



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

トルコの機械産業

トルコ共和国大統領府投資局

WHY INVEST IN TURKISH MACHINERY INDUSTRY?

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



トルコの機械産業

トルコの機械産業は今世紀に入り飛躍的に成長

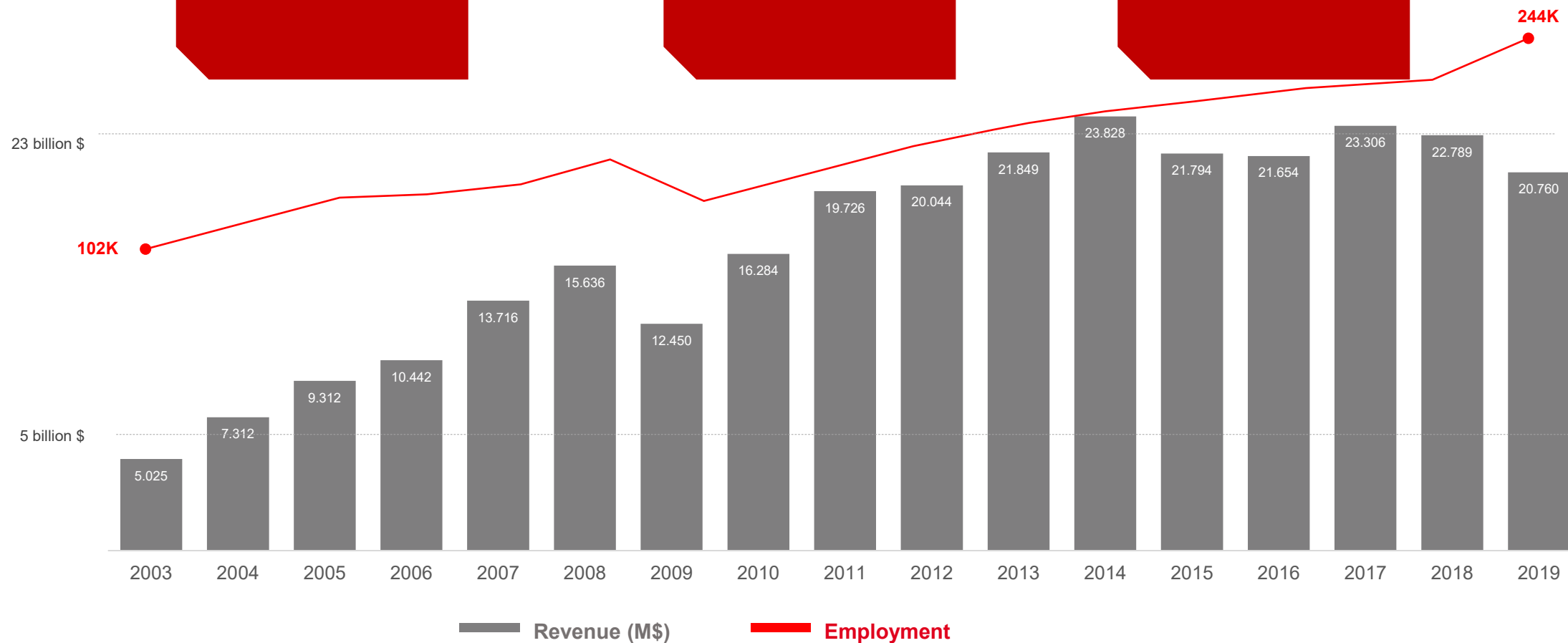
- 売上高4倍：210億ドル/2019
- 就労人口2.4倍：244千人/2019



5年間で年率25%の驚異的成長

リーマンショックを乗り越え売上高倍増
付加価値生産25%へ

為替評価減40%の為
ドル建て売上高は減少



製品供給先の産業は多様

幅広い産業の成長需要が機械産業を牽引



平均成長率
2009-2019

CHEMICALS

4.2%



2nd largest plastics producer after Germany in Europe

TEXTILE

3.6%



6th largest clothing supplier in the world, 3rd largest clothing supplier to Europe

ENERGY

5.3%



5th largest electricity market in Europe – with 88.5 GW of installed capacity.

FOOD & BEVERAGES

2.3%



Largest sector in Turkey with a USD 70 billion production

AUTOMOTIVE

4.2%



15th largest automotive manufacturer globally, producing over 1 million vehicles

ELECTRICAL EQUIPMENT

2.6%



Largest TV and white goods manufacturer in Europe

AGRICULTURE

7.7%



7th largest agricultural producer in the world

CONSTRUCTION

7.5%



650K+ dwelling units built per year



TURKEY

HAS GEOGRAPHICAL
PROXIMITY TO SOME OF THE

HIGHEST GROWTH MARKETS

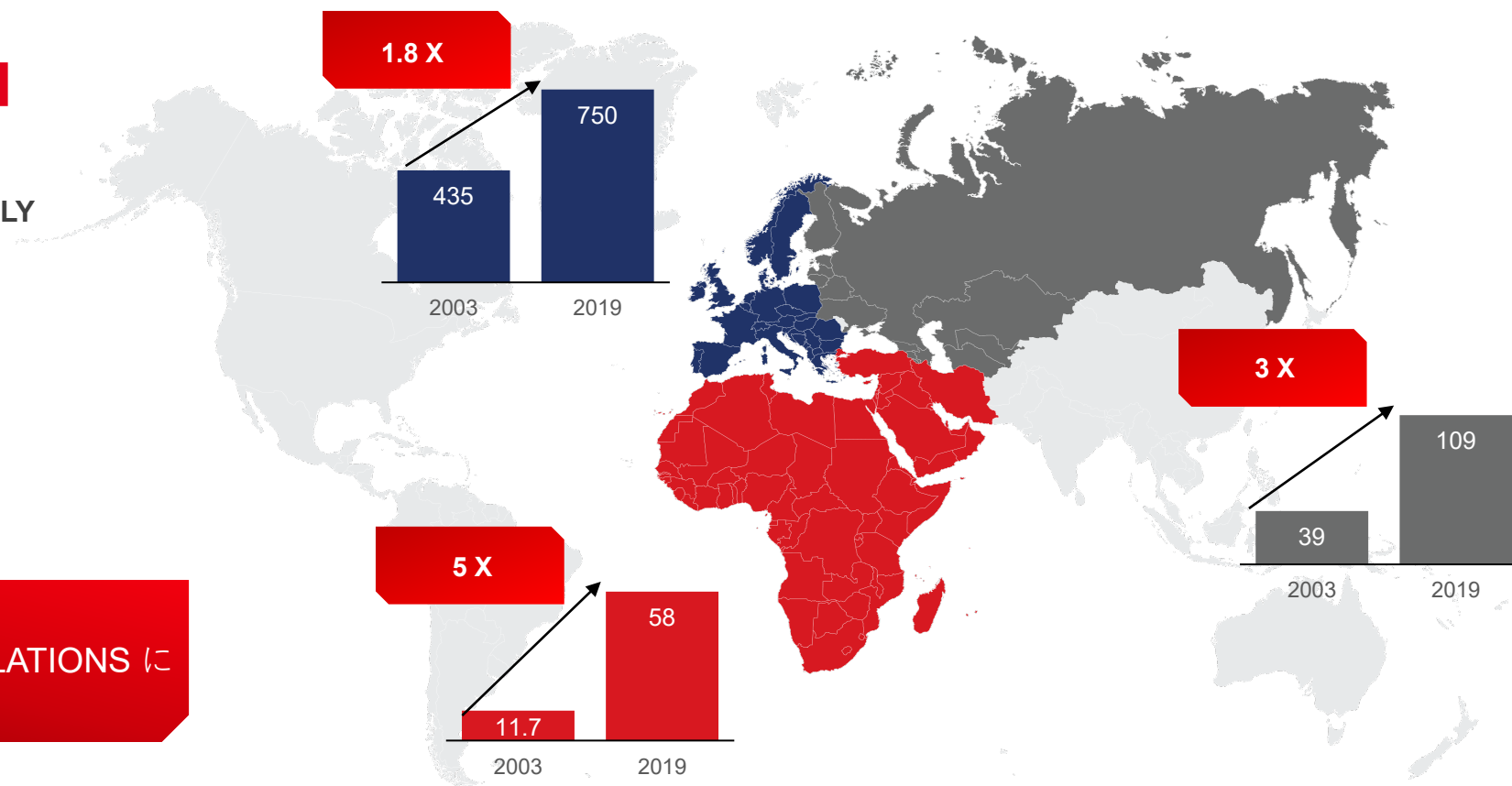
IN MACHINERY AND IS CONVENIENTLY
POSITIONED AS A

