



PRESIDENCY OF THE
REPUBLIC OF TURKEY
**INVESTMENT
OFFICE**



**INVEST IN
TÜRKİYE**

Turkey

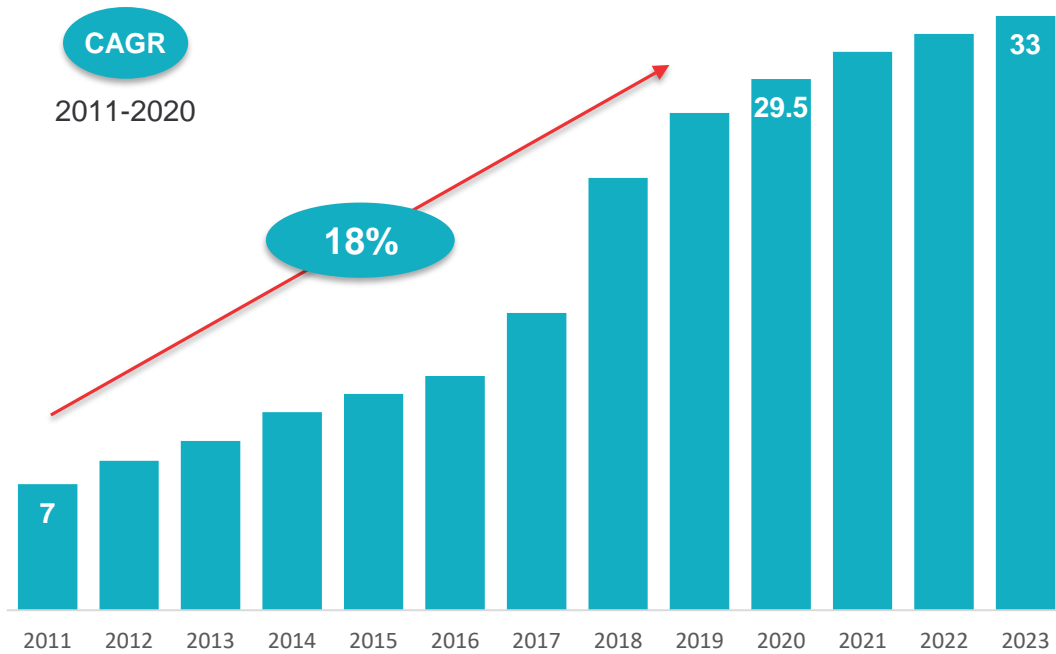
Bright Spot for Chemical Investments



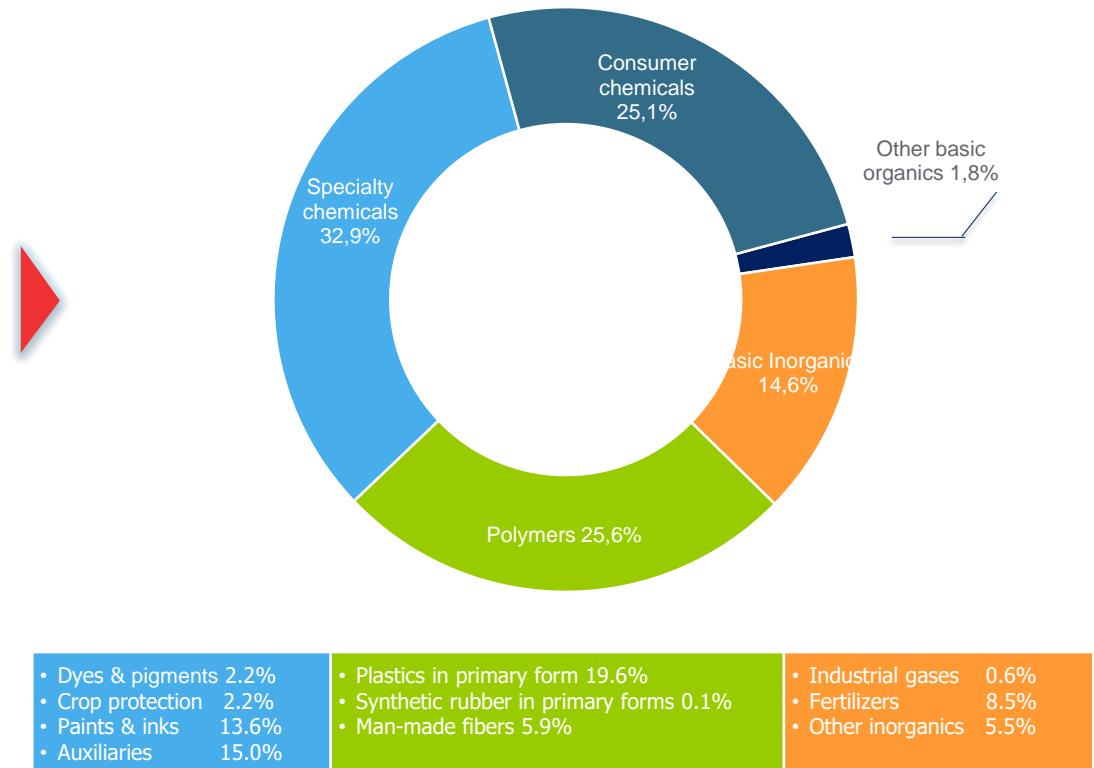
- **Market Overview**
- Growth Drivers
- Success Stories

TURKISH CHEMICAL SALES OUTPERFORMED THE GLOBAL TREND OVER THE PAST DECADE..

Gross Chemical Sales of Turkey
2011 to 2023 (in billion U.S. Dollars)



Breakdown of the Chemical Sales in Turkey (%)



Source: Turkstat, MSTI, Investment Office Analysis, Statista, *ISIC Rev 4 codes 20, including domestic and export sales, excluding pharma and rubber & plastics.

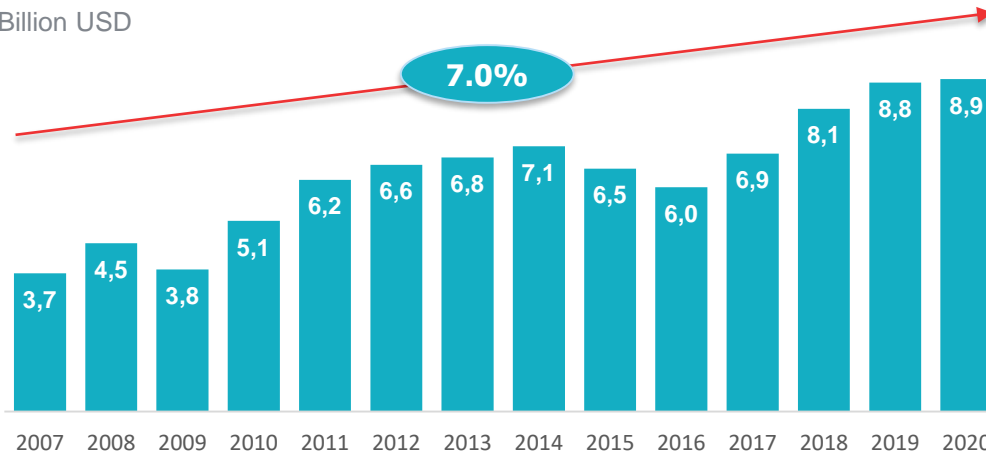
WHILE TURKEY IS DEPENDENT ON IMPORTS OF FEEDSTOCK, CHEMICALS EXPORTS CONTINUE TO INCREASE RAPIDLY..

