, and disposal (e.g., the global plastic treaty).
- 3D printing in plastic manufacturing is becoming more common, producing solid objects from digital designs by building multiple layers of plastic, resin, or other materials. The speed and flexibility of this technology can promote innovation and reduce time-to-market.

Source: GAP Polymers, Grand View Research, IEA, McKinsey, OECD

Figure 29

Total global production of plastic (Mt) and its growth (%)



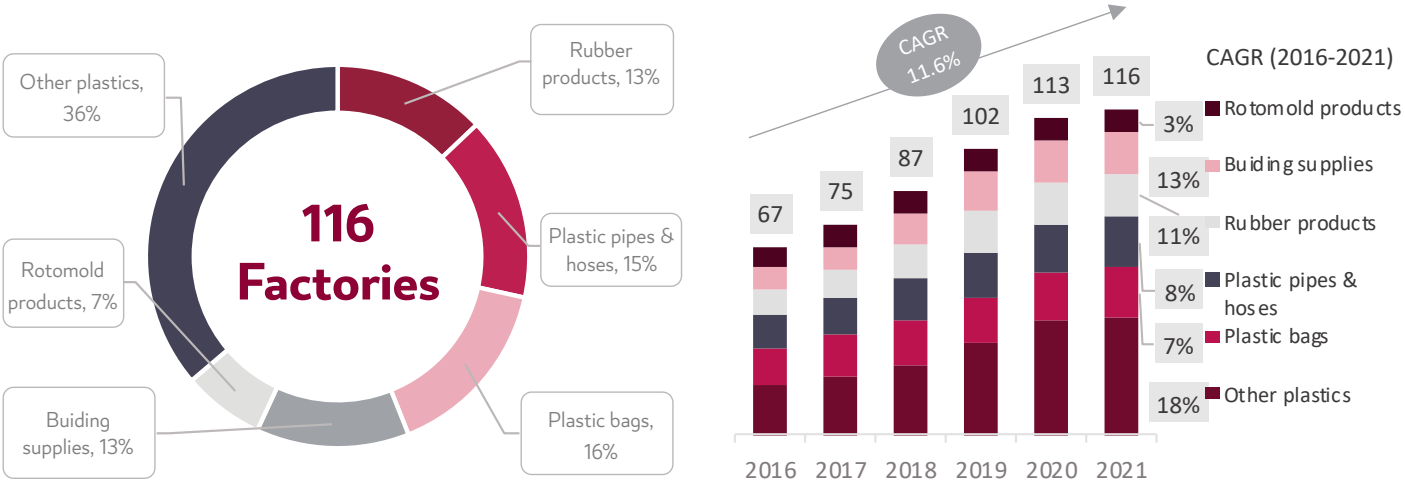
- The COVID-19 pandemic caused a substantially smaller decline in global plastic use than the decline in overall economic activity due to the increased use of PPE and single-use plastics.
- The extrusion application segment (straws, hoses, pipes, and window frames) is anticipated to expand rapidly.
- Developing construction and automobile markets in Asia-Pacific are expected to increase the demand for plastics rapidly.

Source: Statista, PlasticsEurope, GOIC analysis

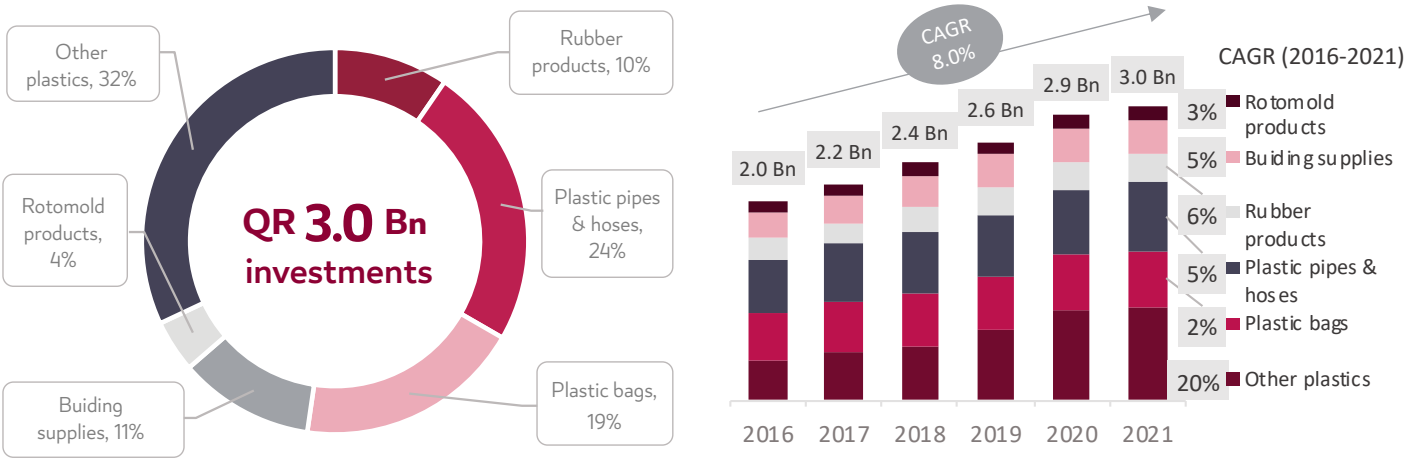
Current Status in Qatar

Figure 30

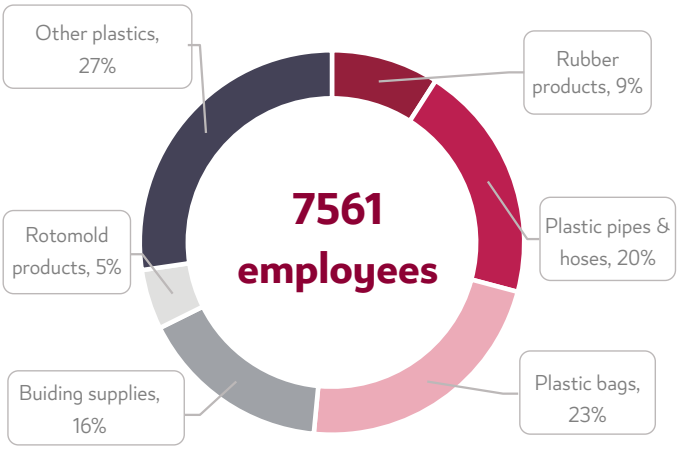
Plastic current status in Qatar in terms of the number of factories, investments, and employees in 2021

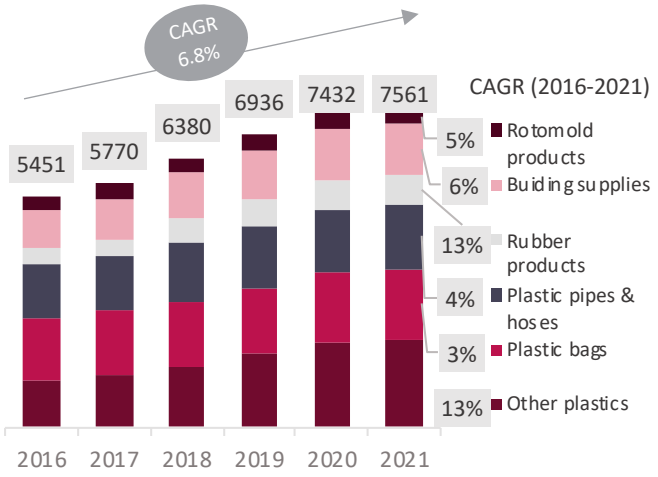


- In the sub-sector, 42 factories manufacture other plastic products, and 18 manufacture plastic bags.
- Factories manufacturing plastic and rubber products grew from 67 to 116 - a CAGR of 12%.
- Building supply manufacturing factories grew from 8 to 15 - a CAGR of 13%.