MANAGING AND MANUFACTURING HUB



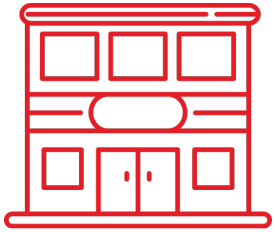
トルコは2002年より
EUTECHNICAL LEGISLATIONS に
準拠。

IMPORT NUMBERS (IN BILLION \$)



メジャープレイヤー

機械セクター 1万7千社、外資系も含む

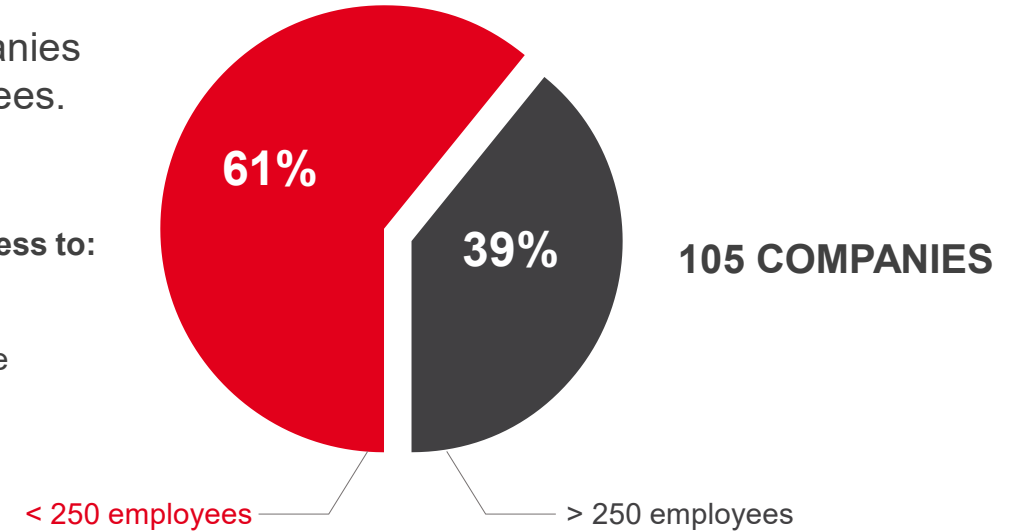


販売高の60%が中小企業によるもの

75% of the companies have <10 employees.

Growth requires access to:

- Market
- Technology
- International finance



トップ25社のうち外資系が10社
外資系の輸出比率は40%

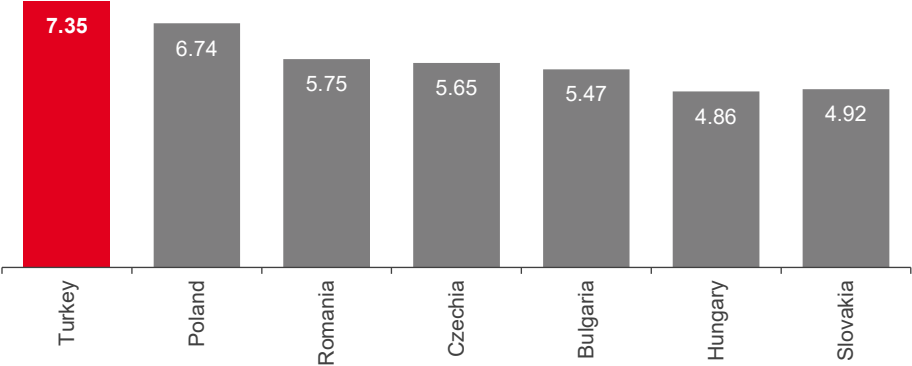
40%
EXPORT ON AVERAGE



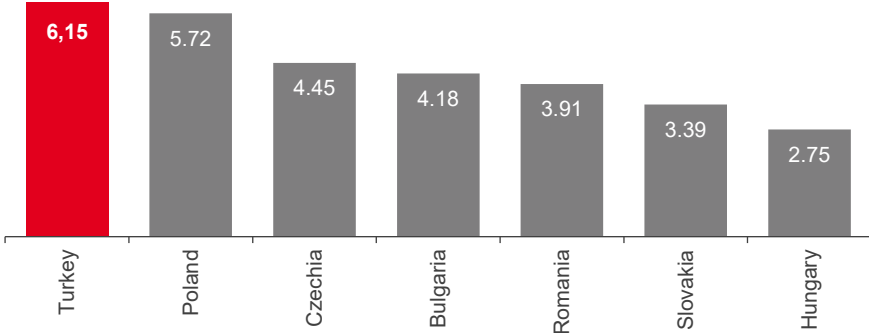
労働力：コスト競争力は十分 スキルも高い



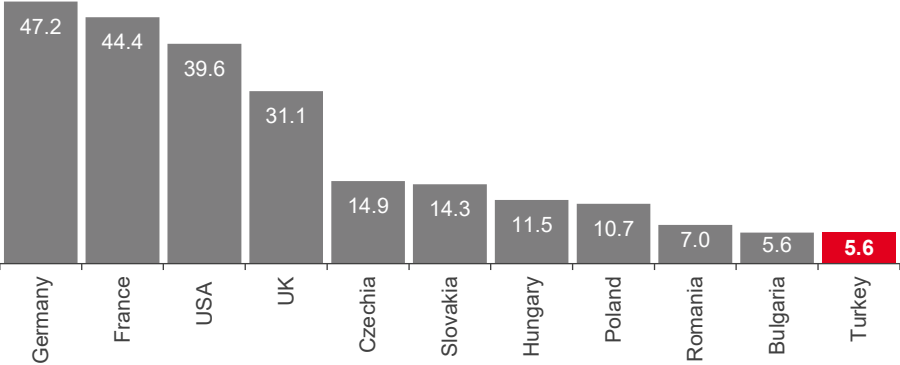
AVAILABILITY OF MANAGEMENT/ENGINEER 2020
(10=Available; 0=Unavailable)