CAGR

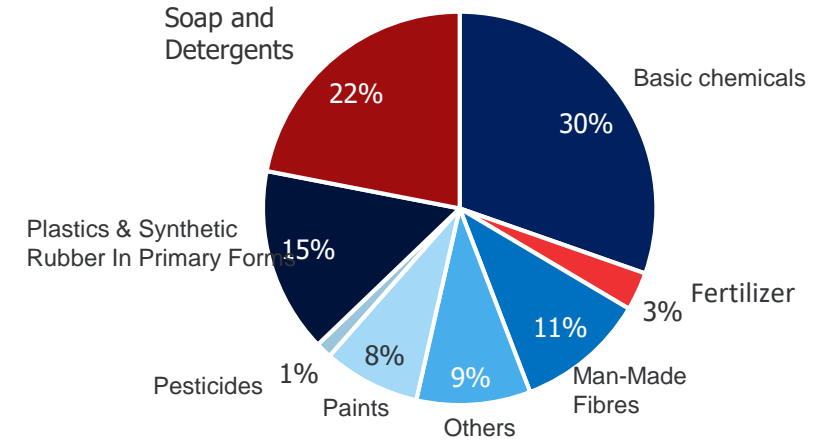
2007-2020

Exports of Chemicals & Chemical Products

Billion USD

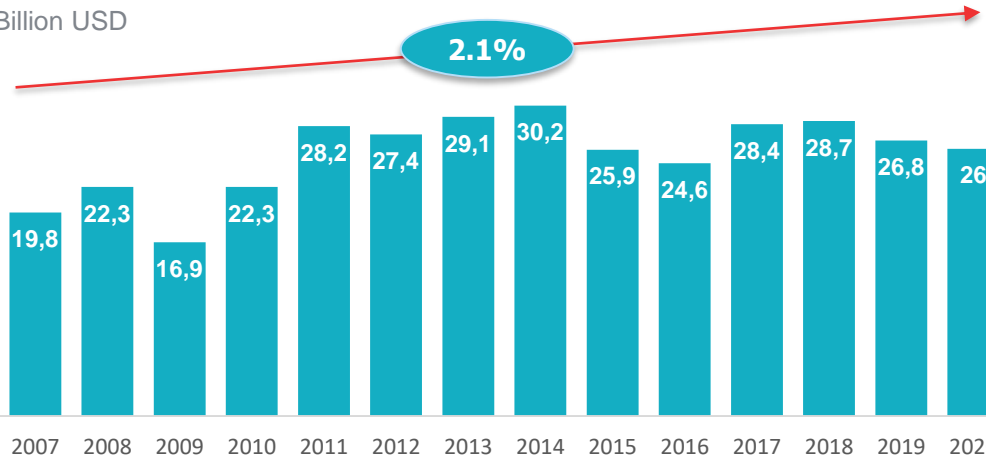


Breakdown of exports by sub-sector 2007-2020

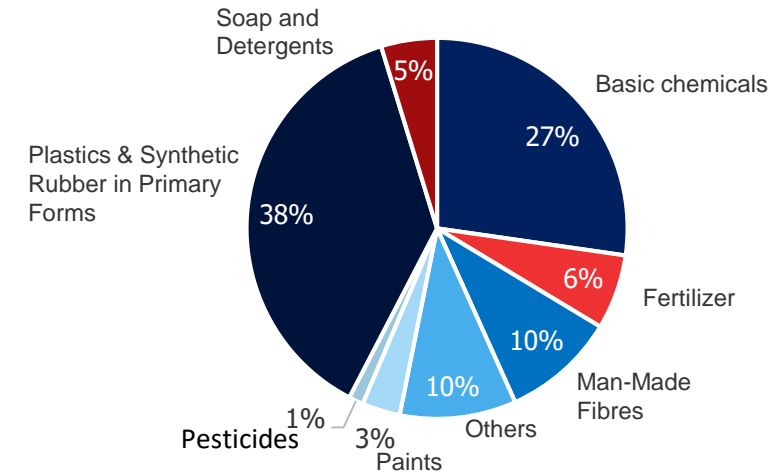


Imports of Chemicals & Chemical Products

Billion USD



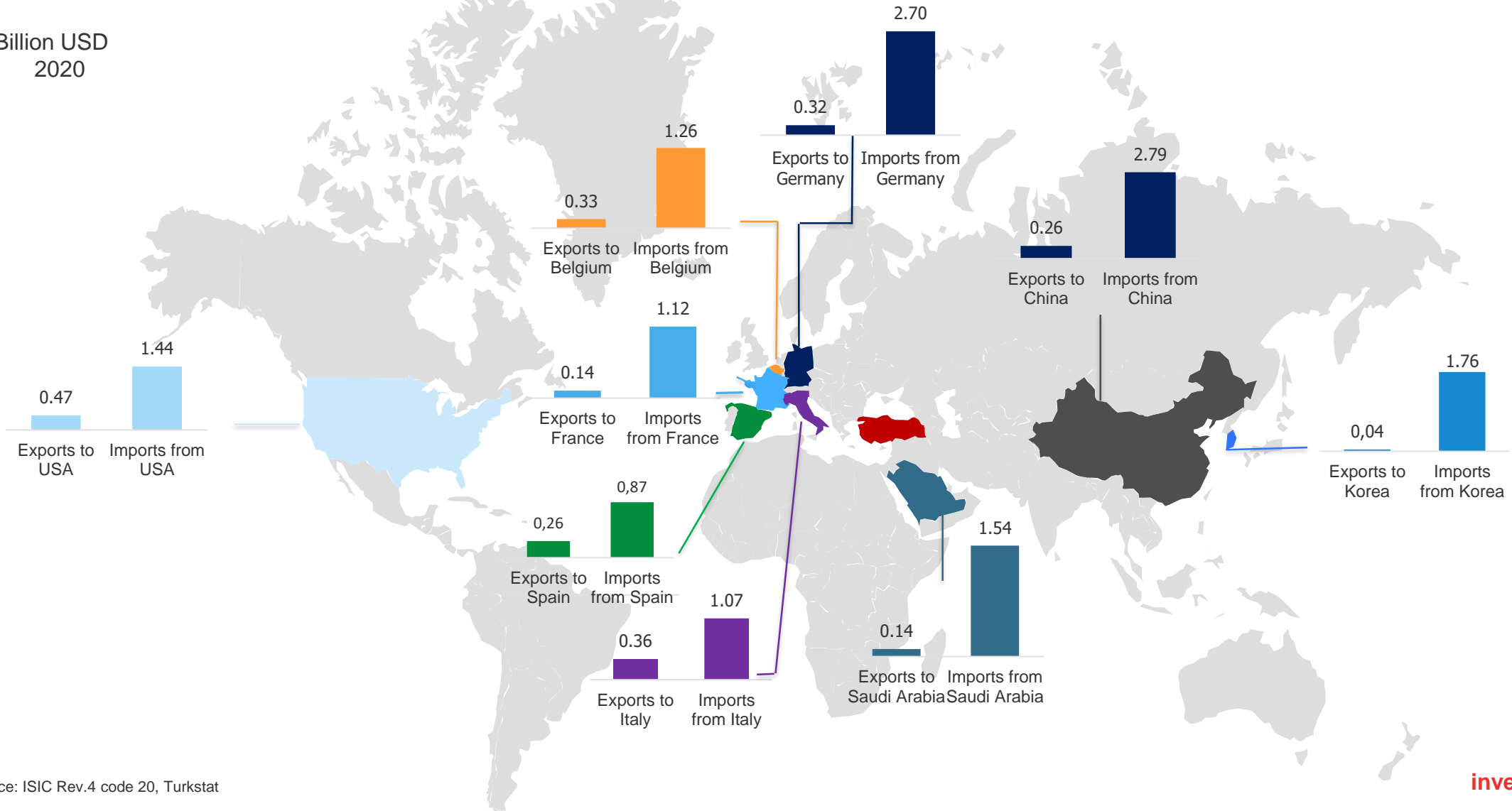
Breakdown of imports by sub-sector 2007-2020



EUROPE APPEARS TO BE THE LARGEST IMPORT AND EXPORT PARTNER OF TURKEY IN CHEMICALS..

Major Chemical Trade Markets of Turkey

Billion USD
2020

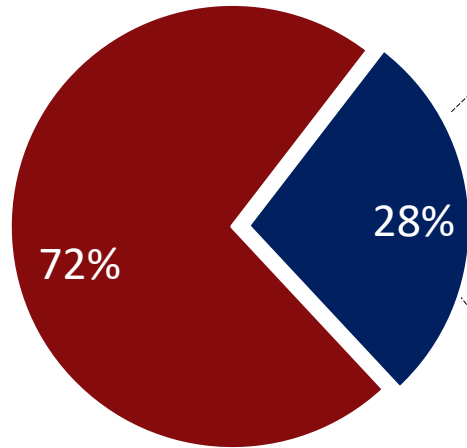


Source: ISIC Rev.4 code 20, Turkstat

MAJOR PLAYERS

THERE ARE AROUND 5K COMPANIES IN TURKISH CHEMICALS, BOTH LOCAL AND FOREIGN PLAYERS ARE ACTIVE IN THE SECTOR..

