



REPUBLIC OF TURKEY  
**PRIME MINISTRY**  
**INVESTMENT**  
SUPPORT & PROMOTION  
**AGENCY**

# **WHY INVEST IN TURKISH CHEMICAL INDUSTRY?**

- **Executive Summary**
- Turkey's Chemicals Industry Outlook
- Growth Drivers in Turkey
- Opportunities in Turkey's Chemicals Industry
- Success Stories



### Robust growth in the industry

- Turkish chemicals industry has been robustly growing over the past decade with approx. 5% CAGR
- Customer industries, such as plastic & rubber, automotive, construction, textiles, and electrical machinery are growing and therefore further supporting the growth of chemicals
- Export opportunities due to Turkey's proximity to regional markets

### Favorable investment environment

- Strong macroeconomic growth with increasing income per capita and a burgeoning middle-class
- Favorable demographics with a dynamic, young, and skilled labor force supporting the industry
- Cost-competitive labor and energy prices
- Strong government support through incentives

### Lucrative opportunity in sub-sectors

- Diversified sub-sectors in the industry with specialty chemicals, polymers, and consumer chemicals driving the growth
- World-scale domestic demand offers ample opportunities in areas such as petrochemicals, paints & coating, and cosmetics

### Strong international presence

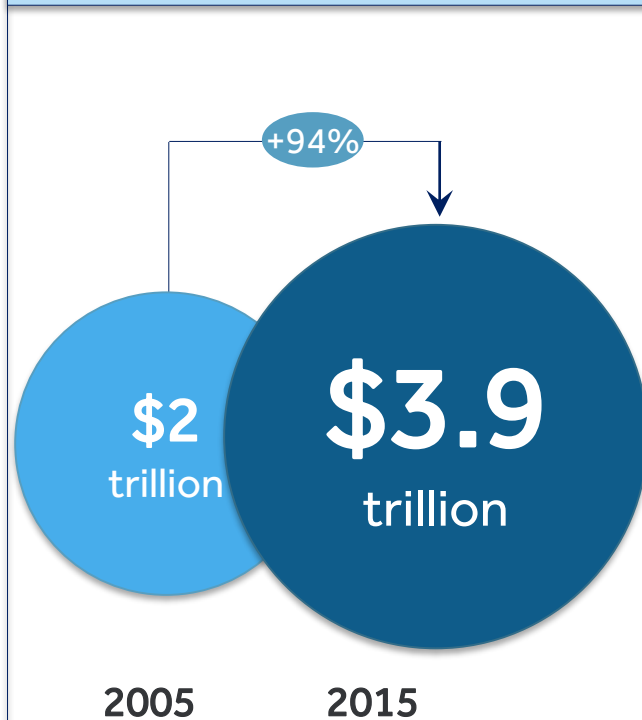
- Global chemical giants have been present in Turkey, both engaging in significant manufacturing activities and using Turkey as a hub to access regional markets
- Successful partnerships with local companies allow for growth in the region, capitalizing on locals' experience and networks



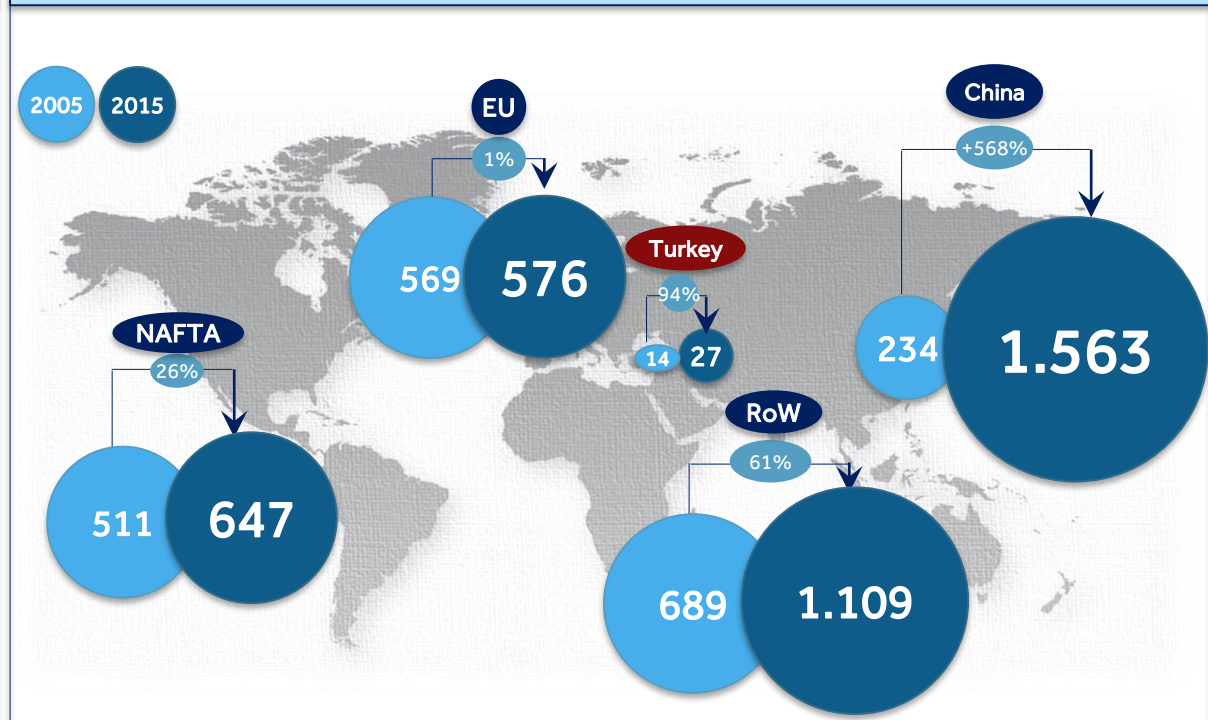
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## Global Chemicals Sales