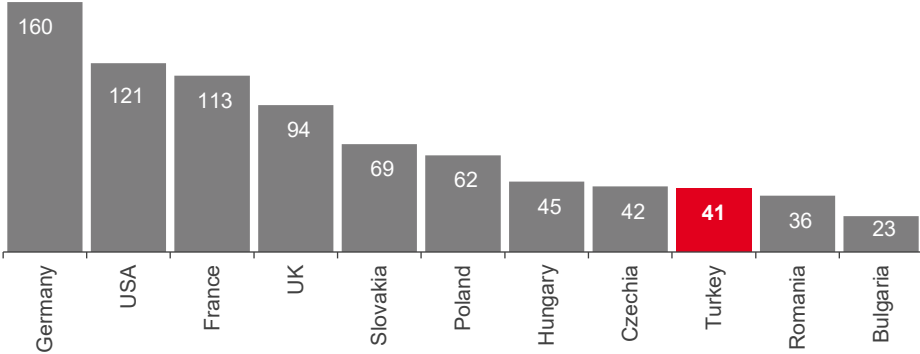
AVAILABILITY OF COMPETENT SENIOR MANAGERS 2020
(10=Available; 0=Unavailable)



LABOR COST PER HOUR IN MANUFACTURING
\$, 2018

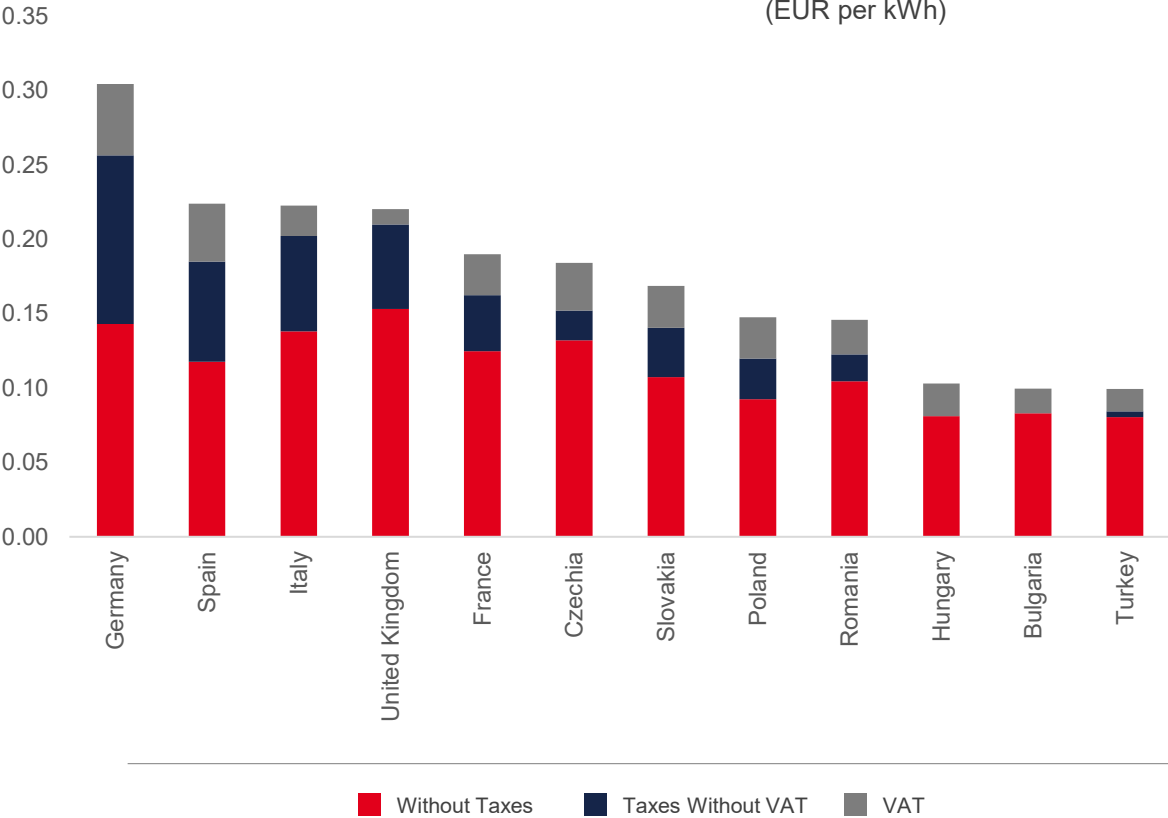


REMUNERATION OF MANAGEMENT/ENGINEER
Total base salary plus bonuses and long-term incentives \$K, 2018

