



PRESIDENCY OF
THE REPUBLIC OF TÜRKİYE
**INVESTMENT
OFFICE**

INVESTMENT OPPORTUNITIES IN TURKISH MACHINERY INDUSTRY?

Mai 2021

[INVEST.GOV.TR](https://invest.gov.tr)



AGENDA

1

Executive
Summary

2

Turkish Machinery
Industry Outlook

3

Growth Drivers
in Turkey

4

Opportunities in Turkish
Machinery Industry

5

Success
Stories



TURKISH MACHINERY INDUSTRY?

1

EXECUTIVE SUMMARY

TURKEY HAS A GROWING MACHINERY INDUSTRY OFFERING OPPORTUNITIES IN MANY AREAS...



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 manufacturing and R&D incentives



STRONG INTERNATIONAL PRESENCE

- Global machinery companies have been present in Turkey with significant manufacturing activities, using Turkey as a hub to access regional markets
- Successful partnerships with local companies to grow in the region, capitalizing on locals' experience and networks



LUCRATIVE OPPORTUNITIES IN SUB-SECTORS

- World-scale domestic demand and strong industrial base offer ample opportunities in agricultural machinery, construction & mining machinery, energy equipment such as electric motors & turbines, food processing & packaging machinery, HVAC, lifting & handling equipment, metalworking & machine tooling, pumps & compressors, textile machinery



ROBUST GROWTH IN THE SECTOR

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

AGENDA

1

Executive
Summary

2

Turkish Machinery
Industry Outlook

3

Growth Drivers
in Turkey

4

Opportunities in Turkish
Machinery Industry

5

Success
Stories

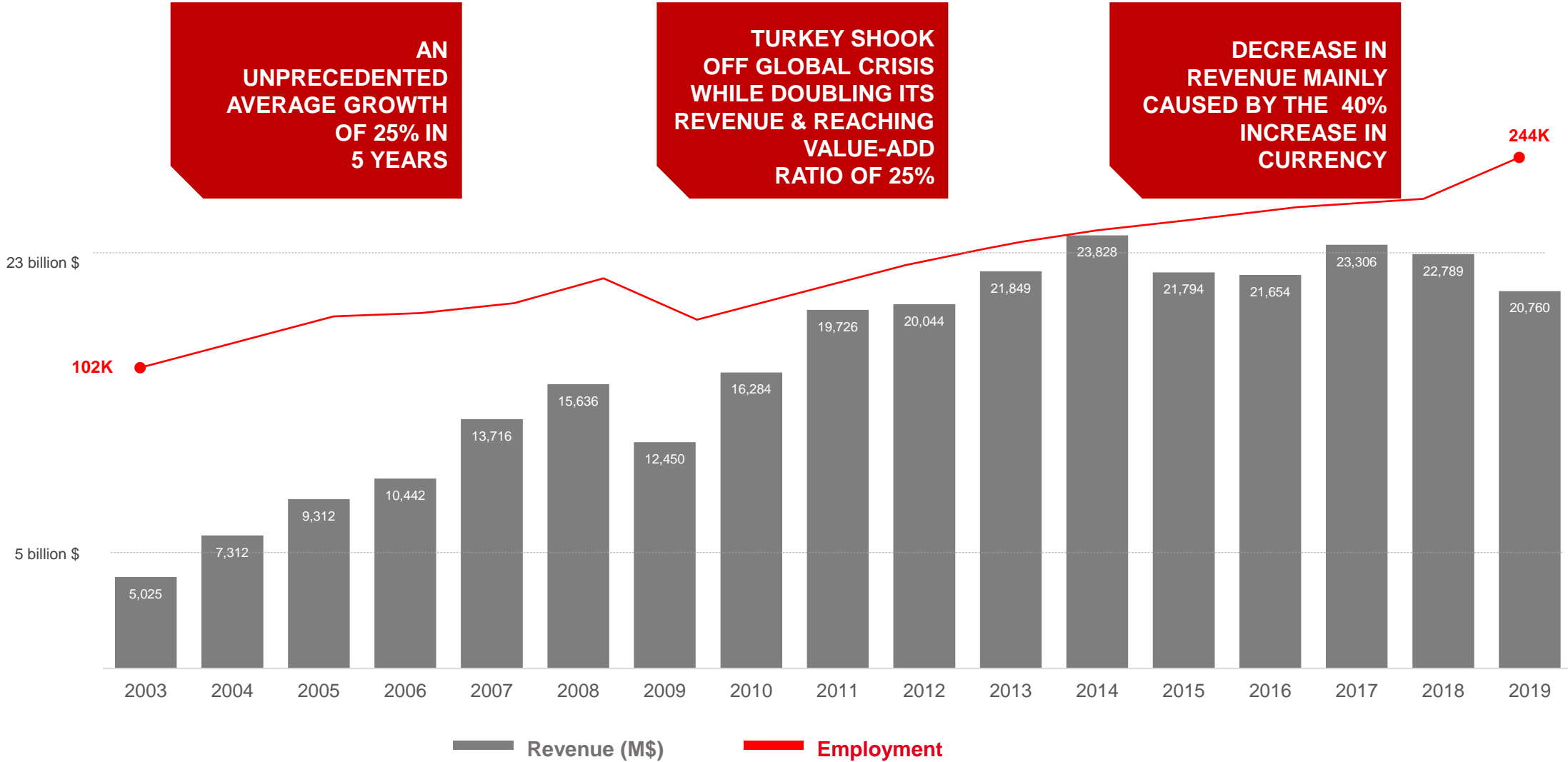


TURKISH MACHINERY INDUSTRY OUTLOOK

2

TURKISH MACHINERY INDUSTRY

TURKISH MACHINERY SECTOR HAS MORE THAN QUADRUPLED ITS REVENUES TO USD 21 BILLION AND DOUBLED ITS WORKFORCE TO 244K OVER THE PAST DECADE

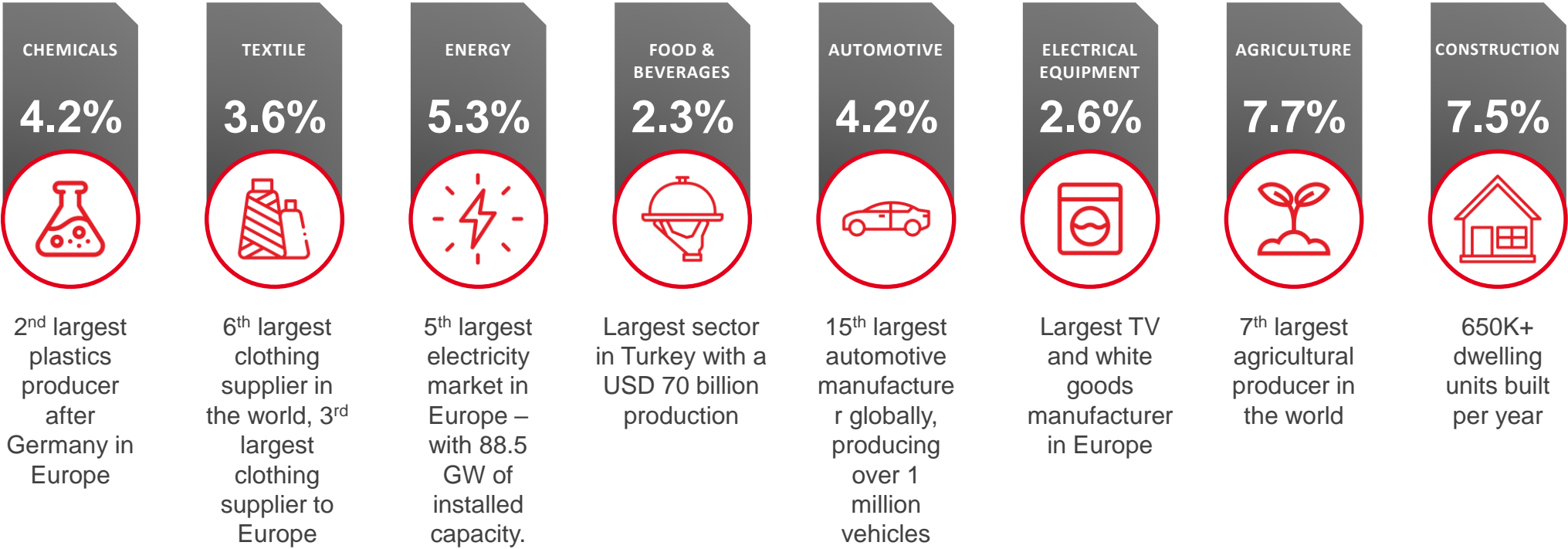


END-USE INDUSTRIES

SUSTAINABILITY OF GROWTH IN CUSTOMER INDUSTRIES DRIVING TURKEY'S MACHINERY INDUSTRY...