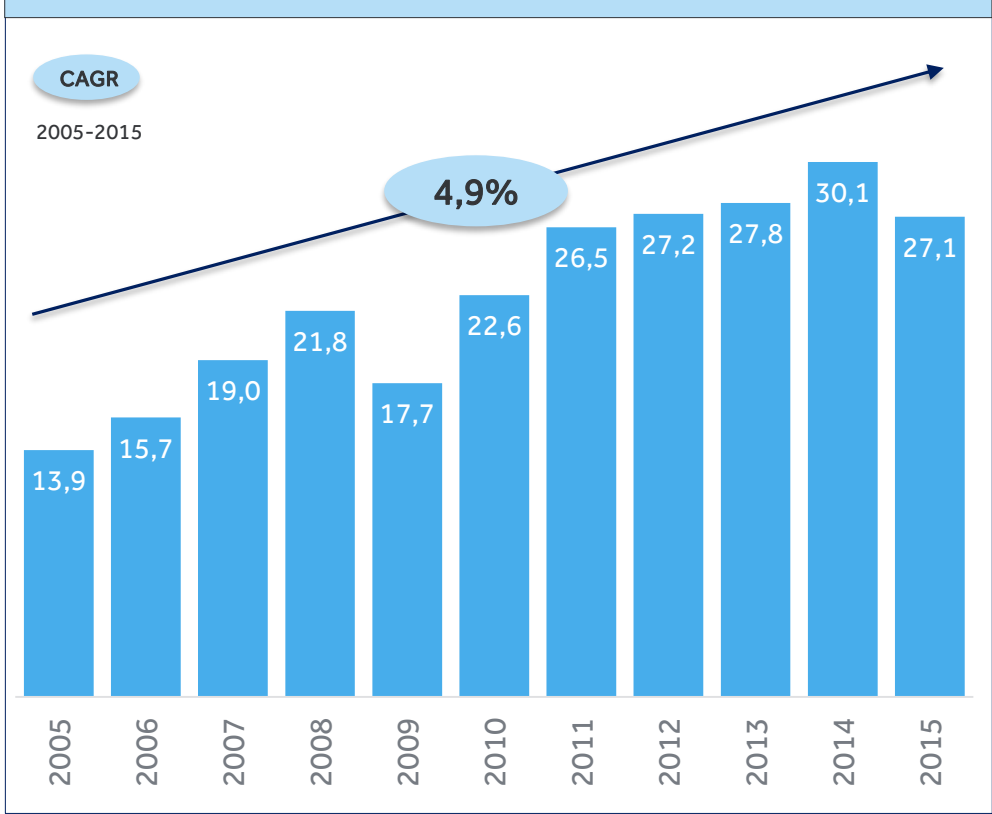


## Market Shares of Global Chemicals Sales (\$ Billion)

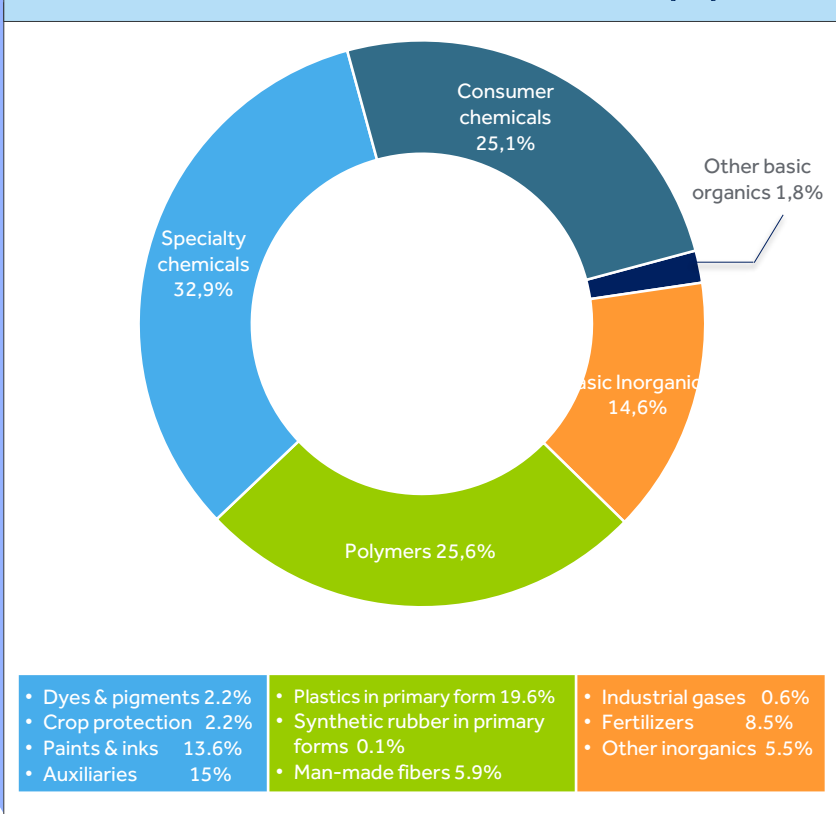


Source: Cefic Chemdata International 2016, Ministry of Science, Industry and Technology (MSIT), excluding pharma, rubber and plastics products

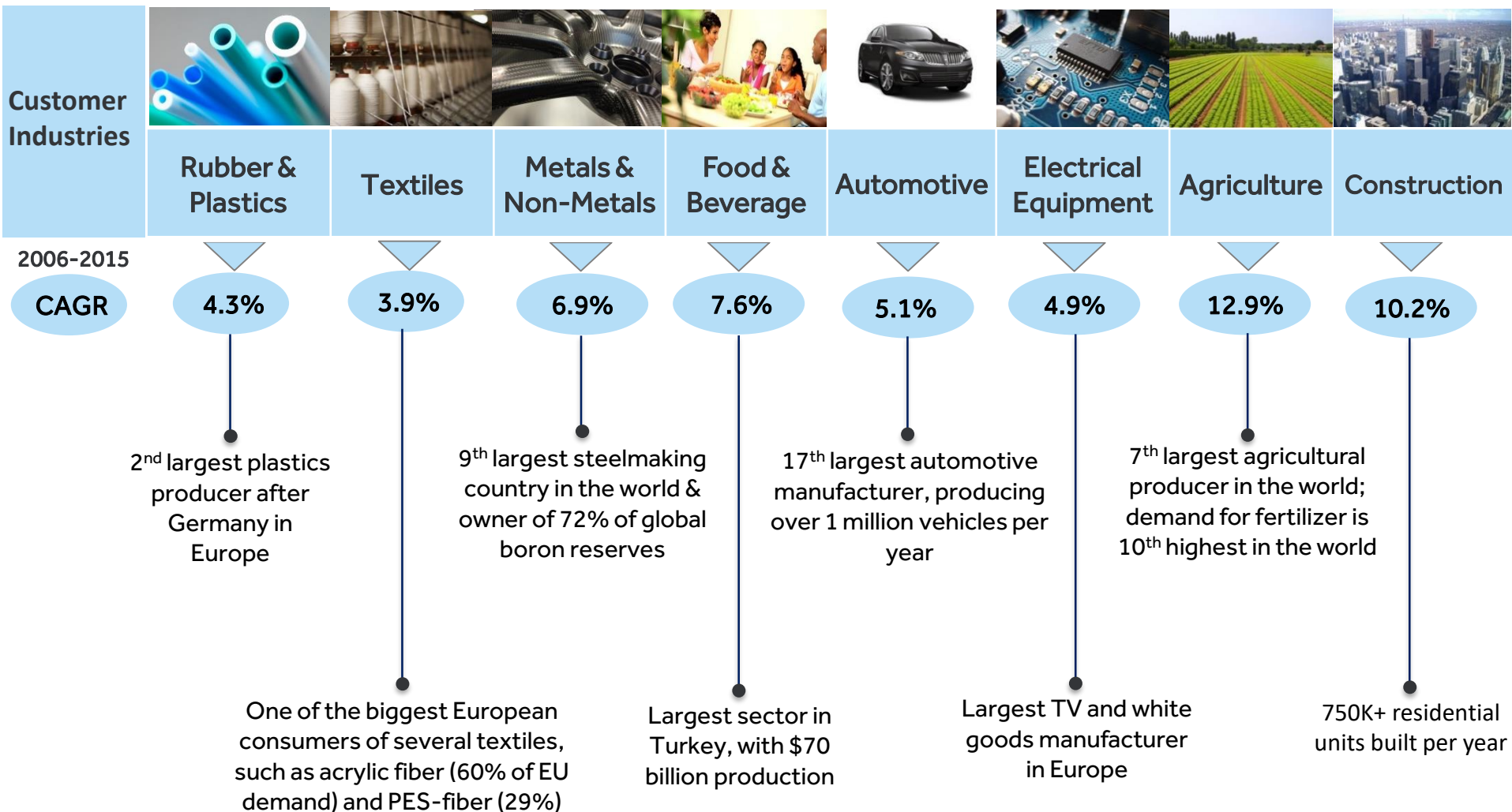
Turkish Chemical Sales\* (\$ Billion)



Breakdown of the Chemical Sales (%)



Source: Turkstat, MSIT, ISPAT Team Analysis \*ISIC Rev 4 code 20, including domestic and export sales, excluding pharma and rubber & plastics.