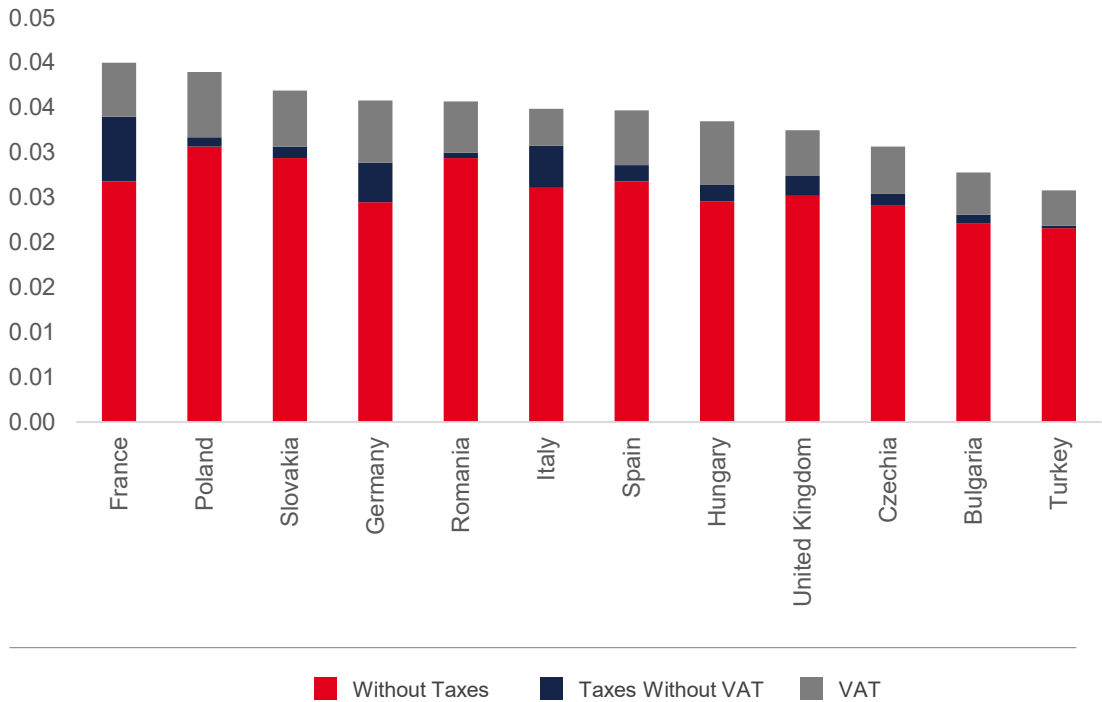


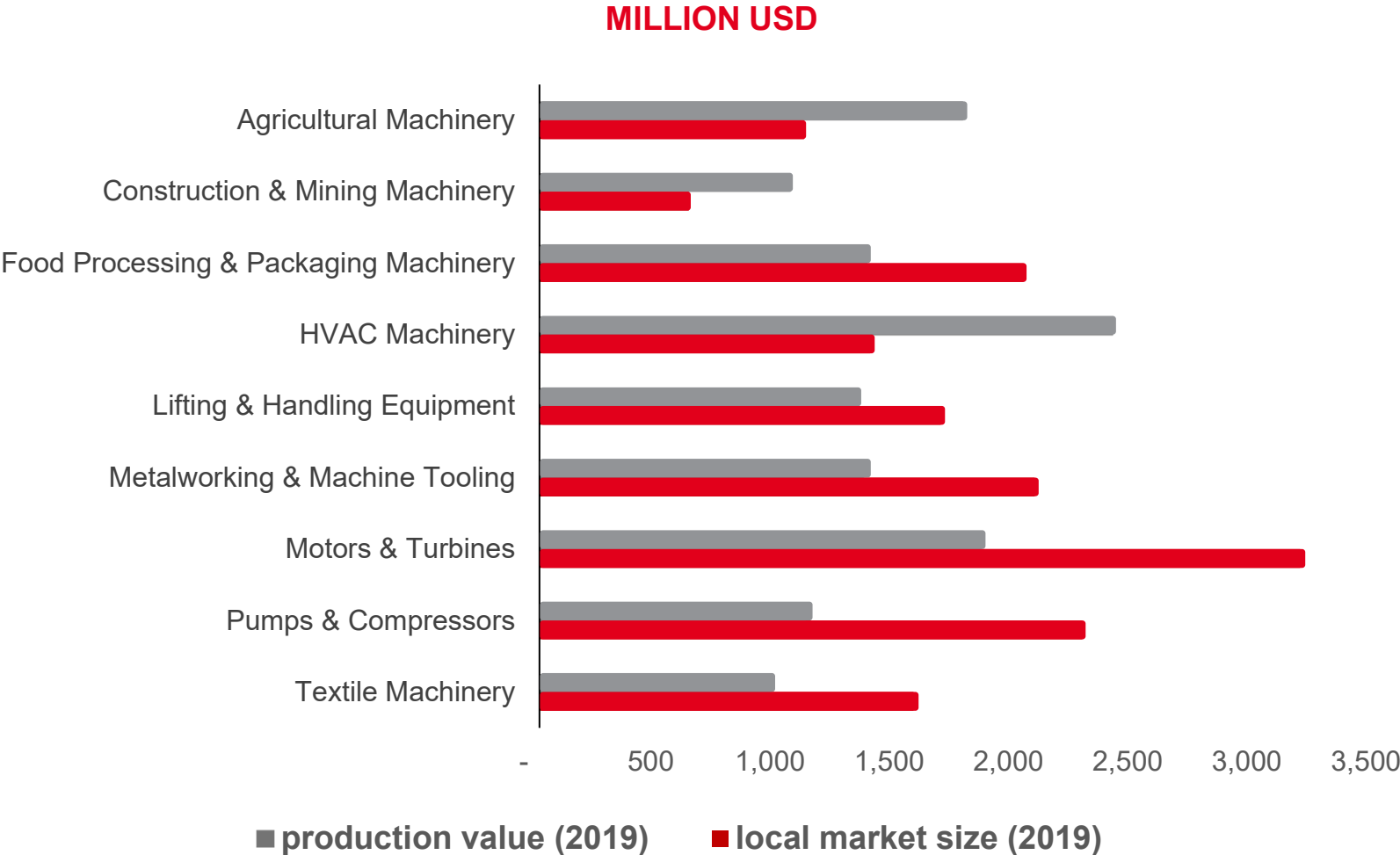


Electricity Prices for Household Consumers, H1 2020
(EUR per kWh)



Natural Gas Prices for Non-Household Consumers, H1 2020
(EUR per kWh)