CAGR
2009-2019



FOREIGN TRADE

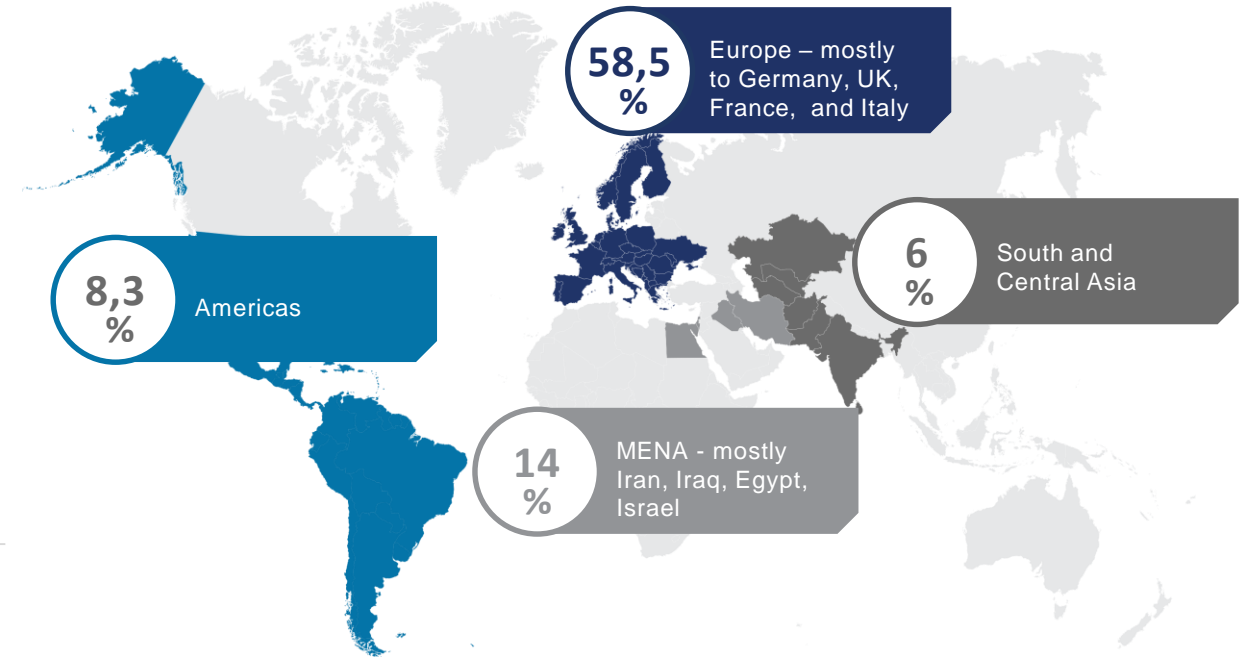
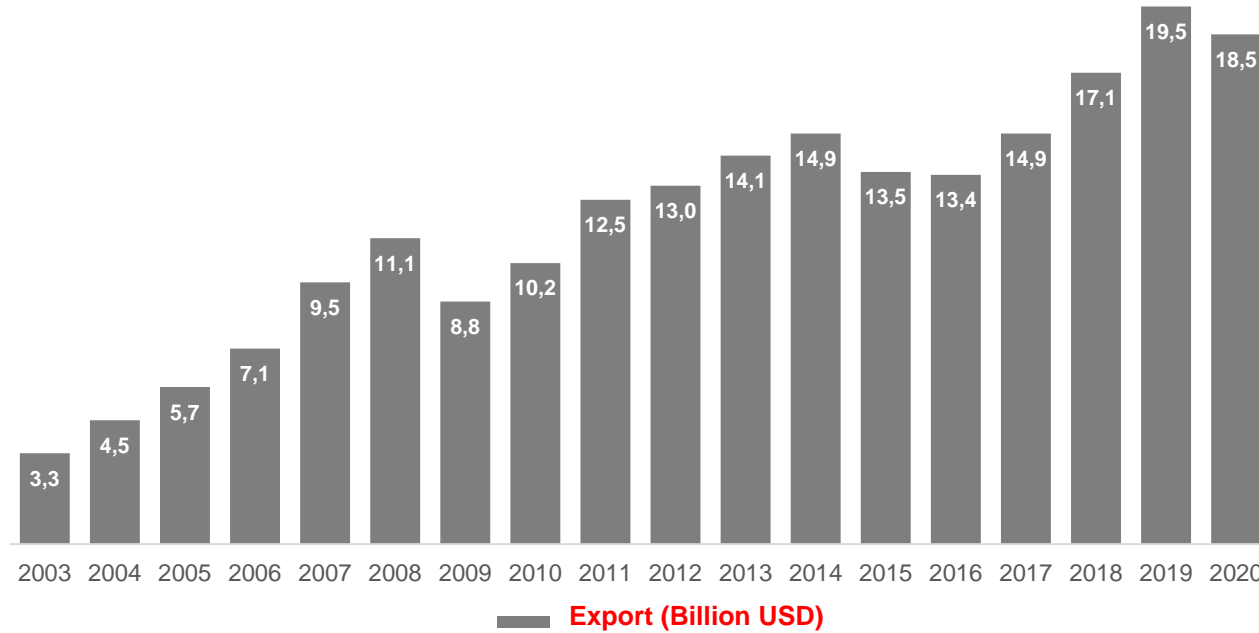
TURKEY'S EXPORTS HAVE GROWN
FIVE TIMES SINCE 2003, MAKING IT ONE OF THE TOP
PERFORMERS IN THE WORLD MACHINERY TRADE



WHEN WORLD EXPORTS DOUBLED,
TURKEY'S EXPORTS
INCREASED FIVE TIMES...



...WHILE DIVERSIFYING ITS
EXPORT MARKETS:



FOREIGN TRADE

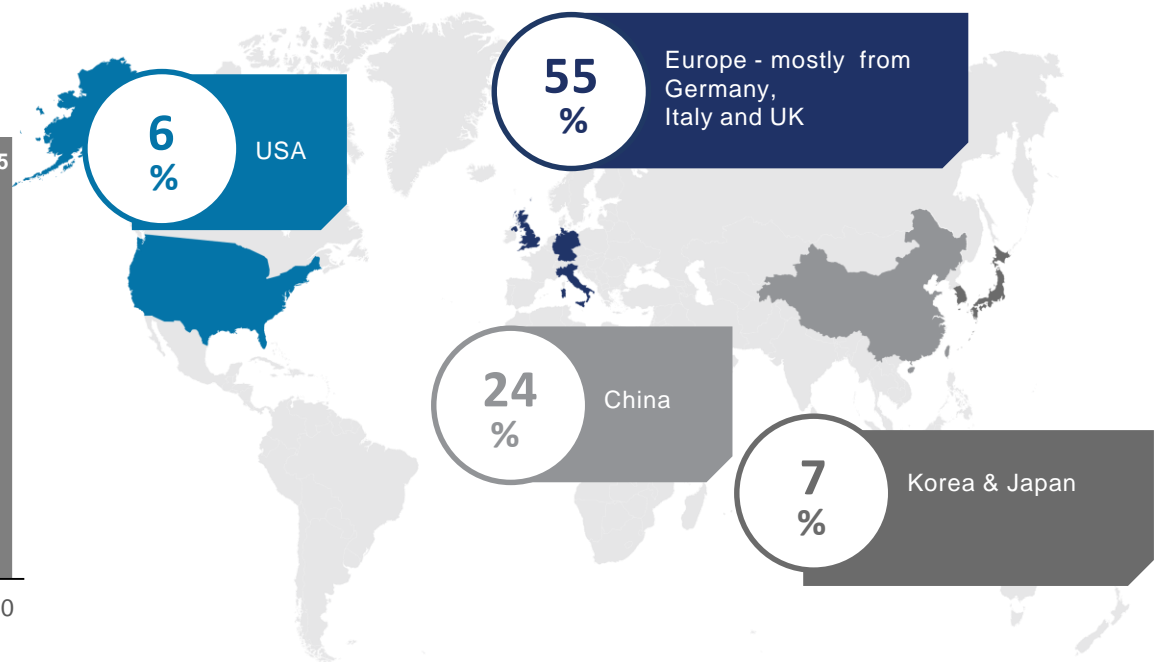
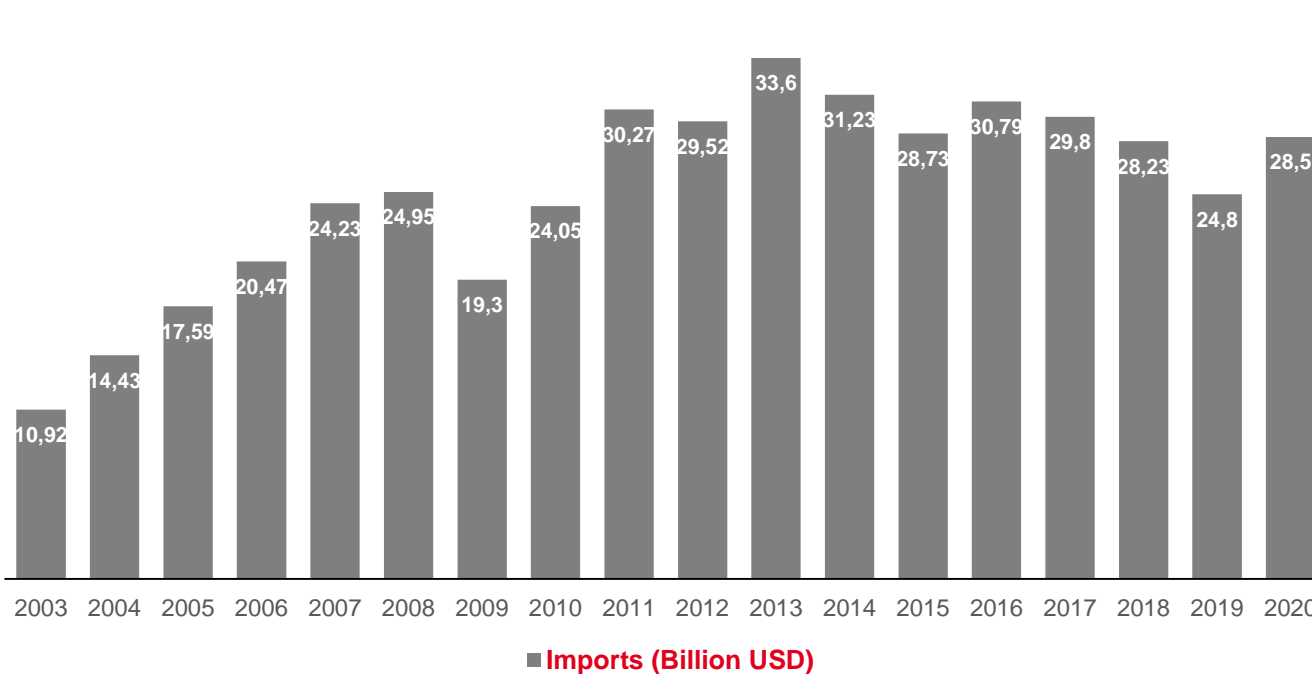
TURKEY HAS ALMOST TRIPLED ITS IMPORTS TO USD 28 BILLION AND NOW IS THE 24TH LARGEST IMPORTER IN THE WORLD



TURKEY HAS INCREASED ITS EXPORT/IMPORT RATIO FROM 30% TO 65% SINCE 2003...