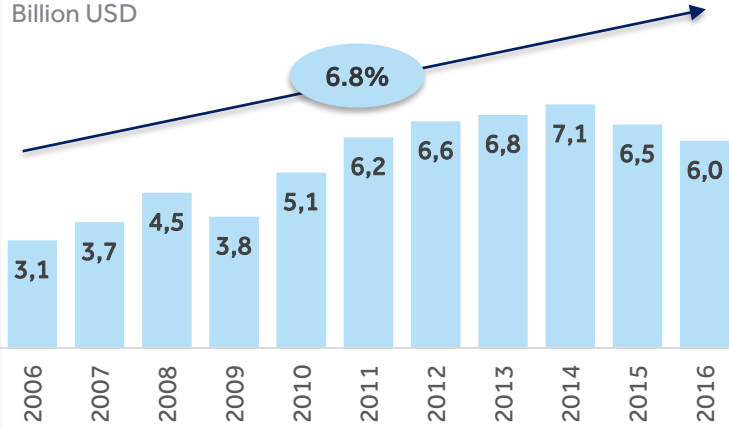


CAGR

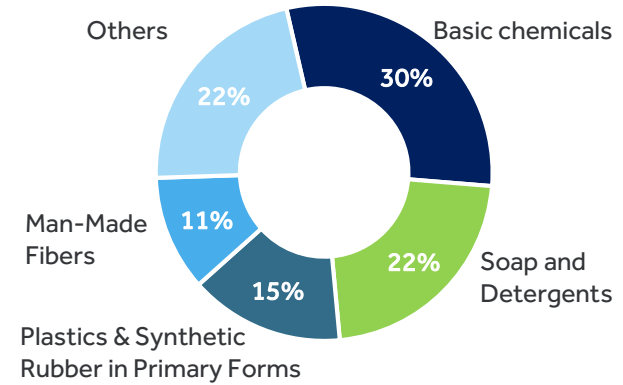
2006-2016

### Exports of Chemicals & Chemical Products

Billion USD

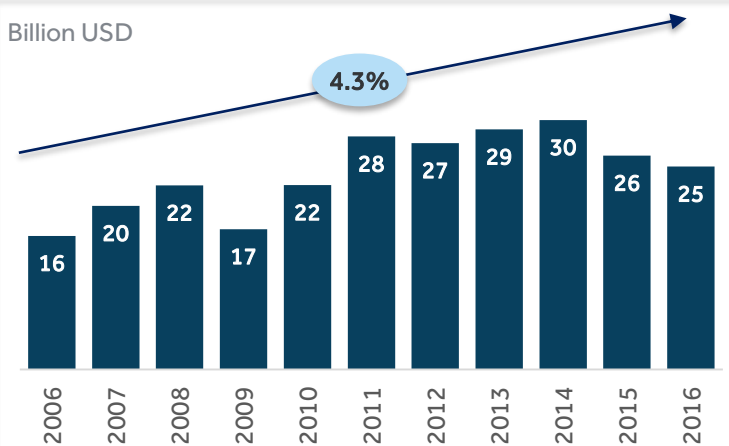


### Breakdown of exports by sub-sector 2006-2016

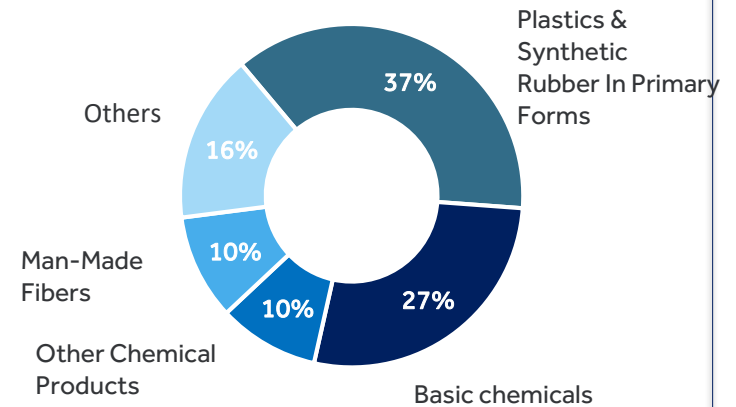


### Imports of Chemicals & Chemical Products

Billion USD



### Breakdown of imports by sub-sector 2006-2016



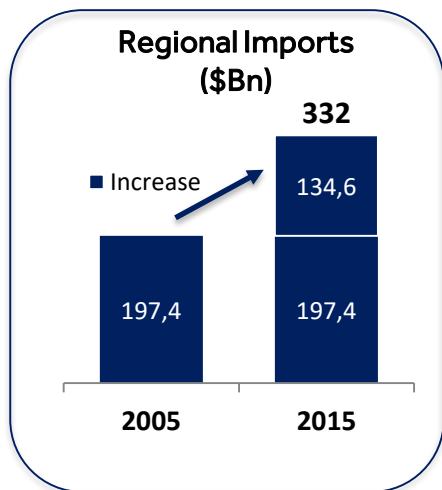
Source: Turkstat, ISIC Rev 4 codes 20, Pharma and Plastics&Rubber products excluded. ISPAT Team Analysis



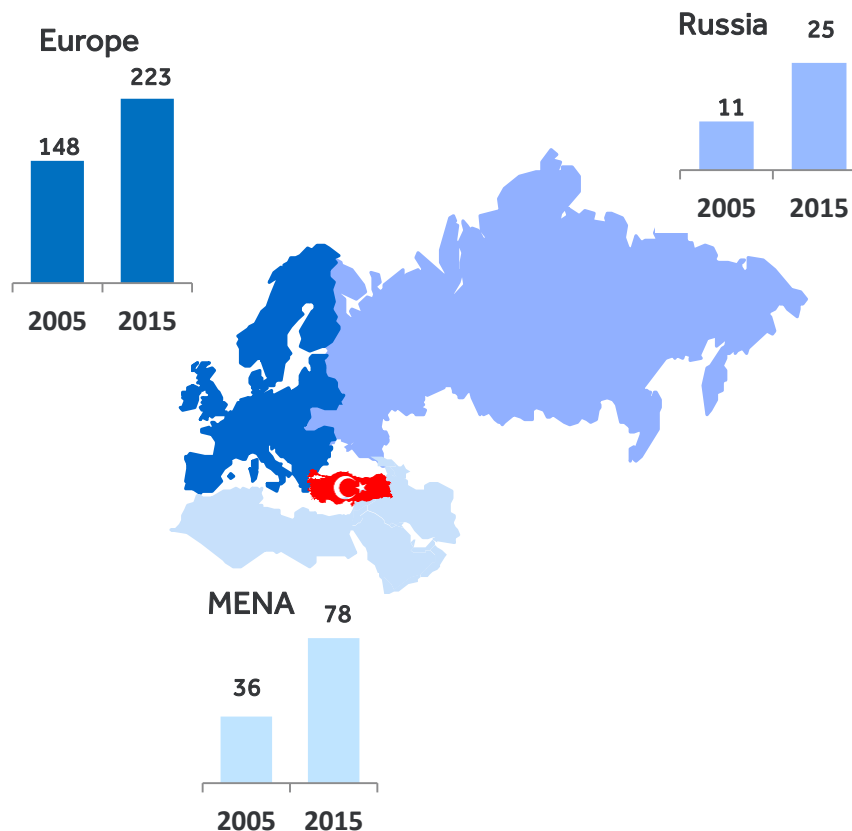


Turkey may well be used as an export base to grow...

Over the past decade, regional trade of chemicals increased by \$135bn, reaching \$332bn in 2015, up from \$197bn in 2005; 68% growth



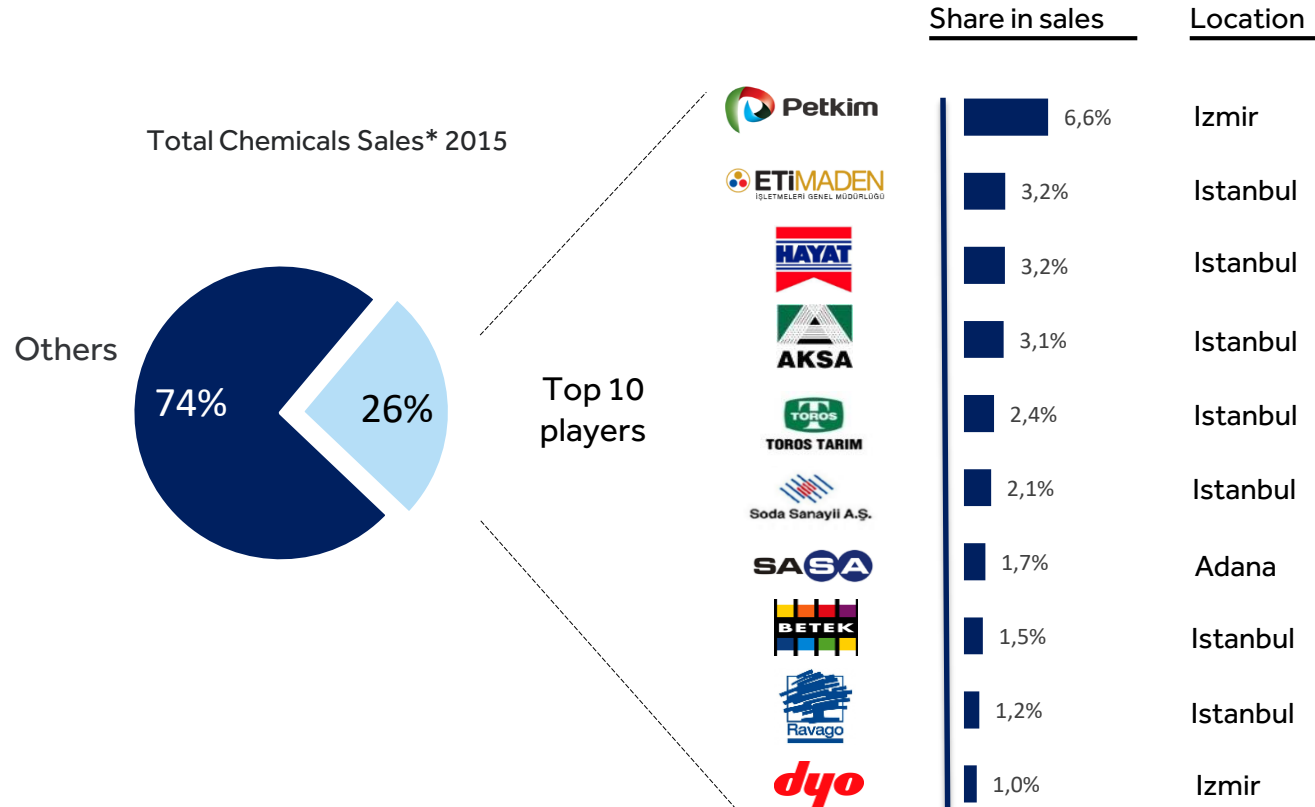
### Increase in Imports of Chemicals from 2005 to 2015 (\$Billion)



**Chemical manufacturers in Turkey can access these markets without any custom restrictions**

Source: UN Comtrade, Turkey has signed Free Trade Agreements (FTA) with Albania, Bosnia-Herzegovina, Chile, Egypt, Faroe Islands\*, Georgia, Ghana\*, Iceland, Israel, Jordan, Kosovo\*, Lebanon\*, Macedonia, Malaysia, Mauritius, Montenegro, Moldova\*, Morocco, Norway, Palestine, Serbia, Singapore\*, South Korea, Switzerland and Lichtenstein, Syria, Tunisia. (\*to be ratified).