農業機械

市場規模：USD 1.8 BILLION 2019、欧州4位



KEY FACTS



Strong industrial base – トラクター生産台数はヨーロッパの10%強、2020年に5万台。



Strong local market – トラクター国内市場は2020年4万8千台、ヨーロッパで最大規模。

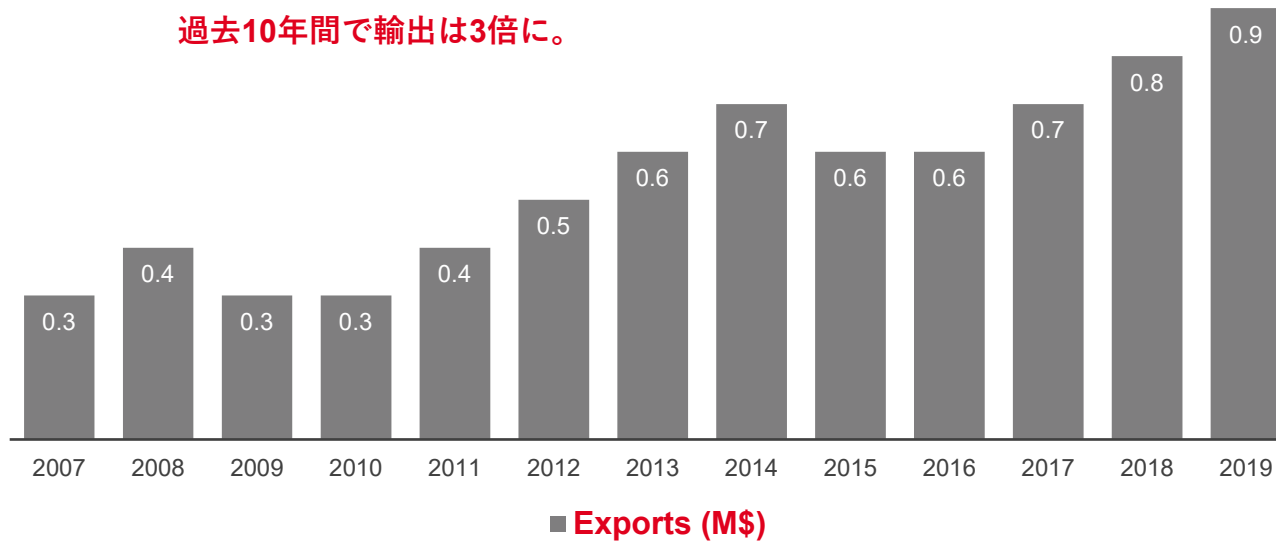


輸入の70%は高価格帯トラクター、バーベスター。



2万2千人を雇用

過去10年間で輸出は3倍に。



輸出の40%は北米、同じく40%がヨーロッパ向け。

DRIVEN BY TURKEY'S AGRICULTURAL ECODMANDNOMY 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

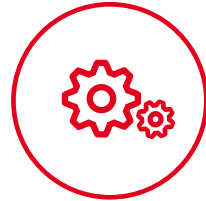




KEY FACTS



Strong local market – 建設産業は中国、インドに続いて世界3位の成長



国内生産 35%、輸入 65%。



国内向け6億ドル、輸出14億ドルの生産規模はヨーロッパ10位。



Strong & international supplier base
自動車産業の基盤によりサプライチェーンが充実



公共投資と都市化が需要を牽引。



国際競争力のあるコントラクターが需要の基盤。
- 44 contractors in ENR250 list





過去5年間に **USD 1000億ドル**のインフラプロジェクト

3rd ISTANBUL AIRPORT



3rd ISTANBUL BRIDGE



URBAN TRANSFORMATION
PROJECTS



PUBLIC HOSPITAL PROJECT



2023年迄に+ **USD 3250億ドル**





KEY FACTS



欧州で5場目の市場規模
年率5.3%で成長



過去10年間で750億ドル
の投資



電気の需要は今後10年間で
50%増。再生可能エネルギー、
国産エネルギーに注力。



水力も引き続き重要。風力発電、
地熱などの設備需要も増加。

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

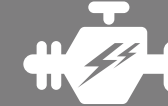
75% of solar panel imports are
from Asia

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



KEY FACTS



トルコは農業大国、食品産業クラスターも充実。20億ドル規模がイスタンブール、アンカラ、イズミール、コンヤ、ガジアンテプに。



食品輸出160億ドル/2019年。

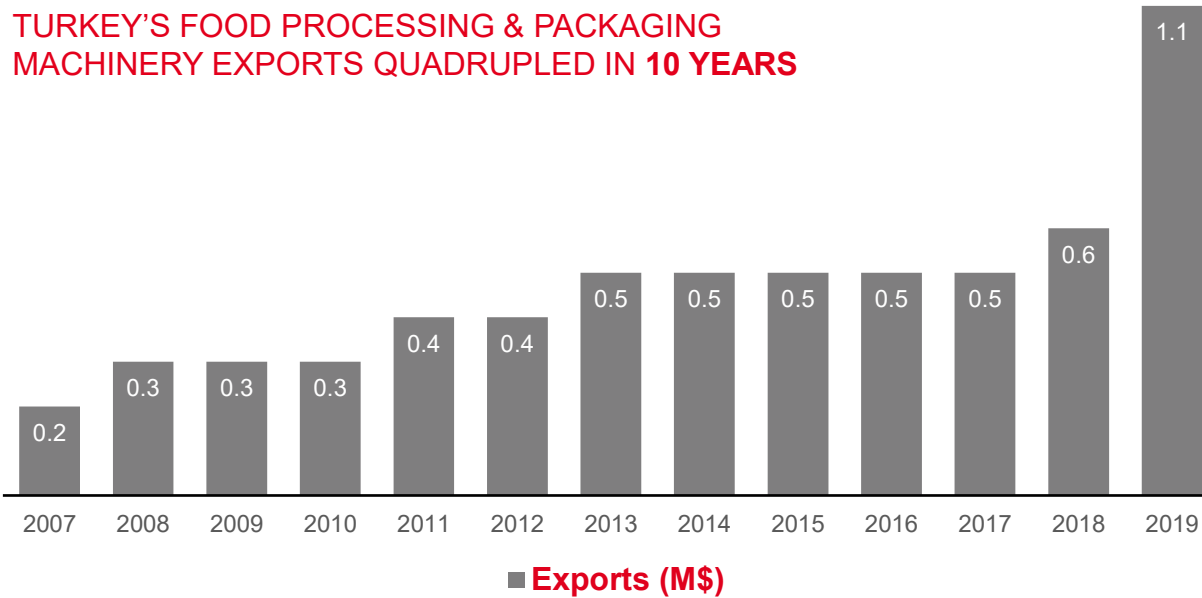


食品加工・包装関連機械輸入は180億ドル



食品多国籍企業の製造拠点。
Unilever, Kraft, Nestle, Danone, Ferrero等。

TURKEY'S FOOD PROCESSING & PACKAGING MACHINERY EXPORTS QUADRUPLED 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

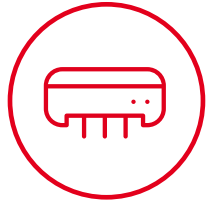




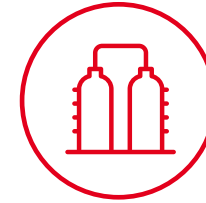
KEY FACTS



Strong industrial base - 32億ドルの生産規模- Europe's manufacturing base for panel radiator, boiler and AHU's