...WITH THE FOLLOWING BREAKDOWN BY COUNTRIES



MAJOR PLAYERS

THERE ARE OVER 17K COMPANIES IN TURKISH MACHINERY SECTOR WHERE BOTH LOCAL AND INTERNATIONAL PLAYERS ARE ACTIVE

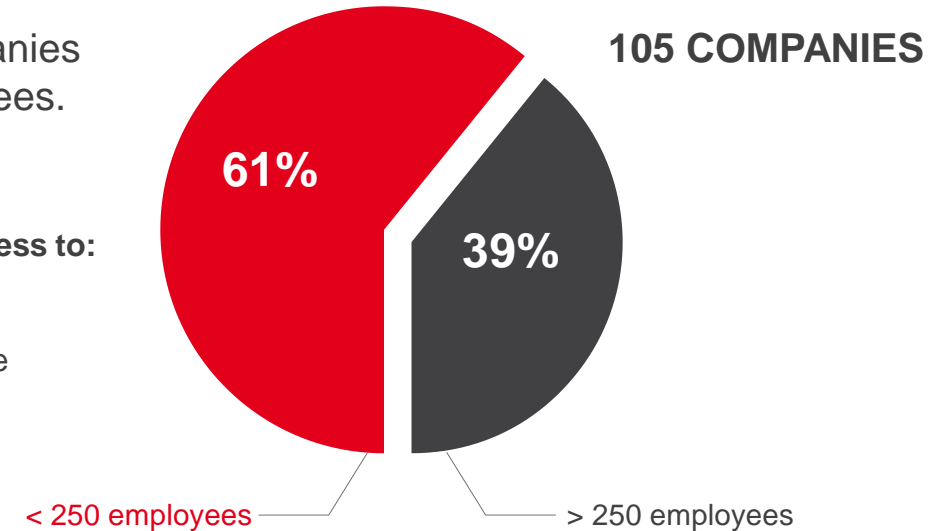


**OVER 60% OF
MACHINERY REVENUE
IS MADE BY SMALL AND
MEDIUM ENTERPRISES**

75% of the companies
have <10 employees.

Growth requires access to:

- Market
- Technology
- International finance



10 OF THE LARGEST 25 PLAYERS
ARE INTERNATIONAL & EXPORT
RATE IS 40% ON AVERAGE

**40%
EXPORT ON AVERAGE**



AGENDA

1 Executive Summary

2 Turkish Machinery Industry Outlook

3 Growth Drivers in Turkey

4 Opportunities in Turkish Machinery Industry

5 Success Stories



GROWTH DRIVERS IN **TURKEY**

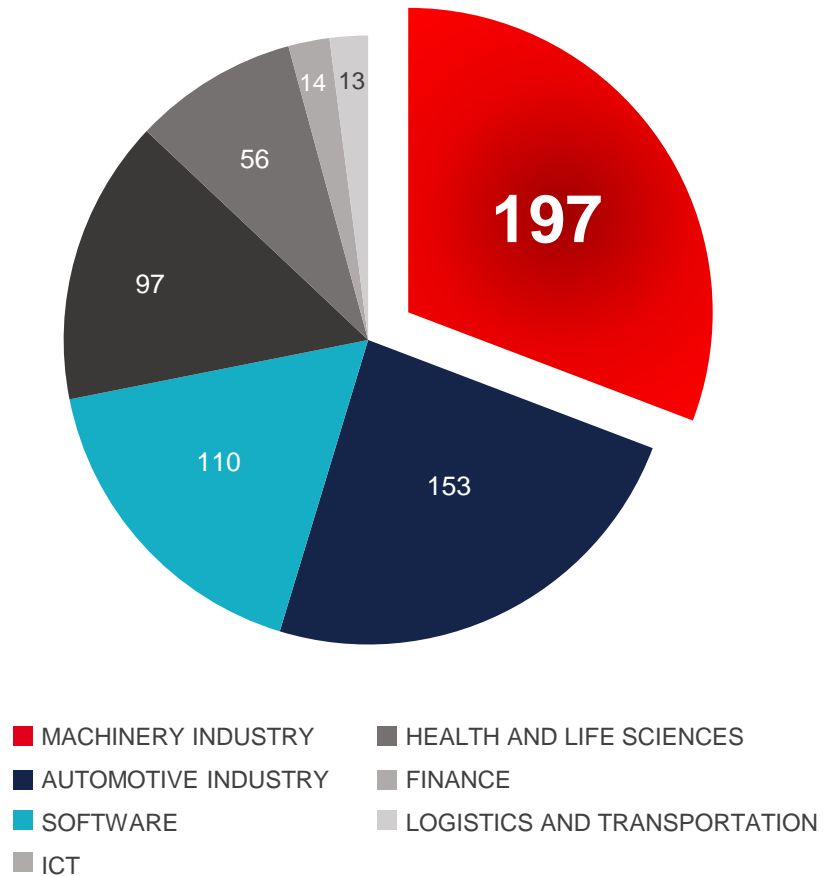
3

R&D INCENTIVES

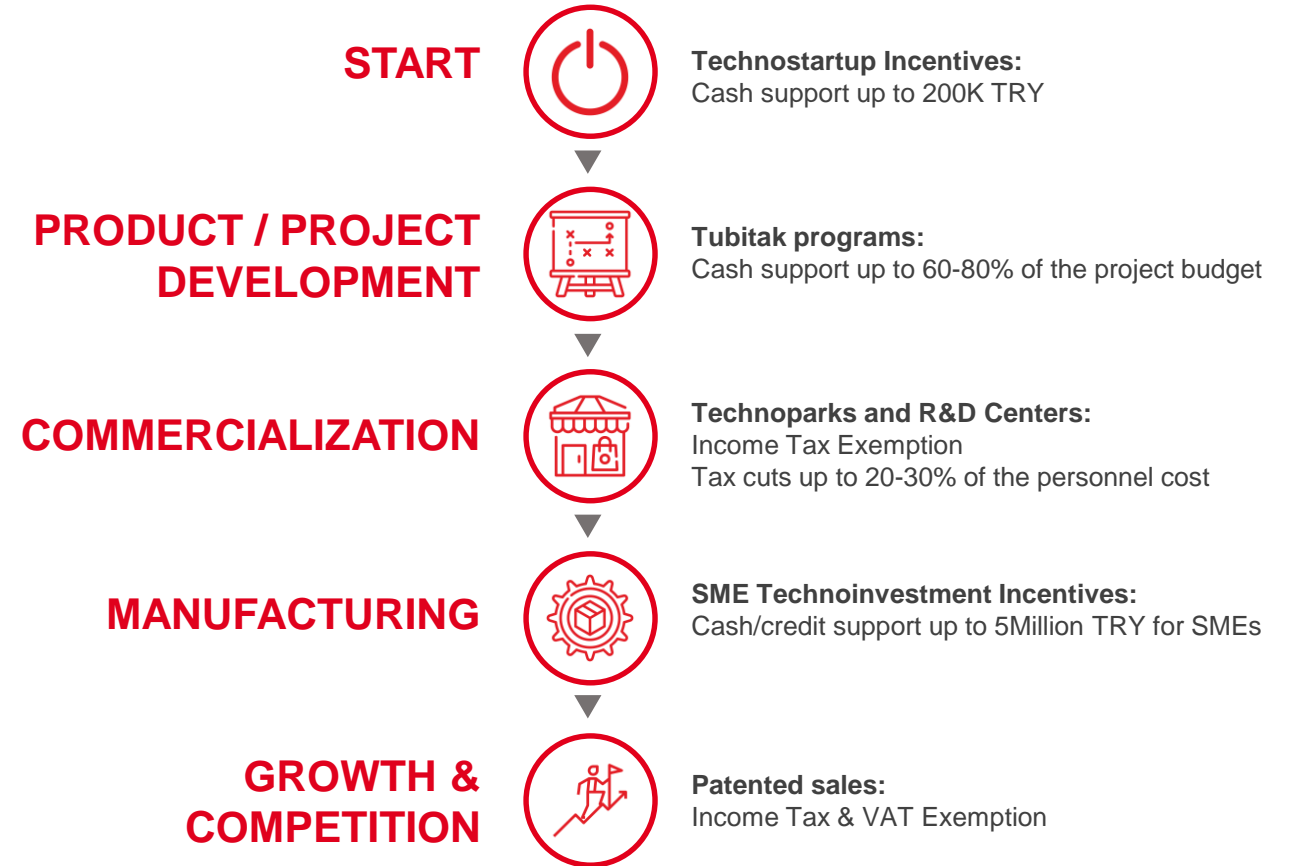
EXCLUSIVE INCENTIVES INCLUDE SUPPORT TO TECH ENTREPRENEURS TO CREATE INNOVATIVE HIGH VALUE-ADDED ACTIVITY, WHICH WILL BE KEY TO CATCH UP WITH THE NEW INDUSTRIAL REVOLUTION



BREAKDOWN OF R&D CENTERS BY SECTOR



INCENTIVES THROUGH INNOVATION LIFECYCLE



INCENTIVES - HAMLE

HAMLE;TECHNOLOGY FOCUSED INDUSTRIAL MOVEMENT PROGRAM



The Technology Focused Industry Movement Program has been launched in 2019



Complete support for high-value added, medium-high tech and high-tech products manufactured in certain sectors with local resources and capabilities ;Machiney, Computer, Electronics, Chemicals etc.



R&D incentives, KOSGEB incentives and investment incentives will be given through a single platform / www.hamle.gov.tr



The products will be supported from concept phase to marketing



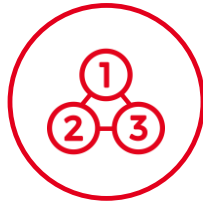
The investments supported in the program shall receive **strategic investment incentives**.



Investments over TRY 50 million will be able to benefit from **project based investment incentives**



The Ministry of Industry and Technology will create schedules within the scope of **investor calls** for each sector.