There are around 20K companies in Turkey's chemicals sector, with both local and foreign players active in the sector...



Source: ISO 500 2015, Nace 20. Pharmaceutical and Plastics & Rubber companies excluded, \*production sales

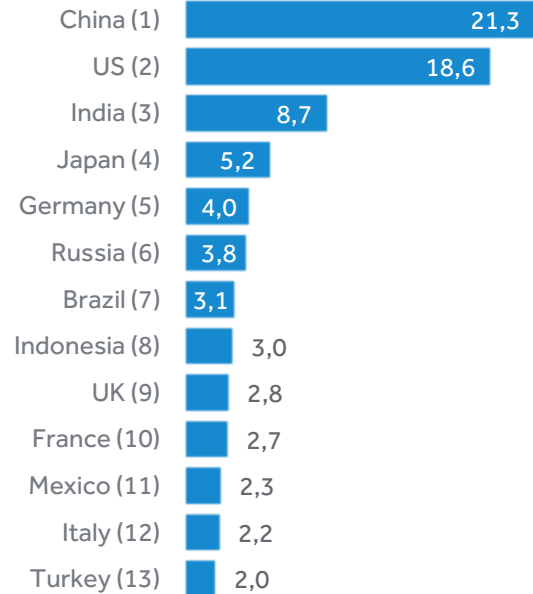
- Executive Summary
- Turkey's Chemicals Industry Outlook
- **Growth Drivers in Turkey**
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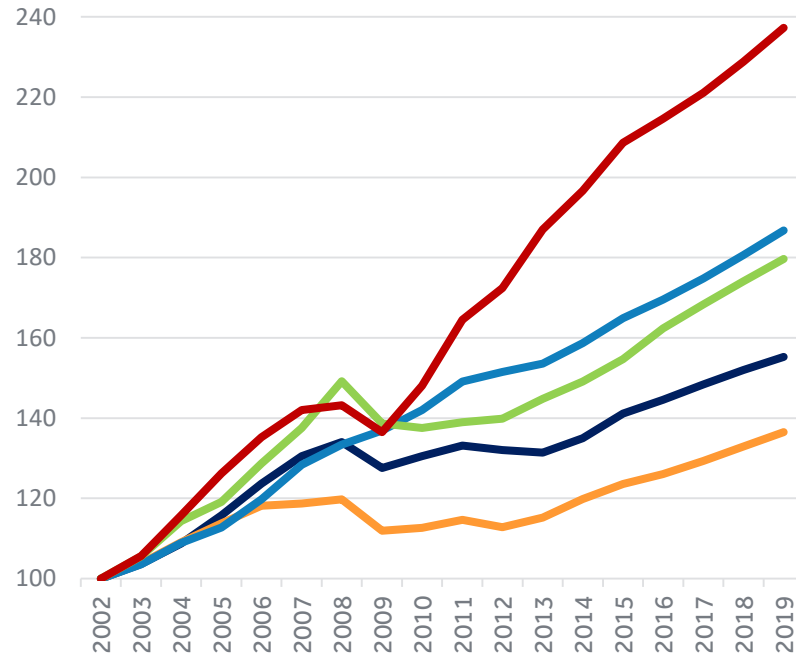


### 13<sup>th</sup> largest economy in the world

#### 2016 GDP (\$Trillion, PPP)



#### Real GDP Growth (Index: 2002=100)



Actual

Average Annual GDP Growth 2003-2016 %

Forecast

Average Annual GDP Growth 2017-2019 %

Turkey

5.6

3.4

Poland

3.7

3.3

Romania

3.5

3.4

Czechia

2.6

2.7

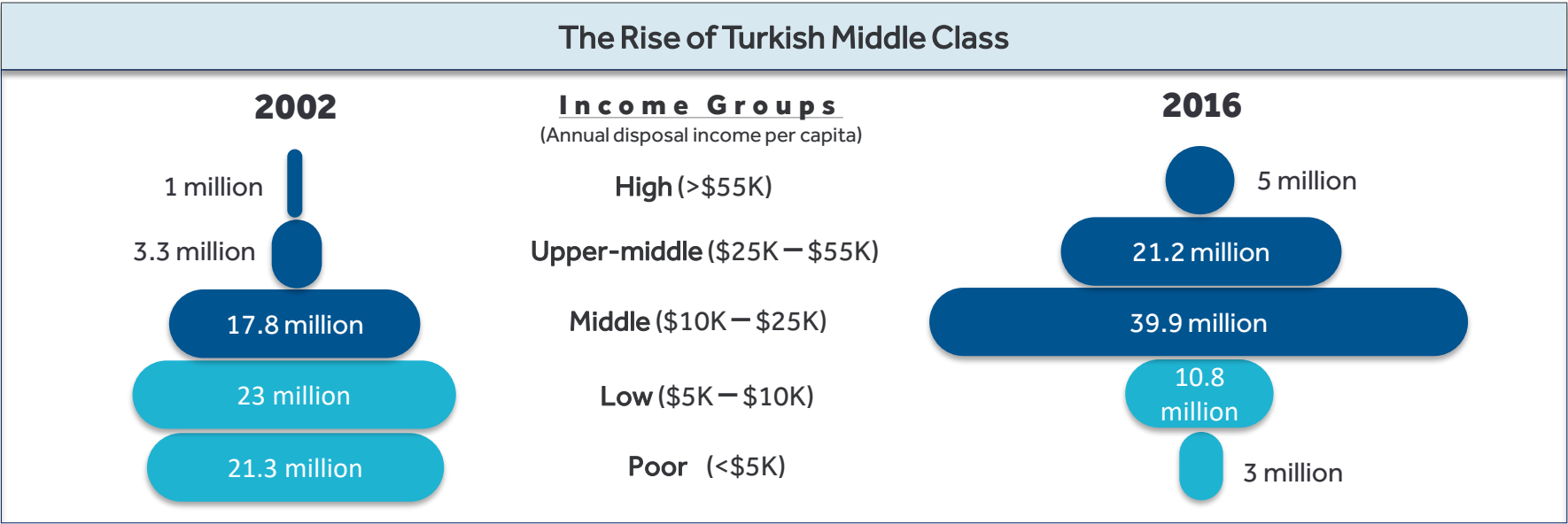
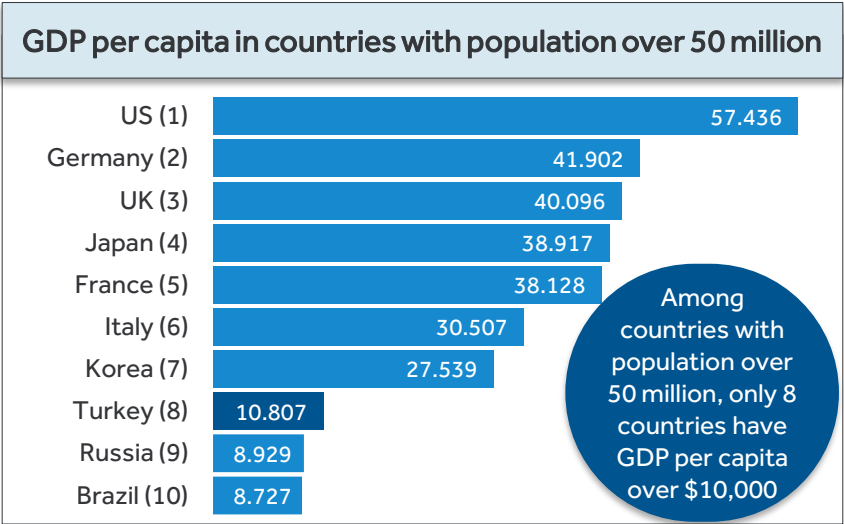
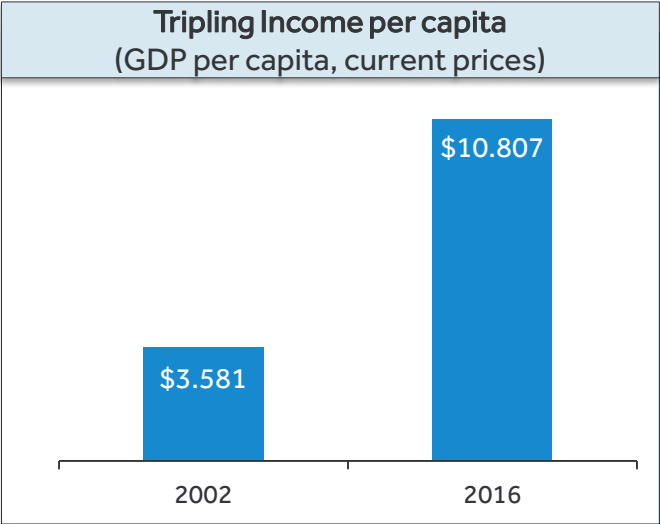
Hungary