Strong local market - Europe's largest split AC 150万台、VRF market 25万台



Strong local market - ボイラーは欧州4位、130万台。



住宅建設が需要を牽引。商工業用も効率規制による需要が牽引。



VRF 市場は6倍に伸長。 high-tech productionの需要大。



トルコジェネコンの海外への浸透が需要を牽引。

TOSHIBA



BOSCH
Invented for life



DAIKIN

SAMSUNG

AIRFEL

DemirDöküm

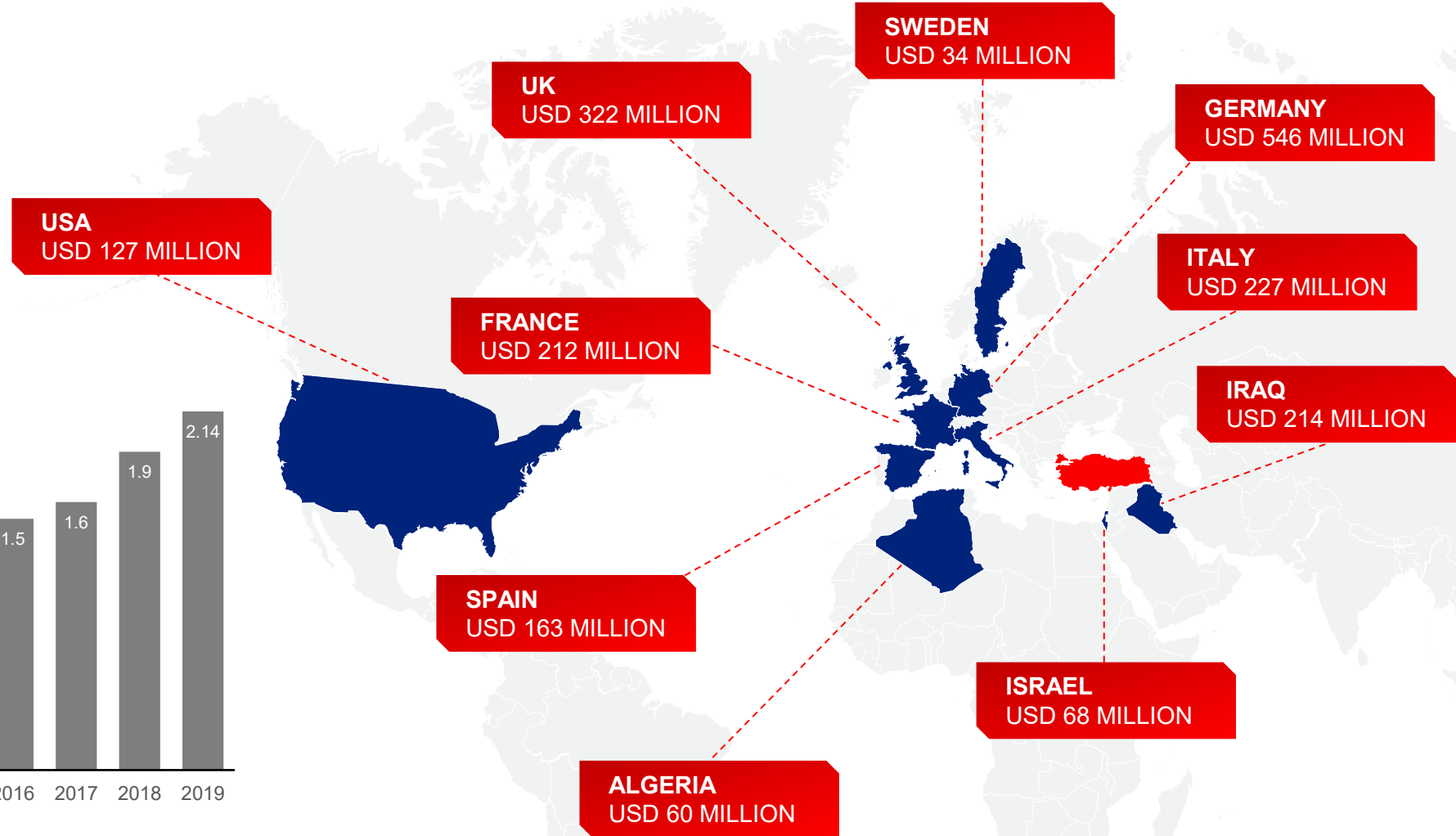
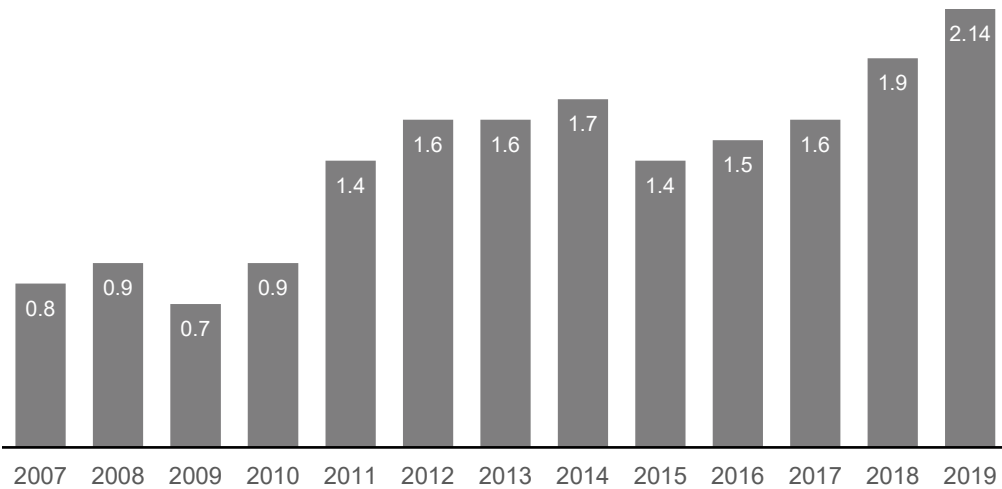
arçelik

LG

VESTEL

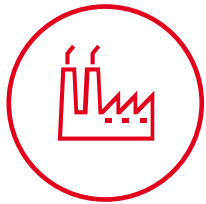
輸出は10年間で倍
増 21.4億ドルへ

欧州向けが60%





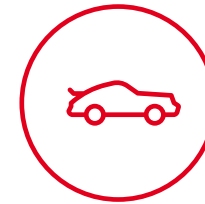
KEY FACTS



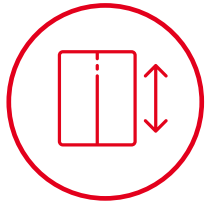
Strong industrial base – 2019年に14億ドル生産。



Istanbul, Kocaeli, Bursa, Ankara, Konya, Kayseri, Izmirに製造拠点集中。



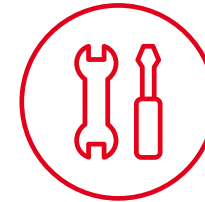
Strong supplier base - 自動車、その他産業の充実による。



エレベーターは世界3位の市場規模。
ThyssenKrupp, Otis, Kone, Schindler, Hyundai など。



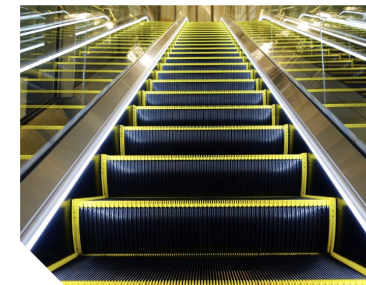
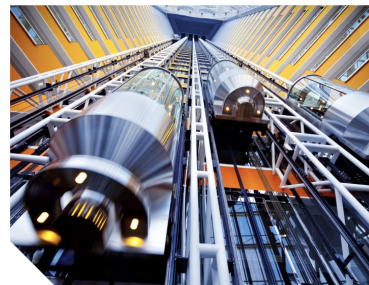
エスカレーターは世界2位の市場規模、年間2千か所。