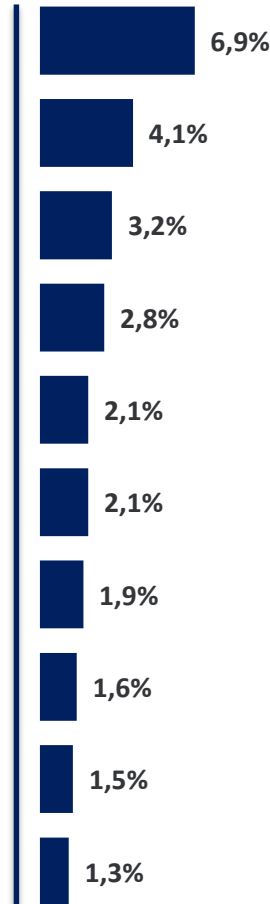
Chemicals Sales
2018 100% Net sales= 114.6 Billion TRY



Top 10 players



Share in
chemical sales
Percent



Company type

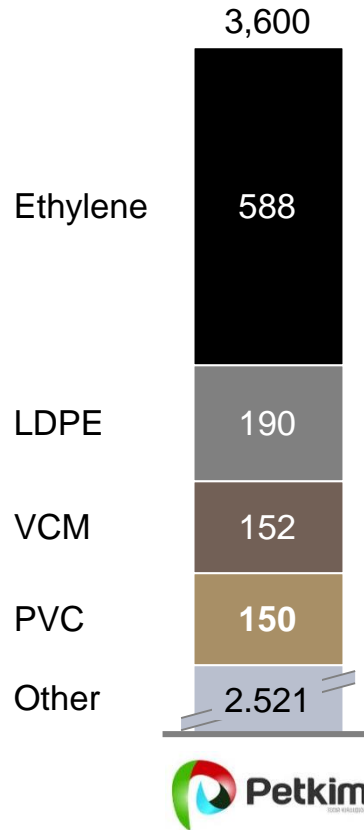
Location

Company type	Location
Petrochemicals	Izmir
Chemicals	Ankara
Chemicals	Yalova
Chemicals	Istanbul
Chemicals	Istanbul
Chemicals	Istanbul
Petrochemicals	Adana
Petrochemicals	Tekirdag
Chemicals	Istanbul
Chemicals	Izmir

PETKİM, WHICH IS THE LARGEST PETROCHEMICAL FACILITY IN TURKEY, IS INCREASING ITS CAPACITY BUT STILL CONSTITUTING ONLY 18% OF THE LOCAL DEMAND..

PETKİM petrochem capacity

2019, thousand tons per year



STAR refinery capacity





Thousand tons per year

	Product	Capacity
Petrochem. raw materials	• Naphtha	• 1,600
	• Mixed xylene	• 422
Fuel	• Diesel oil	• 4,800
	• Jet fuel	• 1,630
	• LPG	• 320
Other	• Reformat	• 485
	• Sulphur	• 153
	• Petroleum coke	• 692

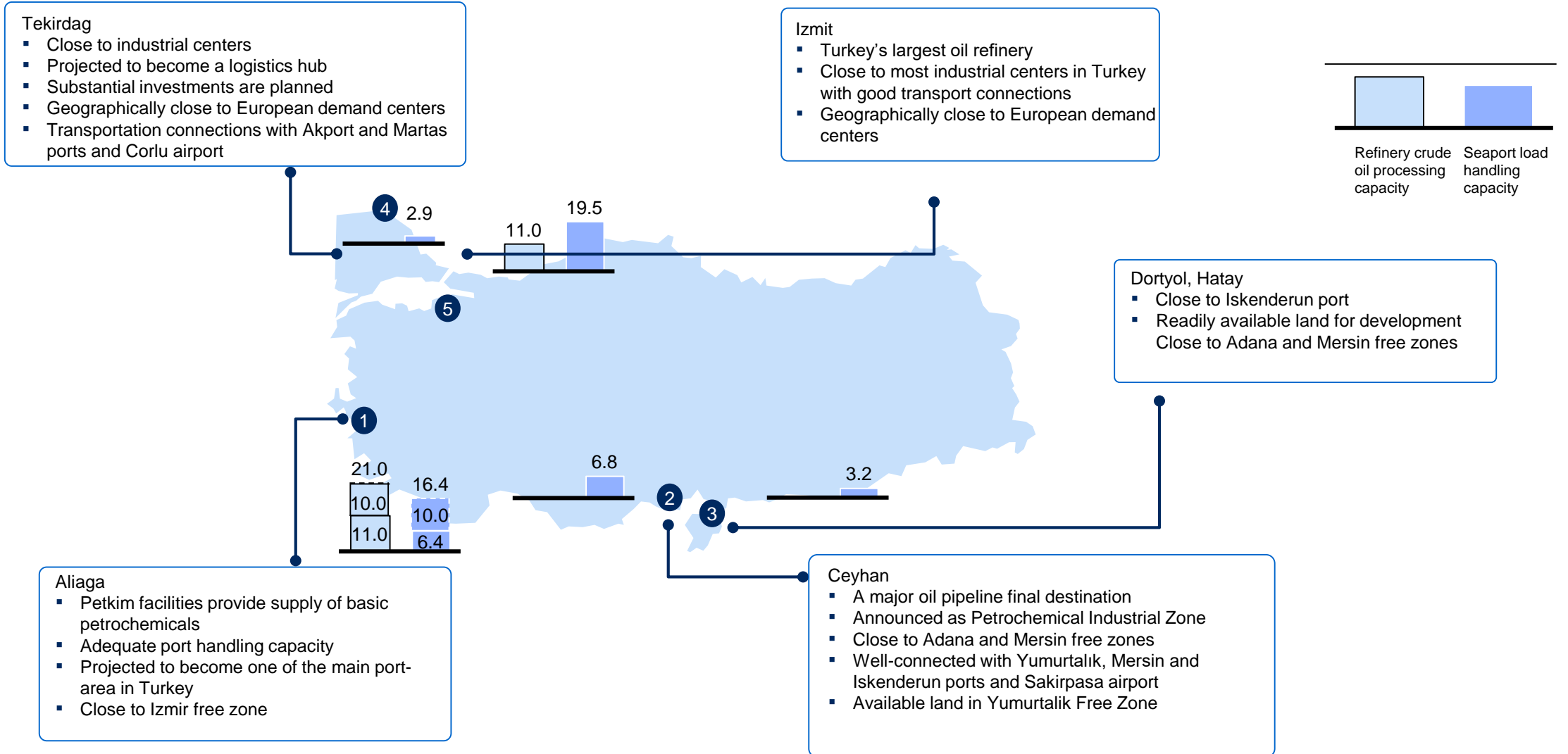


SOCAR (State Oil Company of Azerbaijan) acquired Petkim in 2008 and still investing in Turkish Petrochemical Industry via Petkim also built up a new refinery called STAR promoting petrochemicals sector and providing key raw materials

ALSO SOME OTHER PLAYERS IN TURKISH CHEMICALS INDUSTRY PRODUCING ADDED VALUE PRODUCTS..

	Major products	Capacity	Recent investment and plans
 <p>SASA POLYESTER SAN. A.Ş.</p>	<ul style="list-style-type: none"> • Polyester (Biggest Polyester Production Company in Turkey and in Greater Europe) • DMT (Biggest operating plant worldwide) 	<ul style="list-style-type: none"> • Polymerization Capacity of 350.000 tpa • Staple Fiber Capacity of 160.000 tpa • POY Capacity of 47.000 tpa • Texturized Yarn of 28.000 tpa • TOPS for wool yarn of 6.000 tpa • Specialty grade PET Chips of 216.000 tpa • DMT capacity of 280.000 tpa. 	<ul style="list-style-type: none"> • Investing on Staple fiber, POY, texturizing, FDY and bottle grade chips. Total capacity of the investments will be 2.08 million tons per annum. With this capacity, SASA will be one of the biggest polyester production company in the world. • SASA will build PTA plant with 2.5 million tpa capacity. Investment will start in 2018. • SASA will build MEG plant with 1.0 million tpa capacity. Investment will start in 2018.
 <p>AKSA</p>	<ul style="list-style-type: none"> • Acrylic fiber (world's largest acrylic fiber manufacturer) 	<ul style="list-style-type: none"> • Acrylic fiber capacity of 315.000 ton/year 	<ul style="list-style-type: none"> • Company's JV in carbon fiber aims to be a major play in carbon fiber industry in 2023 • Newly developed pigment coated acrylic filament yarn production
 <p>Ravago</p>	<ul style="list-style-type: none"> • Expandable Polystyrene (EPS), Engineering Plastics (EP) and Thermoplastic Elastomer (TPE), Polyurethane (PU) systems, Thermoplastic Polyurethane (TPU) and Silicone Rubber Compounds 	<ul style="list-style-type: none"> • Turkey's second largest thermoplastic raw material producer with a total capacity of 300000Tons/yr 	<ul style="list-style-type: none"> • Production of Black/low thermal conductivity EPS. The new EP and TPE compounding plant will be the region's largest and most complex automated compounding plant complying with industry 4.0 standards. Ravago's first Global Specialization R&D center and capacity increase and automation of our EPS plant.
 <p>MELTEM KİMYA</p>	<ul style="list-style-type: none"> • PET • Plasticizer (DOTP, DOA) • PVC 	<ul style="list-style-type: none"> • PET production capacity of 36.000 tons 	<ul style="list-style-type: none"> • First and only facility in Turkey to have rPET production technology by chemical depolymerisation method