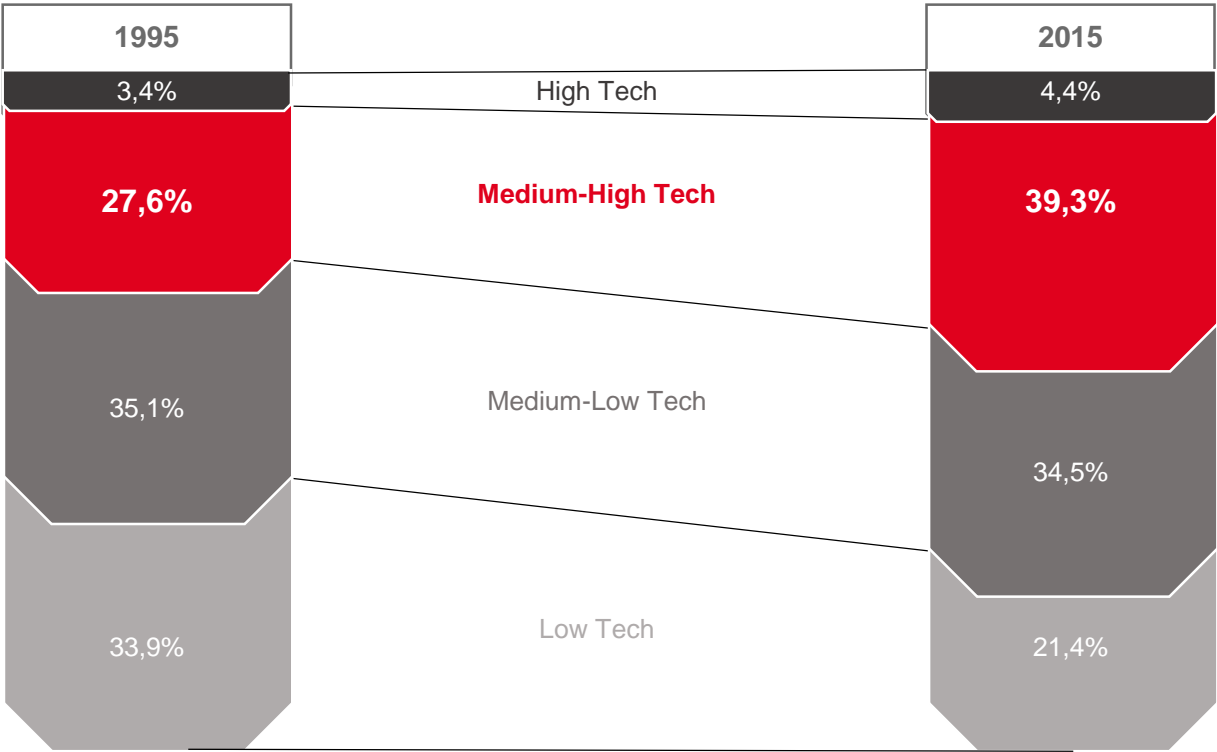
Application Process in 3 Stage
Stage 1 PRE APPLICATION
(1 MONTH)
Stage 2 DETAILED APPLICATION
(3 MONTHS)
Stage 3 FINAL DECISION
(1 MONTH)



The **purchasing guarantee** mechanism will also operate in projects where the state is the buyer



Classification of
Turkish
Manufacturing
Exports by
Technology Intensity



DIGITALIZATION PLATFORMS

DIGITILAZATION HAS MADE A HUGE IMPACT WITHIN THE TURKISH INDUSTRIES AS TECHNOLOGY COMPANIES FROM DIFFERENT FIELDS HAVE FOCUSED ON DIFFERENT FORMS OF DIGITALIZATION.



Tüsiad SD2 platform

- bring technologists and technological solution providers together in the production process;
- support the introduction of technology supplier capacity and technology production;



ICI Digital Transformation

- helps industrial companies to understand the importance of digital transformation
- increase the competitiveness of the industry by creating a digital road map of ICI members and to create more value for the country's economy



Türkonfed Digital Transformation Center

- offering support services to SMEs about digital transformation
- Awareness and inspirational support to SMEs

DIGITALIZATION PLATFORMS

TO FURTHER VALUE-ADDED MANUFACTURING, THE METAL INDUSTRY ESTABLISHED A STATE-OF-THE-ART TECHNOLOGY CENTER, AN INITIATIVE, WHICH IS STRONGLY SUPPORTED BY THE GOVERNMENT



MEXT



230+ MEMBERS
LOCAL & INTERNATIONAL PLAYERS



An ecosystem of **30+ globally** recognized technology providers, solution integrators, universities and institutions



A platform that brings the latest disruptive technologies of **Industry 4.0** from Americas, Europe and Far East together to:



Create an ecosystem connecting members from various metal industries with global players



Set the aspiration for future industrial development of members in an innovative environment



Develop capabilities to accelerate transformation and reach full industrial potential

10,000 M² CENTER

10x

traditional model factories

30K+ ANNUAL PARTICIPANT TRAINING CAPACITY

5x

the number of students of a mid-sized university

70K+ USE CASES

2 production lines

covering 70+ use cases on discrete manufacturing & continuous process

CORE PARTNERS

McKinsey & Company

 **Fraunhofer**

AGENDA

- 1 Executive Summary
- 2 Turkish Machinery Industry Outlook
- 3 Growth Drivers in Turkey
- 4 Opportunities in Turkish Machinery Industry
- 5 Success Stories

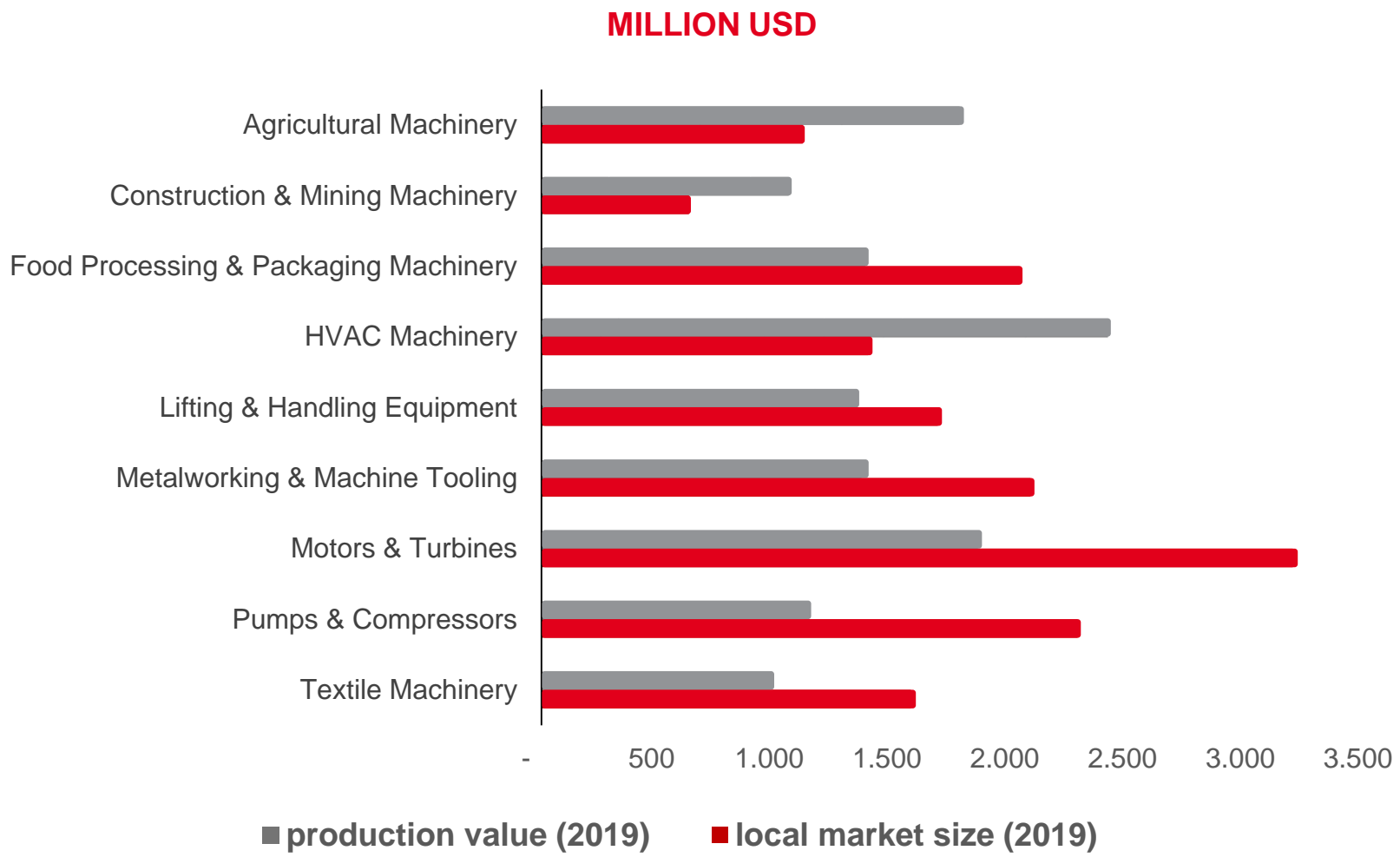


OPPORTUNITIES IN TURKISH MACHINERY INDUSTRY



OPPORTUNITIES IN SUB-SECTORS

TURKEY OFFERS SOLID FUNDAMENTALS
TO MAKE PROFITABLE INVESTMENTS IN THE
MACHINERY SUB-SECTORS



AGRICULTURAL MACHINERY

TURKEY'S AGRICULTURAL MACHINERY
MARKET HAS REACHED TO
USD 1.8 BILLION IN 2019 - 4TH IN EUROPE



KEY FACTS



Strong industrial base -
over 10% share in Europe's
production with **over 50K**
units in 2020



Strong local market with **48K**
units in 2020 - **largest** tractor
sales in Europe, 4th in the
world, **75%** of the local market
supplied by local players