1.8

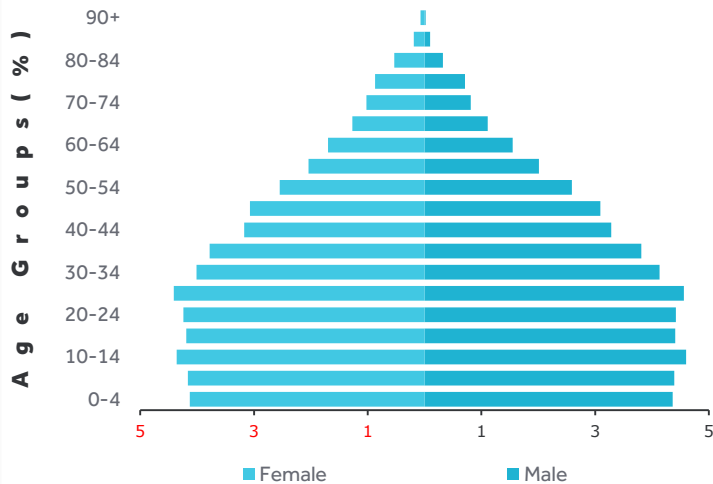
2.4







### Turkey's Population Pyramid

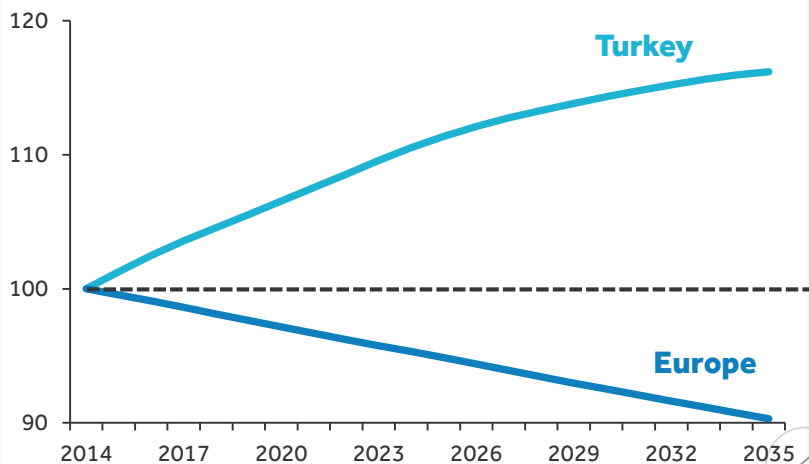


### Europe's Population Pyramid



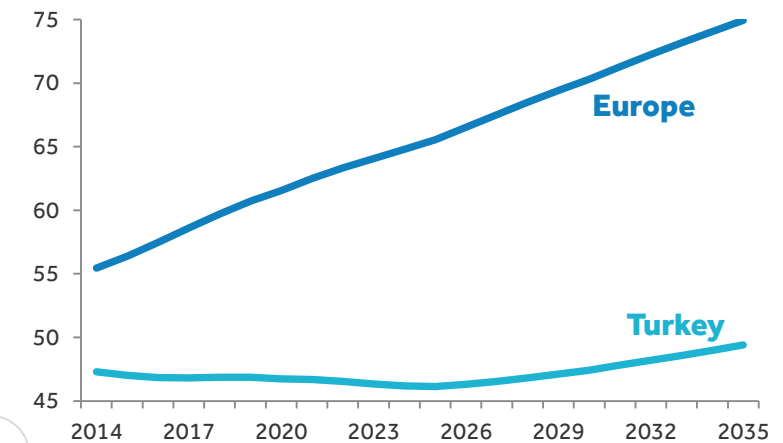
### Working Age Population (15-64)

Index: 2014=100

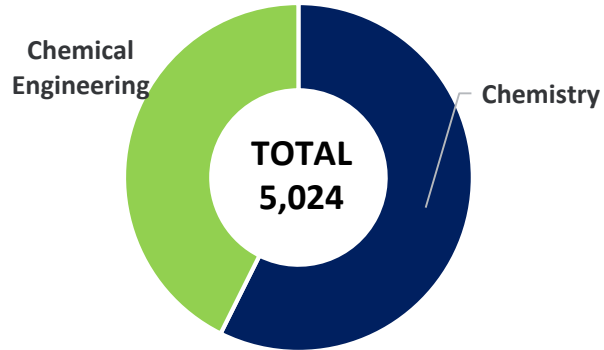


### Total Dependency Ratio (%)

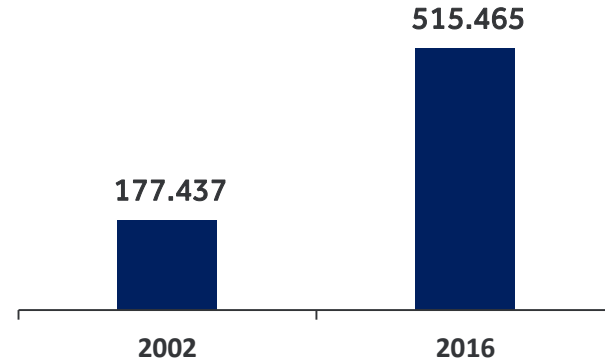
(Age 0-14 & Age 65+) / Age 15-64



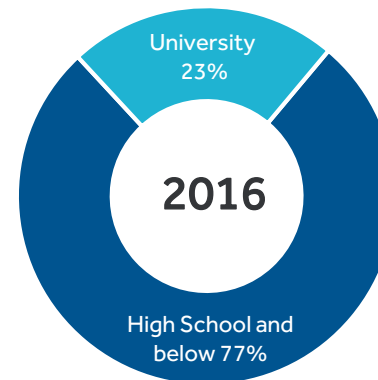
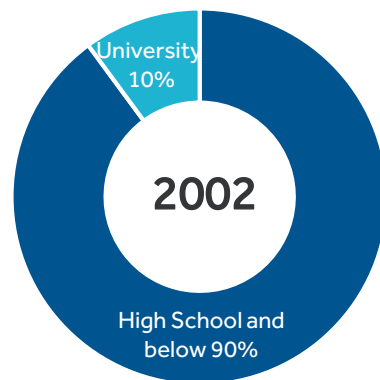
Annual Number of University Grads in Chemical Fields (2015)

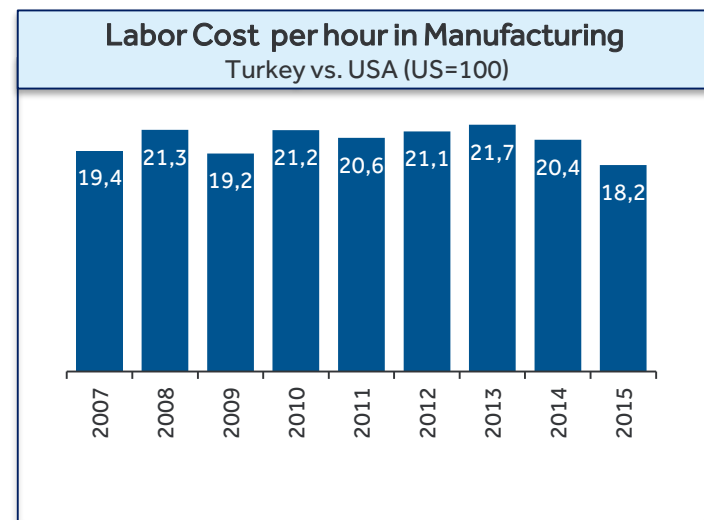
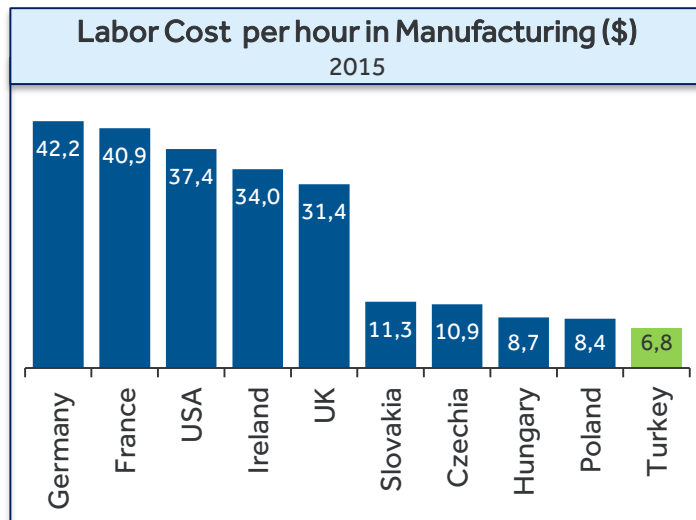
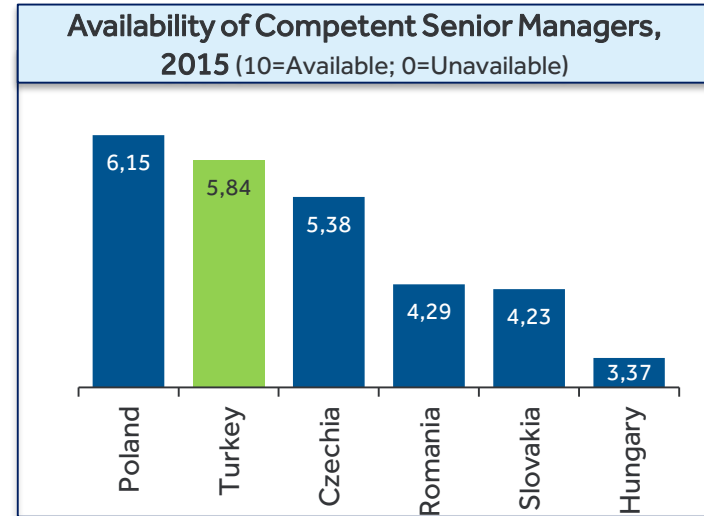
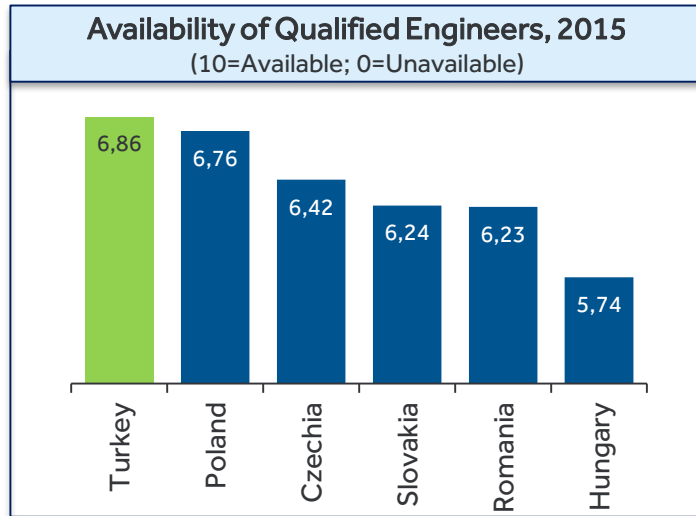