TURKEY HAS SEVERAL POTENTIAL LOCATIONS WITH EXISTING/PLANNED INFRASTRUCTURE AND TRANSPORTATION CONNECTIONS





Key facts

- **1,341 hectares** land availability
- **Port of Rotterdam & Ronasans Holding** partnership in management of the zone
- **Ronasans Holding & Sonatrach & GS E&C's** 1.3 billion USD PP investment as the first investment will be realized in the zone
- Main products such as HDPE, LDPE, LLDPE, methanol, MDI, ABS, MMA, acetone, phenol, PMMA and PET are among the top products where Investors will be targeted

<p>Home/ personal care</p>	<ul style="list-style-type: none"> • Local <u>demand for home/personal care products</u> is attractive, with 84M people and rapid rise of middle class • Major global companies with home/personal care products already have investments in Turkey such as P&G and Kimberly-Clark, they already have a good understanding of the market
<p>Paints / coating materials</p>	<ul style="list-style-type: none"> • Turkey receives <u>the highest number of investments</u> in this cluster and has an established production base with many SMEs and large firms which can provide JV opportunities to new entrants • Construction, automotive, textiles, durable goods drive demand and all are growing sectors in Turkey and in the region
<p>Fiber/ filament</p>	<ul style="list-style-type: none"> • Turkey is strong in fibers and filaments due to its <u>historic success in textiles</u> sector. These products are <u>used in textiles, construction and automotive, all major sectors</u> in Turkish economy and <u>demand for them is expected to grow robustly over the next five years</u>
<p>Petro- chemicals</p>	<ul style="list-style-type: none"> • Turkey is among <u>one of the fastest growing petrochemical markets</u> after China and India being 2nd largest net importer of petrochemicals in the world. • Turkey lacks basic chemicals and offers ample oppurtunities due to growing end use industries
<p>Fertilizers</p>	<ul style="list-style-type: none"> • Turkey's demand for fertilizers is 10th highest in the world • The country has the 7th largest agricultural production in the world

AGENDA

- Market Overview
- **Growth Drivers**
- Success Stories

RISING ECONOMY

WITH PAST AND EXPECTED FUTURE GROWTH, TURKEY IS AMONG ONE OF THE RISING ECONOMIES IN THE WORLD

13TH LARGEST ECONOMY IN THE WORLD



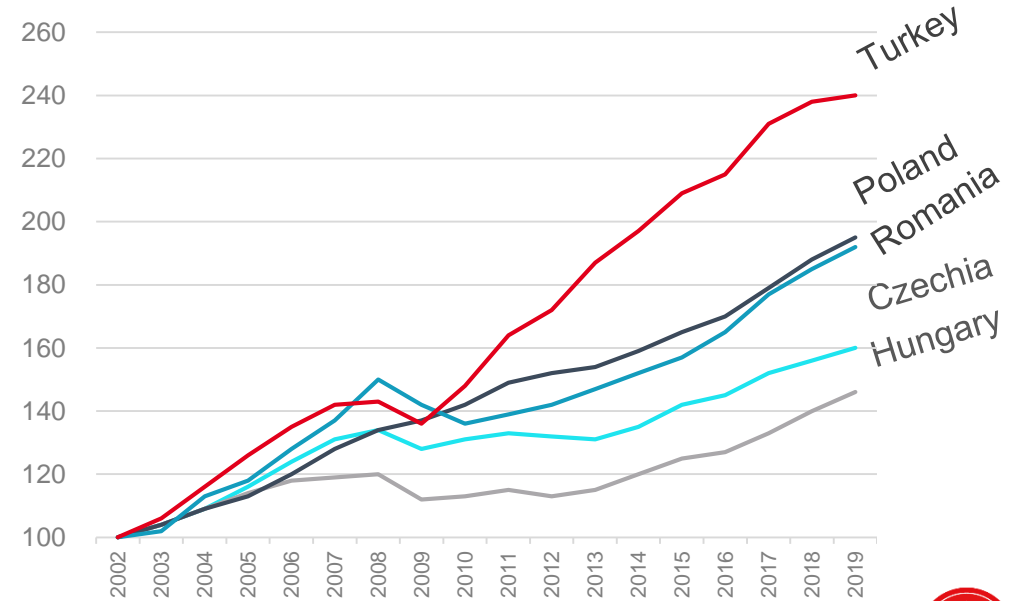
AVERAGE ANNUAL GDP GROWTH (%), 2003-2019



RANKING OF ECONOMIES BY GDP AT PPP

2003		2019	
1	USA	1	CHINA
2	CHINA	2	USA
3	JAPAN	3	INDIA
4	GERMANY	4	JAPAN
5	INDIA	5	GERMANY
6	RUSSIA	6	RUSSIA
7	FRANCE	7	INDONESIA
8	UK	8	BRAZIL
9	BRAZIL	9	UK
10	ITALY	10	FRANCE
11	MEXICO	11	MEXICO
12	INDONESIA	12	ITALY
13	SPAIN	13	TURKEY
14	CANADA	14	S.KOREA
15	S.KOREA	15	SPAIN
16	S.ARABIA	16	CANADA
17	IRAN	17	S.ARABIA
18	TURKEY	18	IRAN

REAL GDP GROWTH (INDEX: 2002=100)



Source: TurkStat, OECD, World Bank, IMF, PPP: Purchasing Power Parity

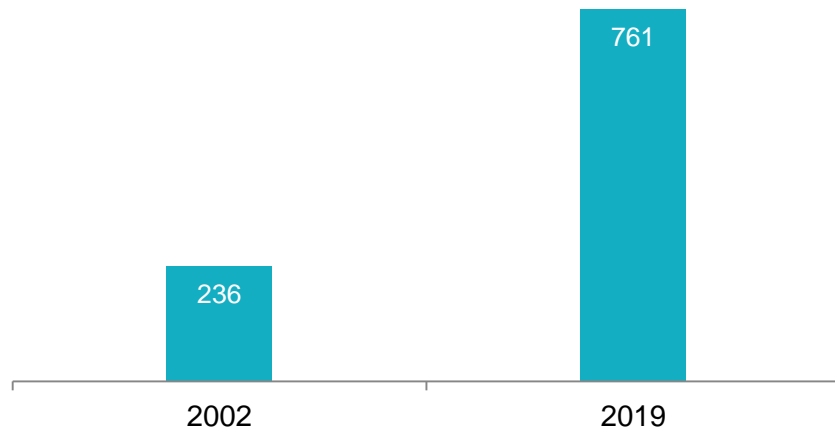


DRIVEN BY A DIVERSIFIED STRUCTURE, TURKISH ECONOMY HAS MORE THAN TRIPLED OVER THE PAST 16 YEARS

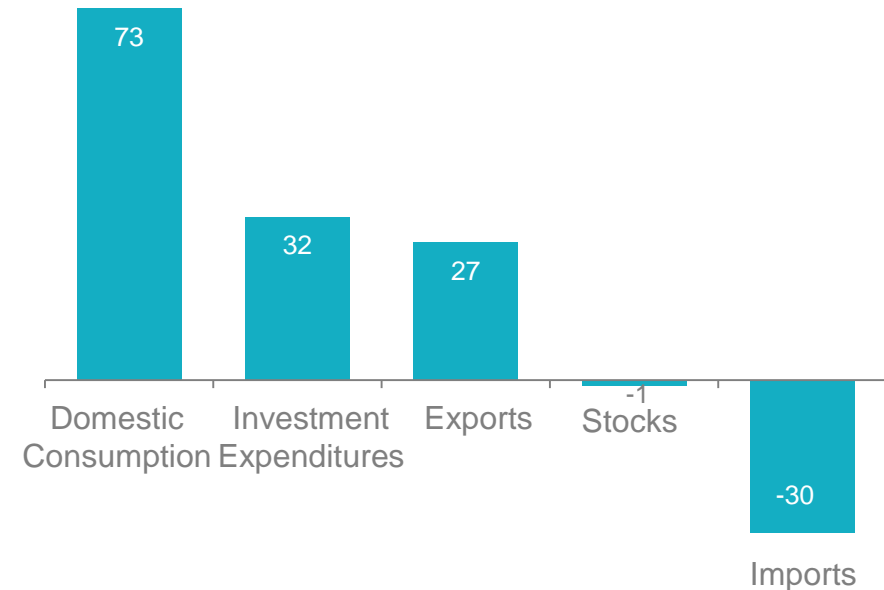
Turkish economy has more than tripled over the past 16 years and is promising more growth in future