- Sub-sector investments include QR 951 Mn in other plastic products and QR 706 Mn in plastic pipes and hoses.
- Investments in plastic and rubber products grew from QR 2.0 Bn to QR 3.0 Bn - a CAGR of 8%.
- Investments in other plastic products grew from QR 390 Mn to QR 951 Mn - a CAGR of 20%.





- The sub-sector workforce includes 1,692 employees for plastic bag manufacturers and 2064 employees for other plastic product manufacturers.
- The workforce in rubber products grew from 1,260 to 1,517 - a CAGR of 13%.
- Overall, the workforce in the sub-sector grew by 2,110 - a CAGR of 7%.

Source: PSA, GOIC analysis

05

Investment Opportunities - Plastic Industries Cluster Design Project

Plastic Flooring and Wall Cladding

Plastic Flooring and Wall Cladding

Products description

A factory that produces high-quality PVC flooring and wall cladding sheets which are durable, water and corrosion resistant making them ideal for use in areas exposed to moisture. PVC products are also easy to clean and offer a wide range of design options.

Applications

The factory provides an alternative option for the construction sector in various types of buildings (hospitals, airports, schools, offices and homes).

The factory's products include:

- Wall surface cladding
- Floors and wall cladding resistant to water, fire and slipping, etc.

Key indicators

Investment value (Million QR)
75

Production capacity (Million sq. meters)
4.0

Land area (Square meters)
20,000

New job opportunities
112

Level of automation and technological development
Low

Raw materials

Raw materials	Classification
Polyvinyl chloride (PVC)	• uPVC • fPVC • chips • Foamy

Main supplier/ Stakholders

Qatar Vinyl Company

Value chain

Raw materials → **Mixing** → **Extrusion** → **Shredding** → **Painting** → **Finished product**

Mixing
PVC is mixed with other ingredients such as stabilizers and plasticizers to improve the physical properties of the material.

Extrusion
The mixture is heated and pumped through an extrusion machine to form long, flat sheets.

Shredding
The sheets are cooled and cut into required sizes

Painting
Designs and patterns are printed on the sheets, then covered with a transparent protective layer to ensure durability and shine.

Machinery and equipment

Mixing machine

Extrusion machine

Shredding machine

Painting machine

Why to establish a plastic flooring and wall cladding factory in Qatar?

Qatar has a great opportunity and a highly competitive advantage to exploit the raw materials available locally from the PVC plant that is planned to be established and to begin operating in 2026. Especially since the field of applications for this factory is mainly the field of building and construction, which is one of the fields that has flourished greatly recently in the country.

Plastic flooring and wall cladding constitute a promising option for the construction field, as plastic floors have proven their efficiency in terms of cost, quality and weight.

Investment value

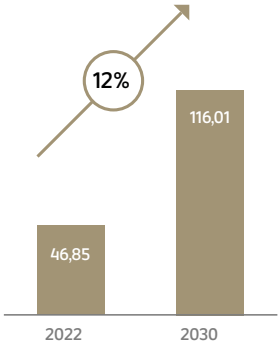
Machinery and equipment	30 million QR
Construction cost	38 million QR
Working capital costs	1.2 million QR
Pre-operating costs	5.0 million QR
Total investment	**75 million QR**

Other annual costs

Cost of goods sold	24 million QR
Operational cost	5.0 million QR

Market Indicators

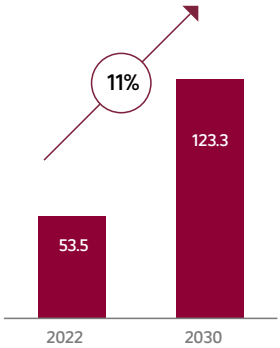
Figure 33



Global demand (million QR) and annual growth rate

Globally

An increasing growth of up to 12%, which indicates a widespread demand for floors and walls made of PVC.



Local demand (million QR) and annual growth rate

Locally

The growth has increased by 11% over the last five years as a result of the significant expansion in the field of construction

Geomembrane and Geotextiles

Geomembrane and Geotextiles

Products description

A factory that produces polyethylene geomembrane and geotextiles. Geomembranes are used to cover the soil and protect it from erosion and damage. They also reduce the growth of harmful weeds. They are manufactured in different shapes and sizes to suit different applications. Geotextiles are used to separate the soil layers and prevent their mixing, which helps in improving soil stability and controlling moisture.

Applications

The geomembrane factory provides products for use in the construction sector in the formation of gardens and swimming pools.

The factory's products include:

- Insulation films for filtration stations
- Soil erosion control joints
- Pond and swimming pool floors

Key indicators

Investment value (Million QR)
21

Production capacity (Million sq. meters)
8,000

Land area (Square meters)
5,000

New job opportunities
20

Level of automation and technological development
Medium

Raw materials

Raw materials	Classification
Polyethylene	• Linear low density polyethylene • High density polyethylene

Main supplier/ Stakholders

Qatar Chemicals Company Limited

Qatofin Company Limited

Value chain

Raw materials → **Mixing** → **Extrusion** → **Calendering** → **Finished product**

Mixing
Polyethylene is mixed with other ingredients such as stabilizers and plasticizers to improve the physical properties of the material.

Extrusion
The mixture is heated and pumped through an extrusion machine to form separators and films of specified sizes and shapes.

Calendering
The material is passed between a set of heated rotating rollers to be compressed and flattened to the desired thickness.

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Machinery and equipment

Mixing machine

Extrusion machine

Calendaring machine

Why to establish a geomembrane and geotextiles factory in Qatar?

Qatar is one of the leading countries in the production of polyethylene with different grades as raw material, which opens the way for exploiting the material in many industries, especially since geomembrane and geotextiles are products of a great importance in achieving Qatar's vision in the field of food and water security and others, as the industry contributes to supporting key sectors such as water resources management, waste management, construction, agriculture, oil and gas, and mining. This development is in line with Qatar's goals of economic diversification, sustainability, technological advancement, improving irrigation efficiency and maintaining soil quality. Thus, producing this type of product locally will reduce dependence on imports and enhance the creation of new job opportunities.