Number of Grads from Vocational & Technical High Schools



Labor Force by Education Level

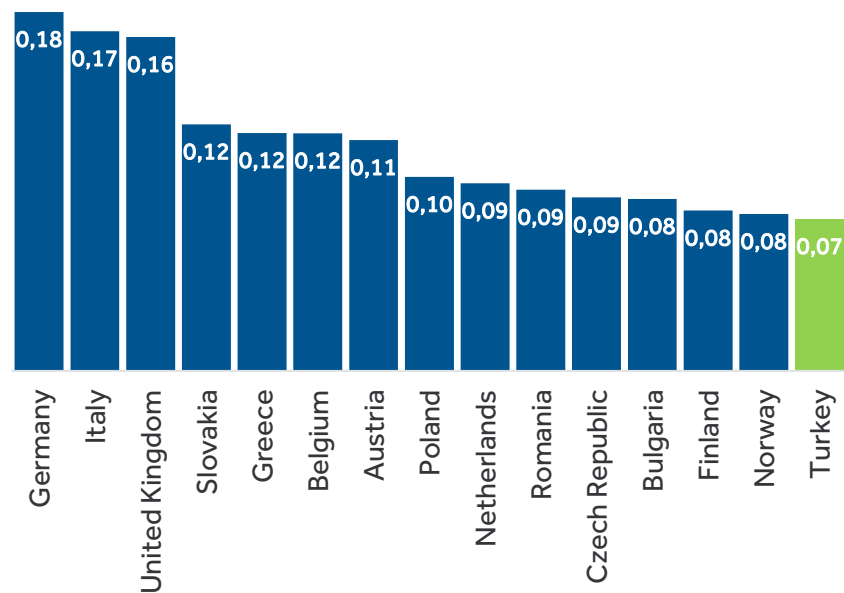




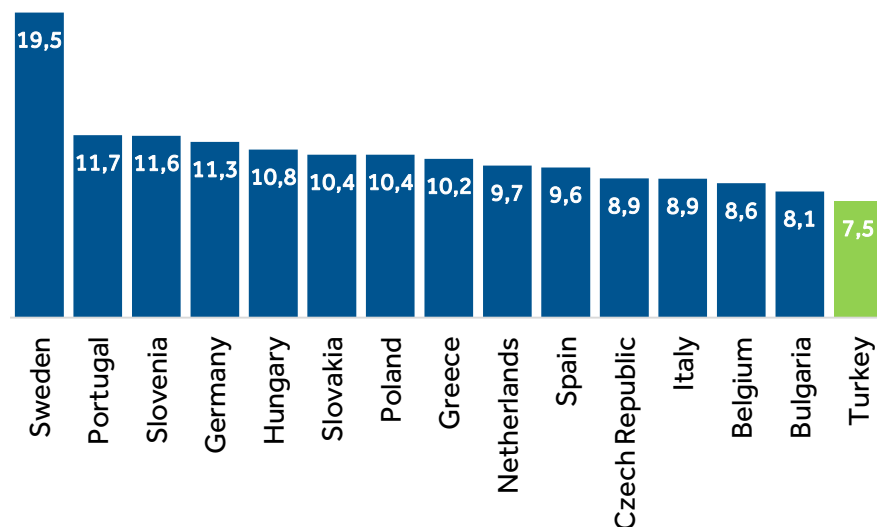


Incentives specific to  
petrochemical  
industry

Electricity prices, USD/kWh, 2015



Natural Gas prices, USD/Gigajoules (gross calorific value), 2015



1 Peer countries include Romania, Slovenia, Hungary, Czech Republic, Poland

Source: Eurostat, All taxes and levies included

Main Incentive Tools	Incentive Schemes					
	General Incentives	Regional Incentives	Incentives for Large Scale Investments	Incentives for Strategic Investments	Project-Based Incentives	R&D Incentives
Corporate Tax Reduction		✓	✓	✓	✓	✓
VAT/Custom Duty Exemption	✓	✓	✓	✓	✓	✓
Social Security Premium Support		✓	✓	✓	✓	✓
Income Tax Withholding Support*	✓	✓	✓	✓	✓	✓
Interest Support**		✓		✓	✓	
Land Allocation		✓	✓	✓	✓	
Partnership (Equity Investment by Govt.)					✓	
Guarantee of Purchase by Govt.					✓	
Energy Cost Support					✓	

\*Provided that investments, except R&D, are made in Region 6,

\*\*Provided that investment, except R&D, are made in Regions 3, 4, 5 or 6 within the frame of the Regional Incentive Scheme

### Main Incentive Tools

**Tax Deduction:** Reduced tax rates for investor's income (50-90 %) until the total deduction reaches a certain percentage of capex. (15-65 % of capex; in the case of project based incentives up to 200% of capex). For R&D investments, all R&D expenditures are deducted from tax base.

**VAT Exemption:** Investment machinery and equipment imported and/or locally provided within the scope of the incentive certificate will be VAT exempt.

**Customs Duty Exemption:** Investment machinery and equipment imported within the scope of the incentive certificate will be customs duty exempt.

**Interest Rate Support:** For investment loans, a certain portion of the interest share will be covered by government. (3-7 % points for TL-denominated, 1-2% points for forex-denominated loans) (500K-900K TL).

**Land Allocation:** Government land will be allocated for the investments, if no land is available in Organized Industrial Zones (OIZs).

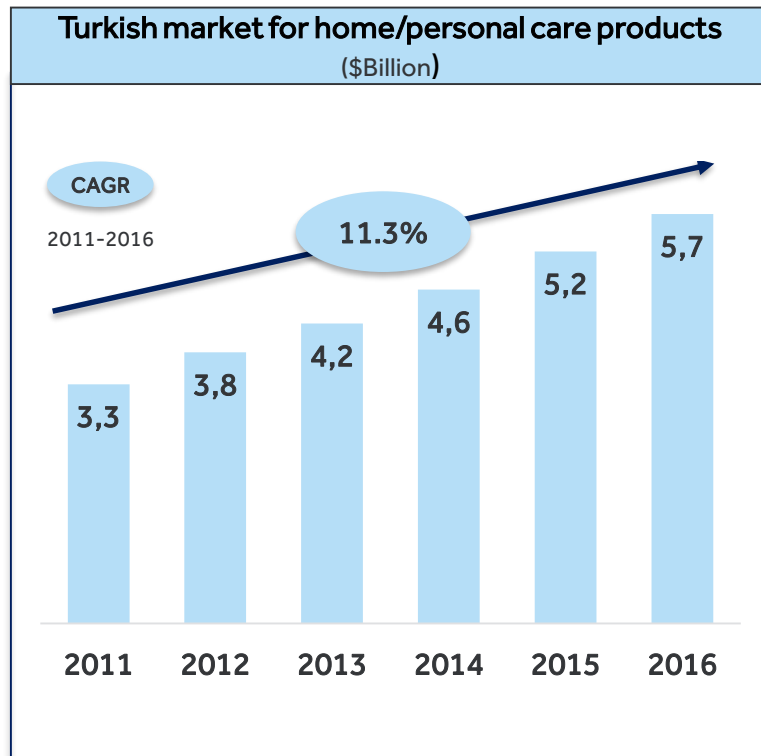
**Income Tax Withholding exemption** will provide exemption from income tax withholding. (only for Region 6).