Driven by a robust domestic market and entrepreneurial private sector which has spurred investments and exports

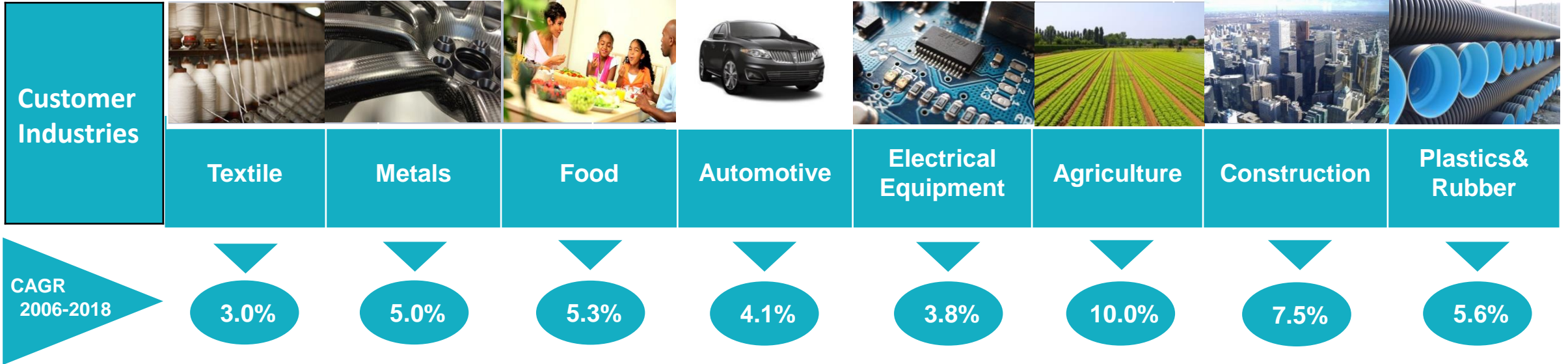
Turkish Economy (GDP at current prices, \$Billion)



Contribution to GDP Growth 2002-2019* (%)



Source: TurkStat, *current prices

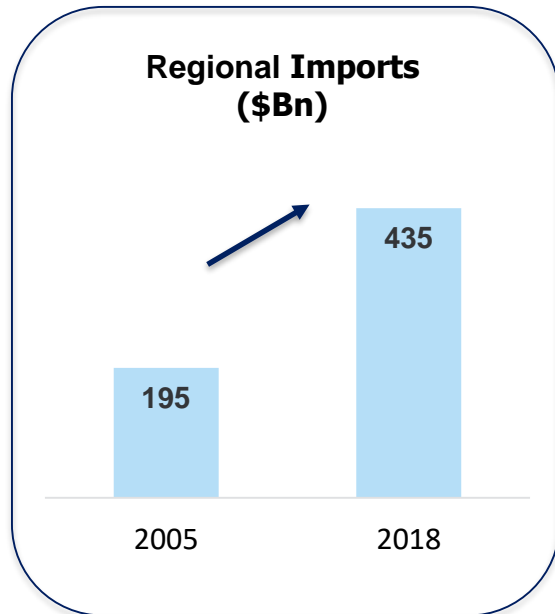


- 7th largest agricultural production in the world and demand for fertilizer is 10th highest in the world
- 2nd largest plastics producer after Germany in Europe.
- 5th largest paint producer in Europe
- Largest TV & white goods producer in Europe
- 15th largest manufacturer automotive manufacturer globally

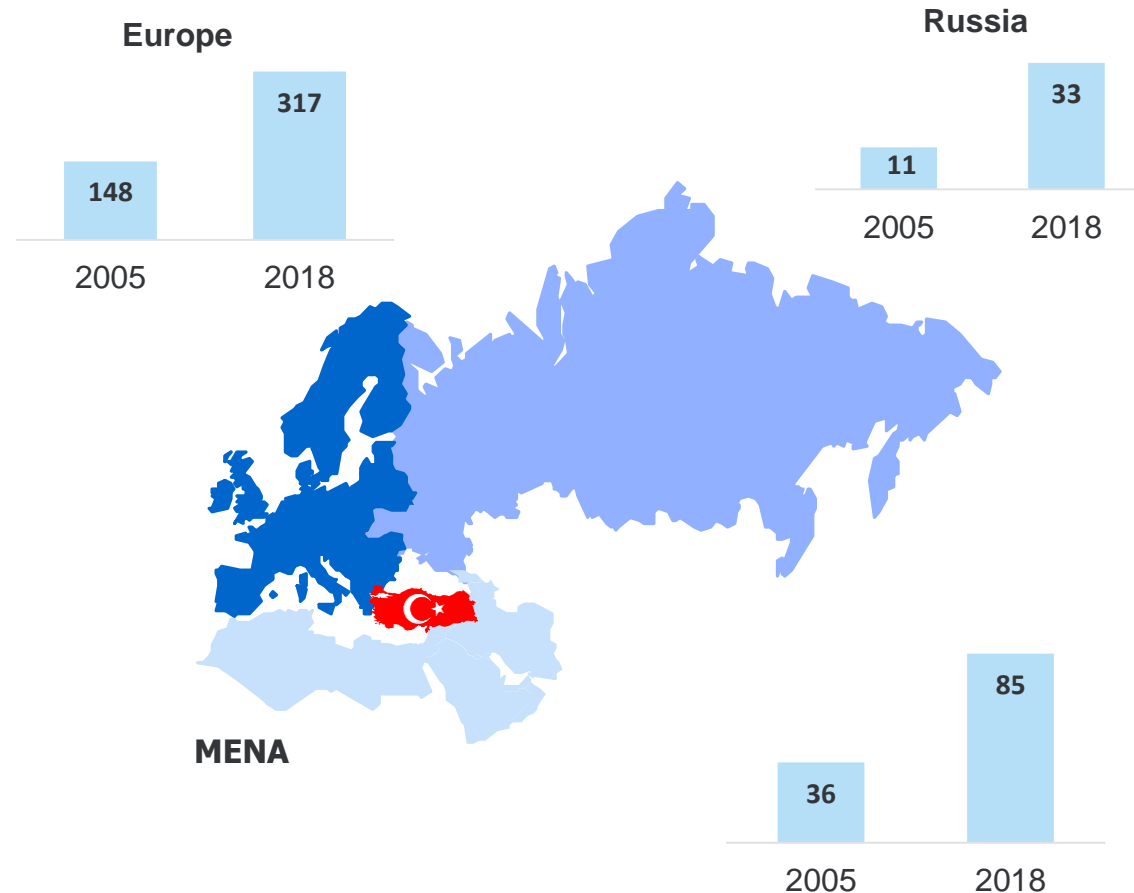
TURKEY IS WELL CONNECTED WITH THE REGION THROUGH CUSTOM UNION WITH EU AND FTAS WITH 28 COUNTRIES. ALLOWING CHEMICAL MANUFACTURER IN TURKEY TO ACCESS THESE MARKETS WITHOUT ANY CUSTOM RESTRICTIONS

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

Over the past decade regional trade of chemicals increased by \$240bn, reaching \$435bn in 2018, up from \$195bn in 2005; **130% of growth**