Investment value

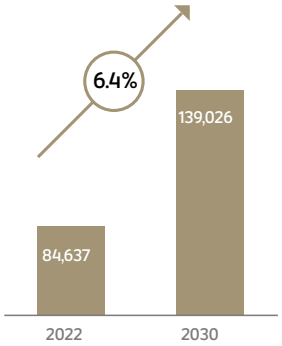
Machinery and equipment	8.4 million QR
Construction cost	9.5 million QR
Working capital costs	0.6 million QR
Pre-operating costs	2.5 million QR
Total investment	21 million QR

Other annual costs

Cost of goods sold	34 million QR
Operational cost	1.4 million QR

Market Indicators

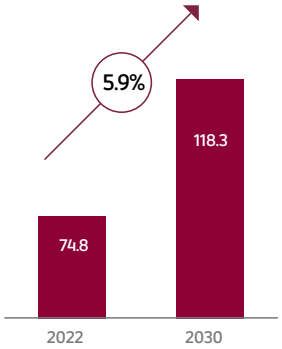
Figure 34



Global demand (million QR) and annual growth rate

Globally

Increasing growth of 6.4% indicates an acceleration in the pace of construction and land reclamation



Local demand (million QR) and annual growth rate

Locally

Increasing growth of 5.9% over the last five years because of the state's development trends in the field of agriculture

Agricultural Covers

Agricultural Covers

Products description

A factory that produces agricultural covers made of polyethylene, which are used to protect crops and improve agricultural productivity. Polyethylene is known for its durability and flexibility, which makes it a suitable choice for use in protecting agricultural crops from environmental and weather conditions. The factory produces transparent, colored and perforated plastic agricultural covers.

Applications

The factory provides agricultural covers for use in protected agriculture, protecting crops and improving soil quality. The factory's products include:

- Plastic covers for greenhouses
- Agricultural tunnel coils
- Agricultural sterilization covers
- Feed covers

Key indicators

Investment value (Million QR)
36

Production capacity (Million sq. meters)
5,000

Land area (Square meters)
8,000

New job opportunities
50

Level of automation and technological development
Medium

Raw materials

Raw materials	Classification
Polyethylene	• Low density polyethylene

Main supplier/ Stakholders

Qatar Petrochemical Company

Value chain

Raw materials → **Mixing** → **Extrusion** → **Shredding** → Finished product

Mixing
Polyethylene is mixed with other ingredients such as stabilizers and plasticisers to improve the physical properties of the material.

Extrusion
The mixture is heated and pumped through an extrusion machine to form coatings of the required thickness depending on the application.

Shredding
The sheets are cooled and cut into required sizes. After that, the sheets rolled into rolls.

Machinery and equipment

Mixing machine

Extrusion machine

Shredding machine

Why to establish a factory for agricultural covers in Qatar?

Based on the need to achieve food security, and because of the competitive advantages that the State of Qatar has for raw materials, agricultural covers constitute a promising investment opportunity, through which it is possible to maintain the ideal temperature and humidity for plant growth and protect them from pests and diseases. This is in line with the State of Qatar's need for agricultural reclamation under the local weather conditions of high temperatures and humidity in the summer, as well as to contribute to achieving self-sufficiency in agricultural production and increasing the area of cultivated land.

Investment value

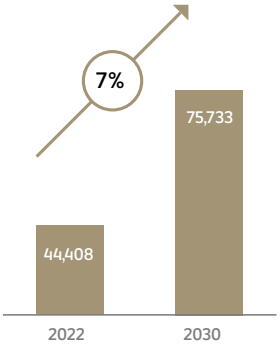
Machinery and equipment	14.2 million QR
Construction cost	15.2 million QR
Working capital costs	0.6 million QR
Pre-operating costs	5.5 million QR
Total investment	**36 million QR**

Other annual costs

Cost of goods sold	22.4 million QR
Operational cost	2.4 million QR

Market Indicators

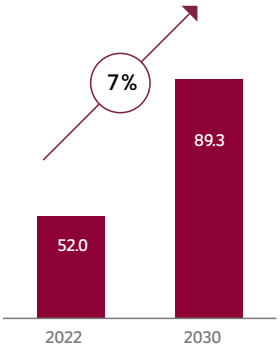
Figure 35



Global demand (million QR) and annual growth rate

Globally

Increasing growth rate, reaching 7 %, which indicates a wide demand for agricultural covers



Local demand (million QR) and annual growth rate

Locally

Growth rate increased by up to 7 % over the last five years as a result of agricultural expansion

Plastic Sheets and Films

Plastic Sheets and Films

Products description

A factory that produces polyethylene plastic sheets and films that are used in many industrial, commercial and agricultural applications. The factory produces strong and flexible plastic sheets and films in a variety of thicknesses and sizes.

Applications

The plastic sheets factory will open several areas (such as construction, automotive, and packaging) to downstream industries within the plastics cluster.

The factory's products include:

- Building insulation
- Acoustic and thermal insulators
- Interior decor
- Auto parts
- Packaging films

Key indicators

Investment value (Million QR)
31

Production capacity (Million sq. meters)
6,000

Land area (Square meters)
9,000

New job opportunities
40

Level of automation and technological development
Low

Raw materials

Raw materials	Classification
Polyvinyl chloride (PVC)	• uPVC • fPVC • CPVC • PVC-HI • foamy

Main supplier/ Stakholders

Qatar Vinyl Company

Value chain

Raw materials → **Mixing** → **Extrusion** → **Shredding** → **Paint** → **Finished product**

Mixing
PVC is mixed with other ingredients such as stabilizers and plasticizers to improve the physical properties of the material.

Extrusion
The mixture is heated and pumped through an extrusion machine to form long, flat sheets and films.

Shredding
The sheets and films are cooled and cut into required lengths.

Paint
Final finishings such as printing or lamination are added depending on the end use requirements.

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Machinery and equipment

Mixing machine

Extrusion machine

Shredding machine

Painting machine

Why establish a factory for plastic sheets and films in Qatar?

Qatar has a great opportunity and a high competitive advantage to exploit the raw materials available locally from PVC plant that is planned to be established and to begin operating in 2026. Qatar is witnessing a growth in various sectors such as construction, agriculture, and manufacturing industries, which increases the demand for plastic sheets and films, As sheets and films are characterized by their versatility and applications, they can constitute semi-finished products for many fields. The study led to a high demand for plastic sheets in Qatar, as they represented the second highest value of imports in 2023.