Opportunity for assembly and manufacturing of parts

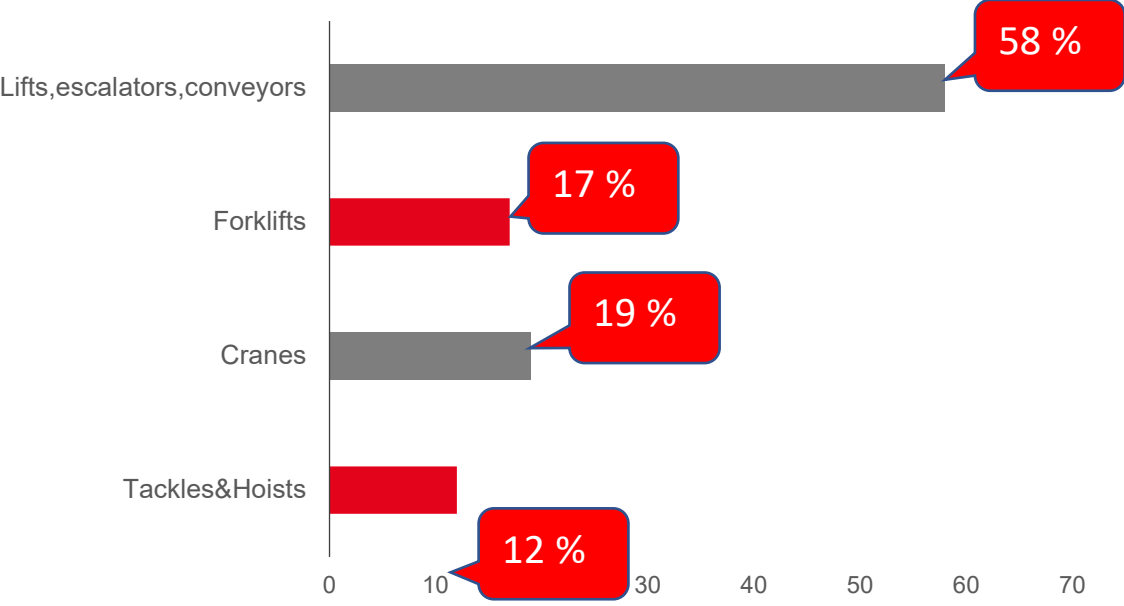
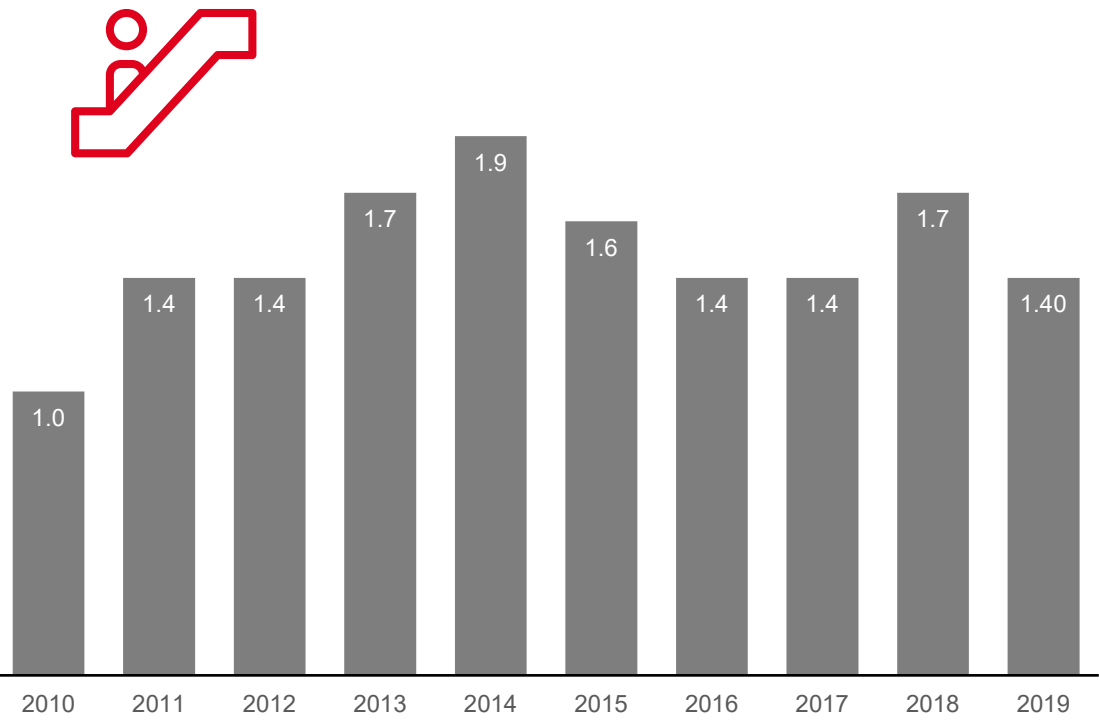


Strong local market – 民生用産業用ともに需要増。





生産額 14億ドル (2019)