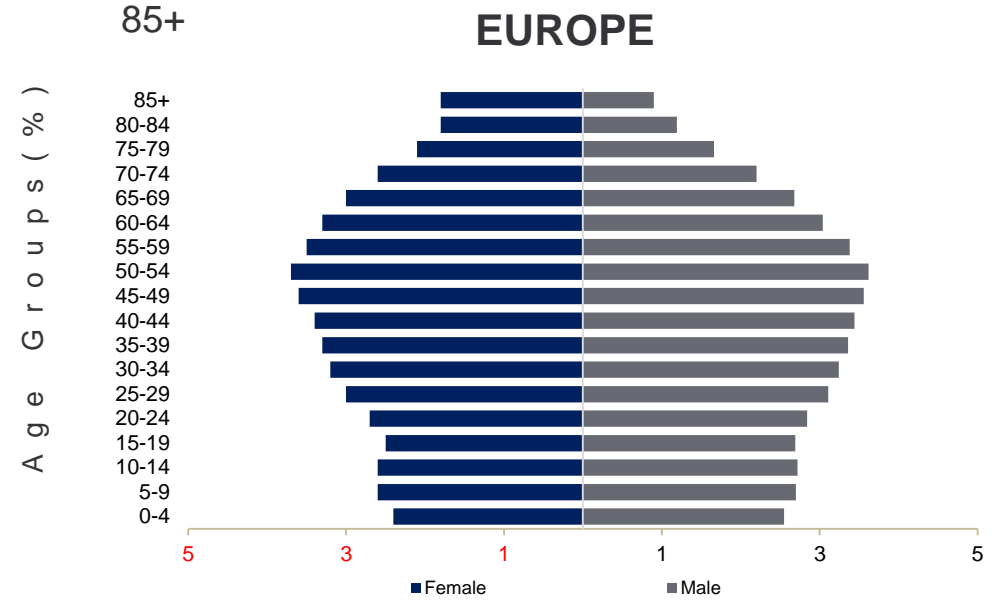
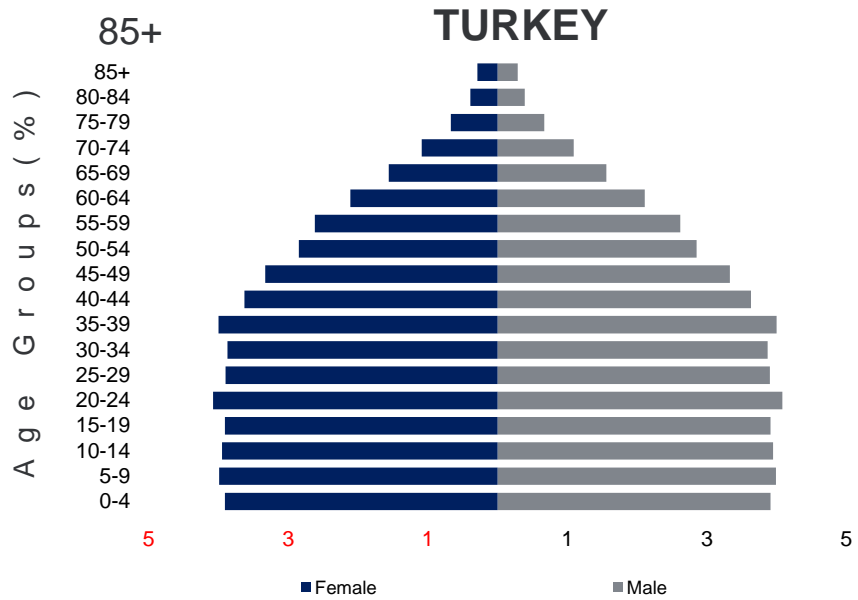


Increase in Imports of Chemicals from 2005 to 2018 (\$Billion)

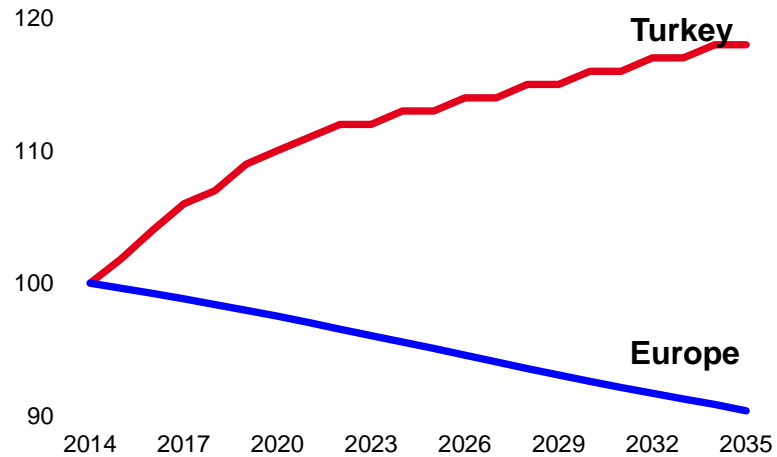


FAVORABLE DEMOGRAPHICS

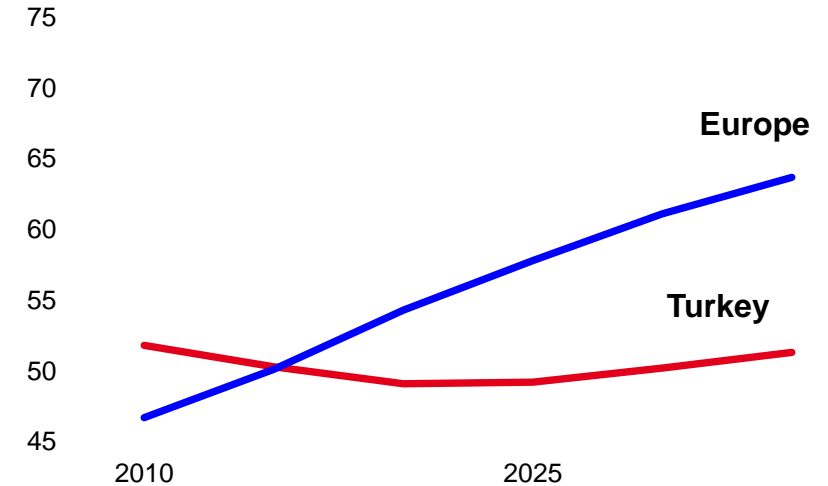
...HALF OF POPULATION UNDER AGE 32.4



Working Age Population (15-64+) (Index: 2014=100)



Total Dependency Ratio (% (Age 0-14 & 64+)/Age 15-64)

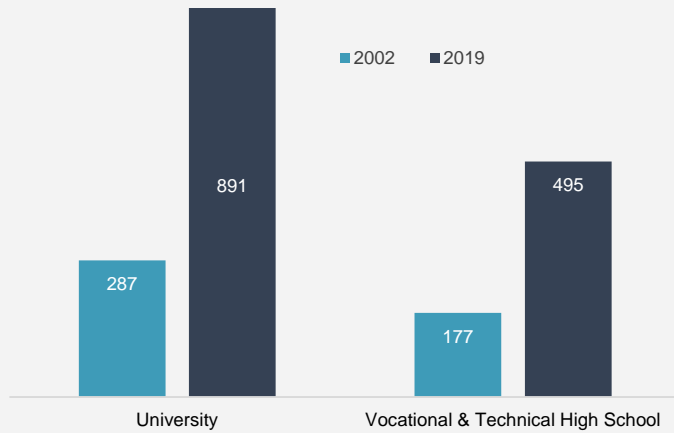


Source: Turkstat, Eurostat, UN, 2019

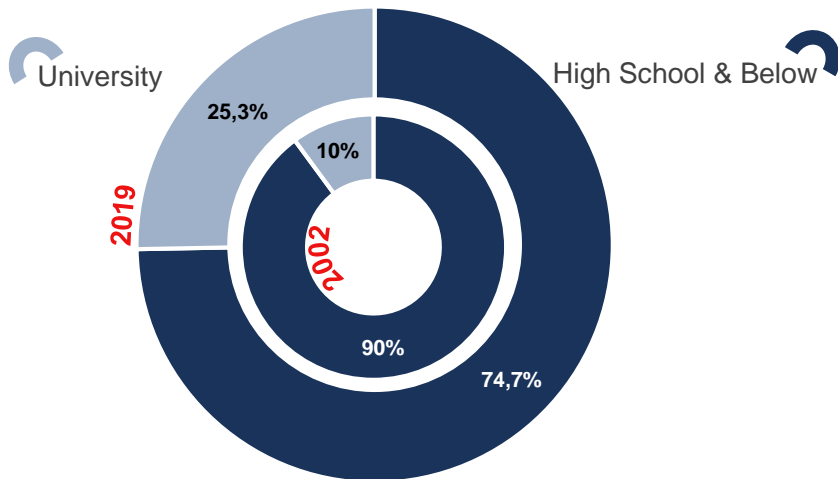
SKILLED WORKFORCE WITH COST ADVANTAGE

REQUIRED SKILLS ARE READILY AVAILABLE IN TURKEY WITH A COMPETITIVE COST ADVANTAGE..