Investment value

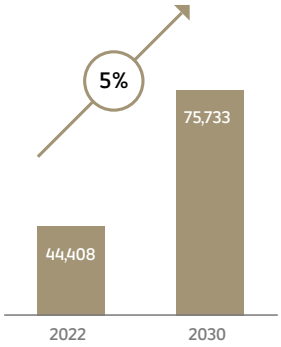
Machinery and equipment	12.4 million QR
Construction cost	17.1 million QR
Working capital costs	0.55 million QR
Pre-operating costs	1.0 million QR
Total investment	31 million QR

Other annual costs

Cost of goods sold	22.4 million QR
Operational cost	2.1 million QR

Market Indicators

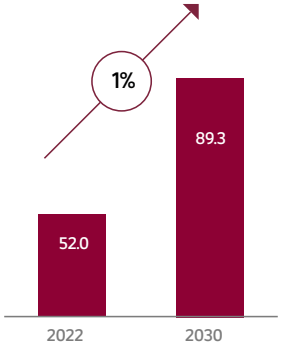
Figure 36



Global demand (million QR) and annual growth rate

Globally

Growth rate has increased by up to 5 %, which indicates an increase in demand for plastic films and sheets in various fields



Local demand (million QR) and annual growth rate

Locally

Increasing growth by 1% over the past five years as a result of expansion in the field of construction and decoration.

Masterbatch and Plastic Granules

Masterbatch and Plastic Granules

Products description

Masterbatch granules are concentrated mixture of dyes or materials that are added to raw polymers to improve their physical properties or color them. Accordingly, it is used in many plastic industries targeting many fields. Polyethylene is used as the base for the manufacturing of masterbatch due to its excellent properties such as durability, flexibility and chemical resistance.

Applications

The factory provides additives for use in all plastic products, and the expected local market constitutes a huge market for consumption of these products.

The factory's products include:

- Colorful masterbatch
- White masterbatch
- Filler masterbatch

Key indicators

Investment value (Million QR)
34

Production capacity (Million sq. meters)
6,000

Land area (Square meters)
10,000

New job opportunities
45

Level of automation and technological development
Medium

Raw materials

Raw materials	Classification
Polyethylene	• Low density polyethylene • Linear low-density polyethylene

Main supplier/ Stakholders

Qatar Petrochemical Company

Qatofin Company Limited

Value chain

Raw materials → **Mixing** → **Extrusion** → **Shredding** → **Finished product**

Mixing
Polyethylene is mixed with dyes and additives to improve its properties or colour.

Extrusion
The mixture is heated and pumped through an extrusion machine to form it into long strands.

Shredding
The plastic threads are cooled and cut into small grains known as masterbatch.

Machinery and equipment

Mixing machine

Extrusion machine

Shredding machine

Why to establish a masterbatch and plastic granules factory in Qatar?

Masterbatch is one of the plastic products which has high demand locally and globally, due to its contribution as a basic colored material in most plastic industries. Therefore, the expansion of this type of industry will enhance the integration between several plastic industries in Qatar, providing basic raw materials at competitive prices for current and future downstream industries.

Investment value

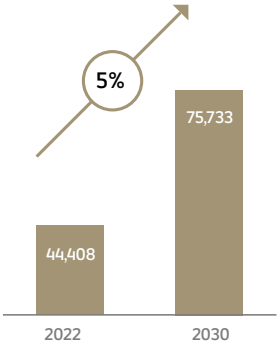
Machinery and equipment	13.5 million QR
Construction cost	19 million QR
Working capital costs	0.7 million QR
Pre-operating costs	0.5 million QR
Total investment	34 million QR

Other annual costs

Cost of goods sold	24 million QR
Operational cost	5.0 million QR

Market Indicators

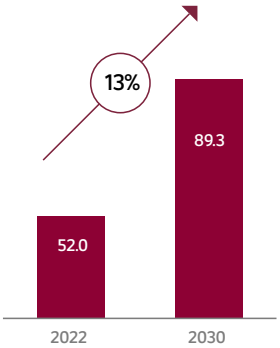
Figure 37



Global demand (million QR) and annual growth rate

Globally

Increasing growth of up to 5 %, which indicates a wide demand for Masterbatch



Local demand (million QR) and annual growth rate

Locally

Masterbatch industry is expected to reach 13 % in the upcoming years as a result of the significant expansion in the plastic industries

Controlled Release Fertilizers

Controlled Release Fertilizers

Products description

A factory for producing controlled release fertilizers, which is a type of fertilizer that is designed to release nutrients slowly under the effect of temperature and humidity continuously over a specific period of time, which provides continuous nutrition for plants and improves the efficiency of using nutrients. These fertilizers are covered with layers of materials that control the speed of their release, such as polymers, which regulates the rate of nutrient release .

Applications

The factory's products are used in many agricultural fields such as nurseries, horticulture, specialized agriculture, turfgrass, protected agriculture, agricultural reclamation and seasonal agriculture.

The factory's products include:

- Controlled release fertilizers
- Slow release fertilizers

Key indicators

Investment value (Million QR)
19

Production capacity (Million sq. meters)
10,000

Land area (Square meters)
3,000

New job opportunities
25

Level of automation and technological development
High

Raw materials

Raw materials	Classification
Polyethylene	• Low density polyethylene • Linear low density polyethylene • High density polyethylene

Main supplier/ Stakholders

Qatar Petrochemical Company

Qatofin Company Limited

Qatar Chemicals Company Limited

Value chain

Raw materials → **Mixing** → **Polymerization encapsulation** → **Processing** → **Finished product**

Mixing
Essential nutrients such as nitrogen, phosphorus, and potassium are selected and then mixed in specific ratios according to the required specifications.

Polymerization encapsulation
Fertilizers are coated with a layer of polymers that control the rate of nutrient release.

Processing
This step is done by adding a catalyst for the polymer curing and to enhance its consistency.

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Machinery and equipment

Mixing machine

Encapsulation machine (coating)

Why to establish a controlled release fertilizer factory in Qatar?

Qatar is the second largest manufacturer of nitrogenous fertilizers and the first manufacturer of ammonia in the GCC countries, with a production reaching more than 25% of the fertilizer in the region and is considered as one of the largest exporters. In addition, it is one of the leading countries in the production of polyethylene as a raw material. As Qatar is characterized by high temperatures for long periods of the year, it is qualified to invest in the controlled release fertilizer industry and benefit from it locally and open new horizons for export. Especially since it is a promising industry and the demand for it is expected to increase in the upcoming years. In addition, the use of this type of fertilizer is effective and saves the effort and cost for the workforce.