金属加工

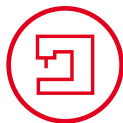
市場規模 USD 21億ドル 2019 世界11位



KEY FACTS



Strong industrial base – 中東欧最大生産規模、13.6億ドル（2019年）



Strong in laser machine tools, forging & punching machine tools



輸出は8億4千万ドル、ロシア、ドイツ、米国、ポーランド、フランス、カナダなど。



輸入の3分の1は machining centers, lathes - mostly from Germany, Japan and Italy



Investment opportunity for CNC tools -

トルコの主要産業が需要を牽引



AUTOMOTIVE



WHITE GOODS



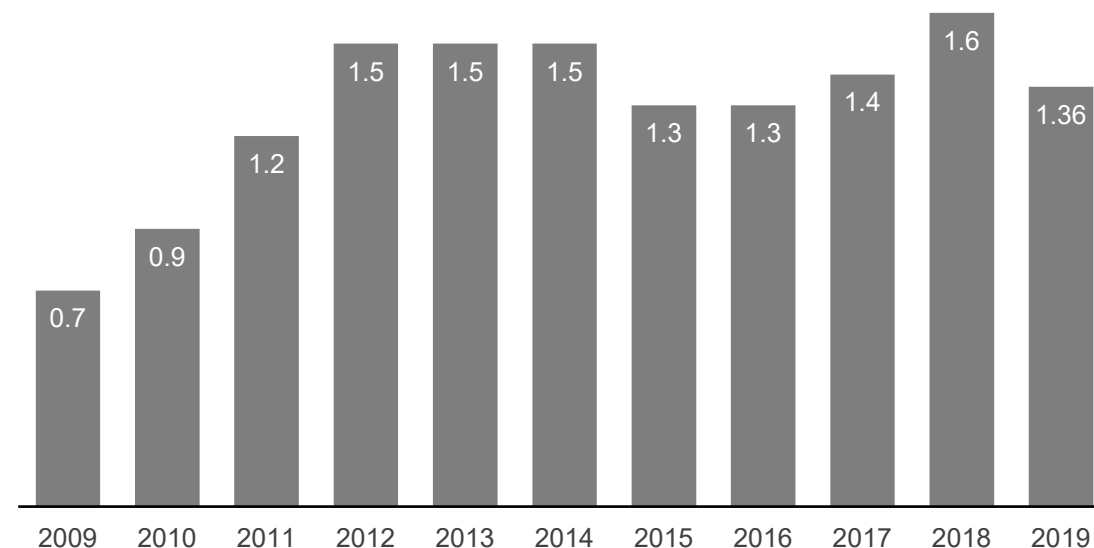
AVIATION



HEALTH CARE

TURKEY'S METALWORKING & MACHINETOOLING

生産は10年で2倍に





KEY FACTS



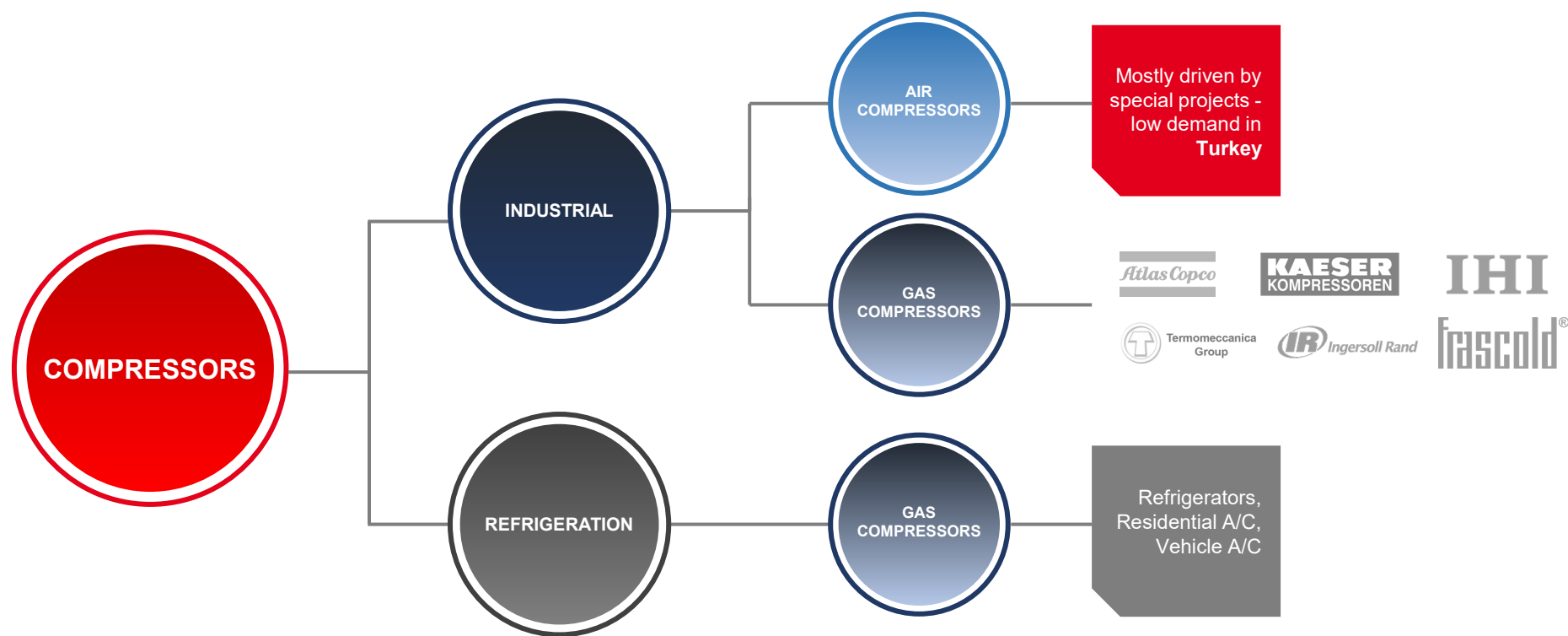
2019年に11億ドル生産、
イスタンブール、コンヤ、イズ
ミールに集中



大部分はSMEs



Strong local market - インフラ
投資、製造業、建設、農業が需要
を牽引

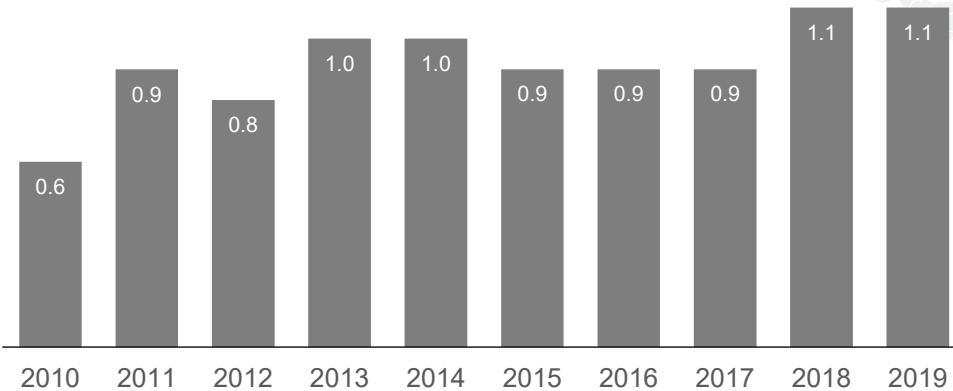


ポンプ・圧縮機



輸入 USD 20億ドル

国内生産11億ドル

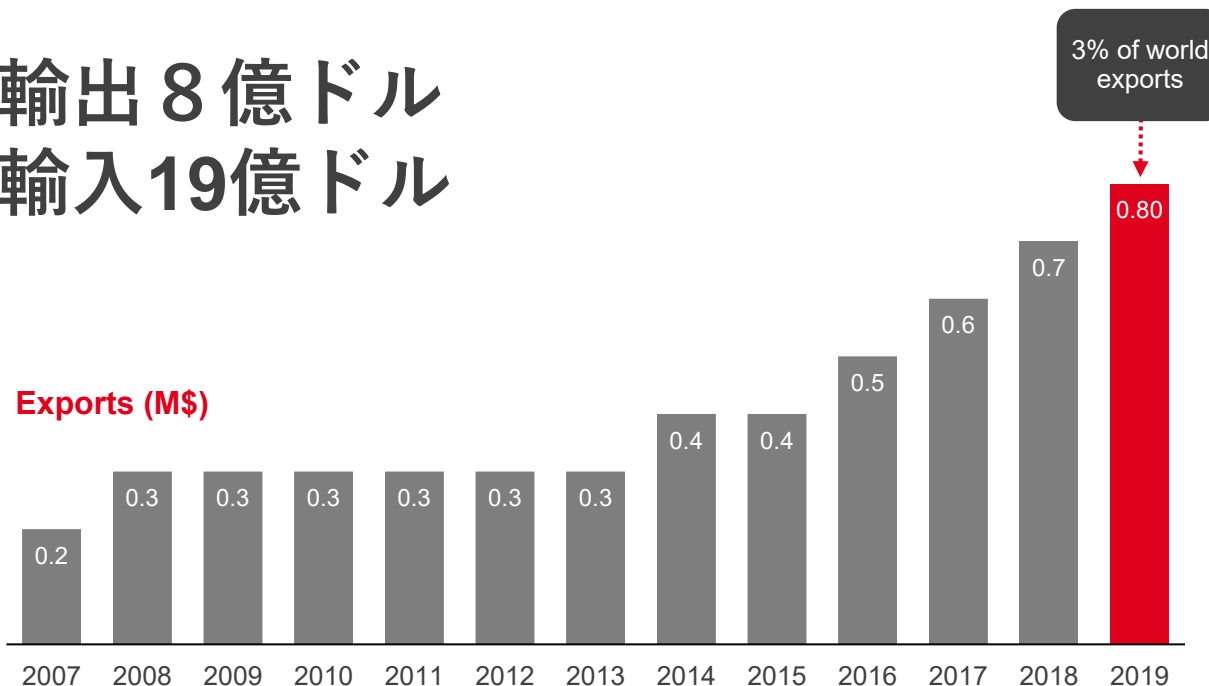




輸出 8 億ドル 輸入 19 億ドル

KEY FACTS

Exports (M\$)



Strong industrial base
ニット、染色等が主要分野



需要を牽引する繊維製品輸出 100 億ドル、欧州が最大輸出先。



中国などアジア産繊維製品との差別化が重要なテーマ、更新需要も大きい



**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**



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



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