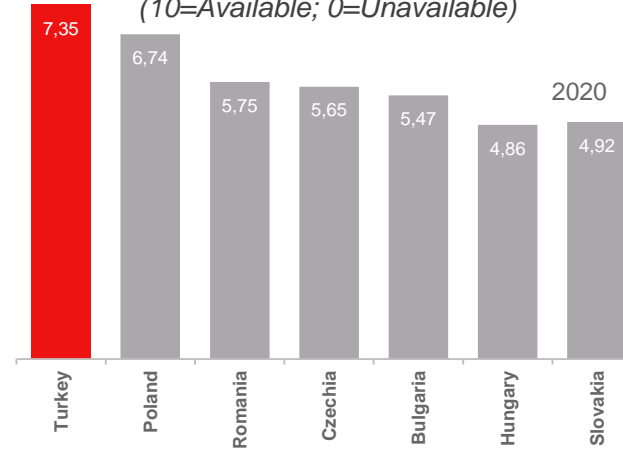
Annual Number of Graduates (thousands)



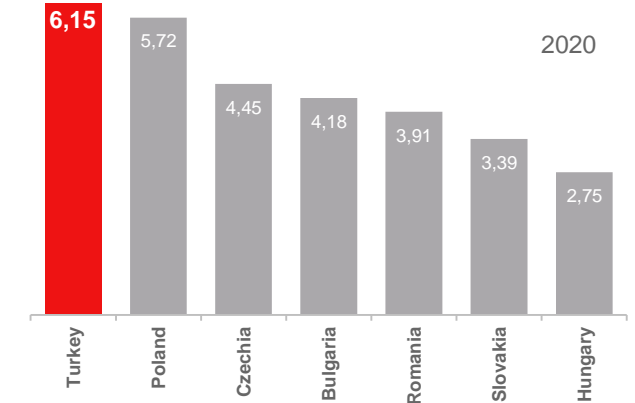
Labor Force by Education Level



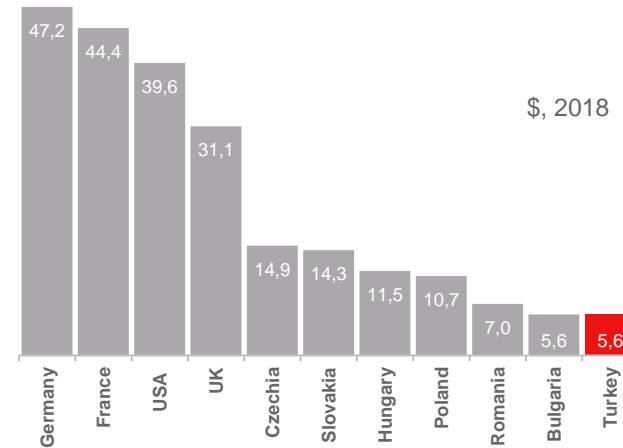
Availability of Qualified Engineers (10=Available; 0=Unavailable)



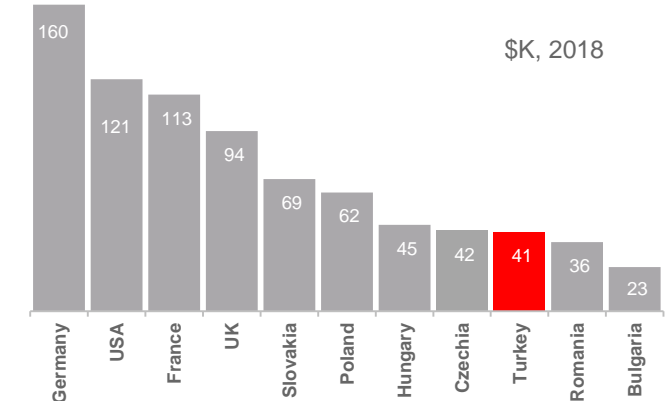
Availability of Competent Senior Managers (10=Available; 0=Unavailable)



Labor Cost per hour in Manufacturing



Remuneration of Management/Engineer (Total base salary plus bonuses and long-term incentives)



Source: Ministry of National Education, Council of Higher Education, Turkstat, IMD World Competitiveness Yearbook Executive Opinion Survey based on an index from 0 to 10; Eurostat, US BLS

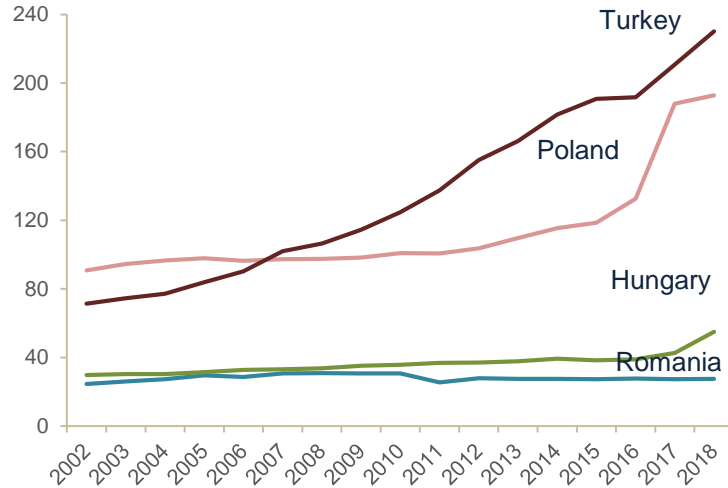
BENIGN R&D ECOSYSTEM

A FAVORABLE R&D ECOSYSTEM IS SUPPORTED THROUGH EXCLUSIVE INCENTIVES, ATTRACTING OVER 200 MULTINATIONAL COMPANIES TO ESTABLISH R&D CENTERS IN TURKEY

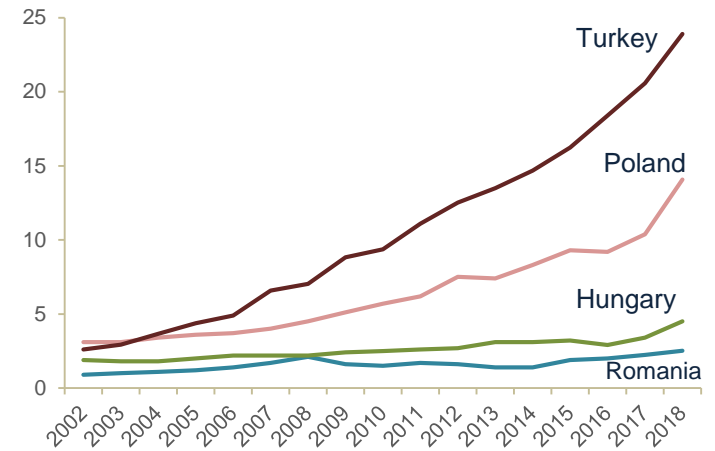


200+
R&D centers
by Multinationals

Number of Researchers (thousands)



R&D Spending (\$ Billion, PPP*)