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Sub-sectors	Turkey's value proposition in selected Chemicals sub-sectors
Home/ personal care	<ul style="list-style-type: none"> <li>Local demand for home/personal care products is attractive, with 80M people and rapid rise of middle class</li> <li>Major global companies with home/personal care products already have investments in Turkey; P&amp;G and Kimberly-Clark, for example, already have a good understanding of the market</li> </ul>
Paints / coating materials	<ul style="list-style-type: none"> <li>Turkey receives <u>the highest number of investments</u> in this cluster and has an <u>established production base</u> with many SMEs and large firms that can provide <u>JV opportunities</u> to new entrants</li> <li>Construction, automotive, textiles, and durable goods drive demand and all are <u>growing sectors</u> in Turkey and in the region</li> </ul>
Fiber/ filament	<ul style="list-style-type: none"> <li>Turkey is strong in fibers and filaments due to its <u>historic success in the textiles sector</u>. These products are <u>used in textiles, construction, and automotive, all major sectors</u> in the Turkish economy; demand for them is <u>expected to grow robustly over the next five years</u></li> </ul>
Petro- chemicals	<ul style="list-style-type: none"> <li>Turkey is among one of the <u>fastest growing</u> petrochemical markets after China and India being 2<sup>nd</sup> largest net importer of petrochemicals in the world.</li> <li>Turkey lacks basic chemicals and offers ample opportunities due to growing end use industries</li> </ul>
Fertilizers	<ul style="list-style-type: none"> <li>Turkey's demand for fertilizers is <u>10<sup>th</sup> highest</u> in the world</li> <li>The country has the <u>7<sup>th</sup> largest</u> agricultural production in the world</li> </ul>

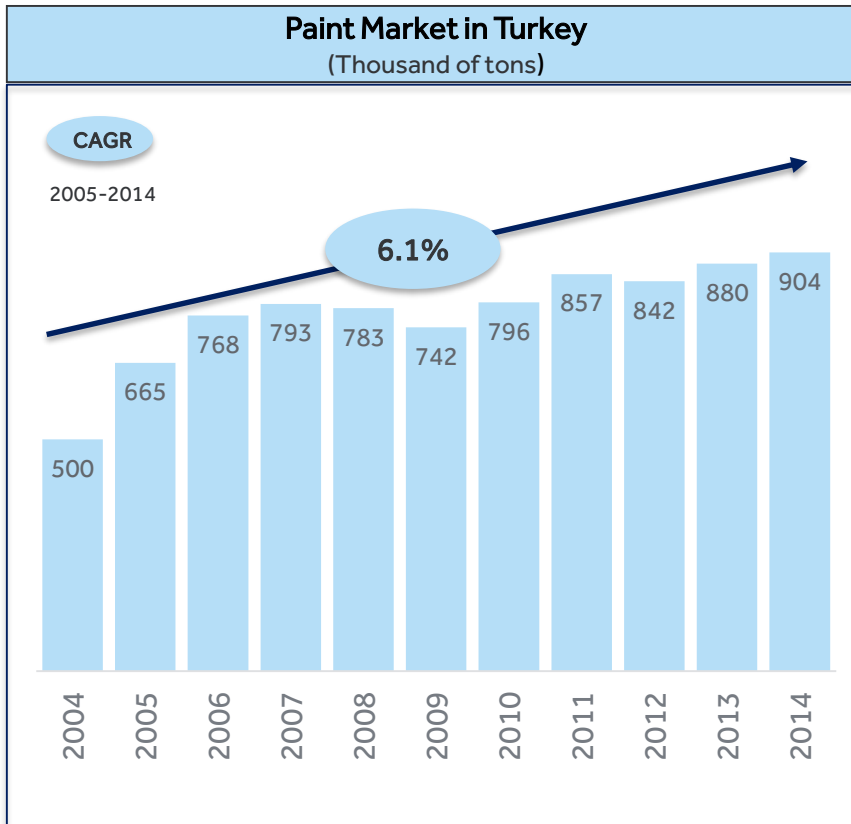




### Key facts..

- Turkey is a production hub for many personal/home care brands such as P&G, Henkel, Unilever, Colgate/Palmolive, KimberleyClark, L'Oréal
- Beauty/ home care market in Turkey is large and growing at 11.3% CAGR, double the global growth rate
- Per capita spending on cosmetics in Turkey is still low compared with developed countries' average
- Room for growth as population and middle class increases
- A base in Turkey would help satisfy both local and regional demand in this sector

Source: Euromonitor, ISPAT analysis

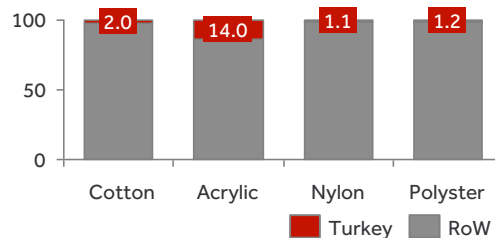


Key facts..
<ul style="list-style-type: none"><li>• 5<sup>th</sup> largest paints producer in Europe</li><li>• One of the biggest coatings market of Europe</li><li>• Construction paints make up 60% of production in quantity &amp; 40% for industrial paints. (Vice versa in value)</li><li>• Construction industry is the main consumer</li><li>• Strong presence of international capital</li><li>• Driven by the large growth in end use industries such as construction, automotive, textile</li></ul>

### Turkey is the 9<sup>th</sup> largest producer of fibers and filament in the world

- Turkish fiber/ filament production developed to support country's historically strong textiles sector
- Fibers are used in textiles, plastics, automobile, and construction, all major sectors in Turkey
- Turkey is the 9<sup>th</sup> largest producer of fiber/filament in the world, with a 2% market share, manufacturing 1.5M tons of fiber/filament each year