Investment value

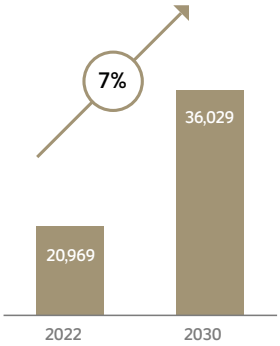
Machinery and equipment	7.4 million QR
Construction cost	5.7 million QR
Working capital costs	0.4 million QR
Pre-operating costs	5.0 million QR
Total investment	19 million QR

Other annual costs

Cost of goods sold	40.5 million QR
Operational cost	1.4 million QR

Market Indicators

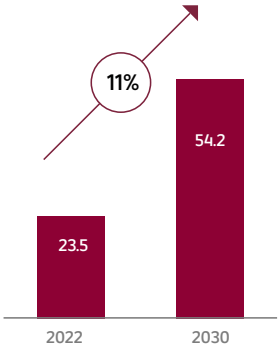
Figure 38



Global demand (million QR) and annual growth rate

Globally

An increasing growth of up to 7 %, which indicates the global demand for agricultural fertilizers

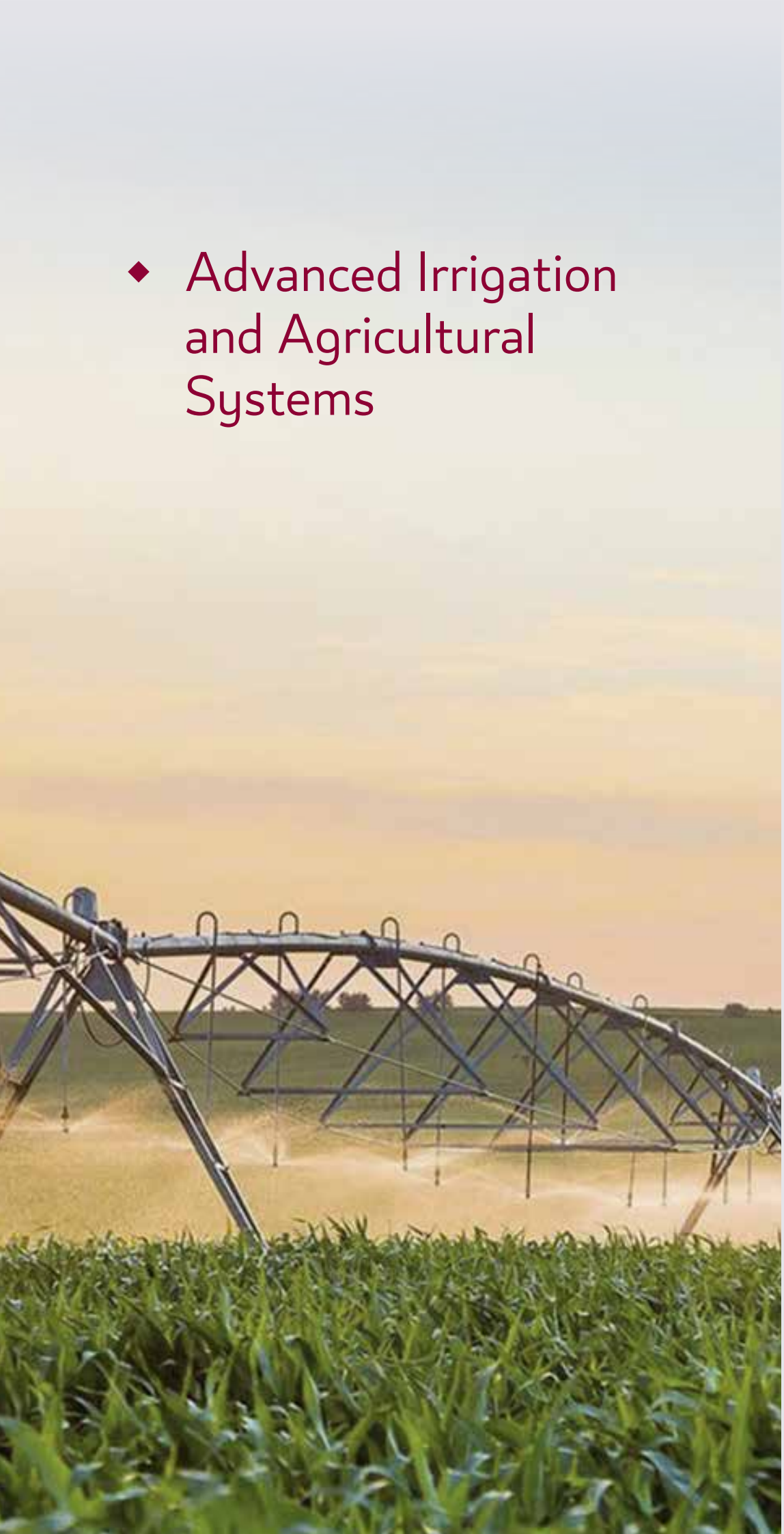


Local demand (million QR) and annual growth rate

Locally

Increased growth by up to 11 % over the last five years because of the demand for fertilizers and the potential for development in their manufacture

Advanced Irrigation and Agricultural Systems



Advanced Irrigation and Agricultural Systems

Products description

A factory that produces products specialized in manufacturing advanced solutions for irrigation and agriculture that contribute to improving water usage efficiency and increasing agricultural productivity, such as drip irrigation pipes, drip sprinklers and advanced systems. The products deliver and distribute water and help reduces water loss by directing it to the root areas and contributes in improving plant health by providing regular and effective irrigation. Polyethylene and PVC polymers are highly resistant to UV rays and corrosion, ensuring a long life of the products.

Applications

The factory plays a vital role in supporting sustainable agriculture by providing innovative and effective solutions in water management.

The main applications of these products include:

- Agricultural applications (drip and sprinkler irrigation, surface irrigation systems)
- Gardening applications (home gardens and public gardens)
- Land management applications (sports fields, commercial farms)

Key indicators

Investment value (Million QR)
36

Production capacity (Million sq. meters)
5,000

Land area (Square meters)
7,500

New job opportunities
60

Level of automation and technological development
Medium

Raw materials

Raw materials	Classification
• Polyvinyl chloride (PVC) • Polyethylene	• uPVC • fPVC • Linear low density polyethylene

Main supplier/ Stakholders

Qatar Vinyl Company

Qatofin Company Limited

Value chain

Raw materials → Mixing → Extrusion → Shredding → Assembly → Finished product

Mixing
The raw materials are mixed with other ingredients such as stabilizers and plasticizers to improve the properties of the material

Extrusion
The mixture is heated and pumped through an extrusion machine to form it

Shredding
The process of cooling and cutting the product into the required sizes is is carried out with the addition of holes and ports to the pipes to form drip sprinklers

Assembly
Assembling sprinklers' components with pipes and installing them to ensure they operate efficiently, and add other accessories such as valves and joints

Machinery and equipment

Mixing machine

Extrusion machine

Shredding machine

Why to establish a factory for advanced irrigation and agricultural systems in Qatar?

Qatar aims to develop the field of agriculture and irrigation and link them to sustainability in line with Qatar Vision 2030. Therefore, integrating smart technologies such as remote sensing and automated control in agriculture and irrigation helps improve agricultural resource management and reduce environmental impact. In addition to improve water use efficiency, allowing water to be distributed accurately to the roots of plants, thus reducing evaporation and increasing irrigation effectiveness. This complements the rest of the agricultural investment opportunities aimed at achieving food security in the country.