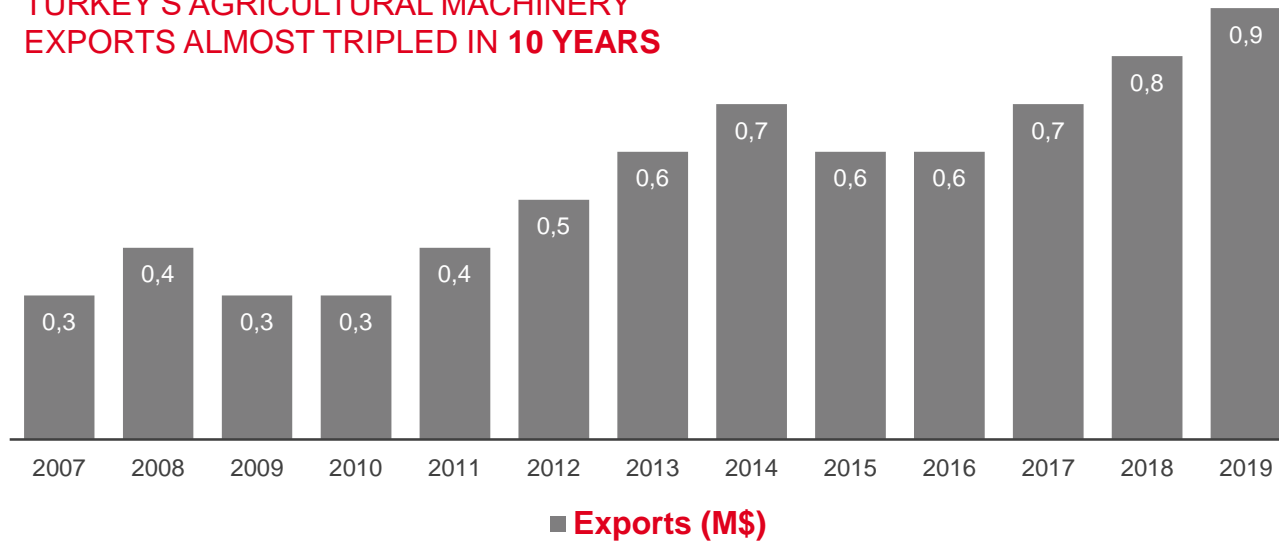


Over 70% of the imports are
higher -value tractors and
harvesting machinery -
investment opportunity for
production



Agricultural machinery
manufacturing ecosystem with
local and international players
with a total of **22K employees**

TURKEY'S AGRICULTURAL MACHINERY
EXPORTS ALMOST TRIPLED IN 10 YEARS



**80% OF EXPORTS GOES TO NORTH AMERICA (40%)
AND EUROPE (40%)**

DRIVEN BY TURKEY'S AGRICULTURAL
ECODEMANDNOMY AND FRAGMENTED STRUCTURE:



Agricultural GDP
USD 80 Billion



Agricultural land
23 Million ha



Arable land
6.1 Million ha



Average enterprise size
7,6 ha



CONSTRUCTION & MINING MACHINERY

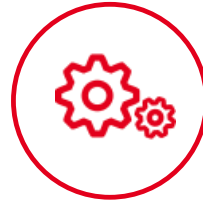
TURKEY'S CONSTRUCTION MACHINERY
EXPORT HAS REACHED USD 1.4 BILLION IN 2019



KEY FACTS



Strong local market - 3rd largest growth in the world after China and India for the last eight years



Local and international companies exist - local market supplied by **35% local production** and **65% import**



Europe's **10th largest manufacturing base** with strong players, **USD 626 million** local market and **USD 1.4 billion** of exports in 2019



Strong & international supplier base - Construction machinery industry can benefit from the supplier base of automotive manufacturing industry in Turkey, which is a European manufacturing hub and has reached **1.3 million** units



Local demand driven by public infrastructure and urbanization projects - opportunity for smaller sized construction machinery



Access to international markets enabled through Turkish construction companies - **44 contractors in ENR250 list**



CONSTRUCTION & MINING MACHINERY



TURKEY INVESTED **USD 100 BILLION** TO
INFRASTRUCTURE PROJECTS IN THE LAST 5 YEARS..

3rd ISTANBUL AIRPORT



3rd ISTANBUL BRIDGE



URBAN TRANSFORMATION
PROJECTS



PUBLIC HOSPITAL PROJECT



..ANOTHER **USD 325 BILLION**
IS EXPECTED BY 2023



ENERGY EQUIPMENT

TURKEY'S ENERGY EQUIPMENT (ELECTRIC MOTORS & TURBINES) MARKET HAS REACHED USD 3.2 BILLION IN 2019



KEY FACTS



5th largest electricity market in Europe; highest growth in Europe with 5.3%



Over USD 75 billion of energy investments made in the last 10 years



Electricity demand and supply to grow by **50%** by **2030** - renewable and local energy resources are priorities



Opportunities in production of **wind/hydro/steam turbines** and **generators**

20GW by 2023; 9GW total in 2020

USD 250 million of wind turbine imports in 2018 - 70% decrease since 2016

YEKA tender for 1GW made in 2017; winning consortium is Siemens-Turkerler-Kalyon at 3.48c/kWh with local production required



WIND

1.6GW geothermal & 1.5GW biomass in 2020; 1.6GW geothermal in the pipeline

USD 46 million of steam turbine imports in 2019 - 83% decrease since 2016



**GEOHERMAL
& BIOMASS**

10GW by 2030; 7GW total in 2020

75% of solar panel imports are from Asia

YEKA tender for 1GW was made in 2017; winning consortium is Hanwha QCells-Kalyon at 6.99c/kWh with local production required



SOLAR

USD 2 billion of electric motor & generator imports in 2020 - 60% from China, Germany, Italy and Slovakia



**ELECTRIC
MOTOR**

34GW by 2023; 31GW total in 2020

USD 39 million of hydro turbine imports in 2019 - 44% decrease since 2016



HYDRO

27.5% of the Akkuyu Nuclear Power Plant will be completed by the end of this year. The start of operation for the first of the plant's by 2023.

Akkuyu and 2nd nuclear project will lead to USD 16 billion of products & service sales

Nuclear supply chain in Turkey to develop through international partnerships



NUCLEAR

10GW lignite, 8.8GW imported coal

18.5GW new capacity for lignite to be developed via PPAs

Lignite power projects are supported via capacity payments, PPAs and tax cuts



COAL

FOOD PROCESSING & PACKAGING MACHINERY

TURKEY'S FOOD PROCESSING & PACKAGING MACHINERY MARKET HAS REACHED USD 2 BILLION IN 2019



KEY FACTS



Strong industrial base with a production value of **USD 2 billion** clustered in Istanbul, Konya, Ankara, Gaziantep and Izmir



Demand driven by the strong packaged food and beverages market in Turkey - **USD 16 billion export in 2019**

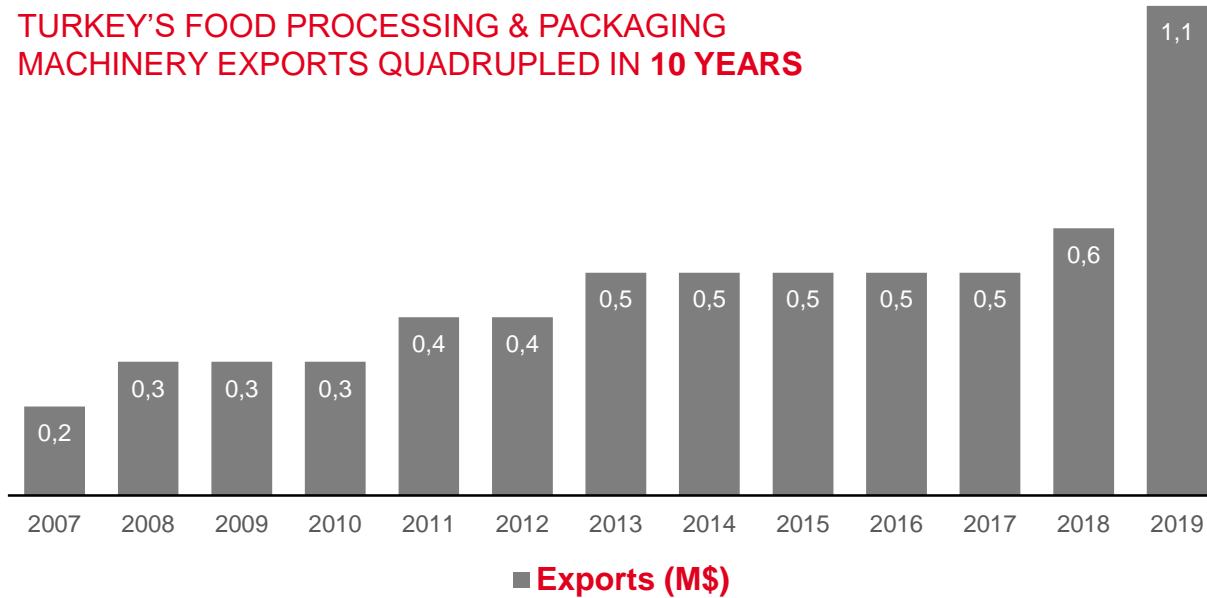


USD 1,8 billion of import in 2019 - major imports are machinery for industrial preparation of food or drink, for treating material by heat change and machinery for filtering or purifying water



Turkey is a manufacturing base for international food giants like **Unilever, Kraft, Nestle, Danone, Ferrero** with **over 15K employees**

TURKEY'S FOOD PROCESSING & PACKAGING MACHINERY EXPORTS QUADRUPLLED IN 10 YEARS



...WHERE 80% OF EXPORTS ARE MACHINERY FOR



Processing & milling of grains and cereals



Industrial preparation of food or drink



Milking machines and dairy machinery

...AND TOP5 EXPORT MARKETS ARE



UZBEKISTAN



IRAQ



KAZAKHSTAN



IRAN



ROMANIA



HVAC

TURKEY'S HVAC MARKET HAS REACHED USD 2.4 BILLION IN 2019



KEY FACTS



Strong industrial base - USD **3.2 billion** in value - **Europe's manufacturing base** for panel radiator, boiler and AHU's



Strong local market - **Europe's largest** split AC market with **1.5M** units and VRF market with **250K** units



Strong local market - **Europe's 4th largest** with **1.3M** boiler units



Demand driven by construction in residential market; **efficiency regulations** and **development** in technology in non-residential market



VRF market has grown 6 times with imports - opportunity for **high-tech production**



Access to international markets through Turkish construction companies - **44 contractors** in **ENR250** list