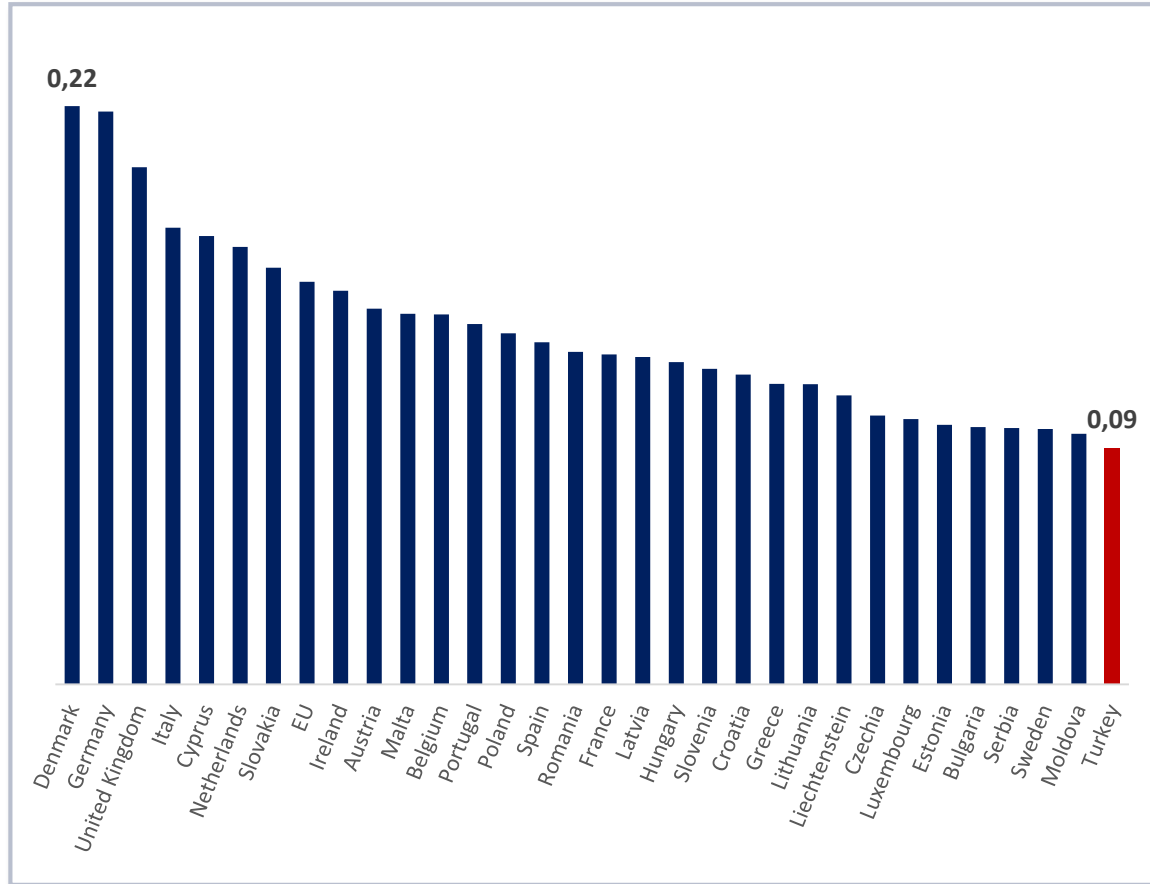


Selected Multinationals conducting R&D in Turkey

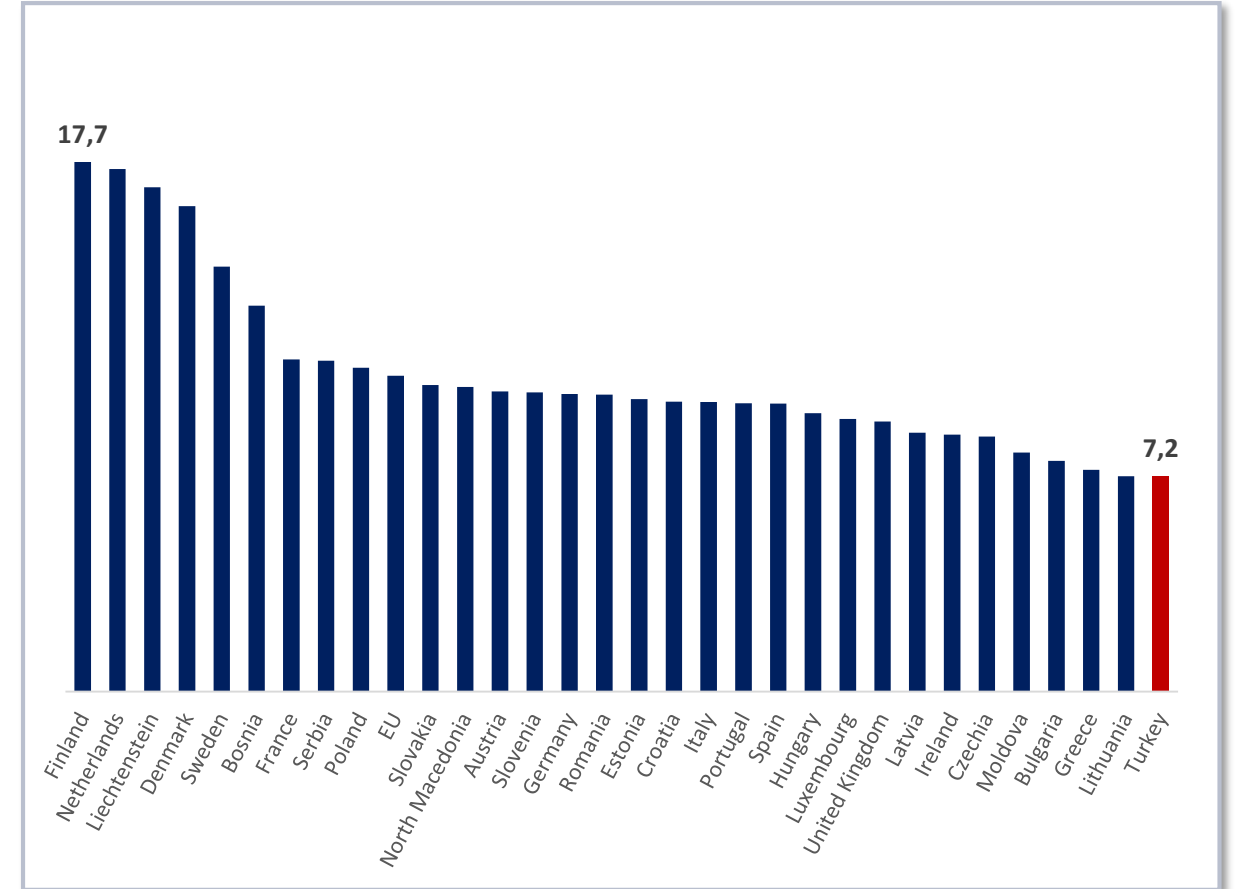


ELECTRICITY AND NATURAL GAS PRICES IN TURKEY HAVE BEEN COST COMPETITIVE IN COMPARISON WITH THE EU

Electricity prices, Euro/kWh, 2020



Natural Gas prices, Euro/Gigajoules, 2020



1 gross calorific value = GCV

Source: Eurostat, All taxes and levies included, Electricity; Band IC : 500 MWh < Consumption < 2 000 MWh, Gas; Band I3 : 10 000 GJ < Consumption < 100 000 GJ

Note: Incentives specific to petrochemical industry have not encountered

CHEMICAL INVESTMENTS IN MANUFACTURING AND R&D CAN BENEFIT FROM VARIOUS LUCRATIVE INCENTIVES..

Main Incentive Tools	Incentive Schemes					
	General Incentives	Regional Incentives	Incentives for Priority Investments	Incentives for Strategic Investments	Incentives for 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		✓	✓	✓	✓	
VAT Refund				✓	✓	
Partnership (Equity Investment by Gov.)					✓	
Guarantee of Purchase by Gov.					✓	
Energy Cost Support					✓	

Main Incentive Tools

Tax Deduction: Reduced tax rates (100%) for investor's income until the total deduction reaches to a certain percentage of capex. (30-80 % 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 OIZs.

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

Source: Ministry of Economy, MSTI

*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

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- **Success Stories**

FOREIGN DIRECT INVESTMENTS IN TURKISH CHEMICALS INDUSTRY HAVE BEEN ACTIVE THROUGH GREENFIELD AND M&A ACTIVITIES

Foreign Direct Investments in Turkish Chemical Industry 2007-2020

Number of Greenfield Projects

140

M&A Activities

78



CHEMICAL INDUSTRY GIANTS HAVE BEEN MANUFACTURING IN TURKEY FOR DECADES..



- Operational in Turkey for 137 years
- 6 manufacturing facilities and 7 offices in Turkey for chemicals, performance products, functional materials & solutions, agricultural solutions
- Sales of EUR 742 million in Turkey in 2015
- Managing 78 countries from Turkey
- 750 employees



- Been in Turkey for 30 years
- **Manufacturing** products of safety, industrial/filter, personal care, automotive and healthcare in Turkey
- Opened up a super-sized manufacturing plant that is called '**Super Hub**' and Innovation Center in 2015 with an investment worth 0.5 billion USD
- Uses Turkey as a **management** hub for India, Middle East and Africa
- **Exporting** 60% of its production



- Operational in Turkey for 30 years
- Award winner exporter with over 20% of production in Turkey exported to more than 10 countries
- USD 700 million of investment in manufacturing facilities
- 900 employees
- Uses Turkey as a regional hub for Turkey and the Caucasus
- 60% of products sold in Turkey produced locally



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



- 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 – Istanbul, Bursa, Balıkesir, Kocaeli, Adana, Ankara
- 3 production facilities: starch & sweeteners in Bursa, fats & oils in Balıkesir, oleo-chemicals in Kocaeli
- Uses Turkey as a management hub for 19 countries in MENA



- Operational in Turkey for over 100 years
- 8 manufacturing facilities
- Over 5,000 employees
- New factory for personal and homecare categories in Turkey creates an investment ecosystem of EUR 350 million along with suppliers
- 29 brands and presence in 9 out of 10 households with its products
- 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
- JV with Aksa (DowAksa) for carbon fiber production in Yalova & JV with Polisan (DCM) for production of various types of emulsion for coatings market in Gebze
- Uses Turkey as a regional export hub mainly for Eastern Europe & Middle East



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