Investment value

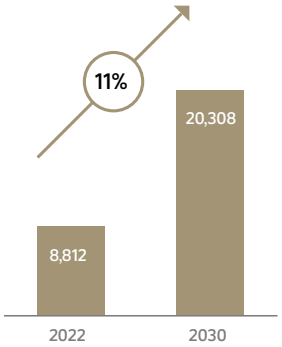
Machinery and equipment	15.0 million QR
Construction cost	14.0 million QR
Working capital costs	1.3 million QR
Pre-operating costs	6.0 million QR
Total investment	36 million QR

Other annual costs

Cost of goods sold	8.0 million QR
Operational cost	4.0 million QR

Market Indicators

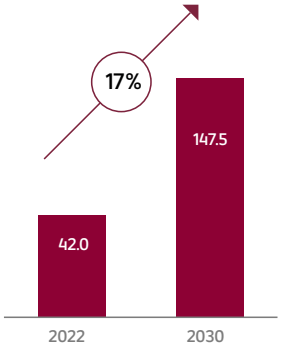
Figure 39



Global demand (million QR) and annual growth rate

Globally

An increasing growth of up to 11 %, which Indicating an increasing trend towards advanced irrigation and agricultural systems.



Local demand (million QR) and annual growth rate

Locally

Increased growth by up to 17 % during the next eight years because of the great expansion in the field of advanced agriculture

Engine and Automotive Belts

Engine and Automotive Belts

Products description

The Engine and Automotive Belts factory produces a wide range of rubber and plastic products essential for the automotive and other industries. The factory's products include rubber rings and spacers, conveyor belts and materials. O-rings are used in insulation systems to prevent leakage of liquids and gases. While belts are used to transmit movement and power in automobile engines and industrial machines.

Applications

The manufacturer's products such as automobile conveyors, will be used in several mechanical applications and mechanical devices.

Among these applications:

- Cars
- Heavy equipment
- Stone mines
- Elevators

Key indicators

Investment value (Million QR)
34

Production capacity (Million sq. meters)
5,000

Land area (Square meters)
8,000

New job opportunities
45

Level of automation and technological development
High

Raw materials

Raw materials	Classification
•Polyurethane •Synthetic rubber	• -

Main supplier/ Stakholders

Saudi Basic Industries Corporation

Value chain

Raw materials → Mixing → Formation → Vulcanization → Finishing → Finished product

Mixing
The raw materials are mixed in specific proportions according to the required composition of each product.

Formation
Specialized templates are used to form rings and belts into specific shapes and sizes.

Vulcanization
The products are heat treated to improve their mechanical properties.

Finishing
Rings and belts are cleaned and excess material are removed to ensure accuracy and quality.

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Machinery and equipment

Mixing machine

Forming machine

Vulcanizing

Why to establish a factory for Engine and Automotive Belts in Qatar?

Due to its proximity to the main suppliers of the required raw materials, Qatar has a great opportunity and a highly competitive advantage to exploit the raw materials available regionally to establish a factory for Engine and automotive Belts , despite the lack of availability of raw materials locally. The establishment of this factory comes in line with Qatar National Vision 2030, which aims to diversify the economy and enhance the manufacturing industry. In addition, it encourages the support for the automotive and heavy industries sector and foreign investment. Moreover, it enhances local technological capabilities and localization of the heavy industries.

Investment value

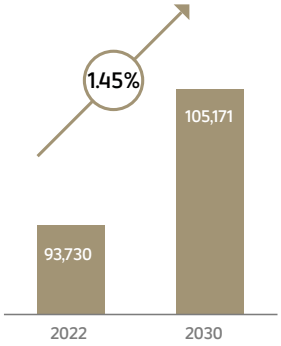
Machinery and equipment	13.4 million QR
Construction cost	15.2 million QR
Working capital costs	0.7 million QR
Pre-operating costs	4.2 million QR
Total investment	34 million QR

Other annual costs

Cost of goods sold	55 million QR
Operational cost	2.0 million QR

Market Indicators

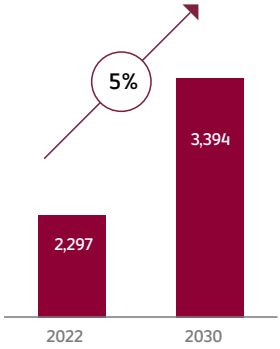
Figure 40



Global demand (million QR) and annual growth rate

Globally

The growth rate is increasing to 1.45 %, which indicates a wide demand for conveyor belts and rings industry.

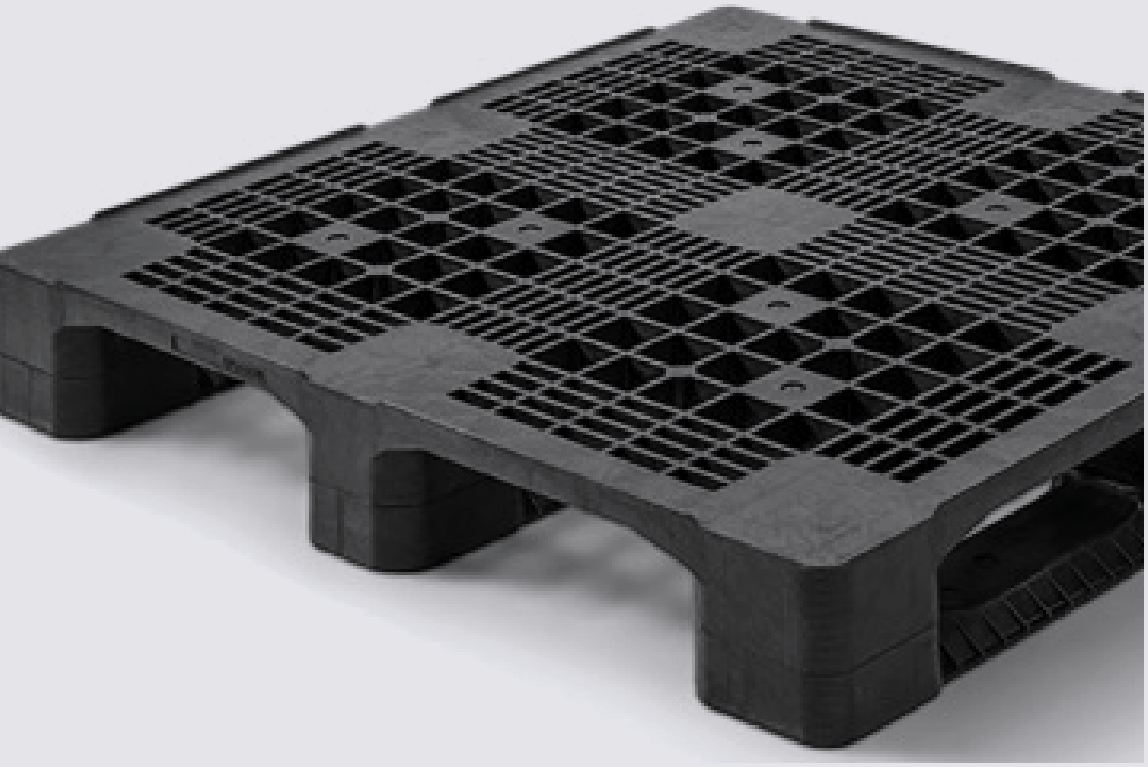


Local demand (million QR) and annual growth rate

Locally

Growth has increased up to 5% over the last five years as a result of the expansion of the automotive industry and related fields in the GCC countries.