TOSHIBA



BOSCH
Invented for life



DAIKIN

SAMSUNG

AIRFEL

DemirDöküm

arçelik

LG

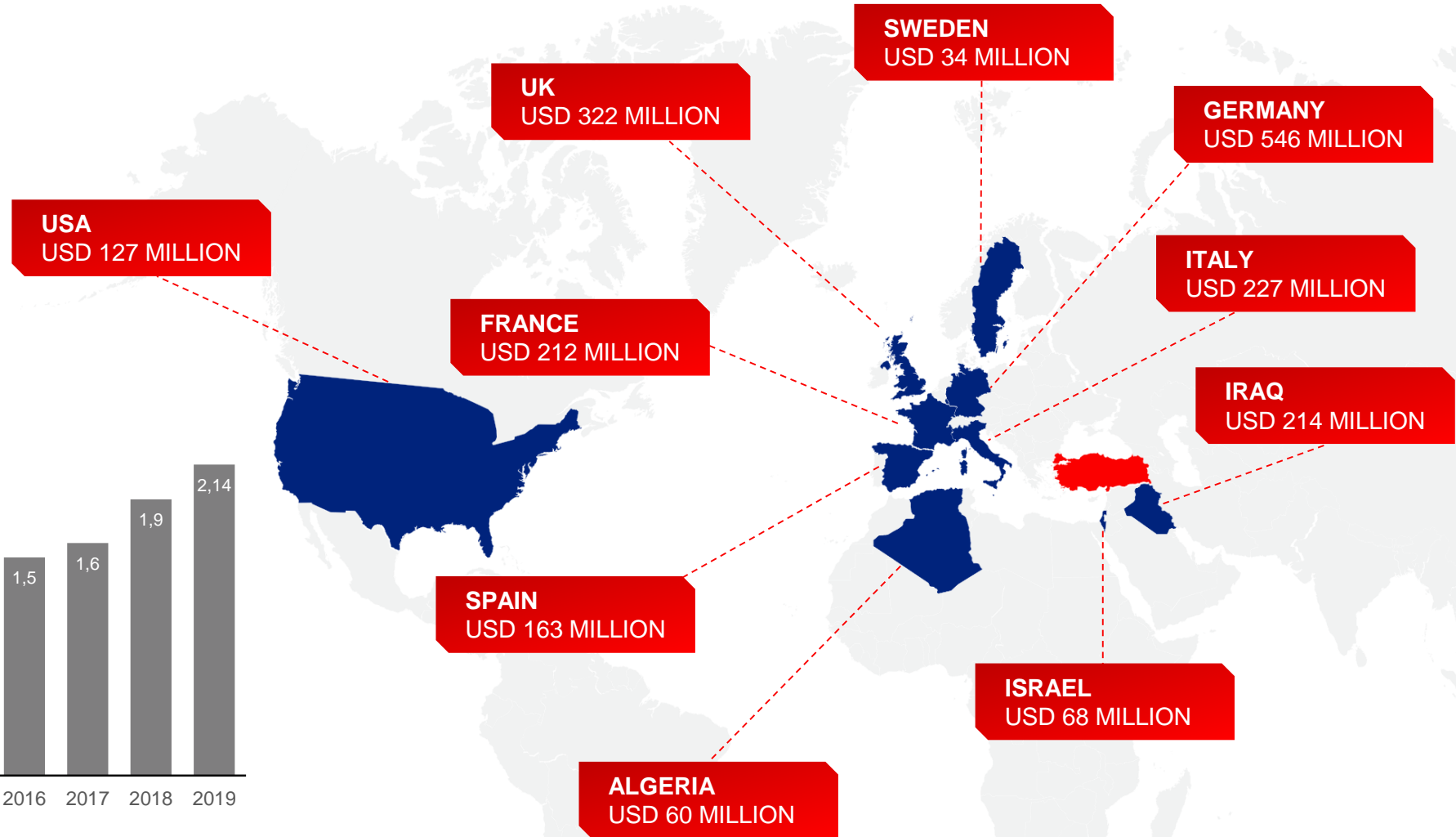
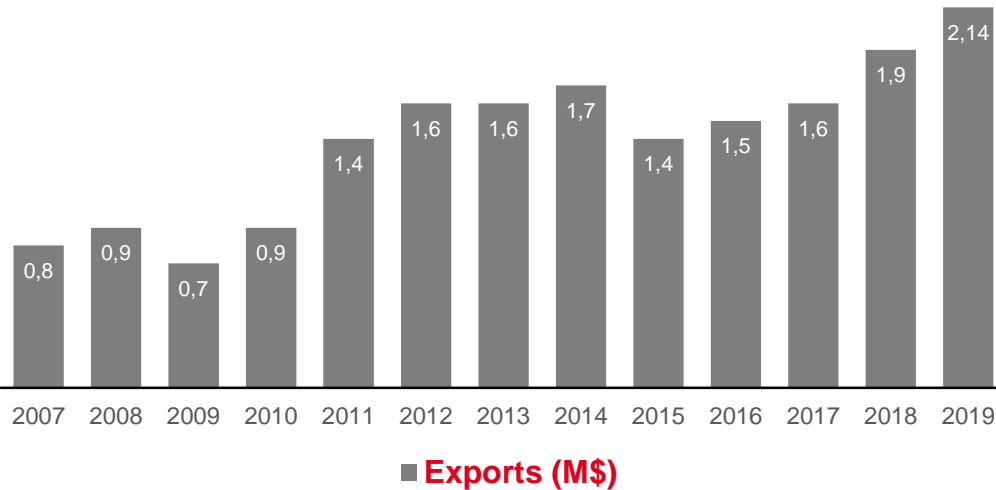
VESTEL

HVAC



...WHERE EUROPE HAS OVER 60% SHARE

TURKEY'S HVAC EXPORTS MORE THAN DOUBLED IN 10 YEARS



LIFTING & HANDLING EQUIPMENT

TURKEY'S MARKET FOR LIFTING & HANDLING EQUIPMENT HAS REACHED USD 1.7 BILLION IN 2019



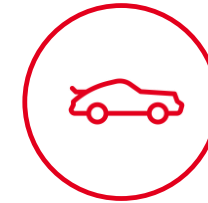
KEY FACTS



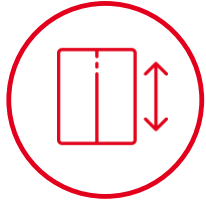
Strong industrial base - USD 1.4 billion of production in 2019



Local and international players mostly based in Istanbul, Kocaeli, Bursa, Ankara, Konya, Kayseri and Izmir



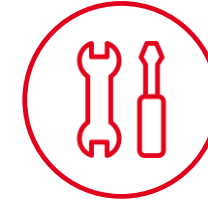
Strong supplier base - expertise in automotive, machinery and electronics & control systems



3rd largest elevator market in the world with 30K new units - ThyssenKrupp, Otis, Kone, Schindler, Hyundai present with some level of assembly operations



2nd largest escalator and moving walk market in the world with 2K new units per year



Opportunity for assembly and manufacturing of parts



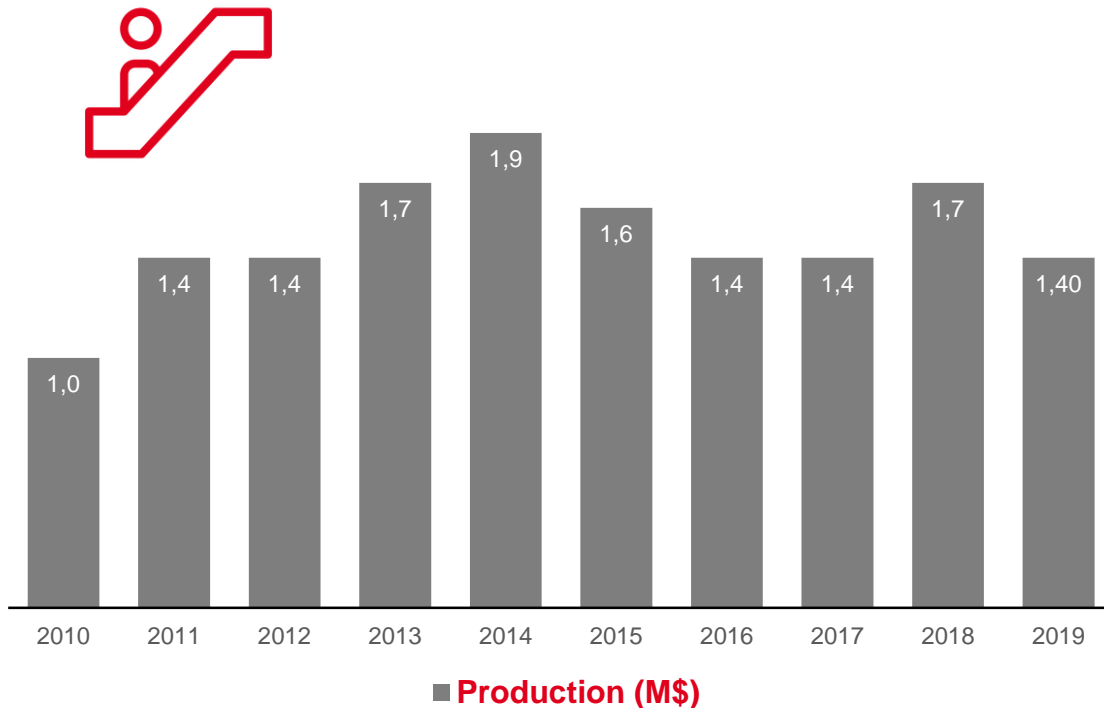
Strong local market - demand driven by the growth in the industry and infrastructure & construction projects