% of world fiber/filament production



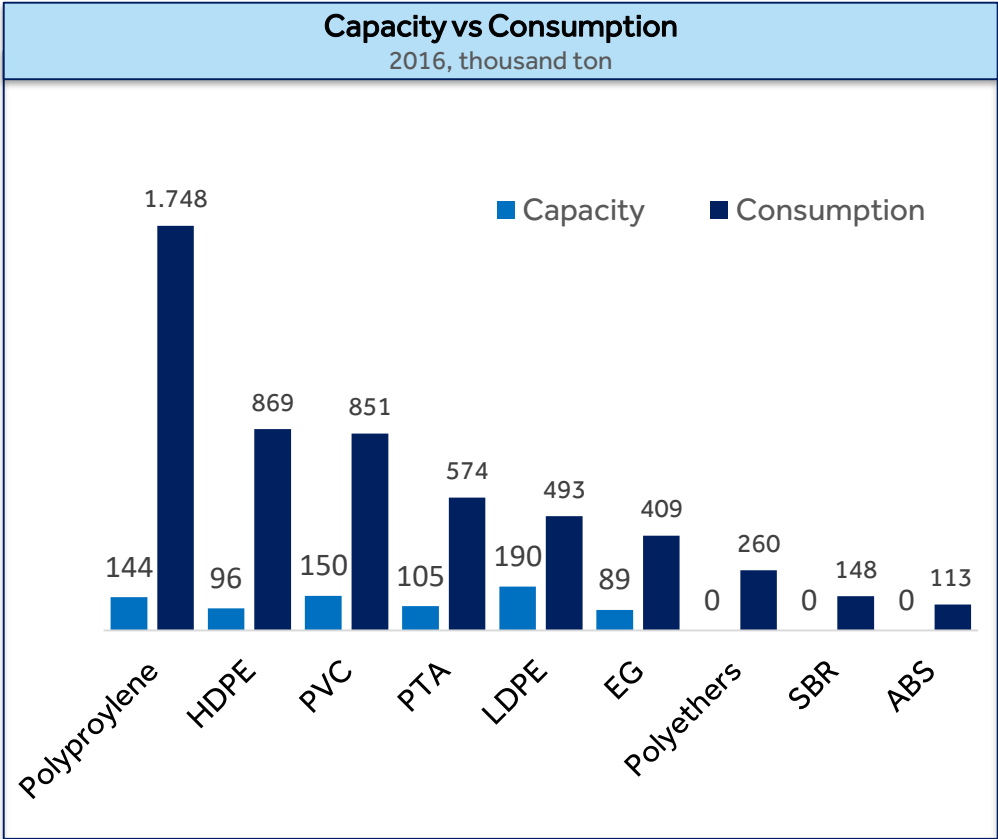
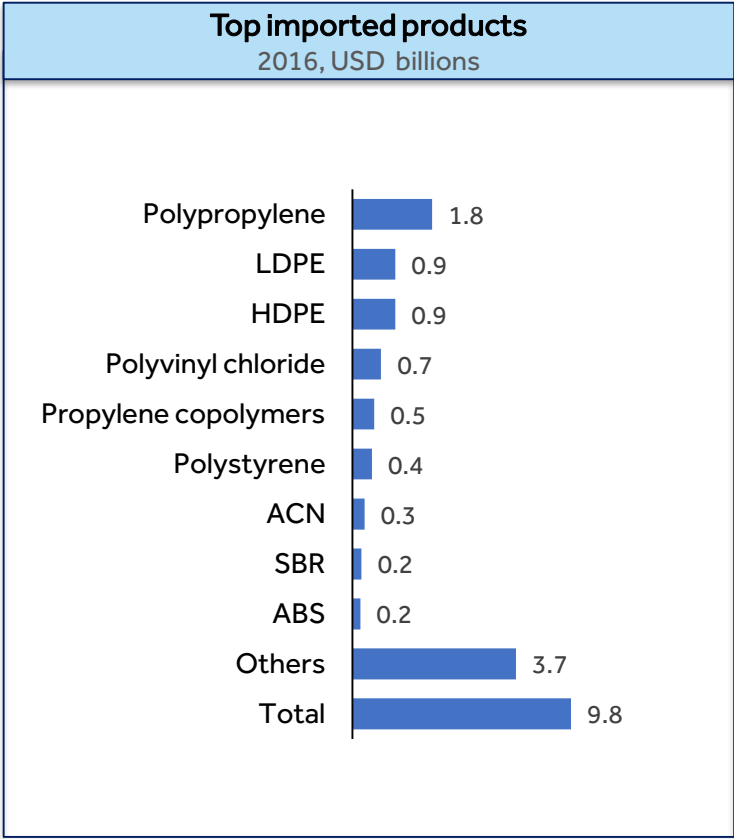
### i.e. Dow to invest \$1B in JV with Aksa to produce carbon fiber in Turkey



- Carbon fiber is used in aerospace, wind energy, and automotive sector – demand is expected to increase dramatically in the future as the material is stronger than steel but very low weight in comparison
- Carbon fiber manufacturing is very consolidated and tech heavy: 6 companies produce 93% of world supply
- In 2011, US chemicals giant Dow entered into a 50/50 JV with Aksa to produce carbon fiber in Turkey. Aksa is the world's largest producer of acrylic. A key bi-material in the production of acrylic is PAN – used in carbon fiber production

"The strategic partnership we form with Aksa shows Dow's growth strategy: our commitment to innovation and high value added production. Through our production, we aim to provide solutions to help increase wind energy production in the world, limit fuel consumption of vehicles and increase lifespan of infrastructure projects."

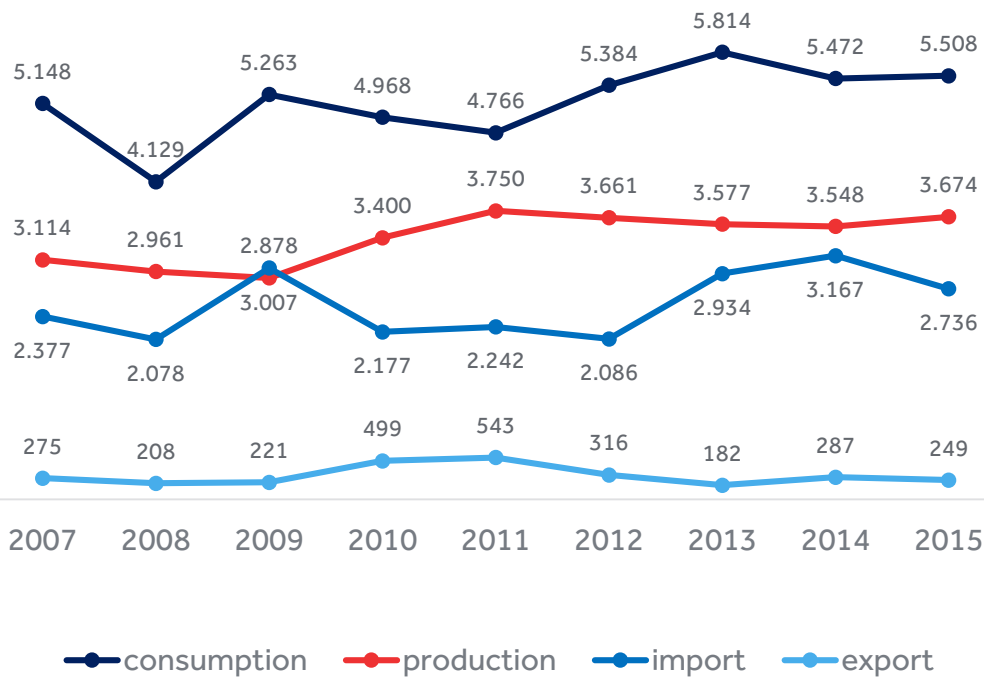
*-Dow Chairman and CEO, Andrew N. Liveris*



Source: Un comtrade, Petkim website



Fertilizer market (thousand tons)



### Turkey cannot meet its fertilizer demand with domestic production

- Turkey's fertilizer imports have increased over the years, while exports have decreased
- More than \$60 billion worth production in agriculture
- Turkey's demand for fertilizers is 10th highest in the world
- The country has the 7th largest agricultural production in the world
- Size of arable land 395,000 km<sup>2</sup> (40% of Turkey)
- Although arable land has decreased over years, fertilizer consumption/ hectare has increased

Source: Gubretas investor presentation, ISPAT analysis

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- Operational in Turkey for 137 years
- 6 manufacturing facilities & 7 offices in Turkey for chemicals, agricultural solutions, performance products, functional materials
- Uses Turkey as a management hub for Russia & CIS, Middle East and Africa
- Over 750 employees



- Operational in Turkey for 30 years
- Manufactures products for safety, industrial, personal care, automotive, appliance & healthcare
- Opened a super hub and an innovation center in 2015
- Uses Turkey as one of the management hubs for the region
- Exports 60% of its production



- Operational in Turkey for 30 years
- Award winning exporter with over 20% of production in Turkey exported to more than 10 countries
- USD 700 million of investment in manufacturing facilities
- Employment for 2,500 people
- Uses Turkey as a regional hub
- 60% of products sold in Turkey produced locally



- Operational in Turkey for around 60 years
- HQ & innovation center in Istanbul, seed conditioning & processing plant facility in Adana, sunflower R&D center in Lüleburgaz
- 200 employees



- Operational in Turkey for around 55 years
- 3 factories and 8 regional sales offices
- Over EUR 50 million of investment in past 5 years
- Around 1,500 employees



- Operational in Turkey for around 55 years
- More than 500 employees in 6 locations in Turkey
- 3 production facilities: starch & sweeteners in Bursa, fats & oils in Balıkesir, oleo-chemicals in Kocaeli
- Manages 19 countries from Turkey



- Operational in Turkey for over 100 years
- Over 5,000 employees
- 8 manufacturing facilities of food, home care, personal care & refreshment products
- New personal and homecare factory in Konya creating an investment ecosystem of EUR 350 million
- Uses Turkey as a key regional hub for exports to 21 countries



- Operational in Turkey for over 45 years
- 4 factories in Turkey for STYROFOAM™ Brand Insulation, paint, polyurethane & plastic additives
- DowAksa JV for carbon fiber production in Yalova & DCM JV with Polisan for emulsion production in Gebze
- Uses Turkey as a regional export hub for Eastern Europe & Middle East
- Around 260 employees



# INVEST IN TURKEY

## INVESTMENT SUPPORT & PROMOTION AGENCY OF TURKEY

Attached to the Prime Ministry

Private sector approach with public sector capabilities

Acting as your solution partner;

### OUR SERVICES

ISPAT assists investors before, during and after their entry in Turkey, providing them with professional consulting services including but are not limited to:

- ✓ General and customized business information
  - ✓ Sectoral analysis and reports
- ✓ Site selection support to find appropriate location/land for your investment
- ✓ Arrangements of meetings with governmental bodies and other stakeholders
  - ✓ Matchmaking with local partners and establishing business linkages
  - ✓ Facilitating your investment at all stages
    - ✓ Aftercare Services
    - ✓ Project Launch Services
  - ✓ Facilitating your visit to Turkey





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