Plastic Crates and Pallets



Plastic Crates and Pallets

Products description

Plastic Crates and Pallets factory produces a variety of polyethylene plastic products used in the storage and transport of goods. The factory produces packing boxes, baskets , crates and small containers. Pallets are used to support goods during transportation and storage, while crates are used to protect goods during transportation and storage.

Applications

The factory's products will serve many sectors such as:

- Logistics and transportation sector
- Food industries sector
- Pharmaceutical industries sector
- E-commerce
- Fish handling units
- Agricultural sector

Key indicators

Investment value (Million QR)
30

Production capacity (Million sq. meters)
5,000

Land area (Square meters)
7,000

New job opportunities
40

Level of automation and technological development
Medium

Raw materials

Raw materials	Classification
Polyethylene	• High density polyethylene

Main supplier/ Stakholders

Qatar Chemicals Company Limited

Value chain

Raw materials → Mixing → Molding → Finishing and assembly → Finished product

Mixing
Polyethylene is mixed with other ingredients such as stabilizers and colorants.

Molding
Injection molding technology is used to form plastic crates and pallets into specific shapes and sizes.

Finishing and assembly
Products are cleaned and excess removed to ensure precision and quality, and the different parts of the products (if they are made up of several parts) are assembled and securely fastened.

Machinery and equipment

Mixing machine

Molding machine

Why to establish a Plastic crates and pallets factory in Qatar?

Establishing a factory for logistical crates and pallets helps to support the logistics infrastructure, especially that Qatar has a strategic location in the Gulf region, making it an important logistics center that can serve regional and international markets. In addition, Qatar has a modern infrastructure that includes ports, airports and highways, which increases the need for logistical equipment to facilitate the transportation and distribution of goods and products.

This factory constitutes an essential integration with the rest of the assembly factories to facilitate export operations and logistical transportation.

Investment value

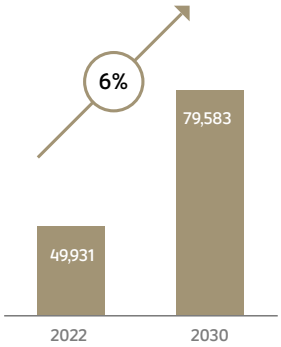
Machinery and equipment	12 million QR
Construction cost	13.3 million QR
Working capital costs	0.7 million QR
Pre-operating costs	4.0 million QR
Total investment	30 million QR

Other annual costs

Cost of goods sold	22 million QR
Operational cost	2.0 million QR

Market Indicators

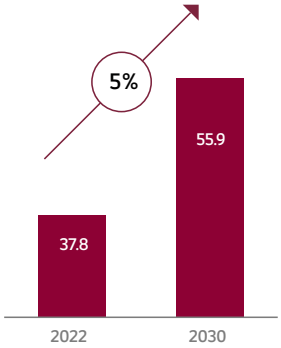
Figure 41



Global demand (million QR) and annual growth rate

Globally

An increasing rate of up to 6%, which indicates the expansion of global trade and the transport of goods between countries

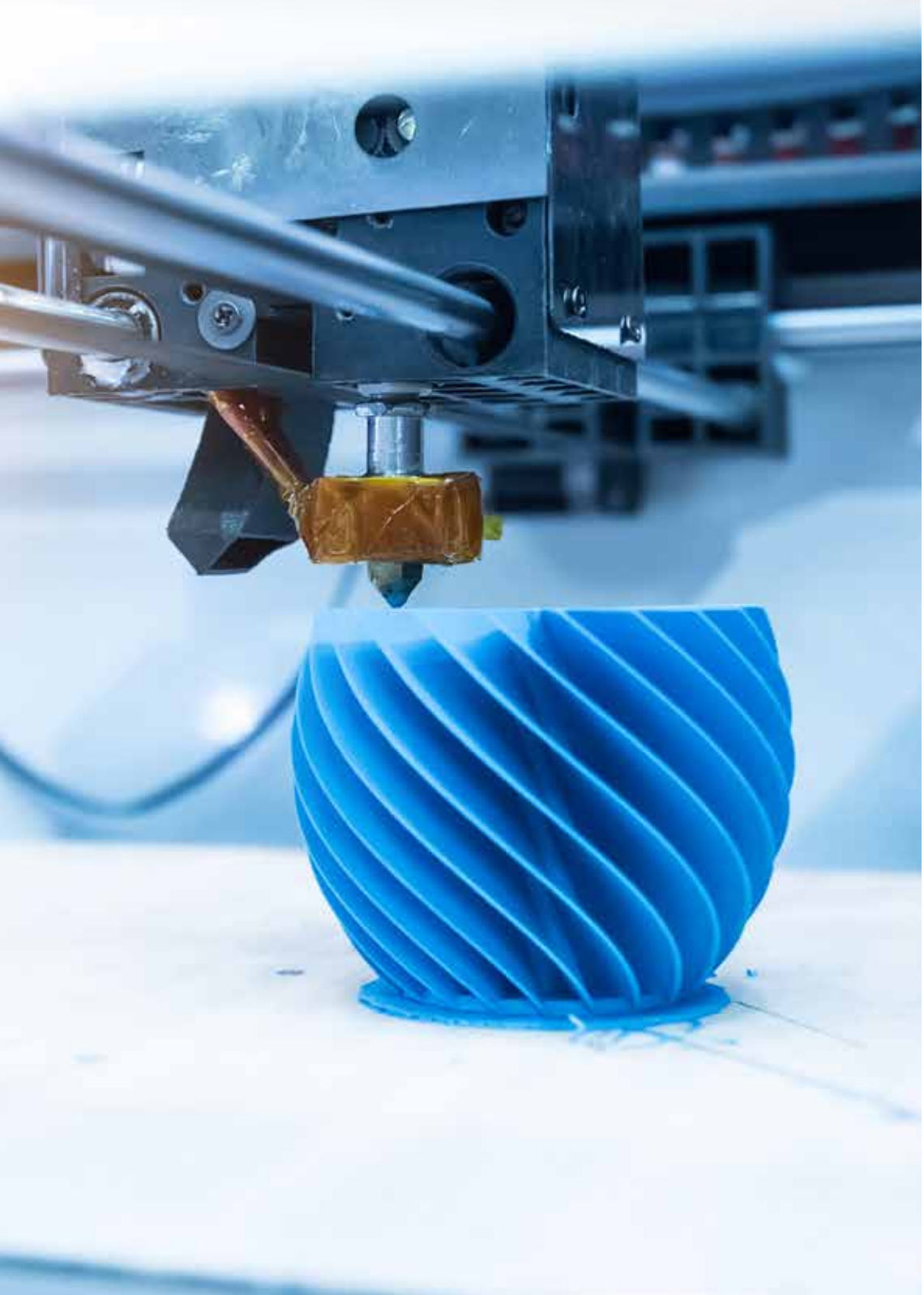


Local demand (million QR) and annual growth rate

Locally

The growth has increased by up to 5% during the last five years as a result of the increase in the volume of trade exchange between Qatar and other countries.