LIFTING & HANDLING EQUIPMENT

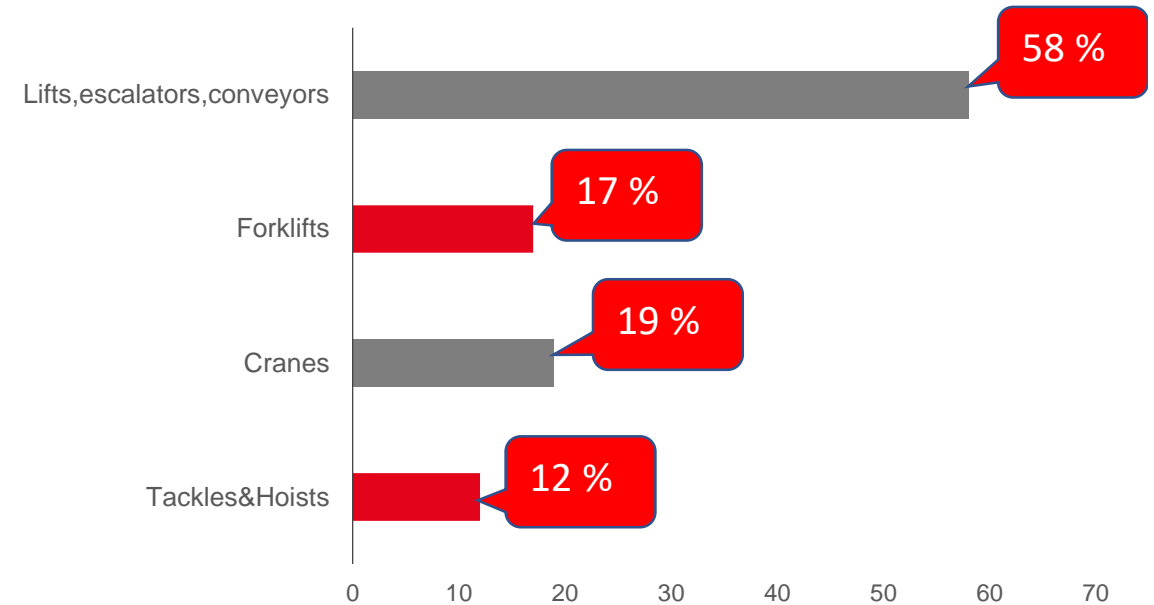


TURKEY'S PRODUCTION OF LIFTING & HANDLING EQUIPMENT HAS INCREASED BY 40% SINCE 2010..

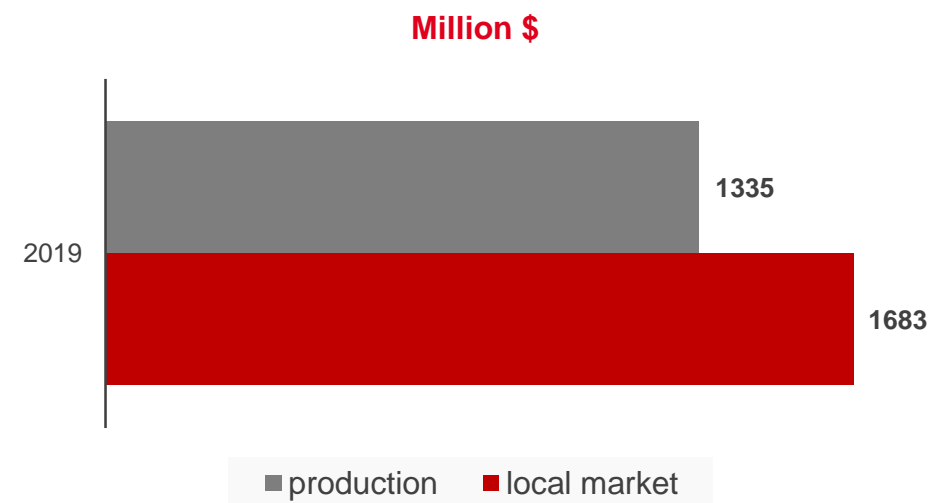


...AND EXPORTS HAVE REACHED USD 460 MILLION IN 2019 - AN IMPRESSIVE 60% GROWTH IN TWO YEARS

USD 808 MILLION IMPORT IN 2019 - ALMOST 70% FROM CHINA, GERMANY & ITALY



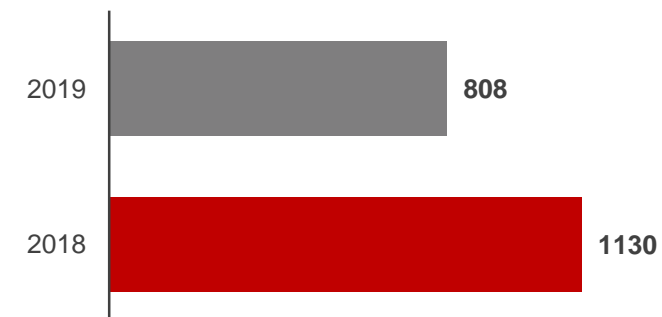
LIFTING & HANDLING EQUIPMENT



Export Million \$



Import Million \$



METALWORKING & MACHINE TOOLING

TURKEY'S METALWORKING & MACHINE TOOLING
MARKET HAS REACHED TO USD 2.1 BILLION -
11TH LARGEST IN THE WORLD



KEY FACTS



Strong industrial base - largest in Central and Eastern Europe with **USD 1.36 billion** of production in 2019



Strong in laser machine tools, forging & punching machine tools (including presses) - **80% of the exports**



Exports have reached USD 841 million in 2019 - 30% growth in the last three years - industry diversifying its export markets to Russia, Germany, USA, Poland, France, Canada.



Almost 30% of the USD 1.6 billion import in 2019 is for machining centers, transfer machines and lathes - mostly from Germany, Japan and Italy



Investment opportunity for CNC tools - supplier base for CNC tools exist

DEMAND IS DRIVEN BY INDUSTRIES WHERE TURKEY HAS A STRONG PRESENCE



AUTOMOTIVE



WHITE GOODS

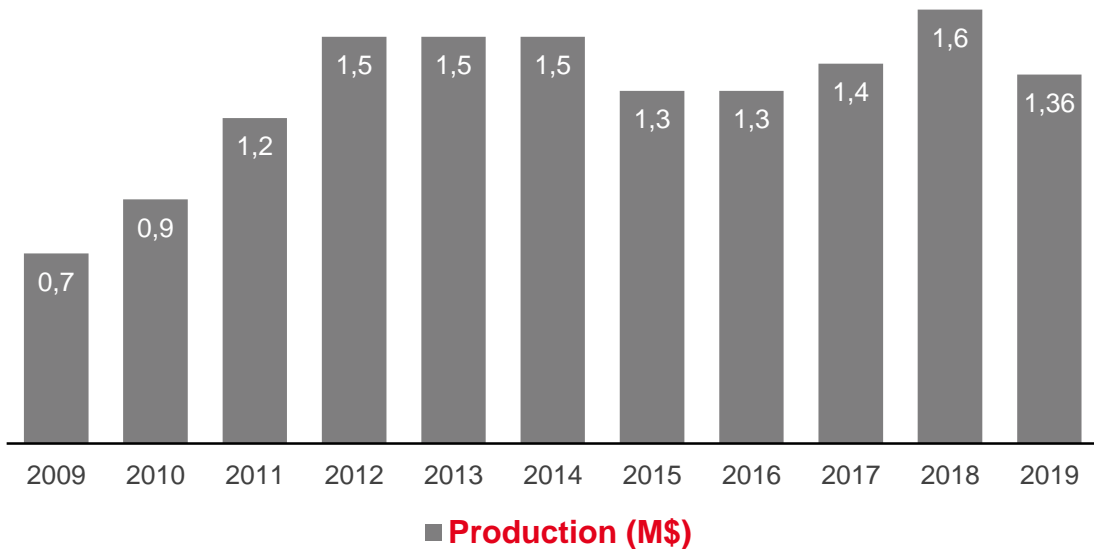


AVIATION



HEALTH CARE

TURKEY'S METALWORKING & MACHINE TOOLING MANUFACTURING DOUBLED SINCE 2009



PUMPS & COMPRESSORS

TURKEY'S MARKET FOR PUMPS & COMPRESSORS HAS EXCEEDED USD 2.3 BILLION IN 2019



KEY FACTS



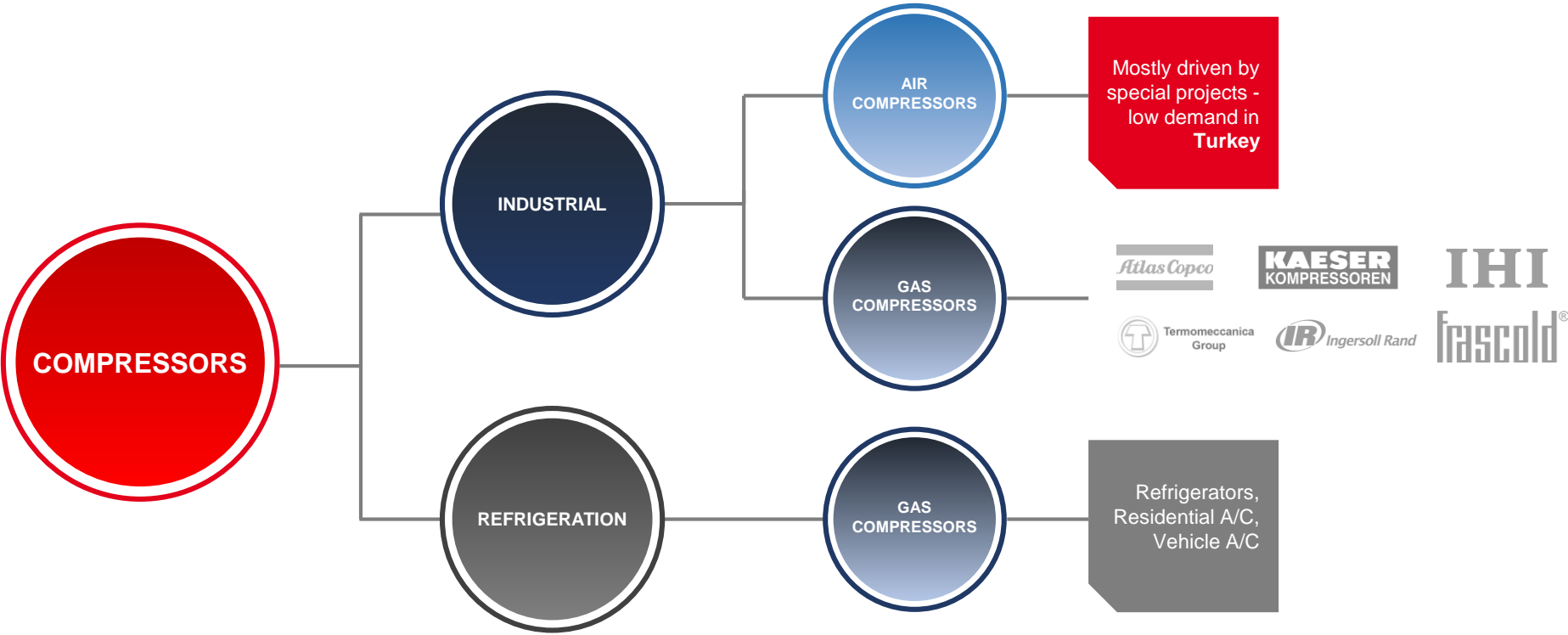
Industrial base - **USD 1.1 billion** of production in 2019; mostly based in Istanbul, Konya and Izmir