3D Printing of Plastic Parts



3D Printing of Plastic Parts

Products description

3D printing of plastic parts is a manufacturing process that builds up 3D objects layer by layer using specialized plastic materials. This technology allows producing a wide range of products, from prototypes to complex finished pieces. Printed products are highly accurate and detailed, making them ideal for various applications.

Applications

The factory's products will be used in numerous mechanical, electronic, and demonstration applications

Among these applications:

- Spare parts
- Models and shields
- Aircraft supplies
- Electronic parts
- Customized products

Key indicators

Investment value (Million QR)
23

Production capacity (Million sq. meters)
2,000

Land area (Square meters)
2,500

New job opportunities
20

Level of automation and technological development
High

Raw materials

Raw materials	Classification
• TPU	• ABS
• PVA	• PLA
• HIPS	• PA

Main supplier/ Stakholders

Saudi Basic Industries Corporation

Value chain

Raw materials → Finished product

Digital design
The digital model is designed using 3D modeling software. The digital design is then converted into a file that can be read by the printer

Printer and material setup
This step involves selecting the appropriate type of plastic for the desired application and adjusting the printer settings according to the material used.

Printing
The printer begins building the model layer by layer, spreading the molten plastic according to the design of the digital model.

Finishing and processing
After printing is complete, the temporary supports that supported the hanging parts during printing are removed and the piece may need some final treatment such as sanding or painting to improve the appearance and texture.

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Machinery and equipment

SLS

FDM

SLA

Why to establish a 3D printing factory for plastic parts in Qatar?

Qatar has a great opportunity and a competitive advantage to exploit regionally available raw materials, due to its proximity to the main suppliers of the required raw materials.

Investing in 3D printing is promising as it opens new opportunities for export to neighboring countries, which enhances economic returns. Establishing the factory in Qatar is considered as an important strategic step to achieve economic development and expansion in the fields of technology and innovation. 3D printing also allows the production of customized products without waste, which reduces the need to store large quantities of products, gives flexibility in production, and reduces the amount of waste.

Investment value

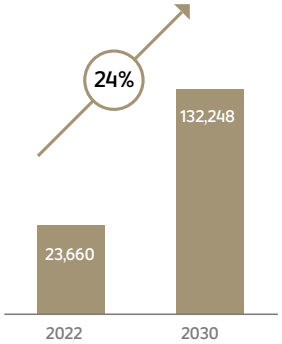
Machinery and equipment	10 million QR
Construction cost	4.8 million QR
Working capital costs	0.5 million QR
Pre-operating costs	7.0 million QR
Total investment	**23 million QR**

Other annual costs

Cost of goods sold	40 million QR
Operational cost	1.9 million QR

Market Indicators

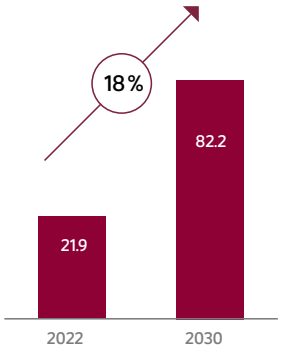
Figure 42



Global demand (million QR) and annual growth rate

Globally

An increase of 24%, which indicates a widespread demand for 3D printing



Local demand (million QR) and annual growth rate

Locally

This trend will increase by 18% in the coming years, which indicates the use of 3D printing in many fields

High-Value Packaging

High-Value Packaging

Value Proposition

Establish a small-size facility in the State of Qatar that leverages robotics and automation for manufacturing rigid, premium packaging serving the Food and Beverage (F&B) industry

Investment Rationale

Import Substitution

There is currently a lack of local manufacturers of rigid plastics made of PP and PE; existing manufacturing focuses on other plastic products, such as flexible packaging solutions including sacks and bags, sheets, films, etc.

High Profitability

Opportunity targets a niche-specific market, ensuring premium margins with low capital expenditure

Raw Material Availability

Required raw materials are widely available within the region

Facility Overview

Product	High value plastic packaging made of PE & PP for food and consumer products
HS Codes	39233000, 39235000, 39241010, 39241020
CAPEX	$10 million
Capacity	5,500 metric tonnes

Value Chain Overview

Raw material	Manufacturing (Opportunity Focus)		Product
1. PE & PP Pellets	2. Extrusion & Molding	3. Printing & Labeling	4. Applications

1. PE & PP pellets would need to be imported to Qatar as there is no local production; those pellets are available regionally, for instance in Oman and KSA

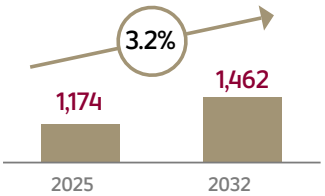
2. 3. Key steps of Manufacturing process include melting and extruding pellets into sheets or films as base materials for packaging. The molten pellets are then molded into various shapes, and branding or product information is applied using printing techniques.

4. Applications of high-value packaging primarily within the luxury food industry, and high-end consumer products.

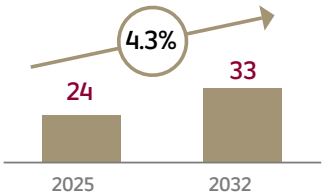
Target Revenue Structure By Market: 100% local market

Globally, a key driver for the packaging industry is the food and beverage market, with a projected 5.9% CAGR by 2032; and the FMCG industry, expected to grow at 4.56% CAGR by 2032, also heavily relies on high-value packaging. Locally, the demand is driven by Qatar's ongoing growth of population, increasing the demand for plastic products.

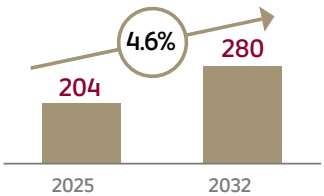
Local Demand – Rigid Packaging
USD Million



Regional Demand – Rigid Packaging
USD Billion



Global Demand – Rigid Packaging
USD Billion



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