Majority of the companies are small-sized - **over 9K employees** in **500 companies**



Strong local market - demand driven by the growth in the industries, municipal infrastructure investments, construction and agriculture

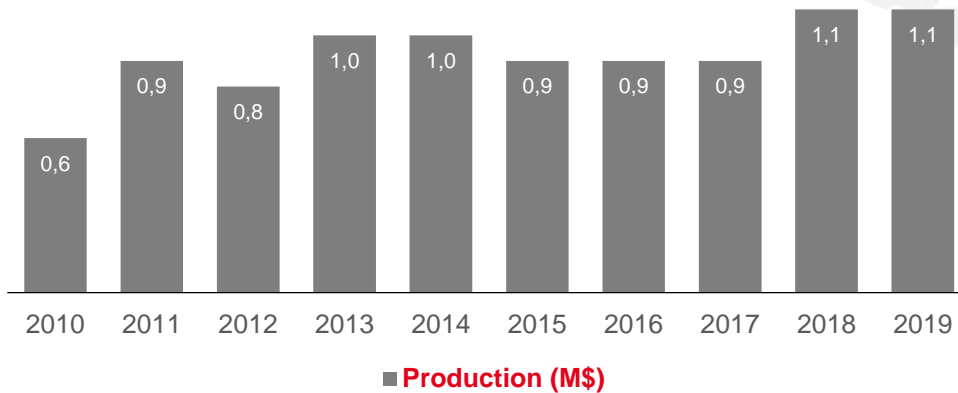


PUMPS & COMPRESSORS



**TURKEY'S
PRODUCTION
OF PUMPS &
COMPRESSORS
HAS INCREASED
BY 50%
SINCE 2010**

...AND EXPORTS HAVE REACHED ALMOST
\$1 BILLION WHERE EUROPE & USA HAVE A 50% SHARE



TURKEY HAS USD 2 BILLION OF IMPORTS WHERE EUROPE HAS AROUND 60% SHARE



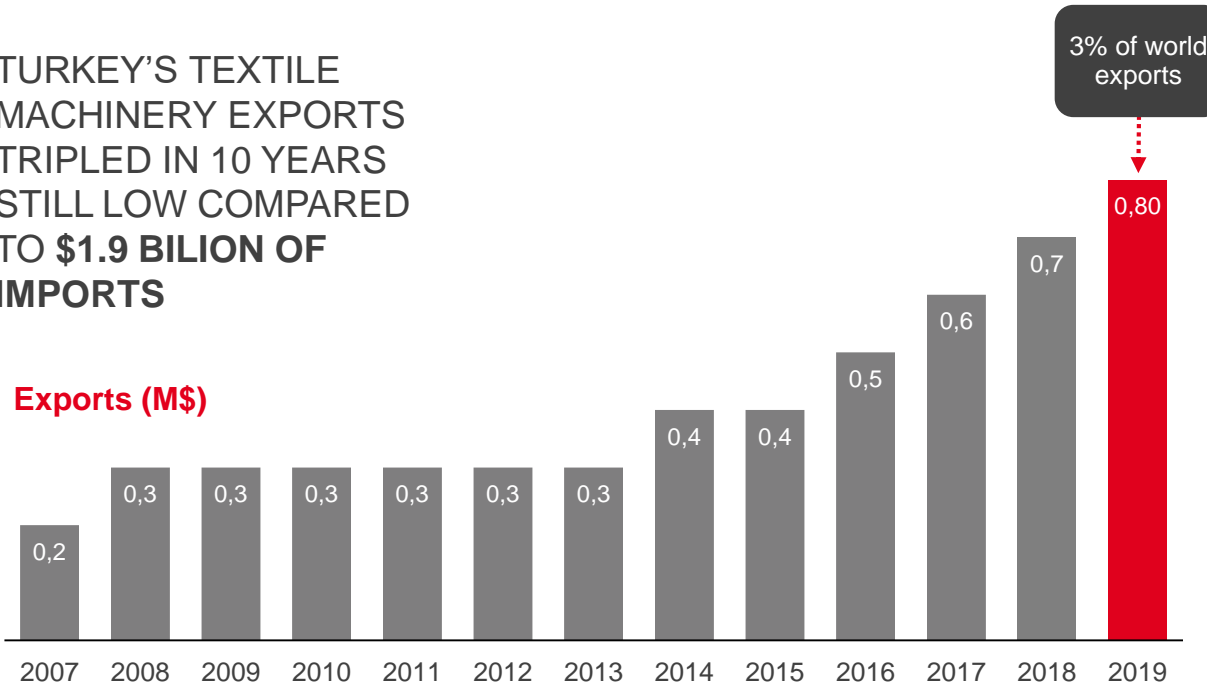
TEXTILE MACHINERY

TURKEY'S TEXTILE MACHINERY MARKET HAS REACHED USD 1.6 BILLION IN 2019



TURKEY'S TEXTILE
MACHINERY EXPORTS
TRIPLED IN 10 YEARS
STILL LOW COMPARED
TO \$1.9 BILION OF
IMPORTS

Exports (M\$)



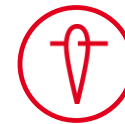
KEY FACTS



Strong industrial base especially in knitting and dyeing & finishing machines



Demand driven by textile industry - Turkey is the **7th largest** textile exporter with USD 10 billion in 2019 where Europe has around 50% share.



Due to high cost pressure from Asian countries, Turkey's textile industry needs to specialize and increase its added-value while upgrading or renewing its **USD 25 billion** machinery park - technical textile is an example



**TURKEY'S
COMPETITIVENESS
IN TEXTILE
MACHINERY
CATEGORIES**



50% of **Turkey's** imports are from Switzerland, Germany & Italy

SPINNING



71% of Turkey's imports are from Belgium & Italy

WEAVING



KNITTING



**DYEING &
FINISHING**



Turkish market dominated by China & Vietnam

SEWING



Developing in Turkey for non-woven applications: Carpets Automotive Apron dresses etc.

**TECHNICAL
TEXTILE**

AGENDA

1

Executive
Summary

2

Turkish Machinery
Industry Outlook

3

Growth Drivers
in Turkey

4

Opportunities in Turkish
Machinery Industry

5

Success
Stories

SUCCESS STORIES



5

SUCCESS STORIES

MACHINERY GIANTS HAVE BEEN INVESTING IN TURKEY FOR DECADES



B/S/H/

- The company's brand portfolio includes eleven well-known appliance brands like Bosch, Siemens, Gaggenau and Neff as well as the ecosystem brand Home Connect and service brands like Kitchen Stories.
- 38 production sites in Europe, the USA, Latin America and Asia
- At the end of 2020, BSH employed about 60,000 people worldwide.
- BSH achieved record sales of €13.9 billion in 2020.
- At 5.1 percent of total turnover, R&D spending in 2020 remained high – with a focus on digital technologies.
- BSH Turkey produced 5.8 million products from Çerkezköy Factories in 2020. 70 % of the production is exported. BSH Turkey is the first company that exports by rail to China from Turkey.

IHI

- IHI Corporation - Japanese corporation that produces ships, aircraft engines, turbochargers, industrial machines, power station boilers and suspension bridges
- Had a revenue of USD 13 billion in 2020 with 30K employees
- Completed projects in Turkey include Golden Horn Bridge, Fatih Sultan Mehmet Bridge, Osman Gazi Bridge and several reinforcement projects
- Formed a JV with Dalgakıran Makine with an investment of USD 14.4 million to produce turbo compressors in Turkey in 2018 (60 employees)
- Uses Turkey as a base for exports to Europe, the Middle East, and other growing markets.



- Japanese multinational electronics and electrical equipment manufacturing company with a total revenue of USD 40,7 billion in 2019
- Operational in Turkey since 2012 especially in air conditioning, elevators and escalators, factory automation systems, visual information systems and transportation systems as well as electrification
- In 2018, opened its first air-conditioner manufacturing plant of Europe in Turkey with an investment of USD 80 million

Putzmeister

- Established in Germany in 1958, its products include plant and equipment for concrete production, truck mixers, plastering machines, concrete injectors and concrete pumps
- Acquired by Chinese competitor Sany Heavy Industries for USD 402 million in 2012
- Manufacturing concrete pumps and mechanical and hydraulic distributors at its Çerkezköy plant since 2008

Haier

CANDY



- Established in Italy, its products include washing appliances, built-in and small domestic appliances. Had a revenue of 1.1 Billion in 2019
- Manufacturing in Turkey since 2007 at its Eskişehir plant
- Invested EUR 15 Million for the launch of a new plant in Turkey with an employment of 300 people
- Uses Turkey plant as a base for oven and stove manufacturing, built-in appliances and dryers and exports over 90% of its production
- Qingdao Haier completed the acquisition of the Candy Hoover Group in 2019.



- Established in the USA in 1899, its products include pistons, rings&liners, valve seats&guides, engine bearings and sealing
- Tenneco completed the acquisition of Federal-Mogul in 2018. Tenneco is one of the world's leading designers, manufacturers and marketers of automotive products for original equipment. Tenneco had \$15.4 billion revenue in 2020 and approximately 73,000 employees.
- Operational in Turkey since 1998, currently has two facilities with a total employment of 1600 people
- Has invested a total of EUR 400 million in Turkey by 2017
- 80% of the piston production is exported to Europe and USA as original equipment



PRESIDENCY OF
THE REPUBLIC OF TÜRKİYE
**INVESTMENT
OFFICE**

Contact

Fatih ÇELİK | fcelik@invest.gov.tr



invest.gov.tr

